ABSENT URBANISM IN GLOBAL INFRASTRUCTURES

Spatial Issues and Design Challenges in the Case of the BRI

Master Thesis - Architecture for the Sustainability Design

Wilhelmine Perner

Maria Clara Ribaudo

«These days, it seems like the world is being stolen from the world, at the very moment it's becoming 'worldwide', at the very moment of globalization.» (Nancy, 2007)

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Abstract

The Chinese Belt and Road Initiative is at once one of the most suggestive expression of the Global Infrastructuring processes of Planetary Urbanization (Brenner, Schmid 2012) and a litmus test of the new geological era, the Anthropocene, since on the one hand it strengthens international cooperation, providing a great opportunity for development, and on the other provokes the overturning of territories. This work aims to investigate the spatial transformations generated by the construction of the Silk Road Economic Belt and XXI Century Maritime Silk Road, a phenomenon so macroscopic that it only takes on significance when observed on a global level. The hypotesis of this work is that studying the BRI as a case of the Global Infrastructure may underlines some of the main contemporary spatial issues concerning the Anthropocene as the actual effect of Planetary Urbanization.

After a short overview of the initiative, based on official Chinese documents, the first part considers six significant places - Gwadar, Khorgos, Djibouti, Kyaupkyu, Duqm, Great Stone - to discern the traces of the spatial transformation and identify some issues connected with it. The second part focuses on the European study case of the Operational Landscape embedded between Turin, Milan, and Genoa. The latent transformations in this medial territory that has the Mortara Dry Port as core, has the potential to become explicit by the influence of dynamics such as the Belt and Road.

Summary

Abbreviations

ADB	Asian Development Bank
AIIB	Asian Infrastructure Investment Bank
ASEAN	Association of Southeast Asian Nations
BCIMEC	Bangladesh–China–India–Myanmar Economic Corridor
BRI	Belt and Road Initiative
CCWAEC	China - Central Asia - West Asia Economic Corridor
CDB	China Development Bank
CEE	Central and Eastern Europe
CICPEC	China - Indochina Peninsula Economic Corridor
CMREC	China - Mongolia - Russia Economic Corridor
CPEC	China - Pakistan Economic Corridor
CPC	Communist Party of China
EIB	European Investment Bank
EXIM	Export-Import Bank of China
FTZ	Free Trade Zone
ICBC	Industrial and Commercial Bank of China
IM	Interview with CEO Davide Muzio 05.06.21
IOG	Ismaïl Omar Guelleh, president of Djibouti
MOU	Memorandum of understanding
NELB	New European Lan Bridge Economic Corridor
NDB	New Development Bank
OBOR	One Belt One Road
OFDI	Overseas foreign direct investment
RA	Reconnecting Asia Database
RNM	Renminbi
SEZ	Special Economic Zone
SOE	State-owned enterprise
SRF	Silk Road Fund
WB	World Bank
TANAP	Trans-Anatolian Natural Gas Pipeline
TEN-T	Trans European Transport Network
TPP	Trans-Pacific Partnership

Introduction

The Anthropocene and the Idea of a Global Infrastructure

Dutch chemist and Nobel laureate Paul Crutzen and Eugene Stoermer, professor at the University of Michigan, published an article in IGBP's Global Change newsletter 41 in 2000, stating that humanity had driven the world into a new geological epoch, "the Anthropocene"[1], from the Ancient Greek *anthropos*, meaning "human being" and *kainos* "new, current" (Globaïa). The term is used extensively in the literature[2], referring to a period when «the human imprint on the global environment has now become so large and active that it rivals some of the great forces of Nature in its impact on the functioning of the Earth system» (Steffen, 2011). The starting date set by Crutzen and Stoermer, arbitrarily, dates back to the 18th century, when the global effects of human activities became apparent: concentrations of greenhouse gases, particularly CO2 and CH4, were consistently detected in the air contained in glacial ice, the steam engine was invented in 1784 by James Watt, and biotic assemblages showed signs of change (Crutzen, 2002)[3].

The end of wild nature, and the beginning of the Anthropocene sees in every region of the world the transformation of spaces due to the cumulative socio-ecological consequences of unlimited global urbanisation. The United Nations and the World Bank speak of a "global urban sprawl"; scientists discuss the emergence of an anthropogenic epoch when human action transforms the planet and urbanisation totally dominates the huge metalogical systems that make up the contemporary world; geographers, planners, philosophers, economists and environmental historians all propose, from a wide range of perspectives, the idea that we are witnessing a «transition to a predominantly urban world» (Madden, 2012). The idea of planetary urbanisation was first theorised by Henri Lefebvre[4] (1970) through his work on *The Urban Revolution*, whereby the post-industrial explosion of urban society globally would create a "complete urbanism" worldwide and conceptualisations of the urban were necessary to explain society itself. This conceptualisation is later taken up by Brenner and Schimd (2012) who describe the situation of planetary urbanisation as the transformation into integral parts

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1 «Considering the still growing impacts of human activities on earth and atmosphere, and at all, including global, scales, it seems to us more than appropriate to emphasize the central role of mankind in geology and ecology by proposing to use the term "anthropocene" for the current geological epoch.» (Crutzen, Soemer, 2000)

2 Different terms were proposed: such as Anthropozoic (Stoppani, 1873); Noösphere (De Chardin, 1922; Vernadsky, 1936), the world of thought – to mark the growing role of human brain- power in shaping its own future and environment; Eremozoic (Wilson, 1992), and Anthrocene (Revkin, 1992). (Globaia; Crutzen, 2002).

3 Subsequently, many enter the debate for the definition of an exact date: for Ruddiman (2003) it starts in the Neolithic period with the beginning of intense farming activities; Foley et al. (2013) use the term Anthropocene for the sharp increase in CO2 emissions in 1780 AD; Glickson (2013) speaks of an early Anthropocene, starting with fire control, a middle Anthropocene with agriculture and a late Anthropocene with industrialisation. (Albert, 2015).

4 Sociologists and Functionalist demographers like Kingsley Davis anticipate Lefebvre in heralding "complete world urbanization" as a not-too-distant moment when "rurality" will have "disappeared, leaving only a new kind of urban existence"; futurists and planners like Doxiadis envisioned the advent of a world "Ecumenopolis" when "the united settlement of Anthropos will cover the entire globe" (Madden, 2012).

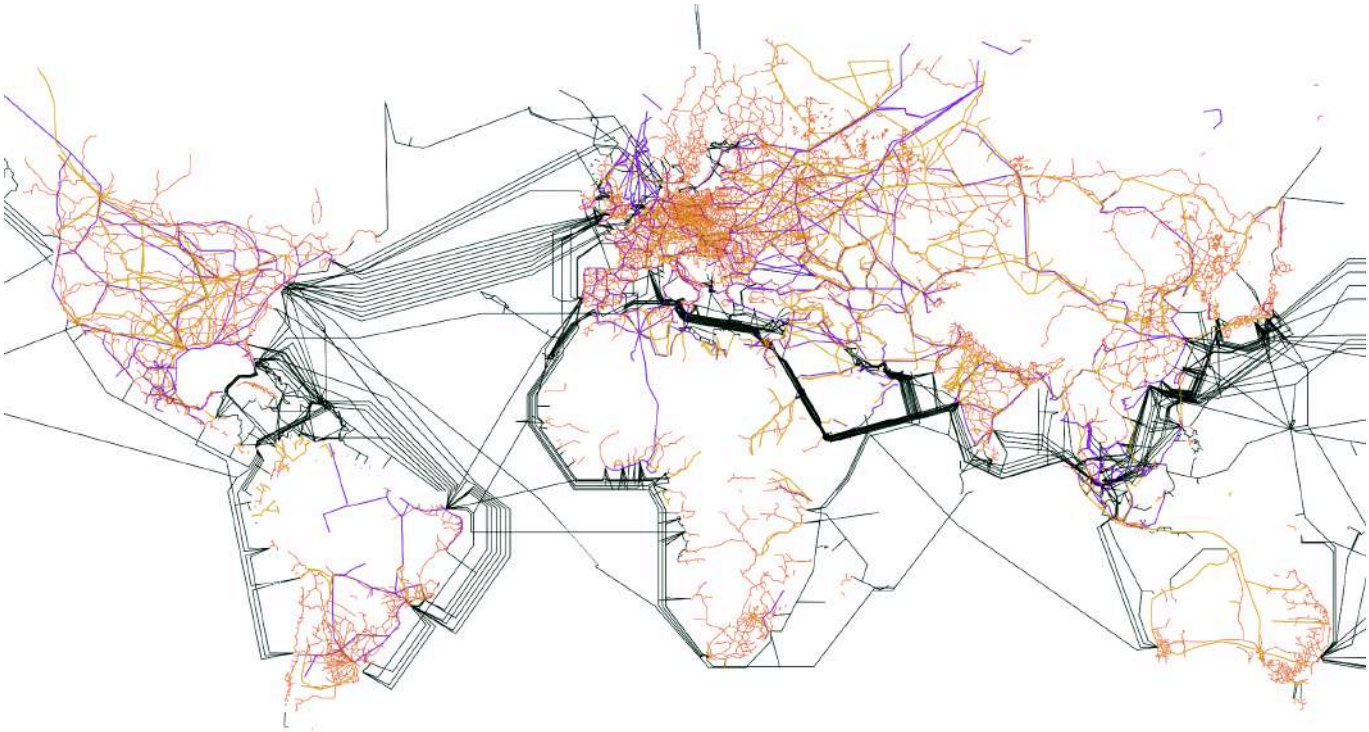
of the urban fabric of «even spaces that lie far beyond traditional city cores and suburban peripheries - from transoceanic shipping lanes , transcontinental highway and rail networks, global communication infrastructures, alpine and coastal tourist enclaves, natural parks, offshore financial centres, agro-industrial basins and formerly 'natural' spaces such as the world's oceans, deserts, jungles, mountain ranges, tundra and atmosphere. While the process of agglomeration remains essential to the production of this new world topography, political-economic spaces can no longer be treated as if they were composed of discrete, distinct, and universal "types of settlement". Of course, this does not mean that there are dense agglomerations everywhere, but that the main features of urbanism as a way of life, regulated by the interplay of market forces, are becoming ubiquitous, to an extent never seen before» (Kanai, 2014). The planetary built environment is now recognised as a direct contributor to far-reaching transformations of the atmosphere, biotic habitats, land-use surfaces and oceanic conditions that have long-term implications for the metabolism of human and non-human life forms (Brenner, 2013). In this scenario, cities are characterised by the passage of intercontinental transport corridors, large-scale infrastructure, telecommunications and energy networks, free trade zones, transnational growth triangles and international border regions. This landscape of Global Infrastructures is one of the expressions of Planetary Urbanisation, attracting strategy, long-term and large-scale investment in the built environment and reshaping the relationships between the flows of raw materials, energy, goods, labour and capital across transnational space.
The emerging process of extensive urbanisation is producing a diverse urban fabric that, rather than being simply concentrated within nodal points or confined to defined regions, is now woven unevenly, and yet increasingly densely over vast areas of the world. Corridors are not a new phenomenon but since the world is shifting to a Planetray Urbanization and with the «intensifying, rapidly converging urban crisis (whether social, environmental, pathogenic or economic), the proliferation of these initiatives occurs as advanced technology prompts reassessments of how the urbanisation process is planned, experienced and understood» (Silver, 2021). A reading of Global Infrastructure[5] provides a spatial key to understanding this phenomenon of planetary urbanisation, as result and consequence of the Anthropocene.

Humanity's rapid expansion in terms of numbers and exploitation of the Earth's resources continued unabated but saw an acceleration in the post World War II era (AWG). During "The Great Acceleration" not surprisingly, the term infrastructure was born[6], shaping our vulnerabilities, opportunities, and capacities for global interaction (Globaïa). The determinism of political geography, while useful in some cases, no longer reflects the reality in which we live (Khanna, 2016). To this

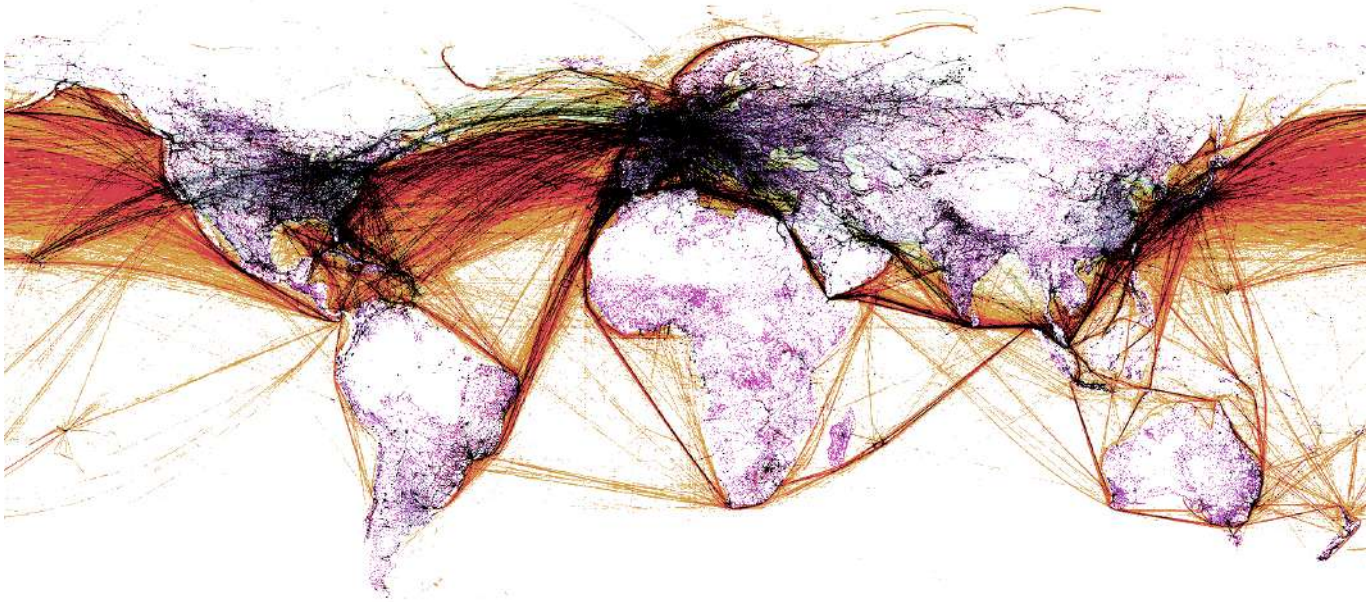
5 The Global Infrastructure Connectivity Alliance – GICA for short and pronounced "jee-ka" – strives to promote cooperation, knowledge exchange, and meaningful progress in the field of global inter-connectivity, with the cooperation of China–World Bank Partnership Facility, AIIB, WB, ADB, PRC, The Commonwealth Secretariat, Republic of Indonesia, Global Energy Interconnection Development and Cooperation Organization, Global Infrastructure Hub, Long-term Infrastructure Investors Association, The Organisation for Economic Co-operation and Development, United Nations Conference on Trade and Development. (GIA Off.).

6 «The use of infrastructure caught on in English after World War II, referring to the building of military bases, railroads, and airfields for NATO use. The word quickly grew beyond its military use, taking on the more general meaning the system of public works of a country, state, or region» (Merriam Webster). In 1952 The New York Times talks about the vast "infrastructure" program of Allied airfields, barracks, railways, roads, depots and joint headquarters is now reported progressing well.

Pipelines, Internet Cables, Natural Gas, Basins, Airports, Ports, Railways, Roads, Rivers, Urban areas.
Source: https://atlas.developmentseed.org/all/



Antroposphere: Global Footprint, Urbanization, Cables and Connections
Source; https://globaia.org/geophanies



end, it is necessary to consider the impact that the complex network that unites us, made up of infrastructure, transport, energy, and communications have on the perception of distances and space and doesn't show the relational urban geography across disparate parts of the world.
The myth of the nation state, understood as the belief in a shared community regulated by a representative government (Masao, 1993) «has become an unnatural, even dysfunctional, unit for organising human activity and managing economic endeavour in a borderless world. It represents no genuine, shared community of economic interests; it defines no meaningful flows of economic activity. In fact, it overlooks the true linkages and synergies that exist among often disparate populations by combining important measures of human activity at the wrong level of analysis» (Ohmae, 1993). When we speak of a "borderless world" we are not suggesting that borders do not exist, but rather reflecting on our relationship with them; if borders are meant to separate, how is it that most people today live within them? They, Parag Khanna (2016) explains, are the *locus* of connectivity, not a solid line but a filter, more or less dense, and it is here that infrastructure most reshapes the world, moving from a politically divided one to a geographically functional one, overcoming «bad geography and institution» (Deaton, 2013). The flows of people, goods, resources, knowledge, ideas, data and capital across borders thus become more important than borders themselves, but they risk accelerating the despoiling of the planet and the resources.

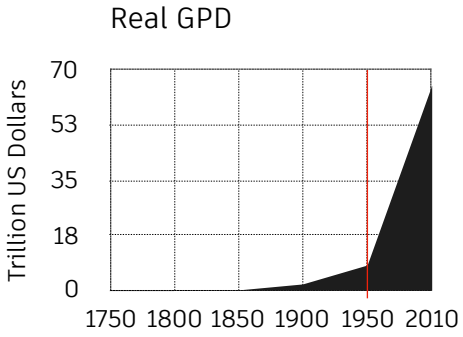
The "Silk Road Economic Belt and 21st-Century Maritime Silk Road Development Strategy" (丝绸之路经济带和21世纪海上丝绸之路发展战略) (CCBC, 2017), fits neatly into the transition to a functionally organised world, and is one of the most contemporary cases of Global Infrastructure, being described as «the largest coordinated infrastructure initiative in the history of the world» (Khanna, 2016).
The networks of the Belt and Road Initiative, including in it investments, plans, visions, hopes and physical transformations, are restructuring existing topographies of global urbanism: «cutting across various territories, cities, countries and regions, these projects seek to materially integrate a new set of accumulation regimes out of historical conditions and geographical contexts» (Grappi, 2018; Newhouse and Simone, 2017 in Silver, 2021). The term global, as used here, refers to a planetary zone of action, imagination and potentiality that is dialectically co-produced with the urban: it is not simply 'filled' through the global extension of urbanisation but is actively constituted and perpetually reorganised in and through urban socio-spatial relations.

The aim of this work is to recognise the spatial power of the proliferating number of global corridors and infrastructures through the case of the New Silk Road as a specific, therefore not unique, case of Global Infrastructure and to construct through it a lens through which it becomes possible to observe the spatial transformations of the Anthropocene. «We need to rethink what global urbanism means in the twenty-first century from a corridor perspective» (Silver, 2021).
The purpose is to understand to what extent and in what way the Silk Road has the capacity to transform the extended landscape of urbanisation, with its increasingly planetary infrastructure of flows, consumption and resource extraction. In the era of the Anthropocene, in which the logics of capitalist industrialisation have indelibly transformed the planet's living systems, it is important to investigate the environmental, socio-economic and spatial issues and implications of these processes on the future forms and paths of urbanisation. Finally, in this scenario of change, it remains to be investigated how the role of the architect is changing

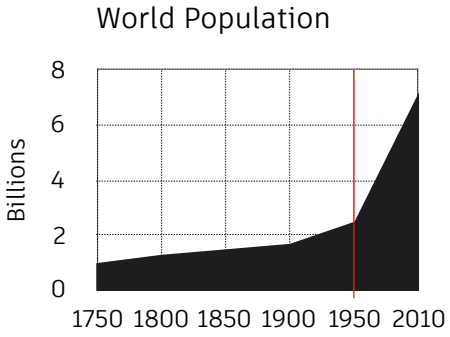
and what role the project can play in the processes of Planetary Urbanisation and Gloabl Infrastructures.
This work consists of three parts: the first of the three serves to place the Belt and Road Initiative in the framework of Global Infrastructure and the Anthropocene and to describe, through the use of official documents, speeches and memoranda of understanding, what this initiative is and what some of its spatial components are. Clearly, the use of official Chinese government documents, as well as President Xi's rhetorical speeches, are not sufficient to understand the complexity of a phenomenon on such a scale; we therefore chose to deepen the debate around the essence of the initiative, its objectives, modalities and possible consequences. At least 200 sources were considered, mainly available online due to the impossibility of travelling due to the health emergency, and the interpretations found were clustered into three main categories, which have in common the ambiguity and nebulousness of the initiative. The first revolves around the challenges and opportunities that BRI may present, the second concerns whether or not it is a project with real spatial repercussions, and the third concerns the perception that it may not be a project *per se*, but the result of interpretations that emerge about it.
The second part deals with finding the traces on the territory of the Silk Road and the spatial questions it raises through six specific cases. As it is impossible to find an official list of projects, we tried to use a method that was as rigorous as possible in constructing an alternative database. Starting with the project database compiled by Reed and Trubetskoy for the World Bank in 2019, integrating it with data from the four other existing databases - Reconnecting Asia, China Global Investment Tracker, MERICS Belt and Road Tracker and Hong Kong Trade Development Council - and eliminating projects in non-BRI countries or initiated before 2013, a list of 389 projects was compiled. Six of these projects are analysed in depth, looking at how the area has changed over time, from what it was before the project was announced, and what it might look like once the project is completed. For each project, the spatial issues it produces in the territory are then examined.
Finally, the last part of this work focuses on the specific European case, which is already innervated by other expressions of Global Infrastructure, such as the Ten-T and the pan-European networks which together with the BRI constitute a single process of Planetary Urbanisation, observing how they change the territory. The presence of transport corridors, ports with container terminals, and logistics platforms in an operational territory such as that between Turin and Milan generates some potential Global Infrastructure nodes, such as the Mortara Interport, designed to be a node of an Intermodal Transportation Network. Apart from its potential, both in terms of spaces and production, Mortara seems not to fullfill that. This chapter aims to focus on how the Global Infrastructures changes the territory and investigate the case of Mortara Hub.
Some of the reflections that emerge from this work, following the observation and analysis of the six relevant places and the European case of Mortara, lead to the possibility of recognising, in a general way, an urbanism that is fundamentally absent, or not very considered. By this we mean that the projects resulting from the Global Infrastructure have «the deliberate construction of city form with no conscious attempt to foster a social sphere, resulting in a sanitized urban condition with no coherent morphology or public realm» (Shannon in Sordi, 2014). However, the way in which each place responds to change derives from mostly intrinsic characteristics, which depend on the administration, the resistance to change, the urban fabric and the conformation of the space itself, as it is not global. Two different degrees of attention are therefore needed for spatial design, the global

one responding to capitalism and the needs of the market, «a single network for a single market» (European Commission), and the local one responding to the needs of the territory into which these projects are inserted.

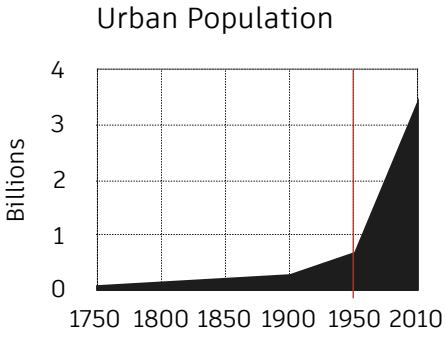
THE GREAT ACCELERATION: SOCIO ECONOMIC TRENDS



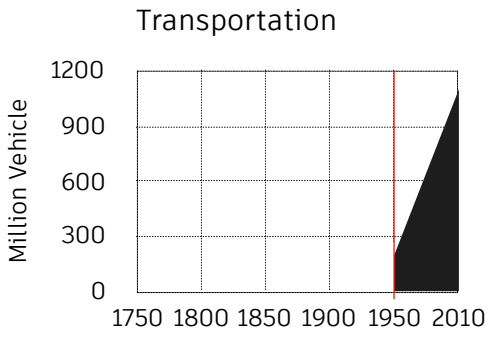
Source: Maddison 1995; M. Shane, Research Service,USDA ; Shane 2014, in https://globaia.org



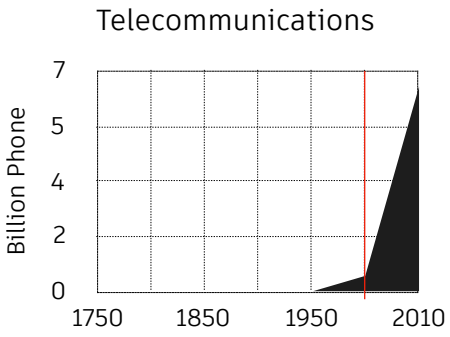
Source: HYDE 2013; Goldewijk et al. 2010 in https://globaia.org



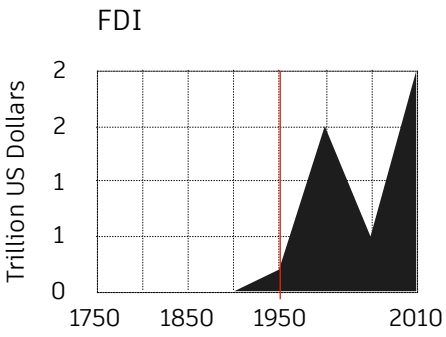
Source: HYDE 2013; Goldewijk et al. 2010 in https://globaia.org



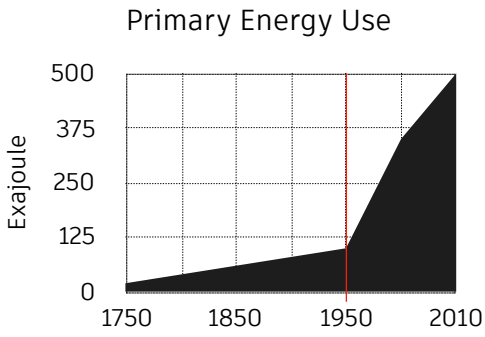
Source: International Road Federation 2011. In https://globaia.org



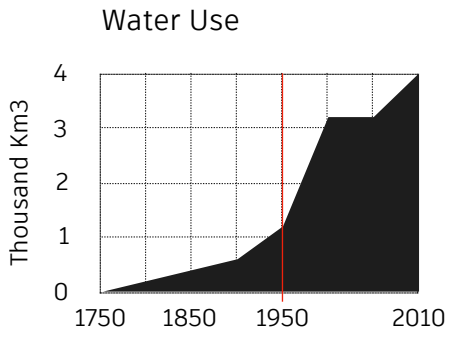
Source: Canning 1998; UNSD 2014. In https://globaia.org



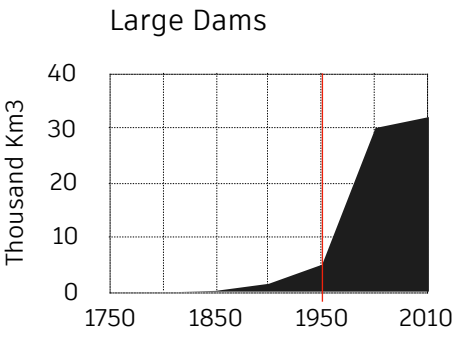
Source: IMF 2013; UNCTAD 2013 in https://globaia.org



Source: A. Grubler, (IIASA); Grubler et al. 2012. in https://globaia.org

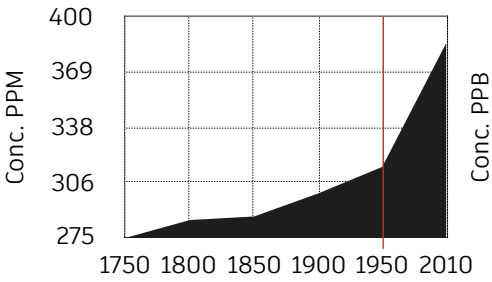


Source: Flörke et al. 2013; Beek et al. 2010; Alcamo et al. 2003. In https://globaia.org



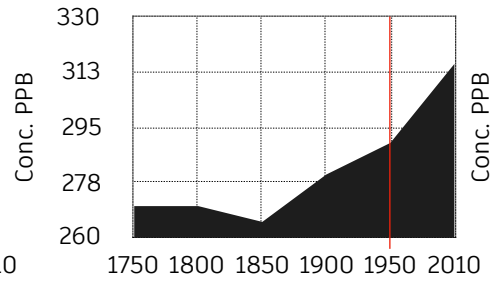
Source: ICOLD database register search. Purchased 2011. In https://globaia.org

Carbon Dioxide



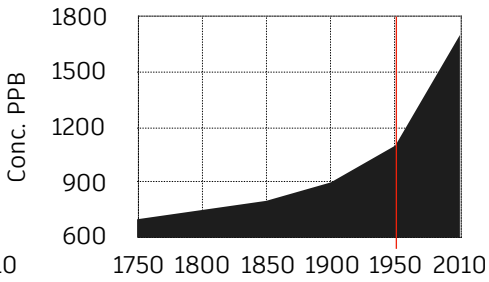
Source: D. Etheridge CSIRO; Etheridge et al. 1996; MacFarling et al. 2004, 2006; Langenfelds et al., 2011. In https://globaia.org

Nitrous Oxide



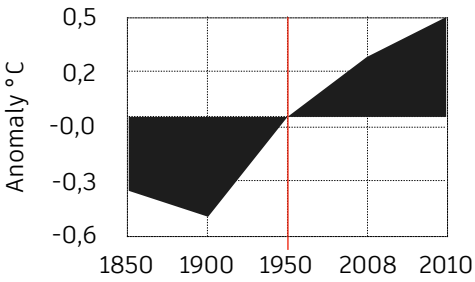
Source:Etheridge CSIRO; MacFarling et al. 2004 and 2006; Langenfelds et al., 2011. In https://globaia.org

Methane



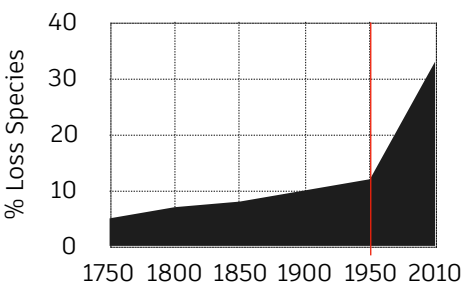
Source:Etheridge CSIRO; MacFarling et al. 2004 and 2006; Langenfelds et al., 2011. In https://globaia.org

Surface Temperature



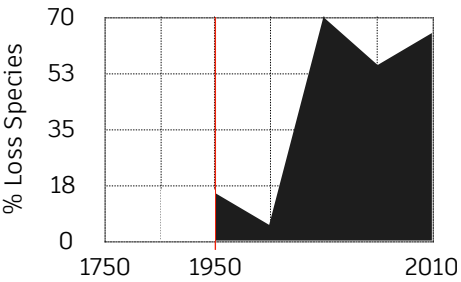
Source: Jones, Climatic Research Unit, with the Hadley Centre. In http://www.cru.uea.ac.uk/cru/info/warming/gtc.csv

Biosphere Degradation



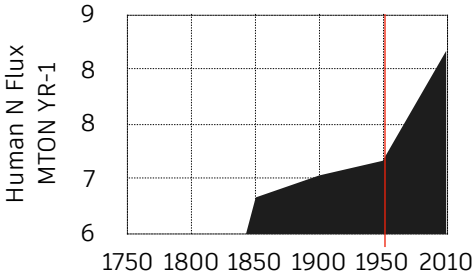
Source: Alkemade et al. 2009, ten Brink et al., 2010. In www.globio.info

Stratospheric Ozone



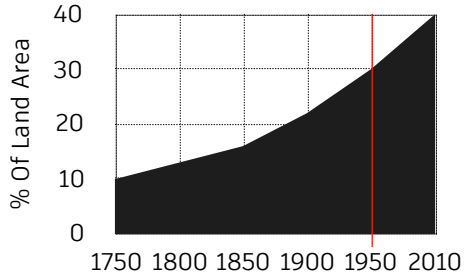
Source: Shanklin, UK Antarctic Survey. In www.antarctica.ac.uk/met/jds/ozone/index.html#data

Ocean Acidification



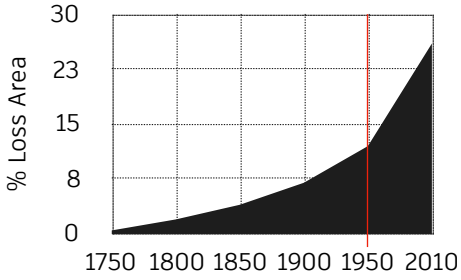
Source: Orr, LSCE/IPSL; Bopp et al. 2013 and IPCC Fifth Assessment Report, Working Group 1, Ciais et al. 2013. In https://globaia.org

Domesticated Land



Source: Pongratz et al. 2008. Beyond 1992 is based on the IMAGE land use model. In https://globaia.org

Tropical Forest Loss

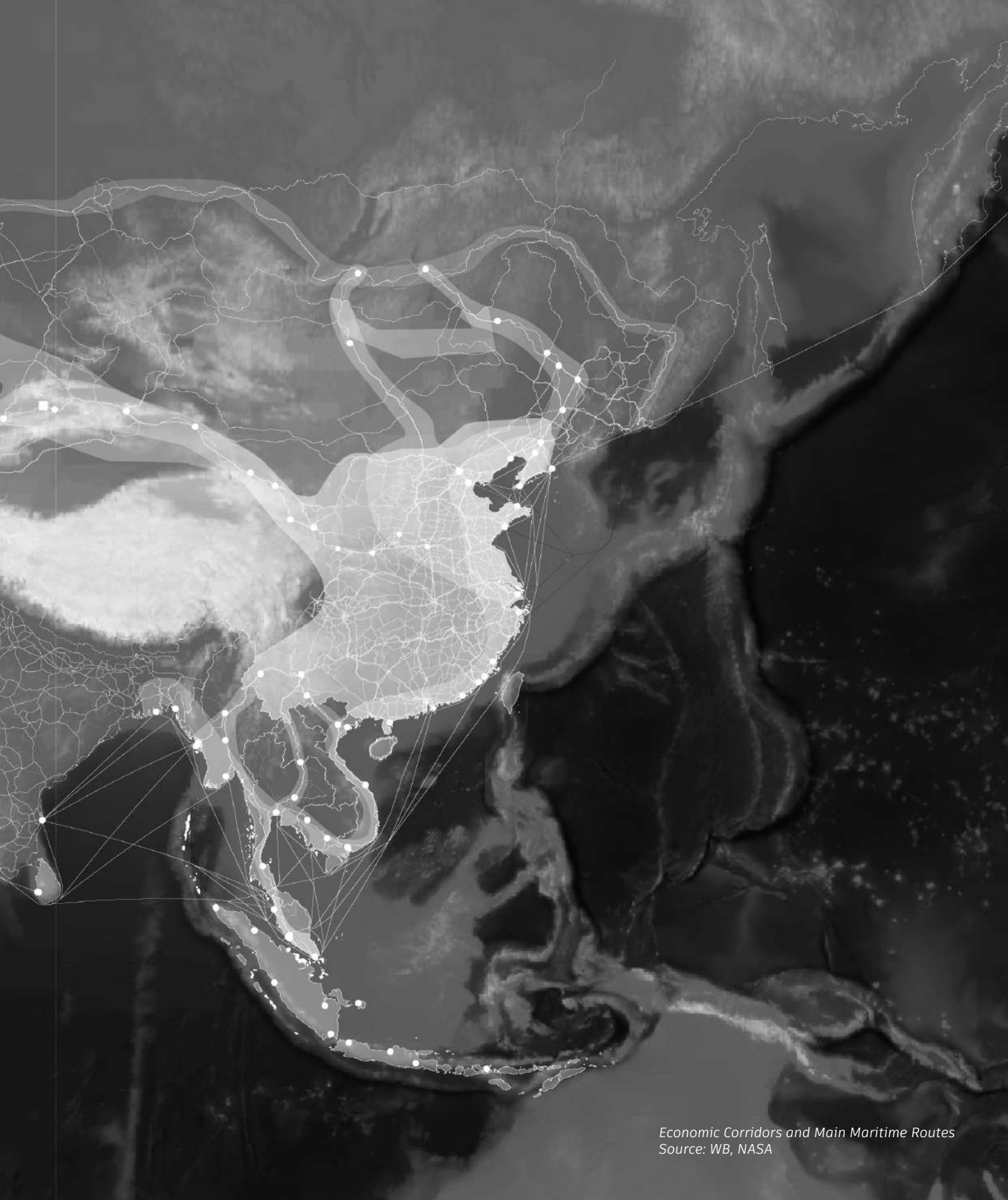


Source: Pongratz et al. 2008. Beyond 1992 is based on the IMAGE land use model. In https://globaia.org

CHAPTER 1

The Case of the BRI

Aim of this chapter is to describe the case of BRI as an example of the Global Infrastructure Initiatives by coping with the sources available online, the official documents and the international literature.



Economic Corridors and Main Maritime Routes
Source: WB, NASA

Morphology

The Initiative: Speeches, Memoranda, Countries

Although it is not possible to find specific data and information about the intentions and motives, it is clear that China's economic rise and the global reach of the mega-project has an impact on the existing international order, as it is the control of supply chains, far more than territorial control, that defines the current global order. In fact, from the Chinese perspective, political leeway does not come from a new strong power, as the United States currently has, but from more proactive connectivity, *zhudongxing*, which allows resources to be acquired, recovered quickly and safely, saving money over the long term, while at the same time increasing the potential power to directly or indirectly influence other actors involved in the exchange (Kohlenberg, Godehardt, 2016). Individual Chinese projects, sometimes criticised as not being economically interesting, follow a different logic from China's perspective, depending on which geographical and technical dimensions are jointly relevant: they are about building new ecosystems that, once interconnected, establish new geographical and political spaces, which need to be looked at as a whole (Kohlenberg, Godehardt, 2016).

Drawing on President Xi Jinping's speeches to understand, albeit partially, the composition and spread of the Silk Road Economic Belt and XXI Century Maritime Road, it is first presented at Nazarbayev University of Astana[1], Kazakhstan. The theme of connections is explicitly treated as a tool for reshaping geopolitical relations. «We need to enhance practical cooperation across the board, turn our good political relations, geographical proximity and economic complementarity into drivers of practical cooperation and sustained growth, and build a community of shared interests and mutual benefit. [...] We need to expand regional cooperation with a more open mind and broader vision and achieve new glories together. The world is going through faster economic integration and regional cooperation is booming. [...] To turn this into a reality, we may start with work in individual areas and link them up overtime to cover the whole region. [...] We need to improve road connectivity to open up a major transportation route connecting the Pacific and the Baltic Sea. Building on that, we will actively discuss the best way to improve cross-border transportation infrastructure and work toward a transportation network connecting East Asia, West Asia and South Asia to facilitate economic development and travel in the region» (Xi, 2013).

The 138 countries that have in some way joined the initiative have signed cooperation documents with China, generally Memoranda of Understanding and Declarations of Intent. It seems important to emphasise, however, that this does not exclude the rest of the countries from the possibility of cooperation with the Chinese giant, only that there is no official support for the initiative[2].

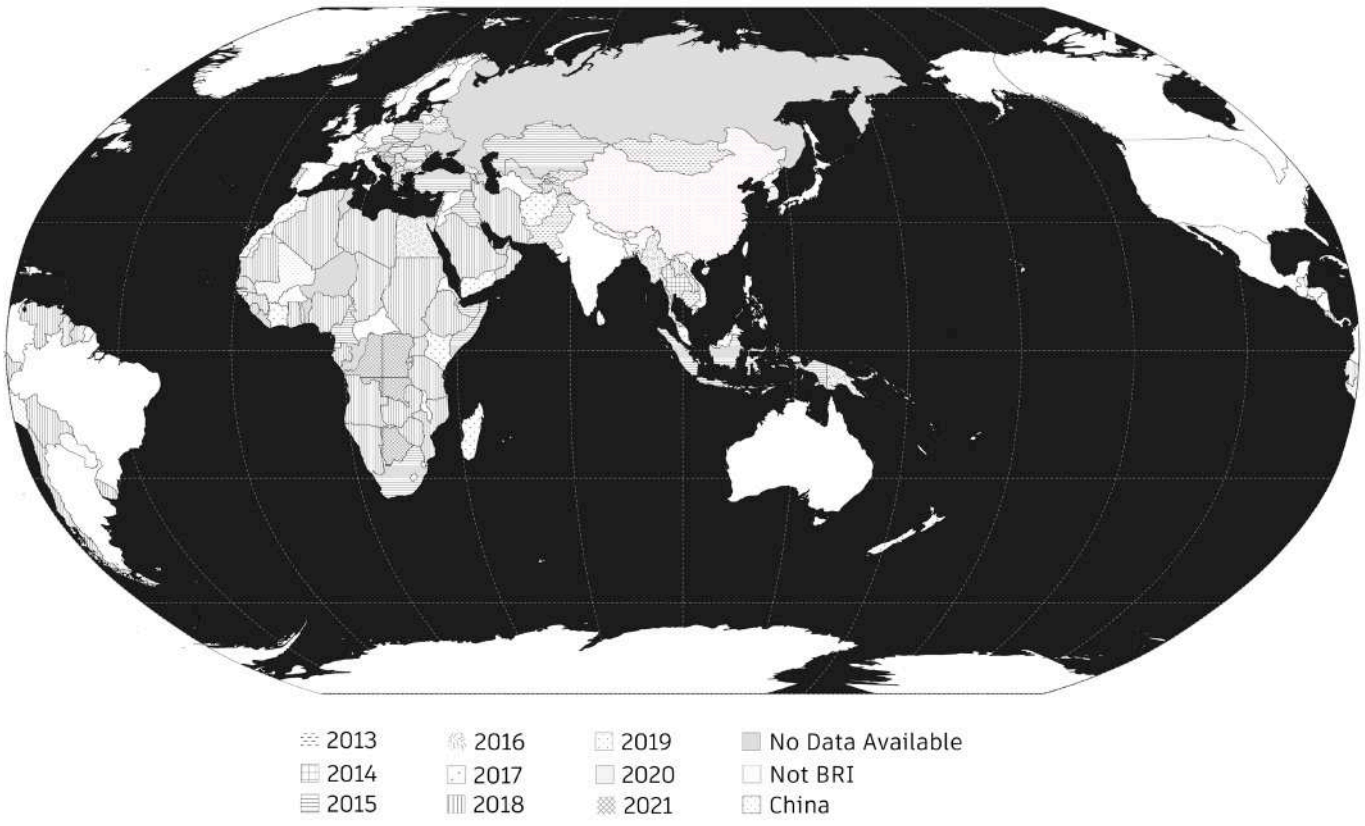
The Belt and Road Initiative (BRI) network, as defined in the Vision and Actions (NDRC 2015, II. Principles), is open to all those interested in being part of it, and seeks mutual benefit so that «all countries in the economic belt along the Silk

1 The speech is then taken up: On 3 October 2013 at the Indonesian parliament building in Jakarta: https://xi_jinping_to_indonesian_parliament.pdf and on 15 May 2017 at the opening of Belt and Road forum in Beijing: https://www.fmprc.gov.cn

2 Mou's and Agreements Lists: https://green-bri.org/countries-of-the-belt-and-road-initiative-bri, https://www.yidaiyilu.gov.cn/info/iList.jsp?tm_id=126&cat_id=10122&info_id=77298, https://www.beltroad-initiative.com/memorundum-of-understanding-belt-and-road-initiative/

Road, inhabited by close to 3 billion people» (Xi, 2013), and consequently all the rest of the world's people, can prosper.

The idea of an interrelated world, in which «China is committed to the path of peaceful development and the independent foreign policy of peace» (Xi, 2013), echoes the traditional Chinese culture of Tiānxià (lit. all under one sky), which indicates the Chinese world in an extended sense as a centre, many relative centres, each for each individual, and an infinite series of connections that bind them, generating a common destiny for all individuals - mingyun gongtongti, (Peimin, 2016). According to this view, the relationship Xi wants to create with the countries involved, follows the logic of "win-win", which allows for widespread prosperity, and "soft power" - huayuquan - which translates first and foremost into the willingness to apply the principle of non-interference, typically characteristic of European and US countries, in building a culturally, economically and politically inclusive network (Godehardt, 2016). «We respect the development paths and domestic and foreign policies chosen independently by the people of each country. We will in no circumstances interfere in the internal affairs of Central Asian countries. We do not seek to dominate regional affairs or establish any sphere of influence» (Xi, 2013).



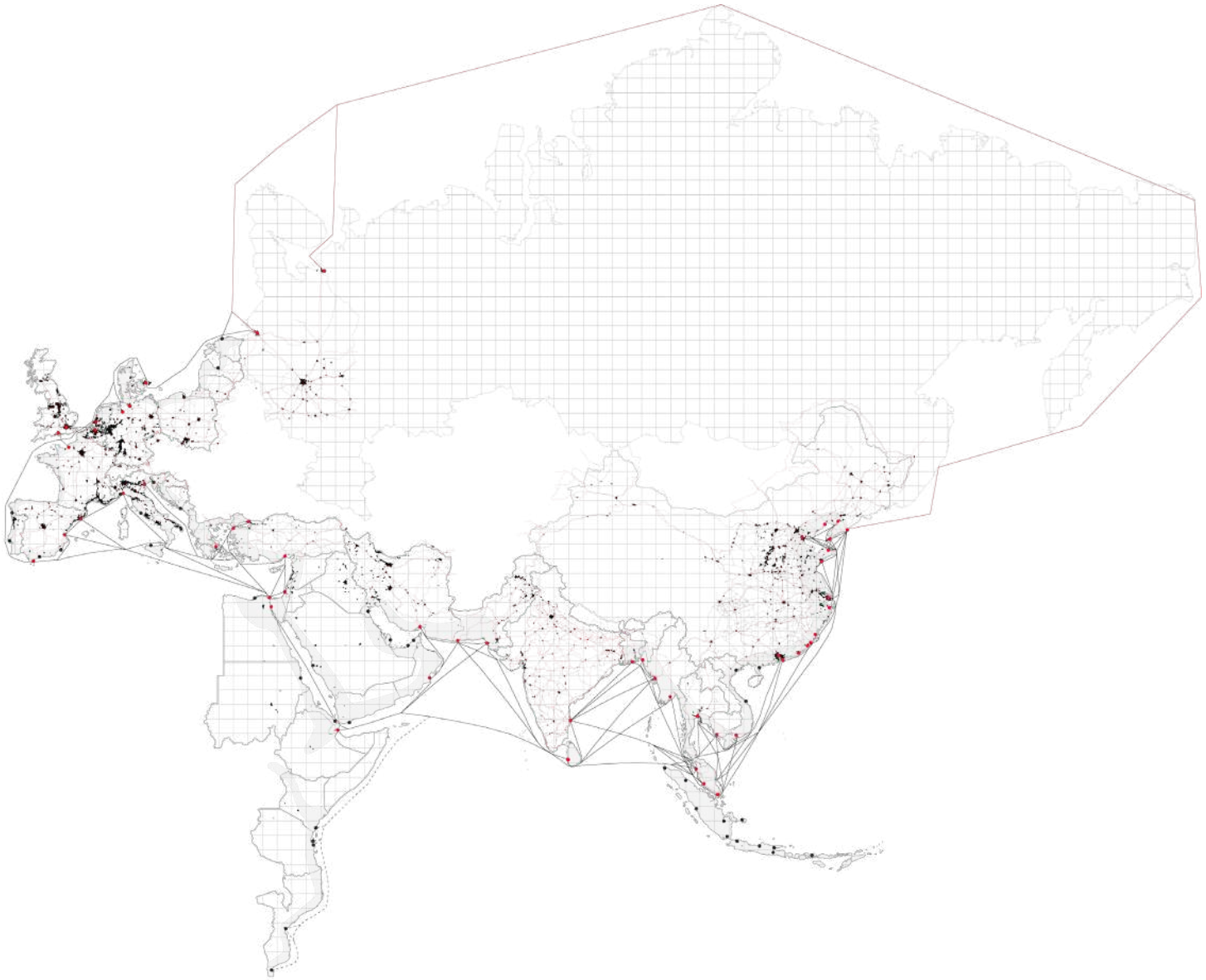
Countries that signed BRI MoU.
Source: Green BRI Center of International Institute of Green Finance, Beijing. https://green-bri.org/investments-in-the-belt-and-road-initiative-bri/

Silk Road Economic Belt and 21st-Century Maritime Silk Road

The non-existence of an official map identifying the routes is an indication of the flexibility of the initiative and could be a choice because it would somehow risk suggesting a closure to other possibilities. Although it is not possible to define specific routes, it seems possible to identify some main components of the network, first of all, the Maritime Road and the Land Economic Belt.

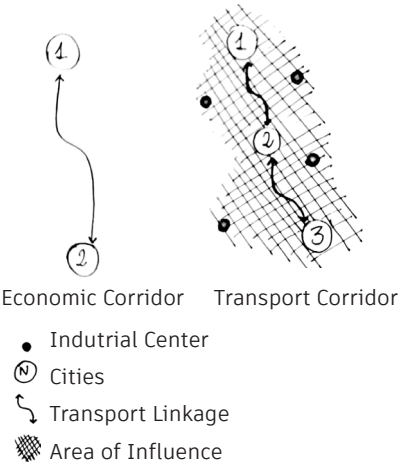
The maritime component, is a network of sea routes, rather than a road, running west from China's east coast to Europe through the South China Sea and the Indian Ocean, and east into the South Pacific, to build efficient transport routes between major ports in various countries, including the development of an economic corridor through the Indian Ocean, better connecting China with South Asia, the Middle East, Africa and the Mediterranean (Woodward, Philips, 2017).
In June 2015, President Xi released the "Vision for Maritime Cooperation under the Belt and Road Initiative" to synchronise development plans and promote joint actions among countries along the Belt and Road. The document focuses on the importance of the ocean as a key part of cooperation and exchange of information, technology and products, with the support of the economic belt on the coast. China proposes to countries technical assistance in the development of plans using marine resources, increased cooperation in the maritime industry, the construction of industrial parks focused on the maritime sector, the promotion of high-quality tourism, and participation in bilateral and multilateral actions to handle problems related to the safety of sea routes and the mitigation of marine disasters. In this regard, it is proposed to jointly establish marine disaster warning systems in the South China Sea, the Bengal Sea, the Red Sea and the Gulf of Aden, and to develop marine disaster warning products for transport, escort, prevention and mitigation of disasters, such as the IOC South China Sea Tsunami Advisory Center (SCSTAC) (Xi, 2017).
Some of these seem to be priority passages for the operation of the initiative: China-Indian Ocean-Africa-Mediterranean Sea Blue Economic Passage, linking three economic corridors in the area; China-Oceania-South Pacific Blue Economic Passage, travelling south from the South China Sea into the Pacific Ocean; the Northern Blue Economic Passage, leading to Europe through the Arctic Sea. The Polar Road is particularly important as it halves the time it takes to reach Europe via the Arctic Sea: «China is willing to cooperate with all parties to conduct scientific surveys of shipping routes, set up shore monitoring stations, conduct research on climate and environmental changes in the Arctic, and provide shipping forecasting services. China supports the efforts of countries bordering the Arctic to improve shipping conditions, and encourages Chinese enterprises to take part in the commercial use of the Arctic route. China is willing to conduct surveys of potential resources in the Arctic region in cooperation with interested countries, and to strengthen cooperation in clean energy with Arctic countries. Chinese enterprises are encouraged to participate in the sustainable exploration of Arctic resources in a responsible manner» (Xi, 2017).

Main routes of the Maritime Road
Source: WB



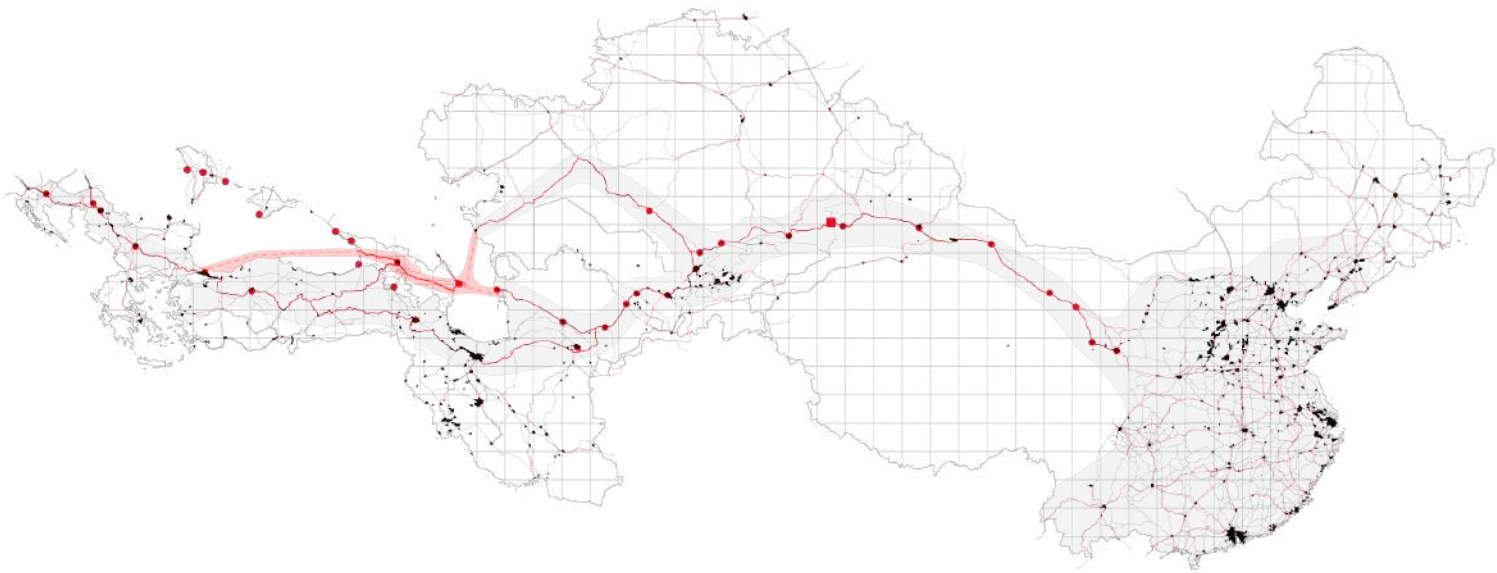
The Economic Belt is aimed at building an Eurasian land bridge, «bringing together China, Central Asia, Russia and Europe (the Baltic); linking China with the Persian Gulf and the Mediterranean Sea through Central Asia and West Asia; and connecting China with Southeast Asia, South Asia and the Indian Ocean» (Vision and Actions, 2015), composed mainly by six economic corridors: this logistics chain heralds the transformation of the Eurasian region into a series of urban nodes linked by transport and energy corridors.
Each road, bridge, tunnel, railway and pipeline reshapes the functional agenda of the countries it passes through, transforming clashes over resources into profitable trade (Khanna, 2016). Rail transport is faster than sea transport and cheaper than air transport, making it more convenient in terms of economics and cargo volumes; if in 2012 only 2500 containers were transported by rail from China to Europe, this number is expected to grow exponentially to 7.5 million.

The major component of the Economic Belt are the six Economic Corridors, defined as development initiatives that connect economic nodes or hubs that are usually centred in urban landscapes, on the foundation of a multi-dimensional infrastructure network. It is a flow-through through which people and goods move, stimulating economic growth. In most cases their role in economic development can be understood only in terms of the network effects that they induce (Brunner, 2013); they can have a regional character, such as ADB's 1990 development of the Great Mekong Region, thanks to which the concept gains more popularity, or national such as India's East Coast Economic Corridor, which covers 2500 km of coastline, or international, such as those developed by the Belt and Road Initiative, and can be both maritime and terrestrial (Petrella, 2018). There are three main characteristics that the different types have in common: the first is the transport network, which defines the backbone of the corridor and allows the movement of goods, people and services; the second is the centres of production and technological innovation, which serve to produce the goods for consumption and for exporting them; and the last is the urban nodes, for which the goods are destined (Petrella, 2018).
The OBOR initiative aims to develop six land-based economic corridors: China-Central Asia-West Asia Economic Corridor, started in 2015 with the signing by 5 Central Asian countries of a declaration; China-Pakistan Economic Corridor, conceived in 2013 by Premier Li Kequiang; China-Mongolia-Russia Economic Corridor, whose plan is officially adopted in 2015 by the leaders of the three countries; New Eurasian Land Bridge Economic Corridor; Bangladesh-China-India-Myanmar Economic Corridor, initiated in 2013 through a joint working group meeting; China-Indochina Peninsula Economic Corridor, proposed by Li Keqiang in 2014; and (Oxford Economic). «Featuring land-sea-air transportation routes and information expressway and supported by major railway, port and pipeline projects. [...] We should promote land, maritime, air and cyberspace connectivity, focus our efforts on key passageways, cities and projects and connect networks of highways, railways and seaports [...] We need to seize opportunities presented by the new round of change in the energy mix and the revolution in energy technologies to develop global energy interconnection and achieve green and low-carbon development. We should improve trans-regional logistics network and promote connectivity of policies, rules and standards so as to provide institutional safeguards for enhancing connectivity» (Xi, 2017). The following pages aim to underline the diversity of each corridor, the area that they influence the most, and the major projects and goals they have.



Difference between a transport corridor and an economic one

China - Central Asia - West Asia Economic Corridor
Source: WB



CCWAEC starts from China's Xinjiang and crosses Central Asia, the Persian Gulf, the Mediterranean Sea and the Arabian Peninsula. It crosses Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan and Turkmenistan and 17 countries in West Asia. These countries are rich in resources but lack in fund and infrastructure: the China-Central Asia gas pipeline is the world's longest; it starts at the border of Turkmenistan and ends at Khorgos in Xinjiang, where it will be connected to a China's pipeline running West-East. The corridor will smooth economic and trade cooperation, supporting local economic and social development. The strategy "1+2+3" proposed by China, is a core element, that includes projects on energy, including nuclear energy and renewable energy alongside cooperation in infrastructure construction, aerospace technology and trade and investment (china.org.cn; Woodward, Philips, 2021).

China-Pakistan Economic Corridor
Source: WB

The EC is a regional connectivity framework linking the areas between Kashgar in Xinjiang with the deep-sea port of Gwadar in Pakistan, benefiting not only the two countries but also the entire region around, including Iran, Afghanistan, India, Central Asian Republic, (Xi, 2015; Woodward, Philips, 2021). This corridor could allow China a shortcut to the Middle East and Africa through Dubai and Oman, bypassing the Malacca Strait, a shipping bottleneck. During Xi Jinping's 2015 visit to Pakistan, 29 billion USD was raised to finance 59 projects, concentrated especially in the port of Gwadar (CPEC.gov).

Geographical connections (road, rail and air transport system), higher volume trade and business flow activities, energy production and displacement have been enhanced to have a more optimal business and a well-connected and integrated region.

China-Mongolia-Russia Economic Corridor
Source: WB

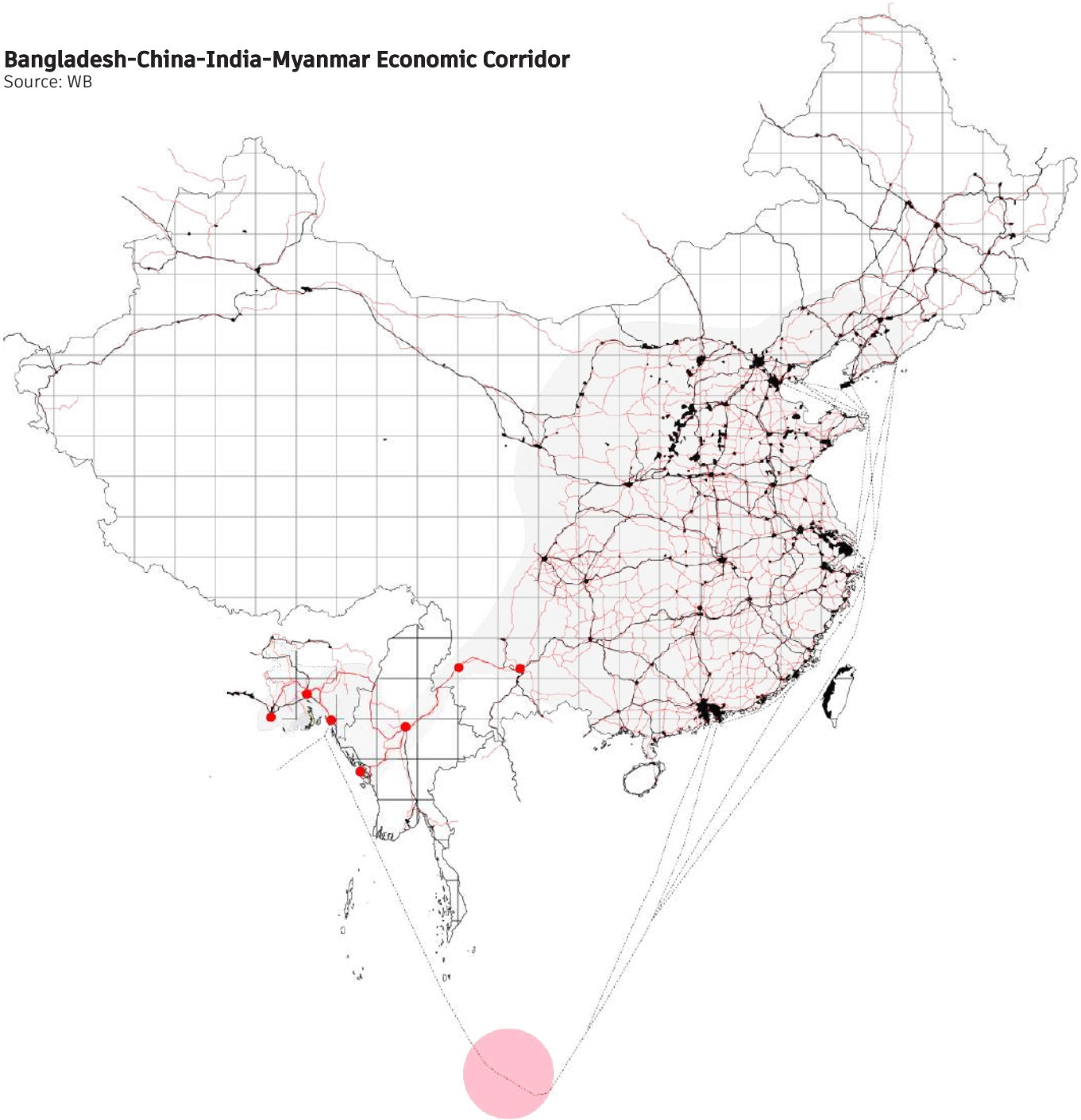
In 2016, the first multilateral cooperation plan aimed at aligning China's Belt and Road Initiative with Russia's proposal for the Eurasian Union, Russia's transcontinental rail plan and Mongolia's Prairie Road programme, also known as Steppe Road (china.gov.cn), was signed by China, Russia and Mongolia. It consists of projects including the construction of natural gas and oil pipelines, roads and railways. Two are considered to be the corridor's arteries: one extends from the Beijing-Tianjin-Hebei region of China to Hohhot, Mongolia and Russia; the other extends from Dalian, Shenyang, Changchun, Harbin and Manzhouli of China to Chita of Russia (china.gov.cn). A northern passage is then planned to connect the Bohai Bay Economic Circle, including the major cities of Beijing, Dalian and Tianjin, with Western Europe (Woodward, Philips, 2021).

New Eurasian Land Bridge Economic Corridor
Source: WB

Opened in 1990 and upgraded with the BRI, the corridor is designed to be a logistical passage between the Pacific and the Atlantic. Distinct from the Siberian Land bridge, which runs from Vladivostok through Siberia to Moscow and on to Western European countries, this "second bridge" runs from Lianyungang and Rizhao, Chinese coastal cities, to Rotterdam, and Antwerp, coastal cities in Europe.

In 2015, a series of infrastructure agreements worth 25 billion USD were signed between China, Belarus and Russia, on high-speed rail, energy infrastructure and aerospace, as well as industrial parks providing financial services such as RMB settlement. The 10,800-kilometer-long rail link runs through Kazakhstan, Russia, Belarus, Poland and Germany, and serves more than 30 countries and regions (china.org.cn; Woodward, Philips, 2021).

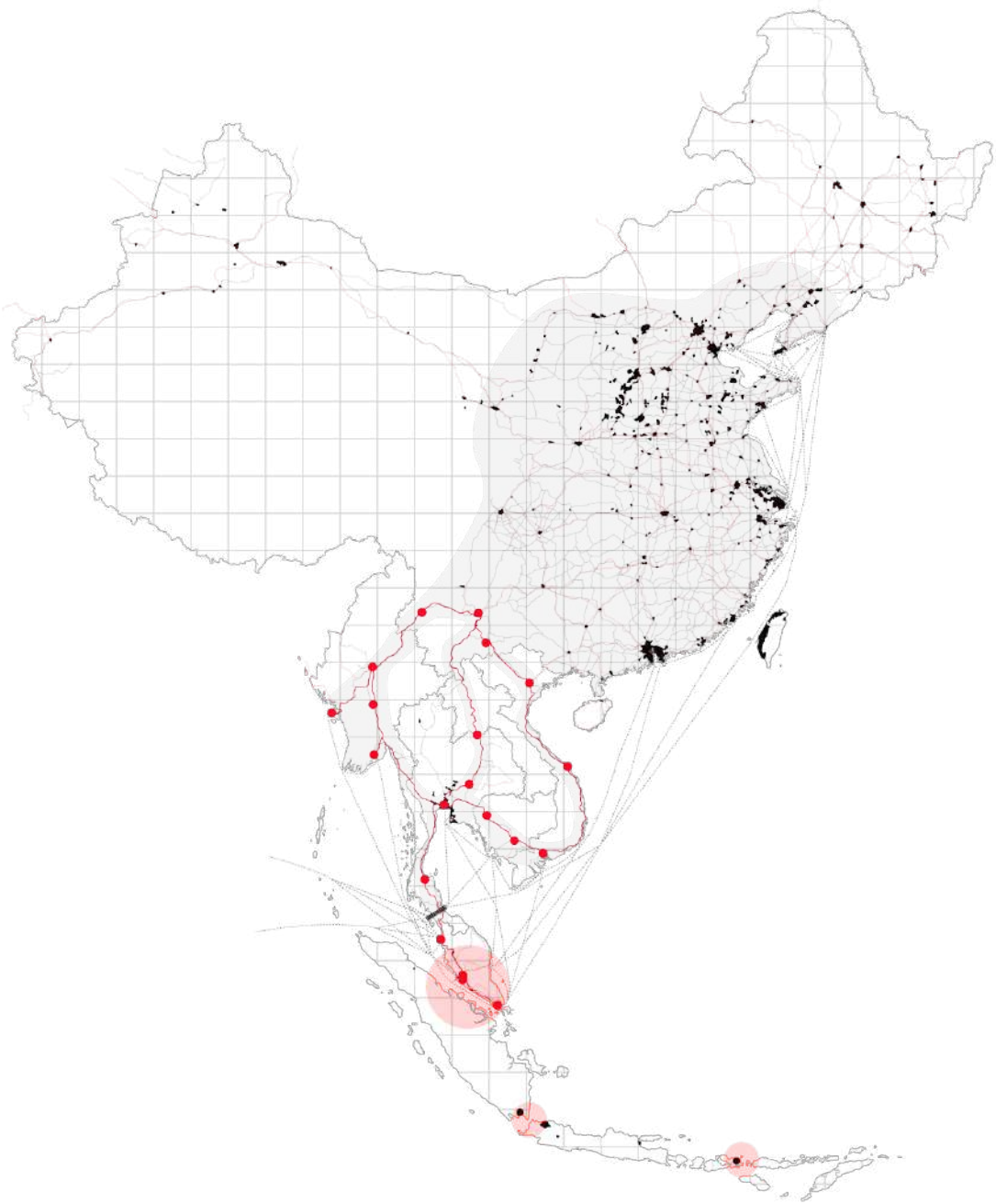
Bangladesh-China-India-Myanmar Economic Corridor
Source: WB



The first meeting of the BCIMEC study group took place in December 2013 in Kunming to sign a joint study plan, and establish cooperation mechanisms between the four governments. The countries signed exchange and cooperation agreements in a number of key areas, such as connectivity, energy, investment and financing, facilitation of trade and investment in goods and services, development and cultural and people-to-people exchanges.

It will benefits to the four countries directly involved, and spur growth in South, Southeast and East Asia as well. In 2015, Modi, the Indian Prime Minister, during a visit to China, signed agreements worth 22 billion USD concerning telecoms, steel, solar energy and film (china.org.cn; Woodward, Philips, 2021).

China-Indochina Peninsula Economic Corridor
Source: WB



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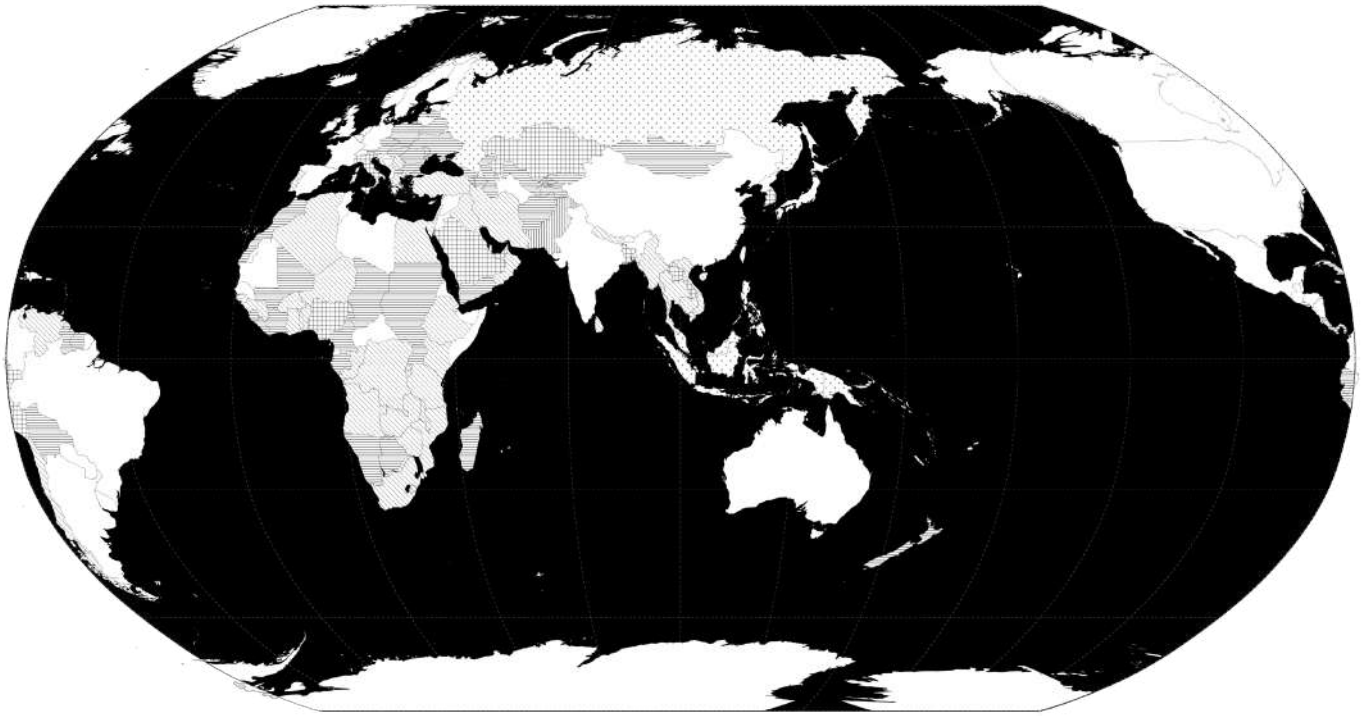
Special Economic Zones

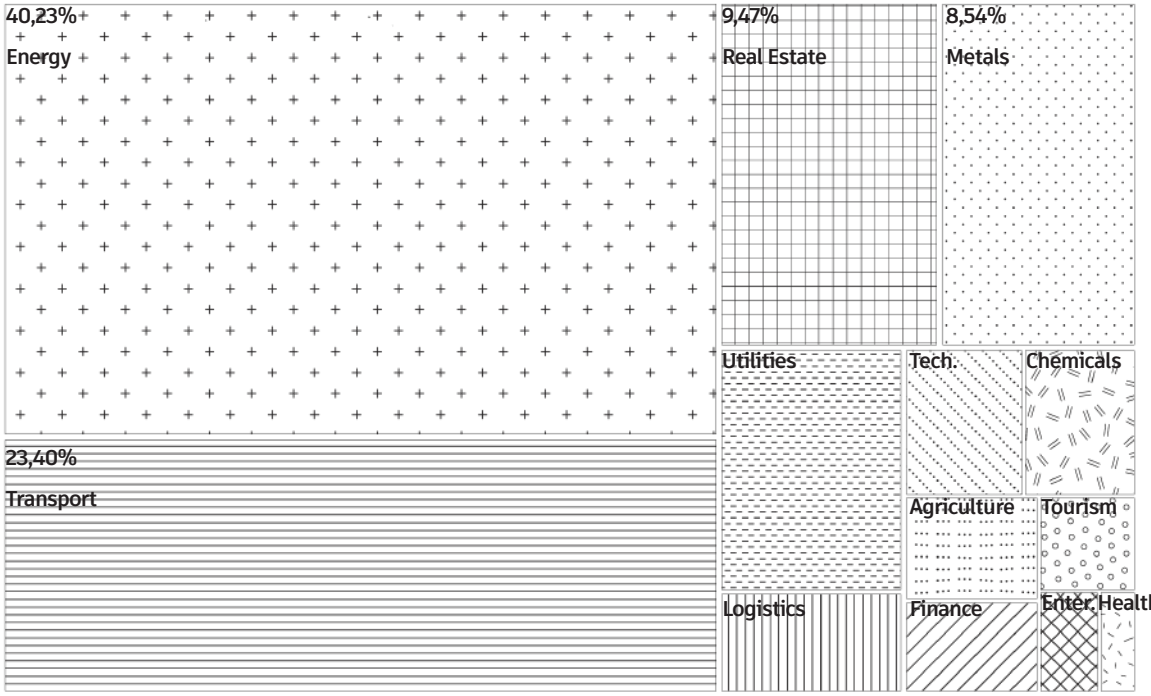
Other components of this mega project are the Special Economic Zones (SEZ), generally defined as geographically delimited areas that offer incentives and advantages to companies within the zone, such as reduced import taxes and simplified customs procedures compared to the rest of the country (Cambridge Business English Dictionary; World Bank Group, 2008). These districts or cities are designed to attract foreign direct investment, develop and diversify exports and concentrate them into specific industry clusters. They are «both local anchors and global nodes» (Khanna, 2016), through which governments aim to, in order to improve the competitive,ness of industry while maintaining protective barriers that divide them from the rest of the country, create jobs and test new policies and approaches, as well as bring some areas closer to the global market.
SEZs can be differentiated, depending on the extent and management of the areas: Export processing zones, Enterprise zones, Freeports, Single factory EPZs, Specialised zones, Free Trade Zones (FTZs). The FTZs are the most prevalent of the BIS projects and are enclosed, duty-free areas that provide warehouses, depots and distribution facilities for trade, transhipment and re-export operations (World Bank Group, 2008). China is the most successful country in developing SEZs to attract capital and is seeking to make its experience available to other territories that want to develop them (Barone, Potters, 2020).

Governance

Compared to other global initiatives, the Silk Road Economic Belt and the 21st-Century Maritime Silk Road does not have a defined organisation or established governance principles to date. It appears that a Leading Group Advancing the Development of One Belt One Road was announced in 2014, but no information on it can be found (Green BRI Center, 2020).
A number of major multilateral, bilateral and national actors have been identified in order to provide an overview, albeit not complete (Devonshire-Ellis, 2019). First and foremost, Chinese regulators can be named, such as the State Council that oversees all ministries and special commissions in China and sets the overall blueprint for overseas investment (ODI) from China, and the Chinese ministries: Ministry of Commerce (MOFCOM), which approves some OFDI projects; the National Development and Reform Commission (NDRC), which develops OFDI goals and policies; the Ministry of Foreign Affairs (MFA), which administers China's diplomatic relations and policies; and the Ministry of Ecology and Environment (MEE), which co-issues environmental guidelines (Green BRI Center, 2020).

Chinese investments by Country (down) and Typology (top) between 2013-2021.
Source: IIGF, based on AEI 2021.





Multilateral Financial Institutions

The World Bank - Washington DC, United States: http://www.worldbank.org/

The World Bank is an international institution with 189 member countries. Its main missions include poverty reduction and working with the WHO to improve health. It is among the largest funders of the BRI, having "commitments of about $80 billion dollars for infrastructure in Belt and Road countries, with numerous additional projects addressing infrastructure, trade, and connectivity in its project pipeline. Furthermore, the World Bank Group helps countries to address trade and connectivity issues by providing advisory services and analytics. IFC, our private sector arm, is engaged in numerous BRI countries supporting private sector engagement, and MIGA, the World Bank Group's risk insurance arm, provides guarantees for outward foreign direct investment." (WB, 2017).

The Asian Infrastructure Investment Bank - Beijing, China: https://www.aiib.org/en/index.html

AIIB was founded on 24 October 2014, with a memorandum of understanding, signed in Beijing by the finance ministers and authorized representatives of 21 prospective founding member states. The AIIB is an inter-governmental institution operating as a multilateral development bank, committed to improving infrastructure construction and connectivity among Asian countries. It has 103 members to date, of which China is the largest shareholder followed by India and Russia. Even if it is not exclusively focused in the BRI, a large part of its investments are directed there. It focuses mainly on infrastructure to "unlocks new capital, new technologies and new ways in which to address climate change and to connect Asia, and the world" (AIIB, 2021).

The Asian Development Bank - Manila, Philippines: https://www.adb.org/

The ADB is funded in 1966, it is owned by 68 members, dei quali 49 from the asian region. The largest shareholders are Japan, United States, China and India. The ADB focuses on investment in the emerging economies in Asia, and has subsequently become involved in Belt and Road projects. Oltre ai finanziamenti,"The Government of the People's Republic of China (PRC) requested policy and advisory technical assistance (TA) from the Asian Development Bank (ADB) to support the PRC's initiative on Silk Road Economic Belt and the 21st Century Maritime Silk Road" (ADB 2016)

The China, Central and Eastern Europe Investment Fund -Luxembourg: http://china-ceefund.com/

The inauguration was announced in 2013 by the premier Li Keqiang, during the second China-CEEC Summit. The Fund, incorporated in Luxemburg, is sponsored by The Export-Import Bank of China and Hungarian Export-Import Bank. It invests mostly in innovation, high-tech and green energy companies in Eastern Europe., such as a wind farms in Poland, solar power plant in the Czech Republic, and electric and hybrid auto in Bulgaria.

The Eurasian Development Bank - Almaty, Kazakhstan: https://eabr.org/en/

The EDB is a regional development bank founded in 2006 by Russia and Kazakhstan, composed by six member states located in both Asia and Europe. Projects have largely been focused on infrastructure related to the expansion of trade, the development of market economies, and the expansion of other economic ties in its member states. In a conference Dmitry Pankin, ex president at EDB, emphasised that physical links between the EAEU member countries and China should be expanded significantly to unlock the potential of internal regions. He added that the Silk Road project was not only about transcontinental transit, but aimed,

in the first place, to expand inter-regional ties on the Eurasian continent (EDB, 2017).

Chinese Financial Institutions

China Development Bank - Beijing, China: http://www.cdb.com.cn/English/

CBD was founded in 1994, and is a policy financial institution under the direct leadership of the State Council of China to support medium and long-term development of China's national economy, and is consequently a major driver in the Silk Road Initiative, and the second-biggest bond issuer in China.

The Silk Road Fund - Beijing, China: http://www.silkroadfund.com.cn/

The SRF is a Chinese state owed fund, established in 2014. It contains investment from the State Administration of Foreign Exchange, China Investment Corp. and Exim Bank. The fund was deigned to promote more than BRI projects and support trade and economic cooperation and connectivity under the initiative.

Import-Export Bank of China - Beijing, China: http://english.eximbank.gov.cn/en/

The Exim Bank is a state-funded and state-owed policy bank, targeted to implement the "Going Global" Chinese policy in industry, foreign trade, diplomacy, the economy, and support Chinese products and services. Given its role for China, it is a major player in financing the OBOR. In 2019 The Bank signed the MOU for the promotion of the 2030 Agenda for Sustainable Development through the Belt and Road Initiative for bridging the digital divide with the International Telecommunication Union (fmprc, 2019).

China's State Owned Commercial Banks

The National Banks are getting increasingly involved in The Silk Road financing as they are tied to China's largest state owned enterprises, and provide much of the financing to them. «It is significant to note that 52 percent of China's total overseas construction projects came from B&R projects and involved China's SOE's. China's big four banks provided much of the financing» (Devonshire-Ellis, 2019).

Industrial & Commercial Bank of China - Beijing, China: http://www.icbc-ltd.com/ICBCLtd/en/

The ICBC is the largest bank in the world by total assets and the most valuable bank in the world by market capitalization. It aims of strengthening financial support to Chinese corporations' "Going Global" and the Belt and Road initiative. To optimize its overseas operation network, the Bank has also established relationships with over 1,800 overseas banking institutions covering 95% countries and regions which invest in or trade with China. To 2015 ICBC has built a global operation and service network in coordination with the One Belt, One Road national strategy in terms of country and region coverage. At the end of 2014, the Bank pledged financial support of up to 10,9 billion USD to 73 overseas projects along the Belt and Road network (Devonshire-Ellis, 2019).

Bank of China - Beijing, China: http://www.boc.cn/en/index.html

The Bank is the 5th largest bank in the world by market capitalization value and the second largest lender in China. «It will make a greater contribution to realise the Chinese Dream of national rejuvenation and the aspirations of the people to live a better life» (BOC) . The People's Bank of China and the European Bank for Reconstruction and Development signed the MOU on strengthening investment and financing cooperation in third-party markets (fmprc, 2019).

Literature Survey

The political discourse pursued by President Xi Jinping includes many slogans that hark back to Hu Jintao, an eminent figure in the Chinese tradition also echoed by presidents before him, who professed a peaceful rise of China, a win-win approach, the need for greater connectivity, and mutual understanding in managing foreign relations. Despite these references to the past, unlike his predecessors who pushed for "keeping a low profile" (韬光养晦 *taoguang yanghui*), Xi Jinping has led China towards a more proactive role in international relations (Stec, 2018).

It is against this national backdrop that President Xi proposed the Belt and Road Initiative in 2013, in which each country is involved to act for the welfare of all humanity. However, it is difficult to go beyond the extensive use of slogans and declarations of intent to identify clear objectives, methods and funding. The most detailed document that has so far been published by the Chinese government is that of the Boao Forum of 28 March 2015, concerning the Vision and Action on the Joint Construction of the Silk Road Economic Belt and the Maritime Silk Road of the 21st Century[1] (Zhao, 2016). The document places the OBOR initiative among China's national strategies and places it alongside existing cooperation mechanisms[2] but presents no information about the structure of the BRI, the countries involved, maps to identify projects or routes, and financial commitments.

The ambiguity of the initiative due to the lack of official documents is emphasised by the careful choice of terms, granted or not, in particular Beijing's explicit refusal to define the New Silk Road as a strategy. On 23 September 2015, three Chinese ministers jointly issued a statement on standardising the English translation of the Belt and Road, discouraging the use of the terms strategy, project, programme or agenda, in favour of initiative (Zhao, 2016).

This general ambiguity opens up an international debate that includes not only official national and international sources, but also leaves room for the more personal interpretations of mass media and individuals, increasing the nebulousness that the initiative creates in itself and opening up avenues for the most disparate opinions ranging from the idea of the Silk Road as a new idea of colonialism without weapons to that which sees it as the application of Chinese wisdom to benefit countries outside China and integrate them into Chinese domestic politics (Greer, 2018).

The aim of this paper is therefore not to try to provide an explanation of what the phenomenon might be, as it is impossible to provide all-encompassing answers, but at least to provide an overview, albeit not exhaustive, of what seems to be the major international interpretations of the phenomenon. The clustering work proposed here is based on the study of at least 200 sources, mainly available online, given the impossibility of travelling and finding material due to the health emergency. Of these, it seems possible to identify three main categories: the first category investigates the idea of the BRI itself, where it comes from, what relationship it has with the ancient Silk Road and whether or not it can be considered as a pure interpretation or as an innovative project; the second

1 Issued jointly by the National Development and Reform Commission (NDRC), the Ministry of Foreign Affairs and the Ministry of Commerce with the permission of the State Council (Zhao 2016)

2 China-Arab States Cooperation Forum, Shanghai Cooperation Organisation, ASEAN plus China, Asia-Pacific Economic Cooperation (APEC), Asia-Europe Meeting (ASEM), Asia Cooperation Dialogue (ACD), China-Gulf Cooperation Council Strategic Dialogue (Shichor 2018).

focuses on the risks and opportunities that an initiative of this size brings with it, both in relation to the current global order and in its relationship with countries with developing economies; Finally, the last one revolves around the idea that the Silk Road may be a socio-economic project and therefore not related to space, or that on the contrary it is a mainly infrastructural project, and what repercussions it may have on society and the environment.

The conception of the ambiguity of the initiative seems to be common to all three categories identified, but nevertheless leaves room for debate as to why this ambiguity exists. Despite the Chinese guidelines, the term strategy is actually widely used in the international media (Clarke, 2017; EB; Tripathi, 2017; de Swielande, Vandamme, 2020). According to Xie Tao (2015), professor and dean of the School of International Relations and Diplomacy at Beijing Foreign Studies University, «倡议 [initiative] simply means a call for action, usually in the name of a public good. It is a unilateral move that requires willing cooperation from others who also have stakes in the provision of the public good. One example is that the city of Beijing has repeatedly called on its residents to use public transportation so as to reduce air pollution, but few residents have answered the city government's call. Because an initiative relies on voluntary participation (as opposed to intimidation or inducement), it faces the collective action problem. Moreover, voluntary participation makes an initiative a loose association of interested parties who can join or quit at any time. By contrast, a strategy is a deliberate plan of actions that aim to achieve specific goals, and these goals are usually exclusive, such as security or free trade, as opposed to public goods, which are inclusive ». The Silk Road can be seen as a narrative: a vision that China offers to participants who are free to make it their own (Frankopan, 2018).

The term initiative implies according to Shichor (2018), in a more negative sense, a vague substance and a limited commitment that is limited to the slogan, a masterpiece of political advertising (Hillman, 2016), is a marketing tool to promote China worldwide (Eberle et al., 2019), leaving many countries full of expectations and just as many disappointments. According to some, announcing the intention to carry out a project would be enough to achieve the objectives of the initiative (IM, 2021). The Silk Road would therefore be more of a political vision and propaganda tool focused on public relations than a practical funding plan (Nye, 2020).
In this sense, ambiguity is perceived as a strategic tool of Chinese foreign policy, in order to foster support for the initiative given the potential gain from participating, without actually take some commitments. Moreover, the lack of clarity about the BRI allows China to adapt the initiative according to changing global circumstances: since the purpose of the BRI is unclear, it gives a degree of freedom to regulate what terms and conditions participants must meet for the initiative to succeed and to spontaneously adapt project management. But ambiguity also leads to problems in the long term, as wider participation and more stable development require a common agreement on shared objectives.
Moreover, some potential participants are reluctant to join the BRI due to the lack of clarity about its purpose, generating and fuelling criticism of the initiative (Braga and Sangar, 2020). One can also find in the debate the view that China's Belt and Road Initiative is Neither a Strategy, Nor a Vision. It is a Process (Stec, 2018). By this is meant that the interpretation of the BRI as China's new geopolitical and economic strategy is as incorrect as that which sees it as a vision for a new wave of globalisation, which can be defined without the historical baggage that the term possesses - a new development strategy for the world. «In fact, the initiative has

been constantly on the move since it was introduced - something that can also be seen in its name, which changes regularly. Because of the nature of Chinese foreign policy, we should see BRI as a process rather than a defined strategy or clear vision. BRI progresses through an evolutionary process » (Stec, 2018).

A Project or an Interpretation?

Terminologically, another debate opens up over the choice of using the ancient "Silk Road"[3] as the title of the initiative. In Vision and Action, the connection between the two lies in the Silk Road Spirit, which for more than four thousand years has called for «peace and cooperation, openness and inclusiveness, mutual learning and mutual benefit» (VA, 2015). This spirit has been passed down from era to era, promoting the progress of humanity and contributing to the prosperity and development of the countries along the Silk Road. «Symbolising communication and cooperation between East and West, the spirit of the Silk Road is a historical and cultural heritage shared by all the countries of the world. In the 21st century, a new era marked by the theme of peace, development, cooperation and mutual benefit, it is all the more important for us to carry forward the spirit of the Silk Road in the face of the weak recovery of the global economy and complex international and regional situations (National Development and Reform Commission). Without the old Way, the new one (and, along with it, the new globality and globalisation of 'silk') would be difficult to conceptualise and largely incomprehensible» (Nobis, 2017).

According to this view, the New Silk Road only becomes meaningful if the connections between different geographical locations are studied together with the links between the past and the present (Nobis, 2017), making the BRI at the same time an invention and a rediscovery (Bertozzi, 2019): it integrates the historical symbolism of the ancient Silk Road, which recalls the images of caravans and ancient civilisations, of Marco Polo and Father Matteo Ricci (Mauri, 2019) with the new requirements of today (Office of the Leading Group for the Belt and Road Initiative 2017). "Today, in the face of ongoing global transformations, retracing that long history is increasingly necessary to know the world and to rediscover a part of our roots" (Cardini, Vanoli, 2017).

A second interpretation of the phenomenon starts from the assumption that the ancient Silk Road did not exist as a route and was not related to silk more than to other products, but was rather an unplanned outcome of trade activities between China and other countries, which was subsequently assigned a romantic idea of the Orient[4] (Cardini, Vanoli, 2017; Amighini, 2017). The more radical Adam Nobis (2018) speaks of the BRI as a double utopia, as being a project for the future does not yet exist and takes up a past that also does not exist.

The resurgence of trade links that once connected Africa, Arabia, Persia, India, China and Southeast Asia can in fact be seen as a consequence of a new evolution of globalisation that began thousands of years ago with the ancient Silk Road and the expansion of connections by empires as a form of domination (Khanna, 2016). According to this view, the Silk Road would therefore not be considered as a strictly Chinese initiative but as a broader process of globalisation that equally involutes all countries involved, and that will exert a significant influence on the way cities will develop over the course of the century. Considering that

3 See Appendix III: Positions

4 See Appendix III: Positions

the transcontinental trade established by the ancient Silk Road led to the rise of cities such as Herat and Samarkand in the past, the BRI will bring new investment, technology, infrastructure and trade relations to some cities around the world, making them prosper (Silver, Wiig, 2019).
A final interpretation conceives of the OBOR as the resumption of the ancient but as an energy corridor rather than a route, leading to repercussions on the resumption of economic development in historic cities, the formation of new energy boom cities such as Baku in Azerbaijan and Otar in Kazakhstan, whose wealth of natural resources fuelled investment in real estate development (Xiaoxuan, 2012).

Despite its ambiguity, OBOR has indeed been widely applauded not only in China but in many foreign countries, giving it a vision of shared growth and prosperity in five priority areas: policy coordination, enhanced connections, barrier-free trade, financial integration, and cultural exchange (Ren, 2020). The BRI has so far found favour especially among Asian and African countries, who expect, unlike the legacy of colonialism, which brought some level of economic development and investment in infrastructure, mainly to facilitate political control and military presence, to enjoy economic benefits without political and military involvement (He Jingtong in Zhong, 2017; Shichor, 2018).
In comparison, Western Europe, Japan, Russia and the United States may perceive the BRI as a potential challenge to their economic, political or geostrategic interests (Shichor 2018): the US Defense Secretary James Mattis proclaimed at a congressional hearing, «In a globalized world, there are many belts and many roads, and no one nation should put itself into a position of dictating One Belt, One Road» (Mattis in Shepard, 2017).

Risks and Opportunities: International Order and Tiānxià

The Silk Road encompasses not only the countries of the "old one", but also other regions, continents and even the entire world, implying according to many scholars a new global order opposed to the traditional unipolar one led by the United States. «Nake Kamrany observes that a new international economic and political order is emerging in conjunction with the New Way. Sebastien Peyrouse writes explicitly about the new world order. Pepe Escobar and Peimin Ni announce the arrival of the Silk New World Order and the Silk Road New World Order, respectively, while Afshin Molavi argues that the New Silk Road is fundamentally transforming our world» (Nobis, 2017).
These are not just separate voices but there is in fact a concentration of concerted debate on the topic, and it addresses not only OBOR and a new world order, but also a new model of globalisation that it is supposed to usher in (Liu, Dunford, 2016). OBOR, unlike traditional models of regional economic cooperation, such as the FTA, TPP and RCEP, does not take trade and investment concessions as a priority but can be seen as the largest infrastructure initiative in world history (Khanna, 2016). Emphasising infrastructural connectivity, reducing trade costs (Iain, Pantucci in Eberle et al. 2019; Zhao, 2016), and eliminating bottlenecks (Zimmerman, Herrero, Xu in Kaplan, 2018) could effectively realise China's ambition to drive Asian economic growth and reshape the regional growth mechanism rather than a grand strategy to build a "China-dominated Asia", or a grand strategy for the great rejuvenation of the Chinese nation. The Silk Road becomes a means of sharing Chinese development and prosperity with parts of the developing world and has the aspiration of making the global order responsive to the needs of the global

south (Hodzi, Yu-Wen, 2017).

Beijing's position in this regard sees the BRI as a vision of harmony, peace, and prosperity, and not a geopolitical and diplomatic offensive, a geopolitical conspiracy, or a scheme to change the existing international order. As reiterated in official speeches, China claims to have benefited from the global order and its economic framework, and therefore has no intention of overthrowing the current world system that it has fully participated in building, but hopes to reform the current system to make the world fairer, more harmonious, and more secure.
Chinese Vice Foreign Minister Zhang Yesui (2015), states at the China Development Forum on 21 March 2015 that the PRC «advocate for maintaining the international order after World War II with the United Nations as its core, and at the same time reforming the current international order according to the development of situations, so as to promote democratization of international relations and juridification of international governance, safeguard legitimate rights and interests of developing countries, and promote the establishment of a new type of international relations centering on win-win cooperation» (Zhang, 2015).
Huang Yiping speaks of China as a multi-polar superpower (一元多极) to describe China's new economic diplomacy, which accepts the leadership of the United States, but also encourages multiple stakeholders to participate in the governance of the global economy. His position is that «China should avoid direct conflict with the United States, avoid exporting the Chinese model, avoid trying to rebuild the international economic system» (Zhao, 2016).

Despite PRC declarations, some scholars see the Silk Road, as the beginning of a path to a new world order, a process of redistribution and devolution of power (Bandurski 2018). From this perspective it is not the cause but the expression of the new global order, dominated by supply chains and no longer by the West (Khanna 2016). The Silk Road is a proactive response to the increasing complexity in the world that has the potential to become an alternative of how international politics will be organised in the future where new mechanisms of cooperation will be created (Hedzi, -).
The American political scientist Francis Fukuyama (1989) characterised the Cold War as the clash between two ideologies to determine the direction of human evolution in the course of modernity. The victory of the West represented the "end of history", the end point of human ideological evolution and the universalisation of Western liberal democracy as the final form of government. Fukuyama's image of a cultural world order encompasses different cultures, but sees humanity as a whole in a single civilising process of development and modernisation (O'Hagan, 2002). The various crises of recent years (Greece, Russia/Ukraine, ISIS, migration processes) have brought to the fore the fragility of democracy and the increasing importance of international policies in dealing with disasters, which have changed from extraordinary to ordinary events, opening the door to new worldviews (Godehardt 2016). It seems that the world is becoming multi-polarised in the sense that there are many countries, which were previously among the objects of domination and are now subjects, competing in being leaders (horizontal complexity of the world), first among them China. The Chinese One Belt One Road project proposes itself as an alternative to the dominant Western vision of international organisation and seems to want to build a culturally, economically and politically inclusive network to promote the connection and cooperation of all countries interested in being part of it, entering a new historical phase of economic globalism without political universalism (Prodi in Bertozzi, 2019).

Peimin Ni (2016), the founder of the Association of Chinese Philosophers in America, sees the new global order as horizontal rather than vertical, unlike the old model which is structured on the basis of economic and military power, with those with the most power at the top of the pyramid and based on integration and cooperation so that all countries can benefit.
In contrast to this optimistic view of the Silk Road we find a more concerned one from those who see the programme of building a community with shared destiny proposed by Xi Jinping as a cover for the project of realising Mackinder's vision of a united and unchallenged Eurasian continent to achieve Chinese world domination in Asia (Clarke 2016; Hartcher). The instruments of swap-power and soft-power give the OBOR the power to shape and determine the structures of global economic policy involving other states without giving the impression of being a threatening project (Strange in Hodzi, Chen, 2017). The Silk Road is the nightmare of the United States; a united Eurasian continent led by authoritarian state capitalism (Clarke, 201; Nye, 2019), which threatens the US as a global leader. Some scholars predict that the Silk Road may lead to a 'suicide' of the European and US powers, driven by the Thucydides trap. This occurs when the distance between a rapidly expanding power and the dominant one is shortened, shaking their apprehensions because they see the status quo of power distribution challenged (Allison in Garruccio 2018, Allison in Eberle et al., 2019).
There are also fears in Europe that the Silk Road could represent a crumbling of the EU in favour of action by individual countries, or a push by the EU against mechanisms such as the CEEC forum or '16+1'. A focus only on specific elements of OBOR further conceals that most of these projects, mechanisms and funds are part of a global network vision with a potential global reach (Godehardt, 2016).
On the contrary, others rule out, based on Chinese statements, the idea of Thucydides' trap, because the BRI rejects the perspective of a 'zero-sum game', on the contrary it proposes itself as a win-win solution for all participating countries (Garruccio, 2018). Indeed, it envisages Chinese integration of its own development strategies with those of partner countries, to generate new synergies, to involve the European Union in avoiding that a multilateral world is followed by a bipolar one, to govern the risk of potential conflict and to offer a geopolitical alternative to the pivotal position of the US in the Pacific (Feng, 2014). From this point of view, the Silk Road is also an opportunity for the US: American companies have the chance to benefit from Bri's investments, and act as a balancing figure to encourage the Chinese to become responsible stakeholders (Nye, Zoellick in Nye, 2019).

The Silk Road is based on the principle of non-interference in sovereign affairs and refraining from imposing conditions such as fiscal austerity or transparency, as Westerners do instead (Kaplan in Bertozzi, 2019), but China's intentions through the Silk Road still creates a great debate. It is possible to uderlyne three major point of views: the first sees the Silk Road as a new form of colonialism, but by Chinese means, not by conquering territories but by buying them - "active passivity" or "passive activism" (Shichor, 2018); the second denies the possibility of China having a colonial pproach; the last sees the Silk Road as a revival of the traditional Chinese concept of Tiānxià.
The former conceive of the BRI as a Trojan horse for China's debt-trap diplomacy (Solih in Feng, Liang 2018; Braga, Sangar 2020) with the strategic use of debt to hold several states captive and subservient (Bolton, -) and the use of soft power, according to the teachings of Sun Tuo, who in his book "The Art of War" theorised victory without combat (Mauri 2020) and sharp power, the ability to manipulate

opinions abroad (Bertozzi 2019).
China, through the Silk Road creates a system of highly accessible loans, creating dependency and as projects are chosen based on their long-term strategic value, they can produce insufficient short-term returns that do not allow countries to repay their debts (Chellaney in Bertozzi, 2019). China's approach encourages dependency by means of ambiguous contracts, predatory lending and corrupt deals that plunge nations into debt (Tillerson; Garruccio), financing unnecessary, hugely expensive buildings, roads to nowhere and construction projects that aim to build something just for the sake of it: 'we don't want to build a road that goes nowhere...we want to make sure that the infrastructure you build is actually productive and actually gives some economic benefit or some sort of health benefit' (Fierravanti-Wells in Frankopan, 2018).
Increasing the debt to GDP would put at least eight countries in a high-risk position (Ruta, 2018), which, being unable to repay their debts, could lose part of their territory over a period of time, as Britain did in Hong Kong (Millward). Among the proponents of these views one can identify the Prime Minister of Malaysia, Mohamad Mahathir, who cancelled $23 billion of investments to avoid finding himself in the same position as Sri Lanka, which had to give up the port of Hambantota for 99 years (Mahathir in Eberle et al., 2019).

He Jingtong, professor of economics at Nankai University in Tianjin, is a leading exponent of the second position: «China has been deliberately accused by some foreign media of practising neo-colonialism in some countries, exploiting energy resources and other minerals and supporting authoritarian regimes. [...] I don't think any of this holds water. If you look at history, tell me when China has been a colonial power? If it wasn't in the past, why should it be now?» (Jingtong in Zhong, 2017). Parag Khanna (2016) also believes that China has no intention to colonise anywhere as it does not "need more mouths to feed", but to facilitate passage through countries to secure the energy resources it needs for the country's livelihood (Khanna, 2016).
China uses a rhetoric that appeals to a trend of global democracy despite not being a democratic country. We find in particular two expressions used by Xi Jinping in this regard: *Mingyun gongtongti*, "community as a common destiny" and *Hezuogongyin*, "cooperation and co-prosperity" (Godehardt, 2016). Peimin Ni (2016) argues that China's real strength lies not in economic and military growth, which would make it a strong rival to the United States, but in the reappropriation of Confucian philosophy and the best parts of the communist ideal. The Silk Road is about going against the world to unite it (Levenson in Wang, 2018).
The roots of this global worldview is not new, but it goes back to an ancient concept in Chinese culture: the Tiānxià[5] (天下), literally translated as "all under one sky" is defined by John J. Fairbank as the core of the Chinese concept of political order (Godehardt, 2016) through which the narrow ideals of a typical nation-state can be overcome to become the force that will lead the world towards a peaceful

5 During the Zhou dynasty (1000 BC-771 BC) the concept of Zhongguo (lit. 'middle kingdom', i.e. China) and Tiānxià (lit. 'all under one sky') emerged, indicating the Chinese world in an extended sense (Edward Wand). During Confucianism, the idea of Tianxia was enriched with a moral and political meaning that did not admit any territorial limits. Idealistically, if the emperor is the Tianzi, or the "son of Heaven", he rules over a territory that is the world and has China as its centre, "If the emperor strays from the path of virtue, Tianxia would fall into chaos. Even natural disasters could mean that disharmony is invading the universe. The present dynasty would then lose its mandate from Heaven by which it reigns: rebellions would have reason to exist to benefit a new dynasty and restore the Great Harmony of the universe" (Kissinger, 2011).

global order that transcends races and geographical boundaries (Peimin, 2016).
The Chinese understanding of hierarchy stands for a specific distribution of power between Chaogong Tixi i.e. tributary states, periphery of China, with which it has a bilateral relationship was based on an exchange of mutual payments, and China, which guaranteed help in times of crisis (Godehardt, 2016). The one world is therefore based on attracting countries through the offer of benefits rather than coercion, which creates a greater chance of maintaining peace than the use of force because it is based on consensus. According to the principle of harmony, the principle of live-if-live and improve-if-improve applies, according to which being all connected if you allow others to live and progress, you will live and progress (Godehardt, 2016).
The Silk Road Initiative is in some cases seen as an excellent application of these principles to create an Afro-Eurasian continent in which countries can benefit from China's help to develop and then allow others to develop accordingly. Xi Jinping in a 2014 speech in Germany particularly emphasises the importance of international cooperation and the inevitable decline of the unipolarity of the world organisation in favour of a multipolar one in order to maintain peace and prosperity: «the path of peaceful development is conducive to China and to the world» (Dai, 2010).
However, Sarvari (2017) analyses, one must avoid seeing the Chinese initiative as a charitable action: China would reap incredible personal benefits from its engagement in the region, namely personal enrichment in the short term and the growth of its geopolitical influence in the long term, as well as creating a de facto economic-political dependence that slides towards a relationship reminiscent of the ancient tributary system (Wang, 2018; Blah, Simth in Eberle et al., 2019).

Spatial and Non-Spatial Silk Road

From a more purely physical point of view, the Belt and Road Initiative is defined by the Council of foreign relations of China as a vast plan to use Chinese assistance to finance infrastructure and strengthen ties with other countries, fulfilling the Xi administration's dream of returning China to its former glory. The manifestations that BRI can have can be more or less concrete: bridges, ports, schools, factories, immigration, pollution, changing livelihood opportunities or financial flows.
At the global level, BRI allows for the reframing of the narrative about China's rise, which had begun to raise growing concerns in its neighbourhood over the last decade, and at the domestic level for the shifting of firms' capabilities abroad (Das in Eberle et al., 2019), allowing the outlet for many products now over-supplied, including steel, aluminium, cement (Congiu in Garruccio, 2018; Musu in Bertozzi, 2019; Mauri, 2020).
The Silk Road is the application to the world of the Chinese strategy, already used at national level, which is based on the ancient saying 'if you want development, build a road'. The Chinese experience shows that investment in infrastructure paves the way for large-scale social economic development and poverty reduction as a natural consequence (Jin in Kynge, 2016). Thus, a system could be created to connect Chinese and foreign companies to pursue national interests "quietly" and maximising returns for their companies by employing Chinese workers and technicians, promoting made-in-China products and using soft power and economic influence in target countries (CSCC, 2018; Mauri, 2020).
BRI can be a means of attracting investment, technology and know-how; a means of exerting pressure on other trading partners; or even a means of signalling distance from the Chinese state (Herrero, Xu, 2019; Damuri et al, 2019; Pant, Passi,

2017); the largest existing project to maximise urban economic growth potential, invest in suburban supply chains and transport: in particular, roads, railways, ports and other transport systems will be built to connect major cities in Asia with those in the Middle East and Europe (Belman in One Brief, -).
If the Silk Road is successful, it will benefit three categories of producers: producers of high quality goods (e.g. cars, pharmaceuticals, food) from the developed world such as Western European countries (e.g. Germany, Switzerland and France) and Asian countries (e.g. Japan and Singapore); producers of cheap raw materials from neighbouring countries such as Indonesia and Malaysia (in the mining and energy sector), Russia (in the energy sector) and Australia (in the mining sector) will be the second beneficiary group; strategic and economic manufacturing producers. With rising labour costs in China, companies are likely to outsource part of their low-tech and labour-intensive manufacturing industries to low-cost markets such as South Asian markets (e.g. Pakistan, Bangladesh, Sri Lanka) and ASEAN countries such as Cambodia, Myanmar, Laos and Vietnam (Islam and Subran in Kaplan, 2018).
The most popular view in the European media sees BRI as a whole as the Chinese Marshall Plan, by George Marshall in 1947 and aimed at European reconstruction between 1948 and 1951, precisely because it aims to build roads, ports, schools, railways, power plants and electricity grids (Tiezzi, 2014; Curran, 2016). Xu Shanda had already launched the idea of a Chinese Marshall Plan in 2009 to respond to domestic needs through a massive plan of investments abroad (Tiezzi 2014; Curran in Garruccio, 2018; Bertozzi, 2019). Through the construction of infrastructures and logistic centres it is possible to eliminate bottlenecks, bottlenecks for cross-border trade, a primary barrier to economic integration and free trade, improving Eurasian connectivity (Herrero, Xu in Kaplan, 2018).

Considering in any case the BRI as an infrastructural project, there is a line of thought opposing this comparison with the Marshall Plan: first of all because it had a limited geographical scope of only 18 countries, a well-defined system of rules and an ad hoc governmental authority created to monitor its development (Garruccio 2018; Bertozzi, 2019). The Marshall Plan was also politically oriented in the Europe,an context to break up all sorts of opposition groups and was eager to fight against communism, while the BRI has no such political aim and is much more focused on opening up relations with other cultures, politically and economically, without requiring them to conform to Chinese rules and methods (Peck, 2015). Finally, BRI is different from the Marshall Plan because the latter wanted a strong Europe in an anti-Soviet function, whereas BRI is launched as an inclusive platform, directed at achieving multiple physical and digital connectivity with a transport, energy and communication network by land and sea (Garruccio, 2018), heralding the transformation of the Eurasian region into a series of medium-sized urban nodes connected by transport and energy corridors (Khanna, 2016).
Viewing the initiative as unconstrained by geography and space (Hillman, 2016), it is imagined as a financial project, offering the opportunity for internationalisation of Renminbi as an increasingly accepted means of payment (Ling in Bertozzi, 2019; Musu in Bertozzi, 2019; Subacchi et al. in Eberle et al., 2019), or as a way to avoid the middle-income trap[6], both for China itself and for the other countries involved

6 The problem of those countries that, once they have reached an average level of per capita income in the transition to a higher standard of living, find themselves stuck between poor countries and countries with mature economies, growing less than both the former and the latter (Doner and Scheider in Garruccio), because the factors on which they had relied to grow are exhausted (Zhang in Garruccio, 2018).

(Garruccio, 2018), or as an economic project, motivated by opening up new markets for Chinese goods and thus increasing demand for their products and preventing overcapacity and overproduction (Das in Eberle et al., 2019).

Regardless of whether this project is spatial or of a more purely socio-economic nature, it certainly has repercussions on society and the environment, which are more or less visible on the ground: it can facilitate the elimination of extreme poverty and hunger or accelerate it, enriching social elites; it can change cities towards environmental sustainability instead of being part of the process of their destruction; it can leverage partnerships to take on best practices, share ideas and, build networks that offer mutual benefits to areas where the united nations can offer effective assistance (Frankopan, 2018).

The opinions found on the idea that the Silk Road is a an opportunity to positively influence global welfare (Ruta, 2018) recognize China's desire to implement innovation-driven production that favours quality over quantity, respect for the environment and cultivation of talent (China Manifacturing, 2025) and narrowing economic disparities in a way that Western donors have never managed. While Western aid agencies and multilateral development banks prefer to locate their investments in the wealthier areas of host countries, China has brought benefits to poorer areas; many rural communities are disconnected from the more developed areas of the country; accessibility helps them to have better job opportunities (Custer et al., 2019).
One of China's concerns, according to Greer (CSCC, 2018), is the separatist views of residents in China's border regions, particularly Xinjiang and Tibet. Stimulating the economy and projects in the area can absorb the 12 non-Han ethnic groups in the region culturally, politically and economically. Despite China's assertion that "Xinjiang is an inseparable part of the unified, multi-ethnic Chinese nation", the area has often remained outside Chinese rule (Clarke, 2016), but the Silk Road could transform it into a "Continental Eurasian land bridge", an economic and trade corridor linking the economies of Europe and East and South Asia, making Xinjiang an effective part of Chinese territory (Clarke, 2016). dampening the Islamic Uighur terrorist tendency present in Xinjiang, which has relations with Central Asia, Afghanistan and Pakistan, modernising and bringing wealth to the area (Clarke, 2016).
Socio-economically, China focuses on the neighbouring regions of Xinjiang, Fujian, Guangxi, and Yunnan to connect with their neighbours (Godehardt, 2016), turning the vulnerability of having a border with 14 different countries into a strategic asset (Manning, Burrows in Clarke, 2016). Analysed from west to east, it is a fantastic opportunity for the Eurasian backbone to revolutionise its social, economic, cultural and innovation levels (Daqing, 2017).
The strategic importance of BRI projects has however also driven the CCP to intensify its repression of Xinjiang Uyghurs (Ma, 2019), by creating permissive conditions in world politics. There is evidence that many countries are inclined to support China at global fora because they benefit from billions of dollars in Chinese investments through BRI programmes (Cho, Turner, 2021). It can also increase corruption rather than keep it at bay, fuelling further anti-Chinese sentiments in the population and thus Eurasian political instability in clashing with countries that are politically unstable, have high levels of corruption, are not business friendly and have fragile governance (Ghiasy, Zhou in Garruccio, 2018). In reshaping global infrastructure and urban spaces, existing populations will experience displacement in ways that could reinforce existing inequalities

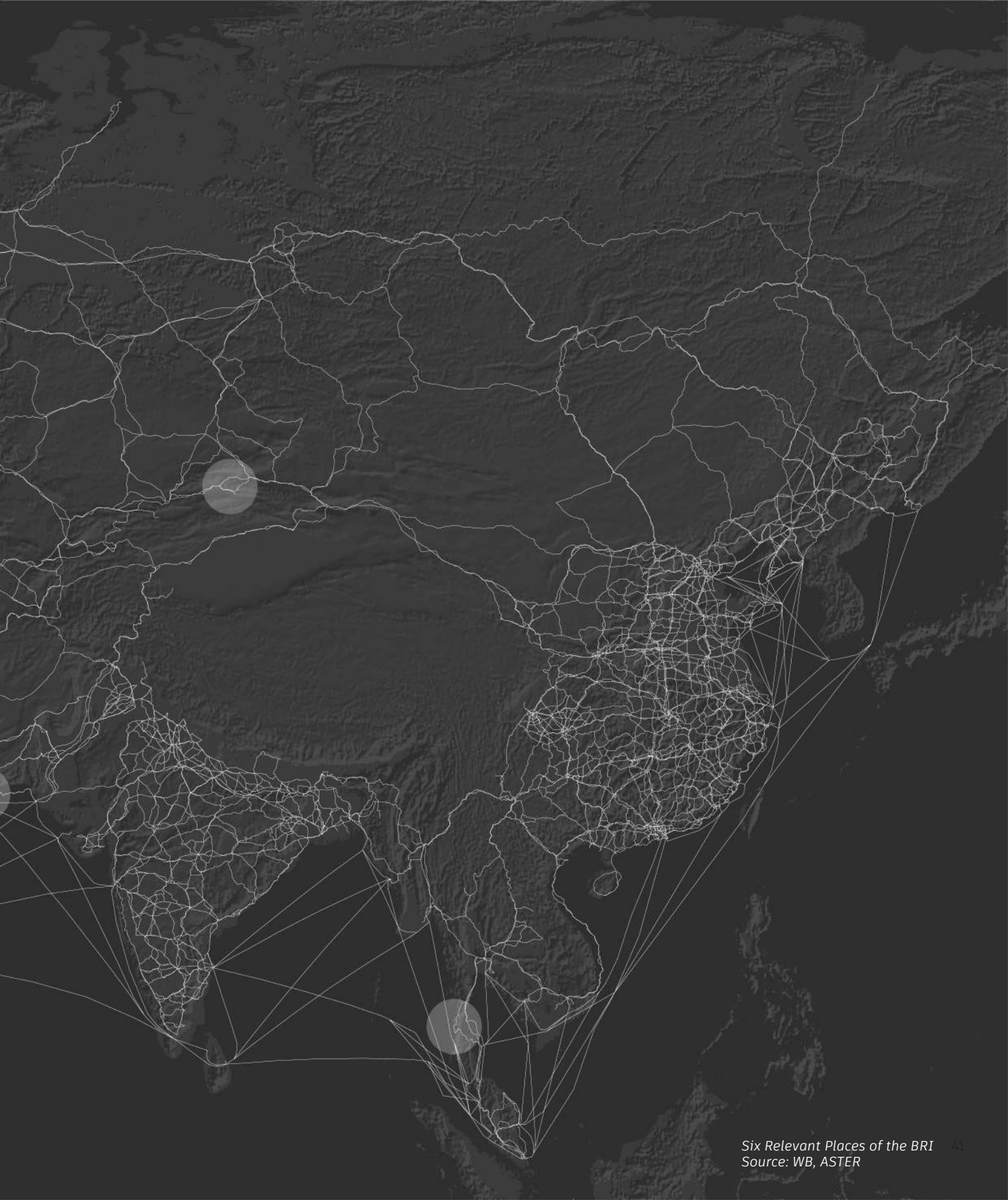
(Silver, Wiig, 2019), exacerbating for example the already asymmetric relationship between Latin American countries - as relatively small and individual commodity exporters - and China - as the sole importer of commodities (Barrios, 2018).

From an environmental perspective, the BRI could risk accelerating natural disasters and climate change, doubling droughts in Asia, deteriorating vulnerable environments, accelerating energy consumption (Peiyue et al., 2015), and running out of natural resources sooner as living standards rise in Asia.
Specifically, increasing interconnectivity in Eurasia through the initiative could mean cutting off vulnerable natural environments and ecological corridors through road and rail construction. These disruptions would threaten not only the plants and animals of the surrounding ecosystems but also the livelihoods of the people living there who are highly dependent on their local environmental resources (Teese, 2018; Ruta, 2018).
Moreover, despite China's growing domestic affinity for renewable energy, some observers fear that China will use BRI to export its fossil fuel-based economy to the developing world.
Other sources, however, see an opportunity to innovate in the way cities are designed by trying to reduce land use, reduce emissions, and integrate new infrastructure into the city (Jordana, 2010), giving China the chance to accelerate the implementation of its environmental sustainability agenda by assimilating some Western experiences (Daqing, 2017).
President Xi Jinping's concept of 'ecological civilisation' was added to the CPC in 2012 and could pave the way for China's international dominance in environmental governance. As China seeks to reposition itself in the global economic order by focusing on higher-value goods and services, high-emission manufacturing industries could migrate to developing BRI host nations. As the world's leading producer of renewable energy products, China is using the BRI as an opportunity to promote renewable energy standards in host countries and secure new markets for its products. According to the Institute for Energy Economics and Financial Analysis (IEEFA), the BRI has already helped enable the export of $8 billion worth of solar goods, which in 2017 allowed China to overtake Germany as the world's leading exporter of environmental goods and services (Teese, 2018).

CHAPTER 2

Places and Issues

Aim of this chapter is to analyse in depth six relevant places where BRI projects are taking place, chosen through a rigorous method, describing spatial changes over time and objectives through available online sources and to bring out what spatial issues they raise.



Six Relevant Places of the BRI
Source: WB, ASTER

Methodology

The Construction of an Alternative Database of Projects

The Chinese Belt and Road is a nebulous initiative, which causes a lack of communication and trust with other realities, such as the European or the American one, accustomed to development funding going through multilateral and bilateral channels (Baltensperger, Dadush, 2019).
At first the initiative, which was still very young, managed to give a comprehensive idea of itself through the official speeches of the Chinese president Xi Jinping. It was packaged in the form of a vision with continuous references to history, cultures and connections between Afro-Eurasian countries. This system enabled it to achieve the wide resonance that befitted a project of such great proportions, leading to the involvement of many countries and the drafting of almost a hundred Memoranda of Understanding, as well as thousands of new connections generated by private or state-owned companies, central or commercial banks and ad hoc bodies such as multilateral development banks and funds.
After the initial years of general exaltation, however, any doubts that might have emerged were never fully resolved; the Chinese government continued to extol its vastness and the growing number of countries joining the initiative in articles, speeches and statements. Despite this, the Belt and Road, over time, began to create a divided foreign public opinion, full of questions and perplexities[1]. The situation of general disorder left room for every study and publication to provide its own vision of the Initiative, as well as heterogeneous and unaccredited country lists and partial lists of BRI projects. Even the two "Belt and Road Forums for International Cooperation" (2017 and 2019), summits organised by the government with the aim of defining the objectives and principles of cooperation between countries and signing cooperation documents and action plans with individual nations, did not lead to the dissemination of these documents, with the exception of the eagerly awaited list of adhering countries, which in any case was only available in the original language[2]. The "Bri members" referred to by official sources seem to have as their main characteristic to be included in the list the benefit of at least one project financed by a Chinese constituent, private or otherwise (Yau, 2020), and not that of having signed a Memorandum or other type of declaration with Beijing, as one might think[3].
In addition to lacking formal accession protocols for member countries, general institutions and publicly declared KPIs (Shepard, 2020), the Belt and Road Initiative does not provide the means to accurately identify the projects included or excluded from the initiative and, consequently, the investments that have actually taken place so far.
The absence of a system of criteria to identify the projects in the Belt and Road Initiative still makes it extremely difficult to understand it fully[4]. The vacuum left

1 This is especially the case of projects concerning countries with high risk of falling into the debt trap: Djibouti, Tonga, Maldives, Rep. of Congo, Kyrgyzstan, Cambodia, Niger, Laos, Zambia, Samoa, Vanuatu and Mongolia owe the PRC at least 20% of their nominal GDP (Shepard 2020; Horn 2020)

2 Published on the official portal in April 2019, it includes 138 countries and 31 international organisations https://www.yidaiyilu.gov.cn/info/iList.jsp?tm_id=126&cat_id=10122&info_id=77298

3 See Appendix I: Bri countries and Agreements

4 A great number of companies and enterprise gave themselves a Belt and Road designation, forcing China to blacklist them in order to preserve the name and reputation of the initiative (Yau, 2020).

by the lack of an official list or, given the vastness of the activities attributable to the Belt and Road concept, at least guidelines indicating the parameters to be taken into account, has led a number of external entities to draw up databases, wishing, if not to draw up exhaustive lists, at least to give an account of the size of the project, in order to identify its patterns and logic and thus qualify it. Reed and Trubetskoy compiled a database of projects[5] for the World Bank in 2019. They state that, in addition to their own, «four other databases of Belt and Road projects exist», recognising the Reconnecting Asia[6], China Global Investment Tracker[7], MERICS Belt and Road Tracker[8] and Hong Kong Trade Development Council[9] databases as having merit for analysis.

While the World Bank document seems to be the most comprehensive of the four, from the point of view of infrastructure projects, it is scrupulously composed in order to arrive at an overly reduced list of projects. It is the only example of a database that follows a rigorous methodology in choosing parameters[10]: «given this approach, our database uses a consistent set of criteria to include projects and is comprehensive within those criteria» (Reed, Trubetskoy, 2019). Based primarily on a breakdown into the six land economic corridors (Office of the Leading Group for the Belt and Road Initiative, 2017) and the maritime component, in order to identify the most eloquent project locations, categorised into regions, oceans and seas. The database aims more at locating the areas that undergo obvious alterations through the Chinese initiative. It therefore aims not to detail costs, actors and timeframes, accepting to give up completeness in favour of a much more immediate and comprehensible list, so much so that it can be graphically translated into project mapping[11].
Richer in technical information on the projects is Reconnecting Asia, the database of the Center for Strategic and International Studies (CSIS[12]): created with the intention of tracing the evolution of the Asian infrastructure network (but in general of the entire Eurasian continent) from 2006 to today, it uses five typologies: roads, railways, ports, intermodal nodes and power stations[13] «selected for their

5 Reed T., Trubetskoy A. (2019)

6 CSIS Reconnecting Asia (2018): https://reconnectingasia.csis.org/

7 AEI China Global Investment Tracker: https://www.aei.org/china-global-investment-tracker/

8 MERICS Belt and Road Tracker: https://merics.org/en/bri-tracker

9 Database HKTDC: https://beltandroad.hktdc.com/

10 «Projects are included in our database if they are physically located along the Belt and Road routes defined by two official Chinese sources and if they are mentioned in one of the following sources as part of the BIS: (i) a document issued by a government or its news agency, (ii) an article in a leading academic journal or global news source, or (iii) a quote from a government official in a leading global or national news source. Sources examined include joint statements by China and the Belt and Road countries, statements by individual country government agencies, global news organisations, local news sources in which government officials are quoted, industry journals, and think tank publications. Projects do not need to be financed by Chinese banks to be included.» (Reed T., Trubetskoy A., 2019: pp.7-8)

11 Reed and Trubetskoy's work is the only one, among those reviewed here, to be accompanied by a public domain GIS file; this adds further value to a database that already wants to be perceived as spatial work.

12 US Think Tank, bipartisan and non-profit (https://www.csis.org/)

13 The database is used as a reference tool by the ICBC, which uses Reconnecting Asia and AEI's Tracker in developing its analyses. ICBC (2018) Belt and Road: Interim Report - Tracking evolving scope, discovering expanding opportunities

importance in shaping patterns of commerce and connectivity» (Reconnecting Asia Methodology[14]).
The Belt and Road Initiative is only one section of this continually updated database: under this heading, more than three hundred infrastructure[15] projects are listed, for each of which a distinctive sheet is drawn up and, in most cases, their location or route is pinpointed[16].
The Hong Kong Trade Development Council's (HKTDC) Tracker is a tool that meets quite different needs than the first two: developed by a statutory body, it is more of an index of projects[17] that are affiliated with the logistics field in a very approximate way, so much so that most of them cannot be considered as directly related to transport infrastructure[18] (Reed, Trubetskoy, 2019). The aim of the Tracker is to open channels of communication between aspiring investors and projects that still lack them, without any particular guidelines or criteria for the selection of investors but with the common feature of including possible Chinese investors.
The fourth and last database is MERICS Belt and Road Tracker, however it cannot be considered an actual database; the site takes the form of an assortment of articles and podcasts[19] about Bri projects and Chinese foreign relations more generally, as well as reflections on the initiative in a broader sense. MERICS is therefore a medium that must necessarily be taken into account, but at the same time it should be kept only as a marginal tool in the study of Belt and Road databases: "it includes extensive discussion of policy related to the BRI but does not offer a specific database of projects accessible to researchers" (Reed, Trubetskoy, 2019).

Finally, Reed and Trubetskoy work alongside a final database compiled by the American Enterprise Institute (AEI[20]), the China Global Investment Tracker, which was created in 2005 basically as «the only comprehensive public data set covering China's global investment and construction» (AEI, China Global Investment Tracker). In the Belt and Road context, it is of incomparable importance to its predecessors in that it emphasises the capital flows associated with the projects

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14 «Data collection and processing occur in three phases. First, project information is collected from a set of open primary sources, in both English and non-English languages, and relevant actors are identified. [...] Second, data is verified and de-conflicted. The actor providing the most comprehensive and recent information is treated as the most authoritative. In cases of conflicting information, our researchers defer first to information provided by the sources of funds, followed by information from implementing agencies, and, last, information from all other sources. Decisions on the reliability of sources in the third category are made based on the judgment of the research team. Finally, if data is sufficient, projects are geotagged using satellite imagery and project documentation.» (Reconnecting Asia, Methodology, https://reconnectingasia.csis.org/methodology/)

15 374 projects at 18/12/20, each of them is framed from a temporal and financial point of view; the relevant actors are identified (contractors, consultants, implementers, operators, funders) and sometimes the sheet is supplemented with a description and geolocation; finally, Reconnecting Asia identifies further initiatives of which the project is part.

16 Map box, Open Street Map (https://www.mapbox.com/about/maps/)

17 637 "investment projects" at date 18/12/20

18 HKTDC was established in 1966 to promote, assist and develop Hong Kong's trade, focusing primarily on creating opportunities for companies (primarily small and medium-sized enterprises) both Chinese and international (https://aboutus.hktdc.com/en).

19 40 Belt and Road articles and podcasts at date 18/12/20

20 Like CSIS, it is also a US think tank

(Reed, Trubetskoy, 2019) and analyses the repercussions starting from these[21], offering a point of view that, although not immediately comprehensible, allows a practical view to be developed of the consequences that the initiative entails also at the level of Chinese companies.

Need for an alternative methodology

Since the objective of this chapter is to raise certain spatial issues related to the Belt and Road Initiative through a series of significant sites, it was necessary to select them from a database which, although not exhaustive, would attempt to avoid omitting aspects, actors or areas. Since none of the existing databases were satisfactory from these points of view[22], it was first considered essential to unify the various trackers. While on the one hand the lack of an official database leads one to turn one's attention to references from different sources, many of the works observed are the translation of particular perceptions of the phenomenon. No database is perfectly superimposable but, at the same time, from the point of view of seeking an awareness of the subject, the singularity of each of them cannot be overlooked. This procedure makes it possible to arrive at a list that holds together heterogeneous visions, referring to the same diversity that characterises the initiative itself.

The data available in the Reed and Trubetskoy databases, CSIS's Reconnecting Asia and HKTDC's Tracker were then merged into a single database and integrated with the list of projects of the Asian Infrastructure Investment Bank, the largest representative, as the largest investor, of the multilateral banks. This last step was considered necessary because, although almost all the projects included in the AIIB database were already present in the others, taking it into consideration is a must, allowing the information to be integrated with the observation of a body that is much more integrated in the Chinese political and economic environment. The contribution of MERICS, on the other hand, was to provide useful sources of information in integrating the information acquired; it was not, however, considered as a database in its own right. Finally, the China Global Investment Tracker of the American Enterprise Institute was treated separately because, as noted above, it does not categorise BRI projects but Chinese investments. The CGIT registers more than seven hundred companies in its list, so in order to obtain a more weighted list and a better guarantee of source compliance, the data was compared with those of two other official lists of companies active along the New Silk Road[23].
In the case of multiple attestation, the data could be considered reliable, ultimately obtaining a list of 42 enterprises, the same ones that recur most frequently in the

21 The CGIT operates according to a division into investments (1706 at 18/12/20), construction contracts (1749) and troubled transactions (307); each item represents a flow of capital operated by a company (SMEs) or bank, divided into sectors, sub-sectors and times.

22 The databases surveyed were produced by various types of institutions that were undoubtedly undertaking this work in search of outcomes that varied according to the nature of the study. None, apart from Reed and Trubetskoy, who do a rather partial job, approached the survey in search of an objective view.

23 The list provided by the government on the official portal of the Belt and Road, which lists 84 companies (https://eng.yidaiyilu.gov.cn/info/iList.jsp?cat_id=10080&cur_page=3) and that of China Exchanges Services, with 101 companies (https://www.cesc.com/en/index.html)

books and articles analysed during the investigation[24].
However, there are three critical issues with this approach: (i) the method used here and proposed to validate the source is dissimilar to the one used for the general database, (ii) it would be a matter of comparing and joining lists that have very different objectives and parameters, (iii) the ambition of this work is certainly not to be exhaustive in the description of BRI-related projects, but rather to confront the phenomenon of territorial transformation related to BRI in order to investigate significant spatial issues. For this reason, the contribution of the CGIT was treated individually with a dissimilar but parallel method to the general one; the outcome of this work was not taken into account when choosing the projects.

Subsequently, all projects with a start date before 2013[25] and all projects in countries not included in the Chinese government's list of "BRI members" were excluded from the unified database. Finally, it was necessary to subtract from the list all the projects that cannot be "read" in the territory: this is the case, for example, of economic projects, financial plans and, more generally, agreements between banks and enterprises. They were considered in this case as irrelevant, since the study aims at Belt and Road projects, which have spatial traces[26].
At the end of these operations, a final list of 393 projects was drawn up. In order to obtain the most effective and concise framework possible, it was decided to include a small amount of information for each project, each of which is set out under thirteen headings[27].

Following Reed and Trubetskoy's approach, the projects are first of all subdivided by economic corridors[28]; this makes it possible to have an understanding that goes beyond physical national borders, allowing instead to bring together plans that seem distant in terms of type and location but, if evaluated from the point of view of an economic corridor, can be interpreted as different manifestations of a single objective. For the same reason, for each country, it was considered useful to include the agreements reached with China (memoranda and joint declarations)

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24 We derive the principle of multiple attestation - "criterion of multiple attestation", from biblical historiographical studies and in particular from the work of J.P.Meiers (1991). The criterion, although considerably debated (cf. e.g. Theissen-Merz 1999; Fusco 1997) is also commonly used in other historical-critical studies. In this case, the data on a company is considered veridical if it is mentioned in at least two lists.

25 Considered as the birth year of the Belt and Road Initiative: Xi (2013)

26 Clearly, the initiative has a number of consequences, both physical and non-physical, and both are not negligible. China's Belt and Road is first and foremost about improving its relationship with its member countries: each of the multiple consequences could therefore be considered as Bri, considering that if the initiative did not exist, they might not have taken place. This is perhaps one of the reasons why the Chinese government finds it too difficult to provide an official database. Such projects have not been included in the Reconnecting Asia and World Bank databases, but are present in the others. In spite of the knowledge that financial projects also tell important stories, and that, among other things, they may in the future also have an impact on the territory, it was decided to omit them because, for the time being, they have no impact on the territory.

27 Continents, corridors, MoU and platforms, countries, project name, state, type, date, cost, players, details, links, database

28 Office of the Leading Group for the Belt and Road Initiative (2017), "Building the Belt and Road: Concept, Practice and China's Contribution"

as well as the relevant platforms to which they belong[29].
The characterisation of the projects is also done by year and project status, project types[30] (mobility; energy, water and ICT systems; zoning), the amount of the total cost and the identification of the participating stakeholders. A brief description is also provided, and missing information is supplemented by additional research, the links to which are provided[31]. Once the list had been drawn up, it was possible to proceed with the definition of the projects chosen, trying to include as many economic corridors as possible, at least one for the maritime link and trying to include at least one country from each region of the Afro-Eurasian continent. In addition, we also wanted to maintain the heterogeneity of the typologies, choosing projects that could cover as many of them as possible.
In the light of these requirements and also trying to consider the economic and social climates within which the projects were to be inserted, which could significantly alter the progress of the work, the following case studies were chosen:

- Djibouti Deep Seaport and Free Trade Zone - Djibouti
  region: African; corridor: maritime; type: port, free trade zone, railway
- Duqm Port, Commercial Terminal and Operational Zone - Oman
  corridor: maritime; type: special economic zone and international airport
- Kyaukpyu Deep Sea Port - Myanmar
  region: Asian; corridor: BCIMEC; type: port; pipeline
- Gwadar Port construction, Karakoram Highway - Pakistan
  region: Asian; corridor: CPEC (China-Pakistan Economic Corridor); type: port and rail / highway
- Great Stone Industrial Park in Smolevichy, Minsk - Belarus
  region: European; corridor: NELB (New Eurasian Land Bridge); type: industrial park
- Khorgos ICBC and Dry Port - China/Kazakhstan
  region: Asian; corridor: NELB, CMREC; typology: special economic zone, urban, gateway, dry port

Each of them follows the same methodology of analysis: initially a first spatial view is given of how the area looked before the realisation of the project, how it looks like during the current year, 2020, and finally what the area will look like at the end of the spatial transformations, based on master plans and publications. Subsequently, spatial issues related to the development of the projects in the area are raised, taking into account the potential of the projects.

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29 Asia Cooperation Dialogue (ACD), Asia-Europe Meeting (ASEM), Asia-Pacific Economic Cooperation (APEC), Association of Southeast Asian Nations (ASEAN), Central Asia Regional Economic Cooperation (CAREC), China-Arab States Cooperation Forum (CASCF), Cooperation between China-Central Eastern European Countries (China-CEEC), China-Gulf Cooperation Council Strategic Dialogue, Conference on Interaction and Confidence-Building Measures in Asia (CICA), Shanghai Cooperation Organization (SCO): https://www.beltroad-initiative.com/institutions-and-mechanisms/

30 Aviation, borders, energy, industrial park, intermodal, port, rail, road, seaport, SEZ, transmission, urban, water

31 A page of the database is shown below, which is the result of all integration and exclusion processes. See Annexes for the full Database.

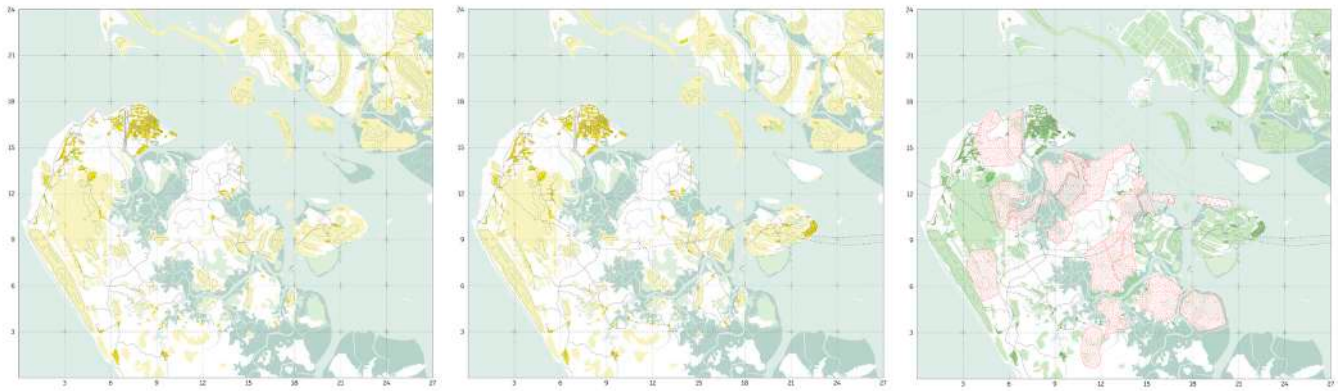
continents	corridors	countries	MoU, platforms	project name	state	sector	type	date	cost (million USD)	players	database	details	external links
Asia	CPEC	Pakistan	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Taunsa Hydropower Project	Announced/Under Negotiation	Energy, Water and ICT systems	Hydropower plant	-	-	IMPLEMENTERS China International Water and Electric Corporation Punjab Power Development Board FUNDERS China	RA	*PPDB is launching development of 135 MW Taunsa Hydropower Project on Taunsa Barrage in District Muzaffargarh through private investment under NEPRA's Competitive Bidding Tariff Regulations (CBTR-2017).	*https://www.pcg.com.pk/135-mw-taunsa-hydropower-project/
Asia	CCWAEC	Turkey	MoU 2015, ACD, CICA	Halkali-Cerkezkoy Rail Project	Proposed	Mobility	Rail	2020	721.1	AIIB Loan: 350 million EBRD Loan: 108 million Government of Turkey: 263.1 million	AIIB	The objective is to develop safe, sustainable, low-carbon, and expedient passenger and freight rail transport between Turkey and the European Union to further facilitate trade via a new high-speed rail from Halkali to Cerkezkoy.	https://ewsdata.rightsindevelopment.org/projects/000345-turkey-halkali-cerkezkoy-rail-project/
Asia	MARITIME (Polar Silk Road)	Russia	ACD, ASEM, SCO, CICA	Zarubino Port Construction	Under Construction	Mobility	Seaport	2014-2018	3000	-China Merchants Holding International Company Ltd. -Summa Group	RA	To accommodate transit of Chinese goods between the northeastern and southern provinces of China, Russia's Summa Group is cooperating with China Merchants Holding International to build a deep-water port 80km from Vladivostok at Zarubino.	
Asia	CMREC	Mongolia	ACD, ASEM, CAREC, CICA	Bayankhongor - Baidrag Bridge (Govi-Altai) Road Project	Announced/Under Negotiation	Mobility	Bridge	2016-2018	59.8	CONTRACTORS Oyu Tolgoi LLC Shanghai Construction Group IMPLEMENTERS Mongolia Ministry of Economic Development FUNDERS China	RA	The 129.4 km paved road in the Bayankhongor-Baidra Bridge is part of the paved road connecting the Govi-Altai aimag center to the capital. The access road will enable the people of Khovd and Bayan-Ulgii provinces to travel through the Govi-Altai aimags, as well as the number of foreign and domestic tourists visiting these aimags to support the region's economy.	
Asia	MARITIME	Indonesia	Joint decl. 2015, ACD, APEC, ASEM, ASEAN	Java Integrated Industrial and Port Estate (JIIPE) - Industrial Area		Zoning	Industrial Parks	2018		PT Kawasan Manyar Sejahtera	HKTDC	JIIPE is the first integrated area in Indonesia, with a total area of 3,000 hectares, consisting of industrial estates, multifunctional public ports, and residential cities. Joint government private project between Pelabuhan Indonesia III (Pelindo III through its subsidiary PT Berlian Jasa Terminal Indonesia known as BJTI Port) with PT Aneka Kimia Raya Corporindo Tbk (AKR Corp through its subsidiary PT Usaha Era Pratama Nusantara).	https://www.jiipe.com/en/home/brochure https://www.akr.co.id/jiipe
Asia	-	China	ACD, APEC, ASEM, CAREC China - CEEC 16+1, CASCF, SCO, CICA	Guangzhou - Shenzhen - Hong Kong Express Rail Link (Hong Kong - Mainland China)	Completed	Mobility	Rail	2010-2018	10000*	CONTRACTORS Leighton Asia OPERATORS MTR Corporation	RA	*Arup and Atkins China Ltd appointed to carry out the preliminary design of the Hong Kong tunnel section for the Guangzhou-Shenzhen-Hong Kong Express Rail Link (XRL). XRL provides high speed rail services and a connection to the national high-speed passenger rail network serving major mainland cities outside Guangdong province.	*https://www.scmp.com/news/hong-kong/hong-kong-economy/article/2161299/high-speed-rail-link-between-hong-kong-and-mainland **https://www.arup.com/projects/guangzhou-shenzhen-hong-kong-express-
Asia	CICPEC	Thailand	Joint Statem. 2014, APEC, ASEM, ASEAN, CICA	Thai/Kra Canal Satun–Songkhla	Proposed	Mobility	Canal	2016 (last proposal)	*28000 (estimated)	***Thailand Gov. (NESDC) China Gov.	WB	Thailand still discussing with China to build the new canal. Proposed and cancelled many times. Thailand's new king wants to execute the canal project as part of the BRI: Canal would bypass Malacca Straite chokepoint. **Thailand mulls replacing $28bn Kra canal idea with a railway	*https://www.globalconstructionreview.com/news/thailand-mulls-replacing-28bn-kra-canal-idea-railw/ **https://www.globalconstructionreview.com/news/thailand-mulls-
Asia	CCWAEC	Tajikistan	ACD, CAREC, SCO , CICA	Dushanbe-Uzbekistan Border Road Improvement Project	Approved	Mobility	Road	2016	*105.9	*AIIB 27.50 million EBRD 62.5 million Government of Tajikistan 15.9 million	AIIB	The project road is the last missing section of the Asian Highway Network and the CAREC Corridor 3 in Tajikistan's territory, was built 30 years ago and is currently in a poor condition.	*https://ewsdata.rightsindevelopment.org/projects/00002-dushanbe-uzbekistan-border-road-improvement-
Asia	BCIMEC	Bangladesh	ACD, ASEM, CICA	Barisal - Payra Port Rail (Construction)	Under Construction	Mobility	Rail	2021	This project is one piece of a 1.28 billion dollar multi-part project to connect Paira Port to Bhanga via Barisal.	CONTRACTORS China Civil Engineering Construction Corporation IMPLEMENTERS Bangladesh Railways FUNDERS Bangladesh	RA	Through Bhanga, Paira port will be connected to the broader Bangladeshi railroad network. An additional railway connection in the works will link Paira Port's railway to the Padma Bridge, which will tie this project into the region's broader infrastructure connectivity vision and reduce the travel time between Bhanga and the capital of Dhaka by 3 hours	
Asia	NELB	Kazakhstan	Joint decl. 2015, ACD, ASEM, CAREC, SCO, CICA	Shelek I Shelek II Shelek III	Announced/Under Negotiation	Energy, Water and ICT systems	Wind Power Plant	-2018	688.1	CONSULTANTS Hydrochina Corporation OPERATORS Samruk-Energy FUNDERS China Development Bank Development Bank of Kazakhstan	RA	*EBRD and ADB are considering providing finance to Access-Power LLP for the construction and operation of the 50 MW wind power plant, located 37 km east Shelek town in Enbekshikazakh district, Almaty region.	*http://www.access-power.com/news-publications/shelek-50-mw-wind-power-project
Asia	CPEC	Pakistan	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Gwadar-Nawabshah Pipeline (Construction)	Cancelled	Energy, Water and ICT systems	Pipeline	2017	2000	CONTRACTORS China Petroleum Pipeline Bureau FUNDERS The Export-Import Bank of China	RA	*The idea of establishing an LNG terminal in Gwadar and constructing a pipeline to Nawabshah shall pave the way for the IP project. In the vicinity of Gwadar a Floating Storage and Re-gasification Unit (FSRU) shall be operated near the shoreline. A metering station and a connecting pipeline of 32"/4 km length shall provide the gas for the main pipeline.	*https://www.ilf.com/en-cz/news/publications/?download-id=11165

Sample Page of The Alternative Database
Source: RA, WB, HKTDC, AIIB

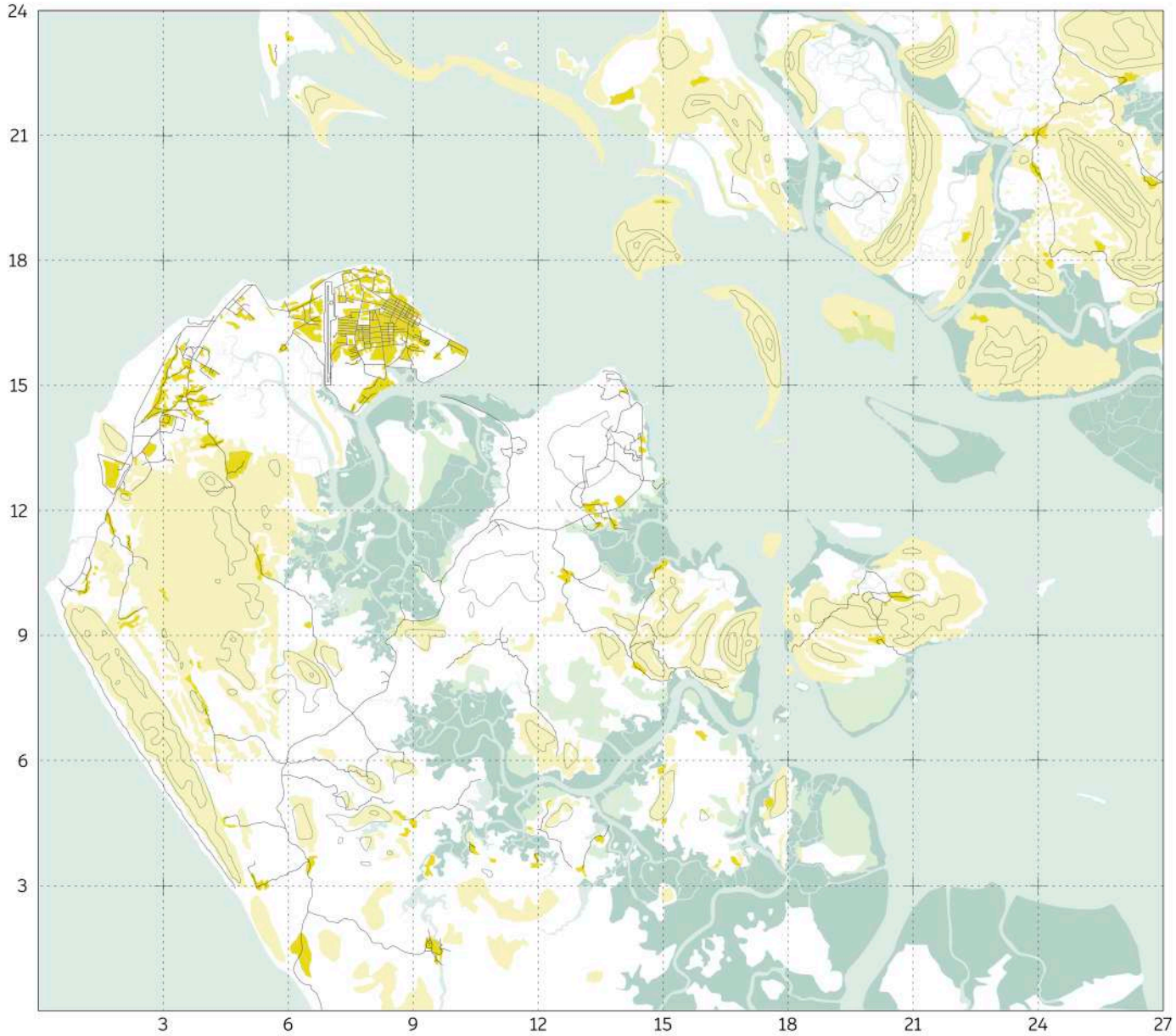
Six Relevant Places

Kyaupkyu, Myanmar

Infrastructure as Landscape Exploitment

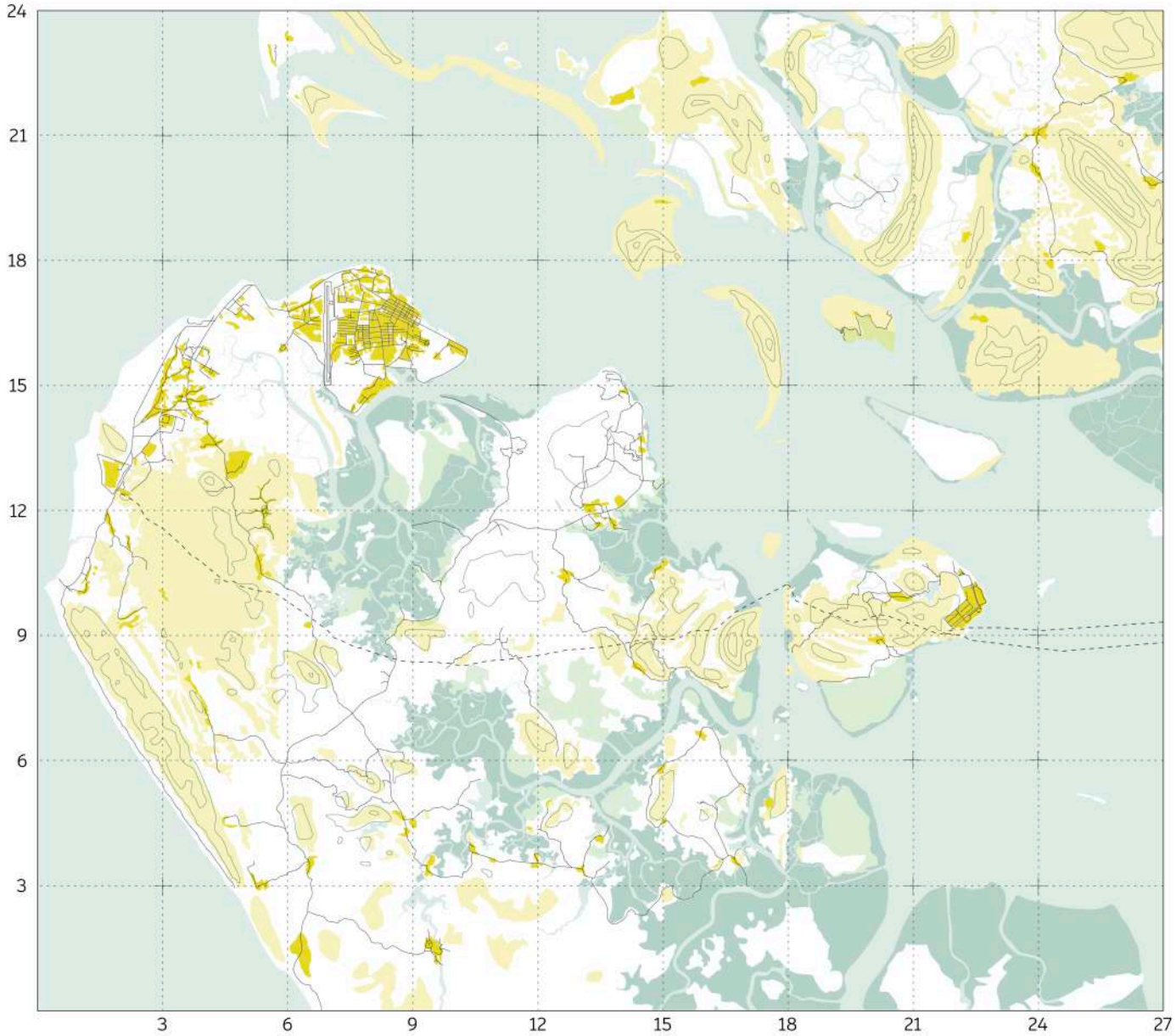


2010 2020 2030



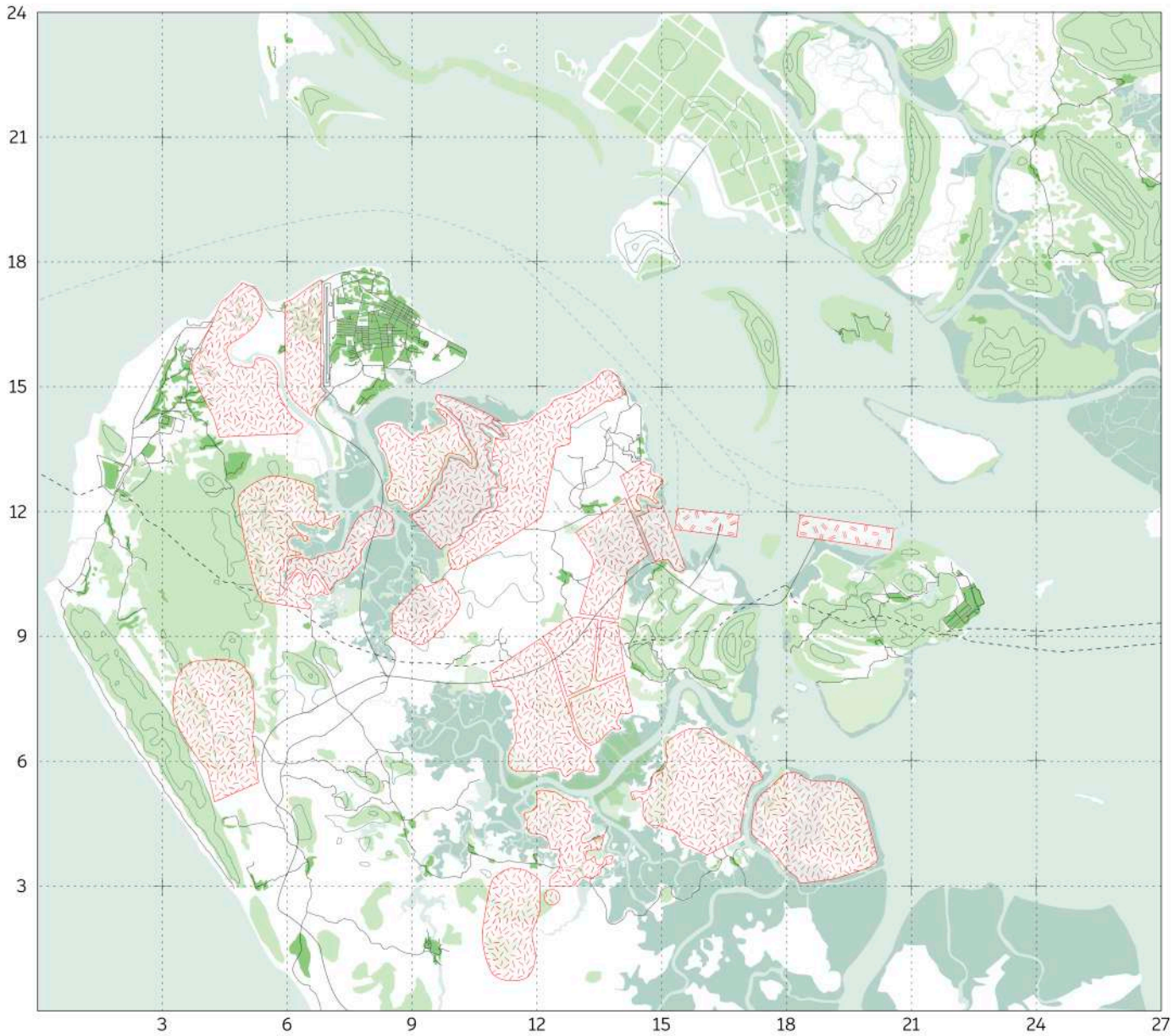
KYAUPKYU 2010

Settlements
Spontaneous green
Flooding areas
Mangroves
Hydrography
Topography
Roads

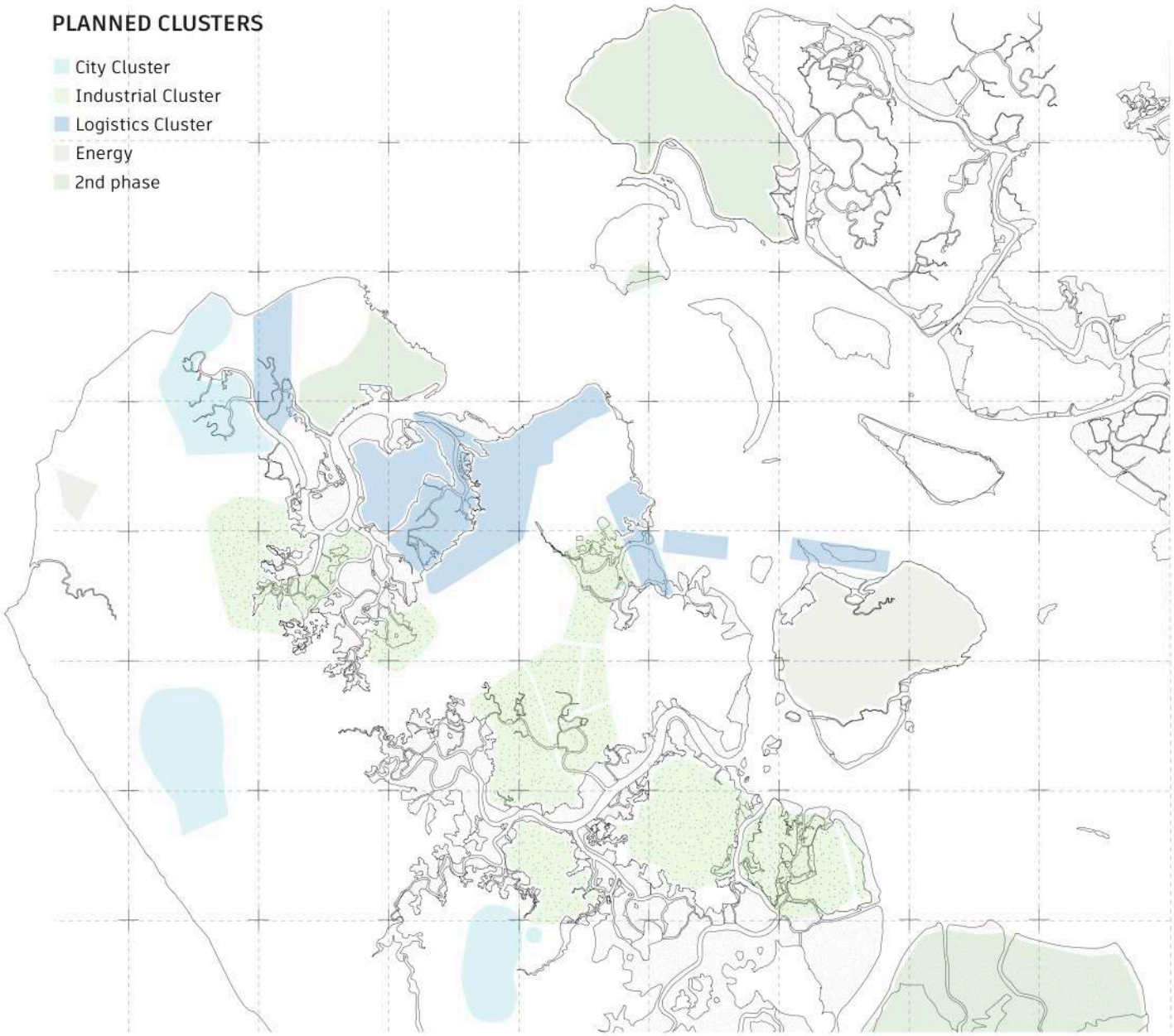


KYAUPKYU 2020

Settlements
Spontaneous green
Flooding areas
Mangroves
Hydrography
Topography
Roads
Pipeline



KYAUPKYU 2050
Source: CITIC, Mandalay Tech., EOI



City Cluster - 20km²

-2000 MW power plant (unspecified fuel soruce)
-Industrial water ad sewage plants
-Residential areas, business centers, hospitals, schools and tourist areas.

Logistics Cluster - 24km²

-Airport expansion
-250 million-ton capacity wharf to accomodate 300.000-ton freighters.
-Sea port
-Railway and logistics park to store 10 million tons of goods.

Industrial Cluster - 40km²

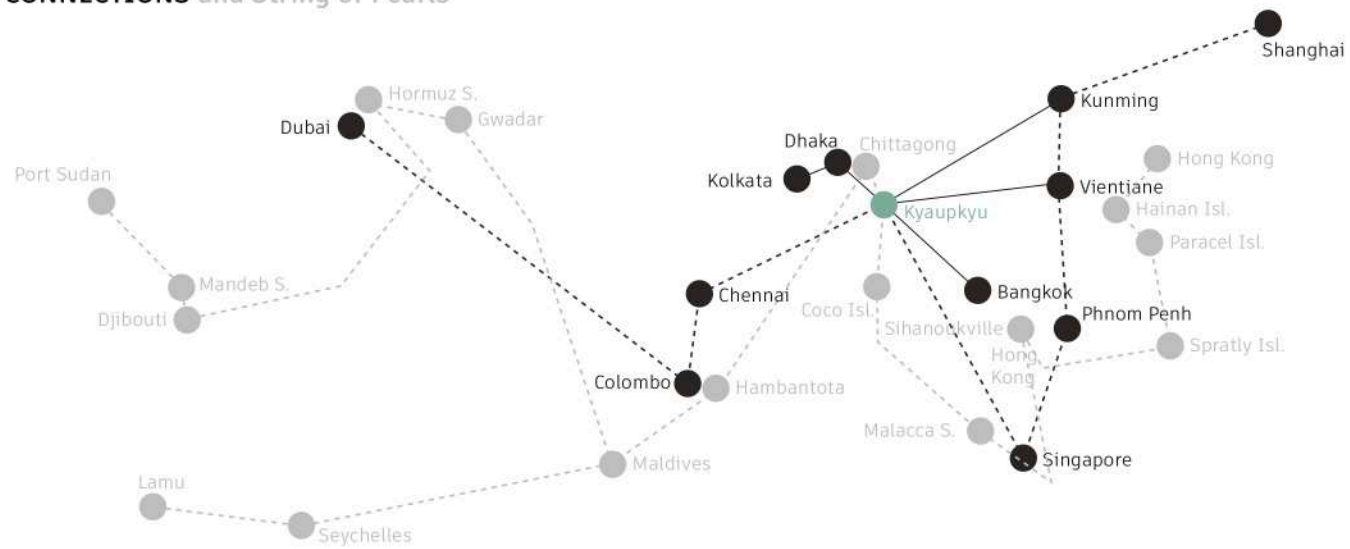
-Oil refinery and petrochemical industries (12 km²)
including:
-Refined oil, 10 million tons/year
-Ethylene, 800.000 tons/year
-Other petrolchemical products, 1.5 million tons/year
-Fertilizer, LNG etc, 3 million tons/year

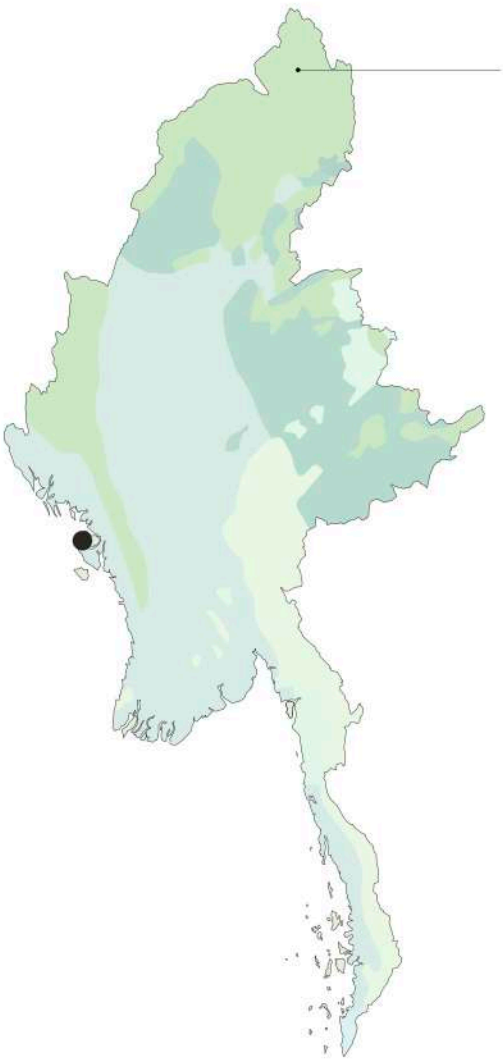
-Metal industries (14 km²)
including:
-Iron and steel, 5 million tons/year
-Other refined metals, 300.000 tons/year

-Marine service industry (3 km²)
including:
-two marine docks to service regional shippinf traffic and dismantle old ships for sale of materials

-Processing and manufacturting industries (11 km²)
including:
-Agricultural and aquatic products, gems and wood
-Textiles, metal, plastics, car parts and electrical appliances.

CONNECTIONS and String of Pearls





ETHNIC GROUPS

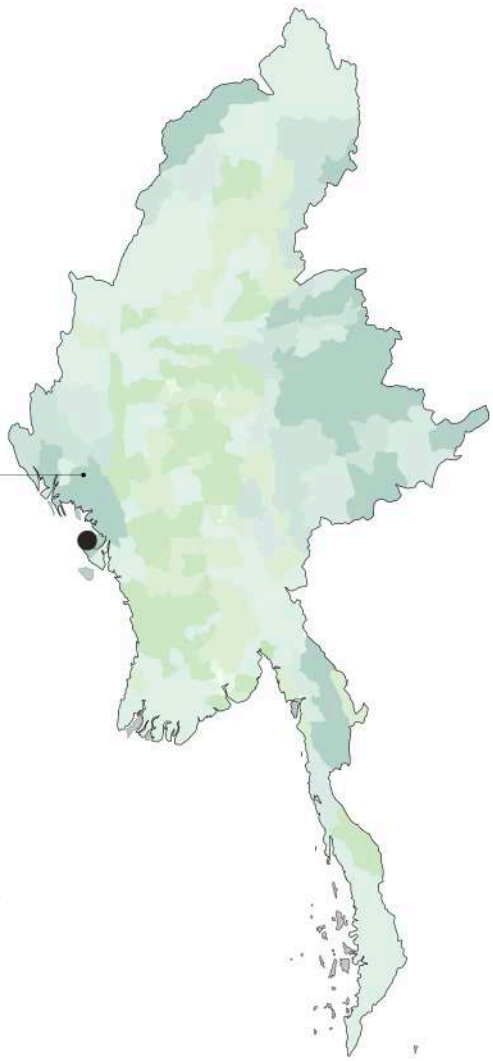
Data:Limes 2020

- Burman
- Chin, Kachin, Lisu, Lahu
- Chinese
- Karen
- Shan/Hkamti
- Thai
- Mon/Wa/Palaung

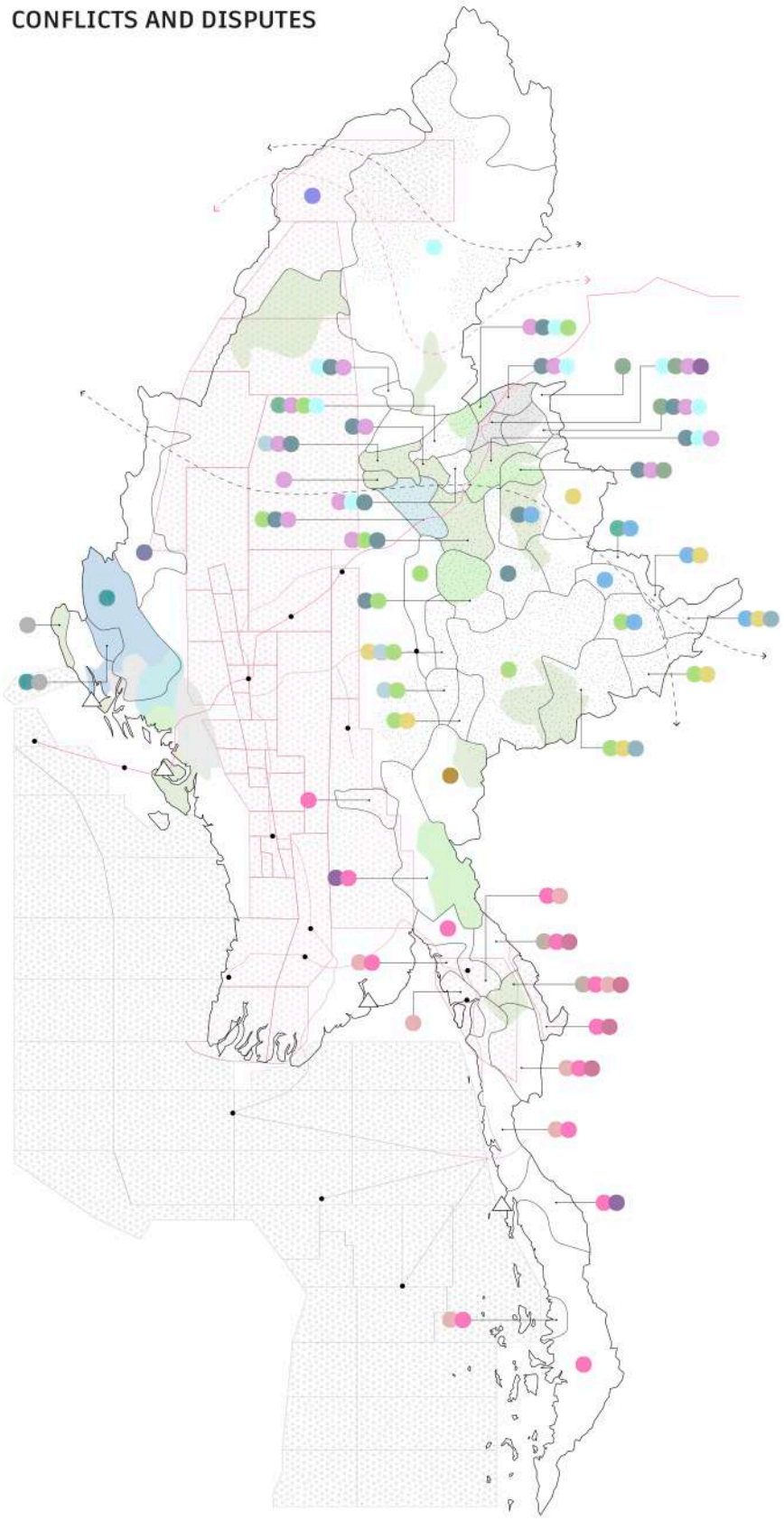
TOWNSHIP TYPOLOGIES: vulnerability

Data:HARP-F and MIMU

- Extreme outliers in terms of development needs/exposure to conflict
- Conflict-affected areas with poor human development
- Hubs in conflict-affected areas
- Very low access to basic services and infrastructure
- Agricultural townships with the highest profits per capita
- Agricultural areas with secondary cities and towns
- Up-and-coming peri-urban and urban areas
- Affluent, densely populated city centres



CONFLICTS AND DISPUTES



- **AA** Arakan Army
- **ABSDF** All Burma Student Democratic Front
- **ALP** Arakan Liberation Party
- **CNF** Chin National Front
- **DKBA** Democratic Karin Benevolent Army
- **KIO** Kachin Independence Organization
- **KNPP** Karenni National Progressive Party
- **KNU** Karen National Union
- **KNU/KNLA-PC** Karen National Union/ Karen National Liberation Army-Peace Council
- **LDU** Lahu Democratic Union
- **MNDAA** Myanmar National Democratic Alliance Army
- **NDAA ESS** National Democratic Alliance Army/Eastern Shan State
- **NMSP** New Mon State Party
- **NSCH-K** National Socialist Council of Nagaland-Khaplang
- **PHLO** Pa-Oh National Liberation Organization
- **PSLF/TNLA** Palaung State Liberation Front/Ta'ang National Liberation Army
- **RCSS/SSA** Restoration Council of Shan State/Shan State Army
- **SSPP/SSA** Shan State Progress Party/Shan State Army
- **UWSA** United Wa State Army
- **WNO WA** National Organization

Nr. of battles between State Forces and Ethnic Armed Organizations Jan 20 - Oct 20 (1 to 56)

Opium cultivation
Opium export route

Arms trafficking China-India

Sino-Myanmar pipeline
Other pipelines
Petrol Extraction - Onshore
Petrol Extraction - Offshore
Main stations

Seaports under construction

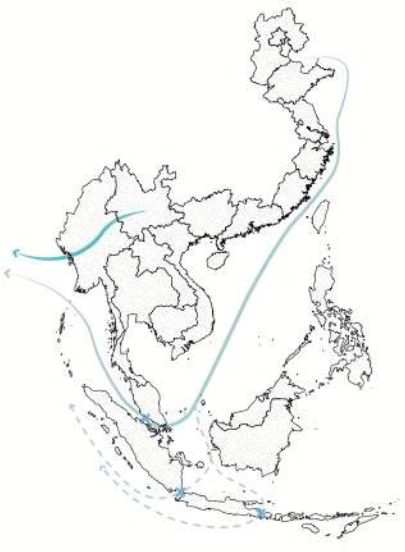
Data: Zaw 2017, Limes 2020, Aljazeera 2019, The Asia Foundation 2016, ACLED 2020

KYAUKPYU SPECIAL ECONOMIC ZONE

Kyaupkyu is located in the Rakhine region, on the west coast of Myanmar, on the northern end of Ramree Island. It consists of a cluster of fishing towns and villages, with a population of around 20,000 inhabitants; the connections with the major Burmese cities are fragile and there are no motorways or railways connecting the island to the mainland. However, the place has entered national and international debates since the mid-2000s (Ryack, 2020): it was in fact chosen as the Sino-Myanmar pipeline starting point[1].
The strategic nature of Kyaupkyu consiste both in its proximity to the major offshore oil extraction platforms of the Bay of Bengal and as wall as in the deep sea beds that surround the city, which allow an effective connection by sea. Chinese interest in Kyaupkyu and in general in the Burmese and Bengali coasts is increasing exponentially, as its direct access to the Indian Ocean allows to bypass the Strait of Malacca, otherwise an obligatory passage, and as such extremely complicated and disputed regarding the connection between China and the Afro-Eurasian context. Furthermore, a potential connection of this magnitude would boost the development of Yunnan, a landlocked chinese province (Lwin, 2020).

The Belt and Road initiative offered the ideal excuse to make concrete projects for this place: Kyaupkyu thus became the "backbone project of the China-Myanmar Economic Corridor" (Lwin, 2020). The Chinese CITIC and the Burmese[2] government have therefore collaborated in the definition of a project that covers 4,300 acres and which includes, in addition to the deep-sea port, a large SEZ spread over the territory of Ramree Island.
Although there is still no definitive project regarding the port and the SEZ, due to repeated delays and changes, the most common hypothesis is to build a port divided into two terminals in the area between Ramiree Island and Maday Island; the latter, despite its small size, has already been the subject of Chinese investments: in fact it fulfills the function of storage for the gas coming from offshore platforms, as well as representing the arrival point of the parallel oil pipeline. The two port terminals would be connected to the continent by means of a new bridge and an upgraded road, and feasibility studies are underway aimed at the construction of a 650 km railway connecting Kyaupkyu to the city of Mandalay (Cuenca, 2021).

If the construction of the new deep-sea port is of fundamental importance for Chinese interests, what would benefit the Burmese side is instead the SEZ (Poling, 2018). The project's developers say the port and industrial park would create 100,000 jobs in the area, as well as a $ 10 billion increase to Myanmar's GDP (Ryack, 2020). The aim of the project is to make the northern part of Ramree Island a single Development Zone composed of three clusters (industrial, logistics and residential) separated from each other by forests, rivers and fields and six bases (ship services industrial, petrolchemical, logistics, comprehensive services and ship engineering, construction and repairing). The idea is to combine what would become a port, rail and air logistics hub of great strategic importance on

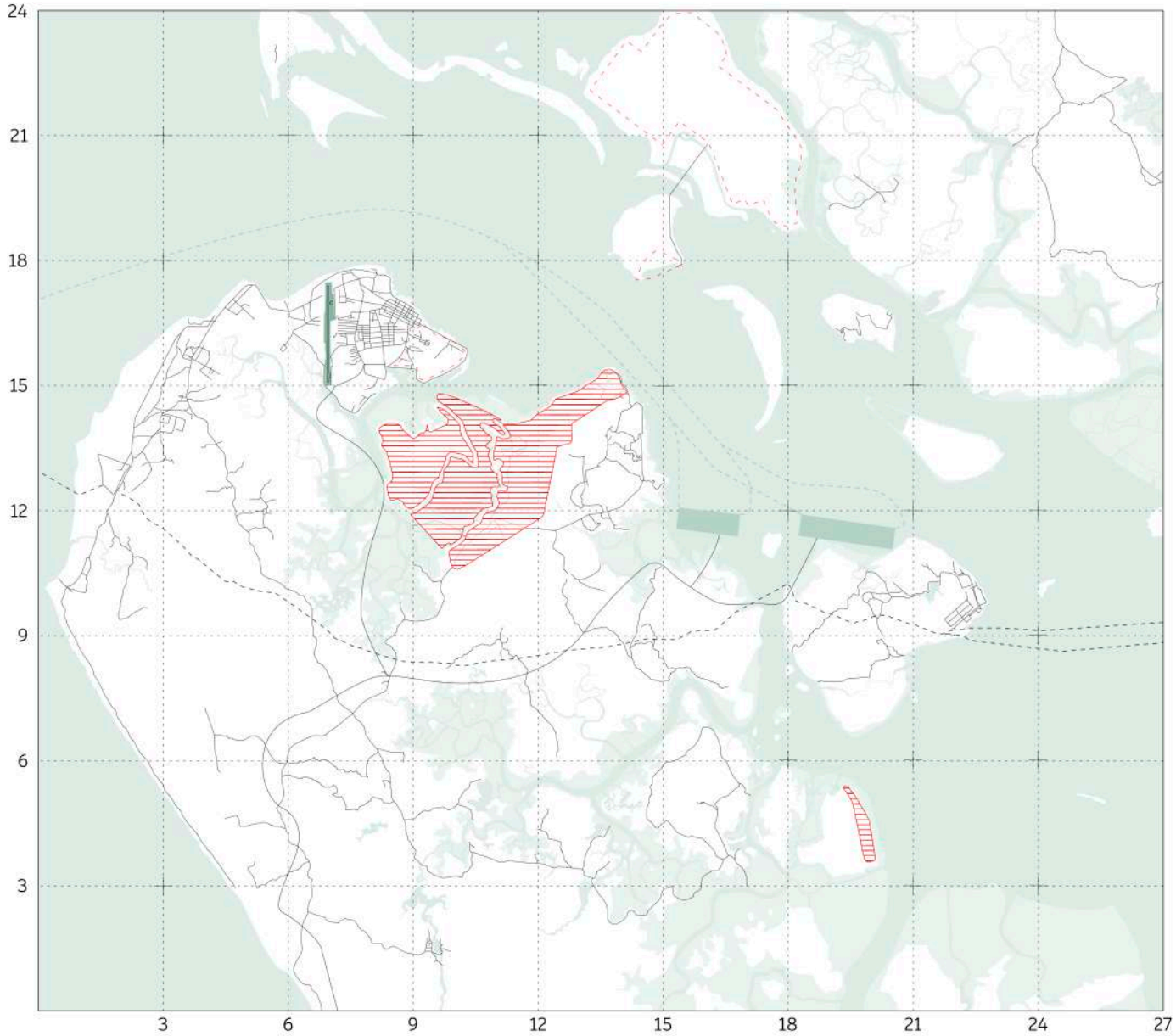


CMEC vs. routes through Malacca, Sunda, Lombok

1 Owned by CNPC (China National Petroleum Company) and MOGE (Myanmar Oil and Gas Enterprise), both large state-owned companies (Ryack, 2020).

2 In August 2020 CITIC and the Myanmar the government-backed Kyauk Phyu Special Economic Zone Management Committee registered Kyaukphyu Special Economic Zone Deep Seaport Co. Ltd as a joint venture: the Chinese company holds 70% stake, the Myanmar Committee 30% (Lwin, 2020).

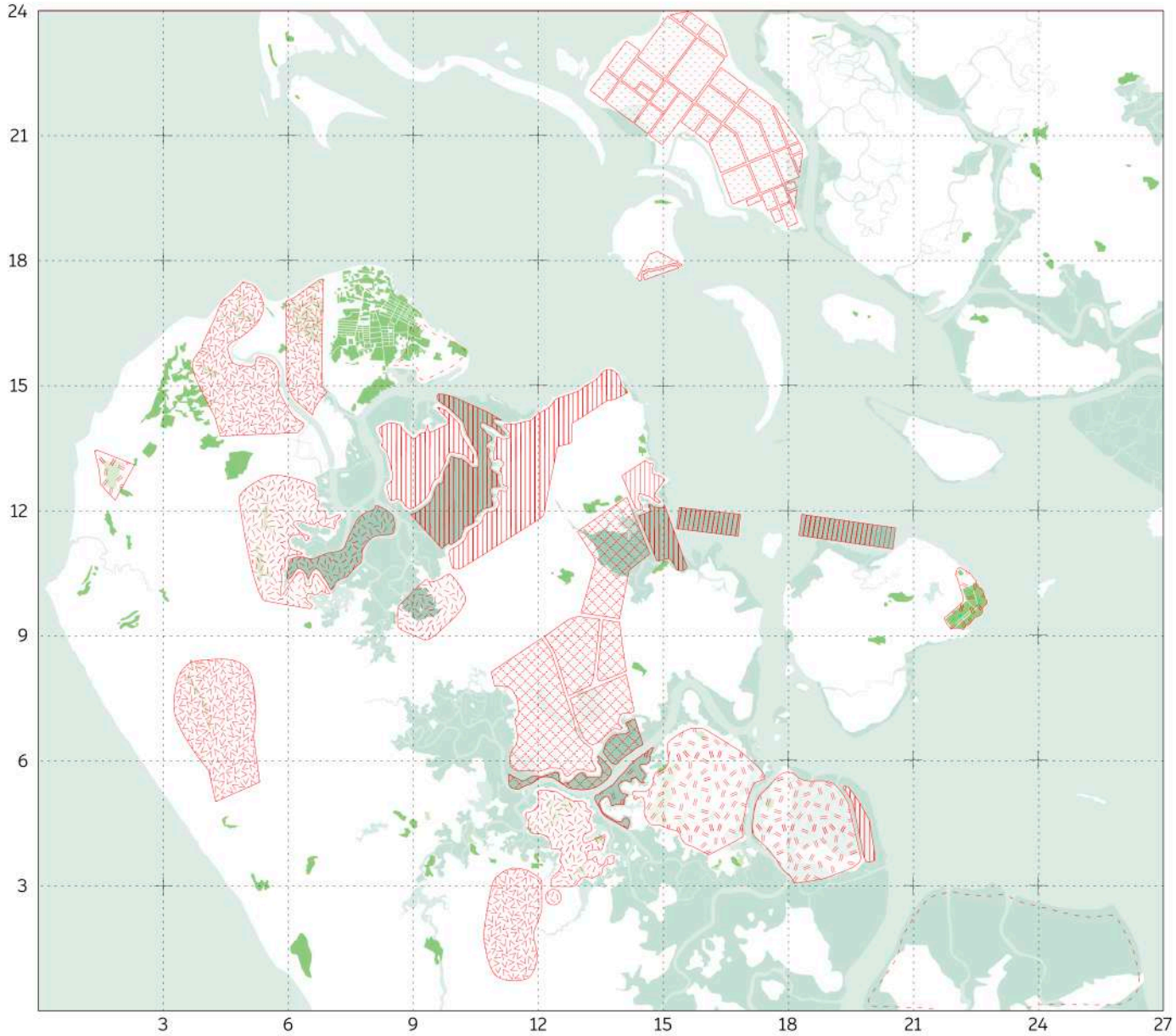
the Indian Ocean routes with an industrial center that on the one hand exploits the advantageous laws of a SEZ and on the other enjoys the presence of large local resources (minerals, metals, timber, precious stones, agricultural and fish products) (CITIC, 2011).



MOBILITY

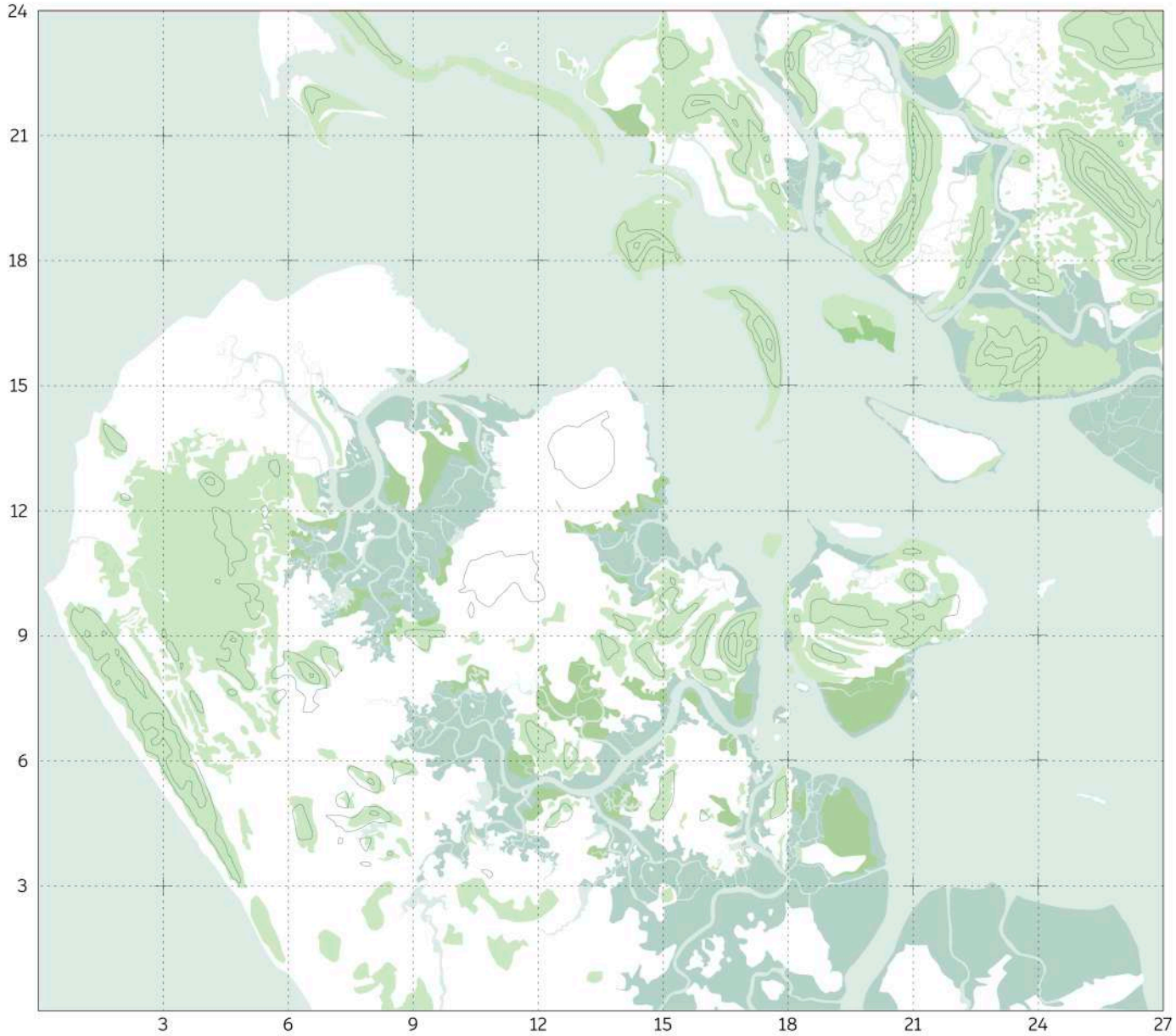
Source: CITIC, Mandalay Tech., EOI

Deep sea ports
Airport
Mangroves
Logistics
Naval routes
New streets
Logistic espansions
Pipelines
Existing streets



ZONING
Source: CITIC, Mandalay Tech., EOI

- Production
- Petrochemical
- Industrial
- Logistics
- Naval terminals
- New residential
- Potential military base
- Existing residential
- Terminal expansion
- Necessary land reclamation



TERRITORY

Mangroves
Spontaneous green
Flooding areas
Hydrography
Topography

SPATIAL ISSUES

The arrival of the Chinese project in Kyaupkyu immediately led to resistance and much more conscious dissent on the part of the population. Here, in fact, Chinese influence had already made itself felt with the 2009 approval of the construction of the Sino- Myanmar pipeline[1], which had caused great inconvenience for the inhabitants. The laying of the Shwe pipeline and related infrastructures entailed both the confiscation of thousands of acres of valuable farmlands and the upheaval of marine flora and fauna due to the construction of the undersea stretches, which involved dynamiting coral reefs (Arkan Oil Watch, 2012), affecting the two main activities of the inhabitants, namely agriculture and fishing[2].
The population of Kyaupkyu therefore witnessed a little less than ten years ago large-scale confiscations of their agricultural land and some settlements lying on the path of the conduit and a reduction in the areas and quality of the fishery, moreover they have already observed how the promises made by the companies involved and by the government bodies did not have great reliability: a correct remuneration of the confiscated land was promised as well as 100.000 new jobs.

However, there are numerous testimonies[3] of unpaid or partially paid expropriations, as well as those of fishermen and farmers who, due to the new conditions, are no longer able to support themselves with their work. Furthermore, «local people were able to obtain only low wage and temporary work clearing land and constructing roads while skilled jobs were given to workers from China, India and central Burma» (Arkan Oil Watch, 2012), forcing many residents to relocate. The difficulty of the employment transition also lies in the strong agricultural tradition which is a reason for identity: «in a poor, mainly agrarian nation with many remote regions and areas outside government control, land is both a priceless material asset and an emotional entity that feeds into people's sense of self » (Peel, 2016): agriculture is for the Rakhine State inhabitants a cultural tool that involves traditional techniques and social cohesion. For this reason, 17,000 complaints regarding land grabbing have been recorded in Myanmar since 2012, mostly from farmers (Peel 2016).

The construction of the new Special Economic Zone and the deepsea port is therefore seen as a potential multiplier of the already unfolding impacts that the pipeline has had. The concerns that the new project raises are not only those involving landgrabbing - the construction of the SEZ could lead to the eviction of 40 villages, as well as thousands of cultivated acres - and the consequent unemployment, but mostly environmental ones.
The planned SEZ foresees the use of 4,300 acres which are mostly virgin or agricultural[4] soil, but the most impressive alteration would take place on the

1 The pipeline was built following a 2008 agreement between the Chinese CNPC and the Daewoo international-led consortium. Construction ended 2014.

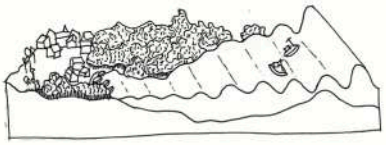
2 More than 50% of the population depend upon agriculture for their livelihood. 13% of population engages in fishing and 10% in livestock farming. The remaining 25% depend on small businesses and other activities (Kyaupkyu Environment Assessment Report, 2017).

3 Collection of testimonials among the others: Phyu (2012), Peel (2016).

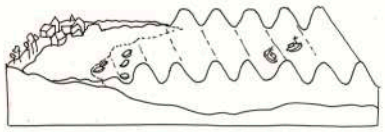
4 All types of agricultural system such as mixed cropping and double cropping are practiced in some places. The major farming practice is rain- fed agriculture. Major crop cultivated is rice with minor proportion of groundnut, maize eggplant, chili and other vegetable (Kyaupkyu Environment Assessment Report, 2017).

coasts: 70 km of coastal waterways will in fact be used for the construction of wharfs and industries. The coasts of Kyaupkyu are home to Burma's second largest mangrove forest, important not only as «crucial habitat for a large number of marine species as well as protection from natural disasters such as cyclones and tsunamis» (Arkan Oil Watch, 2012). There is also fear regarding the implications that industrial and petrochemical activities and the related toxic wastes and air pollution would have on this ecosystem (Kyaupkyu Environment Assessment Report, 2017). Finally, the environmental consequences also affect the sea: the construction of the deep-sea port and the consequent increase in the traffic of large vessels involve a large increase in water pollution and a disruption of marine flora and fauna: fishing[5], practiced both along the coastal line, both nearshore (about 10 km from shore), and in open sea (Kyaupkyu Environment Assessment Report, 2017) would suffer even more than it did due to the pipeline.

Current mangroves and coral reef



Tsunami scenario in present state



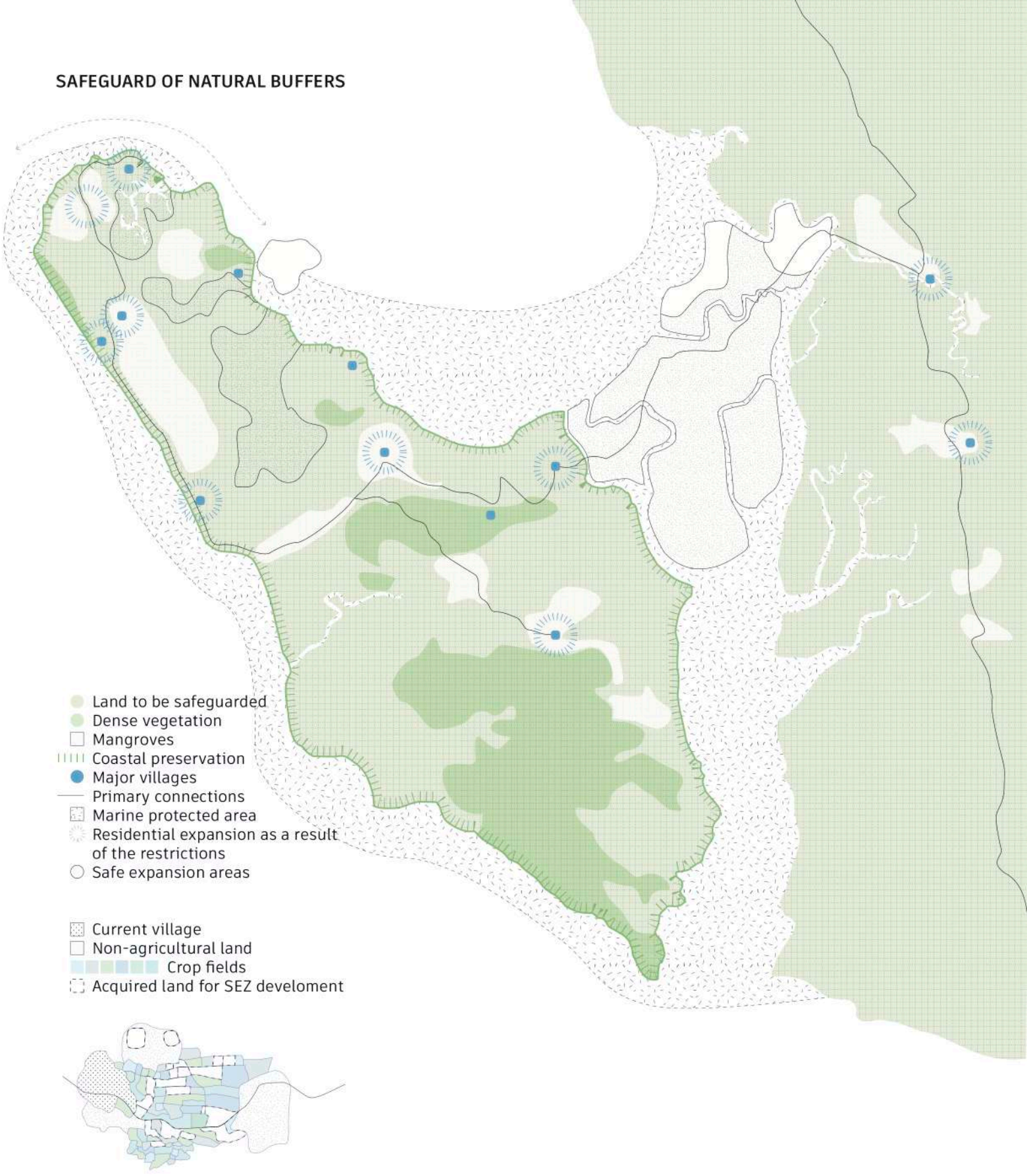
Tsunami scenario in absence of natural barriers

If communities seem disenchanted by the project, this is also due to the total lack of dialogue between them and the actors of the project. They have been neither informed nor consulted about the plans. However, the investments that the companies made directly or indirectly on site led to improvements, basic primary schools and a clinic were established and the joint venture responsible for the construction of the gas pipeline[6] invested $10m to improve the electricity network in Kyaukphyu (Peel, 2016), however only 21% of the population has access to electricity grids due to prohibitive costs (Kyaupkyu Environment Assessment Report, 2017). It should also be remembered that the metallurgical industries envisaged in the SEZ would use 3.6 million cubic meters of fresh water per day: in this area, where communities face chronic water shortages at the end of every dry season (Arkan Oil Watch, 2012), this additional water necessity could cause many communities to face an extreme shortage of fresh water.

5 Common fish species caught in the study area are tiger prawn, Spanish mackerel, porfret, hilsa, giant sea perch, white prawn, mullet, red snapper, squid, catfish, lobster, mahimahi, scad, sea bass and anchovy (Kyaupkyu Environment Assessment Report, 2017).

6 Composed by the Myanmar government and five companies from China, Korea and India, including CNPC and Daewoo (Peel, 2016).

SAFEGUARD OF NATURAL BUFFERS



Maday Island, gas terminal, storage and starting point of the pipeline. Photo Credits: The Myanmar Times

Resident's house in front of chinese office buildings on Maday Island. Photo Credits: AsiaTimes

Women sitting next to the gas pipeline that bisect her farmland. Photo Credits: Juliet Shwe Gaug, The Myanmar Times

Protests in Maday over land confiscation. Photo Credits: The Myanmar Times

Crop fields in Kyaupkyu. Photo Credits: Smug Mug

Village on Ramree Island. Photo Credits: Smug Mug

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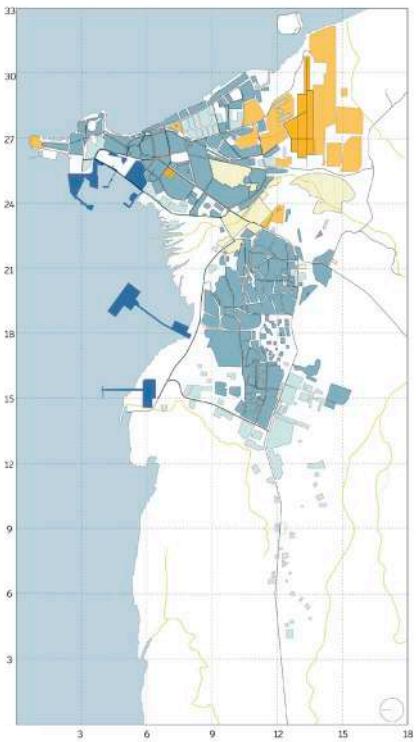
Djibouti, Djibouti

Infrastructure as Spatial Inequalities Acceletator



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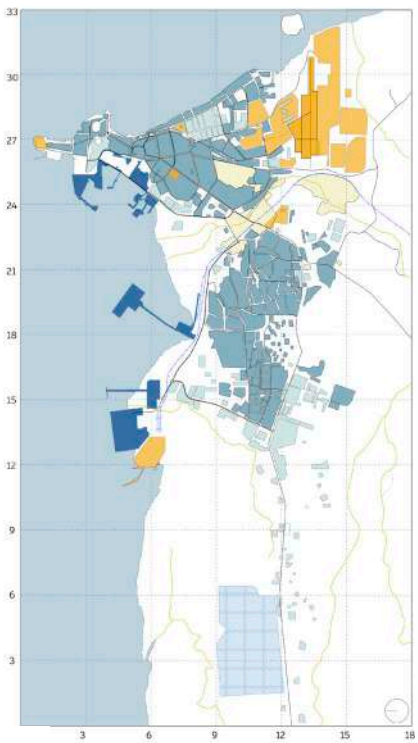

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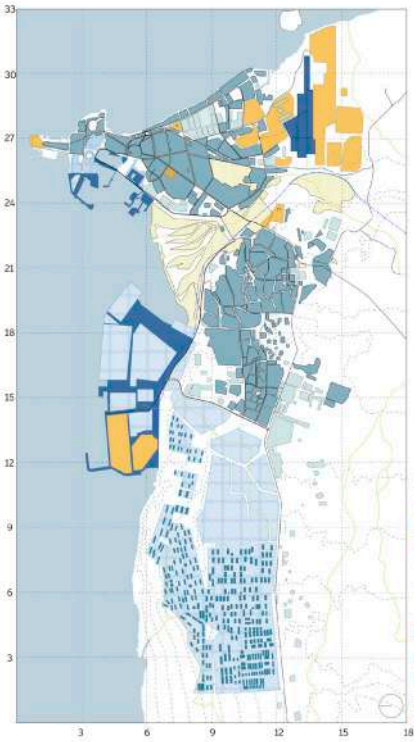

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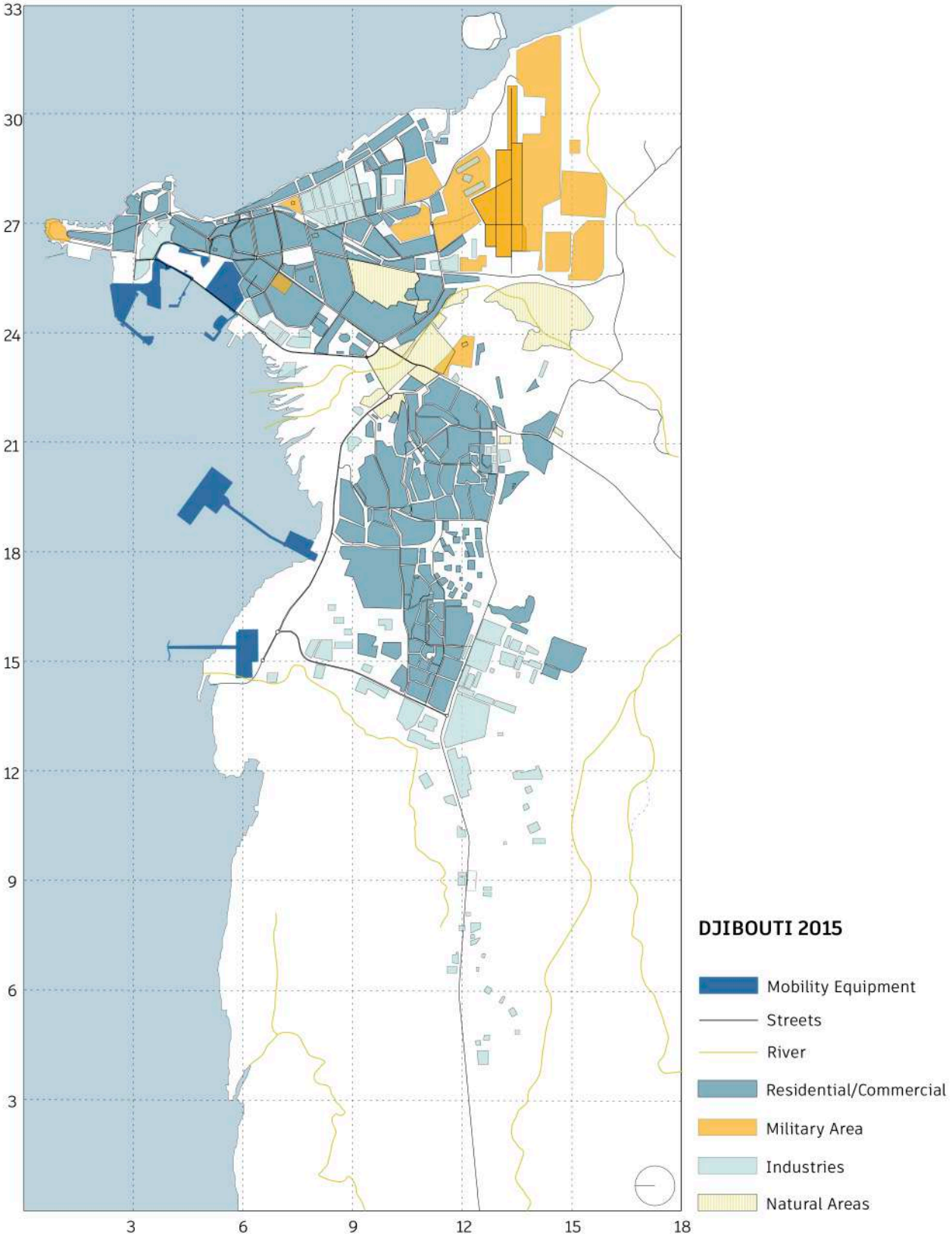
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DJIBOUTI 2015
Mobility Equipment
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Industries
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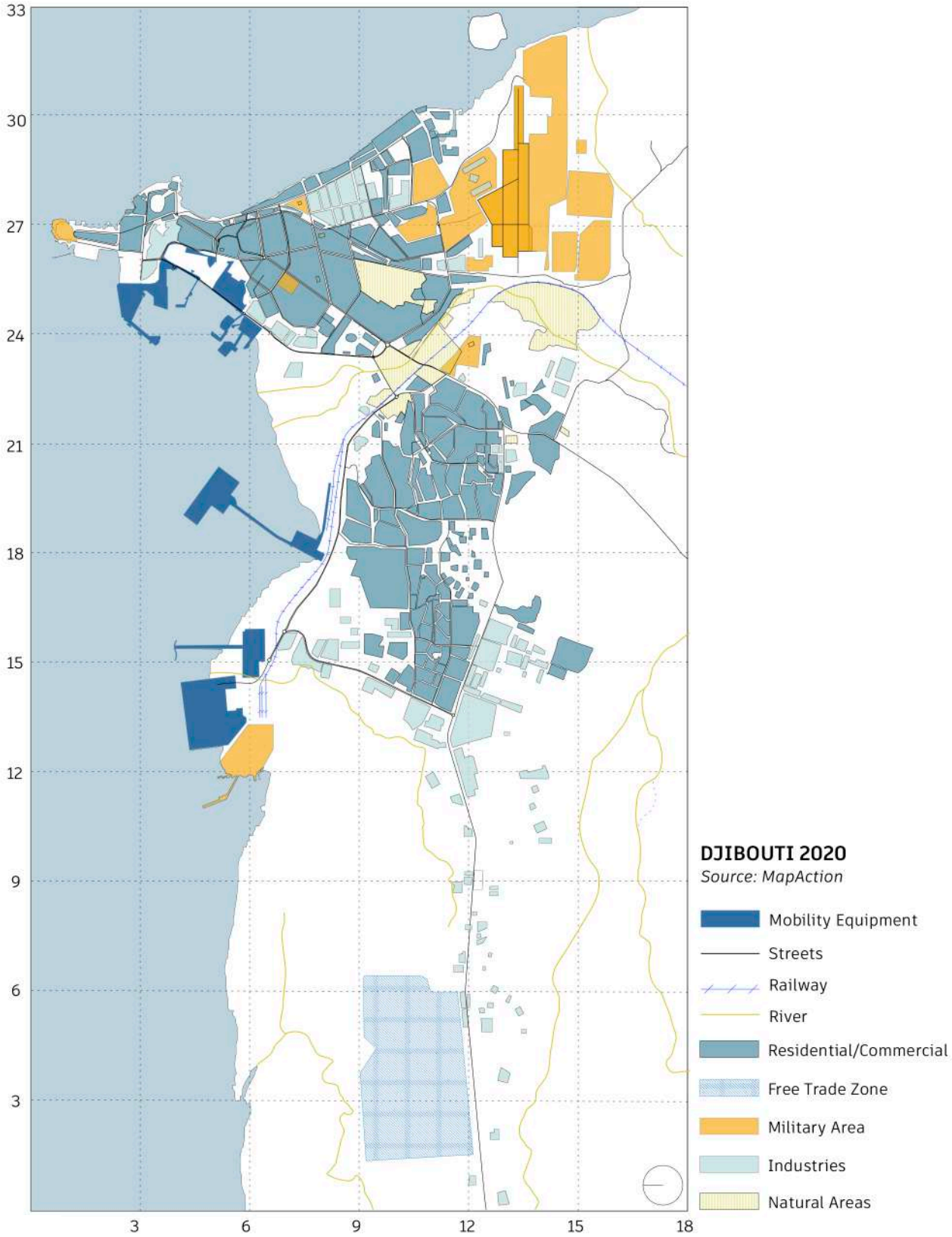
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DJIBOUTI 2020
Source: MapAction
Mobility Equipment
Streets
Railway
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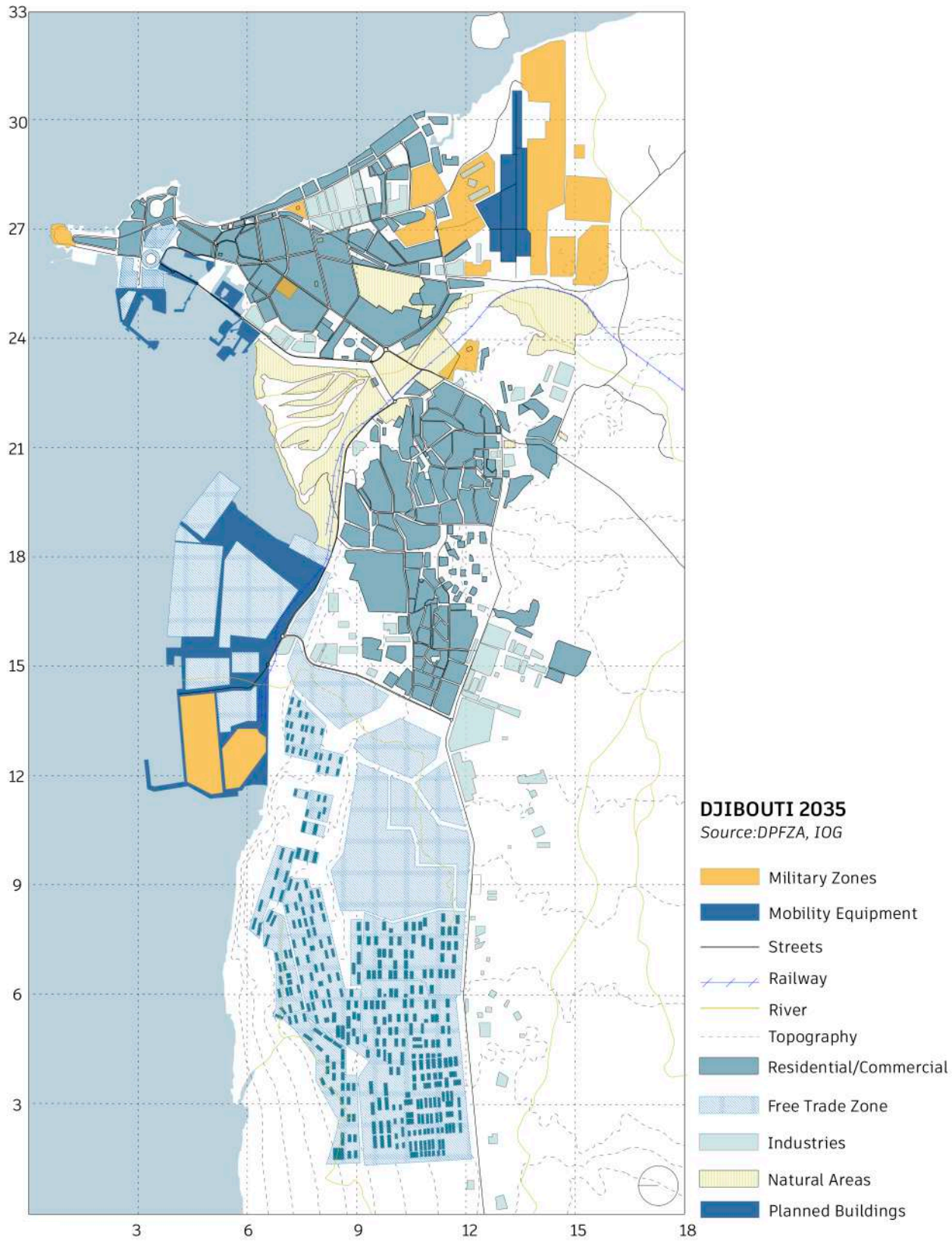
Residential/Commercial
Free Trade Zone
Military Area
Industries
Natural Areas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DJIBOUTI 2035
Source:DPFZA, IOG
Military Zones
Mobility Equipment
Streets
Railway
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Topography
Residential/Commercial
Free Trade Zone
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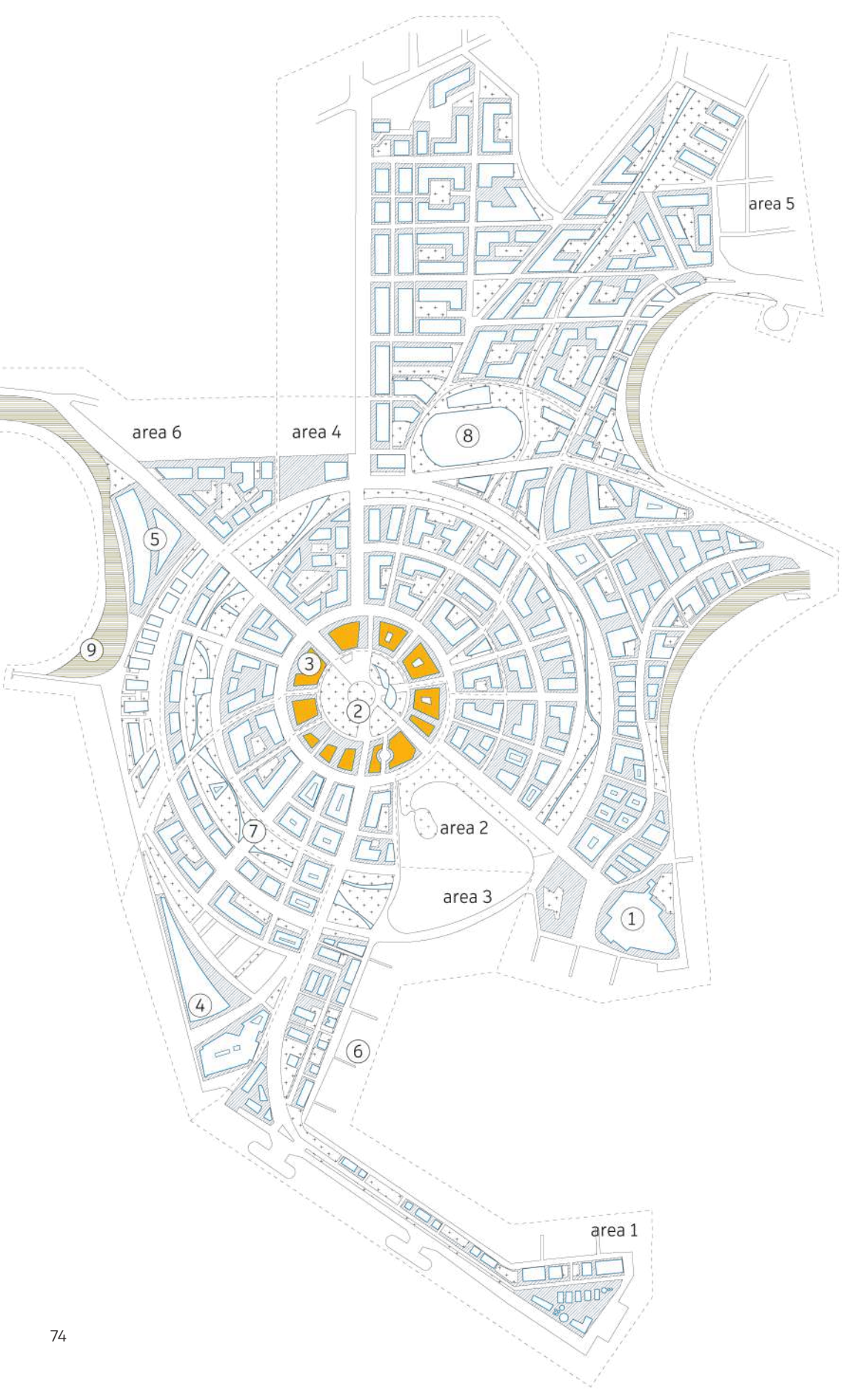

BUSINESS DISTRICT

1.000.000 m2
China Merchant Gr.
Djibouti Port Authority

1- Conference Center & Hotel
2- Civic space
3- Central Business District
4- Cruise Terminal
5- Hotel & Resort Complex
6- Marina Terminal
7- Urban Park
8- Sport Center
9- Seaside Resort

Beaches
Core Business District
Allottments
Green Areas
Buildings

DJIBOUTI'S NEW PORT AND SEZ

Djibouti is a country in the Horn of Africa bordering Ethiopia, Eritrea and Somalia, inhabited mainly by the Issa and Afar populations (FOCAC, 2018). Despite the high level of poverty, which reaches 35.8% (AEO, 2020), its location in the Bab el Mandeb strait, considered a chokepoint between the Red Sea and the Gulf of Aden, has allowed it, for over 3500 years, to have a pivotal role in maritime trade exchanges and to attract a global interest (IOG, 2016).
In fact, many world powers - such as the US, Japan, Italy and France - established their own military base in Djibouti mainly to protect commercial routes and control piracy.
At a regional level, however, being a small country surrounded by some of the largest economies in East Africa, which do not have direct access to the sea, gives it the role of hub for commercial infrastructure and port logistics services. In particular, the Djibouti economy is extremely dependent on relations with Ethiopia and South Sudan, which have intensified over time thanks to the country's ability to maintain political and economic stability since 1991[1] (IIG, 2015). «Africa, paradoxically, plays a decisive role for the Chinese strategy and for its great investment opportunities: it can transform itself into the new frontier of development and cooperation, also representing the opportunity to globally shape the Belt and Road initiative and define the role of China in the new context of global power» (Pautasso, 2016).

Sino-African relations had already begun at the end of the 90s and intensified thanks to the FOCAC[2] Summits. Starting from 2016 the Action Plans have been invested by the values of the Belt and Road Initiative, up to including it in their objectives. The countries of East Africa, especially Kenya and Djibouti, are key to the success of the 21st Century Maritime Road, allowing China to increase its presence in Africa and compete with other powers in controlling the area[3]. Aware of the importance of entering the global market and of China's interest in accessing African resources, the IOG president launched the "Djibouti Vision 2035", an action plan -in line with the Chinese objectives of creating economic and energetic corridors and reducing trade bottlenecks- which aims to transform the country into a middle- income economy and a regional transport and logistics hub similar to Singapore or Dubai (Chen, 2019).
Chinese projects in Djibouti:

- Free Trade Zone: considered the main Chinese project, whose 3.5 billion USD will be financed by a joint venture that includes Djibouti Ports and Free Zones Authority, China Merchants Group, Dalian Port Authority and IZP Group (DPFZA 2017). The 4800 hectare area will contain a Logistics Industry Cluster, Business Industry Cluster, Business Support Cluster, Processing
- Manufacturing Cluster (DPFZA, 2017).

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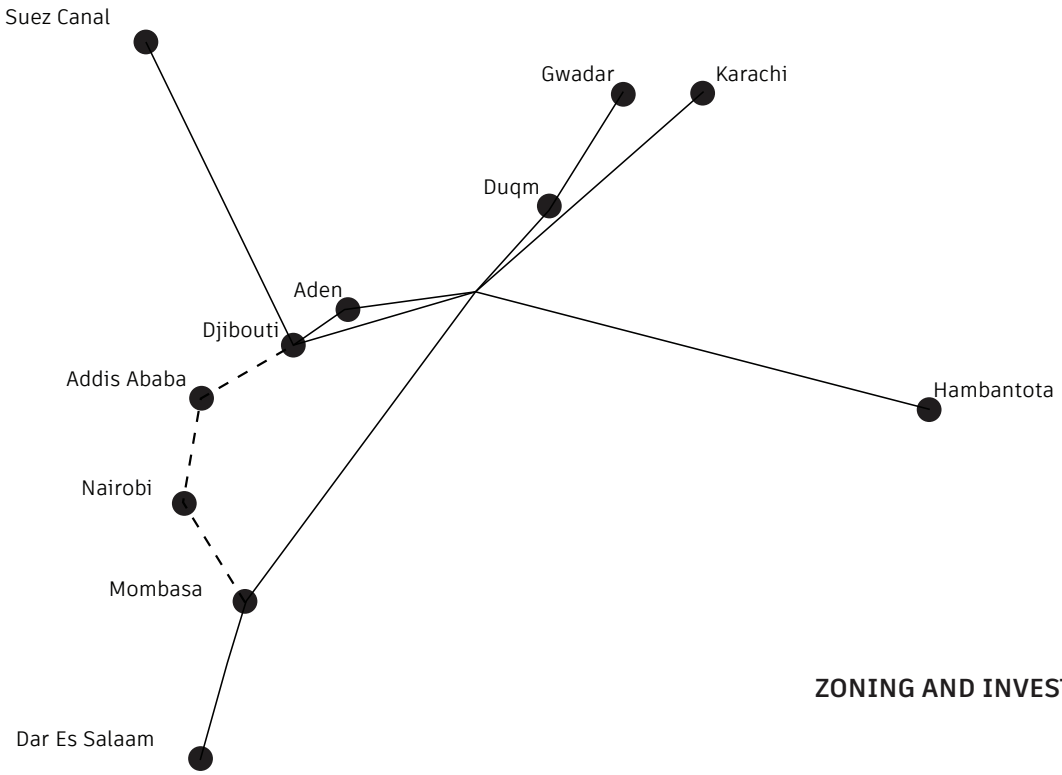
1 The other country that could compete with Djibouti as an outlet to the sea for the inland countries is Eritrea, hitherto excluded due to the war of independence with Ethiopia which lasted until 1993, followed by other wars for the borders, which ended with difficulty thanks to the Ethiopian Prime Minister, Abiy Ahmed, in April 2018. (Il Post, 2019)

2 Literally Forum on China-Africa Cooperation is an agreement to strengthen China's bilateral relations with African countries, which provides for the development of two-year action plans (Lopes, Daniele and Javier 2013).

3 During the Summit held in Beijing in 2018, President Xi made explicit his approach to Africa, based on the "5 no": no interference in African countries' pursuit of development paths that fit their national conditions; no interference in their internal affairs; no imposition of China's will on them; no attachment of political strings to assistance; and no seeking of selfish political gains in investment and financing cooperation. (FOCAC 2018)

- Addis Ababa-Djibouti Railway: in order to access Ethiopian production capacity, which offers cheap labor, duty-free trade with the US market (through the African Growth and Opportunity Act) and an important source of soy beans (Clemoes 2020). China Exim Bank financed, through loans of over $ 3 billion USD, the construction of a 756 km long railway, which connects the two capitals and arrives directly to the container terminal. Started in March 2012 and ended in 2016, the works were led by China Civil Engineering Construction Corporation (IIG 2015).
- Hassan Gouled Aptidon Airport: China Civil Engineering Construction Corporation will build a tourist airport, which will have a capacity of 1.5 million passengers and 100,000 tons of air cargo per year (DPFZA 2017).
- Doraleh Port and Military base: In 2018 the China Merchants Groups acquired 23% of the Doraleh container Port and two thirds of the rights of the Doraleh multi-purpose port, right next to the Chinese military base, investing 590 million USD in its extension and integration with the special economic zone (Blanchard, Collins 2019).
- Energy and Water: considering the scarcity of water, China Exim Bank together with the CG COC financed 320 million USD for a water pipeline from Addis Ababa to the major cities of Djibouti, guaranteeing 100,000 m3 of water per day (CGTN 2015). Furthermore, taking advantage of the significant seismic and geothermal activity, (Cutbill, Schraeder 2019), there are plans to develop renewable energies at the expense of fossil fuels.
- Old Port renovation: given the displacement of most of the operations on the DMP, DCT and Horizon Terminal, the old port will take advantage of its position in the city center for the construction of a commercial district and a “visionary exemplar hub” (IOG 2016) which attract tourists and entrepreneurs from all over the world. With a funding of 3.5 billion dollars from the China Merchant Group, the works, which will begin once all the activities still underway in the port are completed, will be divided into six phases, each corresponding to an area and characterized by an iconic building, harmonized then from the urban park. Phase one will activate the waterfont and includes conference centers, hotels, villas and residences; phase two is mainly commercial and includes a marina and ferry terminal; phase three will expand the district to the north, and will include a terminal for international cruises and recreational activities for tourists; Phase 4 will complete the urban park and the central ring of the district, as well as sports and residential areas; phase 5 will integrate the project into the persistent building pattern and support demographic growth through services and apartments; finally, phase 6 focuses on luxury seaside and accommodation facilities (IOG 2016).

CONNECTIONS

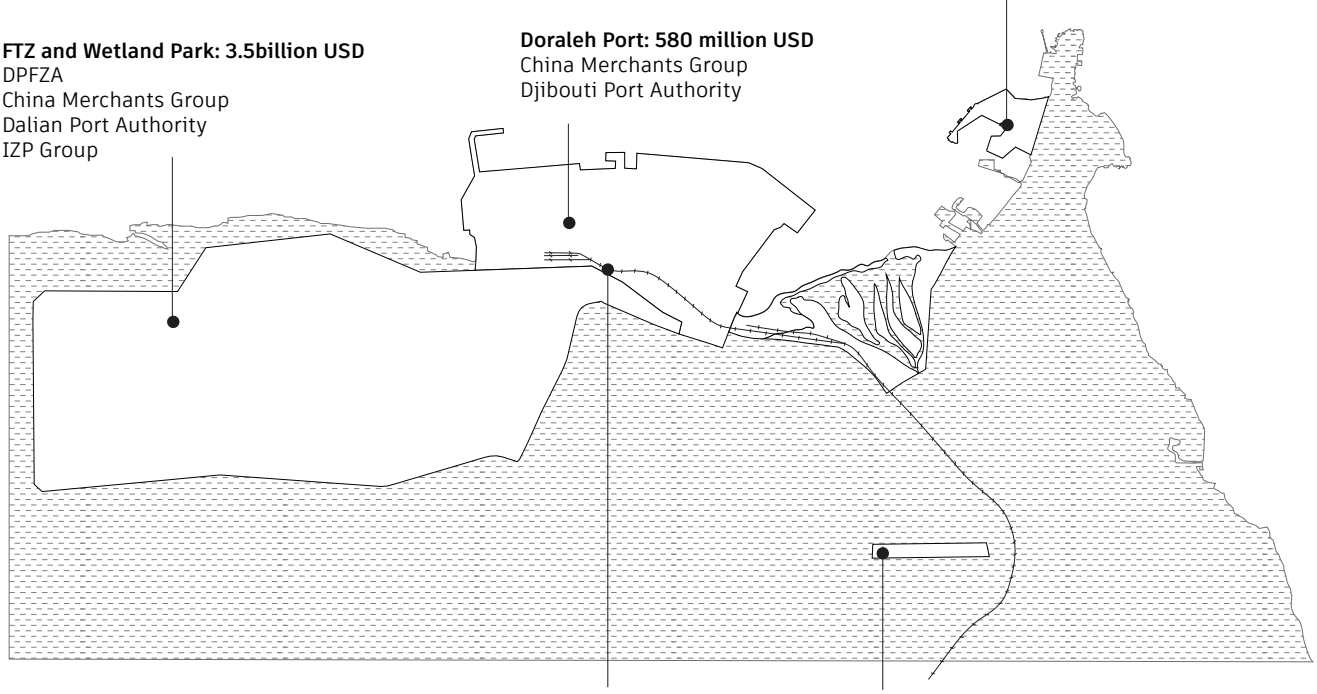


ZONING AND INVESTMENTS

Business District: 3.5billion USD
China Merchants Group

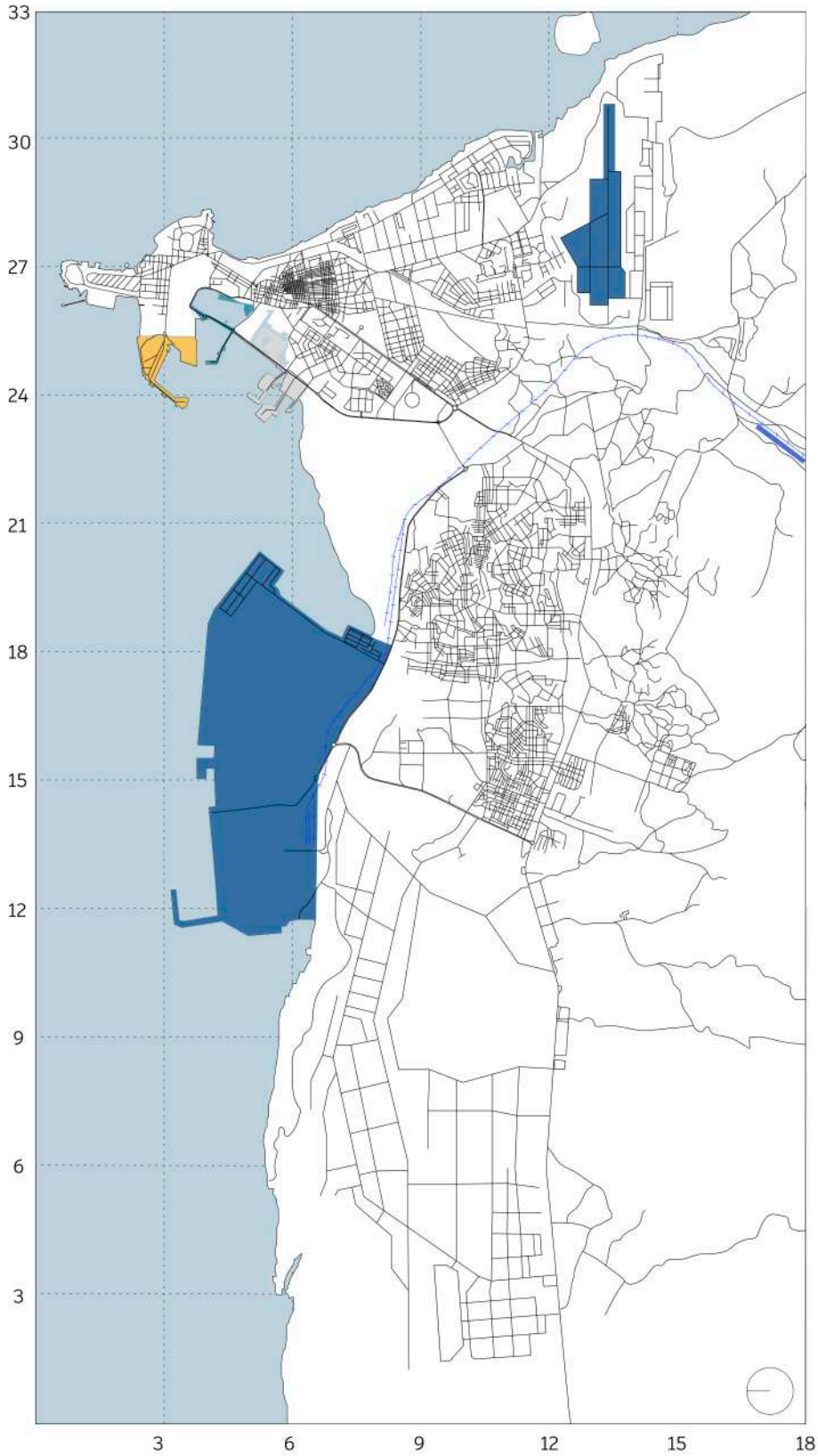
Doraleh Port: 580 million USD
China Merchants Group
Djibouti Port Authority

FTZ and Wetland Park: 3.5billion USD
DPFZA
China Merchants Group
Dalian Port Authority
IZP Group



Addis Ababa-Djibouti Railway: 3billion USD loan
China Civil Engineering Construction Co.
China Exim Bank

Hassan Gouled Aptidon Airport: 500million USD
China Civil Engineering Construction Co.
China Exim Bank



MOBILITY

Source:DPFZA, IOG

- Fishing Port
- Naval Base
- International Port
- Oil and Container Terminal
- Main Streets
- Secondary Streets
- Train Station
- Railway
- Airport


33
30
27
24
21
18
15
12
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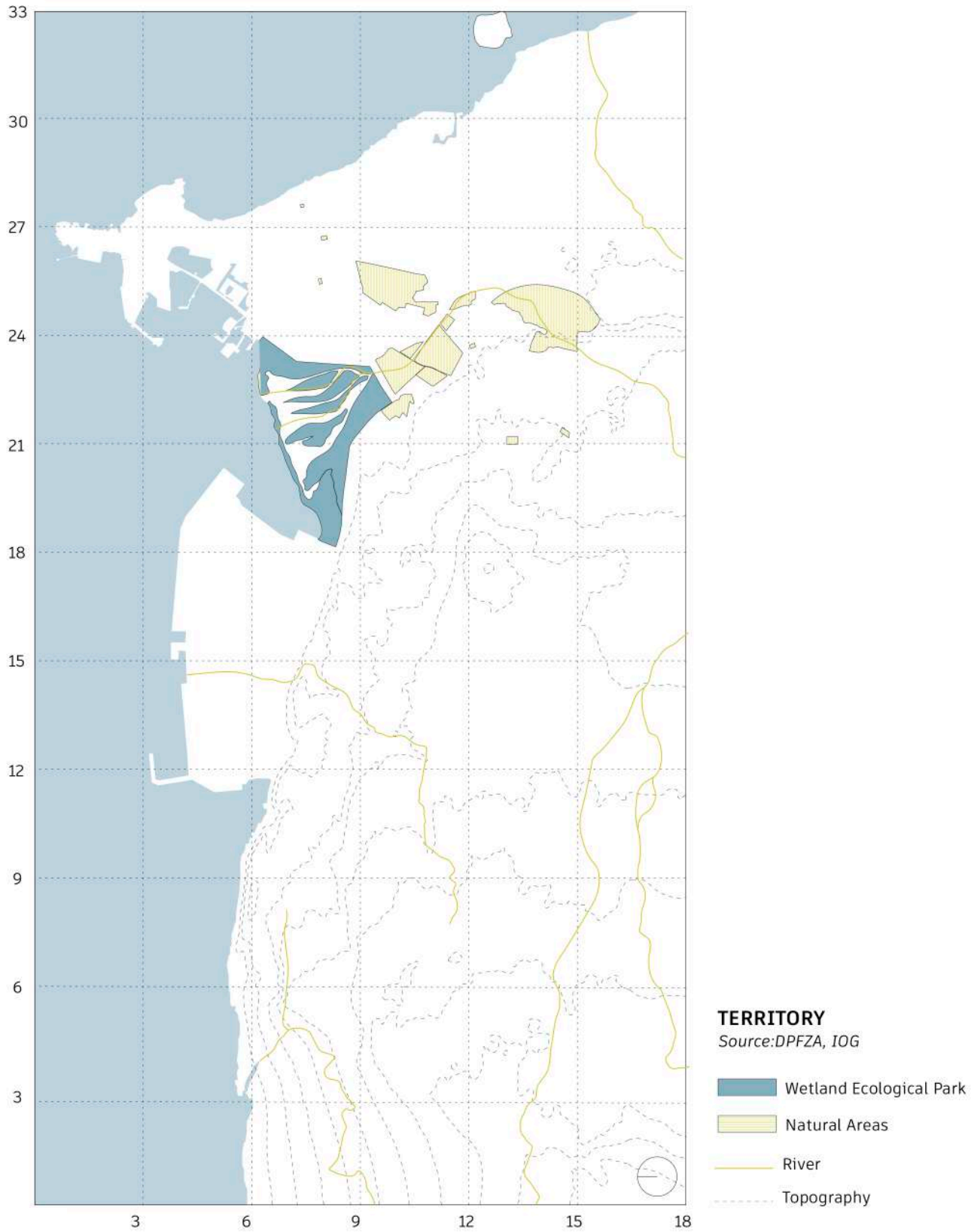
ZONING
Source:DPFZA, IOG
Residential/Commercial
Industrial Buildings
Military Area
New Industrial Area
Free Trade Zone
FTZ Planned Buildings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TERRITORY
Source:DPFZA, IOG
Wetland Ecological Park
Natural Areas
River
Topography

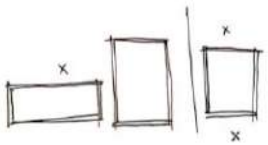
China's interests in the region are primarily in the search for raw materials, especially oil and natural gas, in the disposal of Chinese manufacturing overproduction, in giving to China a role of global power, in order to maintain security and stability to safeguard its citizens, businesses and economy. In Djibouti, where natural resources are scarce, a "support structure", announced in 2016 by the defense minister, has been built for humanitarian aid and supplies for the Chinese navy overseas (Wang 2018). Chinese rhetoric is focused on preserving the appearance of the policy of non-interference, that would be questioned when speaking of a military base.

By combining the Chinese navy with the other ones already in Djibouti (Blanchard, Collins 2019), China manages to establish itself as a maritime power and indirectly influences the internal affairs of neighboring countries, especially those in which there are currently civil conflicts. The biggest concern is that the arrival of the Chinese armed forces will create unnecessary tension with Western forces, causing negative repercussions on direct investment (Hared 2015). Two years after the construction of the base, President Ismail Omar Guelleh, to make room for Chinese companies, decided to forcibly remove DP World[1] and expropriate the Doraleh Container Terminal, declaring that he would ignore the sentences the court will impose him (Coffey 2018). The way in which the acquisition of the port took place makes its importance clear, reflecting the Chinese strategy overseas to integrate military, geopolitical and commercial interests as much as possible[2] (Blanchard, Collins 2019).

The numerous agreements and FOCAC Action Plan have always emphasized the importance of mutual cooperation, of the difference between Western conqueror and Chinese benevolence. The generosity towards African countries highlights as well the asymmetrical nature of their relationship between (RAND Corporation 2018): despite the fact that Chinese actions do not imply territorial control, interference with economic management, ethnocentrism on political organizations, imposition of cultural models - which are clear aspects of nineteenth and twentieth century imperialism - (Pautasso 2016), the gains, benefits and risks are highly unbalanced[3], as it happens in many other major Belt and Road projects in countries with developing economies.

In a letter written by Hared, head of the opposition PPD party, to President Xi, the discontent of the population is highlighted. In 2015 they asked for «Non un quatrième mandat», referring to President Guelleh, and «Non à la Chine», frightened by the lack of transparency of the agreements, the corruption and the lack of real advantages. In fact, the jobs promised to the people -100,000 by 2045 in the FTZ alone- foresee that 70% of workers will be foreigners for at least the first 5 years (Jincui 2019).

The portion of the population most benefited are in fact the Djiboutian elites: most of the new urban fabric has been located all along the coast, excluding the local people to the benefits of the mega-project. The only project located in the city center, is the business center, that includes a "filter zone", zone 5, which



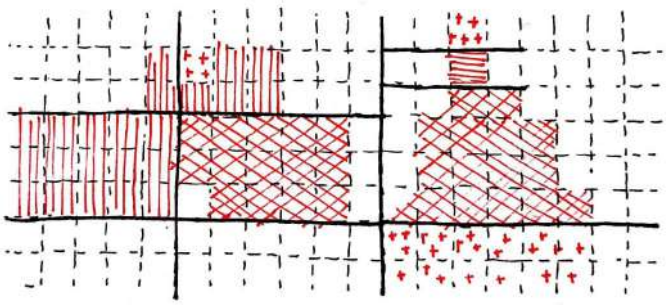
Division of the city and new catalysts

1 The Tribunal of the London Court of International Arbitration judged illegal the action of the government od Djibouti of removing the DP World from the management of the Port, terminating the Concession Agreement the had and causing a loss of over 1billion USD to the company (DP World 2020).

2 A Forum for Law Enforcement and Security is also created during FOCAC VII to help African governments fight terrorism, piracy, illegal trade, thereby protecting "the security of Chinese citizens, Chinese companies and large projects "(Alden 2018).

3 Djibouti exported $ 217,000 to China in 2018, while it imported nearly $ 2 billion from China (Atlas of Economic Growth https://atlas.cid.harvard.edu)

serves to put in contact the avant-garde city of entrepreneurs and tourists with the old city and locals. These integration strategies create a clear gap between the central part of the city, essentially without access to the sea and consisting of low-cost houses; the northern area dedicated to luxury and commerce; the southern composed of a military area; the western with heavy and medium industries.
The projects also seems having a poor analysis of the risks and capacities of the countries in which they are carried out: the Addis Ababa- Djibouti train, a few years after its construction, had already to restore the debt for the underutilization caused by the lack of energy (Clemoes 2020). The risk that Ethiopian capabilities were insufficient despite the great efforts and investments seemed evident to Wang Weng, head of Sinosure. In an interview for SCMP, he states that «The planning behind many of China's major infrastructure projects abroad has been downright inadequate, leading to huge financial losses, [...] Chinese developers and financiers of projects in developing nations supported by Beijing's Belt and Road Initiative need to step up their risk management to avoid disaster» (Ng 2018). Further problems regarding the new railway were reported in a letter by journalist Ismail Einashe to the BBC, following several attempts to board this train in 2019. In January of that year the service was suspended for security reasons, due to clashes between the Somali and Afar populations and protests against the government. Other hitches to the railway were caused by the train collisions with camels, used to grazing freely in the area. Furthermore, a functional online ticket sale has not been designed, forcing passengers to go to the Chinese station, located outside the city, paying a price equal to that of the ticket itself.
With foreign investors under attack in Ethiopia and the turmoil linked to the monopolization of power by the Tigray People's Liberation Front, the Ethiopian government is facing a crisis whose outcome is unpredictable. This certainty could have a major impact on Djibouti's economy. Given this lack of consideration, there is now an equal chance that Djibouti will become the "new Dubai in East Africa" or end up abandoned, with huge white elephants in the form of an unused railway and an empty business district (Clemoes 2020).



New Gibouti City after Chinese projects

Train Station of the New Railway. Photo Credit: Unknown

Train DJibouti-Addis Ababa. Photo Credit: Unknown

DP World's Terminal. Source: Hamad I Mohammed 2018

Welcoming Ceremony. Source: Hamad I Mohammed 2018

Ceremony of China's military base in Djibouti, 2017. Photo Credit: AFP

Military Port in Djibouti. Photo Credit: Reuters

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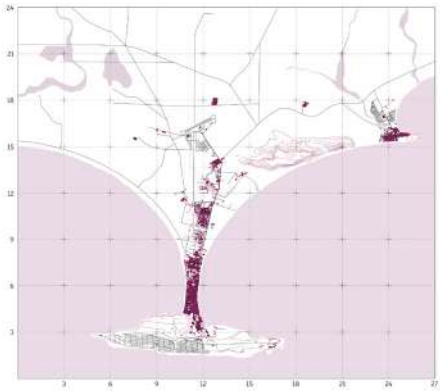
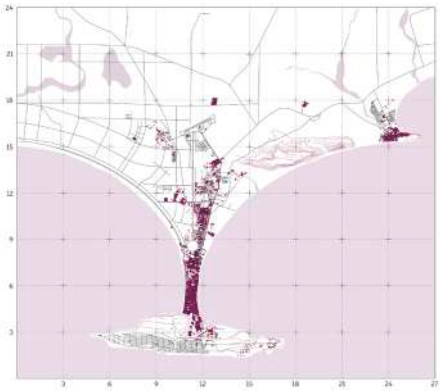
Gwadar, Pakistan

Infrastructure as Pattern Subverter

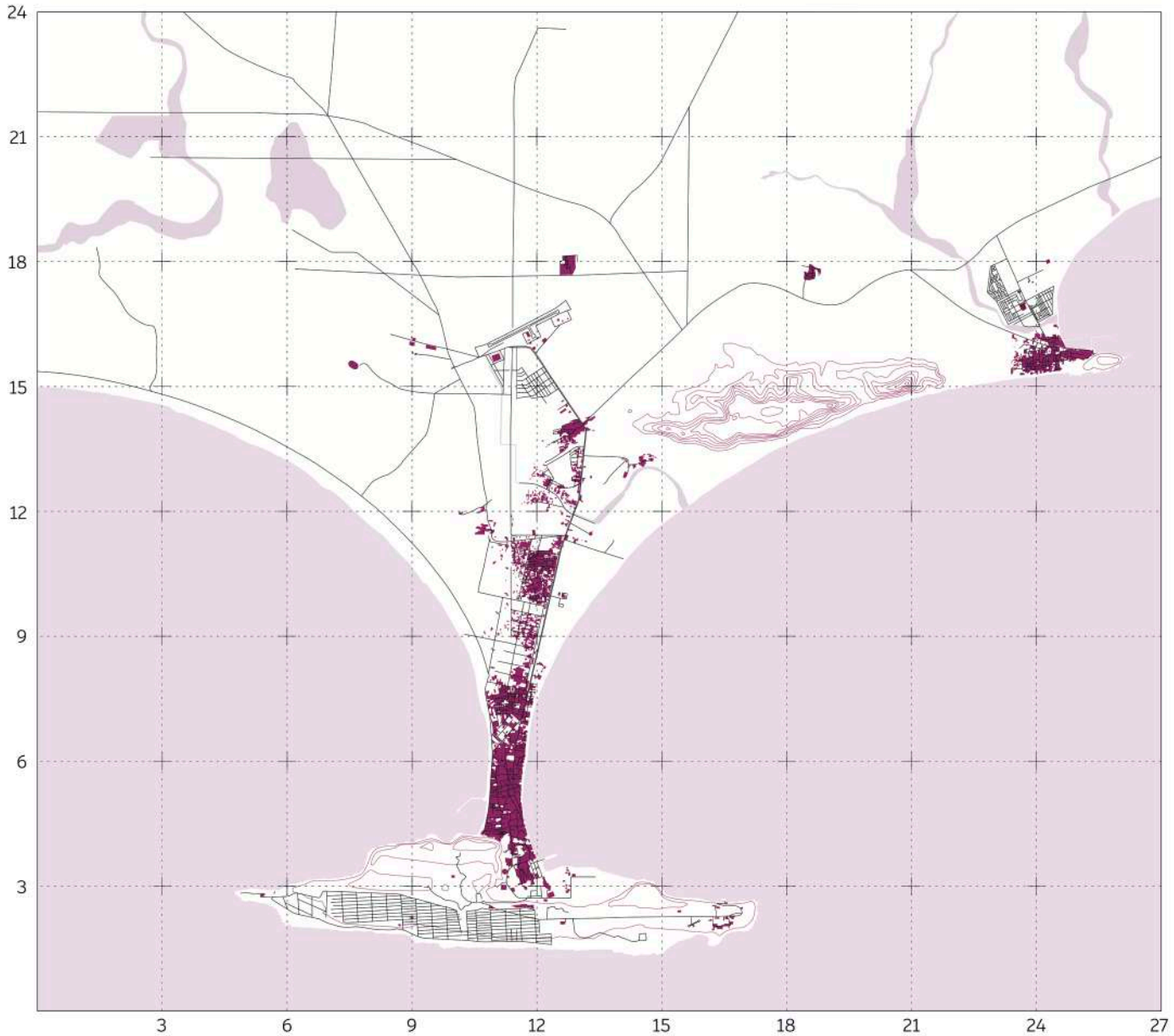


2010



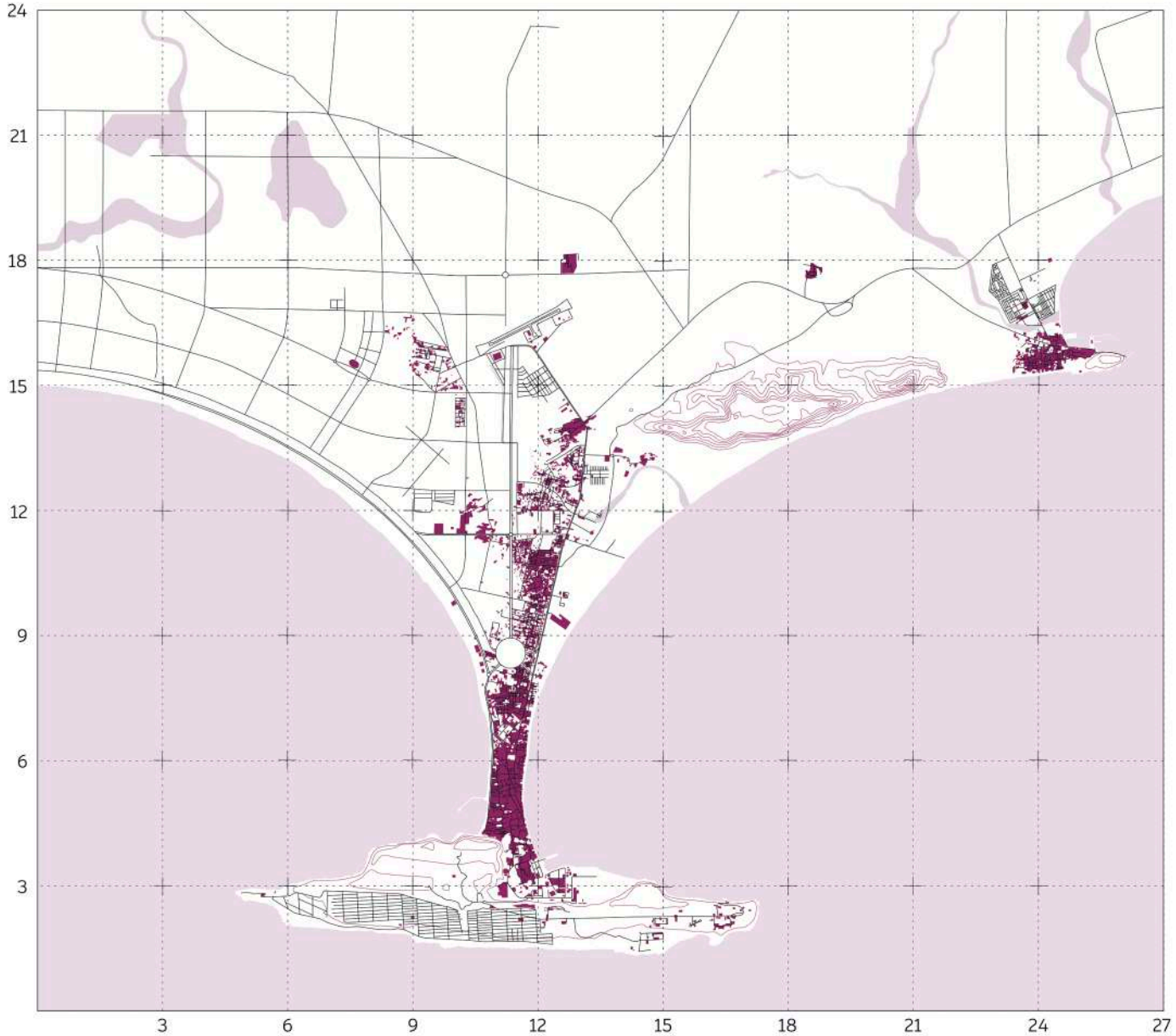
2020

2050



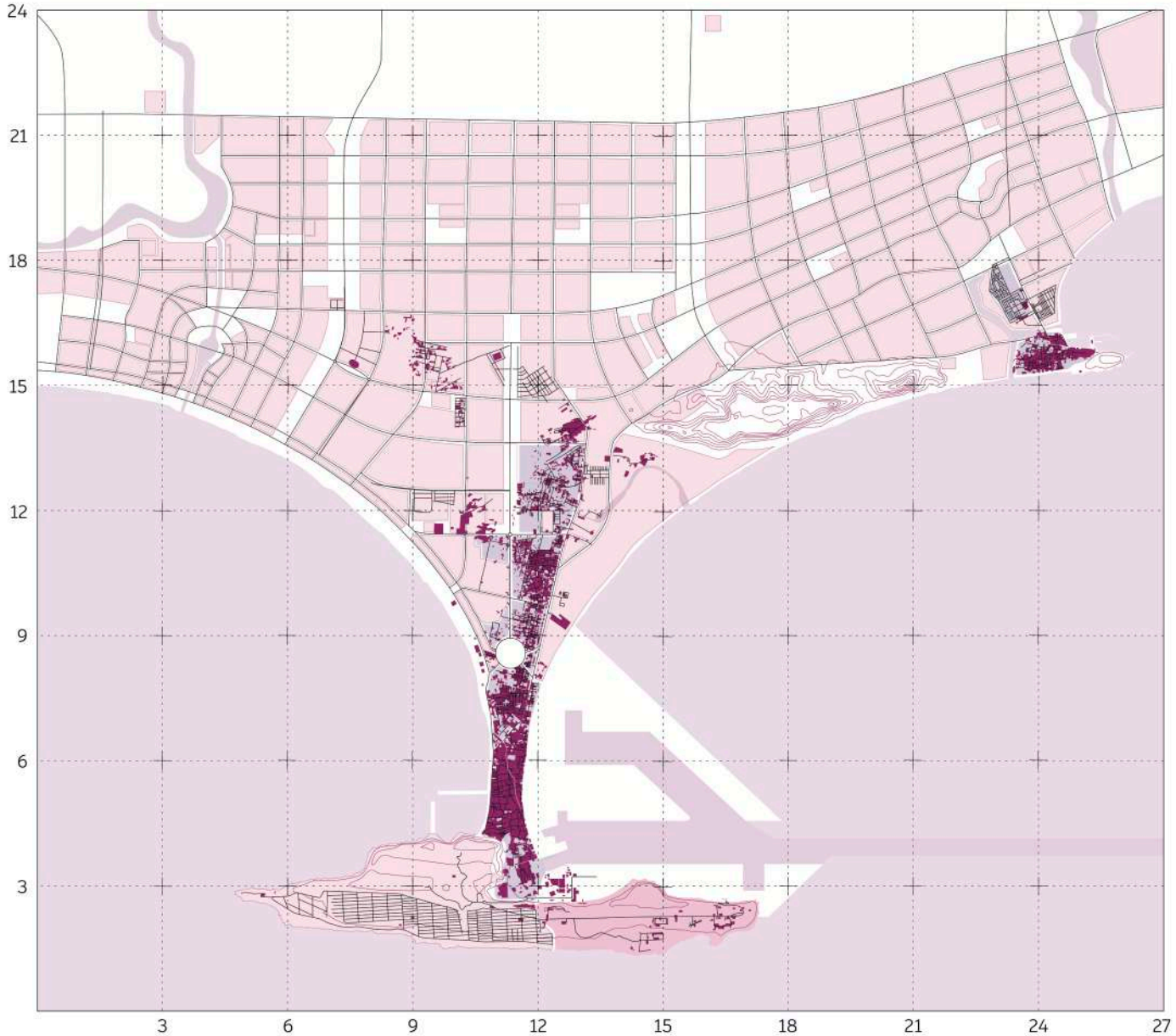
GWADAR 2010

Built areas
Major roads
Streets
Topography
Water system



GWADAR 2020

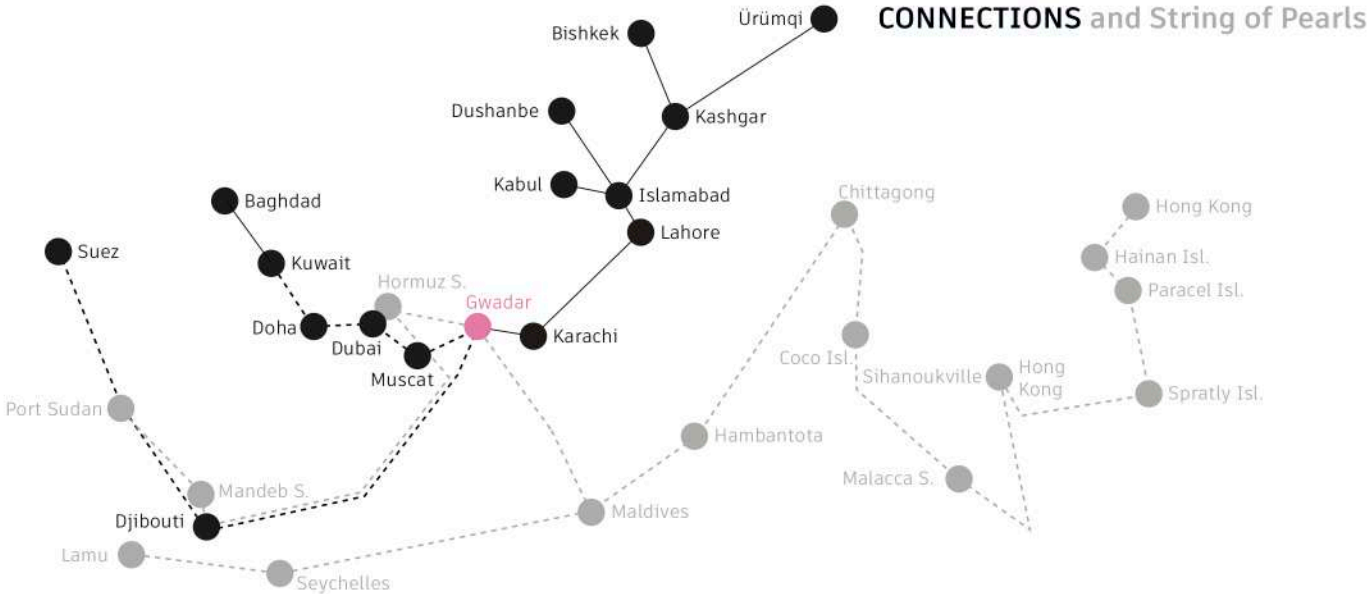
Built areas
Major roads
Streets
Topography
Water system

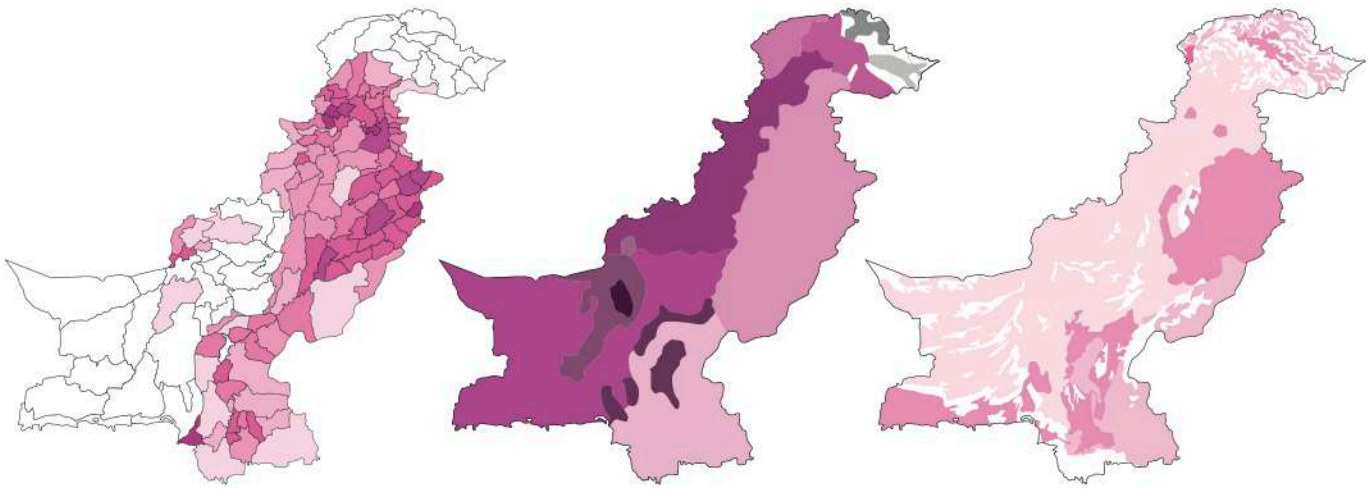


GWADAR 2050
Source:CCCC-FDHI Engineering

- Built areas
- Major roads
- Streets
- Topography
- Water system
- Existing lots
- Military land

CONNECTIONS and String of Pearls





POPULATION DENSITY

Data: Pakistani Census 2017(pop/km²)

- 1500+
- 1000-1500
- 500-1000
- 300-500
- 200-300
- 100-200
- 50-100
- 15-50

ETHNIC GROUPS

Data: UTexas

Indo-Arian
- Sindhi
- Punjabi
- Chitrali (Kowar)
- Shina

Iranian
- Baluch
- Pashtu (Pathan)

Mixed
- Pashtun/Brahui
- Baluch/Brahui
- Sindhi/Baluch/Brahui

Sino-Tibetan
- Balti

Isolate
- Burushaski

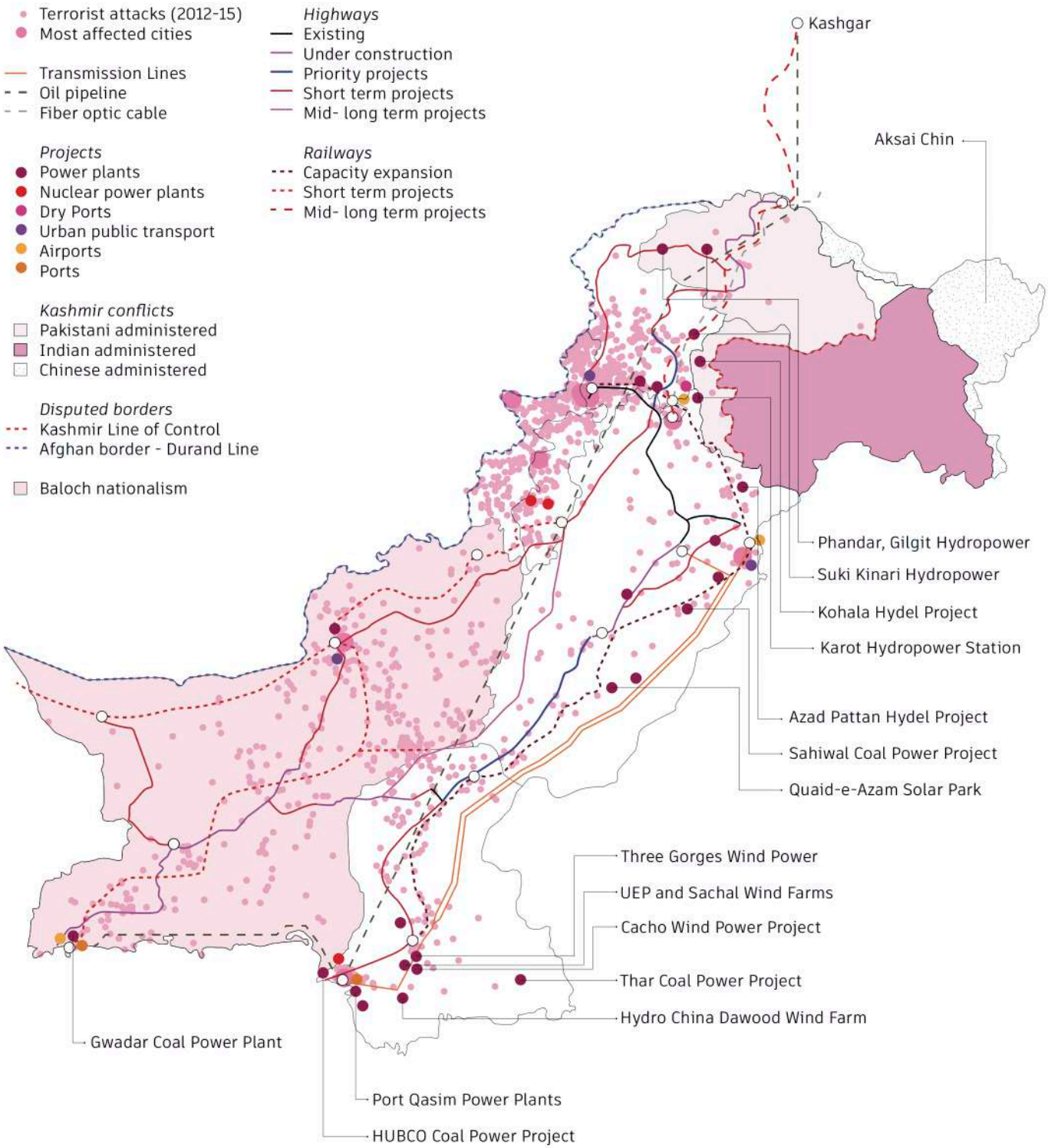
Dravidian
- Brahui

RELIGIONS

Data: CU, Gulf/2000
- Sunnism
- Shi'ism
- Sunni-Shia
- Animism

CPEC and PAKISTANI CONFLICTS

Data: Cpec 2020, Csis 2016, Merics 2020, BBC 2020



CHINA-PAKISTAN ECONOMIC CORRIDOR

The projects for the new port city of Gwadar are placed in the context of the China-Pakistan economic corridor; the latter is distinguished from the others in that although it involves only one foreign country, it envisages the development of projects worth about $ 70 billion (Notezai, 2021). The PRC sees the territory of Pakistan above all as an extremely intuitive corridor to reach the westernmost destinations of the New Silk Road through the Arabian Sea, yet another stratagem to avoid the Strait of Malacca, which is «frequently patrolled by the United States» (South China Morning Post, -).
However it is crucial, before the undertaking of this analysis, to remember that many argue that CPEC is in reality much more than a trade route and that under the declared economic interests there also seem to be important geopolitical reasons. Having a strong influence in Pakistan means for China to take advantage of the possibility of influencing the power dynamics and to extend its strategic influence «from the South China Sea to the Indian Ocean and the Arabian Sea» (Wolf, 2020). Those who argue that the Belt and Road Initiative is a new Marshall Plan, refer predominantly to the Pakistani reality: an alliance with the latter would be the counter-attack to the hostile Indian politics, which instead seeks to isolate the country, also due to the conflict in Jammu and Kashmir which has been setting fire to the mountainous region between China, India and Pakistan for over seventy years[1]. China would therefore take the opportunity to complete the encirclement of Indian power[2], which continues to view Xi's initiative with distrust. With the great possibilities that the CPEC creates, it also raises multiple concerns. The exorbitant cost of the project is already weighing on the country, and there are fears of a debt-trap like the Sinhalese one (Shakil, 2020).

Moreover many argue that the benefits for the population would be extremely lower than those expected. Given the not purely economic and commercial nature of the corridor, it is feared that if the project, which has to cope not only with the topographical difficulties of territories such as the mountainous Gilgit-Baltisan and the Khyber Pakhtunkhwa or the desert of Balochistan, also with enormous and long-standing security issues both domestic and borderline[3], may not operate as expected and cause huge debt and unemployment problems for the nation. In order to study a territory like that of Gwadar, it is necessary to take into account that it is only the terminus of a corridor of very ambitious investments that are linked to each other and that need to be developed and understood in synchrony in order to function.

1 https://www.cfr.org/global-conflict-tracker/conflict/conflict-between- india-and-pakistan

2 By means of the String of Pearls in the Indian Ocean as well as the CPEC and BCIMEC corridors.

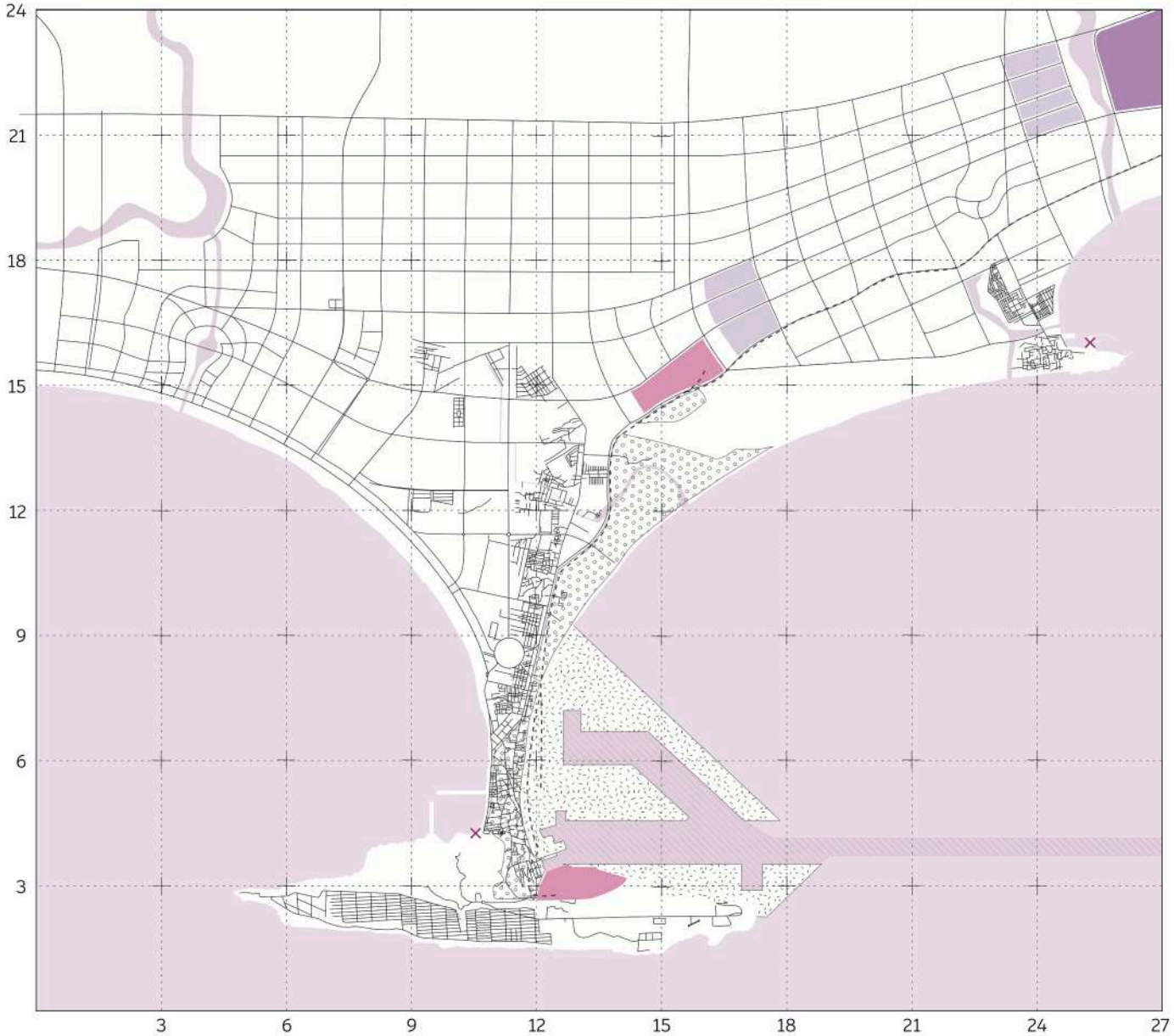
3 Among others, the conflicts on the disputed Kashmiri line and the independence currents of Balochistan (Mendez, 2020), the continuous terrorist attacks due to the Tehrik-e-Taliban Pakistan (TTP) (Afzal, 2021), the Aghano-Pakistani disputes along the Durand Line and the construction of the Border Fence by the Pakistani government (Farmer, Mehsud, 2020).

GWADAR SMART PORT CITY

The port city of Gwadar is located in southwestern Pakistan, in the Balochistan region, overlooking the Arabian Sea. The place is located in a particularly isolated area compared to the populous regions of Pakistan, and infrastructures are weak: Chinese interest is however due to the strategic position, at the mouth of the Gulf of Oman and therefore in proximity to both the Persian Gulf and the Arabian Peninsula, areas in which China is particularly attracted from an energy point of view. Gwadar is also close to the border with Iran and on the route of the under-construction Iran-Pakistan gas pipeline. Gwadar would represent, in the broader context of the CPEC project, the fundamental crux of the Pakistani corridor and «one of the points where the Road and the Belt intersect» (Saran, 2015). The city is located on a natural hammerhead-shaped[4] tombolo peninsula, in a flat and desert area with the imposing Balochistan Plateau behind it. Historically a medium-sized city based on artisanal fishing, it was overseas possession of the Sultanate of Oman between 1797 and 1958 (Britannica, Gwadar). The Chinese interests for the place date back to 2001, when a Sino- Pakistani joint venture began a first phase of expansion of the deep sea port as well as the construction of some infrastructures such as the Makran Coastal Highway (Anwar, 2011). Until the close agreements between China and Pakistan under the Belt and Road in 2015, however, the port remained underused. Identified by Chinese plans as a «gateway to Asia» (Pauley, Shad, 2018), the project has quickly become one of the most important and significant in the whole BRI context. Under the CPEC agreements, a second phase of expansion of the port has been started for a total cost of $ 1.02 billion (Xin, 2015) which will lead it to be one of the deepest ports in the world, as well as hosting a total of 70,000 deathweight tonnages, in comparison to the previous 20,000, thanks to new berths and cargo tunnels (Grare, 2015). The CPEC agreements also provide for the construction of a new international airport, the Gwadar East-Bay Expressway, the development of a 2,292-acre Free Trade Zone (Chang, 2015) on the eastern side of the peninsula and the expansion of the city according to an ambitious larga-scale masterplan[5]. Projects are also underway for the construction of a floating liquefied natural gas terminal with capacity of 500 million cubic feet of gas per day and a desalination plant (Grare, 2015). Finally, major railway and road ongoing infrastructure works will connect the city more efficiently to Iran and especially to the major Pakistani arteries crossing the country from south to north on the eastern side. The estimated amount for infrastructure projects in the city of Gwadar is $ 1.62 billion (Grare, 2015).

4 Among others, the conflicts on the disputed Kashmiri line and the independence currents of Balochistan (Mendez, 2020), the continuous terrorist attacks due to the Tehrik-e-Taliban Pakistan (TTP) (Afzal, 2021), the Aghano-Pakistani disputes along the Durand Line and the construction of the Border Fence by the Pakistani government (Farmer, Mehsud, 2020).

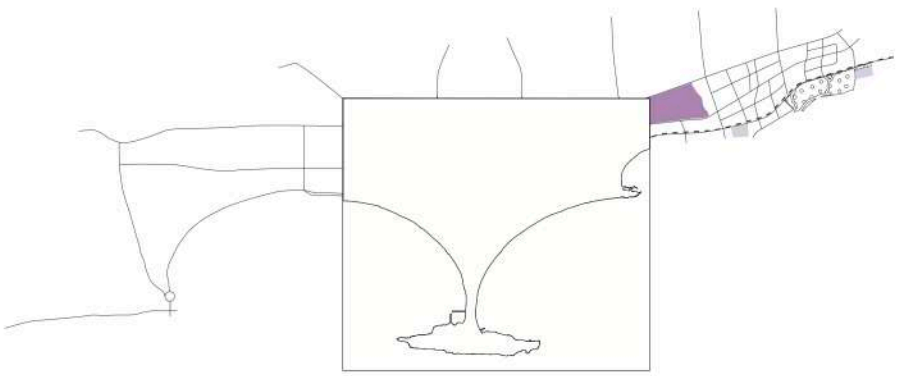
5 http://cpec.gov.pk/gwader

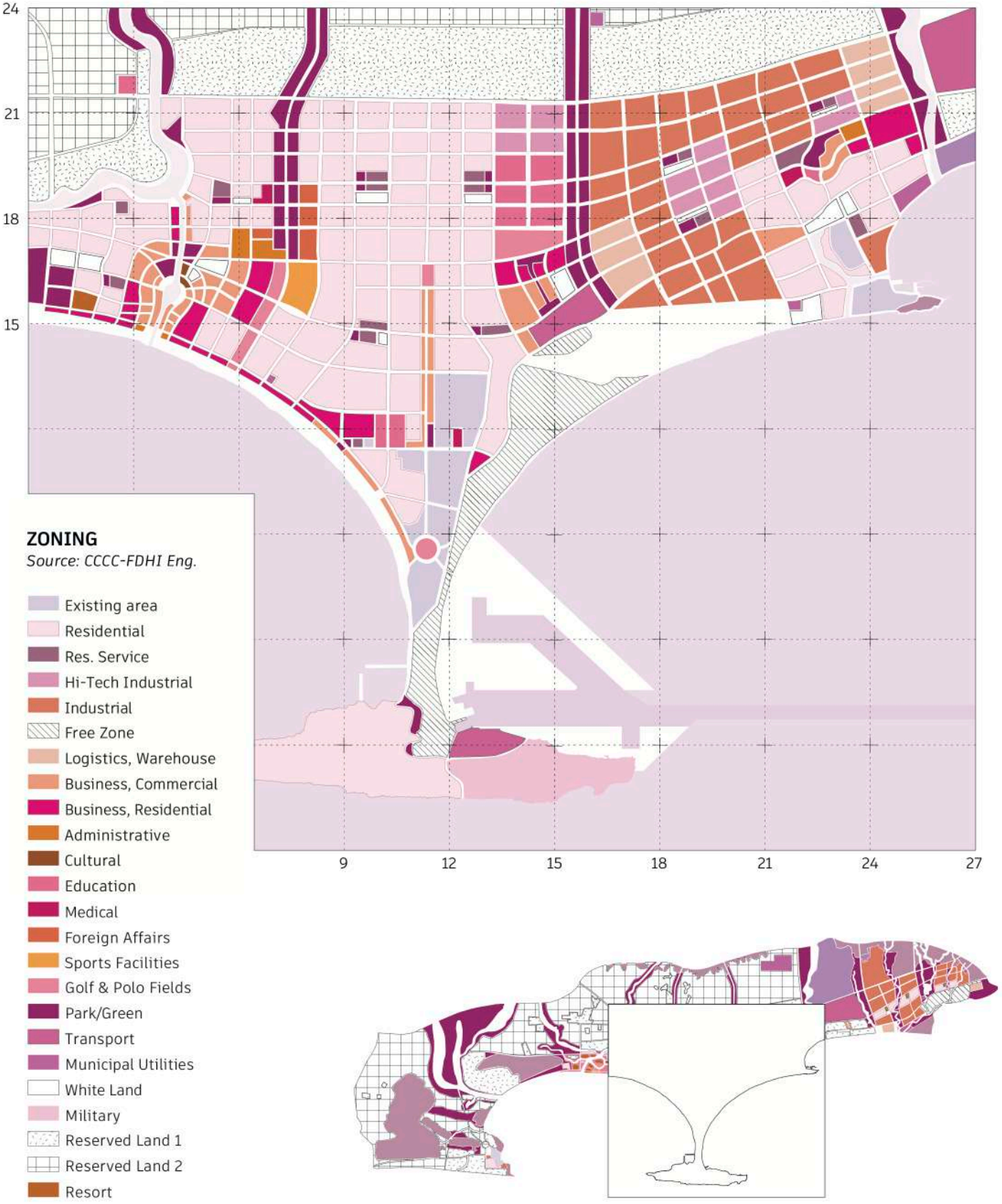


MOBILITY

Source: CCCC-FDHI Eng.

- Transport
- Logistics, Warehouse
- Dredged Seabed
- Free Zone
- Deep-Sea Port
- New International Airport
- Main roads
- Secondary roads
- Rail
- Secondary ports

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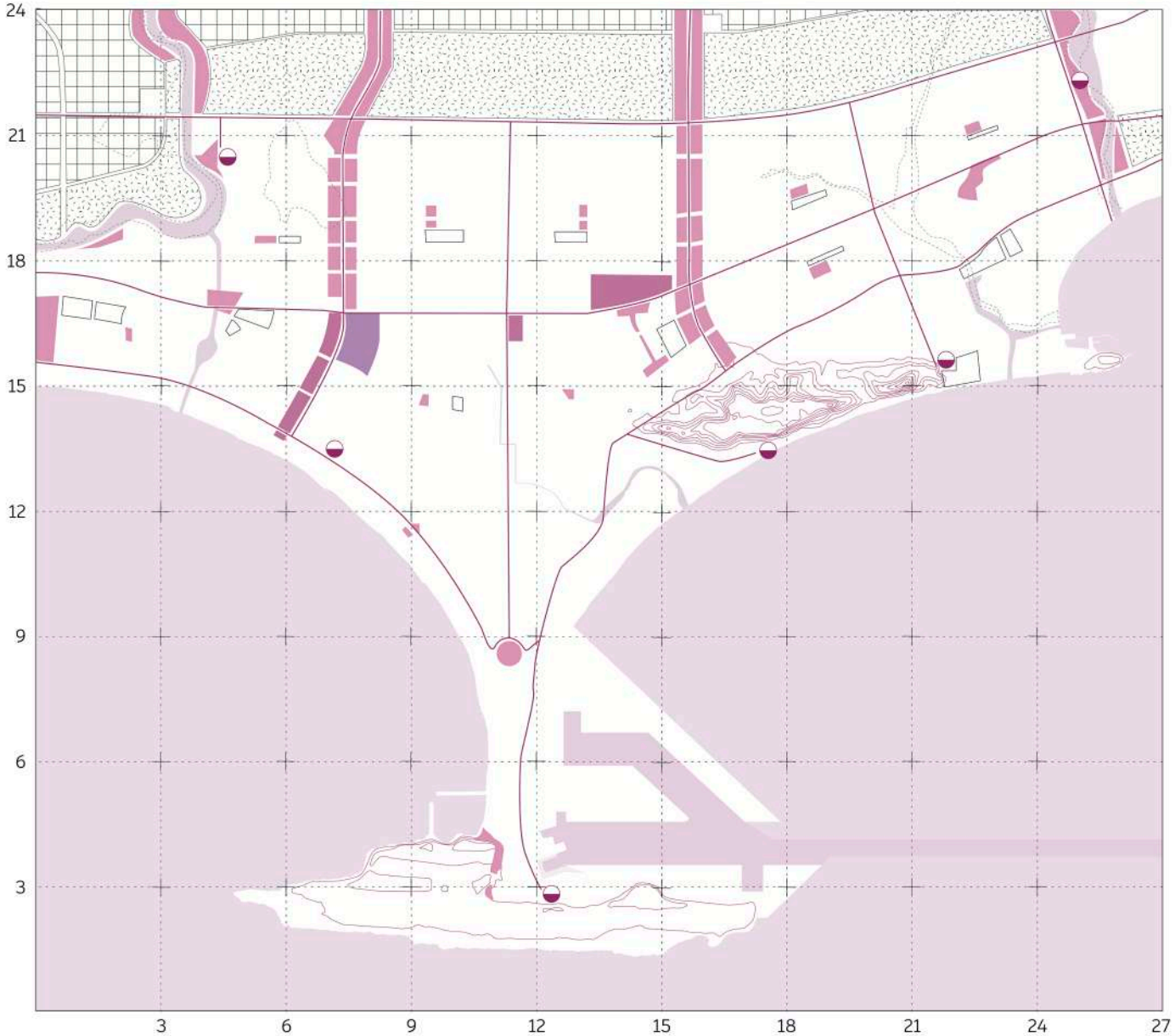
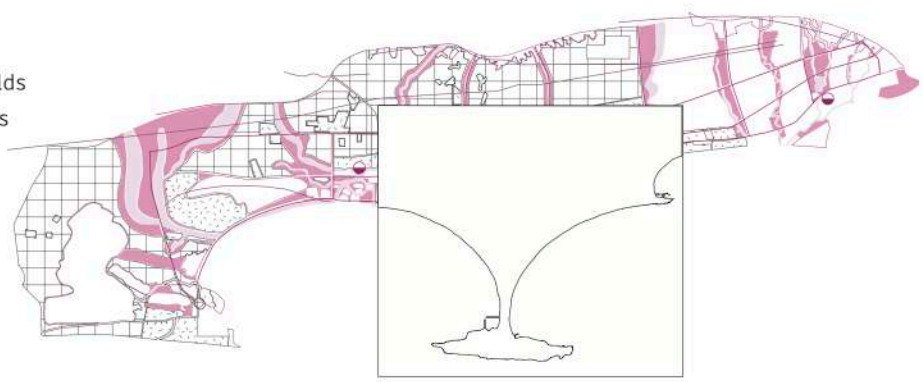
ZONING
Source: CCCC-FDHI Eng.
Existing area
Residential
Res. Service
Hi-Tech Industrial
Industrial
Free Zone
Logistics, Warehouse
Business, Commercial
Business, Residential
Administrative
Cultural
Education
Medical
Foreign Affairs
Sports Facilities
Golf & Polo Fields
Park/Green
Transport
Municipal Utilities
White Land
Military
Reserved Land 1
Reserved Land 2
Resort



TERRITORY

Source: CCCC-FDHI Eng., Gwadar Jaidad

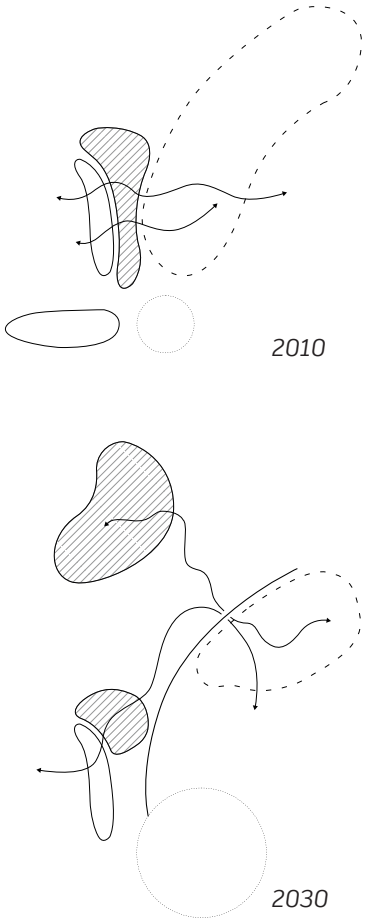
White Land
Reserved Land 1
Reserved Land 2
Dredged Seabed
Water
2020 Water Basins
Topography
Reclaimed Water Pipe
Reclaimed Water Plant
Earthquake Fault Zone
Park / Green
Golf & Polo Fields
Sports Facilities



As already mentioned, the most concrete risks for the project are those of a large scale: being totally dependent on Sino-Pakistani relations, it is feared that a deterioration of the latter could lead to the failure of the entire initiative, as Pakistan would not be able to cover even the $ 750 million needed for the most basic infrastructures (Aamir, 2020). The alteration of relations is also a risk made more concrete by the instability of Pakistan and the territories that the CPEC corridor crosses: in Gwadar in particular, the Baloch Separatists are feared, who are wary of the whole CPEC initiative, seen as yet another way of the Pakistani central government to exploit the region in favor of the richer Punjab (Kakar, 2020): the Chinese project, which is based on cooperation, has in this case «cemented Pakistan's ethnic, social, and political divides» (Grare, 2018). The instability of the situation[1], as well as causing a strong militarization of the whole area, has led to the need of supervision for all the building sites in the city thanks to Pakistani soldiers[2]; during 2020, the proposal was made to fortify the city with a fence, leaving two controlled accesses (Ahmad, 2021). Once the works had begun, however, the disputes that the operation had raised led to the interruption of the works. The barrier would have had the function of protecting Chinese investments and enticing stakeholders to invest in it with a greater guarantee of safety (Baloch, 2020) however the residents opposed the construction, as the barrier would have left out part of the city shrinking the freedom of movement of the premises. This new border would have validated the worst fears of the population, who already feel «displaced and dispossessed in their own land» (Kakar, 2020): there are indeed many allegations of land grabbing in a place where, among other things, «land is administered by customary law and property titles do not always exist» (Grare, 2020) and it is therefore complicated to trace the mechanisms of ownership transfer.

If initially the CPEC project was welcomed by the inhabitants as the fulfillment of a long-awaited promise of development (Grare, 2020), now the awareness is growing that the project benefits only the Pakistani central government as well as the Chinese: the benefits that Gwadar generates seem to be for everyone except the city itself. It is expected that the GDP of Gwadar will increase to $ 30 billion by 2050 and produce 1.2 million jobs (Aamir, 2020), however everything being built appears to be destined to a new working class from China who would take advantage of the newly built city.

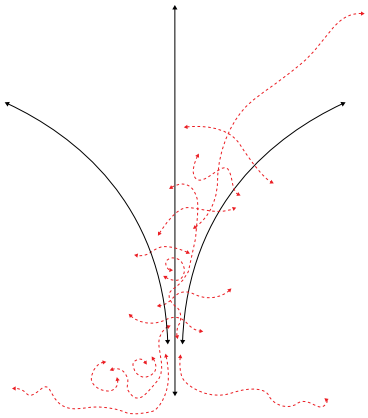
The promises of development made to the locals have so far only been expressed in a series of sacrifices and compromises that they have undergone: the expansion of the port on the eastern side of the tombolo forced the mahigeer (the fisherfolk) to move to the western side, however the East Bay is where the richest fishing grounds are located, extremely more fertile than the western bay: «this area used to be so abundant with valuable shrimp that fisherman could catch hundreds without even trying, but with the port built on their main breeding site, the catch has declined» (Awan, Hussain, 2020). The population's relationship with the sea is made even more arduous due to the construction of the East-Bay Expressway,



New infrastructures acting as a barrier to the Gwadar's natural flows

1 «In May 2004, the Baluch Liberation Front (BLF) gunned down three Chinese port workers at Gwadar in Pakistan's Baluchistan province» (Ramachandran, 2018). Since then attacks have become more frequent, the latest in 2019 when eight were killed in the Pearl Continental Hotel attack (Hashim, 2019).

2 https://www.dw.com/en/pakistan-impact-of-the-new-silk-road/ av-47628116



Presence of two different urban orders that hinder each other

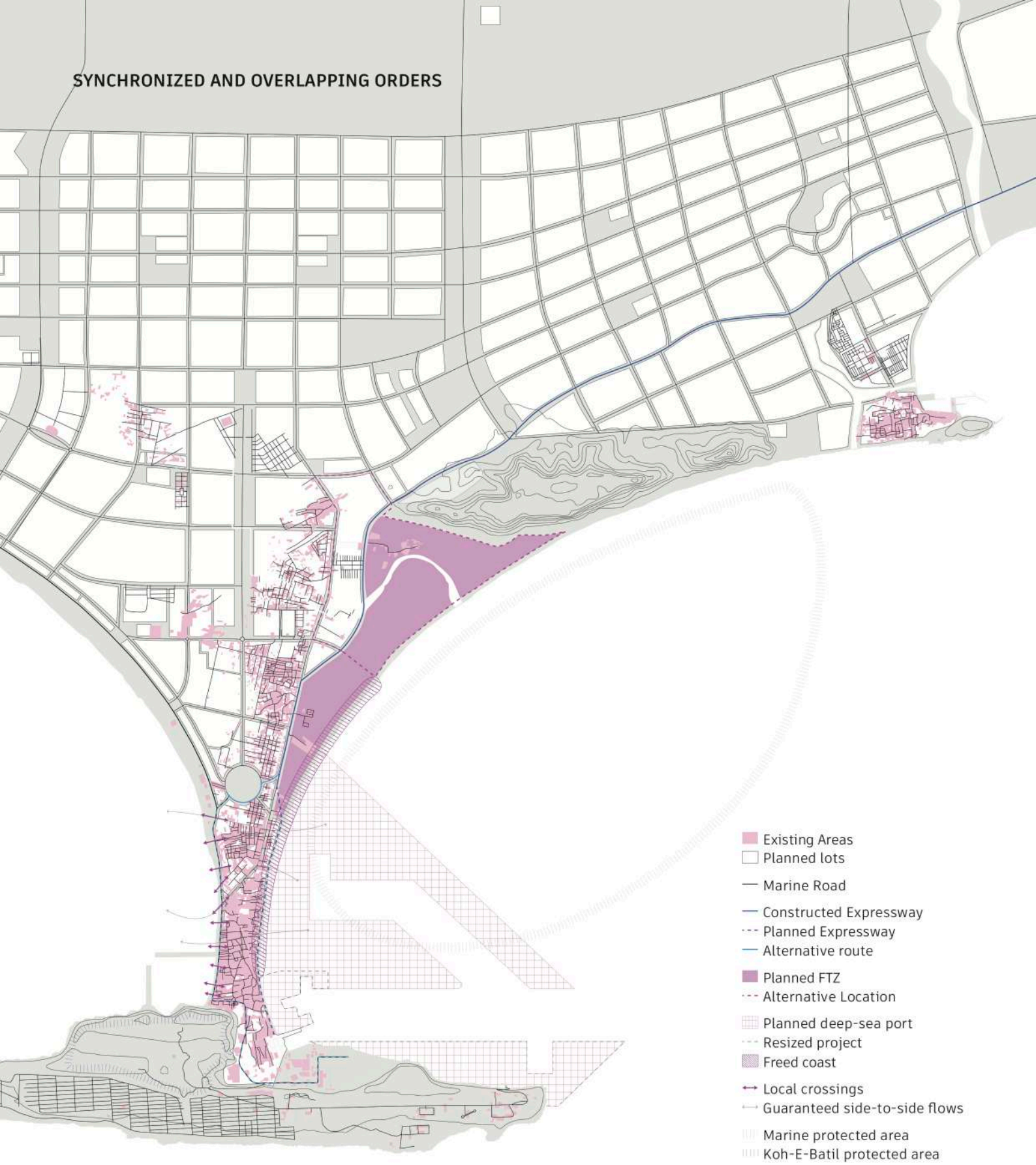
a six-lane highway that connects the port to the arteries leading to the Oil City[3] and Karachi, skirting the east coast and effectively precluding quick access to the sea for fishermen. Strong protests by fishermen in 2018 led to the signing of agreements aimed at the design of «three passages for boats underneath the expressway» (Khan, 2019), but essentially the traditional orientation of the settlement is ruined both by the continuous evictions[4] and from interventions on the coast. This is yet another demonstration of the difference between Gwadar's traditional orientation and that of the new proposed masterplan: they propose two conceptions of the place that cannot coexist and that hinder each other, and the first is destined to succumb in favor of the second. The lack of understanding of the territory seems to persist in every aspect: the hammerhead at the pinnacle of the peninsula is a space that has always been uninhabited, but an important meeting space for the city, used for festivals and recreational purposes by the local community (Awan, Hussain, 2020).

Little attention seems to be paid also to the topographical and climatic peculiarities of the place: the port had sufficiently deep depths, but during the second phase of expansion the naval route into the port «needed to be carved out of the seabed and required dredging» (Awan, Hussain, 2020). This work led to a change in the interactions of the sea waves with the coast and just a week after the end of the works, a cyclone hit the tombolo and the east coast causing the destruction of fifty-two houses in the nearby village of Sur Bandar (Dawn, 2014).

3 Oil City is a planned area 70 km east from the port that will be serving as a place where products imported from the Gulf Region will be refined and processed for local and regional consumption (Ahmed, 2021).

4 For the expansion of the Deep-Sea port alone, the families of 800 fishermen were evicted (Khan, 2019).

SYNCHRONIZED AND OVERLAPPING ORDERS

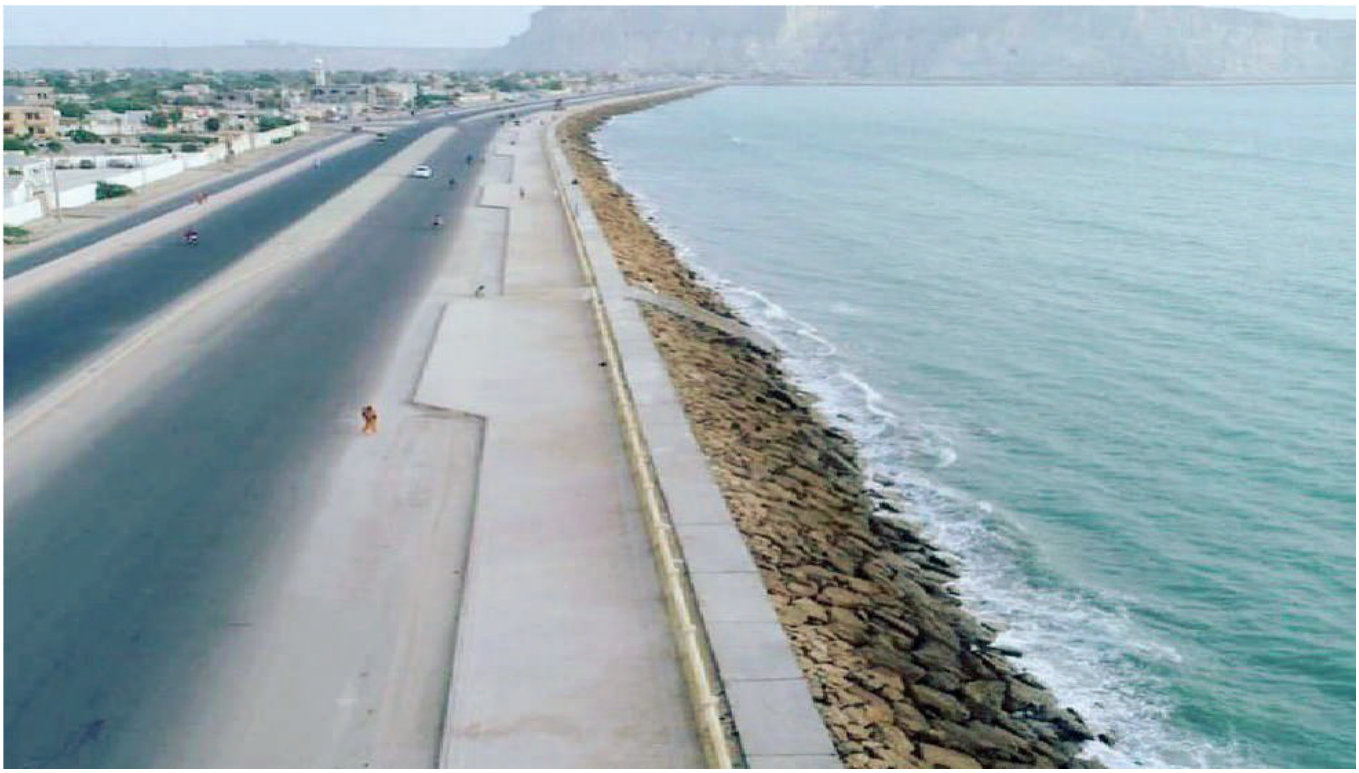


Pakistani soldier standing on Koh-e-Batil in front of the port. Photo Credits: Jean-Herve Deiller, CSIS

A Chinese-built model of the new Gwadar. Photo Credits: Nishat Awan, e-flux architecture

Fishermen gather in Gwadar to protest broken government promises. Photo Credits: Mariyam Suleman, The Diplomat

Dooriya, the primary fishing beach in Gwadar on East Bay. Photo Credits: Mariam Iqbal Desai, e-flux architecture



The new Marine Road running on the tombolo's west coast. Photo Credits: Unknown

Pakistan fencing Chinese projects in Gwadar, News intervention. Photo Credits: Op India

Traditional boats under construction, Gwadar west coast. Photo Credits: Zofeen T. Ebrahim, China Dialogue Ocean

Pakistan naval personnel stand guard near a ship at the Gwadar port. Photo Credits: Aamir Qureshi, Foreign Policy

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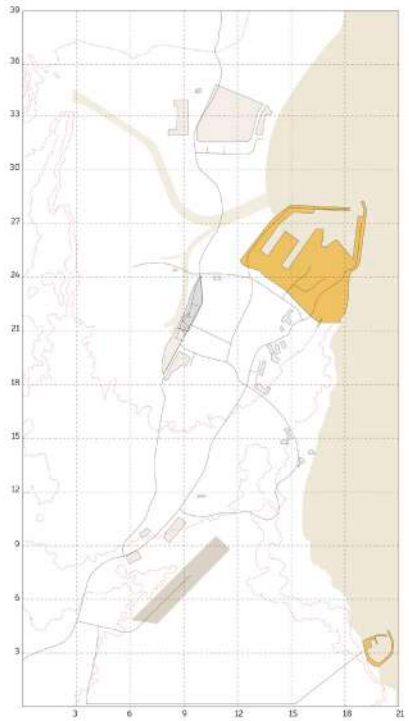
Duqm, Oman

Infrastructure as Community Displacement



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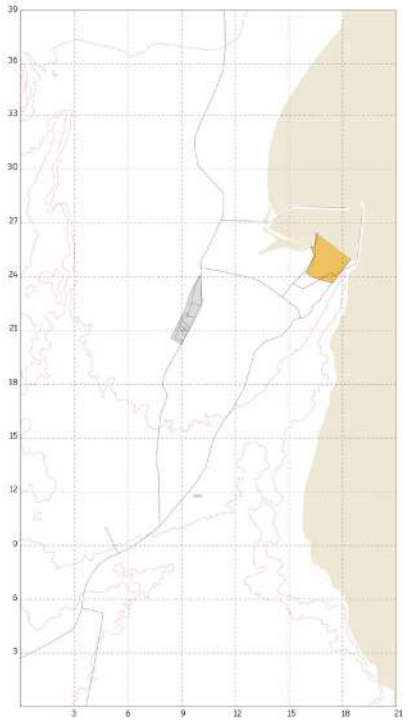

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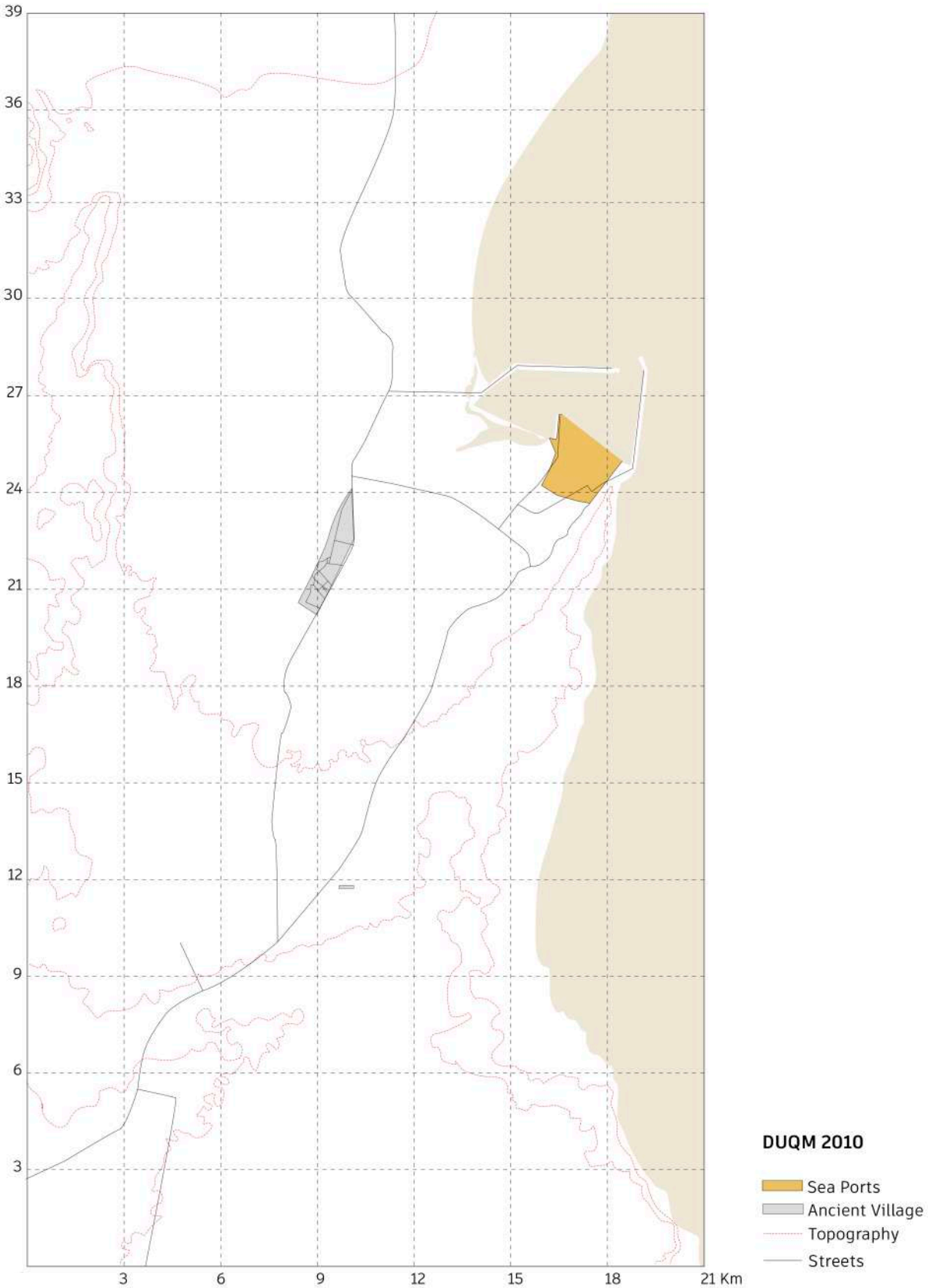
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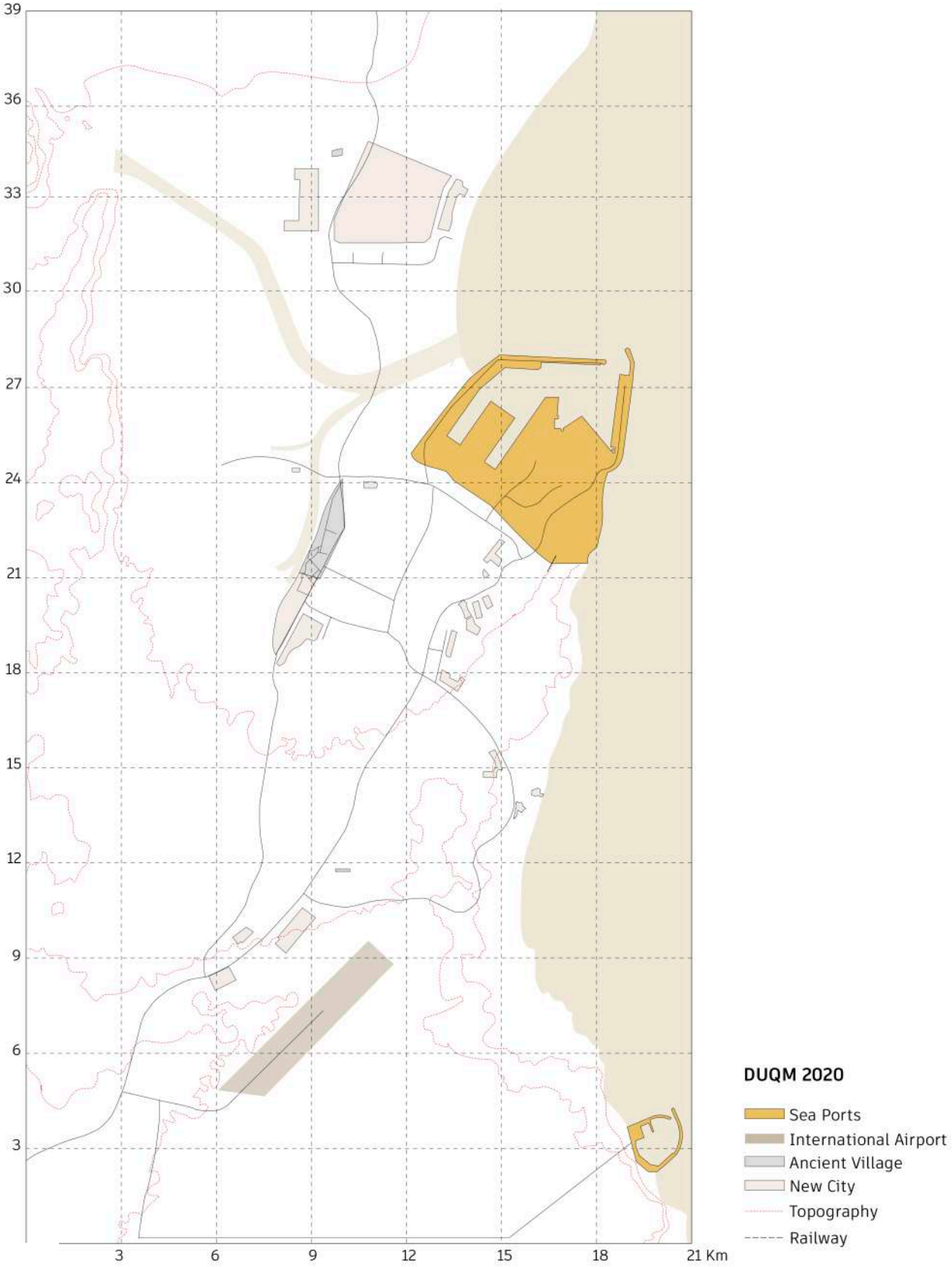
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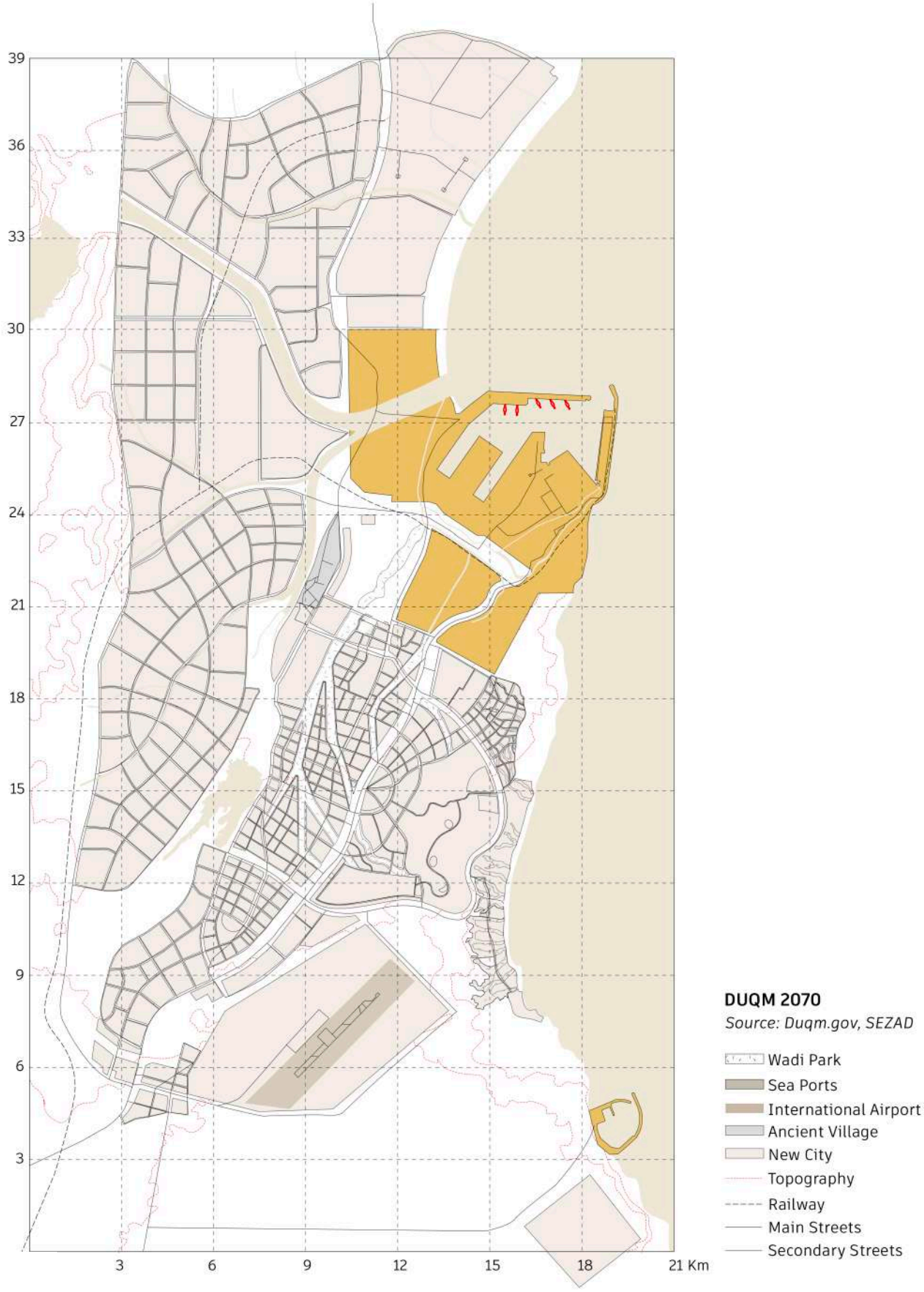
New City
Topography
Railway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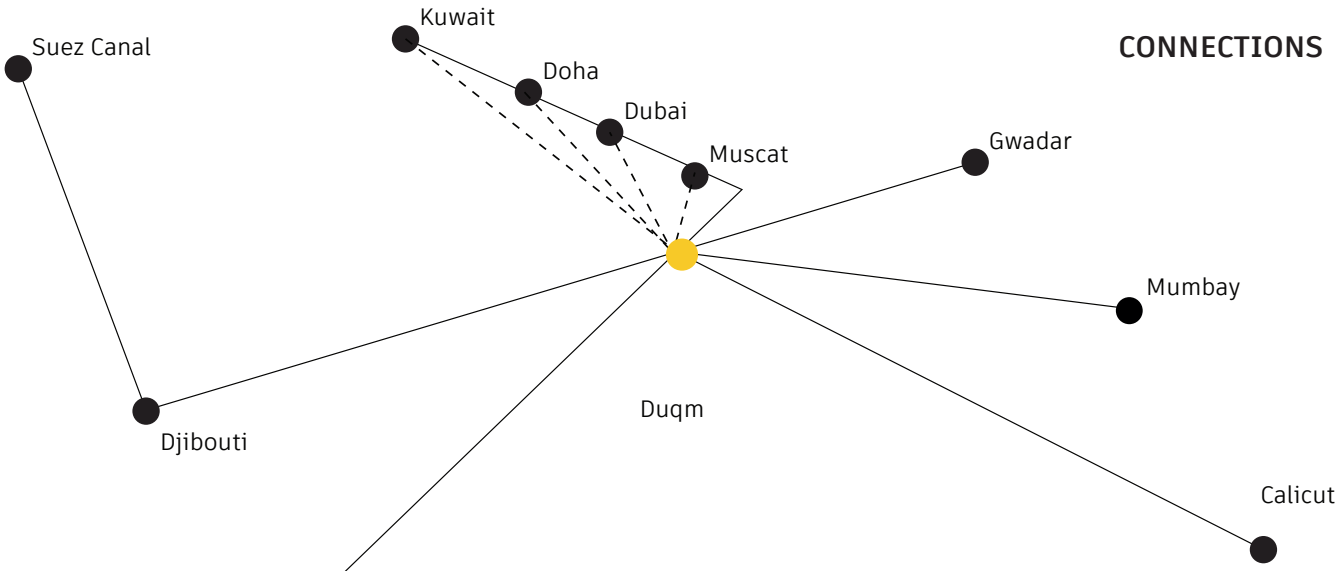
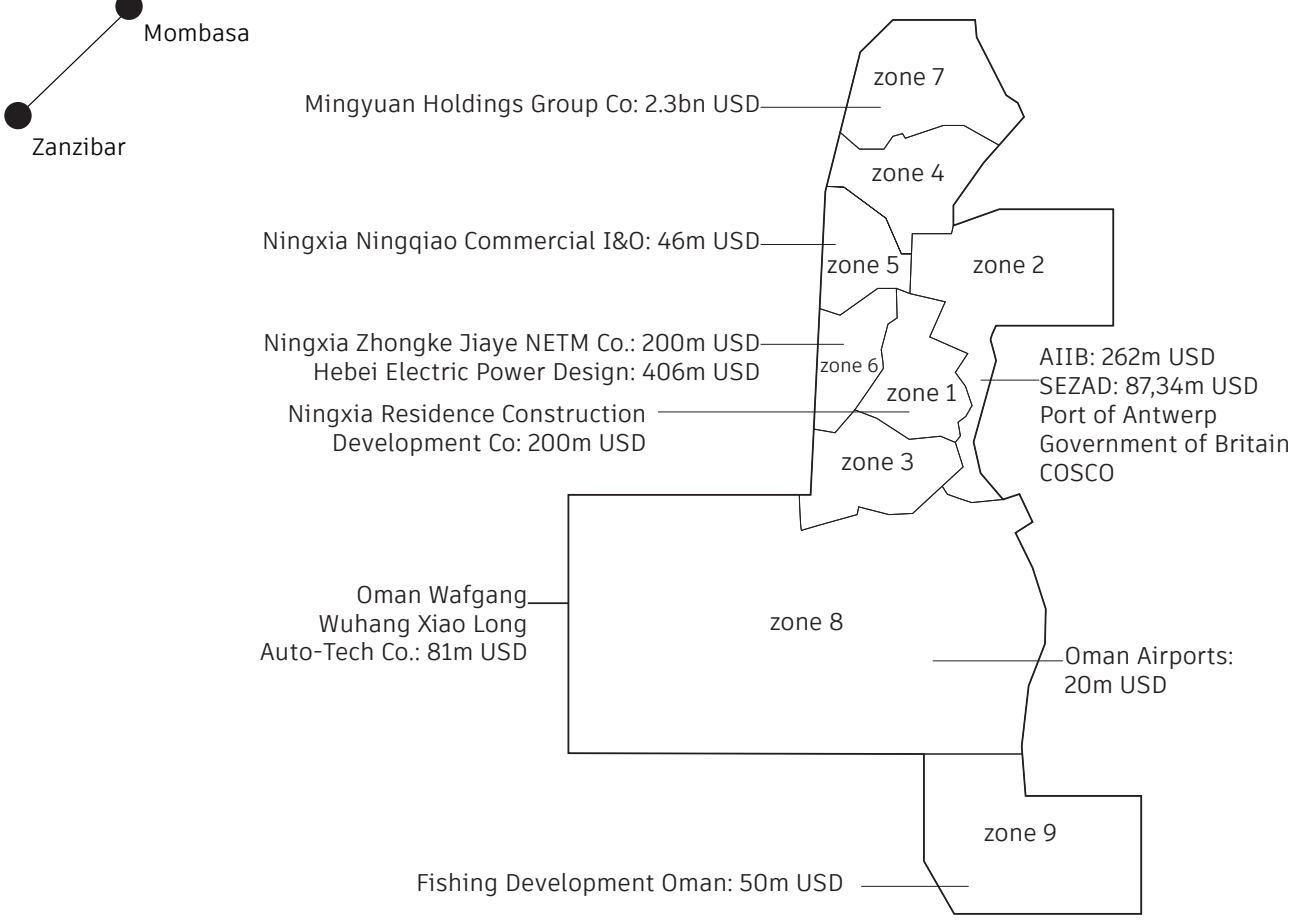
DUQM 2070
Source: Duqm.gov, SEZAD
Wadi Park
Sea Ports
International Airport
Ancient Village
New City
Topography
Railway
Main Streets
Secondary Streets

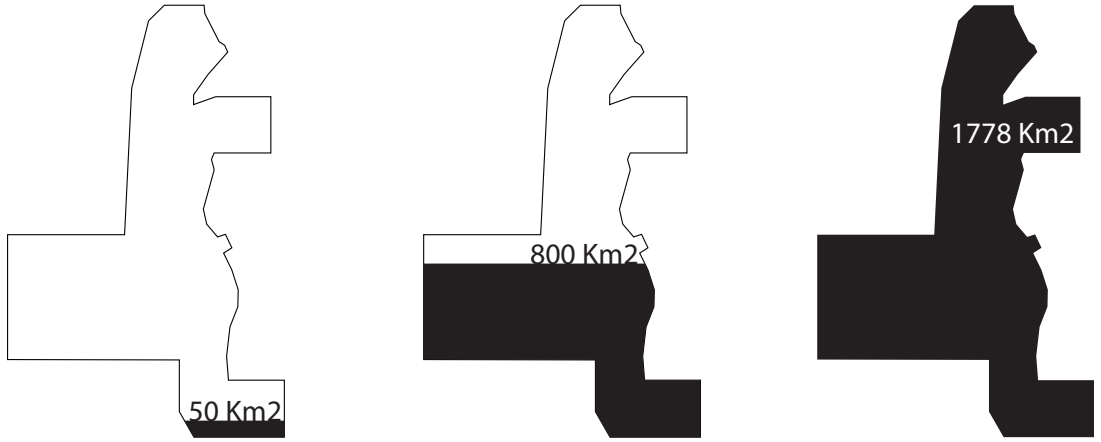
CONNECTIONS



ZONING AND INVESTMENTS



EXPANSION OF THE CITY



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DEMOGRAPHY

Data:NCSFI and Oxfrord Gr.

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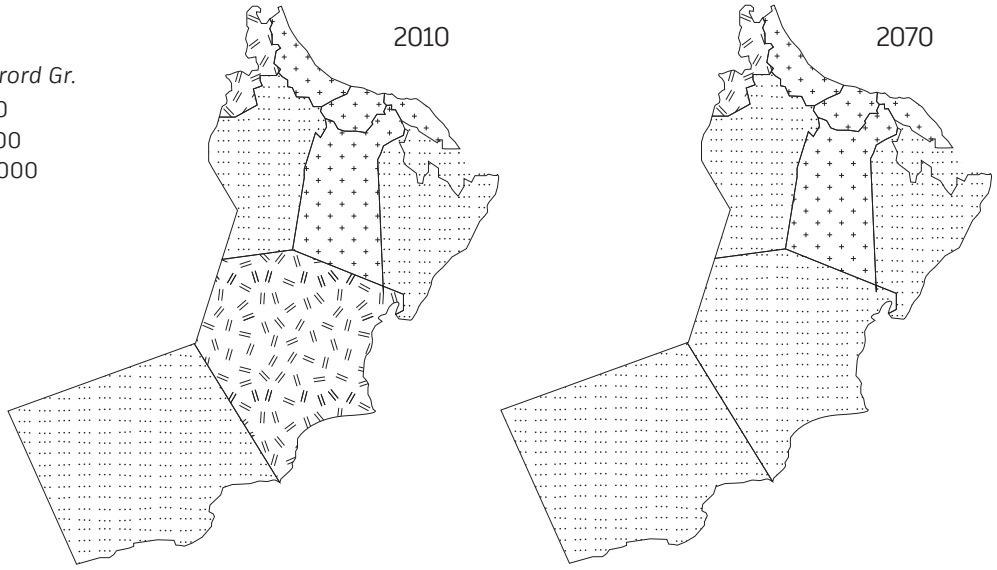


THE SPECIAL ECONOMIC ZONE OF AL-DUQM

Duqm is an ancient fishing settlement located 550 km south of the capital Muscat, in a central region of the country, called Al-Wusta, bordered by the Omanite mountains to the north, the Al-Qara mountains to the south, the Arabian Sea to the east and by the desert to the west. Until now, the region has always been almost empty and poor, if compared to the 200 km of the north coast, where 70% of the population lives and almost all of the economic flows reside (OBOR Europe 2018). The situation, however, is changing radically since the Sultan, in 2011, issued a royal decree for the formation of the SEZAD[1], Special Economic Zone Authority of Duqm, with the aim of transforming the city into the largest special economic zone in the Middle East with an international commercial port[2] (SEZAD Documentary Film 2015).

One of the main qualities of Duqm is its strategic position, central to the Suez Canal, the Strait of Hormuz, the East coast of Africa and the Indian Ocean, placing itself in the middle of the major maritime trade routes, many of which are used for the commercial exchanges of the countries belonging to the 21st Century Maritime Road. Its location could represent an alternative route to the current one, that crosses the Strait of Hormuz, giving direct access to the Arabian Sea, in order to avoid the unstable scenario caused by the current conflicts between Iran and the United States: «Iran's periodic threats to close the strait have pushed up insurance and fuel costs and waste time», said Peter Broers, in charge of Duqm Port Company (The Economist 2013).
The peculiarities of Duqm's location were captured by Chinese President Xi Jinping, who in 2018 signed a MoU with Oman[3], to include it into the Belt and Road initiative. Since then the new city acquired great importance and became the first Chinese base-station in the Gulf (Siddiqi 2019): in 2020 COSCO, one of the largest transport companies in the world, enters the new port for the first time, followed by the other three most important companies: MSC, CMACGM and Hapag Lloyd (Port of Duqm 2020).

The main Chinese interest are Middle Eastern oil and natural gas reserves, corresponding respectively to 48% and 40% of the world total (Siddiqi 2019), that China needs more than anything (Khanna 2016).
From the Omani point of view, a first necessity, in addition to the demo- graphic balance between the northern areas and the other regions, is to diversify its economy due to the risk of running out of oil, on which it has been based until now. For that, new activities will be created in the Special Economic Zone, especially in mining, ship assembly and repair sector, as well as five-star tourist accommodation facilities (SEZAD Documentary Film 2015), comparable to those of

1 Royal Decree No 119/2011 issued on 26TH October 2011 Establishing the SEZ Authority to supervise the implementation of the project. The SEZAD would be affiliated to the Council of Ministers and that would have its headquarter in Duqm. https://www.duqm.gov.om/upload/files/regulations/royal-decree-2011.pdf

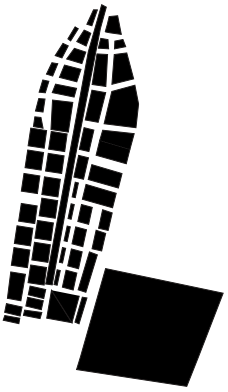
2 The Government of Oman decided to establish four seaports along the whole coast of Oman: Sohar Port, Sultan Qaboos Port, Duqm Port, Salalah Port. (Duqm Special economic Zone Authority) https://www.duqm.gov.om/sezad/inside-sezad/profile

3 On May 15, 2018, State Councilor and Foreign Minister Wang Yi met Minister Responsi- ble for Foreign Affairs of Oman to jointly sign the Memorandum of Understanding on Jointly Promoting the Construction of the Silk Road Economic Belt and the 21st Century Maritime Silk Road Between the Government of the People's Republic of China and the Government of the Sultanate of Oman (Ministry of Foreign Affairs of PRC, 2018) https://www.fmprc.gov.cn/mfa_eng/zxxx_662805/t1560128.shtml

the nearby city of Dubai.

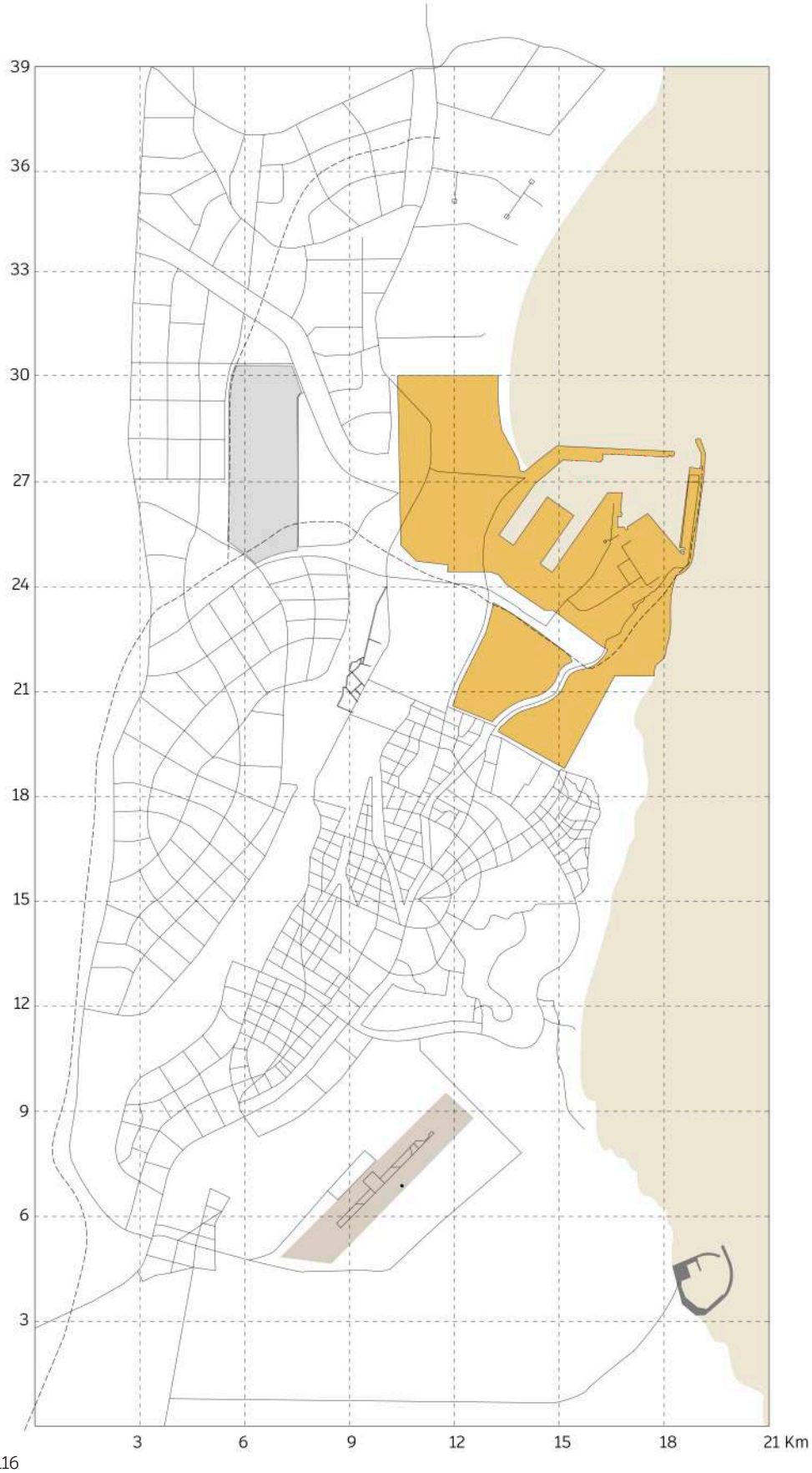
The industrial park, managed by the Sino-Omani comrade Oman Wangfang[4], will cover an area of 1,778 square kilometers and will attract 10 billion dollars in investments by 2022, many of which come from Chinese banks, primarily for the construction of infrastructure (Yahya al -Jabri in Alarimi F. 2017).
The project area is divided into 9 different zones which are expected to be completed in 2030: and will include the deep sea port (co-invested and menaged by a joint venture with Omani government and Belgium's Port of Antwerp), the dry port, a new fishing port (further south than its original location), the industrial complex (heavy, medium, light), a tourist zone (which will include a $ 150 million five-star hotel), residential and commercial areas, service areas such as hospitals, schools and mosques, a regional airport. The planned Chinese investments also include an oil refinery, a cement factory, a factory that produces pipes for the oil industry, an automobile assembly plant and a renewable energy generation plant (SEZAD 2021). All areas are connected by a multimodal transport system that exploits the existing road network and implements it, adding two railway lines, one inside the SEZ, in order to connect the industrial area to the north with the city center and one which will expand to Muscat, Doha, Dubai and Kuwait.

Urban Pattern, Ancient Village 2010



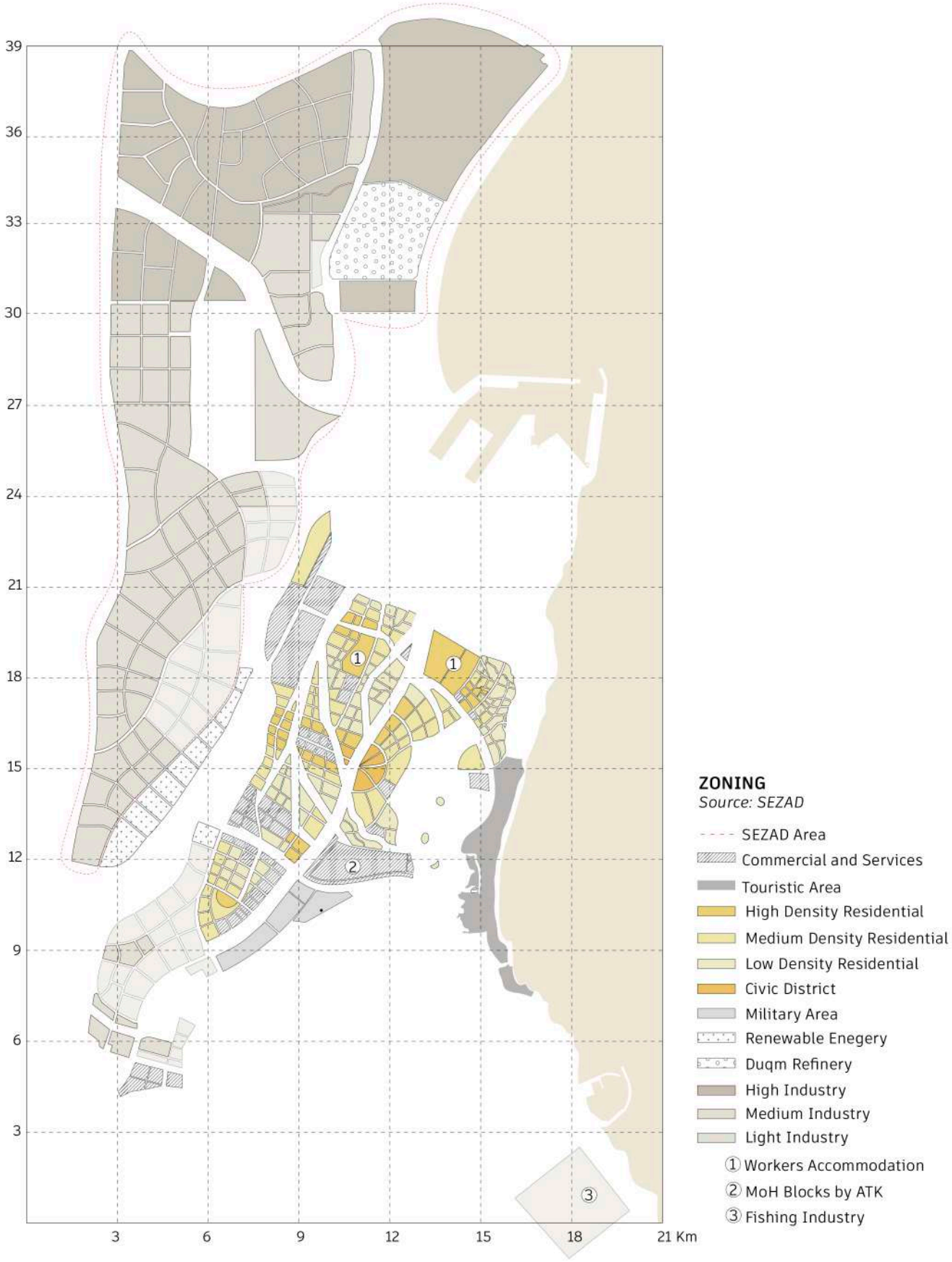
Urban Pattern, New Saay Village 2070

4 Oman Wangfang is a consortium, created in 2015, of six private Chinese firms, many from the Ningxia Hui Autonomous Region in north-central China, an area with a large Muslim population that is active in promoting business ties with Arab nations, and does not have direct Beijing involvement, even if it has political support. (Alarimi 2016)



MOBILITY
Source: SEZAD

- Fishing Port
- Container Port
- International Airport
- Train Station
- Railway
- Main Streets
- Secondary Streets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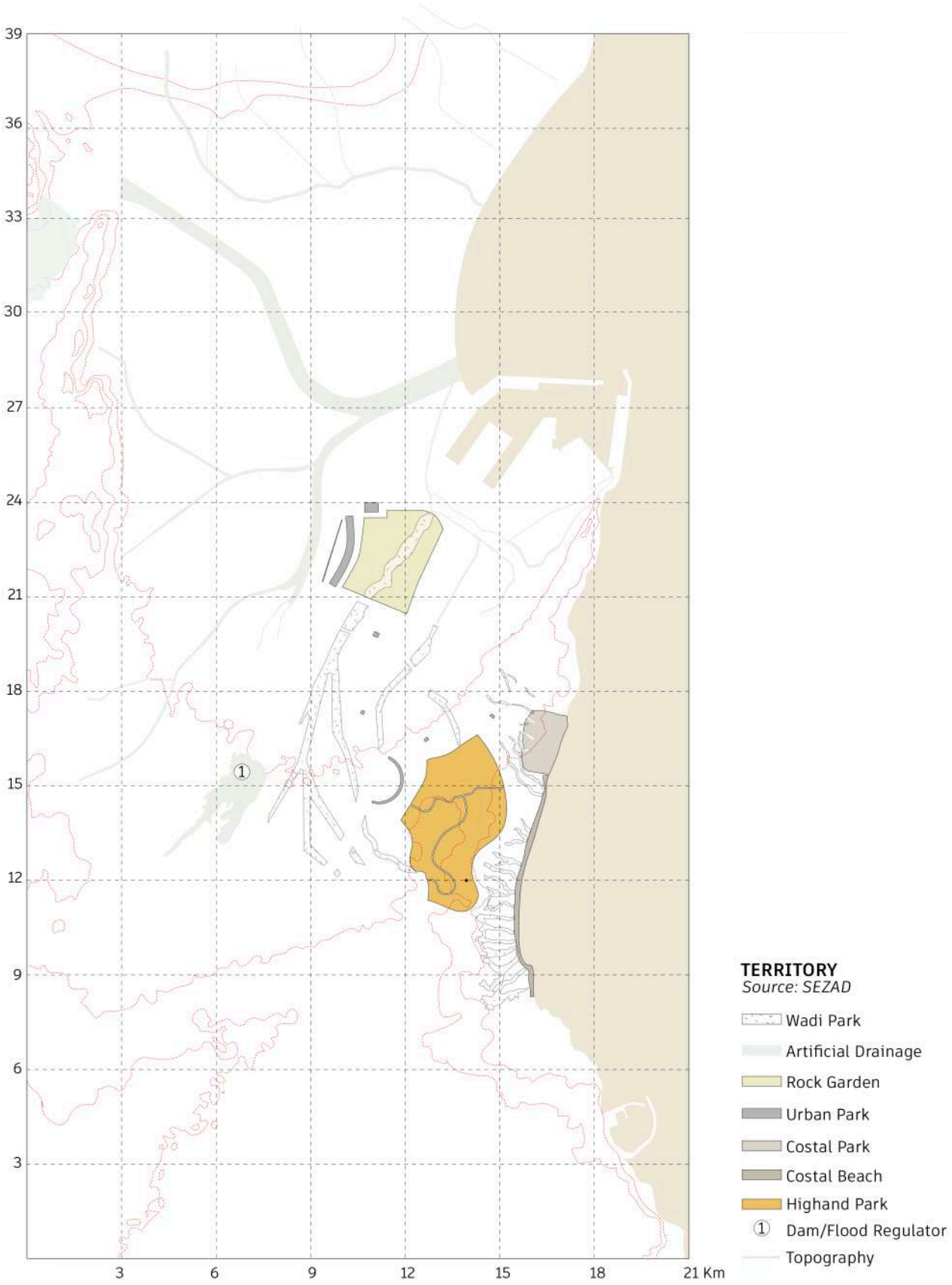
21 Km
1
1
2
3
ZONING
Source: SEZAD
SEZAD Area
Commercial and Services
Touristic Area
High Density Residential
Medium Density Residential
Low Density Residential
Civic District
Military Area
Renewable Enegery
Duqm Refinery
High Industry
Medium Industry
Light Industry
① Workers Accommodation
② MoH Blocks by ATK
③ Fishing Industry



TERRITORY
Source: SEZAD

- Wadi Park
- Artificial Drainage
- Rock Garden
- Urban Park
- Costal Park
- Costal Beach
- Highand Park
- ① Dam/Flood Regulator
- Topography

The geomorphological conformation of the al-Wusta region is made up of a vast desert with sand dunes, gravel plains and a minimal amount of water compared to the rest of the country, as it is scarcely reached by canals and wadis. The climatic changes that have occurred throughout history have made it hyper-arid, reducing the amount of vegetation even more (Ghazanfar 2004). The particular fragility of this ecosystem is at risk because of the anthropogenic activities, first of all the extraction of oil in the oil assets, of which 90% is exported to China (Mendoza 2019), and its transformation in the new Duqm refinery. Once extracted, in fact, the crude oil undergoes treatments before being introduced into the pipelines, during which a large amount of wastewater is created, whose disposal can take place on the soil, on the sea, or on the desert (Gisotti 2016). The dispersion of fluids in the project area can lead to a greater state of drought and contamination of soils and water, consequently damaging the fishing activity, on which is based the livelihood of the local population.

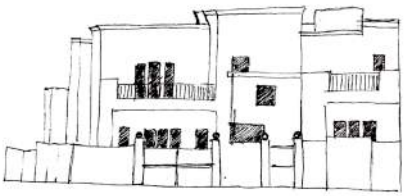
Before work began on the Special Economic Zone, Duqm was a small village with a population of 3000 Wilaya, a muslim tribe of Bedouin, typically originating from the Arabian Peninsula[1] (Shepard 2018). According to Al Hankari (1998), their lifestyle differs from "urban people" who live in cities and towns, generally being "nomadic people", or in this case semi-nomadic (Hardan, Amzat 2012). The main activities for men are fishing, the construction of nets and the breeding of camels, while for women the weaving of carpets, tents, burqas and accessories for camels (Shepard 2018).
Since the Second World War, Middle Eastern states have increasingly sought to include Bedouin settlements in the national agenda, trying to effectively transform their lifestyle (Tamari, Katoshevski, Karplus 2016). The design of new and modern Bedouin towns was assigned to professional architects and urban planners, who defined settlement boundaries, population growth projections and land use, confident that they would meet the needs of the tribes, without de facto involving its members (Fenster in Tamari, Katoshevski, Karplus 2016). Oman has been an exception in regards to the confiscation of land and the coercion of lifestyle changes, until now[2].

With the construction of the city of Duqm, the government started to empty the area for luxury hotels, residential and industrial areas, building construction of 150 luxury villas away from the project area in which to transfer families who lived on lands affected by the project, hoping that this would avoid discontent (Shepard 2018). However, this was not successful, in fact, as Monishankar Prasad explains to Wade Shepard during his trip in Duqm in 2018, the town is still uninhabited.
The first thing that is "very unnatural" for the Bedouins is the idea of having to move into structures provided by the government and not being able to build their own; furthermore, the arrangement of the houses in the new Bedouin Town follows a regular orthogonal grid, hasn't enough open space for camels and sheep and for community meetings. From an architectural point of view, Bedouin tents are dynamic systems that adapt to the external environment and whose main

1 Semi-nomadic Bedouins are those communities generally residing in settlements. During the three winter months, two thirds of the population remains in settlement and agriculture, while one third moves to the desert with livestock.

2 "The first disagreements between the Bedouins, the multina- tionals and the Sultanate in the desert of Jeddat al-Harasiis occurred in 1950 with the first oil exploration, in which companies generally closed water wells before arriving to ensure they had enough water during expeditions" (Chatty, 2000).

Bedouin traditional tent



New villas for the Bedouins

purpose is to protect from sunlight. The most used material is goat hair, which is easily available and highly responsive since it swells when it rains, thickening the weft and closing the roof to water, and then it shrinks once the water evaporates, promoting ventilation. The structure is generally very flexible: the roof, supported by wooden poles and tie rods, is kept low in the winter to heat the space and raised during the summer, to not accumulate heat. The roof is usually disconnected from the walls and the floor, to modify the structure depending on winds and sun inclination (Cadima, Qobrosi 2015). It is evident that the white luxury villas, structurally rigid and non-adaptable, with almost no outdoor spaces, do not take at all into account the needs of the community that would live there. Despite the obvious discontent, the mayor Ahmed bin Salim al-Mahruqi of the city of Duqm doesn't seem willing to negotiate: «People who disapproved of Duqm's project will have to welcome change sooner or later ... Bedouins used to roam across the desert, but it is no longer the case, they have to now settle down. [...] Modernity has to catch up with them, and the development paradigm gives them an opportunity to move into the modern economy, whether they like it or not» (Castelier S., Müller Q. 2019, Shepard 2018).

Bedouin ghost town in the middle of the desert. Photo Credit: Wade Shepard

Empty villas built by the Omani government. Photo Credit: Wade Shepard

Bedouin women spinning wool. Photo Credit: SEZAD

Old fishing town of Duqm. Photo Credit: Wade Shepard

New Reinassance hotel in Duqm. Photo Credit: Jomar Mendoza

Duqm Refinery. Photo Credit: Ranju Warrier

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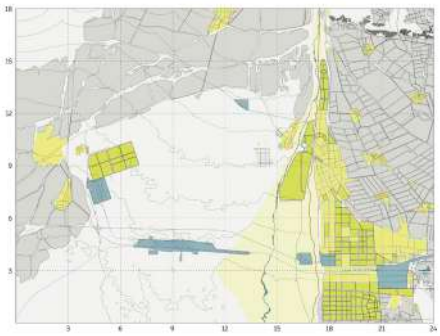
- https://www.youtube.com/watch?v=iWKchegTdUY (Accessed 20/12/2020)

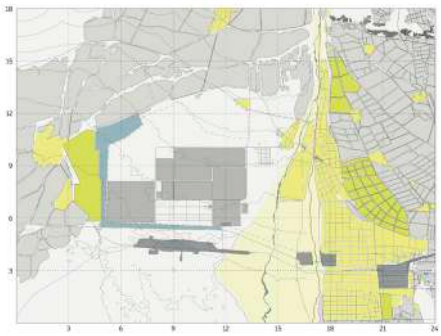
Khorgos, China/Kazakhstan

Infrastructure as Absent Urbanism of Borders

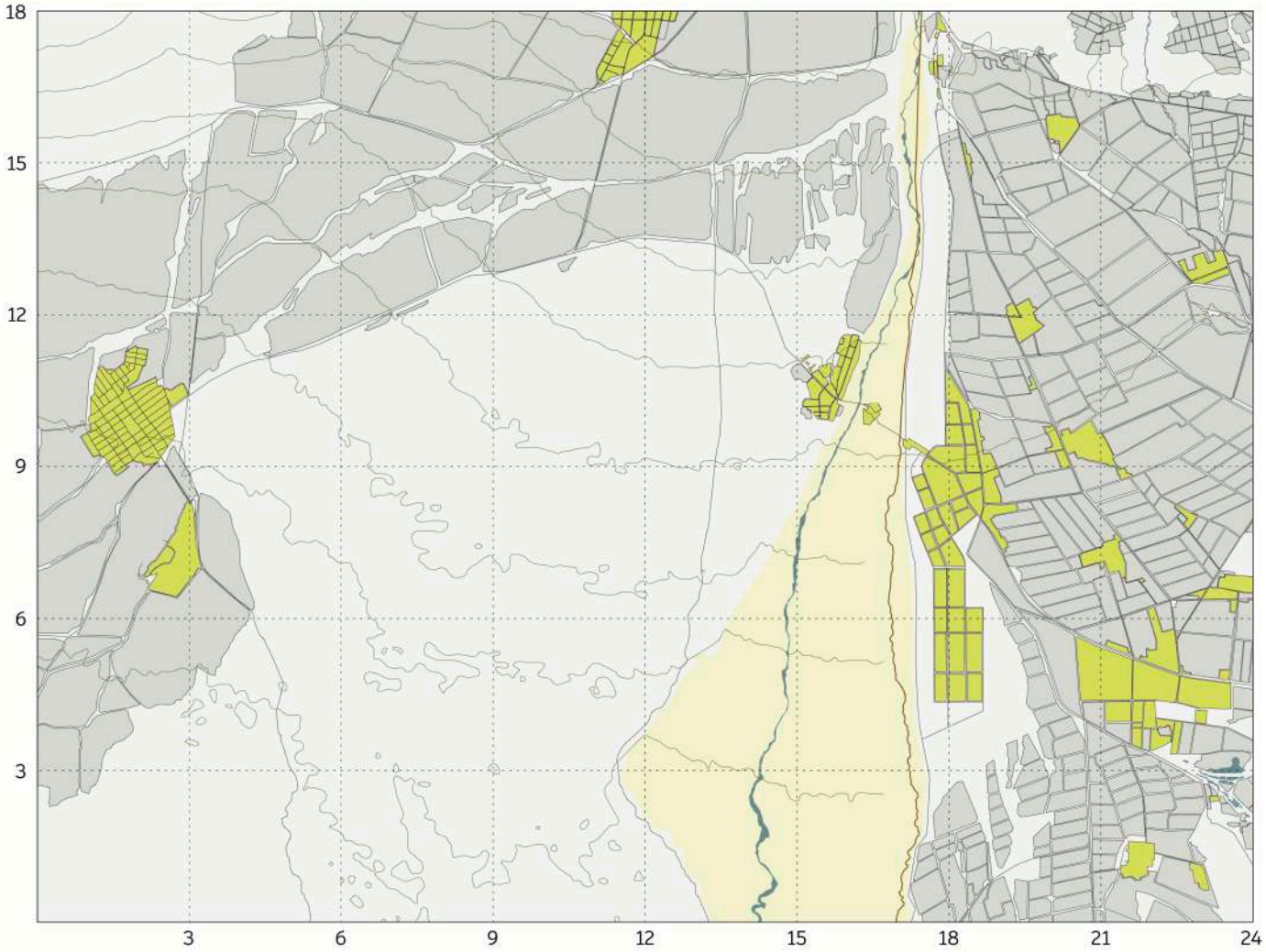
2010



2020

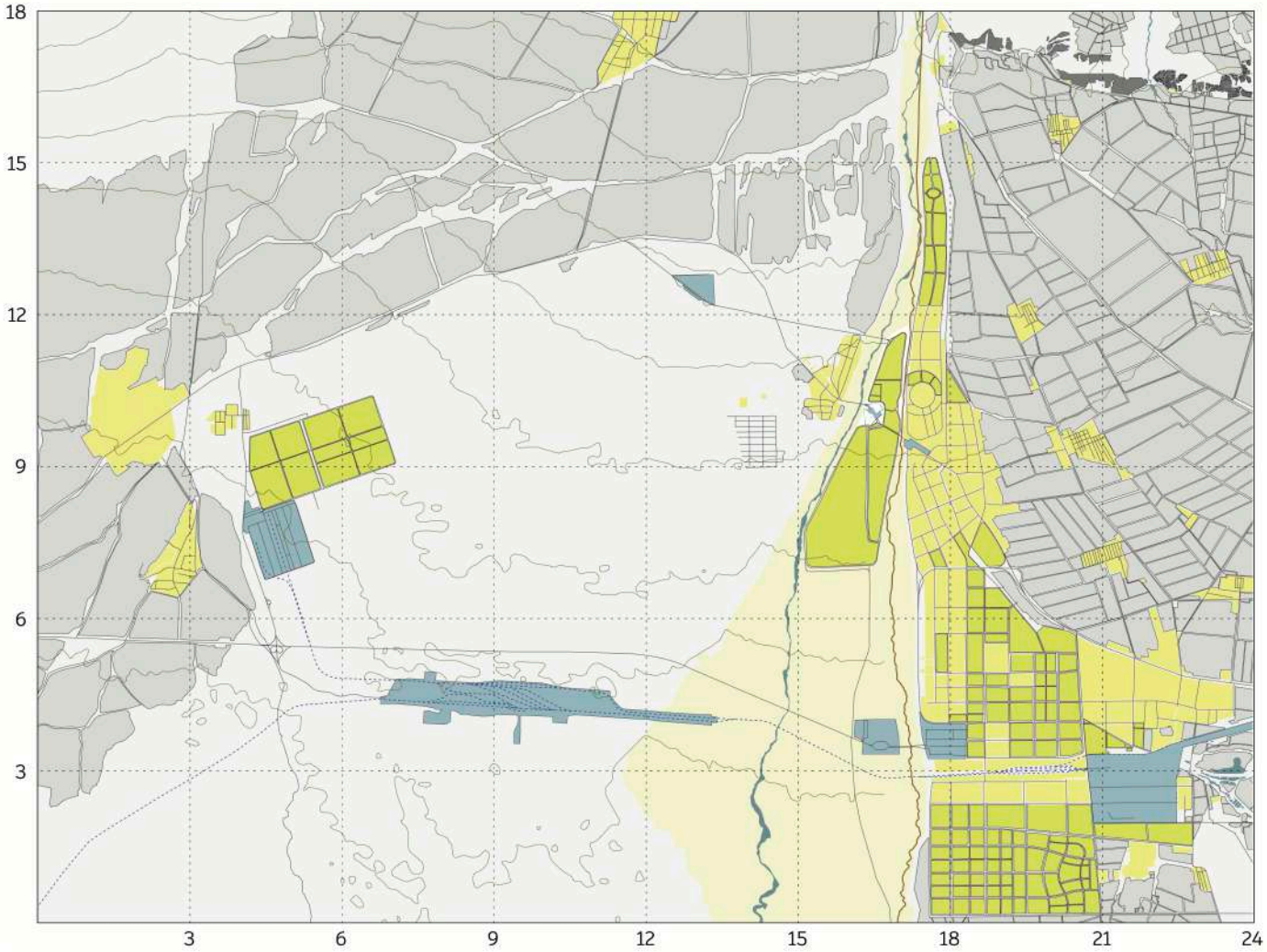


2030



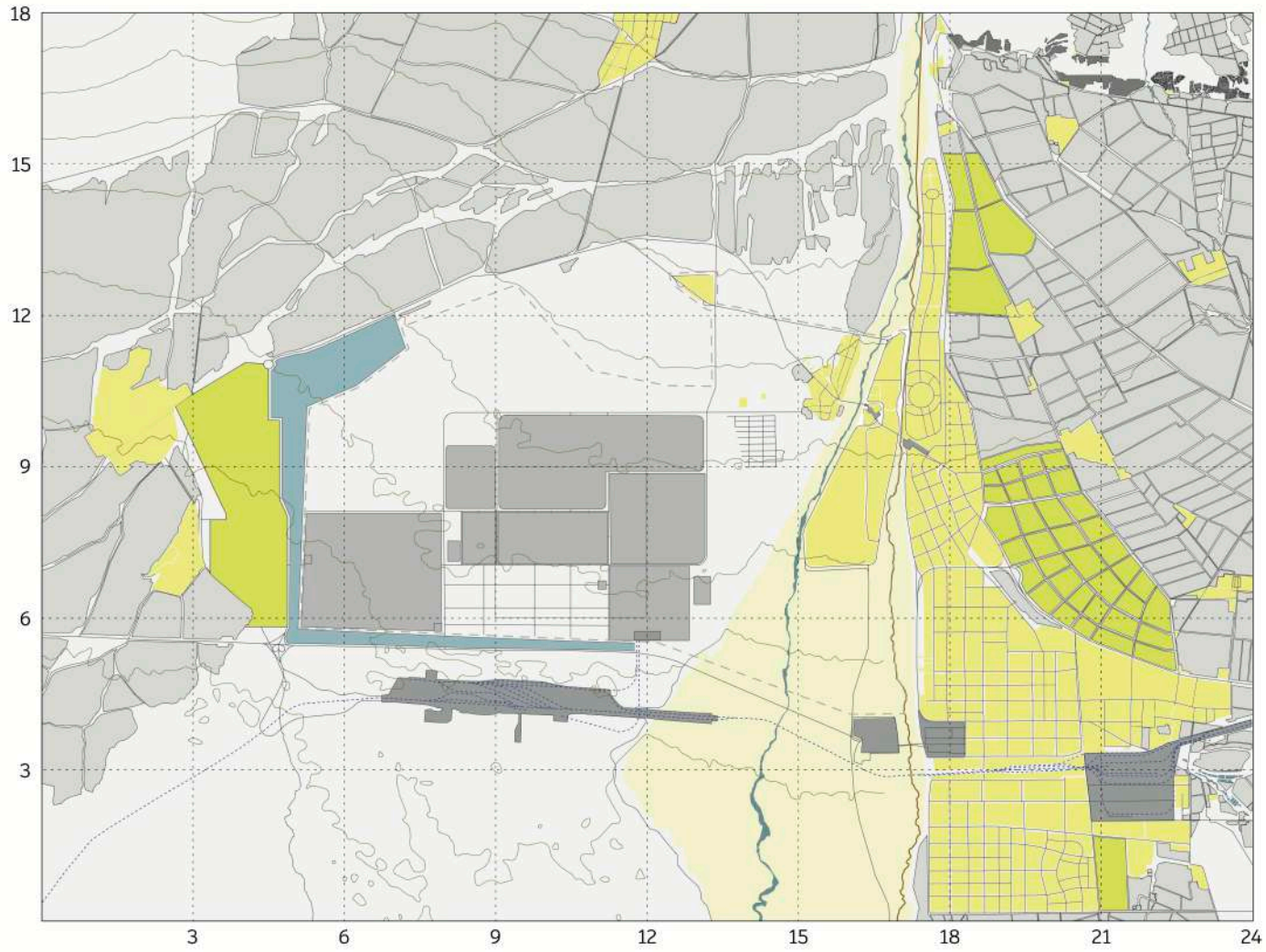
KHORGOS 2010

Built areas
Roads
Kaz-Ch Border
Topography
River bed
Water system
Crop fields



KHORGOS 2020

- Built areas
- Roads
- Kaz-Ch Border
- Topography
- River bed
- Water system
- Crop fields
- New lots
- Intermodal
- Solar power plant



KHORGOS 2045

Source: AECOM, SPC Consultants, MPCS Khorgos

Built areas
Roads
Kaz-Ch Border
Topography
River bed
Water system
Crop fields
New lots
Intermodal
Solar power plant
New park
SEZ
SEZ Boundary
Railway

ICBC KHORGOS - PROJECTS AND INVESTMENTS

Data: International Center of Boundary Cooperation Khorgos

1- Central square
4,31 ha
Khorgos-Kat LLP
319,6m USD

2- Commercial galleries
21,35 ha
SP Kazstroinvest NT LLP
274,2m USD

3- Shopping center
1,14 ha
Juan-Chingis LLP
4,1m USD

4- Hotel
6,53 ha
Tulip-Khorgoszh LLP
92,6m USD

5- Shopping center
6,11 ha
TOO VICTORIA CITY
130,5m USD

6- Health center
6,04 ha
VICTORIA CITY LLP
43,4m USD

7- Craftsmen village
3,8 ha
TOO international Castle
36m USD

8- Hotel, shopping center
3,7 ha
Natay Investment LLP
26,4m USD

9- Commercial galleries 1 to 4
20,21 ha
Khorgos-Kat LLP
88,6m USD

10- Luxury complex
4,0 ha
TOO Premium Construction
88m USD

11- Chinese medical center
1,26 ha
Jia He KZ LLP
39,4m USD

12- Shopping center
3 ha
Golden Fruits LLP
88,6m USD

13- Amusement park
50 ha
Happyland Khorgos LLP
63,1m USD

14- Green Bazar
2 ha
Suydun Mountain
4,5m USD

15- Freight terminal N3
2,55 ha
TOO Mustang CARGO LLTD
1,2m USD

16- Ethno village (slavic part)
3,26 ha
Vityaz LLp
5,4m USD

17- Formation center
1,45 ha
KazATO LLp
2,3m USD

18- Ethno village (kazakh part)
0,95 ha

19- Shopping, amusement center
2,05 ha

20- Restaurants
1 ha

21- Medical center
3 ha

22- Kazakh med. center
2 ha

23- Italian outlet
2,32 ha

24- Thermal complex
3 ha

25- Shopping center, hotel
1 ha

26- Turkish shopping center
3,4 ha

27- Sports, amusement
2 ha

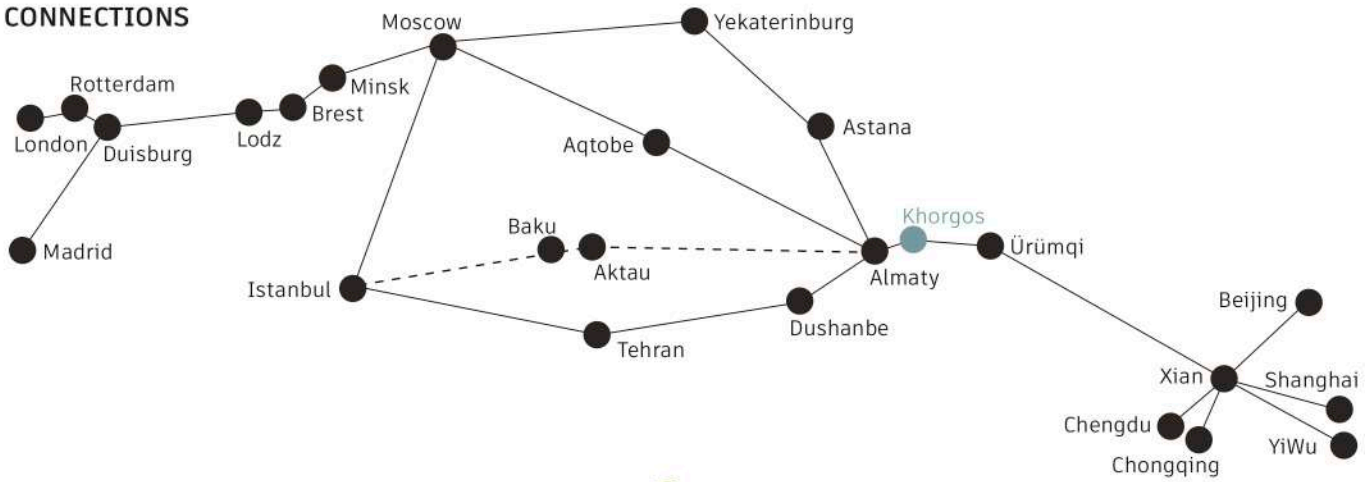
28- Freight terminal N1
2,97 ha

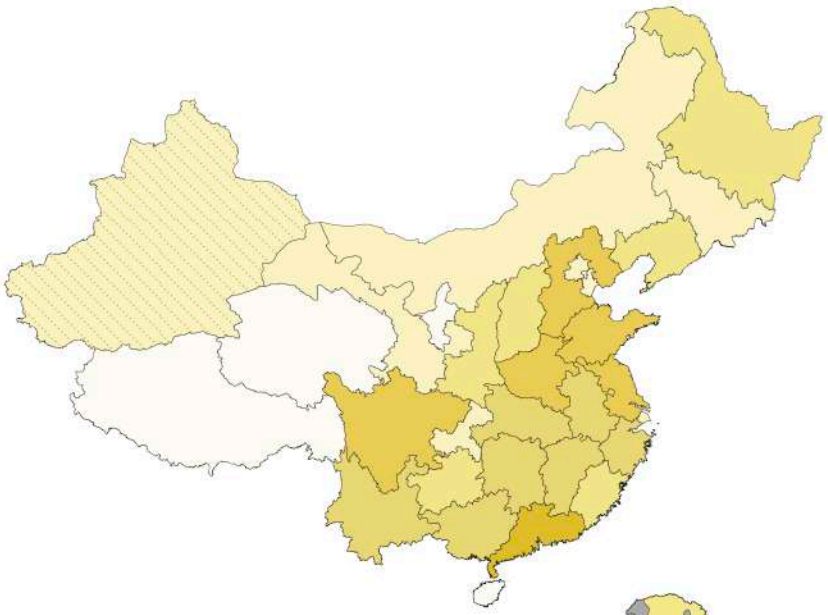
29- Freight terminal N2
2,78 ha

30- Hippodrome
41 ha

31- Circus
6 ha

CONNECTIONS



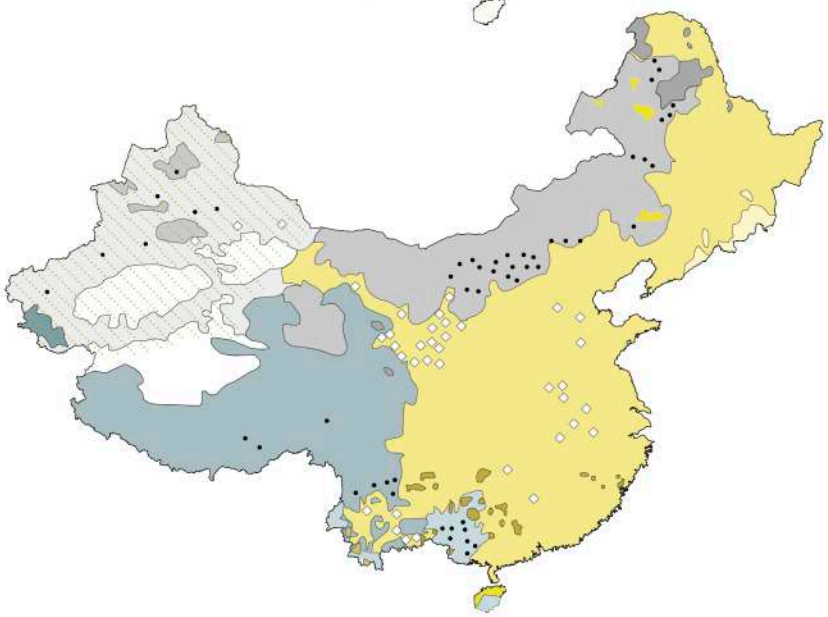


DEMOGRAPHY

Administrative div. by population

- 100 + mln
- 70-100 mln
- 45-70 mln
- 30-45 mln
- 15-30 mln
- 10-15 mln
- 0-10 mln

- Xinjiang
- Uninhabited



ETHNOLINGUISTIC GROUPS

Data: Stratfor 2017

Sino-Tibetan
- Han *(chinese)*
- Hui (chinese muslim)
- Tai
- Tibeto-Burman
- Miao-Yao

Altaic
- Turkic
- Mongolian
- Tungusic

Austroasiatic
- Mon-Khmer

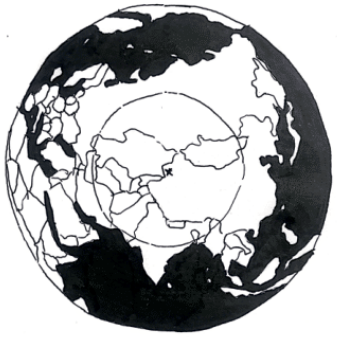
Indo-European
- Tajik

Korean
- Korean

KHORGOS GATEWAY

On the border between the Uyghur autonomous region of Xinjiang, the westernmost in China, and the Panfilov District, in the Almaty region, Kazakhstan plans for a "new Dubai"[1] straddling the Sino- Kazakh border are profoundly transforming a territory up to now characterized by its uncontaminated nature and by the scarce presence of inhabitants. Located 200 km away from the Alataw Pass, a mountain pass historically used in overcoming the Altay mountains, to its north, and the Tian Shan complex, to the south, it represents a real bottleneck, an obligatory passage for every flow through Central Asia. Paradoxically, the site is located in the immediate vicinity of the major continental pole of inaccessibility in the Dzoosotoyn Elisen desert. Perhaps the geomorphological features that characterize the area make it necessary on the one hand and advantageous on the other to conceive a point that is primarily an intermodal center of gravity, but also an economic and cultural one.

The interest of the Chinese government for this place is very high, as it represents the possibility of changing the way of Chinese trade with Europe, expanding its ways; no longer only by sea, certainly cheaper, but also by land: this allows to drastically shorten travel times and to expand the range of transportable goods, including also perishable ones.



Continental pole of inaccessibility

Khorgos is - and has always been - first and foremost a border place between Central and Eastern Asia; here the divergence between the two cultures is expressed in a discontinuity that is also physical; the rails of the former Soviet countries are in fact 8.9 centimeters wider than the Chinese ones (Saunders, 2019). Due to this gauge, a dry port is therefore necessary, where intermodal units are transferred from the Chinese train to the Kazakh train and vice versa by means of cranes. The exponential increase in the traffic of goods along this route, a consequence of the investments and agreements that the Chinese have made with the countries concerned, therefore marks the fate of this place, which is destined to have an increasingly massive importance in the field of eurasian trade. The two cities of Horgos (in China) and Khorgos (in Kazakhstan), which mirror themselves on both sides of the border, were therefore interested, starting from the famous 2013 speech by Xi Jinping in Astana[2], by large Chinese and Kazakh investments.

The Kazakh side has witnessed the development of a real SEZ, consisting not only of the dry port, but also of a logistics hub, an industrial zone and customs inspection facilities (Simon, 2019) for a total of 4591.5 hectares[3] (destined to become many more), what makes Khorgos an atypical place is the presence of the International Center for Boundary Cooperation (ICBC). The latter constitutes a Free Trade Zone that arises from the setting up of two major projects, the One Belt One Road and the Nurly Zhol[4]: the goal is the creation of an economic, commercial and touristic center developed thanks to co-investments on border line of the two nations: the ICBC is in fact an area of 800 cross-border and visa- free hectares that enjoys trans-national laws. The agreements between the two governments aim to ensure the free movement of people, goods and vehicles on the ICBC territory (Mcps Khorgos, 2017).

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1 Expression widely used by the Kazakh, Chinese and international media to describe the potential of Khorgos, already used in 2014 by the former Kazakh president Nursultan Nazarbayev.

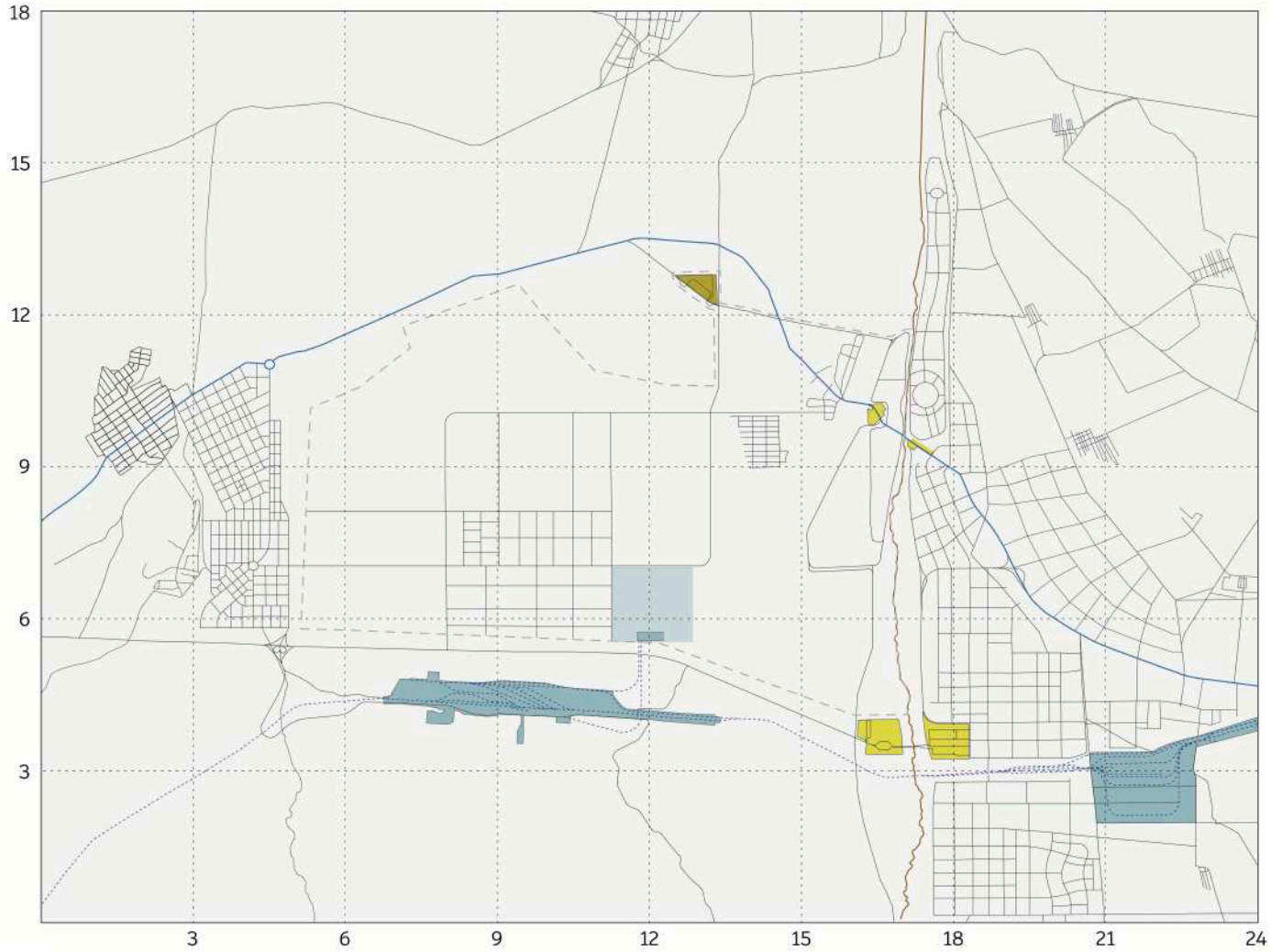
2As early as 2011, however, Nursultan Nazarbayev had signed a decree for the establishment of the Khorgos Eastern Gate Special Economic Zone. If the Chinese president's speech attested to the essentiality of the project, its potential had already been identified (Saunders, 2019).

3 http://www.sezkhorgos.kz/about-eng

4 Lit. Bright Path, a Kazakh domestic infrastructure and service development plan, announced in 2014 by President Nazarbayev.

The investment system behind this project comes largely from Kazakh entities, mostly through the Nurly Zhol project: the public fund package amounts to $ 9 billion USD, according to Reconnecting Asia, the Kazakh Sovereign Wealth Fund Samruk- Kazyna JSC has invested $ 101 million USD and Kazakhstan Temir Zholy JSC $ 107 million USD; a single regulatory agency, the SEZ "Khorgos - Eastern gates" Managing Company "JSC, was placed at the head of the development project of the new SEZ, with the aim of achieving a common and coordinated goal. This demonstrates an active approach by of the Kazakh government and companies, which take advantage of an opportunity born from the Chinese Belt and Road but still being able to make it their own, incorporating it into their national infrastructure improvement project and fully understanding the opportunity that Khorgos offers. Despite this, it should still be emphasized that in 2017 49% of the Khorgos Dry Port on the Kazakh side was acquired by COSCO Shipping (a Chinese company protagonist of the largest Belt and Road projects) and by the Port of Lianyungang (Shepard, 2017).

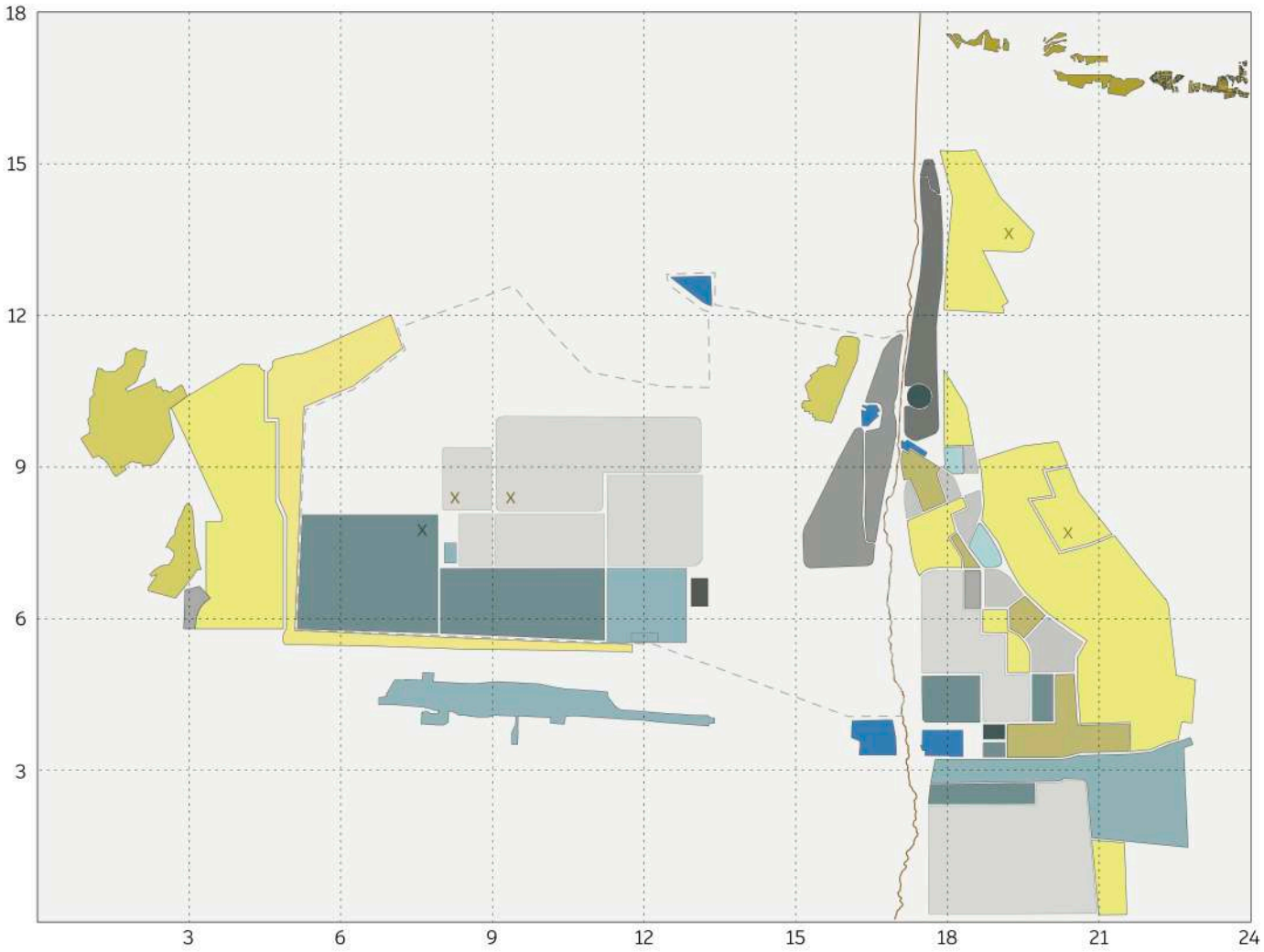
The influx of investments, contracts and projects in one place has obviously led to the need to build a real city around this system; as the PR manager of Khorgos Gateway states, "Five years ago there was nothing at all, just sand" (Stevens, 2018). Quickly, Khorgos became the "flagship project" (Mauk, 2019) of the entire Belt and Road initiative: it is a place that connects two different worlds and cultures also expressing it visually, through the well-known images huge yellow cranes in the middle of the desert. For this reason, Khorgos, as well as being the largest dry port in Central Asia, is also becoming a real city, attracting a population, both Kazakh and Chinese, which is increasing exponentially thanks to the 50,000 jobs created. On the side of Kazakhstan, on a plan commissioned in 2012 by the Kazakh Ministry of Industry and Commerce, an area dedicated to «an international university, hotels, sanatoria, sports complexes, and an ethno-park featuring blocks of national pavilions displaying crafts and hosting cultural festivals» is being constructed (Simon, 2019). Studies are also underway for the construction of an international airport. The residential area that is being built from scratch on the Kazakh side will be able to accommodate 110.000 people (Shepard, 2016) and will consist of «apartment blocks, a school, kindergarten and shops to serve the railway workers, crane operators, customs officials and other staff needed to keep the dry port running» (Higgins 2018). Equally ambitious residential projects are also underway across the border. The seduction towards both potential new inhabitants and real tourists also occurs through the construction of luxury hotels, sports and wellness complexes, amusement centers, a hippodrome and circus, in a very ambitious project that mixes influxes of various kinds and duration in a new urban center in the center of Eurasia.



MOBILITY

Source: AECOM, SPC Consultants, MPCS Khorgos

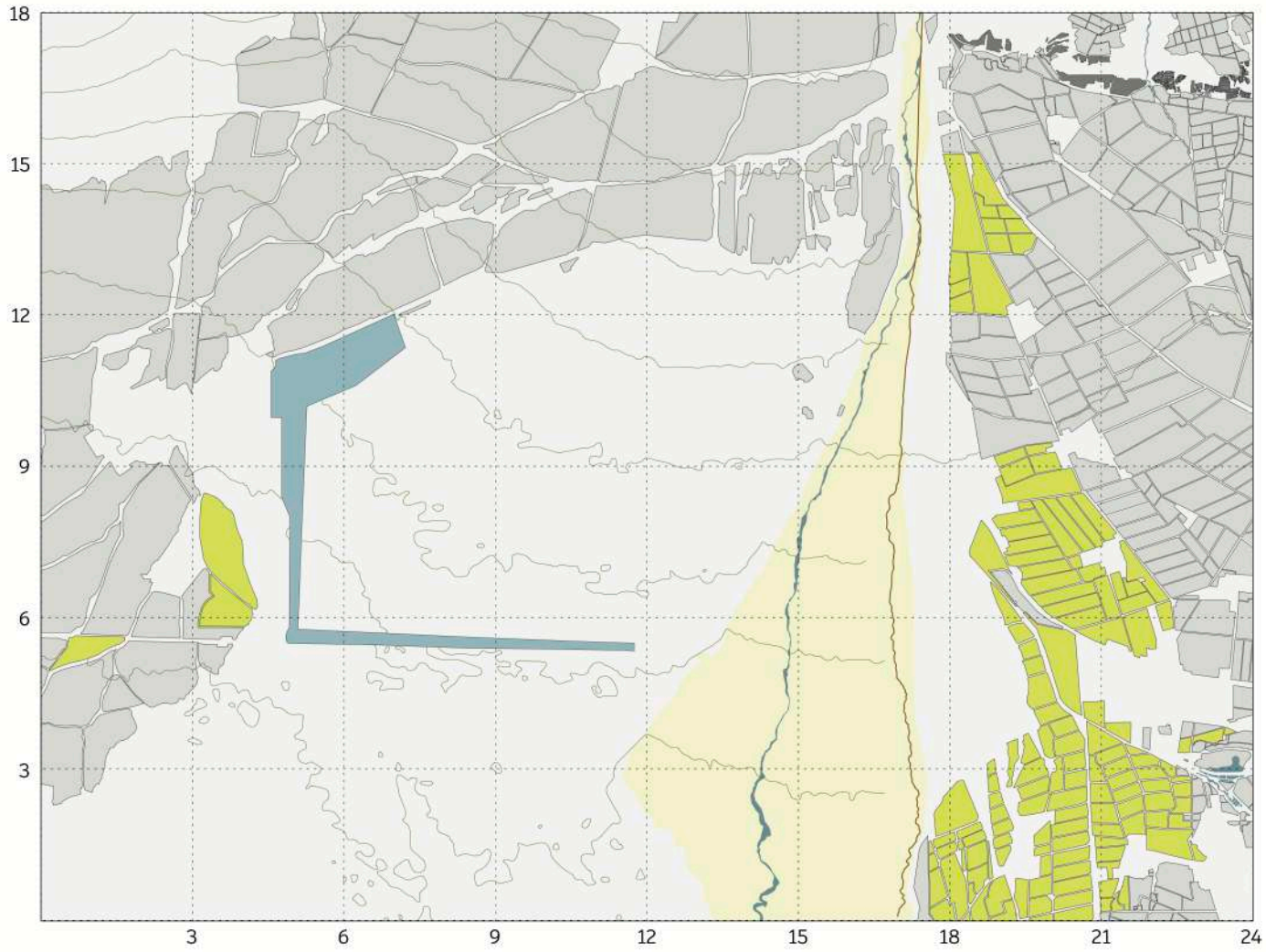
- Main roads
- Secondary roads
- Railway
- Highway (A353/China National 312)
- Kaz-Ch Border
- Gateways
- Control point
- Dry ports



ZONING

Source: AECOM, SPC Consultants, MPCS Khorgos

- ICBC Kazakhstan
- ICBC China
- Culture
- Existing settlements
- New residential
- Sport facilities
- Commercial
- Production
- Education
- Comm. + Res.
- Gateways
- X evtl. Expansions
- SEZ boundary
- Kaz-Ch Border
- Dry ports
- Logistics
- District Heating
- Design green
- Energy



TERRITORY

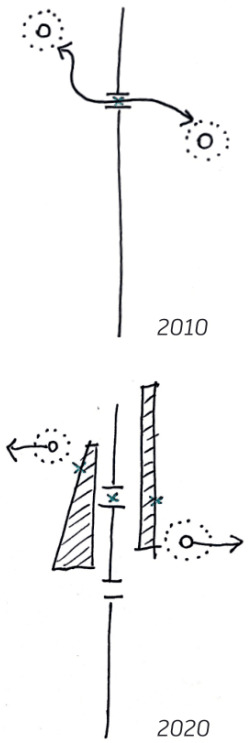
Source: AECOM, SPC Consultants, MPCS Khorgos

Crop fields
Removed crop fields
Design green
River bed
Solar power plant
Water system
Kaz-Ch Border
Topography

The Khorgos project certainly represents the best example of how the Chinese initiative is completely rethinking trans-continental trade in a new and unprecedented way; not surprisingly, it is always counted among the most significant Belt and Road projects. However, the initial enthusiasm for this mega-project is partly leaving room for some doubts and concerns. Undoubtedly the plans are being carried out quickly and efficiently: in a handful of years roads, lots, buildings have sprung up on both sides of the border and the expected increase in freight traffic is actually taking place, even if not with the foretold numbers[1] and conditions. Such an ambitious project, however, inevitably brings with it a series of problems, economic above all: Kazakhstan is only one of the many countries involved in the BRI where, in addition to concerns related to the excessive costs of initiatives and a possible "debt trap", there are fears also for the frequent cases of corruption intertwined with the various actors involved[2]. However, concerns also apply to geopolitical balance, it is feared that the new relations with China could cause problems for the ones with Russia, currently still Kazakhstan's first trading partner. On a complex border like the Sino-Kazakh one, there are also cultural problems: the PRC has in fact been fighting for years against Muslim extremism and consequently a very careful surveillance of the Uyghur minority that inhabits the Xinjiang region is being carried on.

This may look like an internal issue[3], but it is also a border problem: for Kazakh Uyghurs, crossing the border with China means running in the risk of being arrested and detained in "re-education camps" indefinitely, with the chance of never returning back to Kazakhstan (Kuo, 2018).

The consequence of these large-scale issues spills over onto the physical territory: in a city created from nothing, based on innovative theories that aim to realize what could become an archetype of a new type of commerce, contrast reigns supreme. Khorgos is at the same time a place in the middle of nowhere and a new pole of intercontinental connection; here a border strongly splits the urban center in two with a fenced and controlled limit, impassable except through meticulous checks, while at the same time the ICBC represents a loop that rises on this line. The latter should represent a parenthesis free from the bureaucratic difficulties of a border of this magnitude, but in the end it appears as a delimited area in which visitors quickly make sales and purchases and then exit immediately afterwards: the ICBC risks becoming a mere duty free used locally for the import of cheap Chinese goods, for this reason the Kazakh government has introduced a limit of 50 kilos or 1,500 euros of value per person per month, while in China the restriction is 8,000 yuan (US $ 1,250) of value per day (Shepard, 2016).

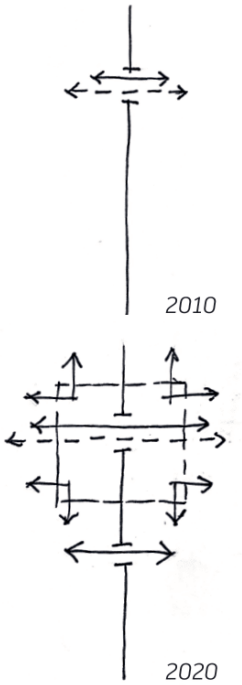


ICBC as further obstacle between pre-existing settlements

1 In 2019 Khorgos treated 180,000 TEU per year, in 2023 500,000 are expected. However, 80% of Chinese goods transiting through the dry port are destined for Central Asia, and only 1-2% for Europe (Ruehl, 2019), which shows that for now Khorgos has a much more regional significance than what is advertised.

2 In 2011 the head of Customs as part of a larger takedown of a 115bn smuggling ring was arrested: in 2016 the former head of the ICBC was caught on tape accepting a $ 1 million bribe for a construction bid.

3 Since 1996 the PRC has been carrying out "Strike Hard" campaigns, real repressive police measures against the Uyghur minority. In the international silence-assent, these initiatives have been repeated over time with summary trials, illegal arrests and arbitrary sentences. In 2017 it was discovered that thousands of Uyghurs were detained in "re- education camps", actually real detention camps: the violated rights of Uighurs in China, however, range from continuous surveillance, through massive use of technology (Kumenov, 2020) mandatory participation in indoctrination ceremonies in honor of the CCP (Boneschi 2019).

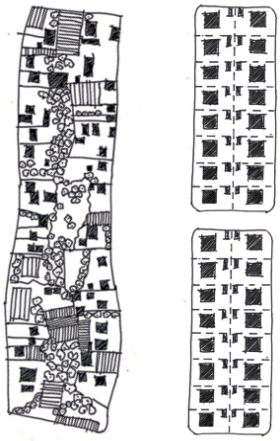


Traffic flow through the border

Khorgos also represents a contrast between open and closed; the border is a huge rift that cuts the territory in two, but the new railway and the Ya'ou (the Western Europe-Western China Highway) break through this barrier crossing it perpendicularly, creating unprecedented, extremely dynamic connections that cover long distances: but here a final conflict arises between a place that is synonymous with connection but which still lacks almost completely local connections: Khorgos remains an isolated and remote place, poorly connected with Almaty and Ürümqi, the nearest large cities[4].

In light of these contrasts, what seems to be missing most in this place is the dialogue between the physical territory of the Panfilov District and western Xinjiang and the global character of the Belt and Road. If the SEZ and the ICBC represent structures that from the urban point of view tend to integrate little with the context in which they arise, the fact that they are located in an uninhabited and untouched place makes everything even more alienating. The same incompatibility is also found between the local population and the large flows that the new city attracts: in general, the human scale seems to be lacking. The project is in fact conceived in an artificial way, with a top-down strategy that deliberately leaves out the relationship with the local context in order to create an internationally recognizable and model to be repeated elsewhere.

The interviews with the local population carried out by those who have visited Khorgos and Horgos[5] are consistent with each other: the project brings an economic advantage to the area and new jobs, which is why the project is generally frowned upon. Generally, those who attend ICBC and Khorgos do not reside there and go there only for work reasons; the ICBC is interpreted by locals as a "wholesale market for cheap Chinese goods" (Otmakhova, 2018), and not a real tourist and commercial hub: the long queues and checks to enter discourage anyone who does not go on purpose.



Existing lots: Penjim and Nurkent

The city of Nurkent, which arose in a few years, fulfills the need for residences for the dry port operators, which is 20 km away; the connection between the two places is inadequate, and Nurkent is essentially a dormitory city, which lacks all kinds of services, adequate public and green spaces, socializing activities. The inhabitants of Nurkent interviewed by Otmakhova underline the difficulty in making spaces their own, as they are not allowed to build their own traditional banya (small bathhouse) close to home, and they «strive to have a house with outdoor space to grow fruits and vegetables, hold animals, have a private garage or a play garden for children» (Otmakhova, 2018).

If the Khorgos Belt and Road project is sold as the Dubai of the future, the present cannot be forgotten: the current inhabitants of Nurkent and Horgos are trapped in a vision, in a promise that, however, now seems distant and unattainable, in a construction site city that offers nothing but a job; in addition, the margin splitting in two a place that should be an example of cultural sharing opens to the risk of having a city become a prototype of segregation, excessive surveillance and repression of Uyghur minorities.

4 From Almaty it takes 6 hours by bus or taxi, double it from Ürümqi, while the airport, although there are plans to build it, does not exist. A train on the Alashankou railway from Almaty only covers the route twice a week (Otmakhova, 2018).

5 Otmakhova K., 2018; Shepard W., 2016; Zhou Y., 2019

Local “carrier” helping shoppers. Photo Credit: Andrea Fozzetta

Gate at the ICBC entrance. Photo Credit: Dana Rice

A Shop in the ICBC Shop Malls. Photo Credit: Calvert Journal

Entrance to the Duty Free Zone. Photo Credit: Calvert Journal

The Khorgos Dry Port. Photo Credit: Andrea Fozzetta

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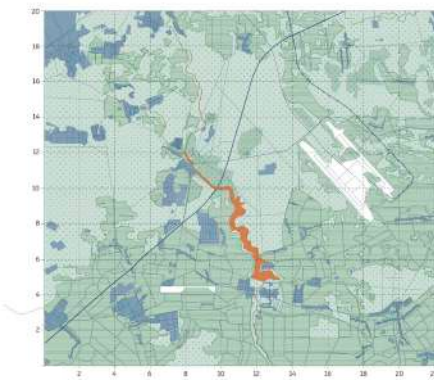
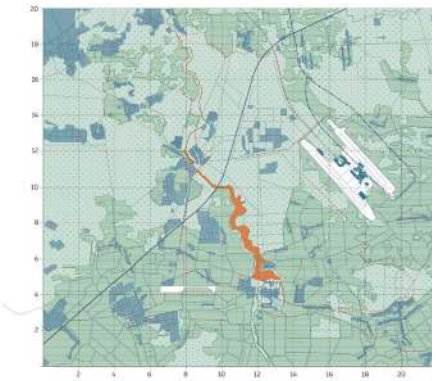
Great Sone, Belarus

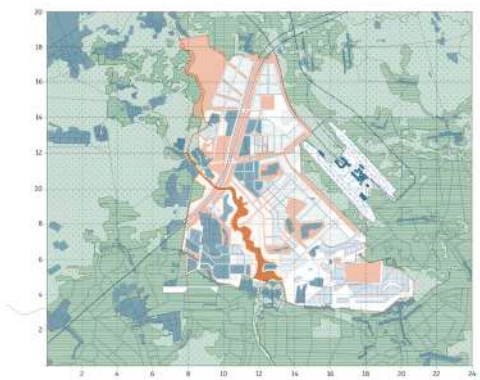
Infrastructure as Production Replacement



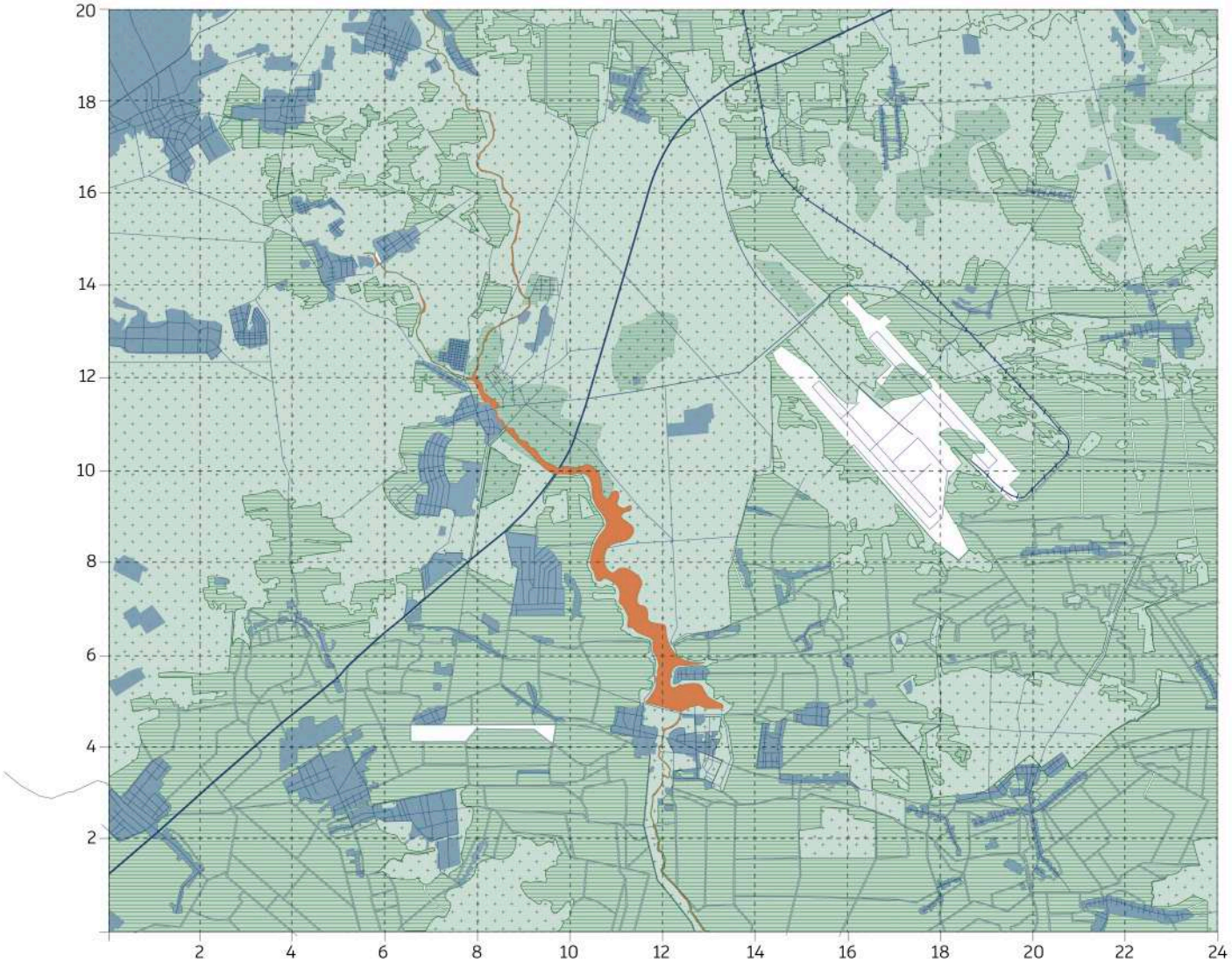
2015



2020



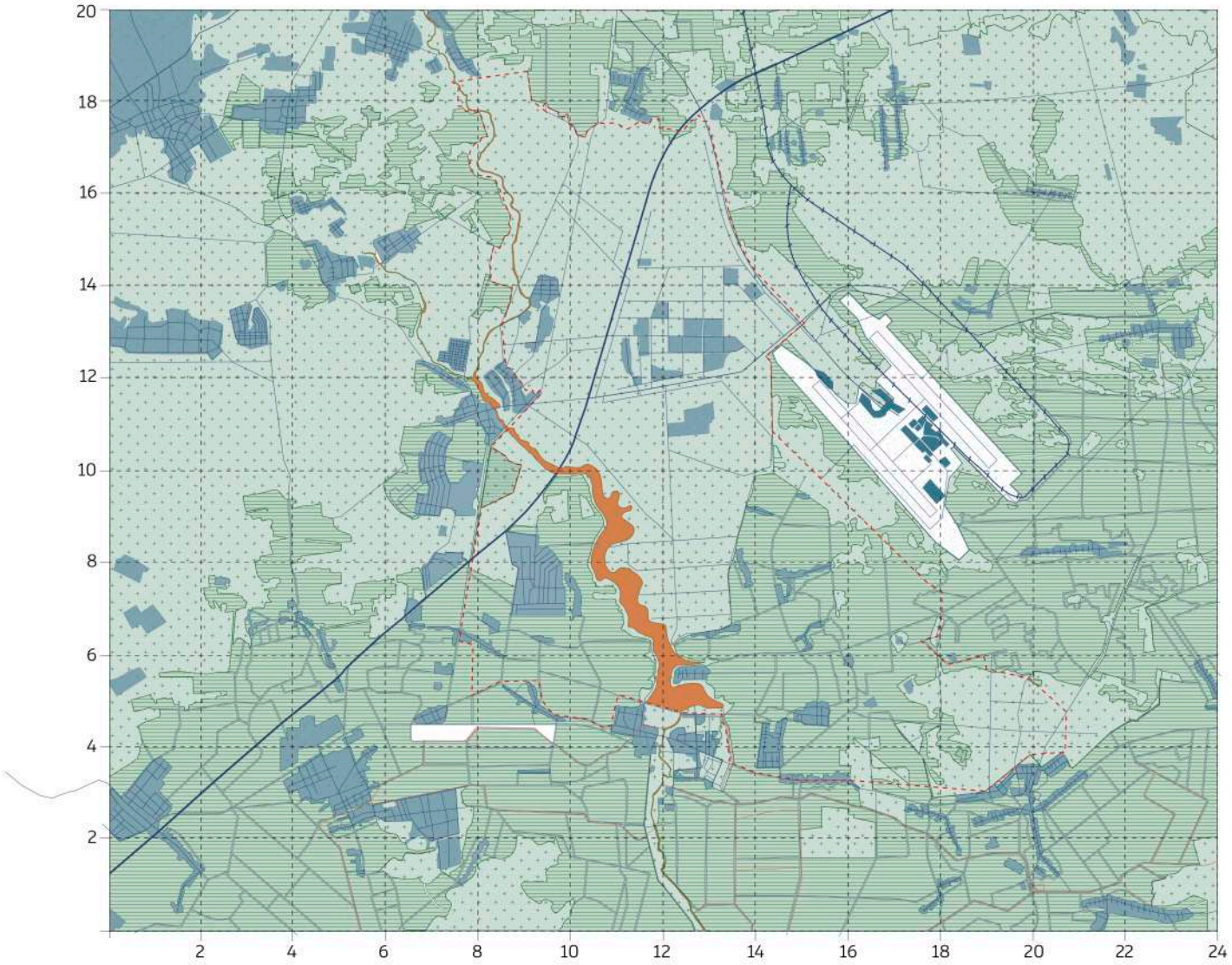
2045



GREAT STONE INDUSTRIAL PARK 2015

field
wood
river
urban area

railway
highway
main streets
secondary streets

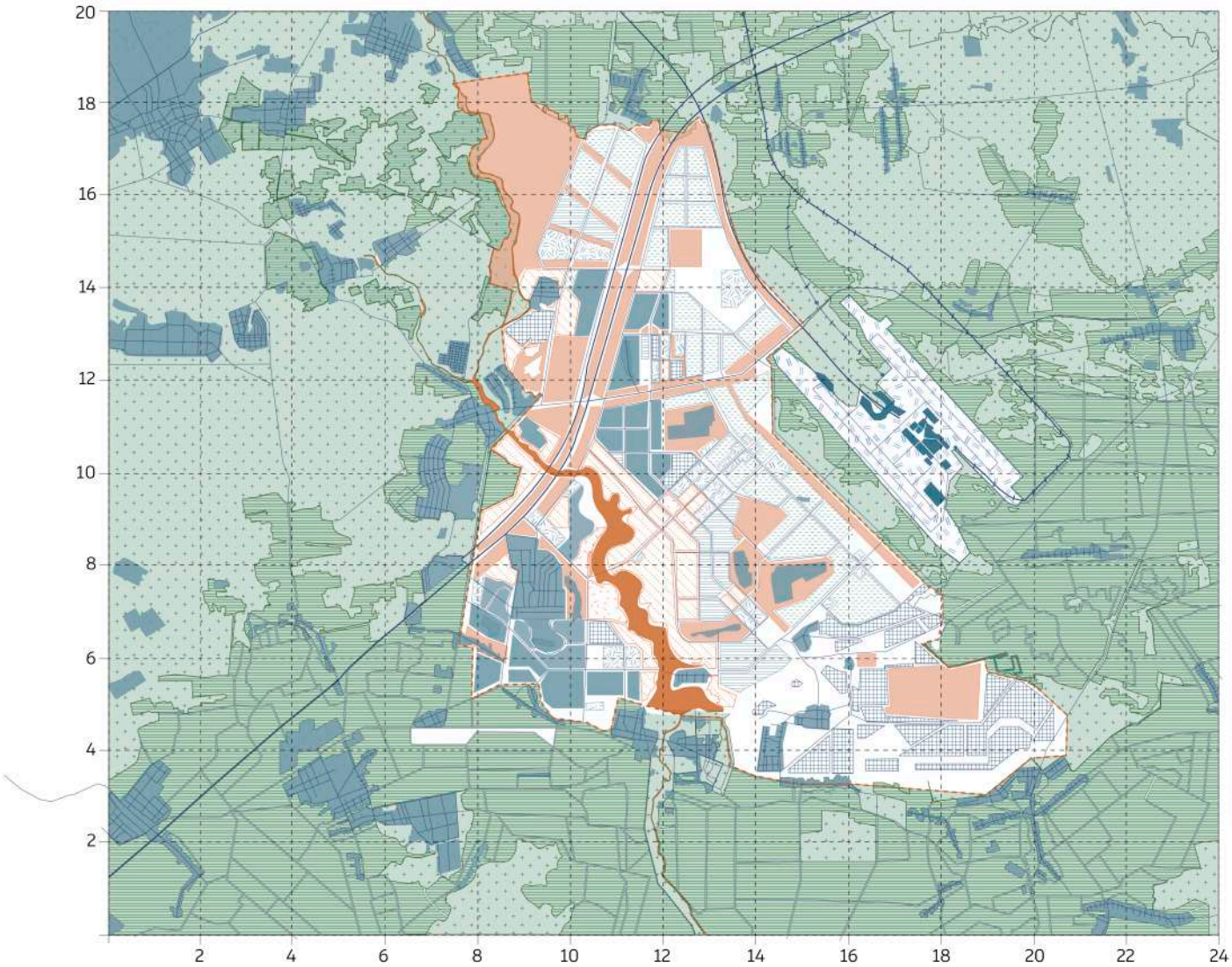


GREAT STONE INDUSTRIAL PARK 2020

field
wood
river
urban area

railway
highway
main streets
secondary streets

airport
industrial park limits

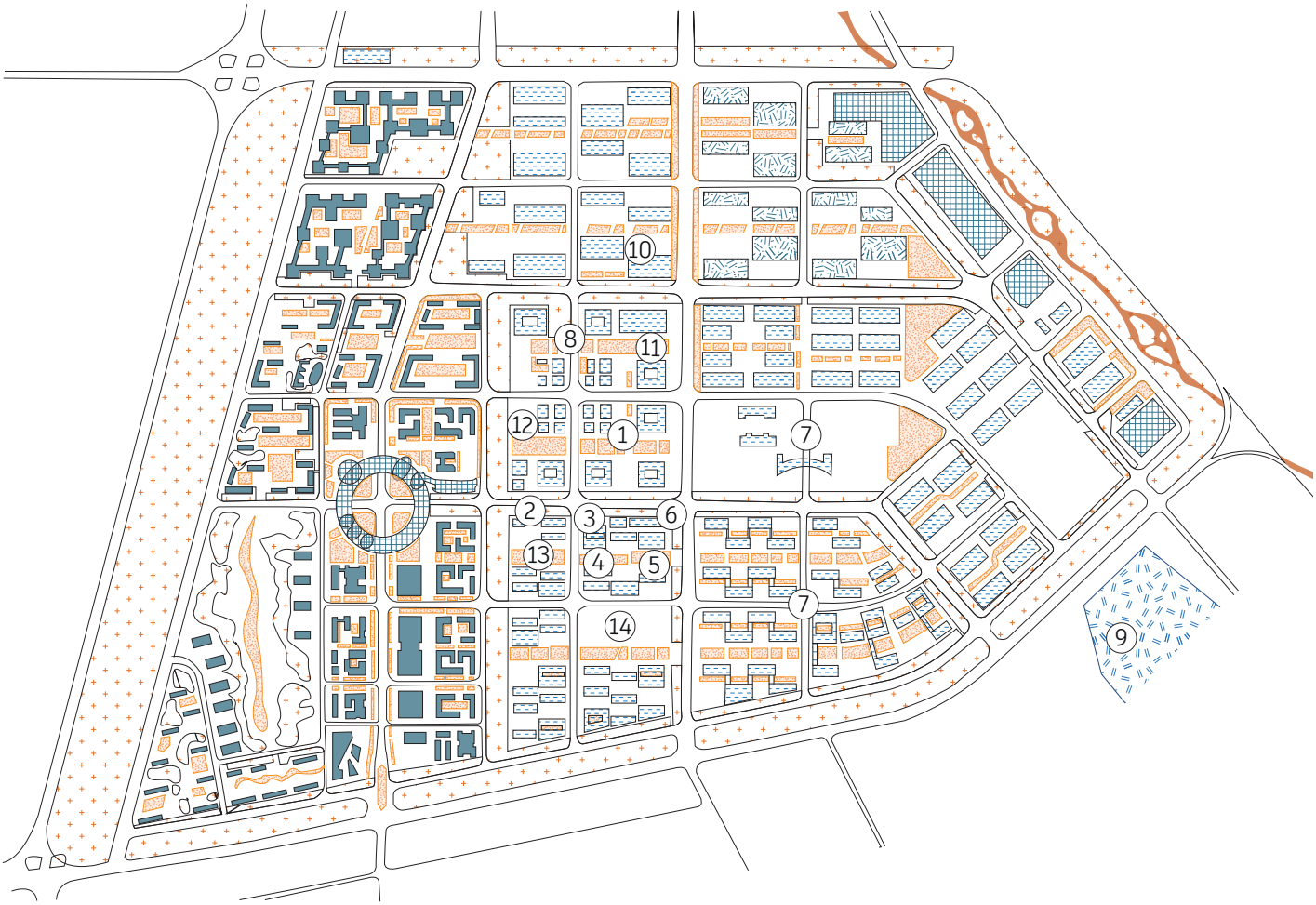


GREAT STONE INDUSTRIAL PARK 2045

Source: GSIP; Republic of Belarus; European Bank

- field
- wood
- river
- purpose green area
- public green area
- natural reserve
- residential area
- airport
- scientific and educational facilities
- sports and leisure
- industrial facilities
- business and logistics facilities
- railway
- highway
- main streets
- secondary streets
- industrial park limits

PHASE I: Industrial and Logistics Facilities



OPERATING PARK RESIDENTS

1- Zoomlion
13,3 ha

2-Chengdu Xinzhu
1,1 ha

3-Nanopectin
2,4 ha

4-ZTE
0,8 ha

5- Huawei
0,8 ha

6-YTO
0,8 ha

7- China Merchants Logistic
84 ha (29,2 during Phase I)

8-SAS Industrial
/

9-Minsk International Airport
existing

POTENTIAL PARK RESIDENTS

10-Kingsun
(light emitting diodes)

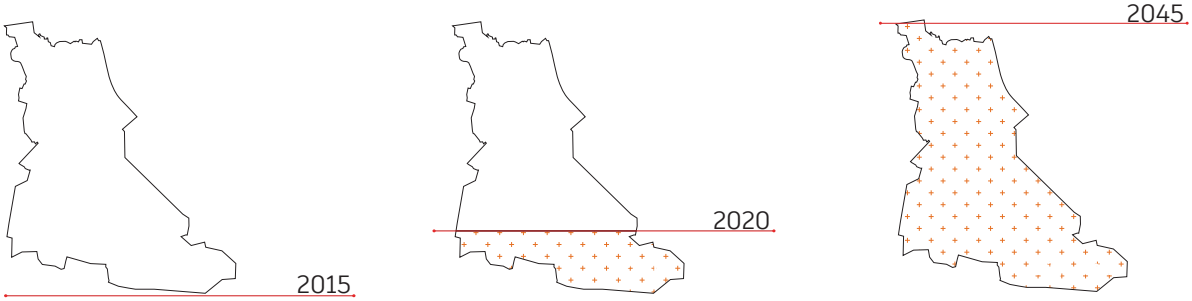
11-CITIC
(automotive components)

12-Lotiusland
(new energy)

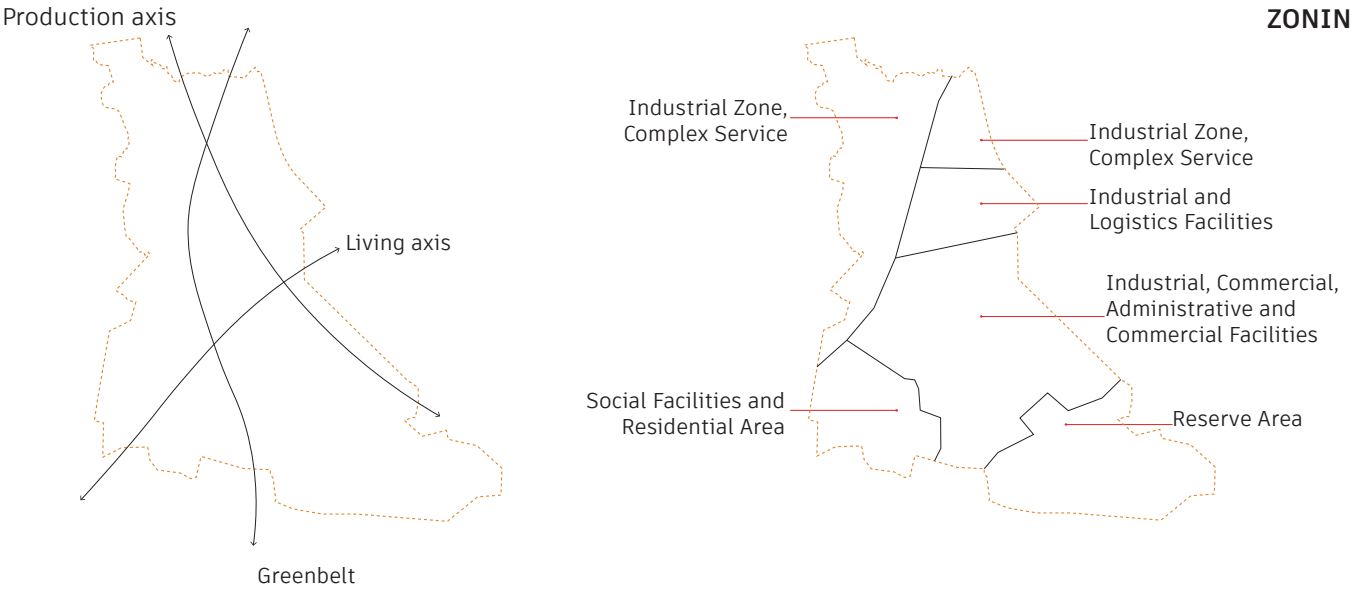
13-Kronospan
(construction and finishing material)

14-Weichai
(mechanical engineering)

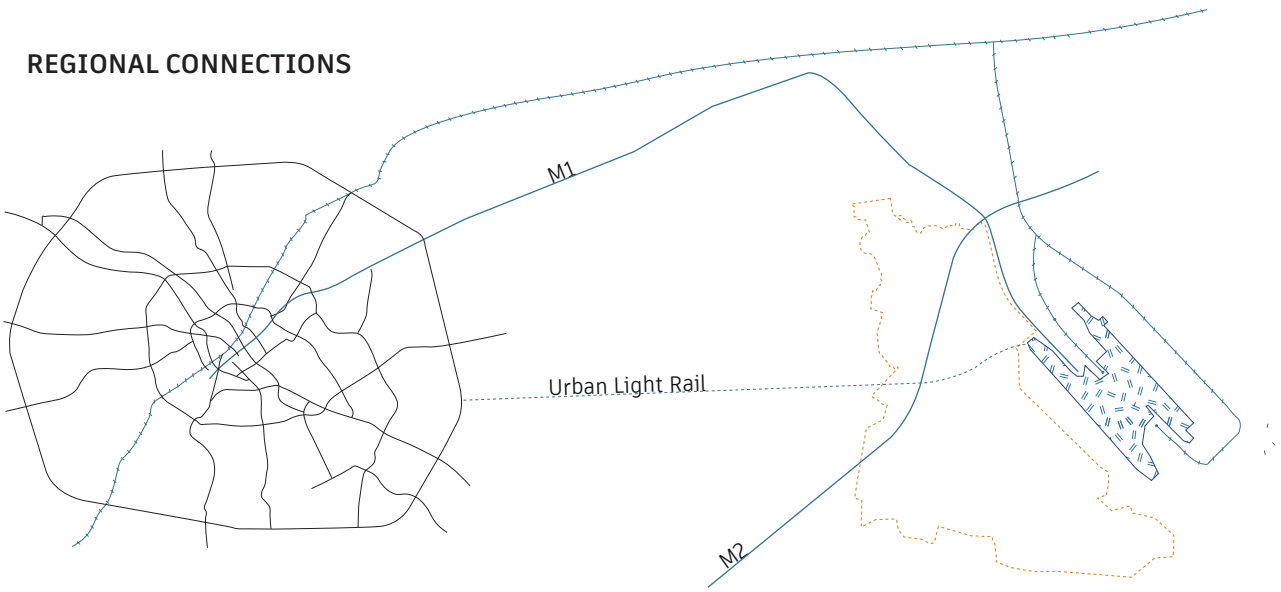
STATUS



ZONING



REGIONAL CONNECTIONS



GREAT STONE INDUSTRIAL PARK

Great Stone Industrial Park is the largest SEZ in Belarus (112 Km2), it is located in the Smolevichsky district, in the center of the country, only 25 km away from the capital Minsk, in a forest area with small settlements and two nature reserves, at least until 2010 (Liu Z., Dunford, Liu W., 2021).

The fact of being a landlocked country with scarse natural resources, such as oil and natural gas, forced Belarus to rely on Russia in order to meet its energetic needs (Mammadov 2020). In fact, a large part of the Belarusian economy is based on taxes on oil in transit from Russia, making the country easily manipulated[1]. In 2006, as Russia announced its intention to increase the costs of natural resources, China became the best alternative superpower.

In the past, Belarus has already tried to free itself from Russian power, diversifying its economy and attracting the attention of China to receive investments and loans, but without too much success[2]. In this context, the Sino-Belarusian industrial park could mark a turning point that would allow it to enter the global economic scenario.

The idea of developing the project was born in 2010, but its beginning was 2015, when was built the monument of the "Great Stone" and the Presidents Xi and Lukashenka visit the project area. China sees Belarus as a «key element of the economic belt of the new silk road» (Industrial park DC, 2018), with the potential function of being a production hub, to allow free entry to the Eurasian market, facilitated by its proximity to the European Union and by the country's membership of the EAEC (Union Eurasian Economic, which includes Belarus, Russia, Kazakhstan, Armenia and Kyrgyzstan) (Industrial park DC, 2018).

From a strategic point of view, the country is crossed by various transport corridors, which place it in the center between Europe, Russia, the Black Sea and the Baltic Sea: first of all, it is only 500 km away from some main ports such as Klaipeda, Lithuania - it is home to China's largest direct outbound investment (ODI) in the Baltic countries and the largest container port in the area (HKTDC Research 2016) - and from Gdańsk, Poland.

A second corridor is the north-south and east-west railway corridor which connects it to the TEN-T (Trans-European Transport Network), in particular to the North Sea-Baltic section, which connects Helsinki to Antwerpen, passing through Klaipeda.

In the same area there are the M1 / E30 motorways that link Ireland to Siberia, passing through Berlin, Warsaw and Moscow and the Trans Siberian railway, which arrives in Vladivostok, one of the Russian ports of the "polar silk road".

Finally, a direct connection can be identified with the Chongqing- Xinjiang-Europe international railway, which starts from the Chongqing region in China and arrives in Duisburg through the countries of the Middle East. Regionally, Great Stone is located right next to the Minsk airport, and connected to it by a railway. Controlling trade of one of the most important hubs means for China facilitating trades to and from Europe, the Arctic and the Middle East, while challenging Moscow's influence in the region.

The Sino-Belarusian industrial park will be completed in 2060 and will have a total

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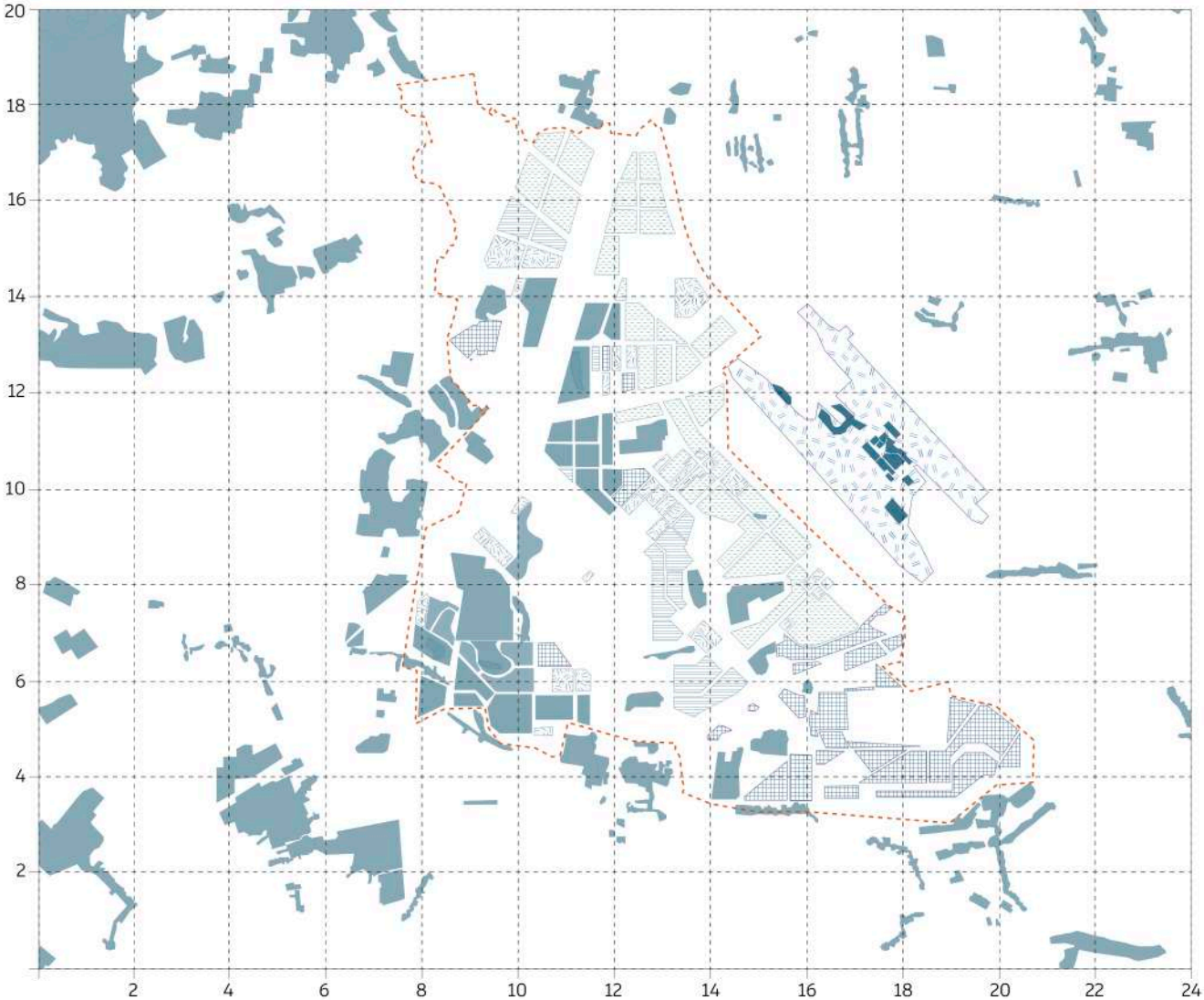
1 Some agreements foresee that Russian companies can, instead of requesting payments, acquire parts of the energy infrastructure in Belarus, allowing them to have more control over the energy transit and energy geopolitics of the region (Mammadov 2020).

2 Non-oil exports increased by 2.1% between 2013 and 2018, with main destinations in Russia, Poland and Ukraine. In particular, the most exported products are fertilizers, agricultural products and wood. Belarus in those years has diversified into a sufficient number of assets but in volumes that are too small to affect the increase of GPD (Atlas of Economic Growth).

cost of approximately USD 6 billion. Currently the first phase of the project is financed through loans from the China Development Bank (USD 110 million) and the China Exim Bank (USD 170 million) (Mardell, 2019).
The main objective is not to design a simple industrial park, but a city of the future satellite of Minsk, ecological and intelligent, focused on the production of high technology and innovation, export-oriented and respectful of the environment (Industrial park DC, 2018), which will host, by 2025, a smart residential complex for 130,000 inhabitants. The strategy of the Head of the Administration, Aleksandr Yaroshenko, is to create in advance the requirements for the arrival of investors and resident companies, in order to facilitate the purchase or lease of land[3] (Belta, 2020).

GSIP will be equipped with 50% of green areas, and will foresee five main functional zones, which will have to be carried out in five phases: the first includes industrial and logistic structures, mostly pharmaceutical, chemical, electronic, biotechnological, database processing; the second, which mostly covers the central part of the park, is dedicated to administration, commercial and public buildings, and includes the development of a multimodal railway terminal, which aims to be one of the largest European logistics hubs of this type; the third part will be dedicated to services for industries; the fourth involves the development of residential areas, social facilities and a school, while the last combines the commercial-industrial area with the cultural-recreational one (Industrial park DC, 2018). It seems they are also considering the expansion of the existing railway line, in order to connect the park to Minsk and the airport, facilitating the integration of the different transport systems (air, rail and road). Safety is considered one of the most important aspects, guaranteed with advanced safety systems located throughout the park area, accessible from great distances in order to reassure "those away from the park" (Industrial Park DC, 2020).

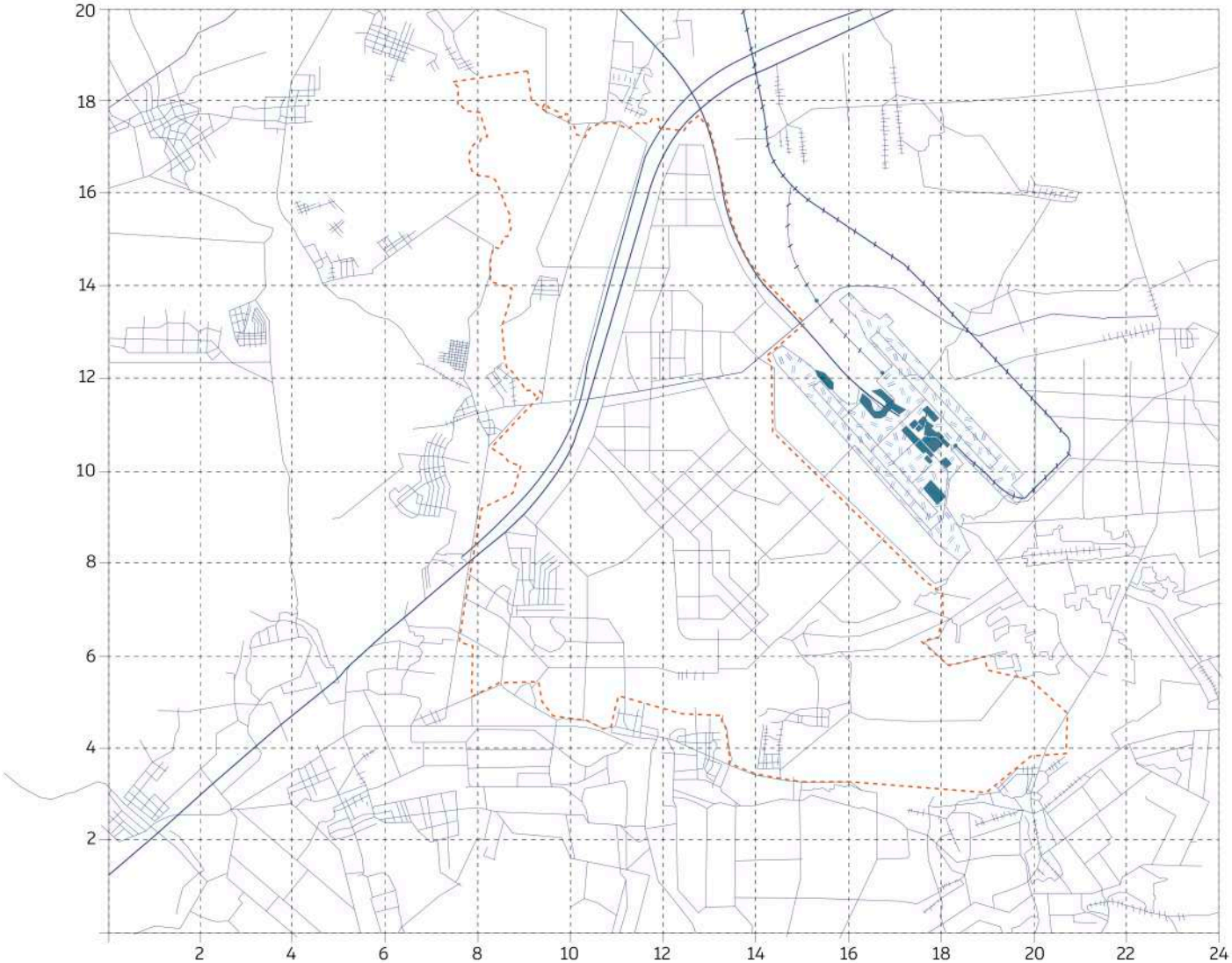
3 To date, the main companies resident in the park are Huawei, Zte, Zoomlion, Xinzhu corp., SAS Industrial, Lotus Land Root Tech, China National Machinery Industry Corporation (Sinomach), Harbin Investment Group, Duisburger Hafen AG, China Merchants Group, China CAMC Engineering Co., Ltd., Great Stone Industrial Park Administration (Great Stone Industrial Park Official Site)



ZONING

Source: GSIP; Republic of Belarus; European Bank

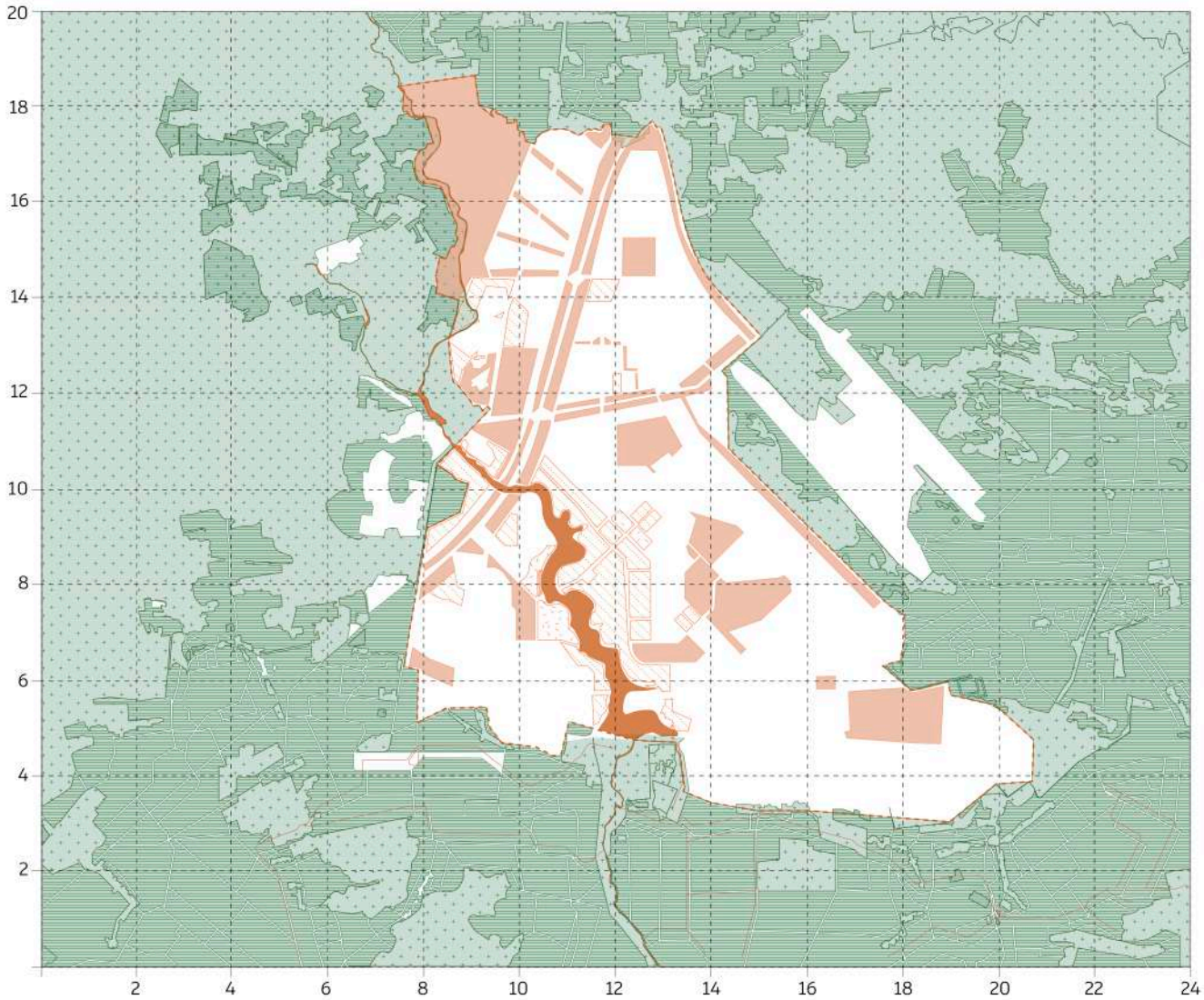
residential area
airport
scientific and educational facilities
sports and leisure
industrial facilities
business and logistics facilities
industrial park limits



MOBILITY

Source: GSIP; Republic of Belarus; European Bank

mobility facilities
airport
secondary streets
industrial park limits
railway
highway
main streets



NATURE

Source: GSIP; Republic of Belarus; European Bank

field
wood
river
purpose green area
industrial park limits
public green area
natural reserve
canals

The Great Stone Industrial Park takes inspiration from the China- Singapore Suzhou Industrial Park and, just like this one, is having initial difficulties (Yeliseyeu, 2020). Suzhou Industrial Park was founded in 1994; the location was chosen for its proximity to the financial center of Shanghai and for the amount of skilled workers and training institutes, it has a series of facilities including accommodation, villages for the elderly, recreational and assistance facilities, as well as schools of excellence (The Straits Times, 2014). Until 2000 it risks to close, but it could recover and become the second largest center in China, thanks to a radical transformation and involvement of both sides to make the project more efficient.

Despite the enthusiasm of President Lukashenka who relies on China for his ambition of a "strong economy-strong state", to date only 60 companies reside in the park, compared to the 100 planned for 2019, presaging more a "white elephant" than a city of the future (Yeliseyeu, 2020). According to Olga Kulai, an analyst from Minsk with experience in Chinese companies, Great Stone seems to be lacking of this last factor. China is reluctant to invest in Belarus due to its poor environment, the Soviet management culture and the insecurity of commercial possibilities.

This low implication can be seen, for example, in the choice of the company in charge of the project (CAMCE di Sinomach), which lacks experience in investments for the development of industrial parks[1] (Mardell, 2019) and in the fact that China is not actually investing in the park, but offering loans and investing in the procurement of Chinese goods and services (Smok, 2015). Under the terms of the loans, the general share of China's equipment and workforce is has to be at least 50%.

This has generated two types of response in the population: the first believes that a project built by the Chinese is better than having no projects at all, the other instead, which has among its exponents the economics professor Leanid Zlotnikau, believes that the Belarusian economy is too weak and that paying off debts will take too much time and effort from the population: "The Chinese workers come here, Chinese engineers do the work and Chinese companies cash in, and in the end little will be left for Belarus" (Zlotnikau in DW News, 2016).

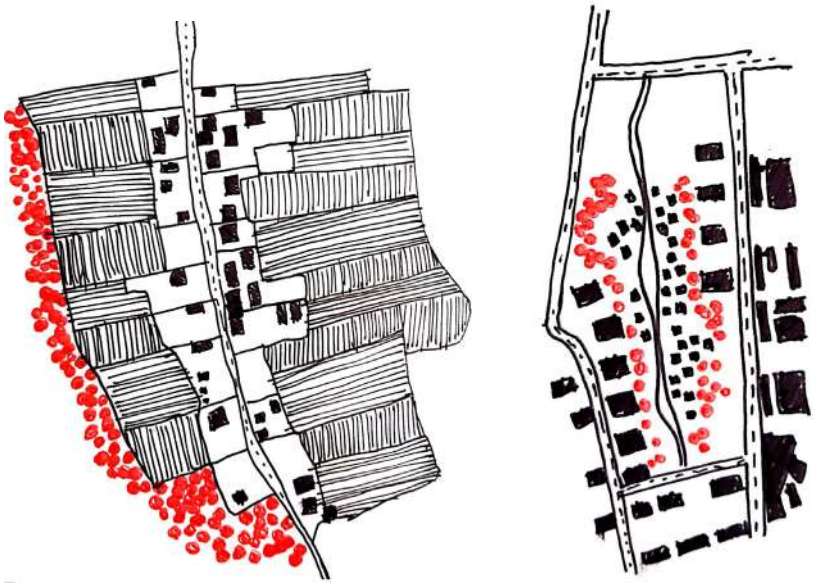
A sensitive point of the debate is the sustainability of the project "the Belarusian government insists on the development of environmentally friendly high-tech companies, while China has supported the reduction of environmental impact assessment standards for companies entering in the park ", deeming it is more important to attract investments and then remove pollutants (Li Haixin, director general of JDC, Minsk, 2018). Since 2018, hundreds of workers have started demonstrating against Chinese projects in Belarus, especially in Lenin Square in Brest, with the excuse of "feeding the pigeons on Sundays". The main critics is that China use to design structures, such as roads, power plants, luxury hotels and car battery factories in a highly polluting way, near agricultural fields or grazing places, harming the health of residents and their production (Higgins, 2019). Vladislav Abramovich, a doctor who lives near the project site, reports to the NY Times: "For the Chinese, we are like Africa: poor and needy. [...] America and Europe don't give money to dirty factories like this one, but China doesn't care and wants business for Chinese companies" (Higgins, 2019).

The construction of the Sino-Belarusian industrial park is no different case; it

Traditional Belarus House

1 This had already happened in 2012 for the construction of the Dobrush paper industry, where a loan of USD 350 million was granted, putting the company Xuan Yuan in charge. The project was supposed to be finished in 2015, but when in 2018 it was still unable to complete the project due to its lack of experience, the Belarusian decided to end this cooperation (Yeliseyeu 2020).

takes place in “A swamp and forest before. There was nothing here “(Higgins 2019) as the director Aliaksandr Yarashenka likes to say. This “nothing” was actually a nature reserve with agricultural fields and small villages that will be largely eliminated and whose population will be relocated from typical country houses to immense residential buildings, hoping to find a job in one of the industries.
It seems important to dwell on the organization of this “city of the future”, in order to understand how the creation of these factories can influence the way of experiencing the city. The population that will inhabit the industrial park will be a mix of the different communities, of which the largest is the Chinese one, both in terms of resident companies, as workers and entrepreneurs, having a clear great impact. One element identified as part of Chinese cities is the surveillance system: China, with its 800 smart cities, has become a global leader, combining sensors, metering devices, cameras and other monitoring technologies with big data processing and the analysis of artificial intelligence, to help manage its cities and public spaces (Atha et al. 2020). Security cameras should be used to ensure the safety of citizens, cleaning of the streets and controlling parking spots and the production of factories (Huang, Lei 2020). “Although the expansion of the Orwellian eye may improve ‘public safety’, it represents a chilling new threat to civil liberties” (Mitchell, Diamond 2018).



Settlement in Great Stone in 2010 and 2025

A home on the edge of the Great Stone Industrial Park. Photo Credit: James Hill / NYT

Deforestation in Great Stone. Photo Credit: GSIP

Security system in Great Stone Industrial Park. Photo Credit: Industrial Park DC 2018

The dispatching center for high speed trains in Beijing. Photo Credit: Li Hao/GT

Demonstration in Brest, for a Chinese-funded lead-acid battery factory. Photo Credit:James Hill/NYT

Belarusians fight battery factory. Photo Credit:DW

Panoramic view of Great Stone Industrial Park. Photo Credit: Industrial Park DC 2018

The Construction work for several Chinese state firms. Photo Credit:James Hill/NYT

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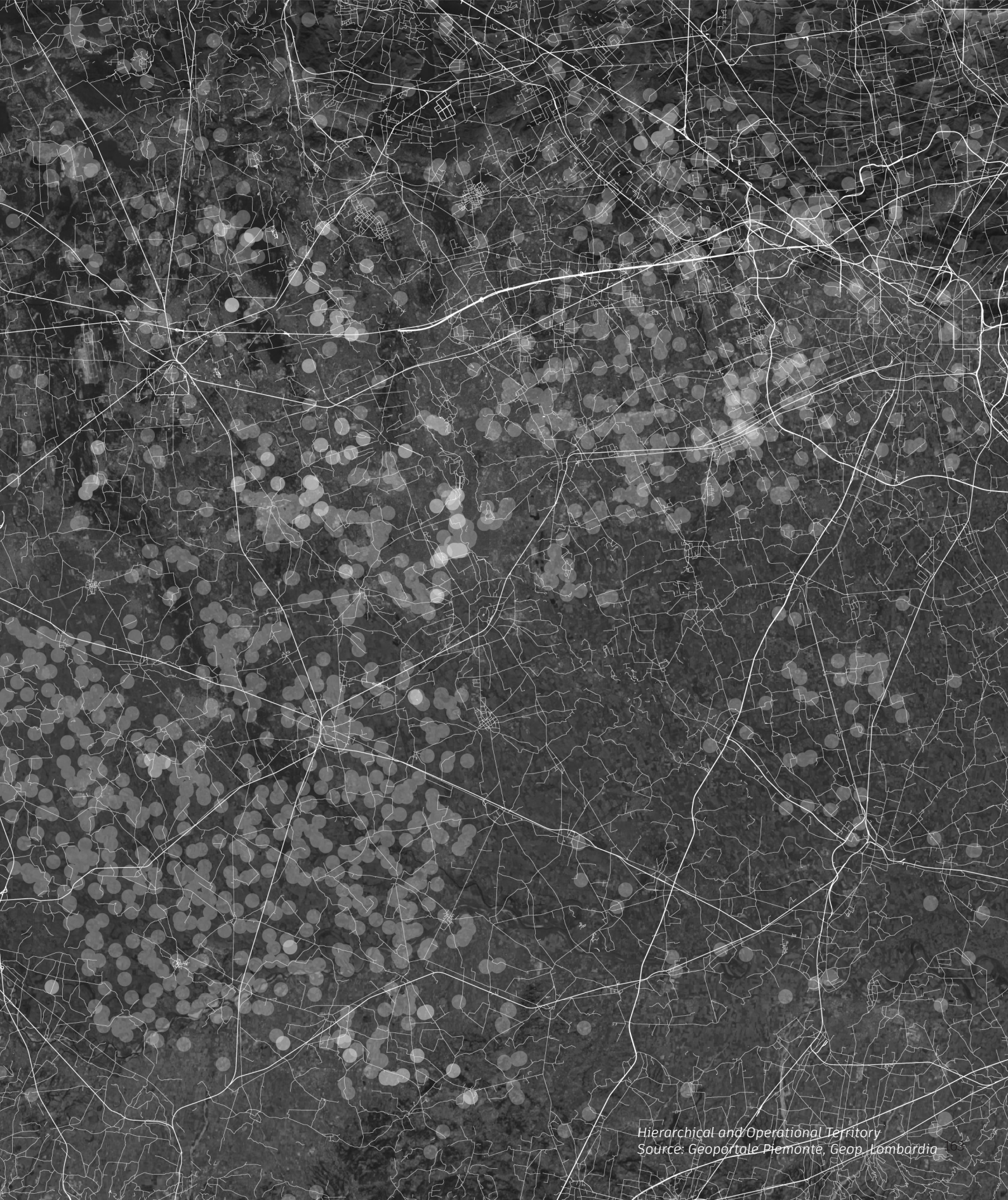
CHAPTER 3

A European Case Study

Aim of this chapter is to study the insertion of the Global Infrastructure in the European context and in particular in Italy, as a set of places already highly connected and subjected to phenomena attributable to large-scale infrastructural reasoning, and to outline the changes and the possibilities that this operation entails.



Hierarchical and Operational Territory
Source: Geoportale Piemonte, Geop. Lombardia

European and Italian Context

BRI, TEN-T and Global Infrastructure

The case of the BRI in Europe seems to be particularly interesting as it is not possible to consider it as a homogeneous block and therefore identify a single approach towards the Chinese initiative. While access to successful brands, high technology and know-how are among the reasons why China is interested in entering Western European markets, investments in the green energy industry and sustainability bring Chinese companies to the Nordic countries and investments in greenfield and infrastructure push them towards Central and Eastern Europe (CEE), including non-EU Western Balkan countries (Szunomar, 2020).
In the CEEC countries, the need to create a multi-modal transport network in Europe emerged in the mid-1990s at the Prague Declaration on All-European Transport Policy (UNECE). At the Pan-European Transport Conferences in Crete in 1994 and Helsinki in 1997, the participating Central and Eastern European countries together with representatives of the EU and the OECD endorsed ten pan-European transport corridors, with the intention of developing them within 10 years (Schraud, 2005)[1]. Since 2012, China has established strong relations with 17 Central and Eastern European countries, including 12 EU countries[2] (CEEC, 2013). Within the region, EU member CEE countries host relatively more outbound Chinese FDI, while transport, energy and infrastructure projects are more common in non-EU CEE countries, where other financial resources, such as EU structural funds, are less accessible (Szunomar, 2020). Apart from narrowing the existing infrastructure gap between these countries, the new network is expected to reduce shipping times for Chinese goods, thus increasing their competitiveness on the European market, without the obstacle of strict EU rules and regulations in negotiations and processes (European Union, 2016). The new Silk Road represents in this sense a great opportunity in terms of Eurasian connectivity as it would allow to push the Belt and Road initiative up to the western border of Europe and enter the European market through inter-modal transport channels faster than sea routes and cheaper than air ones. With each one of the countries, China has developed bilateral relationships based on national interests and investment potential, in addition to the 12 guidelines common to all of them[3], thus creating a competition between countries to attract Chinese investment and a big difference between them. Some of the projects that can be identified as part of the 16+1 platform: the bridge over the Danube in Belgrade, the first major infrastructure project supported by China completed in the region in 2014; highways in both Bosnia and Herzegovina and FYR Macedonia, mainly supported

1 Regulation (EU) No 1315/2013 of the European Parliament and of the Council of 11 December 2013 on Union guidelines for the development of the trans-European transport network and repealing Decision No 661/2010/EU: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32013R1315

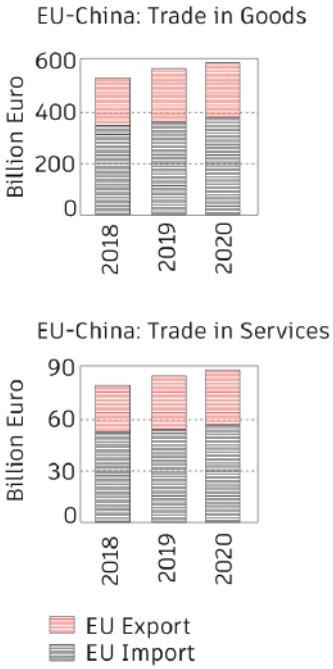
2 Bulgaria, Croatia, the Czech Republic, Estonia, Greece, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia- and five non-EU Balkan countries - Albania, Bosnia and Herzegovina, Macedonia, Montenegro and Serbia. The Cooperation between China and Central and Eastern European Countries is also called China-CEE, China-CEEC, 16+1 or 17+1, after the inclusion of Greece in 2019 at the EU-China summit in Dubrovnik, Croatia (OBOR Europe 2019).

3 "China's Twelve Measures for Promoting Friendly Cooperation with Central and Eastern European Countries", in Ministry of Foreign Affairs: https://www.fmprc.gov.cn/mfa_eng/topics_665678/wjbispg_665714/t928567.shtml

by Exim Bank; a road project in Montenegro, connecting the port of Bar on the Adriatic Sea to the border with Serbia. In the energy sector, one of the countries most involved is Romania, where Chinese companies have been chosen as investors for the modernisation of two thermal power stations (Rovinari and Mintia), the expansion of the Tarnita hydroelectric plant, and the construction of units 3 and 4 of the Cernavoda nuclear power station. Finally, the Balkans are a key part of this plan, as they allow transit between the Greek port of Piraeus and Central Europe: at the end of 2015, an agreement was signed between China, Hungary and Serbia to finance a 1.5 billion euro high-speed railway from Belgrade to Budapest (Pavlicevic 2014). While the ten pan-European corridors were the starting point for the formation of national and regional networks, in the remaining part of the European Union, where national infrastructure networks were already relatively well developed, the formation of a single market required the concentration of efforts on interconnecting national networks to create «a single network for a single market». The TEN-T, or Trans-European Transport Network, concerns the implementation and development of a European network of railway lines, roads, inland waterways, shipping routes, ports, airports and rail terminals. The ultimate goal is to fill gaps, remove bottlenecks and technical barriers, and strengthen social, economic and territorial cohesion in the EU. This network is divided into a central part "The Core Network", which includes nine main corridors and must be completed by 2030, and "The Complete Network", which covers all European regions and must be completed by 2050. The EU is China's second largest trading partner after the United States, with an economic flow of 579.919 ME in 2020, trading mainly in manufacturing (Import 371.926 ME, Export 169.452 ME), Machinery and Transport Equipment (207.928 ME Import, 105.512 Export) (Eurostat, 2021). For China, the EU is one of the major trade points of interest and the final component of the integration of the Afro-Eurasian region under the Belt and Road Initiative. «The Belt and Road Initiative aims to promote the connectivity of Asian, European and African continents and their adjacent seas, establish and strengthen partnerships among the countries along the Belt and Road, set up all-dimensional, multi-tiered and composite connectivity networks, and realise diversified, independent, balanced and sustainable development in these countries» (Xi, 2015). Even if in 2014, during Xi Jinping's visit to Brussels in view of the meeting on the "Joint Statement Deepening the China-EU Comprehensive Strategic Partnership for mutual benefit" is identified as an important point «in view of the great potential to improve their transport relations, both sides decided to develop synergies between China's Silk Road Economic Belt initiative and EU policies and jointly to explore common initiatives along these lines» (fmprc.gov.cn), it is not possible to find an EU official position on OBOR nor the same approach to the initiative from the single countries of the EU.

The European Parliament writes in December 2015, in its resolution on EU-China relations: «Of the launch of the 'One Belt, One Road' initiative aimed at constructing major energy and communication links across Central, West and South Asia as far as Europe. Given the geostrategic relevance of this initiative it should be pursued in a multilateral way. [...] Is of the utmost importance to develop synergies and projects in full transparency and with the involvement of all stakeholders».

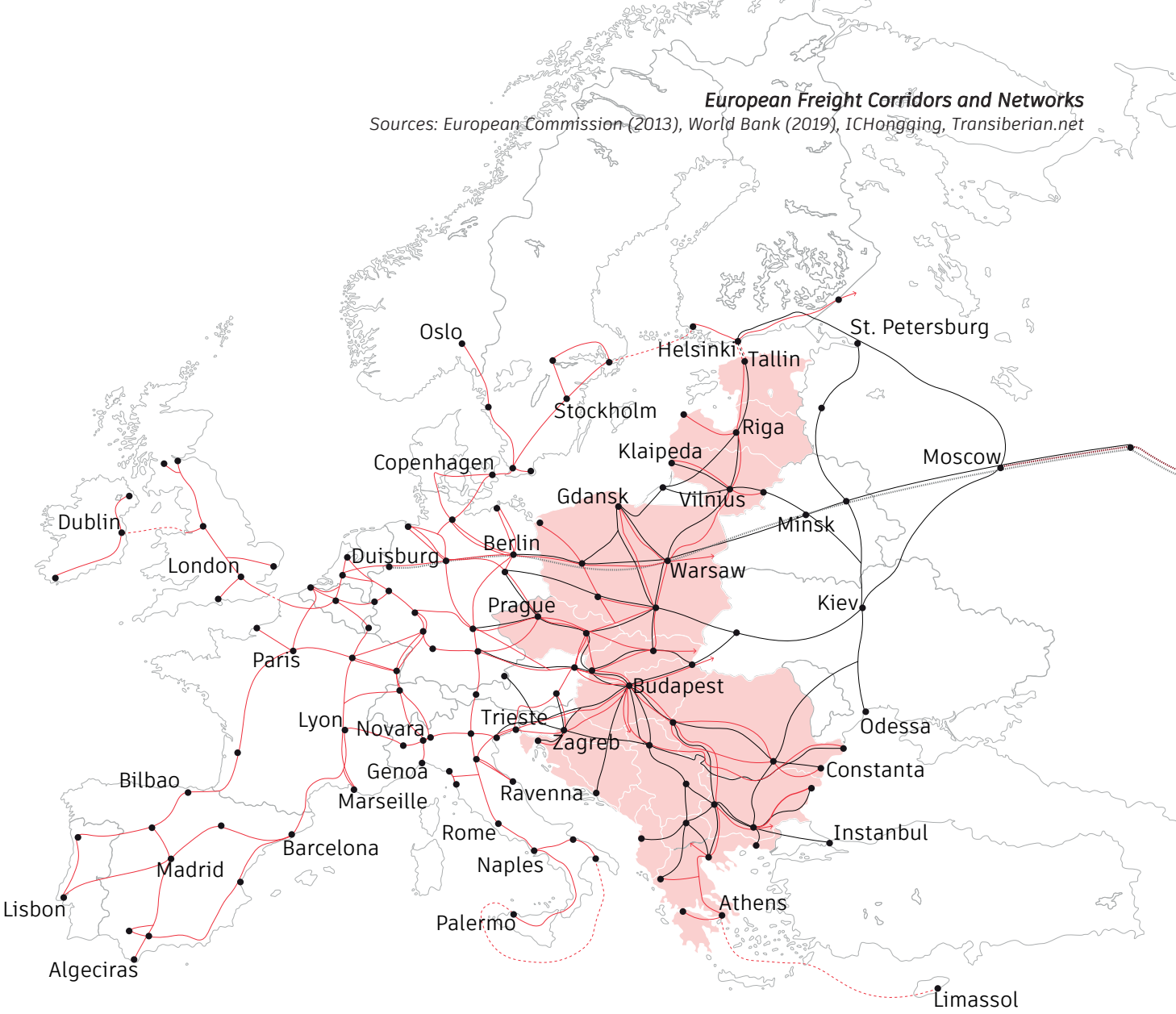
It urged «the VP/HR and the Commission to reflect on the impact of China's global investment policy, as well as its investment activities in the EU and its Eastern Neighbourhood» (European Union, 2016). Despite the lack of practical collective action by the European Union, most countries are signing Memoranda of Understanding on frameworks of cooperation under the BRI or joint declarations of participation, showing the interest of countries to engage with the initiative.



Source: Istat, European Commission

European Freight Corridors and Networks

Sources: European Commission (2013), World Bank (2019), ICHongqing, Transiberian.net



Trans-Siberian Railway
渝新欧 Chongqing-Xinjiang-Europe Corridor

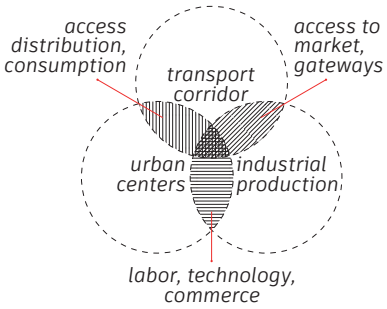
Pan-European Corridors
I Gdańsk-Helsinki
II Berlin--Nizhny Novgorod
III Brussels-Kyiv
IV Dresden-Instanbul
V Venice-Kyiv
VI Gdańsk-Brno
VII Danube River
VIII Durrës-Varna
IX Helsinki- Alexandroupolis
X Salzburg-Thessaloniki

TEN-T Corridors
Baltic-Adriatic
North Sea-Baltic
Mediterranean
Scandinavian-Mediterranean
Rhine-Alpine
Atlantic
North Sea-Mediterranean
Rhine-Danube

Global Infrastructures in Italy and the Pianura Padana

When Italy signed the Memorandum of Understanding on Belt and Road collaboration in 2019[4], one of the first points discussed concerned the development of the priorities indicated in the Investment Plan for Europe and Trans-European Transport Networks, in order to strengthen direct exchanges between the two parties and promote connectivity and sustainable development in the region[5] (Bertozzi, 2019). In particular, the aim is to develop a synergy between the New Silk Road, industries and the Italian transport and infrastructure system, including, roads, railways, bridges, civil aviation, ports, renewable energy and telecommunications, to increase «North-South, South-South and triangular cooperation» (MoU, 2019).
From the point of view of Chinese investors, Italy is an attractive destination; from 2010 to 2016, Chinese investments in Europe increased from 21.0 billion euros to 37.2, then stabilised at 17.3 in 2018 and Italy ranks third after Germany and Great Britain, receiving 15.3 billion euros of investment[6] (Bertozzi, 2019). Chinese interest is driven not only because of the large market and as a strategic gateway to the Mediterranean, but also because Italy is seen as a valuable source of strategic assets - both in traditional and advanced industries (Sanfilippo, 2014), allowing China to «increase the value chain by acquiring technology, know-how and brands in sectors where Italy has achieved global competitiveness (machinery, electronics, banking and financial services, food, fashion and lifestyle, logistics)» (Casarini, 2017).

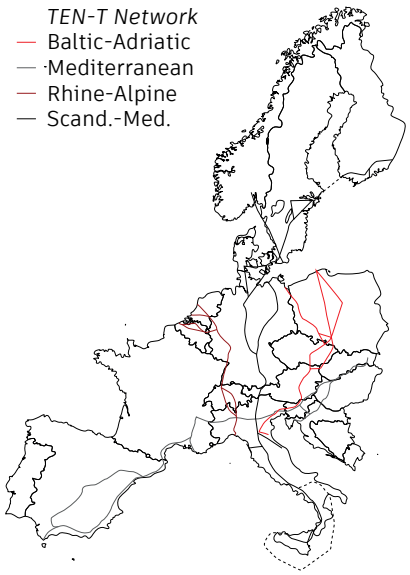
The area of Pianura Padana represents a possibility for the New Silk Road in the Mediterranean, as together with the industrial excellence of the territories, it geographically benefits from its strategic position.
Specifically, it is possible to identify the passage of four TEN-Ts: the Mediterranean Corridor, which starts in the port of Algeciras, crosses Spain, France, northern Italy, Slovenia, Croatia and arrives in Budapest; the Rhine-Alpine Corridor, which starts in the port of Genoa, crosses Liguria and Piedmont in Italy, Switzerland and Germany, where in the city of Cologne it splits into two branches, one going to the Netherlands and one to Belgium; the Baltic-Adriatic Corridor, which starts in the port of Ancona and crosses northern Italy and some of its main ports, including Venice and Trieste before passing through Slovenia, Slovakia, Austria, the Czech Republic and ending in the ports of Gdansk and Świnoujście in Poland; finally, the Scandinavian-Mediterranean corridor, which crosses Italy in its entirety, from Palermo to Verona, and continues along Liechtenstein and Germany before branching off into the Scandinavian countries of Finland, Sweden, Norway and Denmark.



4 Memorandum of Understanding between the Government of the Italian Republic and the Government of the People's Republic of China on cooperation within the framework of the "economic silk road" and the "initiative for a 21st century maritime silk road": https://www.governo.it/sites/governo.it/files/Memorandum_Italia-Cina_IT.pdf

5 Bulgaria, Czech Republic, Hungary, Poland, Romania, Slovakia (MoU, 2015), Latvia, (MoU 2016), Finland (Joint Declaration in 2017), Croatia (MoU in 2017), France (Joint Declaration in 2018), Austria, Greece, Malta, Portugal (MoU 2018), Italy, Luxembourg (MoU 2019). (Bertozzi, 2019)

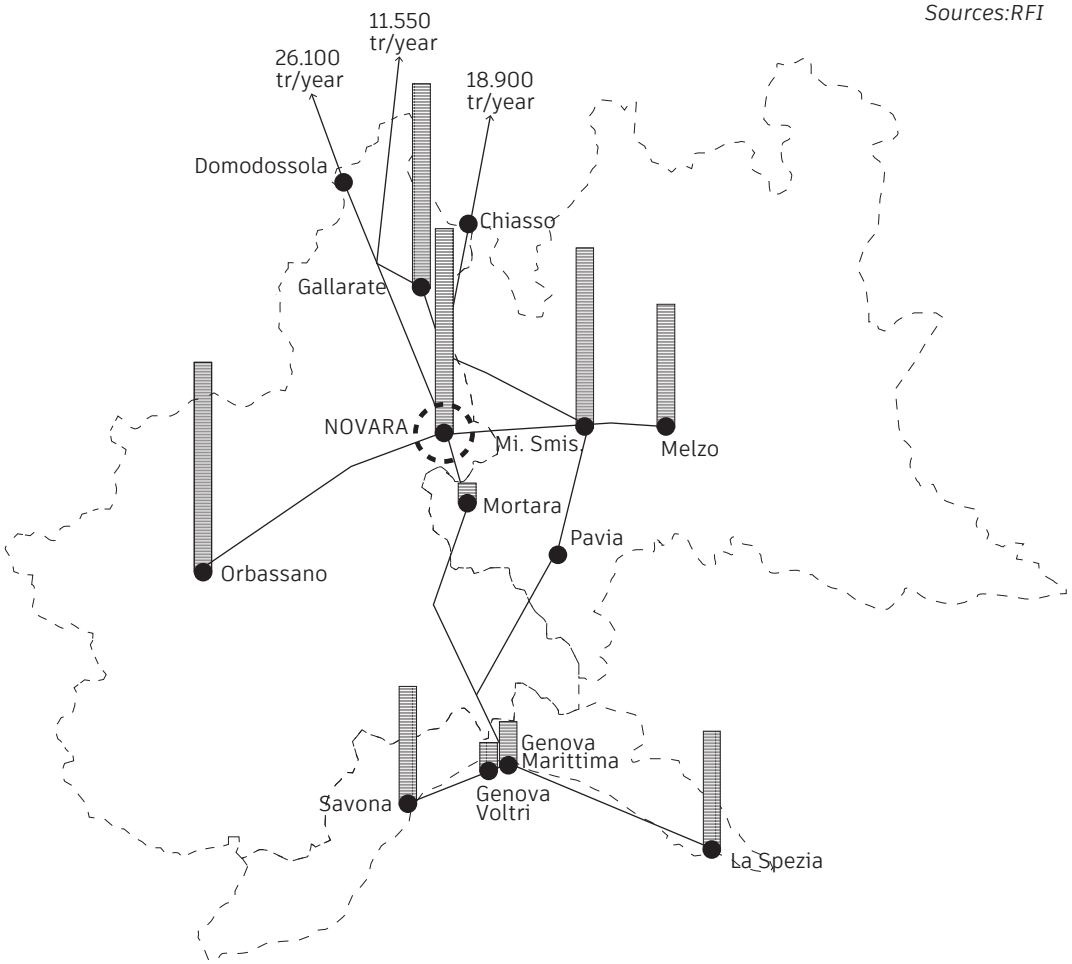
6 Some of the most exemplary investments are the purchase of Pirelli by ChemChina for 7.7 billion, some of which was financed by the Silk Road Fund; the purchase of 35% of Cpd reti by State Grid, which provides access to the Italian electricity grid and the gas supply system; the acquisition of 40% of Ansaldo Energia by Shanghai Electic; the ownership of 2% of Eni, Enel, Fiat, Telecom, Mediobanca, Unicredit, Intesa Sanpaolo by the Central Bank of China (Bertozzi, 2019).

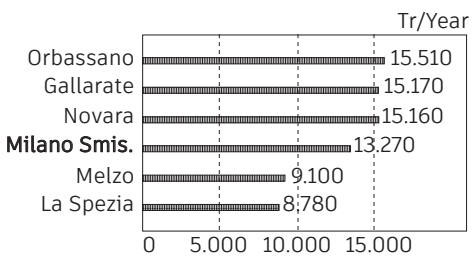


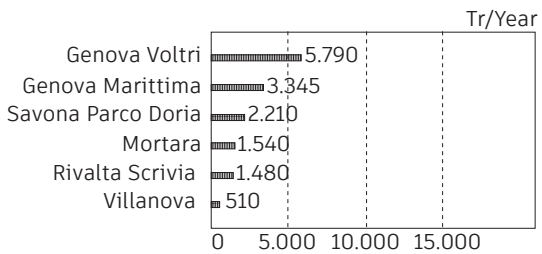
Thanks to the intersection of these trans-European corridors, the area promotes both the distribution of Asian goods and European products, integrating land trade with maritime traffic, thanks to the presence of important ports integrated into the transport network, including Trieste, Savona and Genoa. «It is ultimately the factories that will arrive at the logistics hubs.
Therefore, ports are needed, but they are not enough if they are not included in a system that also includes freight villages, production areas, culture and overall integration between the production world of northeastern Italy and the logistics and production world of China» (De Filippo F., 2019)

Volume of Commercial Transit (trains/year)

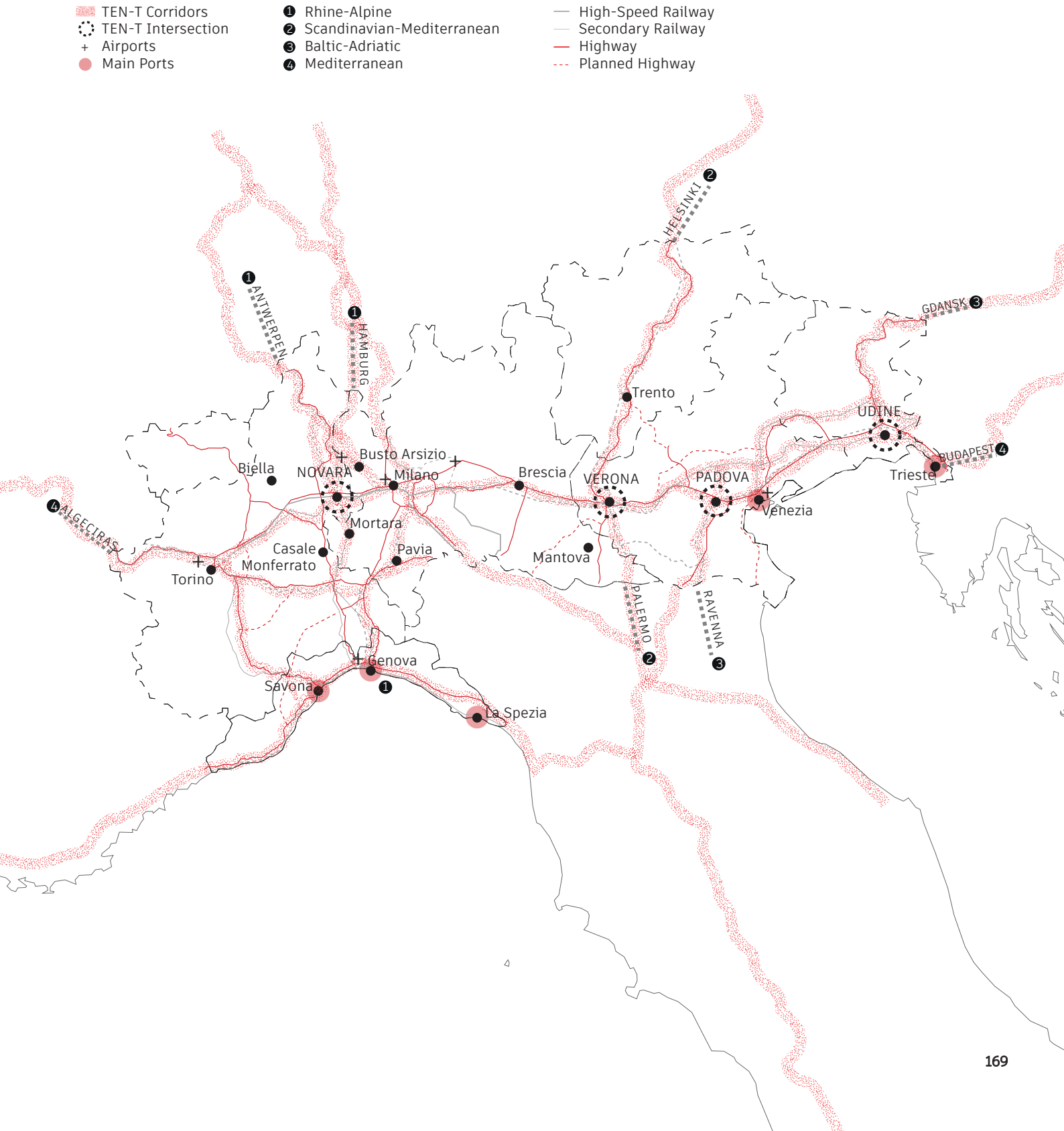
Sources:RFI

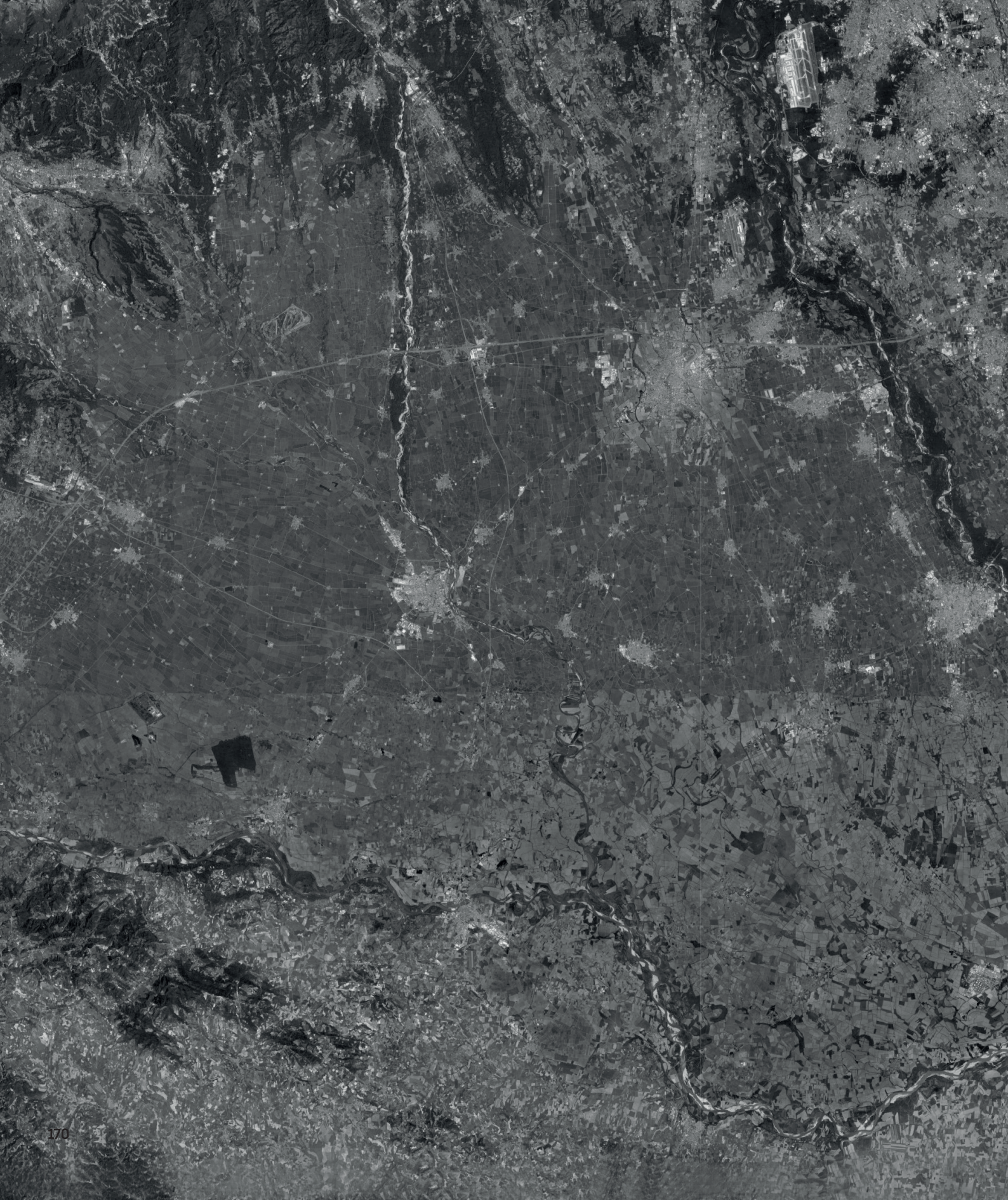






Infrastructural Nodes in the Pianura Padana
Source: European Commission 2021



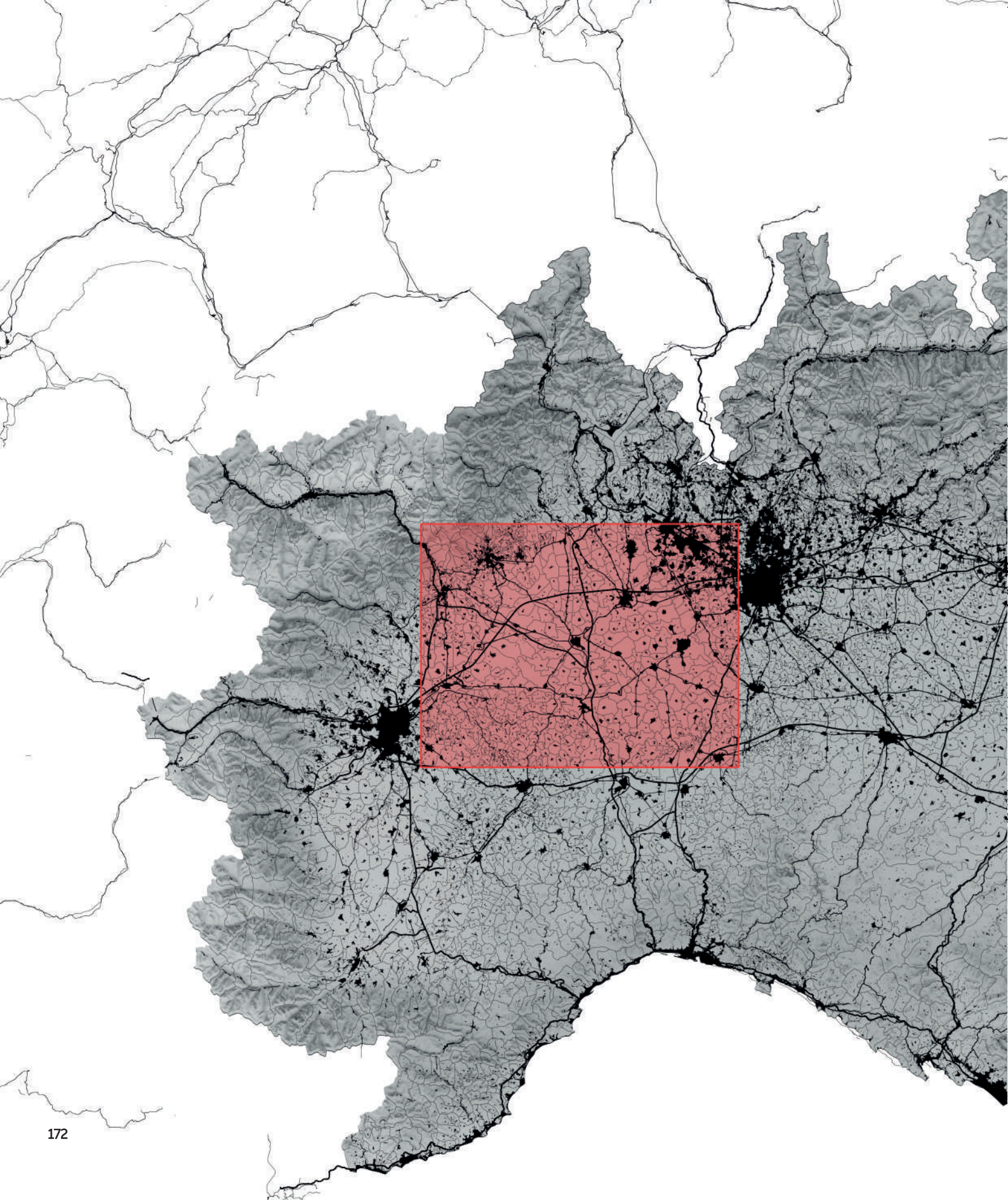


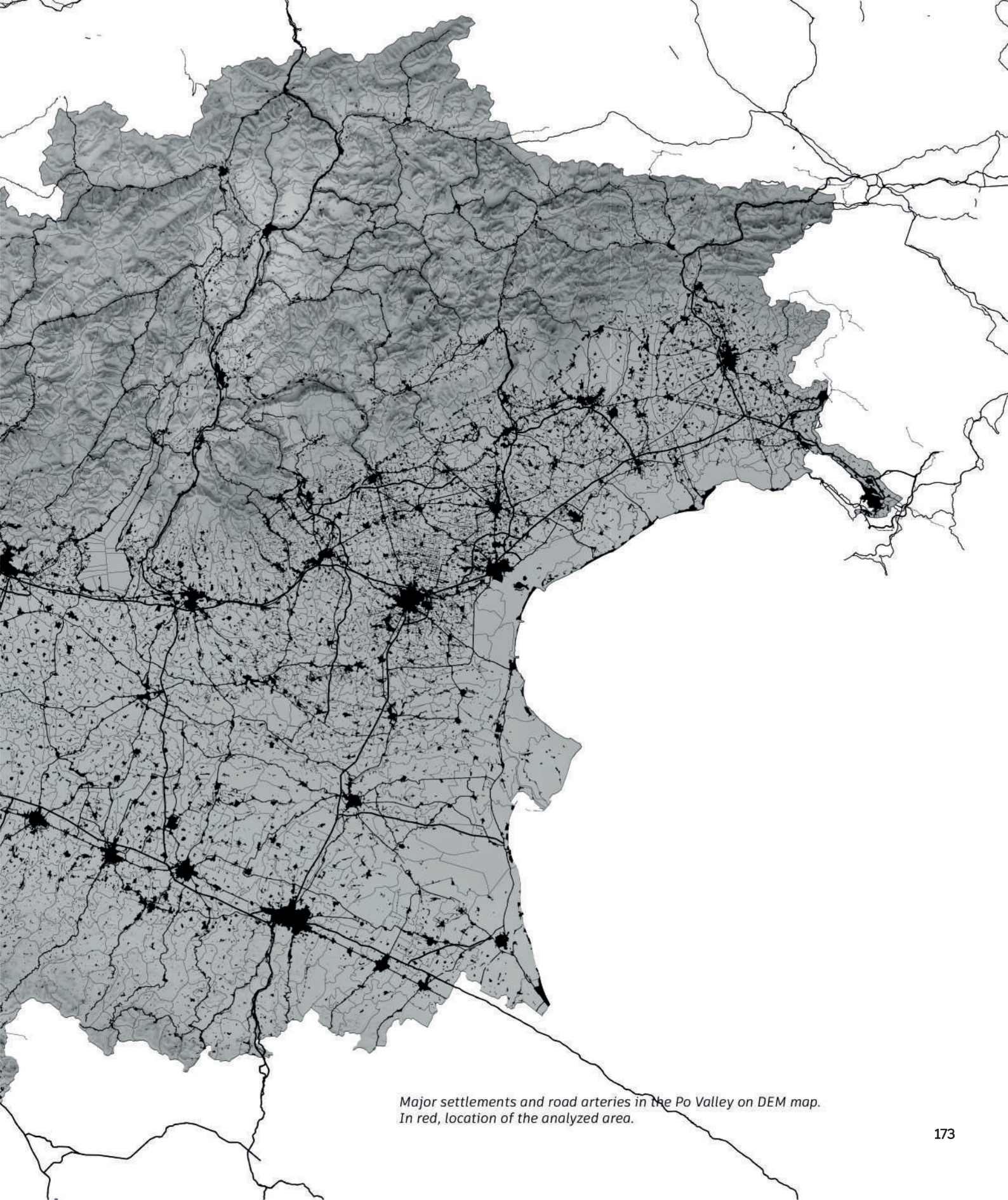
A Potential Node

Nested between the two cities of Turin and Milan, the under study extends from the eastern borders of the Piedmontese capital to the western borders of the Lombard one, including the Piedmont, Vercelli, Novara and Varese foothills to the north and extending south to the provinces of Pavia and Alessandria. The demarcated territory has some important common geographical characteristics, such as the absence of large mountain or hilly groups, which however delimit the area on three sides, and the belonging to the westernmost slope of the Po Valley, considered the most densely populated area in Italy.
Unlike the more eastern Po regions, which have a relatively uniform distribution of medium-large urban centers, the area is affected by the two huge metropolitan areas that delimit it on the west-east axis: the relative proximity of the two ensures that the space between them cannot avoid being subjected to the force of attraction that they determine, generating a set of places that necessarily lean on one or the other pole and undergo a spacing marked by the fast connection infrastructures: this space relatively clear, compared to the reality of the Po Valley in general, it is in fact crossed by many important connecting arteries both at an international, European and interurban level.

Over the years, efforts have been made to implement synergistic development strategies between the two cities of Turin and Milan[1], according to a vision that recognizes the potential of a north-western Italy made up of large productive cities and key links within the European framework. If these operations have really led to an effective development of the relations between the two cities, they have also been responsible for a conception of space that is interposed between the two as a place to be crossed quickly, as an empty area that is not interested by such enhancement policies, as it responds to other types of flows and skills. The concept of large, strongly interconnected urban poles, however, risks obscuring the extremely complex reality of this Lombard and Piedmontese territory: fully included in the industrial triangle with Turin, Milan and Genoa at apexes at the beginning of the twentieth century, it still partly retains an identity widespread in the various inhabited centers, where, thanks to decades of experience and to the climatic and geographical conditions, there are still several centers of industrial and artisan excellence.
Understanding the multiplicity of identities that characterize and have characterized this area is fundamental since it allows us to grasp an area that is not only strategic from a geographical and connective point of view, but has the potential to restore and enrich the global infrastructure that has here some relevant nodes.
Three characterizing aspects were therefore identified in order to frame the most evident conformations.

1 From the original industrial triangle with Genoa, to the Mi-To projects of the 1980s, to the most recent works for the 2006 Olympics and the Turin-Milan 2010 analysis models (Magatti, 2010).





Major settlements and road arteries in the Po Valley on DEM map.
In red, location of the analyzed area.

An Operational Landscape within Global Infrastructures

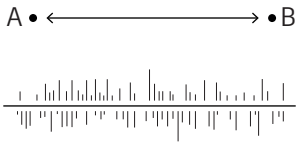
The territory, as mentioned above, is strongly characterized by infrastructural systems. Positioned in an area that is in an intermediate position with respect to multiple large urban centers (Milan, Turin but also Genoa), it has emerged as a space for fast connections between the latter. Observing the cartography, it is immediately clear how these arteries visibly mark the territory by creating a grid which, despite being an instrument of union between the various rural realities, is mainly functional in terms of more significant distances: this is particularly evident when compared with the network formed by the extra-urban roads. The latter, in fact, allows us to understand the position of the inhabited centers, the major river beds and the most important reliefs, revealing the connective needs of these places. Two extremely different types of hierarchies overlap: a first undoubtedly faster but also rarefied, a second widespread and reticular. However, if on the one hand the territory actually identifies itself through its distributive function, the second order on a smaller scale allows us to grasp a territory that does not function only on the basis of the two major capitals, but is indeed a balanced and interconnected place. Paradoxically, the strength of the place seems to feed on the absence of hierarchies: once out of the strictly urban context, the territory is uniformly flat and infrastructured, and can therefore be understood in this context as a whole: places that are even more than seventy kilometers from each other function in a similar way, are equally distant from Milan or Turin and enjoy a fairly developed infrastructural system. What actually creates a separation is the greater order, the one made up of highways which, in addition to physically separating extremely close places, creates a new invisible separation between all the places that reside near the motorway exits and those that are further away from them. In this sense, studying the infrastructural system is essential in order to understand the functioning not only of the movement of people and goods, but also of living and producing within the area.

It should also be emphasized the great variety and importance of fast connections in the Italian north-west: the area is in fact, as already pointed out, a space between three large urban centers which, in addition to being such, are important European connection nodes. Ports such as Genoa, Savona, La Spezia, Trieste are fundamental reception places for ship traffic from the coasts of China and from southern Asia in general and this determines distribution flows of important dimensions, even if almost purely internal to the nation[2]. At the same time, the Po Valley is crossed by four TEN-T corridors, two of which in the study area: although they are still partly only on paper, the areas along these axes are destined to witness the increase in railway traffic and logistics in general in the coming years[3]. Finally, the observation of the major artries that cross the territory (A4, E25-A26, E612) allows us to grasp, as already pointed out, a territory that is fairly well-structured: however, since these are aimed at connections with a very wide terminals are Turin-Trieste, Genoa-Gravellona Troce, Hook of Holland-Palermo, the crossing happens in a way that is only functional to a wider radius: the area therefore is formed by places that are effectively served by one or more motorways or highways, and places with less immediate traffic conditions: this is the case of the Biella area, the western Pavia area and the northern Asti province and

2 Interview with Davide Muzio (IM), 2021, Mortara Interport. See Annexes.

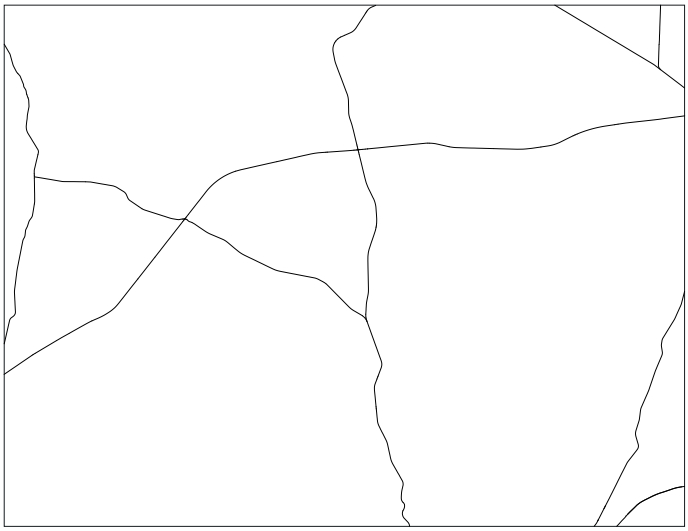
3 Davide Muzio, op. cit.

south-eastern Turin area.
The railway traffic, on the other hand, runs through the territory in a more homogeneous way than the main roads: all medium-sized urban centers have a railway station, and there are no places particularly far from them. The areas worst served by the regional railway network are the hills of Turin and the upper Monferrato, as well as some places in the southern Vercelli area and partly in the northern Novara area. In general, considering the grid produced by the railway network in the area of interest, there is a prevalence of the lines on the east-west axis, and therefore in the direction of the two capitals. This is certainly due to the decommissioning of several railway lines that extended in a more vertical direction[4], connecting smaller towns on north-south axes, due to underutilization. They have been partially replaced by bus lines.
The double use of the distributive space here coexists, creating an overlapping of apparently not in conflict but nevertheless not communicating meshes. It is therefore necessary to read this territory of connections in a double way: here two networks coexist, one made of sponges and one made of pipes (Secchi, Viganò, 2016): the first is functional to microscopic displacements, it interacts with the settlements in an isotropic way, serving them. The second, on the other hand, connects large urban centers, essentially acting as «device with waterproof walls that limits the accesses (and the exits) to only some points who act as taps» (Secchi, Viganò, 2016).



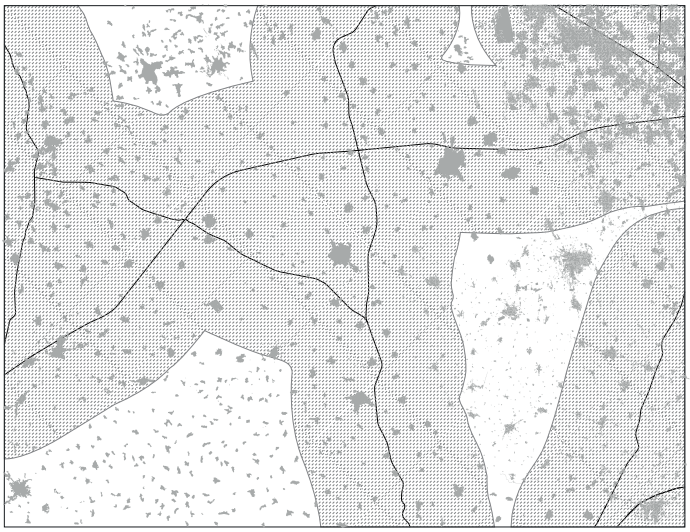
Relation of connections with settlements: independent (pipes) and osmotic (sponges). Secchi, Viganò, 2016

4 Vercelli-Casale Monferrato line decommissioned in 2012, Santhià-Arona line in 2012, Castagnole-Mortara line in 2012, Novara-Varallo line in 2014. https://www.ferrovieabbandonate.it

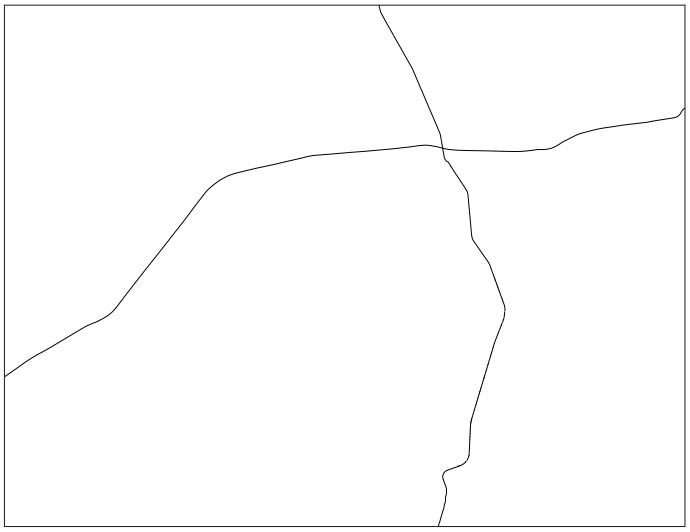


Road - Fast connections

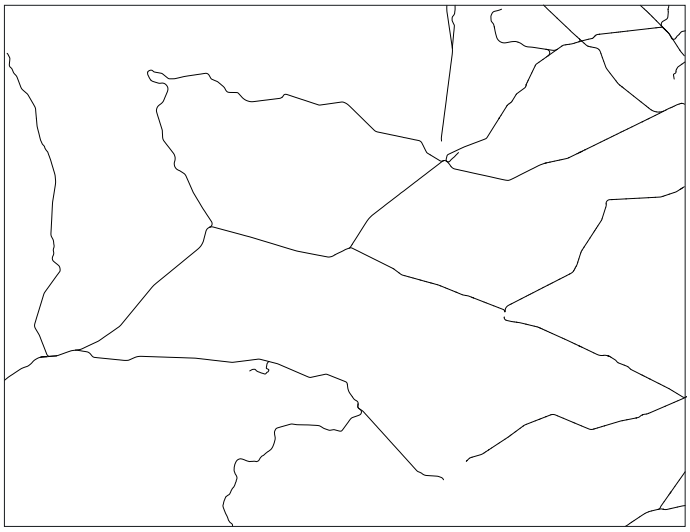
Road - Local connections



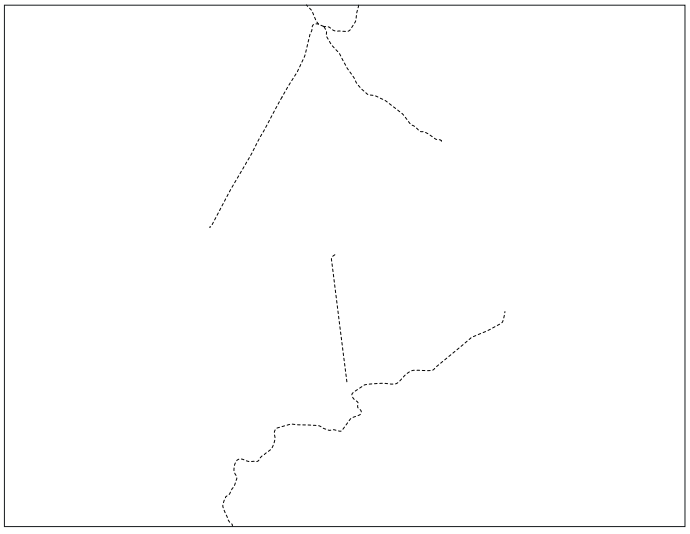
Area served by a highway up to 20 km away



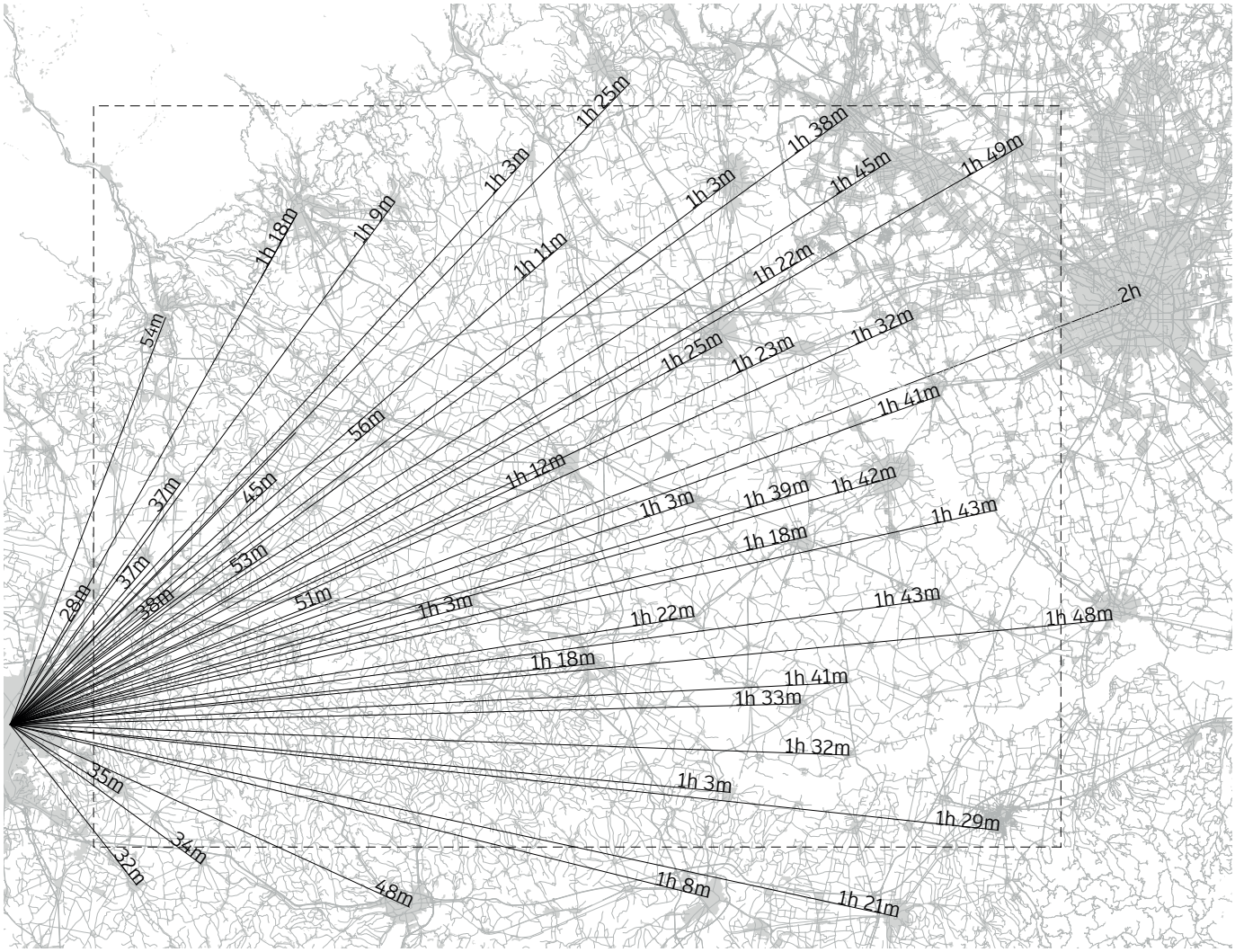
Rail - Fast connections



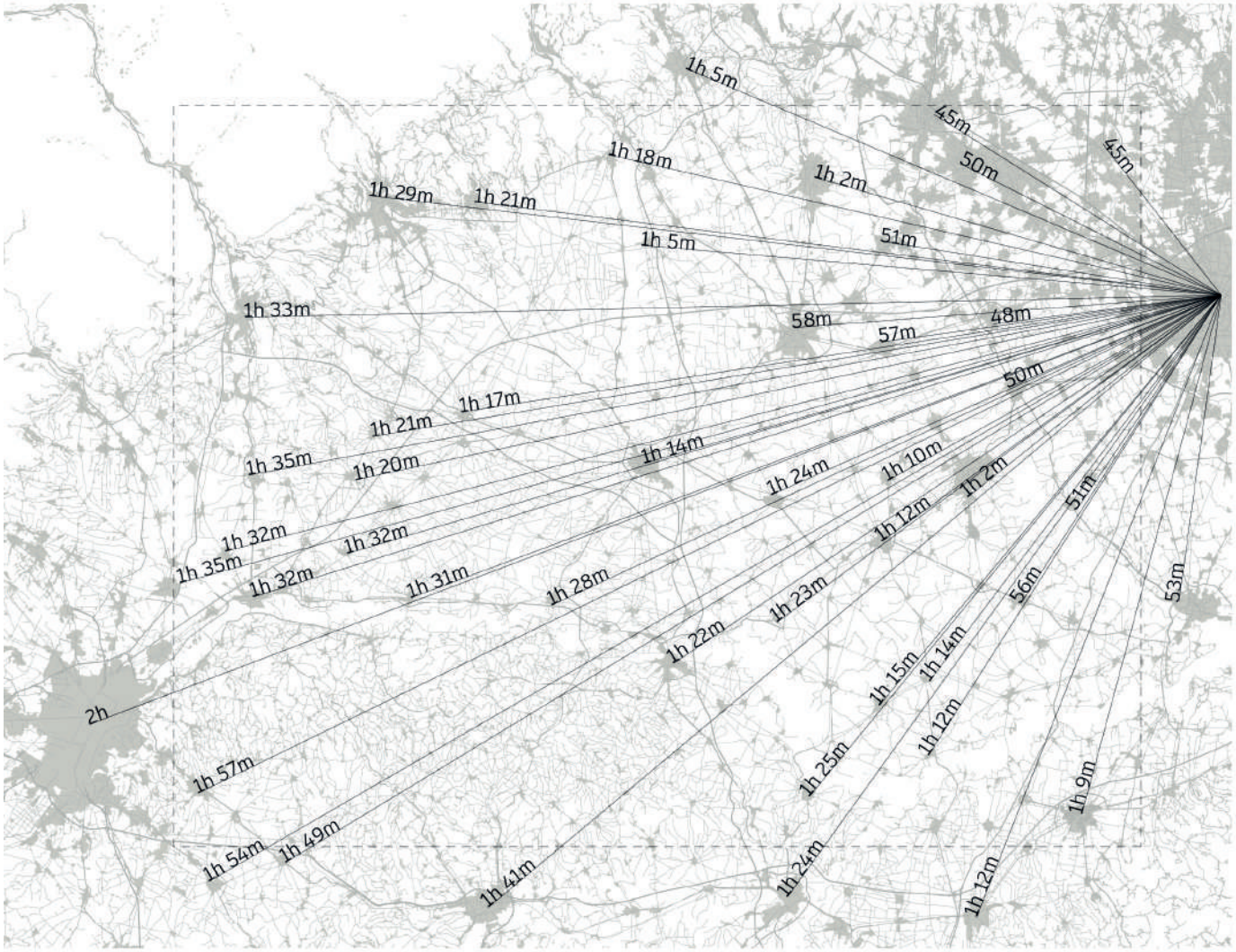
Rail - Local connections



Disused railways (major lines)

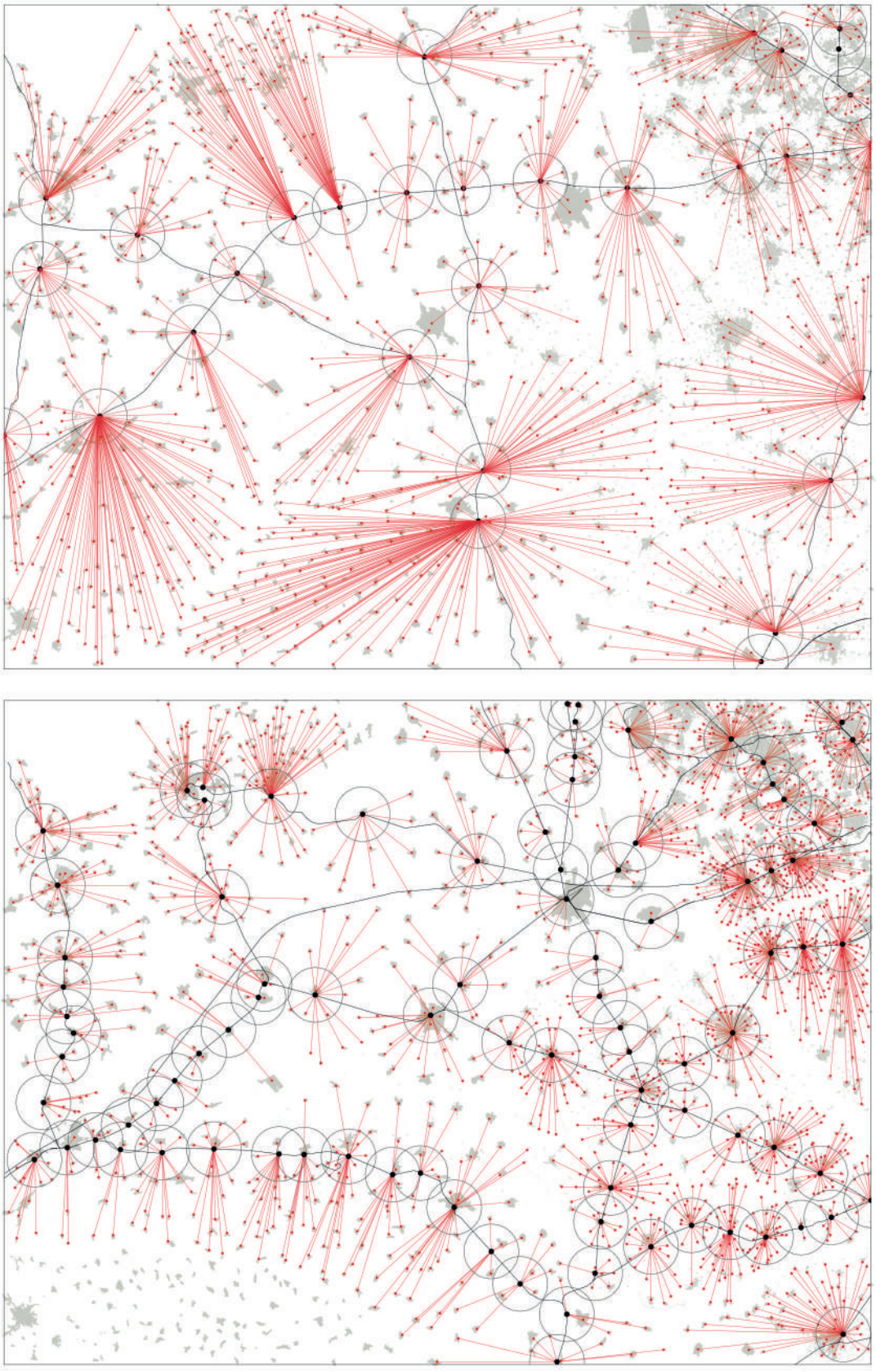


Distance by car between major urban centers and the city of Turin



Distance by car between major urban centers and the city of Milan

Conceptual diagram of the distances (as the crow flies) of urban centers from the nearest motorway exits (top) and railway stations (below)



Data: SFR Piemonte, MSR Milano

The importance of the production aspect of these places is such that it can be considered one of the main lens for understanding their spatial issues. As already highlighted, it was part of the area of the so-called industrial triangle and, as such, witnessed the very first phenomena of Italian industrialization. Agriculture, which until then was almost the only type of land use present, then ceded land to small specialized industrial companies strongly linked to the territory, from which they drew energy, labor and raw materials. This phenomenon occurred above all along the pedemontana (Roverato, 2009) and less so in areas where agriculture represented - and still represents - the foundation of the local economy: this is the case of areas such as the Vercelli area, the southern Novara area and the western Pavia area, where rice cultivation prevails, and that of the lower Monferrato and northern Biella and Novara areas for viticulture[5]. If production tended to organize itself into productive nodes, then going to constitute in the seventies the so-called industrial districts, this allowed a spreading of them on the territory according to a widespread network.

The production nodes are in fact distributed in space both according to a logic that identifies natural resources and the need that the types of production have for them, and - especially as regards industries with a less traditional imprint or linked to the territory - with specific attention for the location of the major road and railway arteries, which, on the other hand, heavily irrigate a large part of the area[6].

The current situation therefore sees an overlap of traditional industrial districts, partially in crisis[7] but still strong in specialized and handed down production, and more recent production areas, which have been developing near the major urban centers and the important road and rail junctions that characterize these places.

The latter arise in a more disconnected way with respect to the territory: they start from a different premise: they do not so much recognize the potential of the place as such, but the strategic nature of the position as a function of the regional, national and international connecting arteries. A similar argument can also be made for the recent system of logistics and distribution centers that is developing in the area, in particular along the A4, near the intersection between the latter and the A26 and in important railway centers such as that di Novara.

However, they do not necessarily interact with the production sites: in fact they tend to dynamics of an even more macroscopic order. An example is that of Amazon: the company owns two distribution centers in the area (TRN1 and MXP3) and another is under construction (MXP6), as well as two sorting centers (Brandizzo and Origgio): the supply chain, however does not dialogue in any way with the territory, except through a strategy that ais at the best possible location

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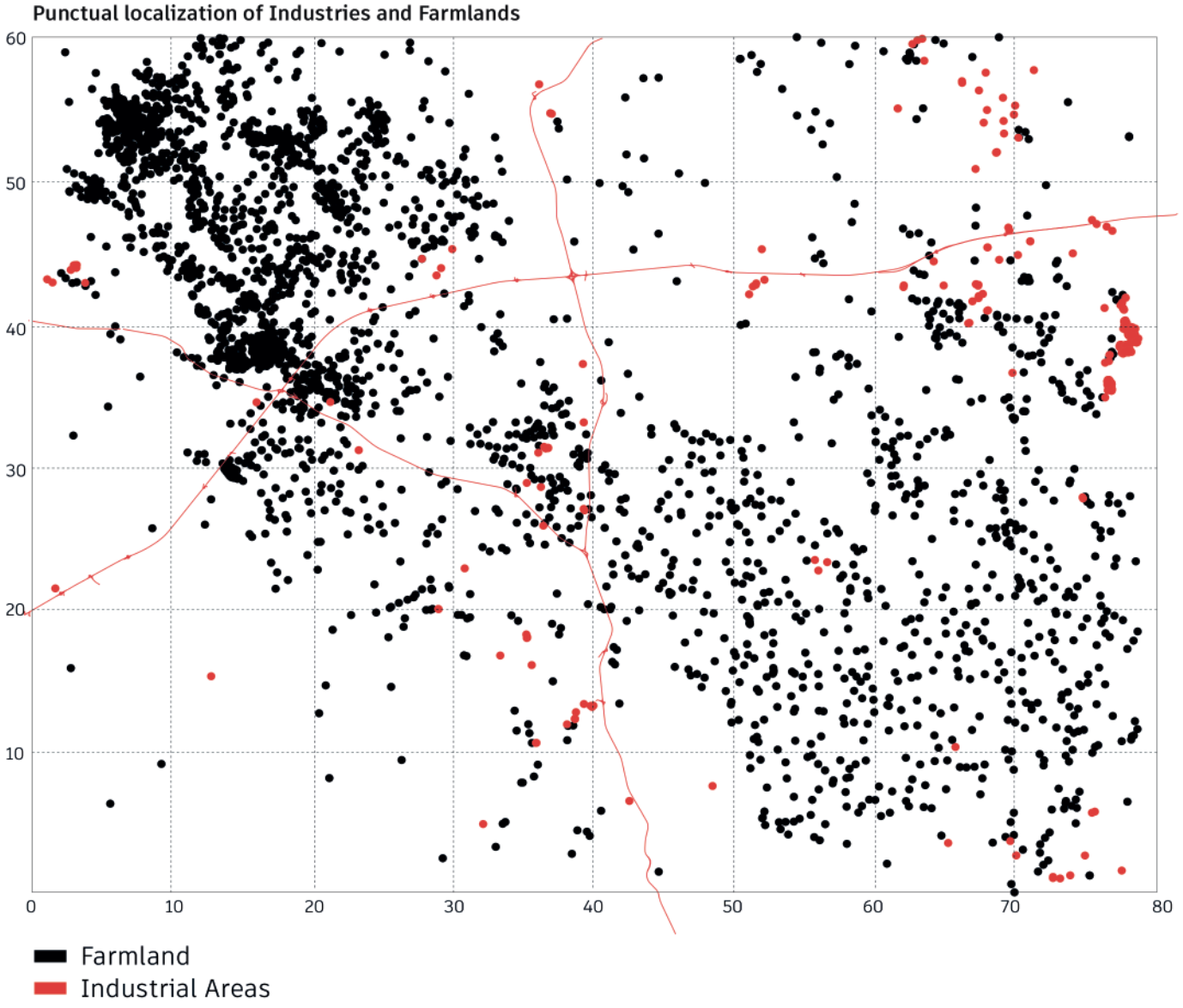
5 A deep research on the transformation of this agricultural land into an industrial and agro-industrial landscape is a demanding issue. Two examples may be mentioned here:
-The case of Buronzo, close to the river Cervo. Strongly characterized by wine production during Middle Ages until the End of the XIX Century. Together with the rise of water infrastructuring and farm industrialization, Buronzo levelled the soft hills around the castle area to implement a strong rice production (Del Signore, 1976; Donna, 1939).
-The case of Coggiola and Trivero, close to the river Sessera. Thanks to a multitude of pastures, this area has always been characterized by breeding and farming. With the raise of Industrial Revolution from 1816 on, a new form of entrepeneurship transformed the area into a strong wool district. Because of the high demand for workers, all the entrepeneurs undertook diffuse soil purchase campaigns. By acquiring the soil devoted to pastures, the entrepeneurs started planting trees. In this way, farming was not possible anymore and the landscape became a solely industrial space (De Biasio, 2008).

6 See Cerruti But M. (2014), Maitte C. (2009).

7 The table shows the changes in exports between the first quarters of 2018 and 2019.

with respect to fast connections and urban centers.
The territory can therefore be considered operational (Brenner, Katsikis, 2020), as on the one hand the natural and geographical conditions offer large fertile and flat areas, and this has led to a developed and widespread agricultural production: on the other, the mixture of historical and more recent industry creates a variegated and multiple production network. With this in mind, considering the relatively limited development of urban settlements, crossing these territories allows you to grasp a set of spaces that are predominantly productive, in its multiplicity of meanings, as well as connective and infrastructured.


Punctual localization of Industries and Farmlands
60
50
40
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0
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40
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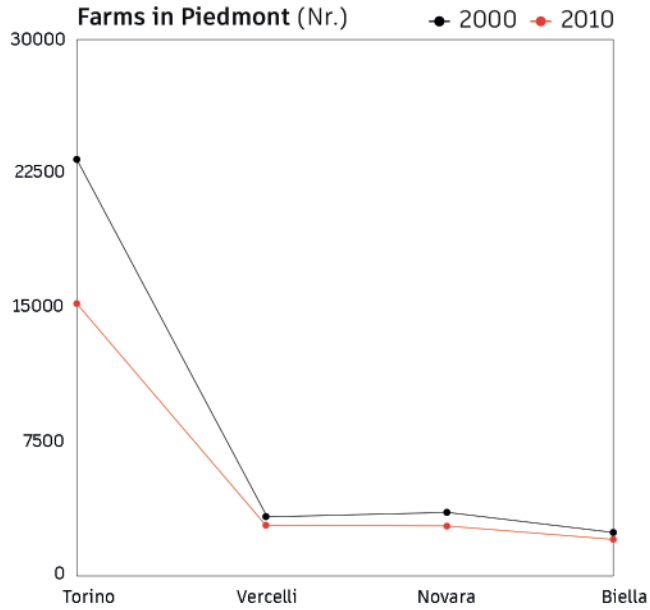
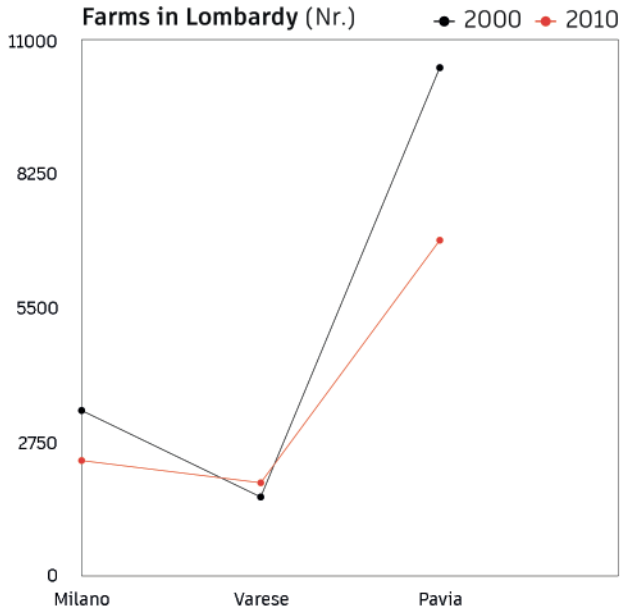
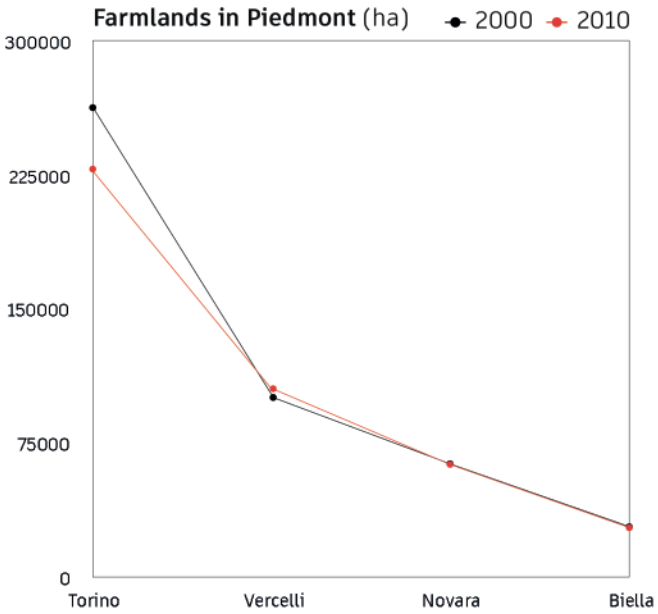
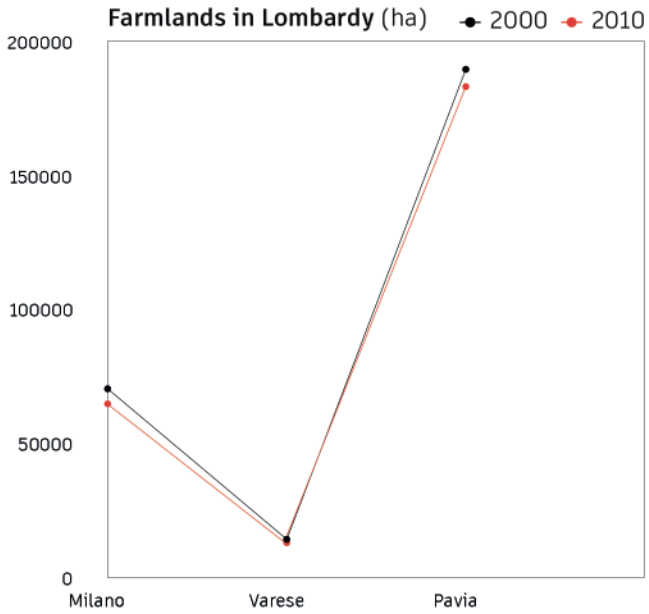
60
70
80
Farmland
Industrial Areas





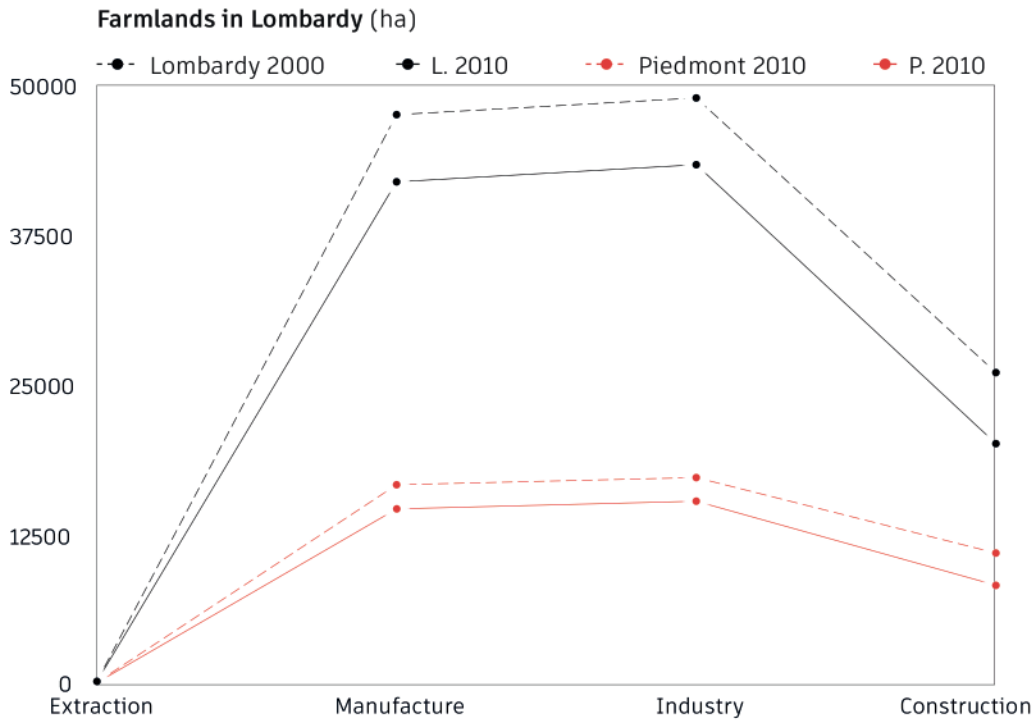


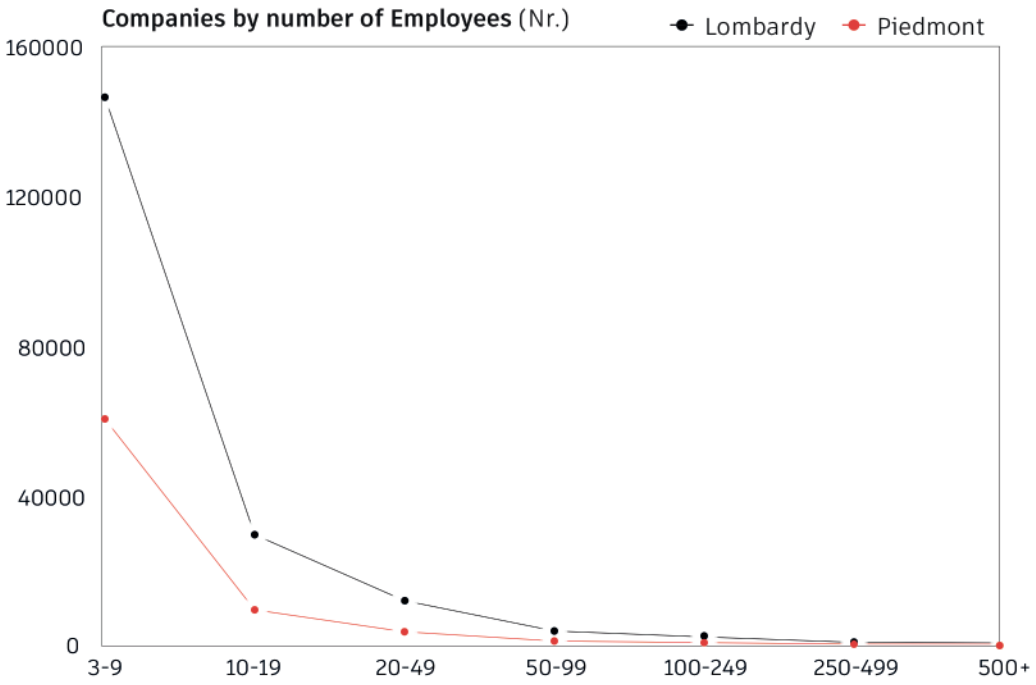


Data: Istat - Agricoltura

Export from traditional Industrial Districts in the Study Area			
	Million (€)		
	2018	1st trim. 2019	Difference 2019-2018 (1st trim.)
Rubber articles and plastic materials from Varese	1427	362	-5,6
Instrumental Mechanics from Varese	1000	240	16,3
Clothing-Textiles from Gallarate	849	203	-9,0
Rice from Pavia	225	62	1,8
Footwear processing and production machines from Vigevano	252	50	-4,6
Footwear from Vigevano	105	27	1,4
Wine from Langhe, Roero, Monferrato	1560	1755	195
Industrial refrigerators from Casale Monferrato	266	293	27
Taps and valves from Cusio-Valsesia	1410	1436	26
Rice from Vercelli	226	243	18
Household products from Omegna	52	54	2
Textile machinery from Biella	91	91	0
Goldsmithing from Valenza	2104	2084	-20
Textile from Biella	2115	2032	-82

Source: Intesa Sanpaolo calculations on Istat data: Report Piemonte/Lombardia





Data: Istat - Agricoltura

The aspect that contributes most to the constitution of a common identity of these places is the belonging to a territory that is suspended between relevant and relatively close urban poles, so as to make this buffer zone appear as a vast shared hinterland of Turin and Milan. Here, small to medium-sized settlements dot a territory that has multiple values: it is in fact at the same time a connective, agricultural, industrial and productive fabric. These aspects intertwine in a heterogeneous way in the space, becoming rarefied near the town grid.
The territory is actually today one of the least inhabited in the Po Valley, an area which is instead the most densely populated in the nation, and still retains the effects that industrialization and the consequent industrial triangle had on the way of producing and therefore of living. This phenomenon generated the effect of gathering the population around the places of the new production, which was opposed to the pre-existing extremely widespread agricultural typology, resulting in the birth or development of urban centers throughout the area. To date, however, while the specialized nature of small and medium-sized industrial production is resisting, the housing system suffers on the one hand various phenomena of depopulation, on the other the proximity of two centers which, due to the completeness of the services they offer and the job opportunities, and the lack of them in the more rural area of Piedmont and Lombardy, attract the residents of the area making them somehow dependent on them.

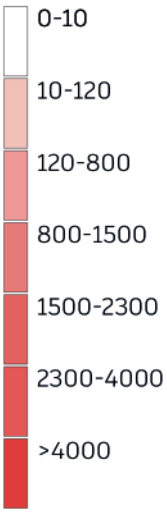
The difficulty of defining this place as such is subject to a more general overcoming of the dichotomous vision that distinguishes city and countryside and urban and rural: this space is «an“ other ”rather than intermediate reality» (Lanzani in Viganò, 2006). Not exactly rural, as it is highly infrastructured and interconnected, but not even urban in a strict sense, as it lacks some services that it seeks and finds in another - but still close - space, the properly metropolitan one. This contradiction and contamination of two semantic fields born as complementary and opposite leads to new schemes of transformation of the territory: «a widespread densification of new settlements in large portions of the territory, previously much less inhabited and built up and in any case with a rural connotation, as well as the establishment within them of a landscape and a socio-economic environment that presents some original and specific features compared to the consolidated city. Among the former, at least the powdery nature of the building and the new inhabited spaces, the richness of new and unexpected spaces functionally and typologically hybrid, the strength of some linear and reticular spatial arrangements, the tendential inversion in the relationship between open and built spaces. Among the latter, it is enough to point out the strength of widespread entrepreneurship, small and medium-sized industrial enterprises, specific forms of community-municipal welfare, as well as reciprocity and market in local development processes» (Lanzani in Viganò, 2006).

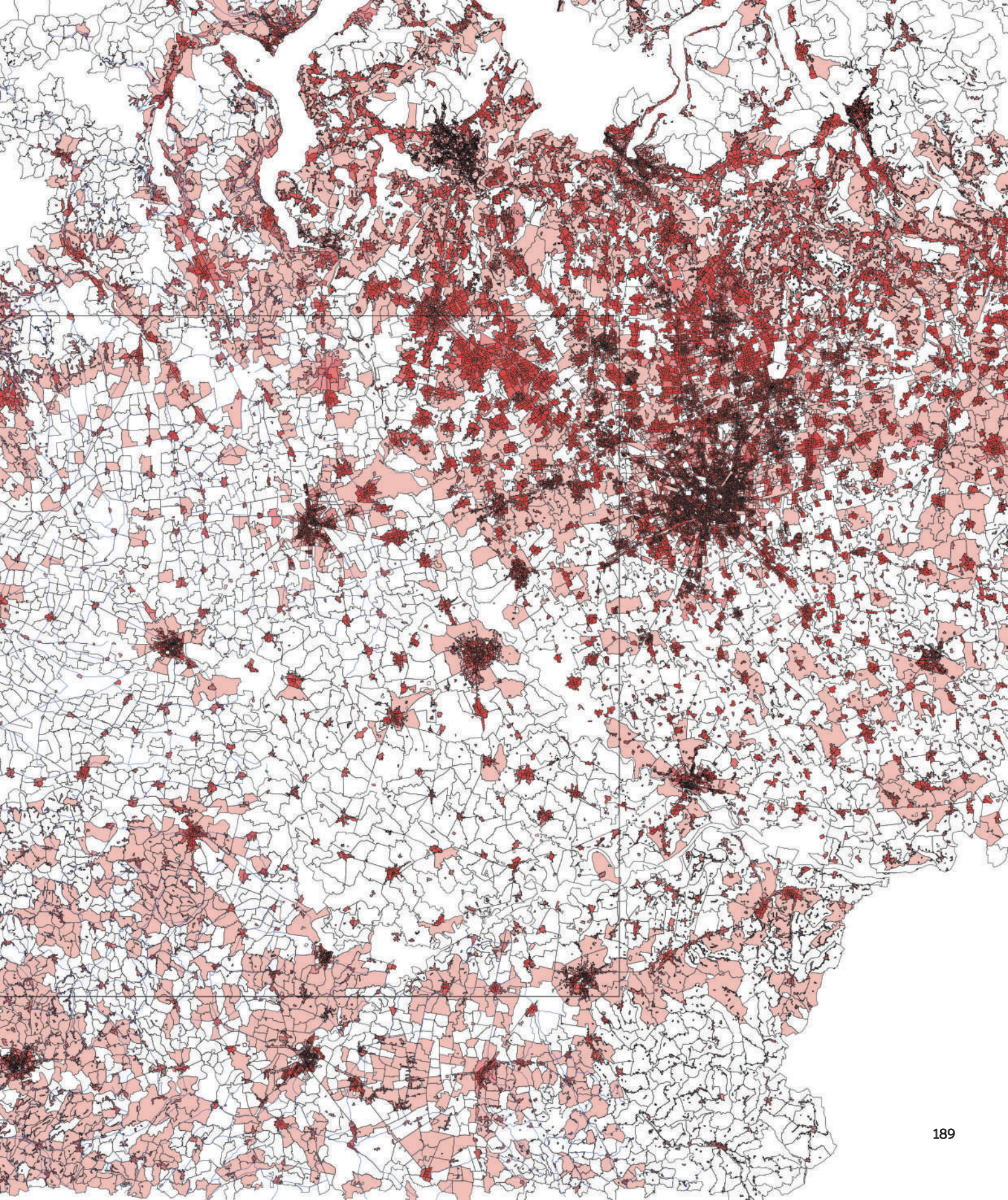
Eastern Piedmontese and Western Lombardy can therefore be attributed to the concept of *medial territories*[9], defined as follows: «not only because of its dependency on Technics mediation, but also because it represents the majority of European territories and because such an indeterminate space lies between the crowded metropolitan centers and peripheral internal areas» (Cerruti But, 2021).
As such, there is a need to identify new tools to analyze them: considering it as a space in its own right, and not as the hinterland of another space, and regardless

9 Cerruti But M. (2021) Medial Territories

Population density in Northwest Italy

Data: Istat, 2011 census
[inhabitants/km^2]





of the regional boundaries that divide it, it allows us to grasp a set of spaces that have the potential to emancipate oneself from the strong realities that delimit it, inserting oneself within a broad reasoning of global infrastructure, less dependent on regional realities and limits and aimed more at the new commercial, economic and cultural movements that connect international contexts.

Mortara as Potential Node of the Global Infrastructure

The city-centric conception, which reached its peak in the 1980s, divides the territory in a hegemonic way into what is considered an urban node and the hinterlands (Brenner, 2014).
This type of analysis, which has among its most representative models that of the ring, generated by von Thünen[10], conceives of rural hinterlands as elements that organise production in relation to urban centres (Block, DuPuis, 2001).
As a consequence of this classical approach to the theme of the city, according to which each hinterland corresponds to "its" city and vice-versa, the area under consideration should be defined starting from the three main urban nodes - those of Milan, Turin and Genoa - and characterised as an area of support, impact or sacrifice, serving them. Although it is indeed characterised as a highly productive territory without high urban concentrations, such a simplification risks not taking into account all those features that, rather than making the area at the service of the metropolises, allow it to become independent with respect to them.
However, undermining the unidirectional model of the German agriculturist does not resolve the question of the hinterland, which "has remained a kind of 'black box': metabolic flows move in and out, but what actually happens 'inside' the box, and how the box has evolved, are not questioned" (Brenner, Katsikis 2020).
The breakdown of the traditional balance between city and countryside and the question of the hinterland is characteristic not only of the area in question but of the entire European territory: today Europe no longer presents itself as a few large urban nodes emerging out of the surrounding 'nothingness', but rather as a constellation, in which some areas, including the Po Valley, emerge as a unicum (Secchi, Viganò, 2006).
The global logics that overwhelm the world open up new possibilities for approaching the dichotomous theme of city and hinterland, which relate to the emerging geographies and ecologies of planetary urbanisation. This does not mean that every corner of the earth will be completely urbanised, but that even those environments that seem to us to be devoid of any human impact are in fact somehow part of the urbanisation process[11].
As widely underlined above, the area is endowed with a double hierarchy of infrastructures, one that follows the local logic of the diffuse city and one that follows instead the dynamism and speed of movement typical of international environments. The latter are above all the networks of trans-European connections, designed to facilitate the integration of the countries of the European Union and the exchange between them. Entering into contact with this network of infrastructures, consisting not only of railways, but also of motorways, ports, airports, junctions and river routes, means having access to the rich European

10 Johann Heinrich von Thünen in 1826 writes "Der isolierte Staat" (tr. Isolated State) in which he figured an isolated city, set in the middle of a level and uniformly fertile plain without navigable waterways and bounded by a wilderness. The model demonstrate methods of maximizing agricultural production in concentric zones, around the urban city. The first circle includes heavy products and perishables, while lighter and more durable goods could be manufactured on the periphery (Britannica Encyclopedia).

11 «This situation of planetary urbanisation means, paradoxically, that even spaces that lie well beyond the traditional city cores and suburban peripheries—from transoceanic shipping lanes, transcontinental highway and railway networks, and worldwide communications in- frastructures to alpine and coastal tourist enclaves, "nature" parks, offshore financial centres, agro-industrial catchment zones and erstwhile "natural" spaces such as the world's oceans, deserts, jungles, mountain ranges, tundra, and atmosphere—have become integral parts of the worldwide urban fabric».
(Brenner N., Schmid C. 2012)

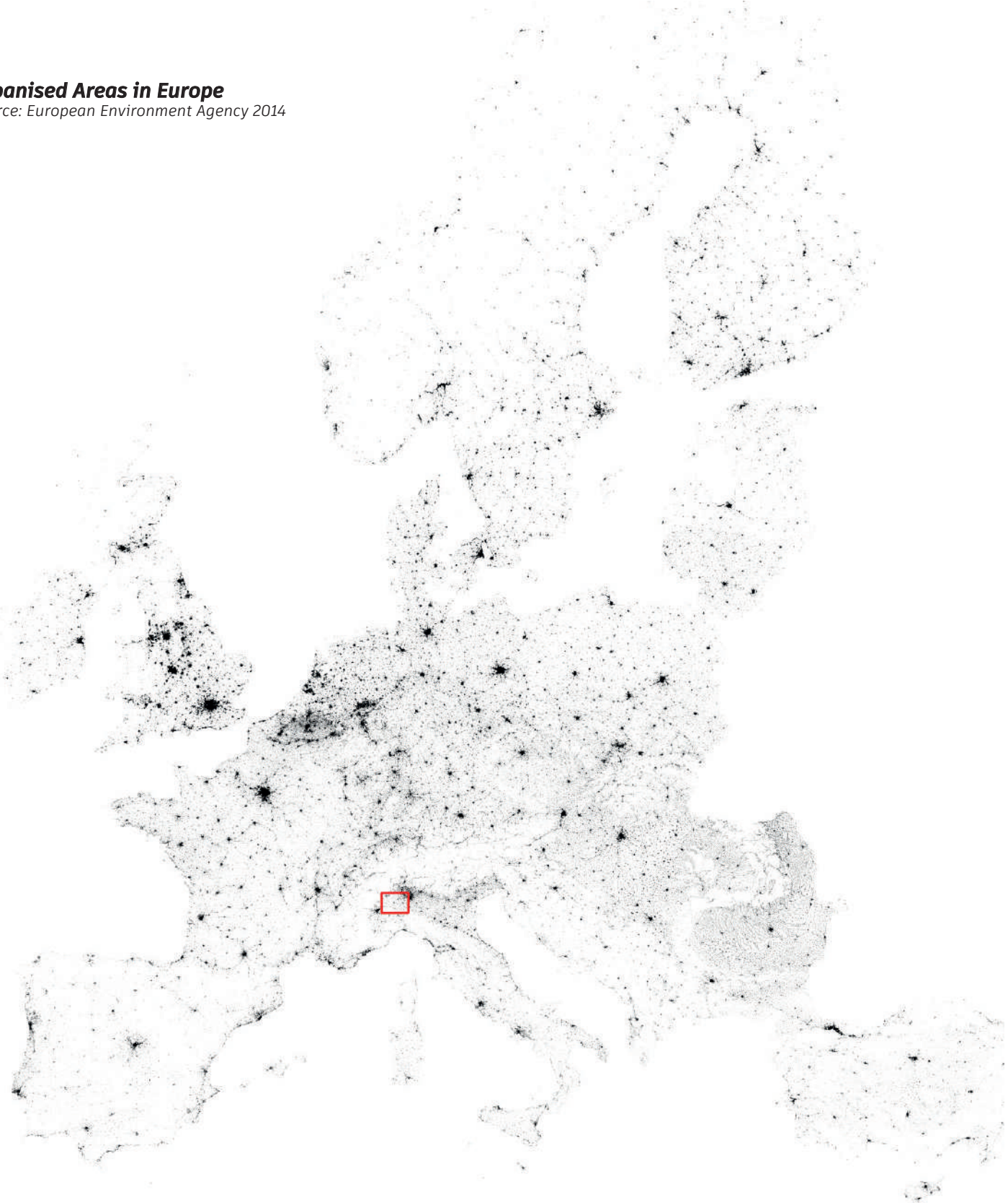
market.
In the perspective of planetary urbanisation, like many other production areas, the area is connected to other productive landscapes of cultivation, extraction, processing and distribution, which are in turn embedded and interconnected within an intercontinental logistical space (Brenner, Katsikis 2020). The presence of two of these infrastructures linking the production territories, combined with the excellence of the products of the industrial areas, make the territory highly attractive to global phenomena.

China's New Silk Road initiative is one of the most striking phenomena of this kind and, starting from the need to create a global infrastructure that facilitates trade across the Afro-Eurasian region, since 2014 it has begun to deepen relations with Italy. The Italian areas most involved are undoubtedly the northern ones, first of all because of the productivity of the territories, but also because of the greater infrastructure.

At the maritime level, the ports that have developed the strongest relations with China in the Po Valley are those of Savona, Genoa, Venice and Trieste[12], the first two of which are directly connected to the study area thanks to the presence of the Rhine-Alpine corridor, which makes it possible to combine land and sea traffic, connecting with the trans-European transport network to the landlocked countries of Central and Eastern Europe.
While not claiming to be exhaustive, the aim of this work is to analyse this productive area in the light of the global dynamics that affect it, making it possible to use it as a lens through which to read the productive territories in Europe, which are much closer to the model of the medial city, typical of the area in question, than to the large urban metropolises.

12 Polo Emilio Signorini, President of the Western Ligurian Sea Port System Authority was invited to speak at the international conference forum "Smarter Talks on Smarter Ports", and "The Mediterranean Sea: where Asia, Africa and Europe meet along the Maritime Silk Road" hosted by Intermed Gateway Ports from 16 to 18 May 2019, where he supports the Chinese initiative as a promoter of development and prosperity: "To date, Genoa Ports handle 30% of the total maritime traffic between Italy and China, an annual volume of around 25 million tonnes destined to increase thanks to the extensive network of liner services connecting Genoa to the Far East and Mediterranean countries. Moreover, with the forthcoming completion of the Rhine-Alpine Corridor, Genoa is ready to consolidate its leadership as the Mediterranean gateway to the main industrial and consumer markets of Southern Europe" (Port of Genova).

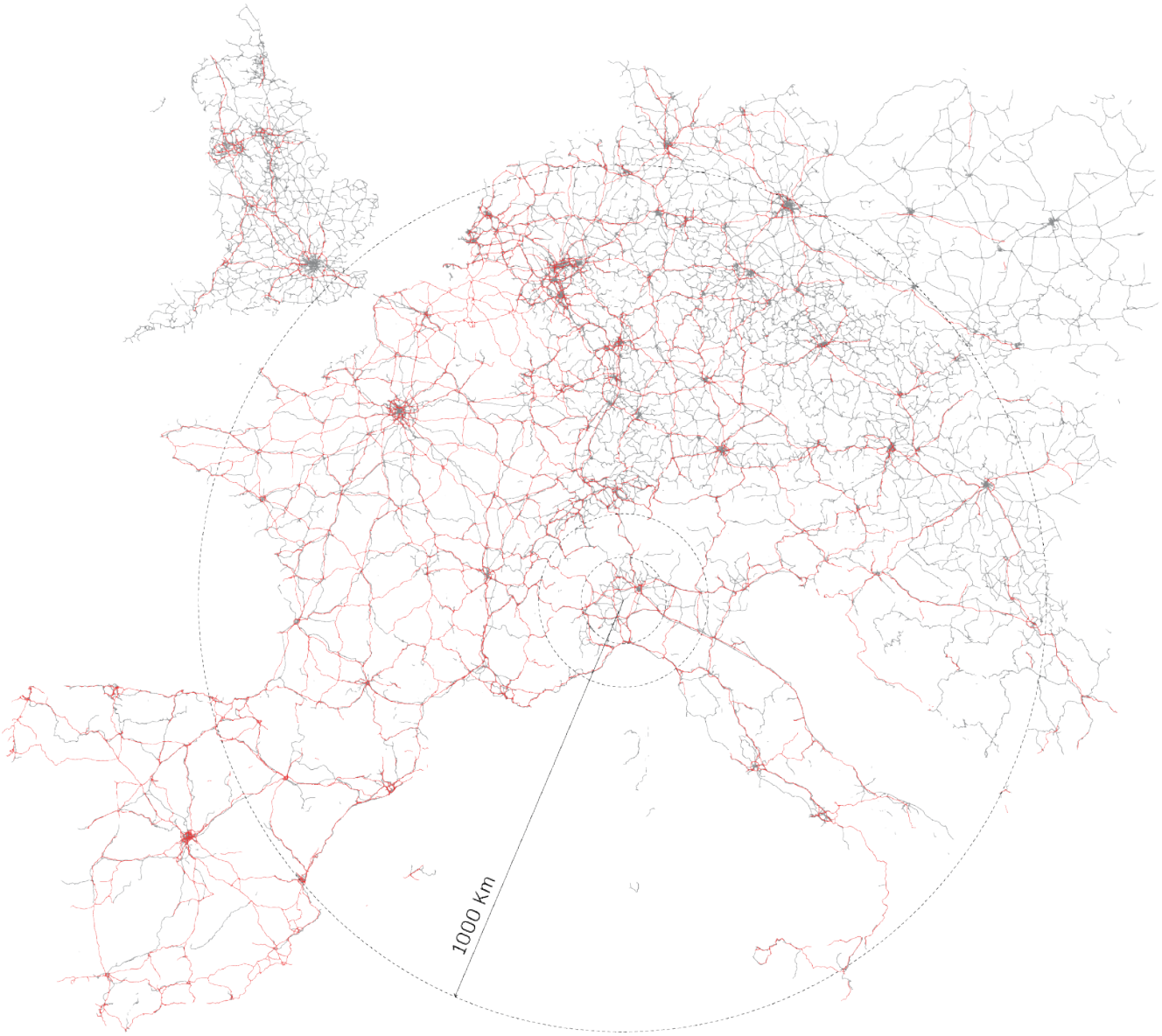
Urbanised Areas in Europe
Source: European Environment Agency 2014



Mortara: spaces and spatial issues

The presence of the two corridors and the nodes they generate gradually reconfigure the area, giving it a new role on the world stage to facilitate the continuous expansion of industrial urbanisation and the associated planetary urban networks. The Intermodal Terminal and Integrated Logistics Hub of Mortara is part of this scenario. It is an intermodal platform that allows the integration of road and rail transport, is fully electrified, and integrates logistics with services for the transport, storage and handling of goods.
In order to understand how the Freight Village works, its main players and the problems that have been encountered over time, in order to direct our analysis, Davide Muzio, Mortara's managing director, was interviewed on 26 May 2021. The project dates back to the late 1990s, but actual construction began between 2005 and 2006, starting with the intermodal platform and a warehouse for demonstration purposes; it was inaugurated on 21 November 2009, with a concession from RFI for connection to the railway network. The total area occupied by the freight village is about 700,000 m2 , and includes the three-lane intermodal terminal, which can be expanded at a later date, a logistics area consisting of a large warehouse of 30,000 m2 already built plus others that can be built if necessary, a business centre and reception areas including a bar, restaurant and hotel (Muzio, 2021).

The location of the hub is particularly strategic for the network of goods and trade: as well as being a crucial junction for the trans-European network, being just a few kilometres from the intersection of Corridor 5, which connects Lisbon with Kiev, and Corridor 24, which connects Genoa and Savona with Rotterdam; It also connects to the transalpine passes Modane-Fréjus, Sempione, Lötschberg, Luino and Gottardo and, although none of them passes near the hub, it connects to the A4 (Turin - Milan - Venice), A7 (Milan - Serravalle - Genoa), A26 (Turin - Piacenza - Brescia) motorways (Mortara Interport).
The intermodal rail routes of the interport reach up to a thousand kilometres: Mortara's core business tends to come from northern Europe, in particular Germany, Holland and Belgium, then a train to Marseille was added, which then connects to another line to Paris (Muzio, 2021), while the radius of influence is in the order of 150-200 km, so the catchment area can be considered northern Italy. For areas between 60 and 100 km away, relations tend to be closer as transport can be duplicated (Muzio, 2021).
From a road point of view, the presence of the pole has immediately had an impact on the territory, starting with the securing and widening of the carriageway of the former SS 596 to improve transit to and from the A7, and the completion of the Mortara bypass to facilitate access to the A4.
"In order to improve access to the national railway network, Polo Logistico has intervened on the section from Mortara station to the connection point of the junction, financing and coordinating the realisation of works of armament, signalling and electrification. Thanks to these interventions, the Mortara Terminal is functionally integrated in the Mortara station with infrastructural and technological standards similar to those of the "Corridoio dei Due Mari" (Genoa-Rotterdam), a North-South corridor of the fundamental European transport network". (Interporto di Mortara).

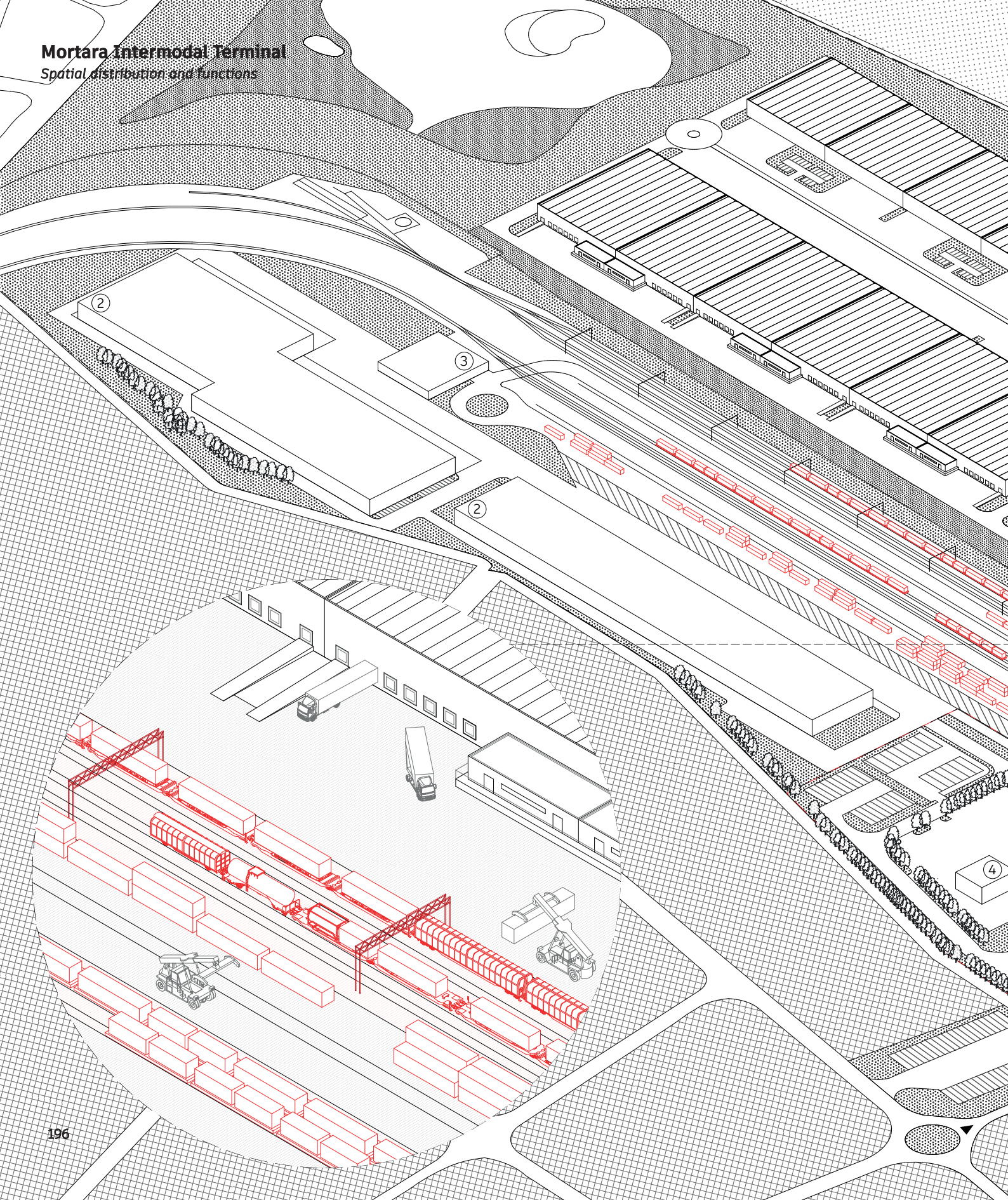


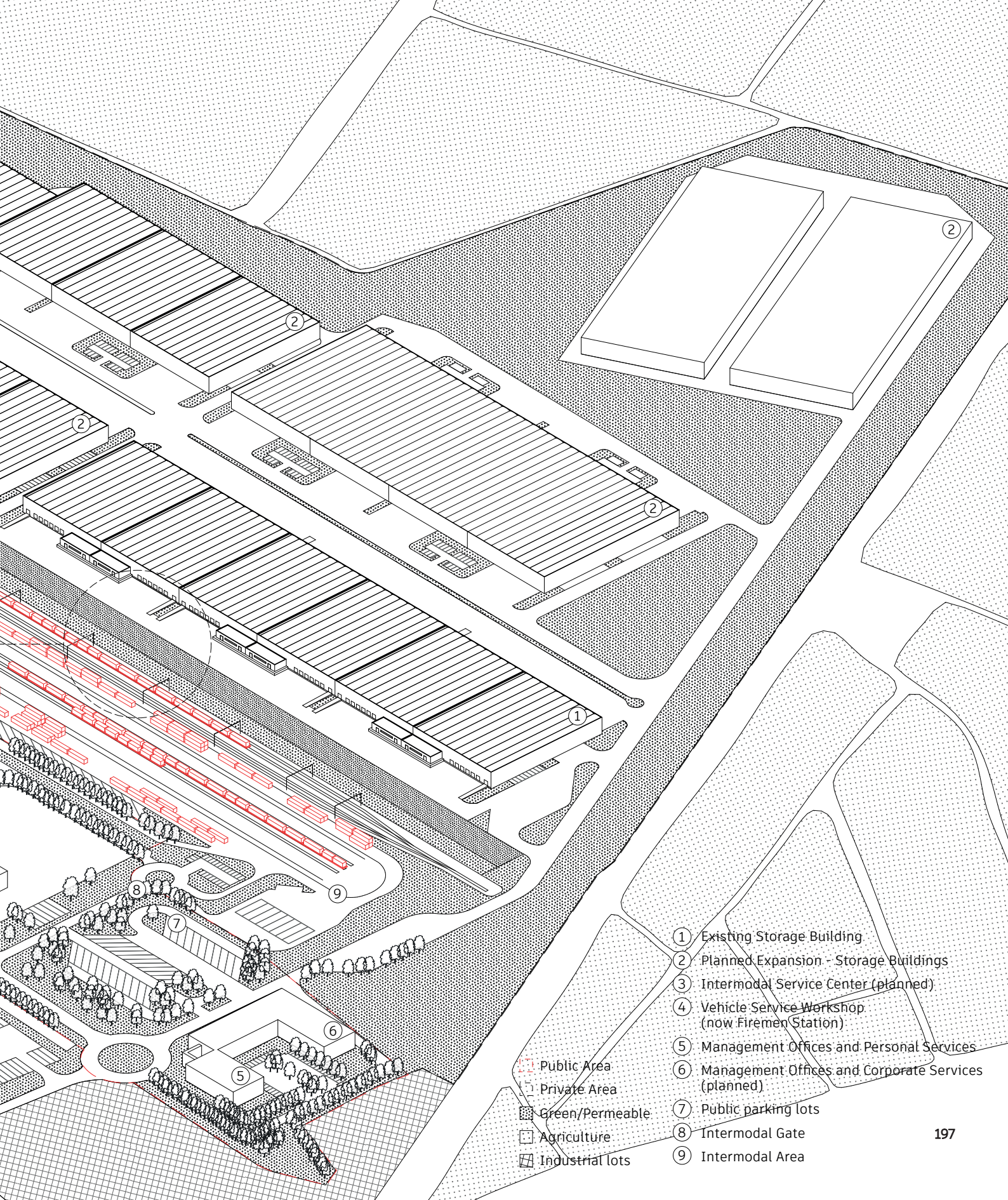
Area of influence of Mortara Dryport

The intermodal routes of the terminal are about 1000 km, but the main radius of influence is about 150-200 km. For the territories below 100 km there are then the closest relations and it is possible to make two deliveries during the day (IM).

Mortara Intermodal Terminal

Spatial distribution and functions

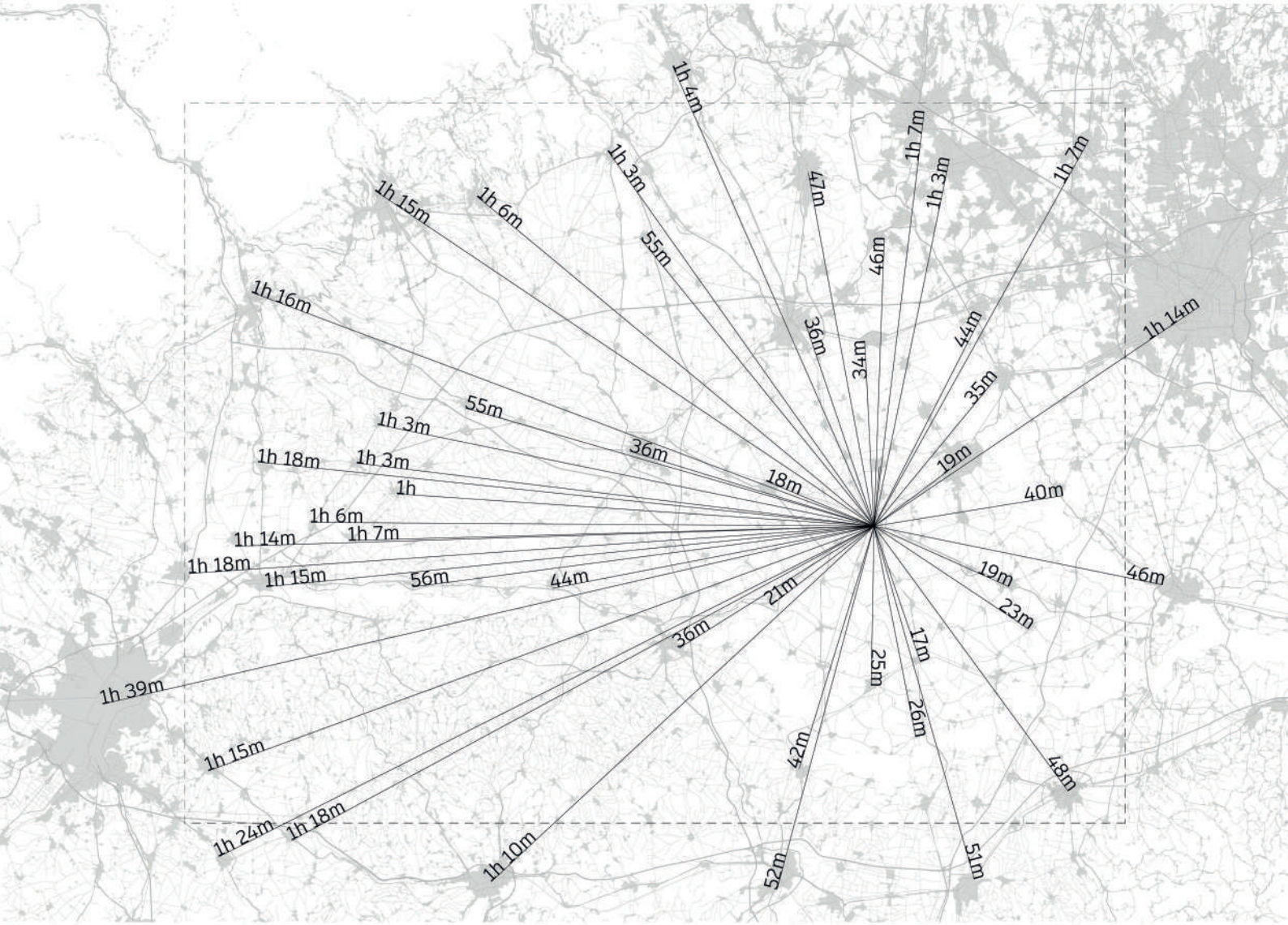



1 Existing Storage Building
2 Planned Expansion - Storage Buildings
3 Intermodal Service Center (planned)
4 Vehicle Service Workshop (now Firemen Station)
5 Management Offices and Personal Services
6 Management Offices and Corporate Services (planned)
7 Public parking lots
8 Intermodal Gate
9 Intermodal Area
Public Area
Private Area
Green/Permeable
Agriculture
Industrial lots

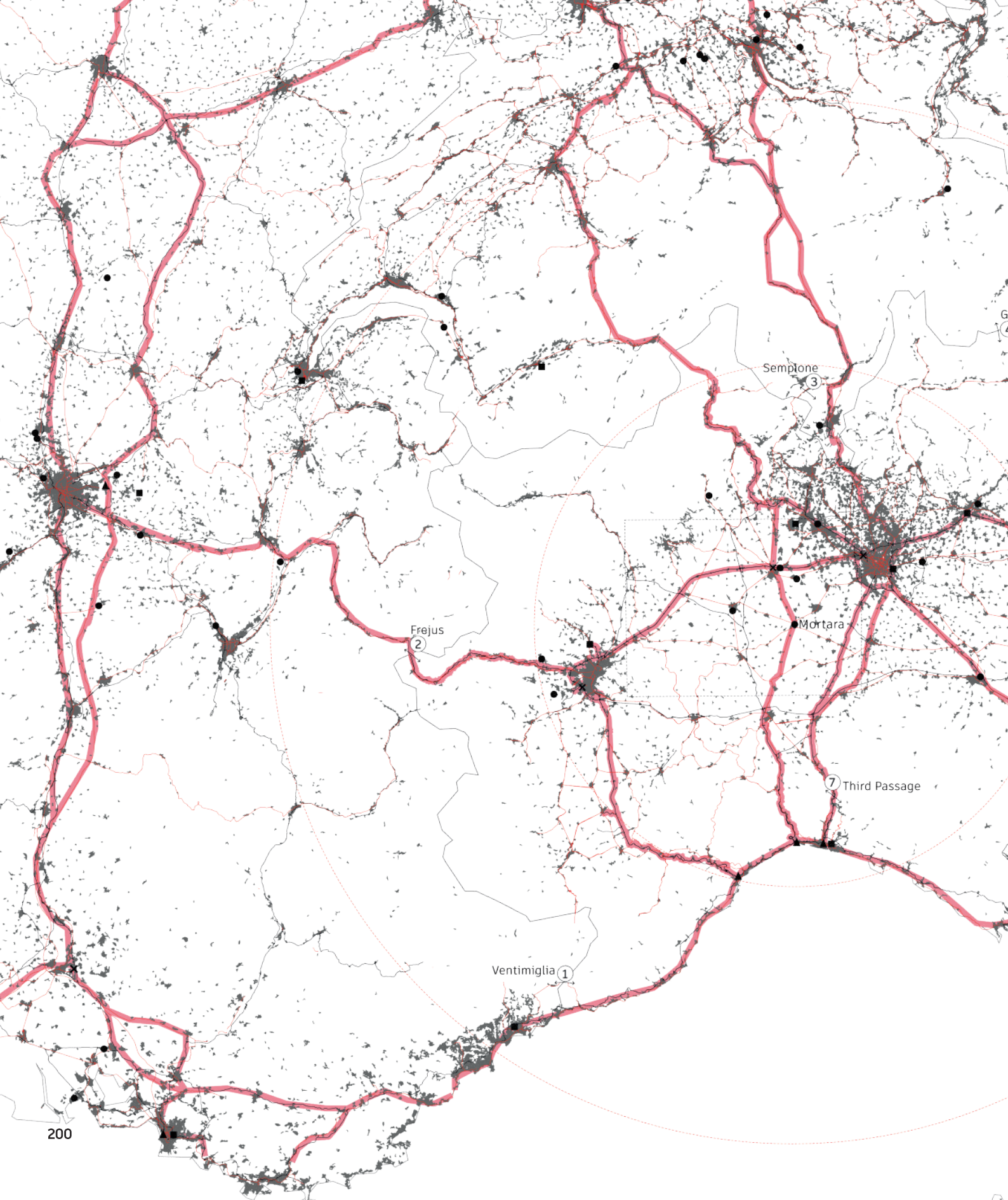
Approach to the Territory

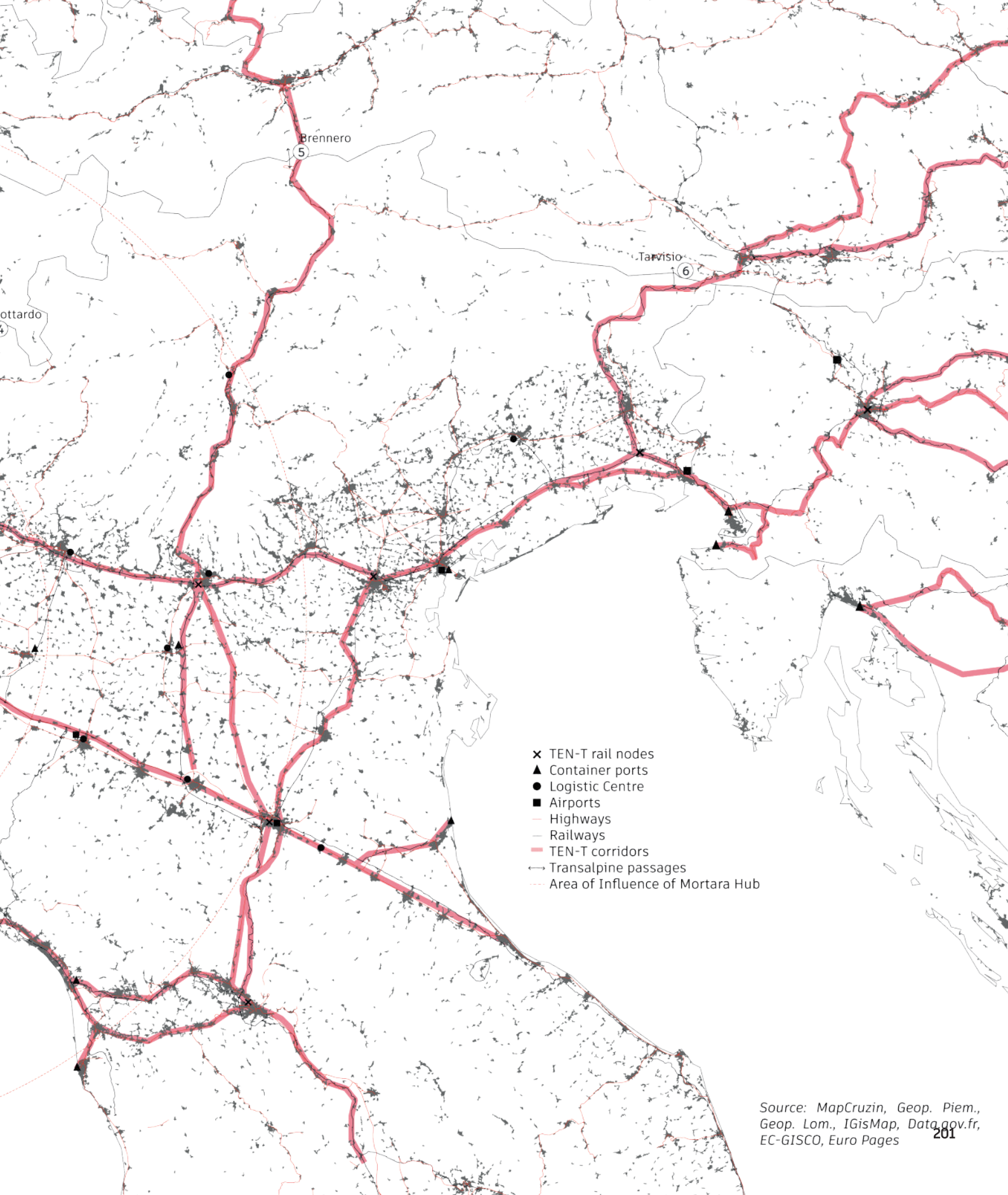
Understanding the territory in this case requires specific attention to the multifaceted reality that lies ahead of the observation of this. Due to its hybrid nature of space that is both urban and non-urban, connected and remote, productive and widespread, it cannot be analyzed according to the traditional categories of urban planning. Furthermore, not even the application of a subdivision into metabolic input and metabolic byproducts (Brenner, Katsikis, 2020) can be an effective system: in fact, considering this territory as medial and not exactly attributable to the usual types, consider it as an input emitter metabolic and recipient of metabolic byproducts could be in our case, as well as reductive, potentially inexact. Brenner and Katsikis identify as labor inputs, materials, fuel, waste and food and as the output of the city waste, pollution, carbon: these are important categories to consider in the study of the area as they strongly characterize it: however, it should not be forgotten that often these places they themselves are the users of these inputs, and pour their own byproducts into the environment. On the other hand, points of view such as that of Pierre Bélanger[1], who instead places less emphasis on the distinction between urban and non-urban, focusing on infrastructure as the interface through which we know the world, are extremely focused on the study of flows, a key identity component for the area under study, but which nevertheless does not focus on the more point-like components (such as services and leisure) which, given the spurious nature of the area, it is still necessary to contemplate.
It is therefore proposed, starting from these considerations, to adopt a more organic and inclusive approach, which attempts to leave aside a rigid classification, which in any case constitutes the starting point of the reasoning, in order to consider both the citizen aspect and the rural one, both flows and nodes, in order to identify the layers that are most important in order to grasp the place.
More traditional issues were therefore analyzed, such as that of production, the connective system, natural resources and services in general, and they were accompanied by others considered important for understanding the territory: this is the case of the energy system, waste and air pollution disposal system, as well as the digital access system.

1 Bélanger develops a system of flows divided into Waste, Water, Energy, Food, Mobility (Belanger, 2016).



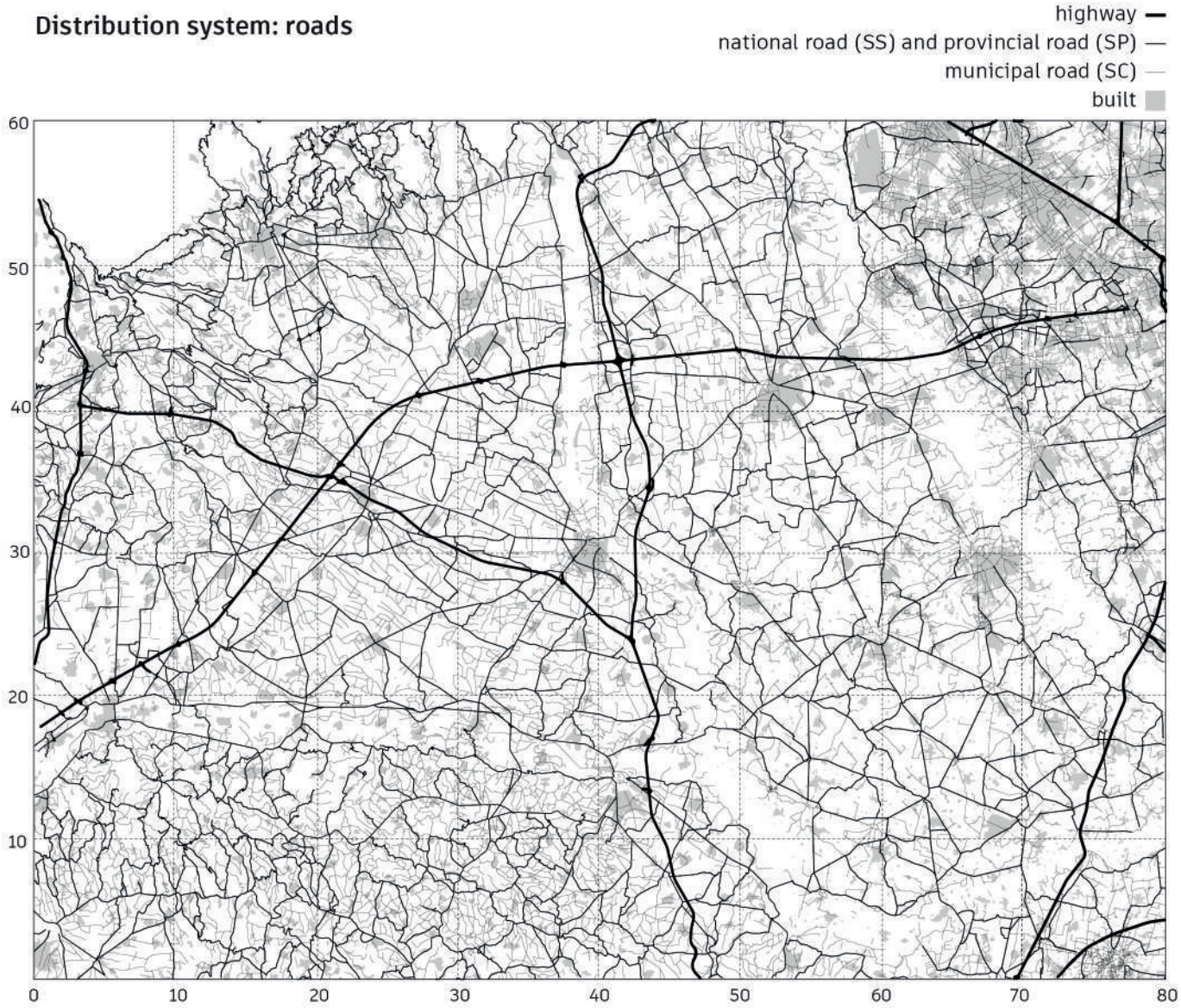
Distance by car from Mortara to the major surrounding urban centers


Semplone
3
Frejus
2
Mortara
7
Third Passage
Ventimiglia
1
200

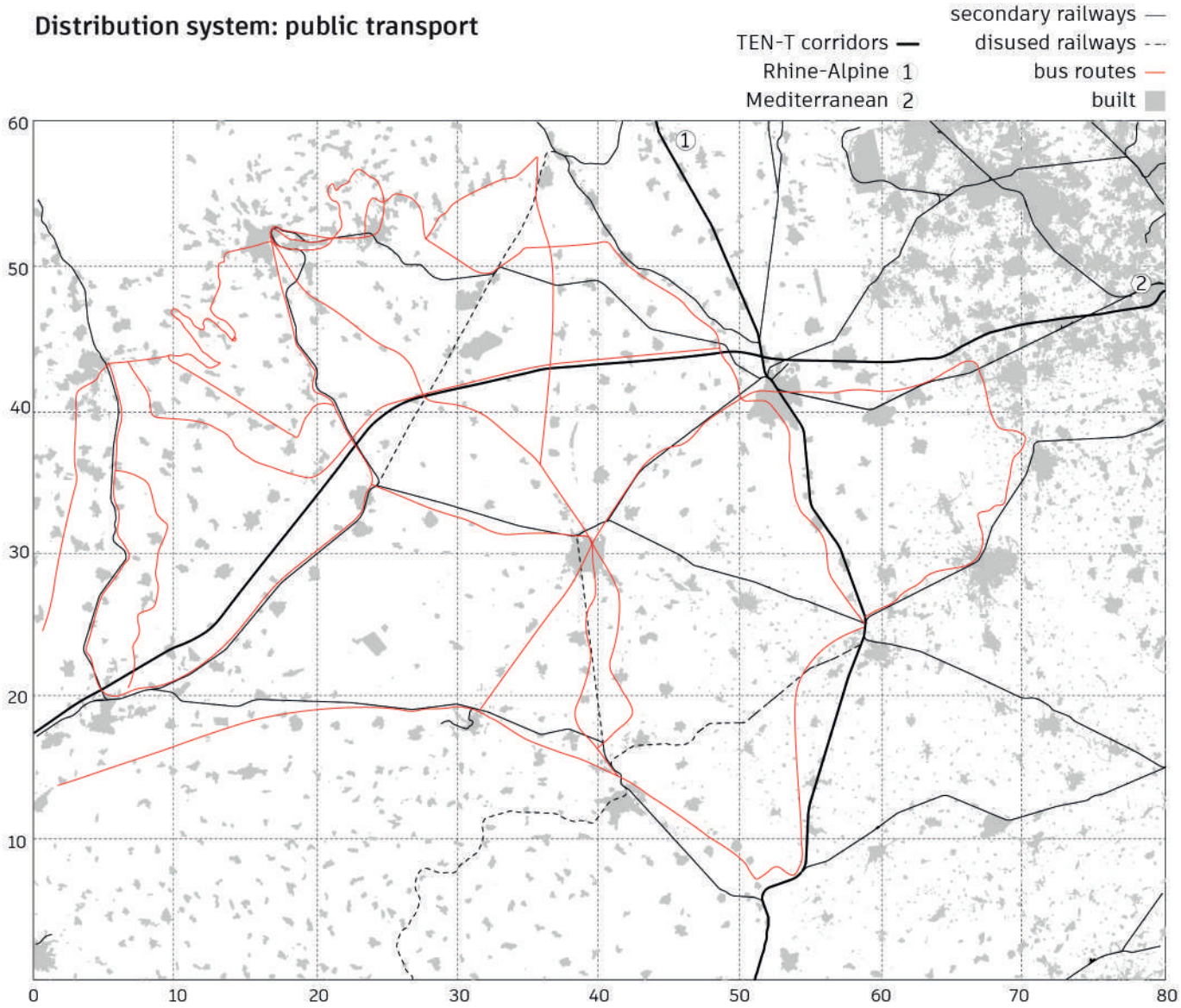


Source: MapCruzin, Geop. Piem., Geop. Lom., IGisMap, Data.gov.fr, EC-GISCO, Euro Pages

Distribution system: roads

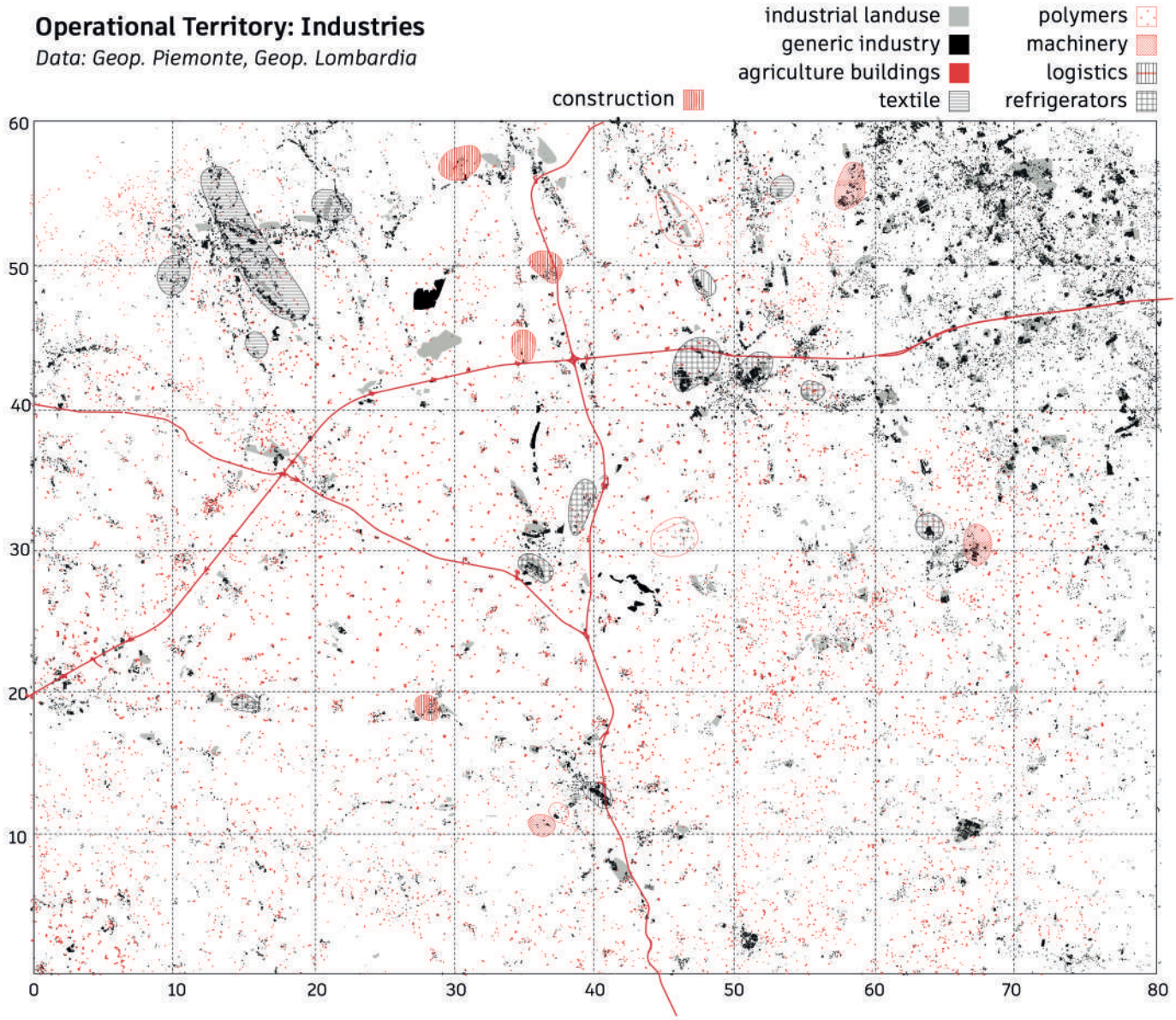


Distribution system: public transport



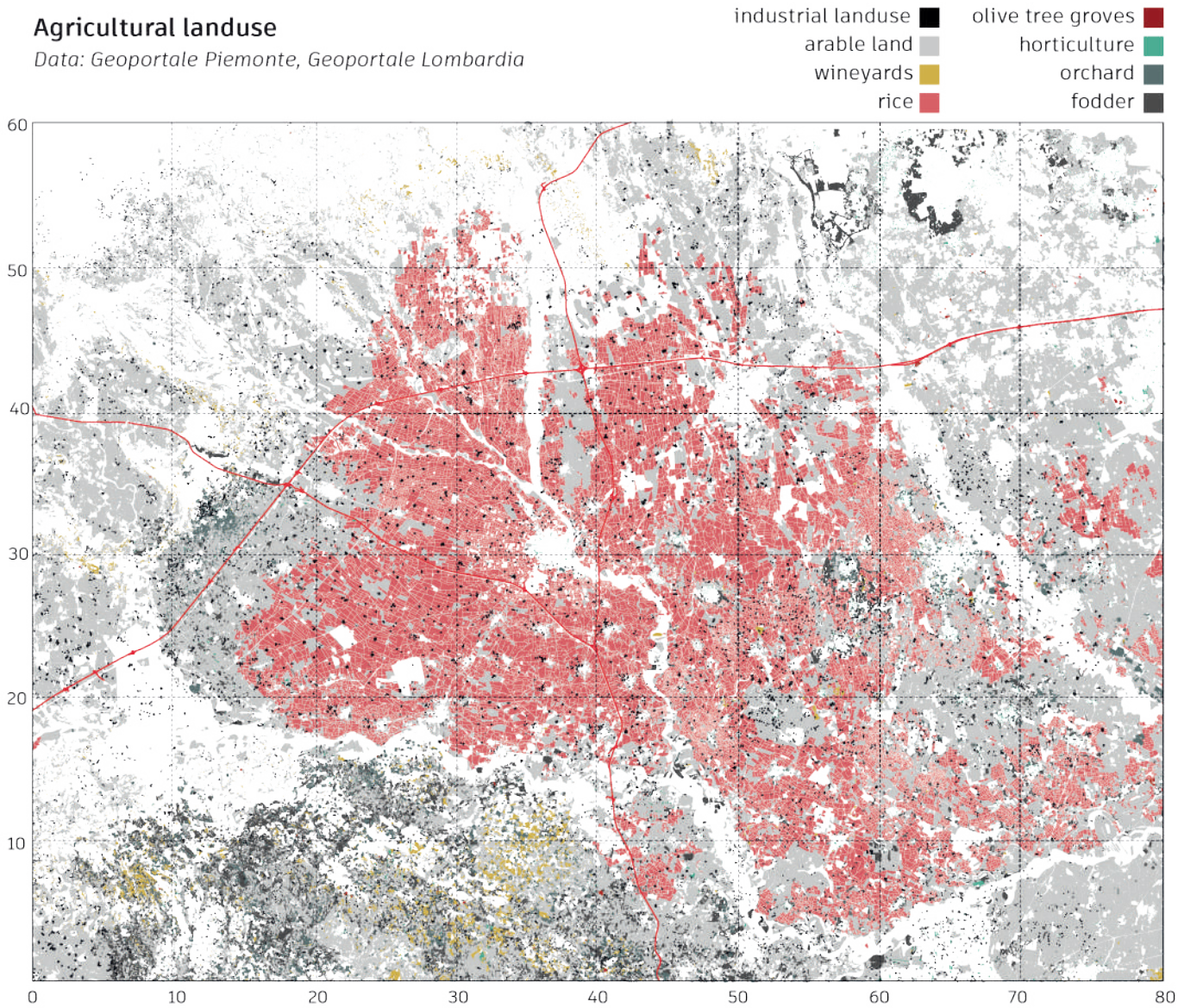
Operational Territory: Industries

Data: Geop. Piemonte, Geop. Lombardia



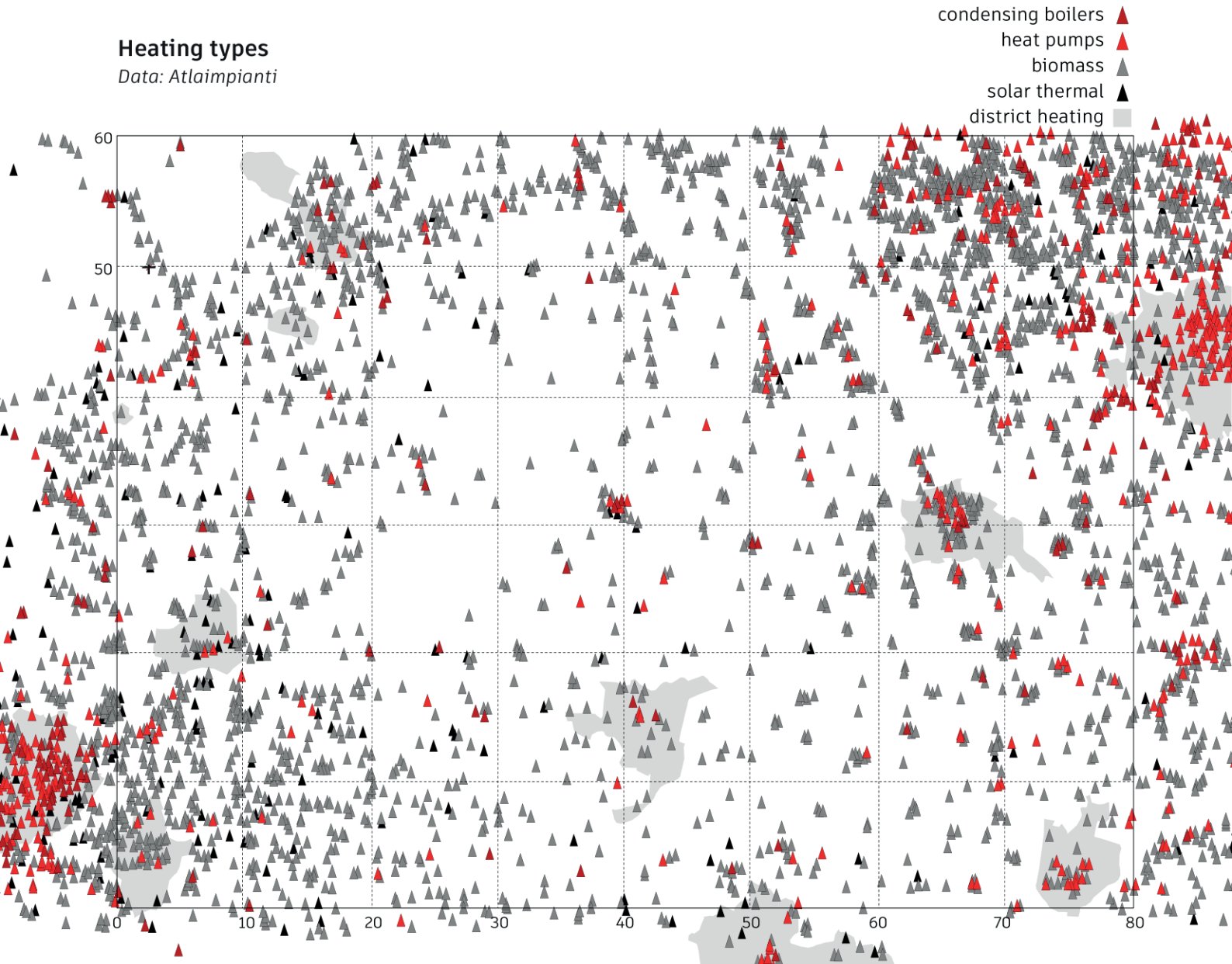
Agricultural landuse

Data: Geoportale Piemonte, Geoportale Lombardia



Heating types

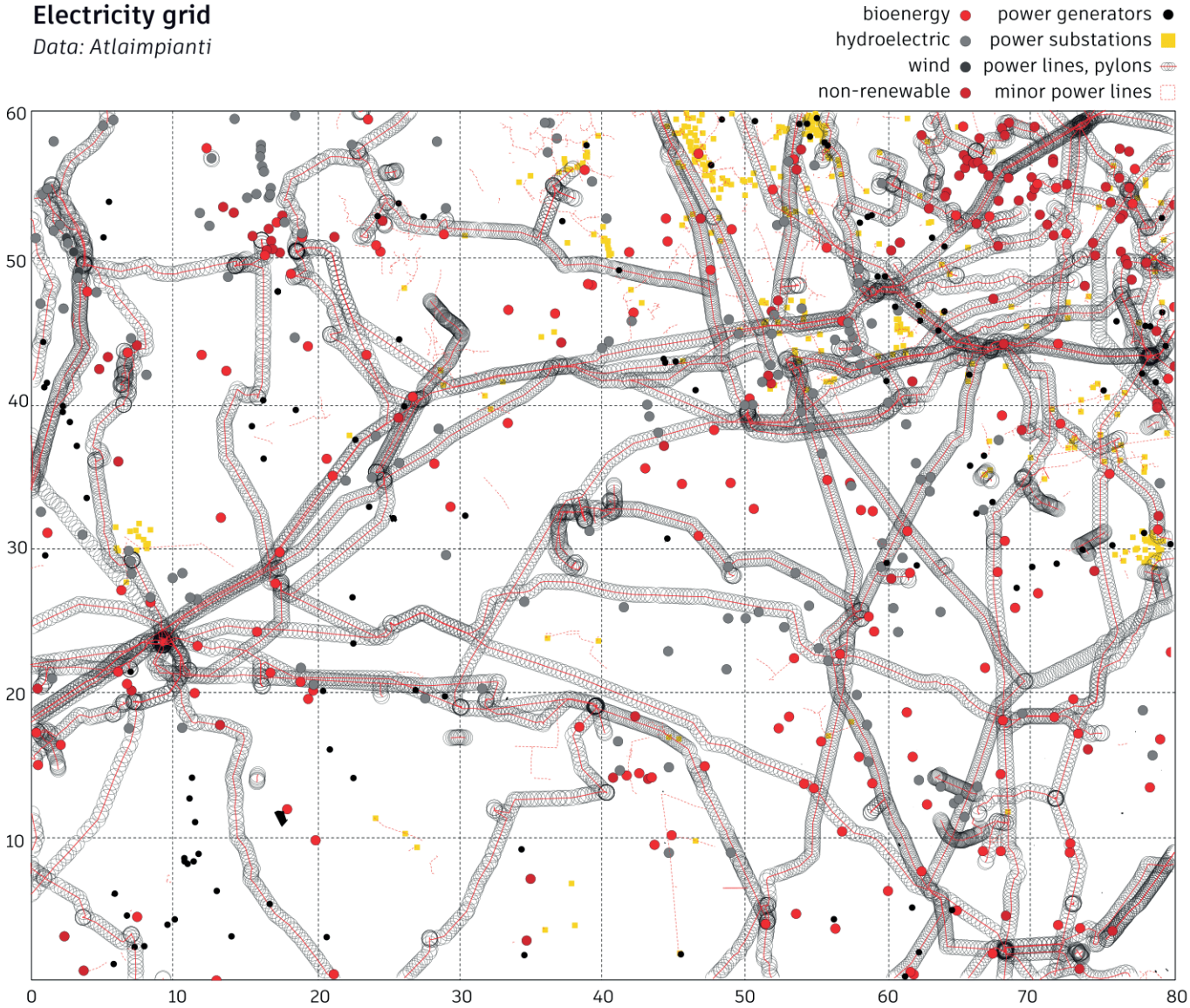
Data: Atlaimpianti



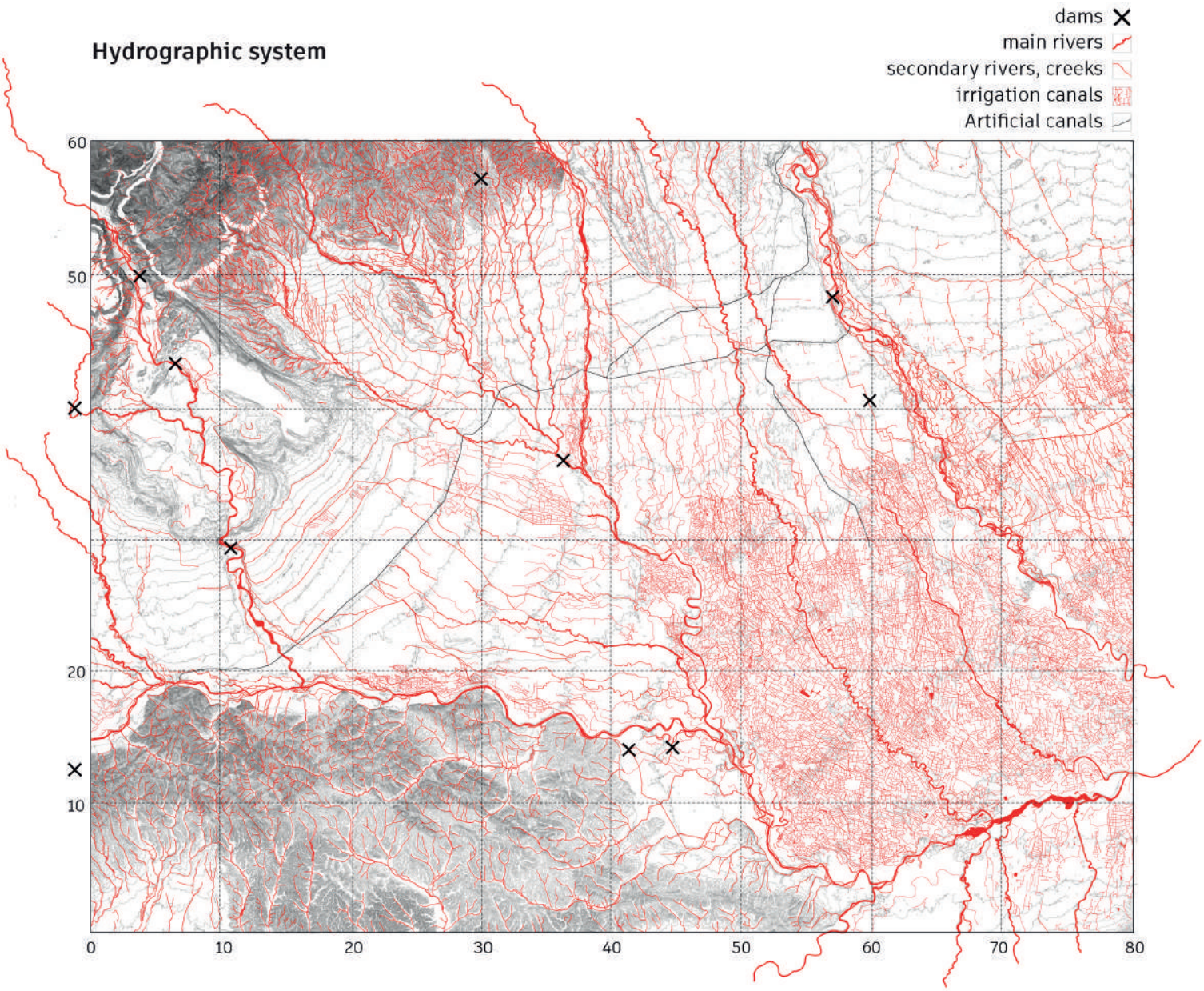
Atlaimpianti by GSE offers a geolocalized database of heat production plants incentivized by the thermal account mechanism. Although it does not represent the actual use of heating systems from renewable sources, it can be considered indicative of a general trend. The areas served by district heating are circumscribed around the larger urban centers (Biella, Chivasso, Turin, Chieri, Casale Monferrato, Asti, Voghera, Vigevano, Milan). However, it should be emphasized that in 2013 34% of Piedmontese and 29% of Lombardshad central heating (against 53% and 61% of autonomous). Absolutely prevalent accoding to Istat data, is the use of methane as a source (81% and 87%). Biomass, on the other hand, represents 15.9% in Piedmont and 7.2% in Lombardy: the latter represents the lowest regional value in the nation. Finally, given the public and private nature of heating systems from renewable sources, it should be emphasized that in Piedmont 53.3% of the plants are autonomous, in Lombardy 61.6%. Many of the plants depicted in the map are therefore privates using renewable self-supply systems.

Electricity grid

Data: Atlaimpianti



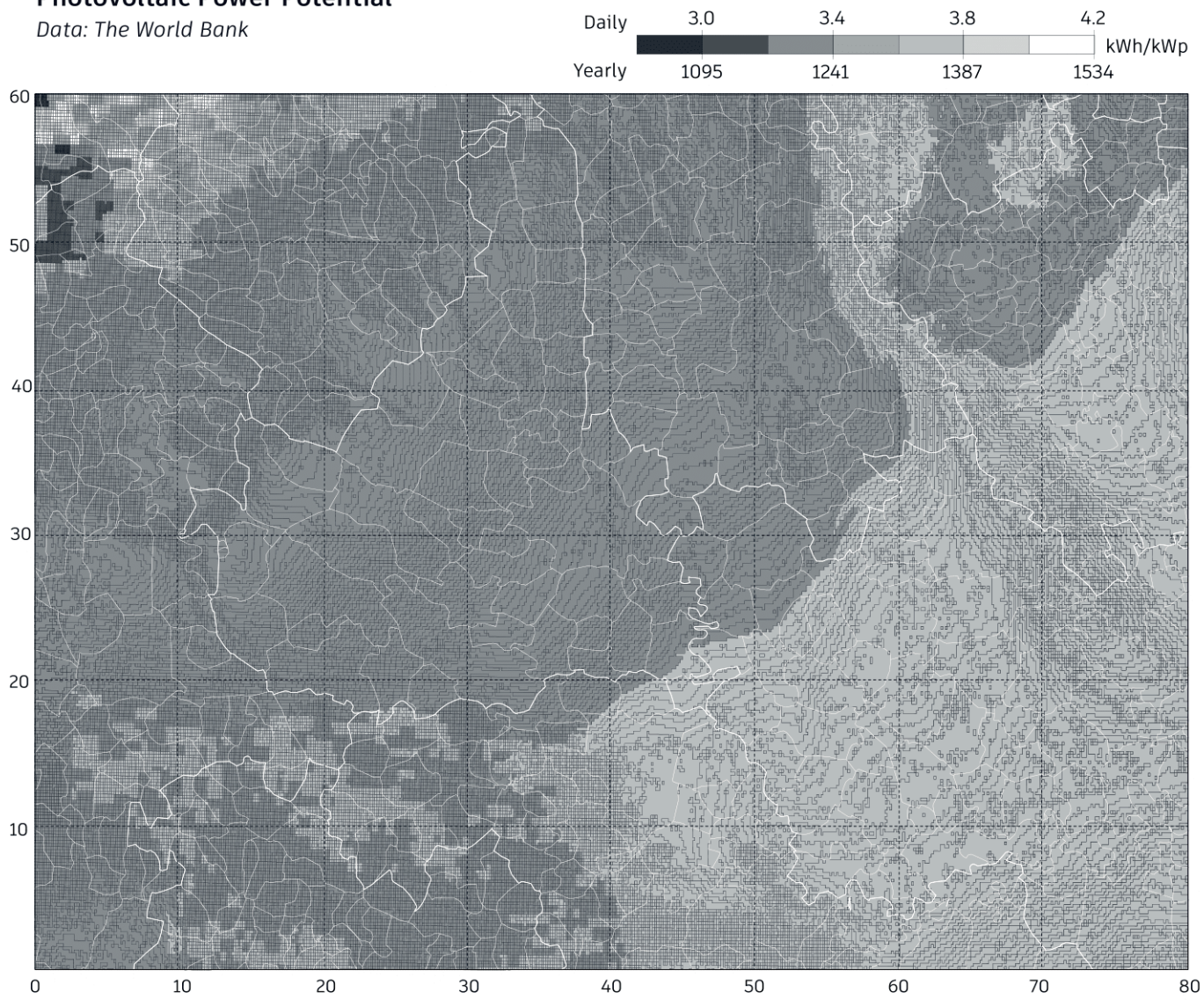
The map represents a set of all the plants incentivized by the GSE and which use the withdrawal services of the energy produced, with a subdivision into categories of renewable energy sources and a single category for non-renewable ones. By observing the lines and the pylons, it is possible to observe how they densify near some points, first of all Rondissone, where the Terna electricity station is located: it is located in the immediate vicinity of the A4, and along it the major lines develop. , serving on the one hand the Turin-Milan high-speed line and exploiting the interruption that the infrastructure had already created in the middle of the agricultural and productive territory in order to reach all the urban centers of the area and in particular the two metropolises of Turin and Milan.



Against the 10 GW of gross efficient power installed in the Piedmont area alone, 36.9% comes from hydroelectric plants (2020): in Lombardy, on the other hand, the percentage is 19%. However, the importance of the water system in the area is not only of an energetic nature; in fact it is of fundamental importance for agricultural production. The proximity to the Alps allows in fact to have a flat area sprinkled with canals and streams, as well as some important rivers (Po, Stura di Lanzo, Orco and Cervo, Sesia, Ticino). The optimal conditions offered by the natural plant of the place have been exploited in the area of Vercelli and Pavia to create a dense system of irrigation canals that serve the cultivation of rice. In 1863 the Cavour canal was built: this extends for 86 kilometers, starting from the city of Chivasso and finally entering the Ticino: this allowed to further enlarge the irrigated arable area of eastern Piedmont. Ten years later the canal was extended by means of the Quintino Sella branch, which extends north-south towards the Pavia area. Later the system of artificial canals was extended, increasingly optimizing irrigation for agricultural purposes.

Photovoltaic Power Potential

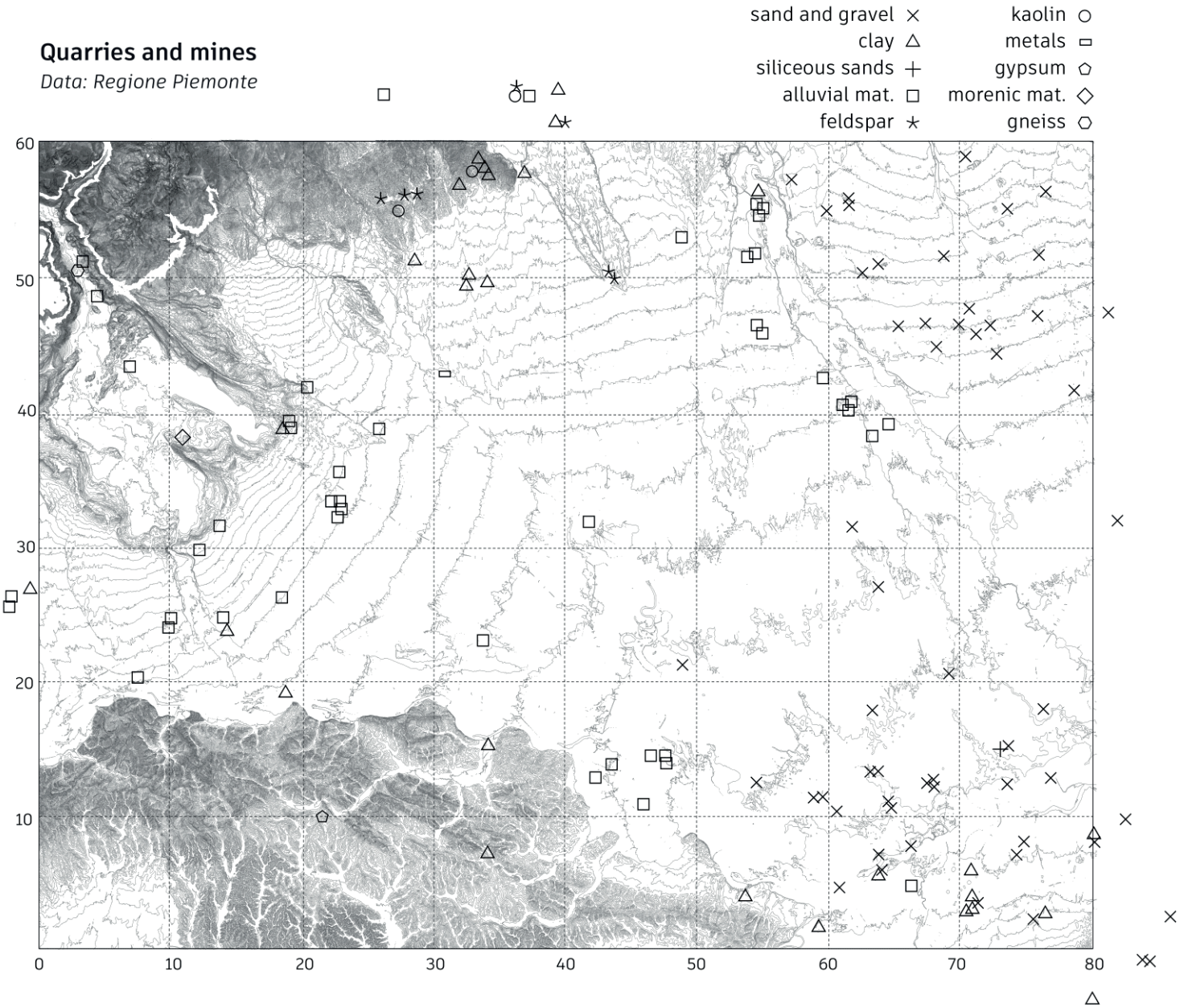
Data: The World Bank



Lombardy and Piedmont hold the first and fourth places respectively for the number of photovoltaic plants at national level, with 145424 and 64983 plants and with a gross production of 2,359 GWh for Lombardy and 1,808 for Piedmont (2019). The World Bank's photovoltaic potential map, a project created to raise awareness of the gap between potential and actual exploitation of this resource, a project born as the highest solar potentials do not always respect the actual amount of solar present in the place. Novara has a solar potential that is on average lower than provinces such as Vercelli: despite this, the number of plants is significantly higher (5,709 against 2,825). If in general the Lombard part of the area studied has higher potentials, this is not reflected by the number of plants in a province like Pavia, the sunniest, with just 7,198 plants. On the other hand, the numbers of the two capitals are very high, with Turin hosting 22,259 plants and Milan 18,663.

Quarries and mines

Data: Regione Piemonte



Although in decline when comparing national data, mining activity from quarries and mines is fairly widespread in the regions of Piedmont and Lombardy. In 2018 the two regions had the highest percentage of authorized quarries (Lombardy 10.1%, Piedmont 9.8%). Of the active quarries and mines, 3674 throughout the nation, 390 are located in Lombardy and 363 in Piedmont. In 2017, 22.7 million tons of material were extracted in Lombardy, in Piedmont 15.6 million tons. Analyzing the types of materials extracted, the north-west area of the country has a large preponderance of cement marl, as well as a fair amount of ceramic and industrial minerals. Extremely small are the extractions of materials such as talc, barite, fluorite.

Since the area is strongly characterized by hydrographic routes, it is also important to underline the large presence of alluvial material, which is extracted along the banks of the major waterways. The extraction of stones is not very present here, however it should be emphasized that the reliefs that surround it present some specialized stone extractions, such as that of Luserna, used in construction and particularly widespread in the area.

Air pollution issues

Data: Geoportale Arpa Piemonte, Inemar Lombardia

Studying the area in question, it is essential to pay attention to the issue of air pollution, a problem that is extremely present throughout the Po Valley and in particular in the areas close to the two large metropolises of Turin and Milan. The geographic conformation, the lack of significant winds, the crown of mountain ranges that surrounds it and the great urbanization, as well as the strong presence of industrial and agricultural activities, make these places some of the most polluted in Europe. If it is true that this issue is extremely present, observing the NOx emissions (nitrogen oxides) it is possible to note that the dangerously high values are actually more of an urban issue, very present in the metropolitan area of Turin and Milan: the same applies to the PM10 values due to the circulation of diesel and petrol vehicles. However, given the extremely hybrid nature of the area, there are many polluting components that must be considered. Emissions of methane (CH4), for example, are caused both by the gas distribution system in general, therefore with a higher concentration near the most populated centers, and by cultivation systems such as rice, with a high concentration in the provinces of Novara, Vercelli Pavia: farms (northern Varese and northern Novara, Asti and Alessandria) also contribute to this type of pollution. The emissions of ammonia (NH3), an additional acidifying substance that originates mainly from agriculture and livestock activities, are present at discrete levels throughout the territory, while those of NMVOC (Non-methane volatile organic compound), are concentrated in the most productive areas. of the territory, in the central area and in areas such as Varese, Vercelli and Novara in general. Facing such a multi-functional and heterogeneous territory also means having to deal with a multitude of pollutants, which require targeted and specific preventive and curative actions.

In the last two decades, there have been many attempts to stem this type of problem: both in Piedmont and in Lombardy, anti-smog protocols are active in the winter months (October-March) limiting the circulation of Euro 4 diesel and Euro 1 petrol. The issue was also addressed at a supra-regional level, trying to create protocols that would allow to operate in a synergistic manner, regardless of the political identities of the territories, obtaining a harmonization of the rules in order to optimize the results.

PM10 emissions [t/year, 2013]

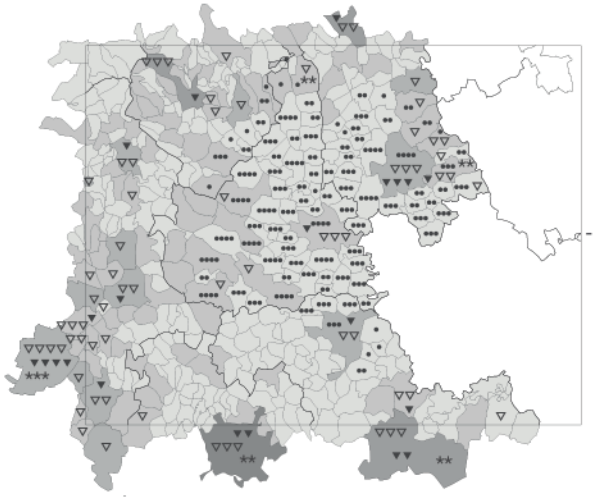
Wood heating
- 0-10
- 10-25
- 25-50
- 50-100
- 100-150

Petrol vehicles
- 0-0.0066
- 0.0066-0.02
- 0.02-0.05
- 0.05-0.15
- 0.5-1.4

Industry
- 0-25
- 25-100
- 50-100
- 100-150

Diesel vehicles
- 0-1
- 1-2.5
- 2.5-5
- 5-10
- 10-70

Agriculture
- 0-50
- 50-100
- 100-500
- 500-1000
- 1000-2000



CH4 emissions [t/year, 2013]

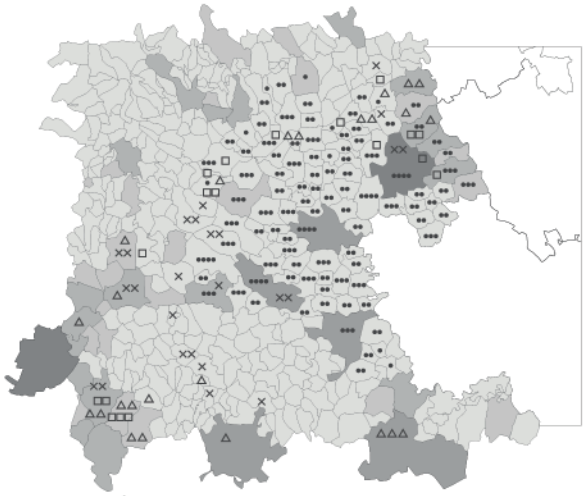
Gas distribution network
- 0-50
- 50-100
- 100-500
- 500-1000
- 1000-5000

Agriculture w/o fertilizers - rice
- 0-50
- 50-100
- 100-500
- 500-1000
- 1000-2000

Cattle breeding
- 0-100
- 100-250
- 250-500
- 500-1000

Poultry farming
- 0-5
- 5-10
- 10-25

Pig farming
- 0-50
- 50-100
- 100-250
- 250-500



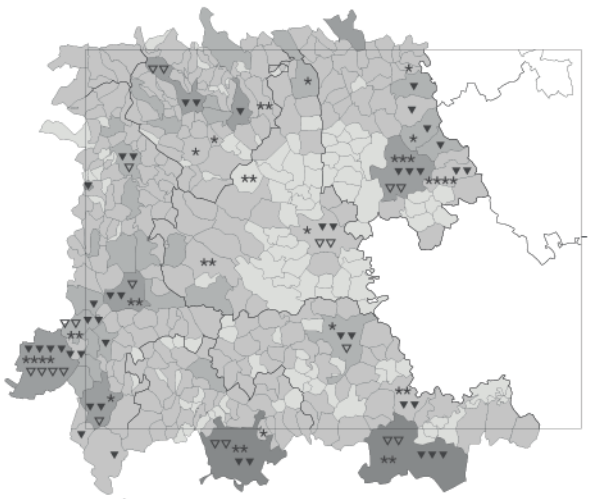
NOx emissions [t/year, 2013]

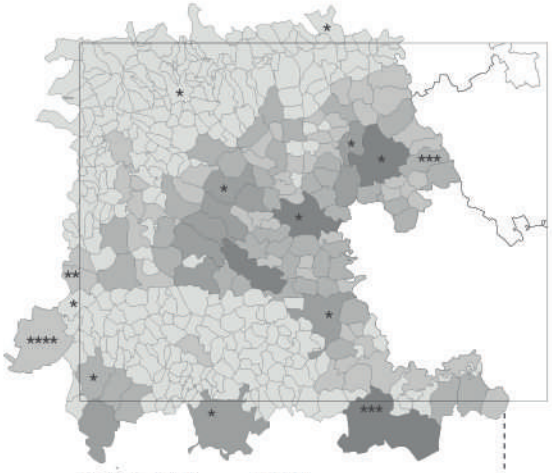
Wood heating
- 0-1
- 1-5
- 5-10
- 10-20
- 20-50

Petrol vehicles
- 0-5
- 5-10
- 10-50
- 100-250

Diesel vehicles
- 0-5
- 5-10
- 10-50
- 50-100
- 100-750

Industry
- 0-50
- 50-100
- 100-500
- 500-1000
- 1000-10000





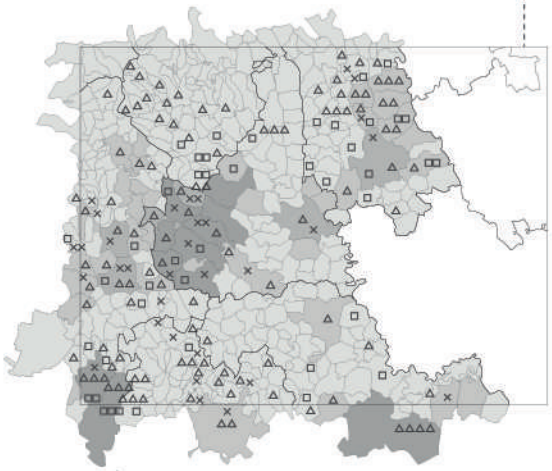
NMVOC [t/year, 2013]

Fertilized crops

- 0-50
- 50-100
- 100-200
- 200-400
- 400-800

Industry

- 0-100
- * 100-500
- ** 500-1000
- *** 1000-2500
- **** 2500-5000



NH3 emissions [t/year, 2013]

Agriculture

- 0-10
- 10-30
- 30-50
- 50-100

Cattle breeding

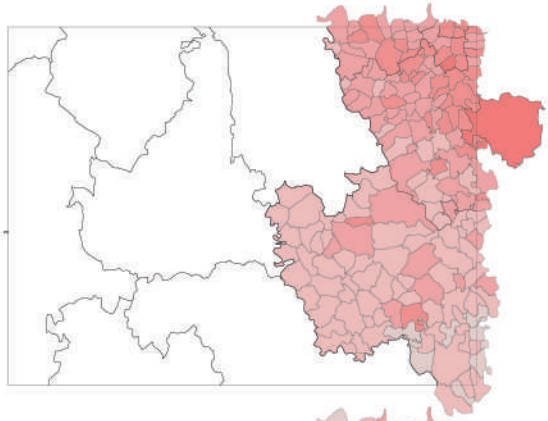
- 0-10
- 10-50
- 50-100
- 100-350
- 350-1000

Pig farming

- 0-10
- 10-50
- 50-100
- 100-350

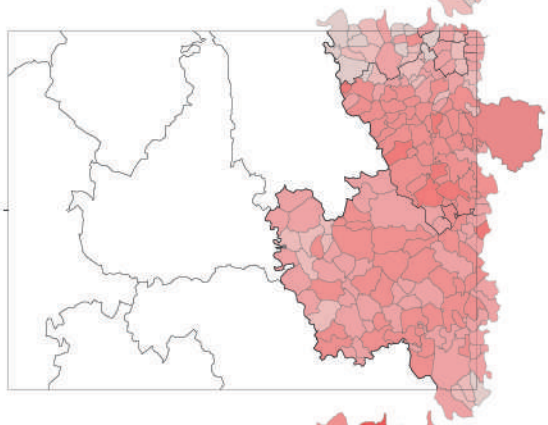
Poultry farming

- 0-10
- 10-30
- 30-50



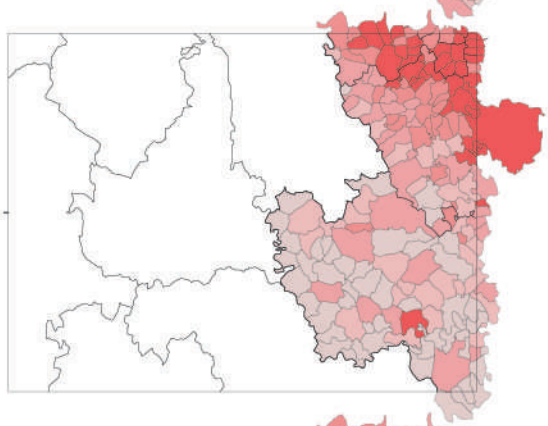
COV [t/km2]

- 0-5
- 5-10
- 10-20
- 20-50
- 50-92



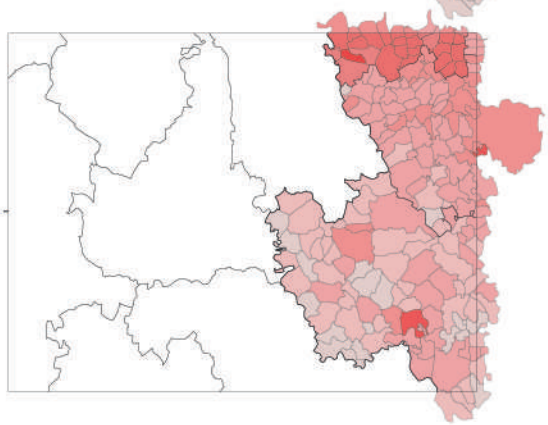
NH3 emissions [t/km2, 2017]

- 0-0.3
- 0.3-0.7
- 0.7-2.0
- 2.0-7.0
- 7.0-50



PM10 emissions [t/km2, 2017]

- 0-0.4
- 0.4-0.6
- 0.6-0.9
- 0.9-1.5
- 1.5-12

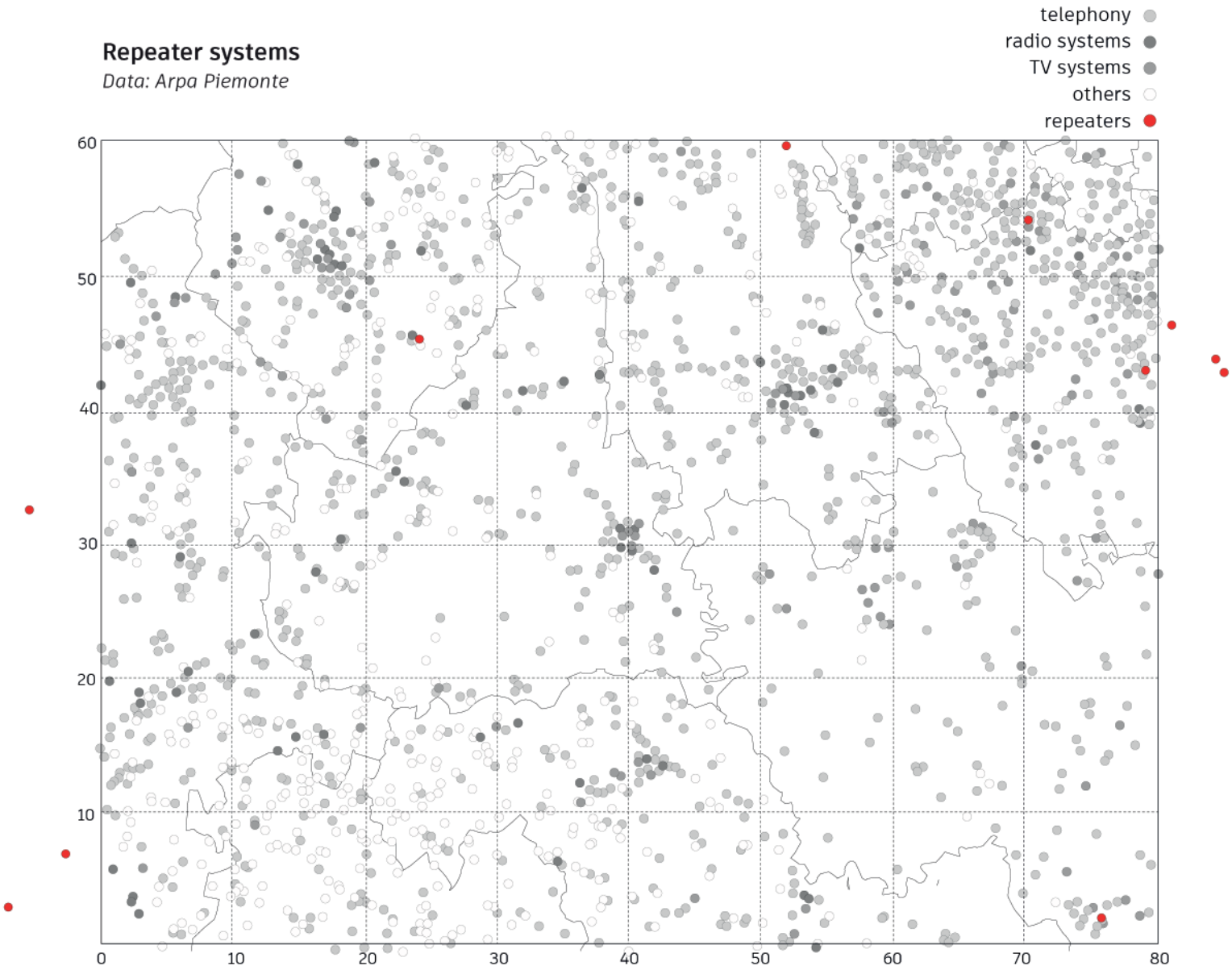


NOx emissions [t/km2, 2017]

- 0.0-1.5
- 1.5-3.0
- 3.0-10
- 10-50
- 50-197

Repeater systems

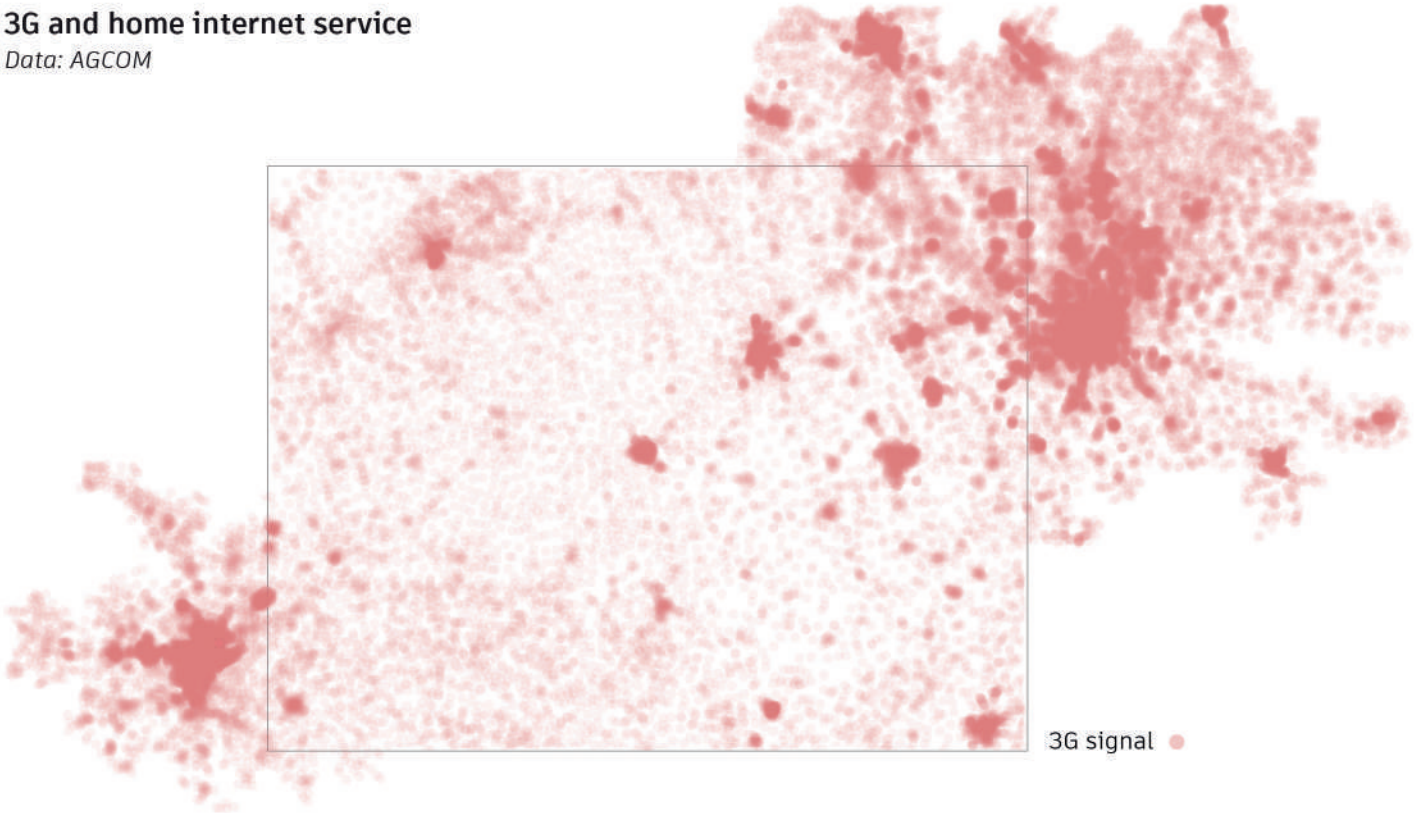
Data: Arpa Piemonte

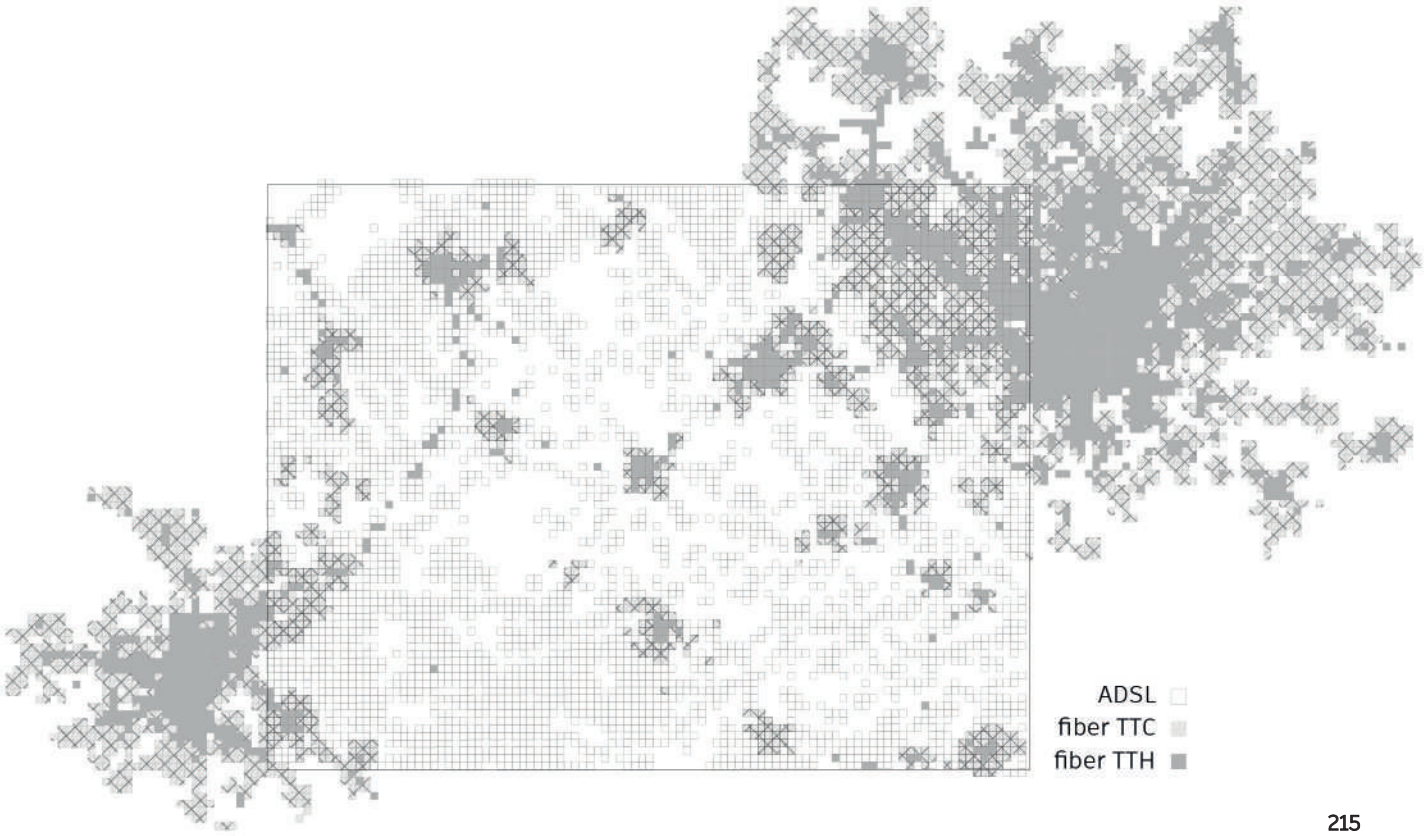


Analyzing the telecommunications system manifests the development of an infrastructure that is relatively new, and therefore still partially incomplete and problematic. The maps, which include the two urban centers of Milan and Turin, allow us to capture a set of places that not only have underdeveloped internet connection systems, but that present a huge gap, or a digital divide, between the possibilities offered by places such as the major inhabited centers and the countryside that interspers them. If on the one hand, observing the map of the precise locations of the infrastructure allows us to glimpse the infrastructure allows us to glimpse the major road arteries (in particular the A4), observing the maps that demonstrate the actual mobile and fixed internet networks, this line no longer presents a plot dense, demonstrating that the road arteries little interact with the territory they cross. The percentage of people who do not have internet at home in Piedmont is 26.5%, in Lombardy 21%: of these, respectively 10.9% and 8.2% say they do not use it due to the lack of an efficient broadband connection. or because of the high costs of the connection.

3G and home internet service

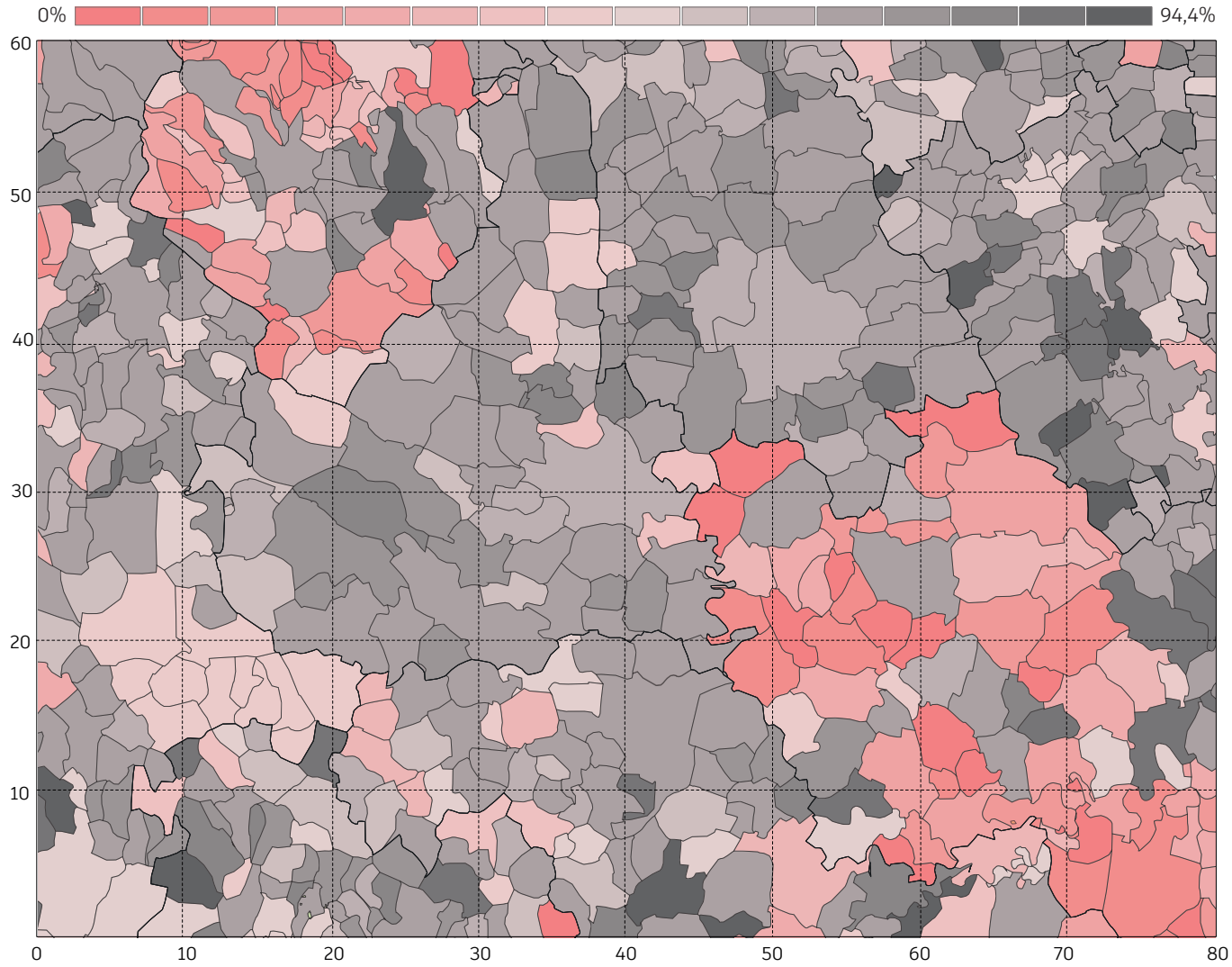
Data: AGCOM





Recycled Waste

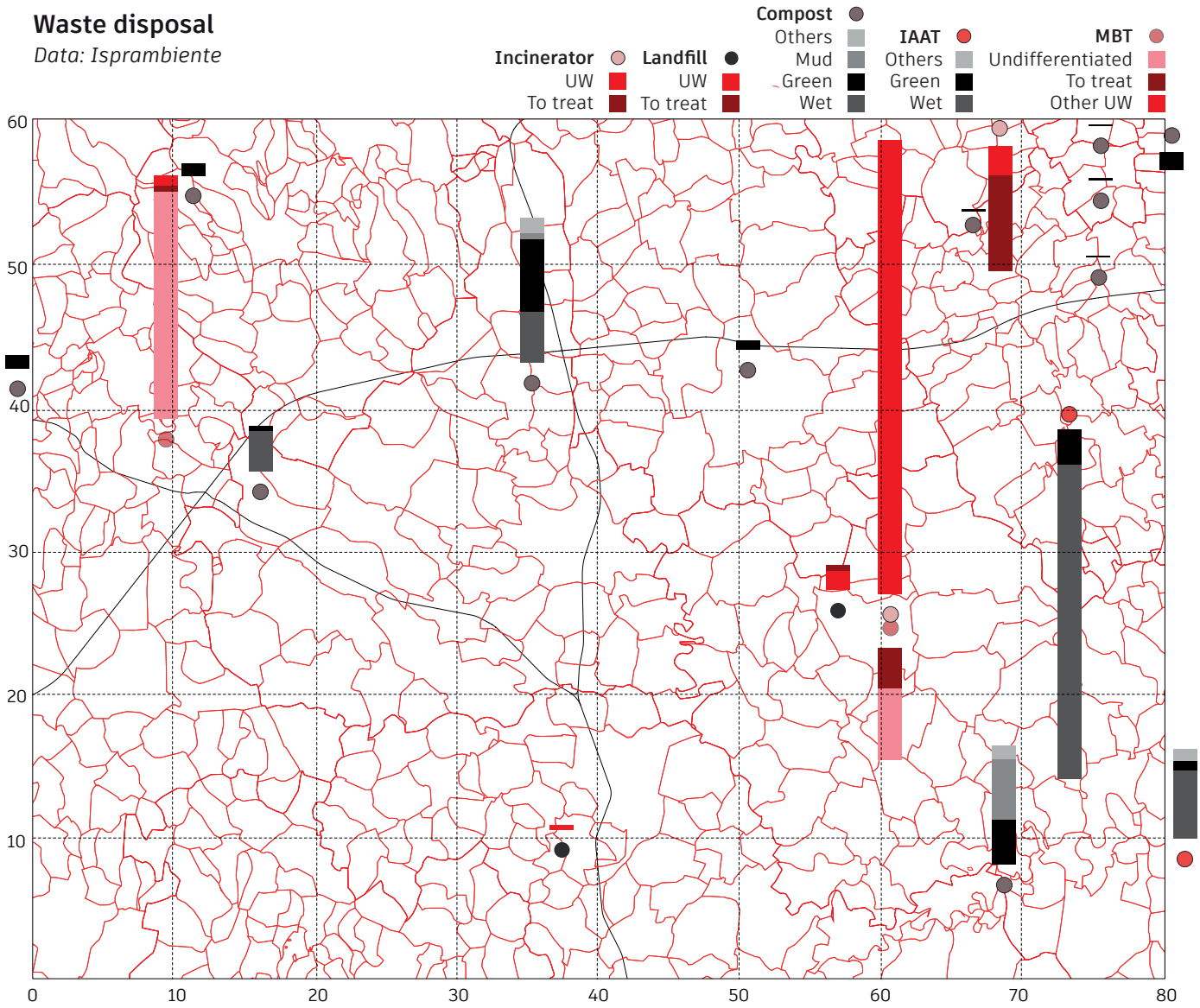
Data: Ispra, Infodata



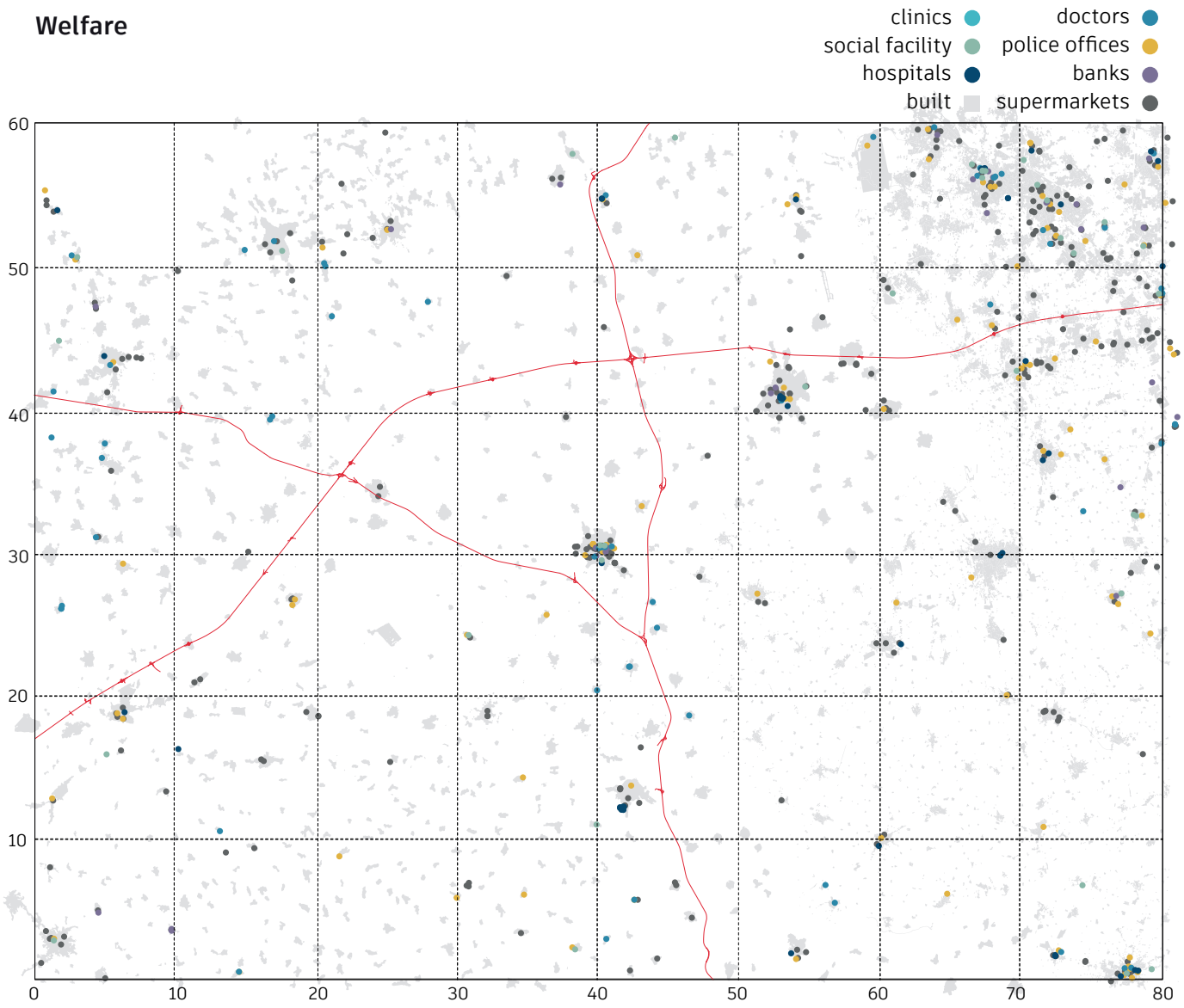
Recycled waste in Lombardy is 72.02%, in Piedmont 63.24%. The goal of reaching 65% of separate waste collection by 31 December 2012 was achieved by Lombardy but not by Piedmont. At the provincial level, by 2018 the provinces of Biella, Novara, Varese, Milan had reached 65% or more, while Vercelli, Pavia, Turin remained below the quota. The most significant data, however, are municipal data, as they are effectively responsible for the dissemination of this practice: as can be seen from the map, neighboring municipalities can have extremely different data among them, this highlights how subjective the sensitization and organization of the process is particularly developed in the smaller municipalities, both in the Piedmont area and in the Lombardy area, it however suffers serious deficiencies in the area surrounding the city of Biella, a mountainous and sparsely inhabited area, as well as in the Pavia area, which has some of the percentages lower even at a widespread level.

Waste disposal

Data: Isprambiente

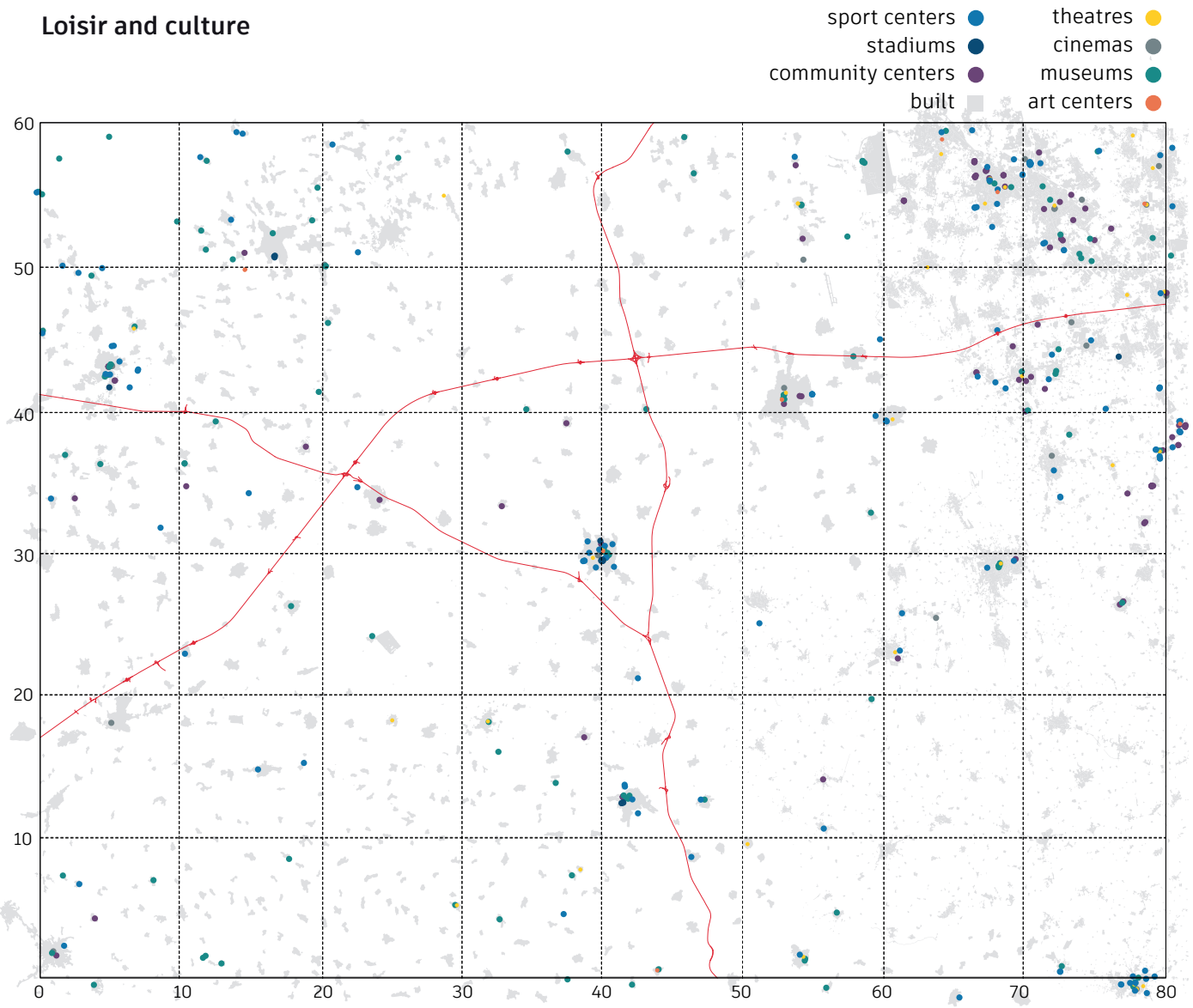


Welfare

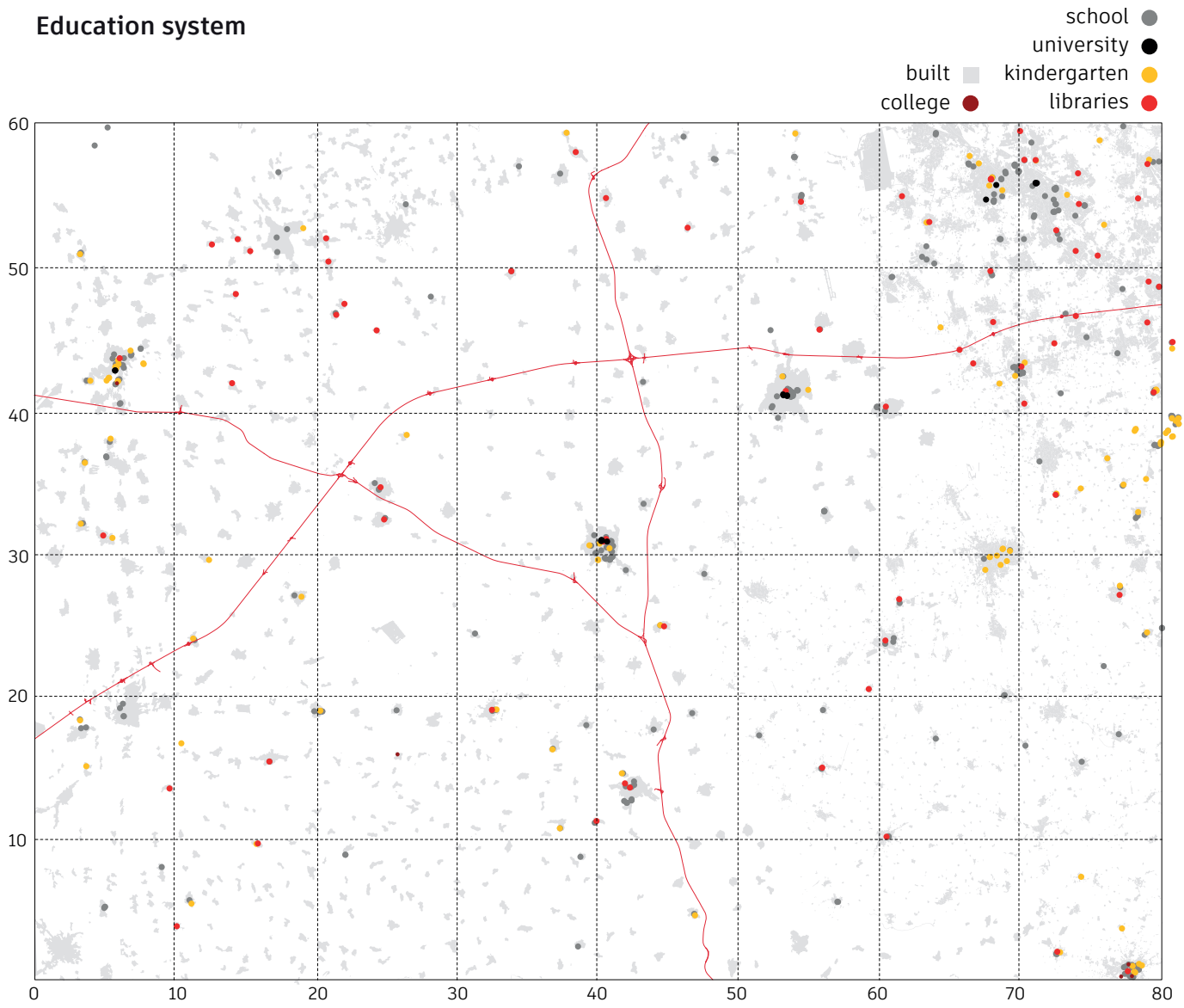


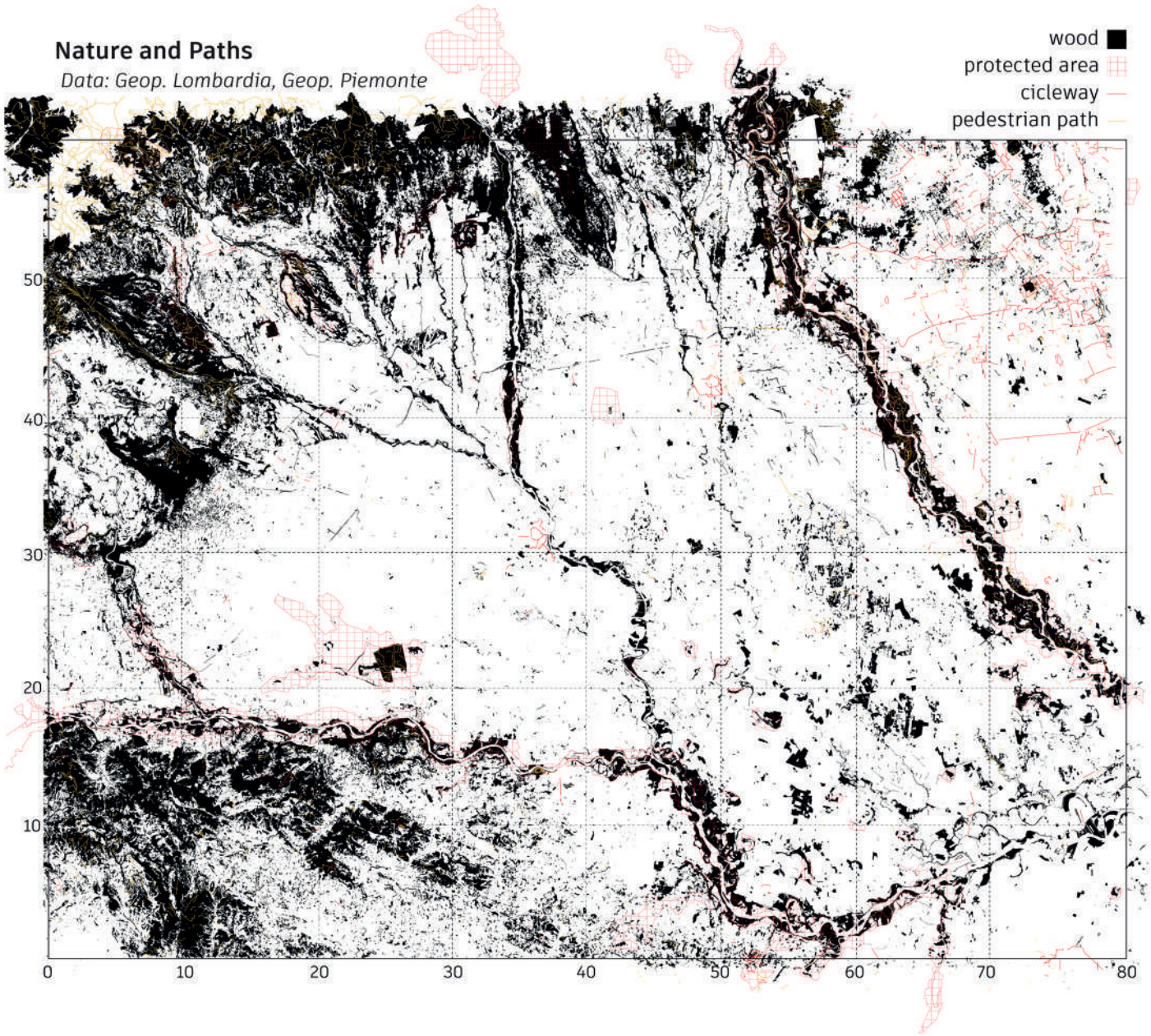
Analyzing the service system in general allows us to observe the territory on a more microscopic scale: the flows, albeit in a hierarchical manner, act as infrastructural arteries which, even if excluding some places, still act as generators of connection. Analyzing a point system allows us to better assimilate what it means to live in these places: they are in fact concentrated in some specific places, and this inevitably links all the centers that do not have certain services to rely on those that are. The welfare, leisure and culture system, of education all show a similar and comparable situation. Varese, which still serves as the hinterland of the Milanese, has an extremely more developed concentration of services than the rest of the area, where instead the services are concentrated only in the vicinity of urban centers such as Novara, Vercelli, Voghera, Biella, Ivrea, leaving almost all the rest of the places uncovered.

Loisir and culture



Education system




Nature and Paths
Data: Geop. Lombardia, Geop. Piemonte
wood
protected area
cicleway
pedestrian path
50
40
30
20
10
0
10
20
30
40
50
60
70
80

A4 near the Chivasso Est exit - overpass

A4 near the Chivasso Est exit - high speed and motorway

Rondissone - A4 motorway artery and cultivated fields

Rondissone - pylons from the Terna Electricity Station and cultivated fields

Svincolo A4/E25 - Cascina Mandriotta


Junction A4 / E25 - E25 overpass on Cascina Mandriotta


Mortara SP57 - passage of regional train towards Alessandria


Junction A4 / E25 - crops south of the A4 motorway at Cascina Mandriotta

Near Novara: town and flooded rice fields

Near Novara: regional railway and flooded fields

Casabianca, Rondissone - A4 overpass

Livorno Ferraris - Tenuta Colombara, internal courtyard

Livorno Ferraris - fields for rice cultivation

Mortara SP57 - flooded rice fields, farmyards with silos storage

Chivasso - Canale Cavour: start of the channeling of water and city park

Tronzano Vercellese: agricultural and storage systems

Pieve del Cairo - SP4 and the quarry

Pieve del Cairo - extraction of inert materials

Romagnano Sesia - quarries for gravel and sand

Tronzano Vercellese, Cascina Alba - extraction of gravel, sand, crushed stone

Novara - viale Leonardo da Vinci: near the Circolo Dopolavoro Ferroviario

San Giorgio di Lomellina - truck passage on the SS211

Rondissone - Terna Electrical Station

San Martino - industrial district from via Cassiano

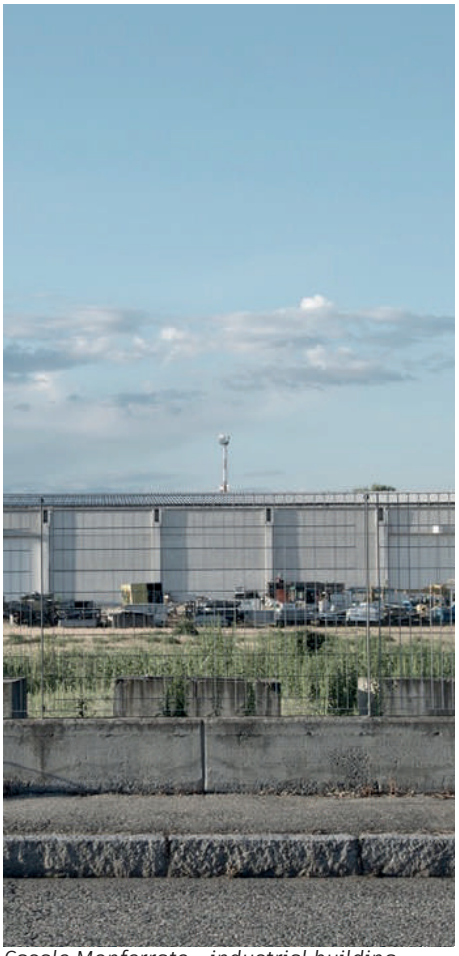
Sannazzaro de' Burgondi - ENI refinery

Rondissone - Pylons near the Terna station

Casale Monferrato - industrial area, via Grandi

Casale Monferrato - industrial area, via Vittime 11 settembre 2001

Casale Monferrato - SP457 overpass in the industrial area



Casale Monferrato - industrial building

Gallarate - industrial area surrounded by nature

Tenuta Colombara: pallets ready for shipment abroad

Interporto di Mortara: pallets packed for container filling operations

Valenza: goldsmith firm, office area

Valenza: goldsmith company, extrusion processing

Biandrate: receipt of goods from the production plants of the major hypermarket brands

Vercelli - Amazon MXP3 from via Montalcini

Novara, via Torre Martino - warehouse of a logistics company

SP299-A4 intersection: container storage at a shipping company

Interporto di Mortara: transport operations of containers for the storage of liquids

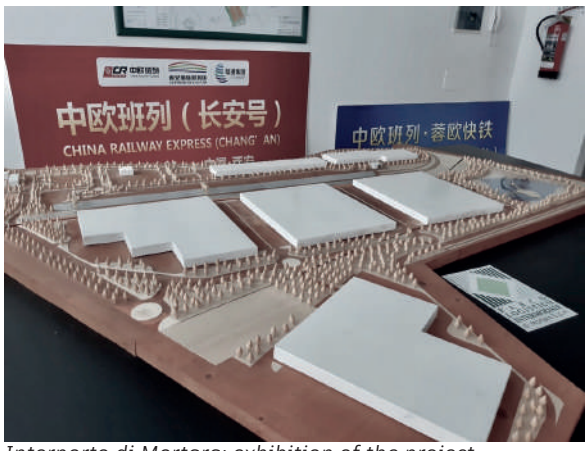
Novara - Eurogateway CIM: view from the overpass on via Panseri

Gallarate Busto Arsizio - Hupac Terminal

Mortara Interport: first built storage unit

Novara - Eurogateway CIM: view of the city and industrial area from via Panseri

Interporto di Mortara: Truck parking



Interporto di Mortara: exhibition of the project

Mortara Interport: operational tracks (in the foreground) and intake and unloading tracks


Interport of Mortara: arrival of the electrified operating tracks

A train to Chengdu: What Went Wrong

Mortara has been designed to be as a node of an Intermodal Transportation Network. Apart from its potential (both in terms of spaces and production), Mortara node seems not to fullfill its potential. This paragraph aims at understandind how the intermodal node works and why it is not working at the moment.

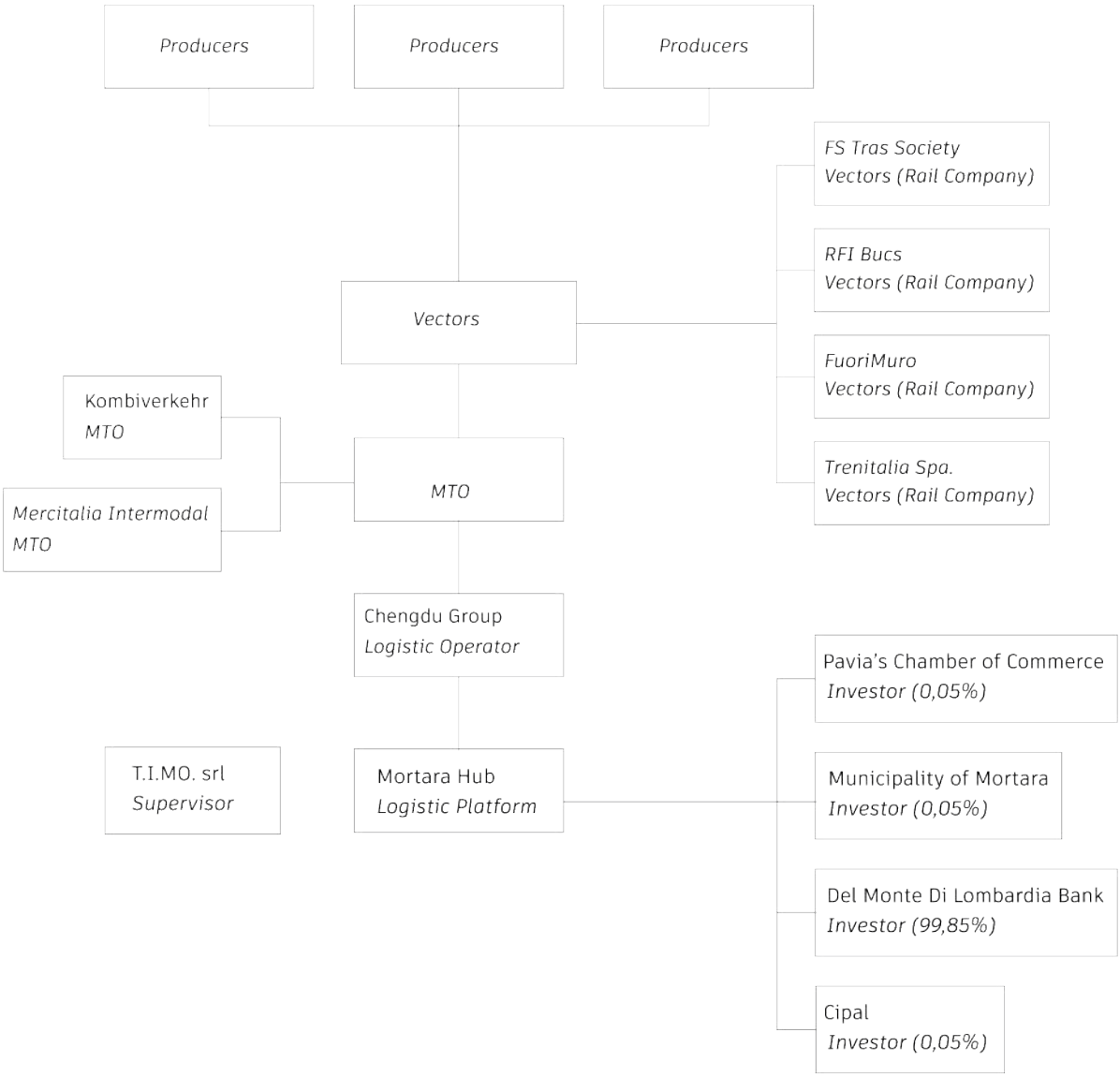
«Intermodality is a service rendered through the integration of different modes which leads to consider the transport itself no longer as the sum of distinct and autonomous activities of the different carriers involved, but as a single service, from the point of view of origin to that of destination, in a global vision of the process of transferring goods and, therefore, from the point of view of an integrated logistics chain» (Ottimo, Vona 2001).
Goods are moved in standardised loading units, Intermodal Transport Units (TEU[1]), so that they can be easily moved from one means of transport (ship, truck, train) to another to reach their destination, without handling the goods inside, allowing greater safety, lower transhipment costs between different types of means and greater speed in carrying out the transport.
Intermodal transport includes "combined transport", divided into road-sea (ro-ro), road-rail (ferroutage) and rail-rail (gateway). Intermodal infrastructures for the exchange of goods between the different modes of transport are essential in this new transport dynamic: the retroport (a structure in territorial continuity with the port) and the interport (understood as a supply chain node close to the destination market, intermodal terminal and logistics platform) are the main elements of interaction between the land system and the rail network, in connection with maritime transport.
The strengthening of networks and connection nodes is considered, in the policy guidelines of the European Union, to be the precondition for market unification and economic development, but at the same time it needs appropriate measures to territorialise the effects, in order to avoid the impoverishment of environmental resources and the amplification of regional disparities (Novaluce Business Centre). These should not be «mere infrastructural bundles, but an opportunity to implement strategic cooperation between urban and territorial policies, reorganising territorial systems and building networks of cities, redistributors of flows, activators of new networks and enhancers of local systems».

In the case of Mortara, the goods are placed at the factory or at a forwarding agent's warehouse[2], loaded onto a semi-trailer by road and taken to a nearby railway station where they are transferred in train cars to a station close to their

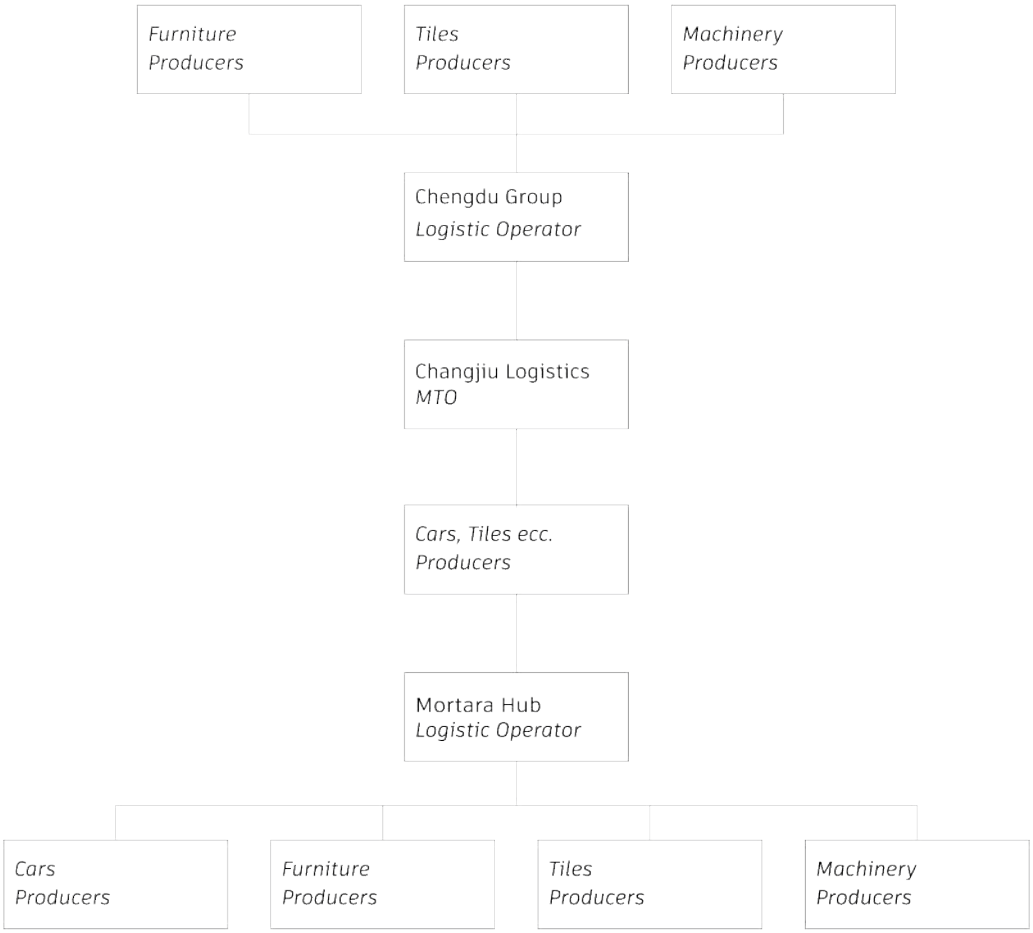
1 Twenty-foot equivalent unit, is the standard measure of length in ISO container transport, and corresponds to 20 feet, approximately 6 metres (Logistics Glossary).

2 Among the main actors in transport are: the freight forwarder or Multimodal Operator - MTO is the party who takes charge of a given commodity at a given location and is responsible for organising the transport on behalf of the principal and assumes responsibility for its execution (Nuzzolo 2010); carrier, who actually performs the transport; agent, who locally represents the carrier, where the latter does not have its own facilities; freight node manager, who manages the nodes where transhipment or consolidation and deconsolidation of goods takes place; logistics operator (LO), who manages and offers activities for integrated distribution logistics; courier, who mainly performs many-to-many connection activities through collection rounds, sorting operations (distribution); he mainly works on small packages and envelopes and to a lesser extent on large lots (pallets), which he usually treats as a set of packages (Boscacci and Maggi, 2004)

destination and finally transported back by road during the last stretch to make the delivery of the goods. The structure of the company owning the Mortara Freight Village is characterised by 99.85% control by Fondazione Banca del Monte di Lombardia, and 0.15% by Mortara Municipality, Pavia Chamber of Commerce and Cipal. The railway terminal is managed by the company Terminal Intermodale di Mortara srl, T.I.MO. srl.
Currently there are 11 operators, including, 1 intermodal operator, 1 terminal operator, 5 railway companies, 3 logistics operators and 1 catering service provider. There are also other minor service providers supporting the terminal and interport activities.



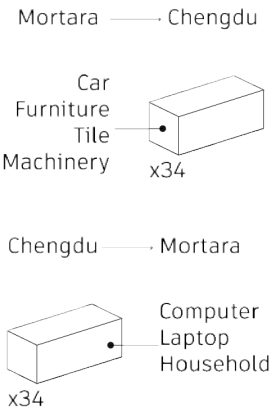
Hypothetical Flux and Players of the Mortara Logistic Platform
According to: IM, PoloMortara, Agi



Flux and Players of the Train to Chengdu
Source: IM, PoloMortara, Agi

In order to succeed in creating an integrated system of productive realities pursuing the same objective and working together, it seems necessary to include actors who catalyse the flows. A big company MTO might bring together the individual producers, making Mortara the node of the intermodal transportation network.

The first direct train to China left Mortara in 2017, with the intention of subsequently intensifying exchanges to three train pairs per week in 2018. The agreement was signed in Mortara by the presidents of Polo and Changjiu Group, one of China's largest transport companies, specialising in automotive. The transport of goods by rail, which included an intermediate transhipment in Warsaw and one in Alashankou, as well as reducing by two thirds the time of transport by sea and three quarters the costs by air, also made it possible to transport many products made in Italy, which in the long journey by ship could suffer moisture or temperature changes, including furniture or wine[3] (ANSA).



Source: Mattioli 2017

The reasons for this, Davide Muzio explains, depend first and foremost on an unclear vision of the objectives on the part of the Chinese promoters and on the change in the geopolitical order that in 2018 shifted the trade axis from Chengdu to Xi'an.
In addition, contrary to what one might think, there seems to be a very strong imbalance between imports and exports, since high-value goods are transported from Italy, so transport costs are cushioned, while material arriving from China tends to have a lower value and therefore transport costs have a greater impact.
Because of these factors, a triangular route to northern Europe was finally chosen: Mortara-Duisburg and then from Duisburg to China. The same applies to maritime routes: «what arrives by ship at Italian ports stays in Italy, almost nothing goes to create an intermodal connection. We talk about Genoa rather than La Spezia, which save five days of travel compared to going to Rotterdam, save CO2 and fuel, but the ships continue to go to Rotterdam, because the service efficiencies are not comparable» (IM).

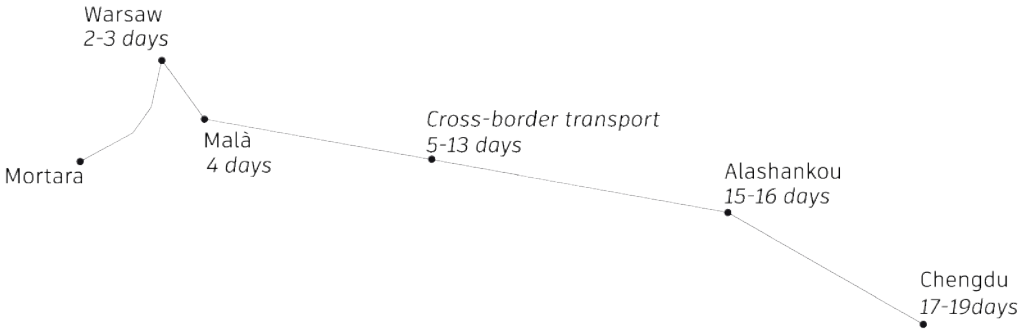
According to the President of the Western Ligurian Sea Port System Authority, Paolo Emilio Signorini, at the conference organised by the Municipality of Genoa and Rina, although the routes currently pass through Northern Europe it would be possible to change them in favour of Italy; Marco Donati, General Manager of Cosco Shipping Lines Italy, a joint-venture between the Genoese company Cosulich and Cosco, also argues that Genoa could become a hub of the One Belt One Road, «if the ongoing infrastructure investments are completed without delays, reduce the impact of bureaucracy and make port operations faster and more efficient».
The problem of infrastructure seems to be recurring: while on the railway side the service seems to be efficient, with very good lines, there are no motorways that pass directly through Mortara, something that was planned by 2016, and which could encourage industrial development and growth in the area.
Considering the productivity of the area in which Mortara is located, its highly strategic position, which makes it possible to connect transport by ship with intermodality between rail and road, and to have a radius of influence on Northern Italy, it seems possible to hypothesise the Pole as a potential node of the Silk Road, but more generally of Global Infrastructures.

«The flows will pass one day or another: right now we hope that the third pass will also arrive. If some Chinese giant decides to buy an area in the area between Lombardy and Piedmont and create a logistics district there, not necessarily Mortara but in the area, to concentrate traffic and make distribution, that then becomes the driving force, it becomes a catalyst for business, for interest. [...]

3 Compilation of press reviews: http://www.poloinmortara.it/wp-content/uploads/2017/12/rassegna-stampa-5-giugno-17.pdf

The concept of the north-west platform, as it has also been called in some more recent political contexts, the area between Liguria, Piedmont and Lombardy actually works as an idea. If we look at China, the really important part is what is behind the Chinese view: if we talk about putting together a system of individual small producers [...] to fill a container that then goes to fill a train you need a director, someone behind it who is usually a large international carrier that has the capacity to do this consolidation» (IM).

In fact, the territory is divided into productive realities, which although widespread and isotropic, do not particularly communicate with each other, making it difficult to pursue common objectives: if Mortara were able to act as a catalyst for flows from the surrounding area and from the maritime resorts, it would be possible to create a production system that is more capable and autonomous, as well as internationally attractive.
This hypothesis allows us to observe the territory as integrated and to create new research strategies that have as object of investigation the whole area, with Mortara at its centre. The investigation of the spatial changes produced by the planetary urbanisation needs to consider the complexity of the territory through new theoretical categories[4] with which to investigate the incessant production and transformation of the socio-spatial organisation across scales and territories (Brenner, Schmid, 2012).



Source: Mattioli, 2017

4 «In this way designing by layers can underline the fragmentary character of the city and its territory... Consistency between its parts and whole are only revealed insofar as they are taken apart.» (Viganò, 1999)

Conclusions

The Trauma of Absent Urbanism

Talking about Global infrastructures and considering the New Silk Road as the main case study means entering a debate that is extremely current and extremely polarizing. The phenomenon is complex and in the future: immersing oneself in the discussion, one accepts to constantly test one's beliefs, which seem to fade over time. This is due to the breadth of meanings that the Belt and Road has, but also to the multitude of frames of reference it needs.
The BRI is in fact a global phenomenon but also the banner of a nation, it manifests itself in a tangible way but it is above all a notion, it recalls past trends but is a completely new concept. Its inconsistency seems to be deliberate: the official documents and *Memoranda of Understanding* are vague and intangible, making it difficult to assimilate without preconceptions, whether they are approving or contrary. In his speeches, Xi Jinping appeals to each of us, and in each of us he solicits different contents and meanings: the polarization that it causes has, for now, only brought advantages in terms of journalistic and academic diffusion.

In this work we tried to keep the open and interpretable nature of the phenomenon as much as possible, recognizing the importance it has as a reason for discussion, trying to cite the debate in depth, and not the fact itself. This is, in our opinion, the only real meaning that today is attributable to the BRI: it concerns all of us, regardless of our origin or the sector to which we belong, since it is at the same time a new way of understanding urban planning, geography, sociology, politics, economics and so on.
The industriousness that lies behind the reading of this phenomenon is, in our opinion, not only caused by its complexity, but also due to the historical and geo-political context in which it is inserted: the processes of trade globalization and the growth of international relations have created in the last fifty years a series of new ties between countries and continents, in a more or less organized way, which tend to create polarities and hierarchies according to the needs of the moment, granting impulses to certain points and then, once the attractiveness of the latter is exhausted, to turn elsewhere. From this point of view, the Belt and Road could be considered as a simple development of the trends towards globalization and, as such, not deserving of a specific attention: if so, then even its Chinese conformation seems to drop its meaning, as it is a global phenomenon, and therefore it belongs to everyone. If the Belt and Road Initiative is the manifestation of broader global infrastructural movements, then the only distinctive feature that makes sense to deal with is the terminological one: the denominative action alone would in this case generate a symptom of such proportions that it can be considered as a new vision of the world order.

Despite the labile and interpretable essence of the phenomenon, it is undoubtedly relevant: its importance is so evident that it even precedes the facts in themselves: if it is not yet clear what it will entail, the connotation it will assume as an identity aspect is of undeniably pivotal importance for our times.
For this reason, studying the Belt and Road allows us to open a window on what our future could be. This, besides making it extremely fascinating and gripping, makes it a legitimate new field of study, which it is crucial to characterize as soon as possible in order to act synergistically, enhancing it's advantages and minimizing it's risks.

In this context, the translation of a vision that is still difficult to understand into consequences that materially mark the territory is even more complex.
The hints that the Belt and Road leaves on the ground are certainly not the fluid lines that mark nations and continents: these grooves, present on the maps of every treatise on the subject, are today almost completely invisible or, at least, not more noticeable than they were before. However, they may not be so for long: they seem to be destined to assume new hierarchical importance, gaining strenght and multiplying themselfes. Instead, what is happening in an irrefutable way is the formation of new spaces that serve commercial traffic: these are intermodal and sea ports, railway intersections, new Special Economic Zones and Duty-Free Zones that are shaking the looks of some places according to new rules. In this sense the lines have a value: although still evanescent, they mark long-limbed territories that go towards an imminent fortune. The ability to know these potentialities with a gap in advance means having an unusual tool, which requires new ways of reading and interacting with contexts.

Starting from the Belt and Road matrix that moved these projects but freeing oneself from the presumed and actual meanings of the globalization phenomenon, allows the reading of these potential spaces, of their concreteness, the habits they include and the challenges they face.
Each of the analyzed places has been studied first of all as such: this has made it possible to characterize them for what they are, i.e. places extremely distant from each other, which host different ways of living and moving, which face specific shortcomings and conflicts.
Faced with these circumstances, the inclusion of BRI ports, stations, logistic and commercial centers takes place according to a pattern: the effort of the Chinese actors seems, in this initial phase of this colossal operation, to proceed by attempts in seeking a modular and repeatable development model that can be applied in series as the initiative takes shape.

Tackling each of these case studies starting from scratch, momentarily forgetting the debate within which they are inserted, has allowed to identify the limits of a process that wants to insert itself in a modular way on the world territory: every place has its individual peculiarities and problems which, wanting to combine them with projects of such a nature and scale, require additional attention.
The study of the transformations of places that were initially deserted or that respond to completely different logics with respect to the international traffic dynamics, allows on the one hand to grasp the concreteness of actions that seem to exist only potentially within the speeches of Xi Jinping and the *Memoranda of Understanding*: on the other hand, the arduousness of giving a spatial connotation moves its motivations from the difficulty of distinguishing these processes from the now ordinary processes of globalization, caused by to the lack of clarity in its definition, but also due to the multifaceted nature of the actors and investors involved and the percentage of involvement of the Chinese side compared to the local one.

This research aims at focusing on spatial and design issues concerning global infrastructures and mainly focusing on the New Silk Road as a case study. Starting from this inquiry we may underline at least three main issues:
- *the infrastructural indifference*, since infrastructures works on the space as added layers, regardless of human/natural/socioeconomic ecologies;
- *the absence of urbanism*, since those processes seldom, if ever, act as real territorial development dispositifs and rarely stimulate complex processes of transformation;
- *the spatial trauma of global processes*, since such infrastructures plough the soils leaving traces and hopes on the ground.
Those three issues finally describe some peculiar aspects of the contemporary Anthropocene phenomenon: far away from the opportunity of a spatial and social revolution, the risk of global infrastructures is remaining a bare power superstructure.

If the Global Infrastructure can appear as a process that inserts itself as an *addition*, which is embedded as a stratification on pre-existing ones, it is also true that the careful study of completed or under construction projects allows us to observe how they succeed to develop more fully in contexts that are less inhabited and lived. In these cases, in fact, the realization of the projects must make minor compromises with the spatial, urban and social realities of the places. Here the BRI projects are inserted like *cathedrals in the desert*, in places completely unrelated to this type of urbanization, and become visible, free and completely independent from the surrounding context. This allows it to acquire a force, even if only narrative, completely astounding.
It is no coincidence that the most cited BRI projects emerged in remote and not very urbanized places: the absence of stratifications, especially in the case of Central Asian and African projects, allows these new logistic, infrastructural and commercial nodes to stand up in their physical self-referentiality.
On the other side, European cases are very different: here BRI projects, despite their colossal cravings, would risk disappearing as they are superimposed on much more pre-existing layers: however, this is little more than a forecast, in fact in Europe the closure of BRI plans runs into a series of obstacles that don't exist elsewhere: bureaucratic constraints and greater awareness of the consequences entailed in such procedures restrict the field within which the Belt and Road can operate. Furthermore, in a reality that already has a roughly efficient infrastructural system, the Chinese project is still aiming more to the linkage to existing infrastructures rather than to a brand-new superimposition.

Looking more closely at the aforementioned six places[5], however, it is extremely complex to identify spaces that have no type of function for populations or for local ecosystems: recognizing in this statement the founding principles of the concept of *Anthropocene*, we could say that every place is conditioned by the effects of human actions, for which it fullfills a necessary function.
In the few cases that seem not to respond to this dynamic, as in the case of Kyaukpyu, subverting spaces and their functions means compromising the local ecosystem, which had instead been recognized and preserved by the natives.
In general, the case studies addressed in this work allow us to confirm this statement: in none of them, in fact, the inclusion of the project did not involve the

5 Which in this work serve as a sample and, as such, do not offer an exhaustive but only indicative view of the state of things.

embedding - in a more or less traumatic way - of a pre-existing anthropological either natural ecosystem. In the Pakistani and Kazakh cases, the new infrastructure has caused a subversion of the working and leisure habits of the inhabitants, leading to a series of renunciations and changes in their daily life; in the Omani one it required the displacement of Bedouin communities and their consequent planned relocation. In Belarus, the passage of the infrastructure has led to a change in the system and the actors of production, which from agricultural has been rethought industrial: in Djibouti and Kyaupkyu the Belt and Road has led to a change in the communication between the locals and their territory, limiting access and use of the sea, a primary source of livelihood in both cases, forcing communities to rethink their ways of interacting with the context and even to reconsider their working careers.

If the truthfulness of the Anthropocene theories is confirmed then, in augmentation to the *addition* process, the Global Infrastructure is also a project of *replacement* and as such the effect it has on the territories must be scrupulously analyzed, since its insertion causes irreversible removals.

However the detachment that the Belt and Road Initiative feels towards contexts may be coveted: the highlight «upon infrastructure connectivities helps to construct narratives around the BRI of mobility and flows, rather than focusing upon static notions such as territory» (Sidaway in Williams, 2019) and, with this aim, for the nodal points of this flow system the BRI seems to be looking for a model, a scheme to be applied indiscriminately in these places so that they become first and foremost functional to the connective streams, the true intent of the project.

In doing so, it reflects «a re-imagined geography of capitalism based on a reconstitution of strategic nodes» (Williams, 2019), making it a tangible transposition of a market concept. This translation, however, occurs in a fallacious manner, neglecting the urban planning tool, which is instead an essential language in order to dialogue with this new corporeal dimension of economy.

For this reason it makes sense to talk about an *infrastructural indifference* along the Belt and Road: projects are incredibly spatial but arise from abstract market theories and ambitions, and therefore neglect the spatial rules. This occurs also because urbanization, in this case, «rather describes a broader process of spatial restructuring under capitalism that produces dense agglomerations of people, things and finance, on the one hand, and vast extractive hinterlands or operational landscapes on the other hand» (Brenner, Schmid, 2014) and, for this reason, it would require a new method of understanding the territory, capable of grasping both the local dimension and that of the entire surface (and subsurface) of the globe (Brenner, Schimd, 2014) . As Marshall points out, globalization «creates an intense paranoia on the part of decision makers in national governments, a fear of failing to capture a fair share of the wealth generated by the global economy [resulting] in an *absent urbanism* in which the physical character of the city is the primary focus and no attempt is made to foster a social sphere» (Shannon in Sordi, 2014).

This absence did not take long to raise questions: the territories are overwhelmed by the superimposition of an order that was not created *ad hoc*, and which often fails to guarantee the survival of the pre-existing ones. Looking at the six case studies analyzed, it is clear that the issues concern not only the superposition process, which generates dynamics of replacement and displacement of people (Duqm), functions (Gwadar, Great Stone, Djibouti), paths (Khorgos), but also exploitation of soil and resources, creation of barriers that obstruct pre-existing paths and the acceleration of social and economic univennesses, which offers and

precludes opportunities in an unbalanced way.

Seeing these places first of all as such, allows us to detach ourselves from the global component of the project: if the latter is certainly the new key to understanding these territories, which should not be understood in their dimension, but inserted in a much more macroscopic system, it is still true that the local dimension exists: studying the territories means understanding for whom they are important and for what reasons, how they are used and how the Global Infrastructure changes their functions. This operation also makes it possible to identify a series of spatial issues that underlie a general one: the space in which the infrastructure is inserted is not global, but peculiar, heterogeneous, fragile and corruptible.
The project, despite its modularity ambitions, never manages to fit in the same way in two different places: the dissimilarity of premises does not enable it, and this involves a more or less traumatic graft, but still such, and more or less successful results.

The Italian case, is relevant exactly for this reason: the Mortara Intermodal Terminal exemplifies the type of Belt and Road projects underway in Europe: here the passage of the Global Infrastructure is diaphanous, the Chinese interest for the development of the node is uncertain and make it even more difficult to try to predict how it will fit into the BRI flows. This is because on the one hand the Chinese are not the only actors involved, as the node was conceived and developed independently, but also because here the design, social and bureaucratic dictates do not offer the freedom that characterizes the extra-European infrastructural undertakings. Furthermore, the productive stratifications, in particular agricultural ones, and in general the existence of already solidly marked places further hinder the project. This could mean the loss of an opportunity for the case of Mortara, but at the same time it could offer the opportunity to rethink the space from both a Chinese and a European point of view, in a collaborative act that attempts to connect the global and regional needs, trusting the *win-win* beliefs of the BRI. To do this, in our opinion, the territory has to be looked at in an unprecedented way: the strength of Mortara lies above all in the surrounding places, in their history and in their versatility: by analyzing all the components available to them, we have tried to present a territory read in a different way, through its internal and international flows, its quality and complexity, in order to offer points to ponder on what a global connection would mean in these places and what would be the strengths and opportunities of the Piedmontese and Lombard in a global perspective.

The Italian case, as well as the six non-Europeans, teaches us that the connection to the global network is possible, and perhaps even necessary: however, this operation is always traumatic, whether it is inserted in more or less complex contexts. Furthermore, the trauma risks affecting not only the local part, but also that of the international project as a whole: to work, therefore, the initiative must not only be win-win at the level of international relations, but it also has to create a cooperation that smoothes the effects of superimposition of such different scales. This can only happen with greater attention to the contexts, to which the Global Infrastructure cannot replace itself, and which indeed it must preserve since it is from the connection of the latter that it draws its livelihood. Grasping this contrast, which occurs everywhere, would allow to decode a hybrid and extremely powerful system capable of reforming world connections.

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Chapter 1 - The BRI in the framework of the Global Infrastructure

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Chapter 2 - Places and Issues

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Appendix I - Tables and Databases

Bri Countries

Continents	Countries	Year	Type of Agreement	Links
Africa	Zimbabwe	2018	MoU	https://africanreview.c
Aisa	Cambodia	2015	MoU	https://cicp.org.kh/wp
America	Antigua and Barbuda	2018	MoU	https://eng.yidaiyilu.g
America	Barbados	2019	MoU	https://eng.yidaiyilu.g
America	Bolivia	2018	MoU	https://news.cgtn.com
America	Chile	2018	MoU	https://eng.yidaiyilu.g
America	Costa Rica	2018	MoU	http://en.silkroad.new
America	Cuba	2018	MoU	https://www.radiohc.c
America	Dominica	2018	MoU	https://dominicanews
America	Ecuador	2018	Cooperative Document	https://www.chinadail
America	El Salvador	2018	MoU	http://english.mofcom
America	Grenada	2018	MoU	https://eng.yidaiyilu.g
America	Guyana	2018	MoU	https://dpi.gov.gy/guy
America	Jamaica	2019	MoU	https://eng.yidaiyilu.g
America	Panama	2017	MoU	https://schillerinstitut
America	Peru	2019	MoU	https://www.reuters.c
America	Suriname	2018	Cooperation Agreements	http://www.xinhuanet
America	Trinidad	2018	MoU	https://eng.yidaiyilu.g
America	Uruguay	2018	MoU	https://en.imsilkroad.c
America	Venezuela	2018	MoU	https://en.imsilkroad.c
Asia	Afghanistan	2018	Joint Statement	https://eng.yidaiyilu.g
Asia	Armenia	2019	Cooperation Agreements	https://www.fmprc.go
Asia	Azerbaijan	2015	MoU	http://usa.chinadaily.c
Asia	Bahrain	2018	MoU	http://www.tradearabi
Asia	Bangladesh	2019	MoU	https://en.imsilkroad.c
Asia	Brunei	2018	Joint Statement	http://www.xinhuanet
Asia	Cook Islands	2018	MoU	https://www.cookisla
Asia	Fiji	2018	Mou	http://www.xinhuanet
Asia	Georgia	2019	Cooperation Agreements	https://www.fmprc.go
Asia	Indonesia	2015	Joint Statement	https://eng.yidaiyilu.g
Asia	Iran	2021	MoU	https://www.ncbi.nlm
Asia	Iraq	2019	MoU	http://www.asianews.i
Asia	Kazakhstan	2015	Joint Declaration	https://eng.yidaiyilu.g
Asia	Kiribati	2020	MoU	https://news.cgtn.com
Asia	Kuwait	2018	MoU	https://www.kuna.net
Asia	Kyrgyzstan	2019	Joint Statement	http://www.xinhuanet
Asia	Laos	2019	Cooperation Agreements	https://www.fmprc.go
Asia	Lebanon	2017	MoU	http://nna-leb.gov.lb/e
Asia	Malaysia	2017	-	-
Asia	Maledives	2017	Joint Communique	https://eng.yidaiyilu.g

Continents	Countries	Year	Type of Agreement	Links
Africa	Algeria	2018	MoU	https://www.aps.dz/e
Africa	Angola	2018	MoU	https://en.imsilkroad.c
Africa	Burundi	2018	MoU	https://en.imsilkroad.c
Africa	Cameroon	2018	MoU	https://allafrica.com/s
Africa	Cape Verde	2018	MoU	http://www.xinhuanet
Africa	Chad	2018	-	
Africa	Congo	2021	MoU	http://www.xinhuanet
Africa	Djibouti	2019	Ccooperation plans/Action Plans	https://www.fmprc.go
Africa	Egypt	2016	MoU	http://www.chinadaily
Africa	Equatorial Guinea	2019	MoU	https://www.fmprc.go
Africa	Ethiopia	2018	MoU	http://www.chinadaily
Africa	Gabon	2018	MoU	http://www.chinafrica
Africa	Gambia	2019	MoU	http://gm2.mofcom.g
Africa	Ghana	2018	MoU	https://www.graphic.c
Africa	Guinea	2018	-	-
Africa	Ivory Coast	2018	MoU	https://www.fmprc.go
Africa	Kenya	2018	MoU	https://kenyanwallstre
Africa	Lesotho	2019	-	-
Africa	Liberia	2019	MoU	https://www.fmprc.go
Africa	Libya	2018	MoU	http://www.globaltime
Africa	Madagascar	2017	MoU	http://www.xinhuanet
Africa	Mali	2019	MoU	http://www.china.org.
Africa	Maurituania	2018	MoU	http://calgary.china-c
Africa	Morocco	2017	MoU	https://eng.yidaiyilu.g
Africa	Mozambique	2018	MoU	https://www.iied.org/
Africa	Namibia	2019	Cooperation Agreements	http://www.chinafrica
Africa	Nigeria	2018	MoU	https://www.von.gov.n
Africa	Rwanda	2018	MoU	https://www.google.d
Africa	Senegal	2018	MoU	http://www.globaltime
Africa	Seychelles	2018	MoU	http://www.seychelles
Africa	Sierra Leone	2018	MoU	https://www.slpptoda
Africa	Somalia	2018	MoU	-
Africa	South Africa	2015	MoU	https://www.channeln
Africa	South Sudan	2020	MoU	https://www.google.c
Africa	Sudan	2018	-	-
Africa	Tanzania	2019	MoU	http://www.chinafrica
Africa	Togo	2018	Cooperative Document	https://news.cgtn.com
Africa	Tunesia	2018	MoU	http://www.ansamed.
Africa	Uganda	2019	MoU	https://www.ccpwatch
Africa	Zambia	2019	MoU	http://zm.chineseemb

Continents	Countries	Year	Type of Agreement	Links
Asia	Mongolia	2013	Coooperation plans/Action Plans	https://www.fmprc.go
Asia	Myanmar	2016	Joint Communique	https://eng.yidaiyilu.g
Asia	Nepal	2019	Cooperation Agreements	https://www.fmprc.go
Asia	Niue Island	2018	MoU	http://nz.chineseemba
Asia	Oman	2018	MoU	https://www.fmprc.go
Asia	Pakistan	2018	Joint Statement	https://eng.yidaiyilu.g
Asia	Philippines	2017	Joint Statement	https://eng.yidaiyilu.g
Asia	Qatar	2019	MoU	https://qfz.gov.qa/mo
Asia	Samoa	2018	MoU	http://www.xinhuanet
Asia	Saudi Arabia	2017	MoU	https://www.silkroadb
Asia	Singapore	2017	MoU	https://www.channeln
Asia	Solomon Islands	2019	MoU	https://www.sibconlin
Asia	South Korea	2021	MoU	https://www.google.c
Asia	Sri Lanka	2014	MoU	https://en.imsilkroad.
Asia	Tajikistan	2018	MoU	https://news.cgtn.com
Asia	Thailand	2014	Joint Communique	https://eng.yidaiyilu.g
Asia	Timor-Leste	2014	Joint Statement	https://eng.yidaiyilu.g
Asia	Tonga	2018	Joint Communique, MoU	https://eng.yidaiyilu.g
Asia	Turkey	2015	MoU	http://www.europarl.e
Asia	United Arab Emirates	2017	Framework Agreement	https://eng.yidaiyilu.g
Asia	Uzbekistan	2015	Cooperation Agreements	http://english.mofcom
Asia	Vanuatu	2018	MoU	https://www.radionz.c
Asia	Vietnam	2017	-	-
Asia	Yemen	2019	MoU	https://www.fmprc.go
Europe	Albania	2017	MoU	https://www.europarl.
Europe	Austria	2018	MoU	http://english.mofcom
Europe	Belarus	2019	Cooperation Agreements	https://www.fmprc.go
Europe	Bosnia and Herzegovina	2017	MoU	http://www.europarl.e
Europe	Bulgaria	2015	MoU	http://www.europarl.e
Europe	Croatia	2017	MoU	http://www.europarl.e
Europe	Cyprus	2019	MoU	https://www.fmprc.go
Europe	Czech Republic	2015	MoU	http://www.europarl.e
Europe	Estonia	2018	MoU	http://ee.china-embas
Europe	Finland	2017	Joint Declaration	https://eng.yidaiyilu.g
Europe	Greece	2018	MoU	http://usa.chinadaily.c
Europe	Hungary	2015	MoU	http://english.gov.cn/
Europe	Italy	2019	MoU	https://eng.yidaiyilu.g
Europe	Latvia	2016	MoU	http://www.europarl.e
Europe	Lithuania	2018	MoU	https://www.lrt.lt/en/
Europe	Luxembourg	2019	MoU	https://www.fmprc.go

Continents	Countries	Year	Type of Agreement	Links
Europe	Macedonia	2019	MoU	https://www.lrt.lt/en/
Europe	Malta	2018	MoU	https://eng.yidaiyilu.g
Europe	Moldova	2017	MoU	http://english.mofcom
Europe	Montenegro	2017	MoU	http://www.europarl.e
Europe	Poland	2015	MoU	http://www.europarl.e
Europe	Portugal	2018	MoU	https://www.scmp.co
Europe	Romania	2015	MoU	http://www.europarl.e
Europe	Russia	-	-	-
Europe	Serbia	2015	MoU	http://www.europarl.e
Europe	Slovakia	2015	MoU	http://www.europarl.e
Europe	Slovenia	2018	MoU	http://www.europarl.e
Europe	Ukraine	2020	Cooperation Agreements	-
Oceania	Micronesa	2017	Cooperation Agreements	http://www.china-un.c
Oceania	New Zeland	2017	Memorandum of Arrangement	https://eng.yidaiyilu.g
Oceania	Papua New Guinea	2016	Joint Communique	https://eng.yidaiyilu.g
	African Union	2018	MoU	https://eng.yidaiyilu.g
	Arab Chambers of Commerce	2017	MoU	http://www.xinhuanet
	European Union		Joint Statement	https://eng.yidaiyilu.g
	UNDP	2016	MoU	http://www.undp.org/
	UNECE	2017	MoU	https://eng.yidaiyilu.g

Appendix I - Tables and Databases

An Alternative Database

continents	corridors	MoU, platforms	countries	project name	state	type	type	date	cost (million USD)	players	database	details	links
Asia	CCWAEC	Joint decl. 2018, ACD, CAREC, CICA	Afghanistan	Afghanistan-China-Kyrgyzstan-Tajikistan-Iran Rail Road Project, Afghanistan section Sher Khan-Kunduz--Herat	Under Construction	Mobility	Rail	2018-2020 2012-2019	3200	-Asian Development Bank (ADB) -The World Bank -Bank of China	AIIB + WB	The project is envisioned to improve regional connectivity and commerce. The 2,100 kilometers railway will increase access to China and Iran, including the Chabahar and Bandar-e-Abbas ports. In 2017, China and Afghanistan signed a Memorandum of Understanding to integrate the project into China's Belt and Road project. Termiz extension operational since 2012. Expected completion March 2019.	
Europe	- (maritime)	MoU 2017 China - CEEC 16+1	Albania	Tirana-Dibra Arber Motorway Construction (PPP)	Suspended	Mobility	Road	2014-2022	298*	CONTRACTORS -China State Construction Engineering Corporation (CSCEC) FUNDERS -The Export-Import Bank of China 2.2 million -Albania Ministry of Public Works Transport and Telecommunications	RA	The two-lane highway is designed to link the Albanian capital, Tirana, with the isolated Dibra region on the Macedonian border through a shortcut into the mountainous area in central Albania. The segment is expected to be just 26.8 km long and aims to shorten the current route by more than 74 km, cutting travel time from 4 to 1.5 hours.	https://reconasia-pro ; *http://www.xinhuane
Europe	MARITIME	MoU 2017 China - CEEC 16+1	Albania	Europort Shengjin	Announced/Under Negotiation	Mobility	Seaport	2013-	1200	CONTRACTORS China Communications Construction Co. Ltd VEGA Construction Group CONSULTANTS Med Ingegneria Srl IMPLEMENTERS Albanian Ministry of Transport and Infrastructure OPERATORS	RA	This project aims to develop the port of Shëngjin as Albania's biggest industrial port. Upon completion, the New Port of Shëngjin will connect the South Adriatic and East Mediterranean with the Central, Eastern, and Northern European countries. It will also allow bypassing the congested Bosporus and Dardanelle Strait by providing alternative access to the Adriatic and Black Seas. With a capacity of 60 Million Tons per year, the port is expected to cater to the connectivity needs of not only Albania, but also its landlocked neighbors like Kosovo, Serbia, and Macedonia.	
Africa	MARITIME		Angola	Cabinda Port	Under construction	Mobility	Seaport	2016-2018*	***756.7	China's state-run hydraulic engineering company CGGC * Fundo Soberano de Angola** China Road and Bridge Corporation (CRBC) ***	WB	****The new port for the province of Cabinda, scheduled for completion in 2016, has been developed in a remote area that will provide deep water access, allowing larger vessels to serve the province as well as the potential cross-border hinterland in neighbouring Democratic Republic of Congo.	*http://www.xinhuane **https://www.joc.com ***https://macauhub ****https://www.royal
Europe	- (nelb)	Austria no MoU Slovakia 2015 and China - CEEC 16+1, both ASEM	Austria, Slovakia	Railway linking Russia, Ukraine, Slovak, Austria Kosice-Vienna Railway	Announced/Under Negotiation	Mobility	Rail	2014-2050	6490	-Breitspur Planungsgesellschaft mbH (joint venture between the state rail companies of Austria, Slovakia, Ukraine, and Russia) -Roland Berger Strategy Consultants -Broad Gauge Planning Corp.	AIIB	The quadrilateral joint venture "Broad Gauge Planning Corp" between the Russian, Ukrainian, Slovak and Austrian Railway. A single-track, electrified railway line for freight transport and connection to the 1,520 mm wide gauge network in the Central Europe will be established. The project will benefit from the expected considerable increase by more than 70% between 2017 and 2050 in rail-based freight traffic between Europe and Asia in the project' s catchment area. As a part of the New Silk Road, the project will link the industrial centers in the West with the densely populated areas in the East.	https://reconasia-pro .
Asia	CCWAEC	CAREC, CICA	Azerbaijan	Azerbaijan: Trans Anatolian Natural Gas Pipeline Project (TANAP)		Energy, Water and ICT systems	Gas Pipeline	2016	600	Cofinanziato: AIIB, WB, ADB, EBRD,EIB	AIIB	integrate Azerbaijan with regional and European energy markets by strengthening its connectivity and transit role, diversify Azerbaijan's gas export markets and improve the energy supply security of Turkey and South Eastern Europe.	
Asia	CCWAEC	CAREC, CICA	Azerbaijan	Baku Port	Operational	Mobility	Seaport	2018-2020**	544.7	the majority of funding for the estimated $544.74 million three-phase project and impetus behind the port's creation comes from the Azerbaijani government	WB+HKTDC	*Baku Port signed MoUs with China's Lianyungang Port Group, COSCO Shipping Lines company and Guangzhou Port Administration as well as India's Mumbai port.	*https://www.euractiv **https://www.portte
	CCWAEC	CAREC, CICA	Azerbaijan	New Port in Alat	Operational	Mobility	Seaport	2014	70	Blaze Capital Inc.	RA	*Central to Azerbaijan's economic plans is the Alat Free Trade Zone, which will revolve around the Port of Baku in Alat. It signed an agreement with DP World in 2016 to build said free trade zone.	*https://www.porttech
Asia	CCWAEC	CAREC both	Azerbaijan, Georgia	Baku–Tbilisi- Kars Railway	Operational	Mobility	Rail	2011-2017	1552.2	Akhalkalaki-Baku: Azerbaijan Railways Kars-Akhalkalaki: TCDD (Turkish State Railways) Ozgün Yapı & Çelikler Consortium (Kars-Akhalkalaki section) Azerbaijan 775 million Georgia	WB	Launched in October 2017. *826-kilometer: The three countries are linked by the BP-led Baku-Tbilisi-Ceyhan oil pipeline and the Baku-Tbilisi-Erzurum gas line, but trade links between Turkey and the Caucasus region are limited. The new Baku–Tbilisi–Kars railway (BTK) promises to provide an economic boost to the region.	*https://www.rferl.org
Asia	-	Mou 2018, ACD, CASCF, CICA	Bahrain	Al Dur II Independent Water and Power Project (IWPP)	Announced/Under Negotiation	Energy, Water and ICT systems	Hydropower	-2021	1500	-SEPCOIII Electric Power Construction Corp -Saudi Acwa Power Projects -Sidem -Siemens AG -Electricity and Water Authority (EWA) Bahrain	RA	*Al Dur2 IWPP is an Independent Water and Power Project located at Al Dur in the Kingdom of Bahrain. The Plant shall be developed to generate 1,500 MW of Power based on Combined Cycle Gas Turbine(CCGT) technology and produce 50 MIGD of water through Sea Water Reverse Osmosis (SWRO) technology.	*https://www.acwapo
Asia	BCIMEC	ACD, ASEM, CICA	Bangladesh	Bangladesh Bhola IPP	Approved	Energy, Water and ICT systems	Energy transmissic	2018	60	AIIB	AIIB	increase power generation capacity in Bangladesh and help the country meet its power demand as it faces acute power shortages.	
Asia	BCIMEC	ACD, ASEM, CICA	Bangladesh	Bangladesh: Hatikumrul-Bonpara-Jhenaidah Phase I Road Improvement Project	Approved	Energy, Water and ICT systems	Energy transmissic	2020	750	Cofinanziato: AIIB (Loan 200), ADB (Loan 300), People's Republic of China Poverty Reduction and Regional Cooperation Fund (0.75), Government of Bangladesh/PGCB (249.25)	AIIB	enhance the reliability and efficiency of power transmission in Dhaka and Western Zone of Bangladesh and strengthen institutional capacity of PGCB.	
Asia	BCIMEC	ACD, ASEM, CICA	Bangladesh	Bangladesh: Natural Gas Infrastructure and Efficiency Improvement	Approved	Energy, Water and ICT systems	Energy transmissic	2017	453	Cofinanziato: AIIB (60), ADB (167), Governo (226)	AIIB	Improve efficiency in gas production in the Titas Gas Field and expand gas transmission pipeline capacity between Chittagong and Bakhrabad	
Asia	BCIMEC	ACD, ASEM, CICA	Bangladesh	Bangladesh: Power System Upgrade and Expansion	Approved	Energy, Water and ICT systems	Energy transmissic	2016	165	AIIB	AIIB	Enhance distribution capacity and to increase the number of rural and urban electricity consumers in Bangladesh	
Asia	BCIMEC	ACD, ASEM, CICA	Bangladesh	Bangladesh: Power System Upgrade and Expansion	Approved	Energy, Water and ICT systems	Energy transmissic	2019	120	AIIB	AIIB	upgrade and expand the power transmission system in the Chittagong region to ensure adequate and reliable power supply in the southeastern region of Bangladesh.	
Asia	BCIMEC	ACD, ASEM, CICA	Bangladesh	Bangladesh: Ultra-high Voltage Transmission line Madunaghat-Bhulta and Sustainable Electricity Access Project	Proposed	Energy, Water and ICT systems	Energy transmissic	2019	470	AIIB	AIIB	upgrade and strengthen the transmission network between major cities and promote reliable electricity access in Bangladesh.	
Asia	BCIMEC	ACD, ASEM, CICA	Bangladesh	Bangladesh - Ghorashal Unit 4 Repowering Project	Announced/Under Negotiation	Energy, Water and ICT systems	Power plant	2015-2018	263.0	CONTRACTORS China Energy Engineering Corp Ltd IMPLEMENTERS Bangladesh Power Development Board FUNDERS The World Bank 217 million	RA	The key activity of the proposed Project is to convert Unit 4, one of the four 210 MW gas-fired steam units at Ghorashal Power Station (GPS), into a combined cycle unit for an upgraded total capacity of about 400 MW+/-10%.	*https://www.worldba
Asia	BCIMEC	ACD, ASEM, CICA	Bangladesh	Barapukuria Coal-fired Power Plant Unit III	Completed	Energy, Water and ICT systems	Power plant	2015-2018	554.5	CONTRACTORS CCC Engineering China Harbin Electric International Co Ltd OPERATORS Bangladesh Power Development Board FUNDERS Industrial and Commercial Bank of China 224 million	RA	The addition of the a third unit increases the capacity of the 250MW Barapukuria coal-fired thermal power station by 275 MW.	
Asia	BCIMEC	ACD, ASEM, CICA	Bangladesh	Fenchuganj Combined Cycle Power Plant, Sylhet	Completed	Energy, Water and ICT systems	Power plant	2016-2017	187.0	CONTRACTORS Shenzhen Nanshan Power Station Co Ltd IMPLEMENTERS Bangladesh Power Development Board OPERATORS Kushiara Power Company	RA	*GE had supplied a 9E.03 gas turbine and the associated power generation equipment for Max Group's 163MW power plant - named Kushiara Power Company Ltd. in Fenchuganj, Bangladesh.	*https://www.ge.com
Asia	BCIMEC	ACD, ASEM, CICA	Bangladesh	Shahjibazar Combined Cycle Power Plant Project, Habiganj	Completed	Energy, Water and ICT systems	Power plant	2014-2016	365.5*	CONTRACTORS Bangladesh Engineering and Construction Corporation Ltd China Energy Engineering Corp Ltd Guangdong Power Engineering Corporation IMPLEMENTERS Bangladesh Power Development Board ADB	RA	The Shahjibazar Combined Cycle Power Plant with a total capacity of 330 MW was set up by Bangladesh Power Development Board at Shahjibazar, Hobigonj, Bangladesh. Approx. 25 acres of land is allocated for this project. This power plant is fueled by natural gas.	*https://www.adb.org
Asia	BCIMEC	ACD, ASEM, CICA	Bangladesh	Payra Coal Fired Power Plant Unit I and II	Under Construction	Energy, Water and ICT systems	Power plant	-2019	1600	CONTRACTORS China Energy Engineering Corp Ltd The First Northeast Electric Power Engineering Co FUNDERS The Export-Import Bank of China	RA	*Payra power plant is a 1,320MW coal-fired thermal power plant (TPP) under construction at Dhankhali, in the Patuakhali district of Bangladesh- The Payra power plant will consist of two 660MW ultra-supercritical coal-fired power generating units.	*https://www.nsenerg
Asia	BCIMEC	ACD, ASEM, CICA	Bangladesh	Summit Meghnaghat II Combined Cycle Power Plant	Under Construction	Energy, Water and ICT systems	Power plant	-2021	319	CONTRACTORS China National Electric Engineering Co Ltd GE Power OPERATORS General Electric Co.	RA	*The Summit Meghnaghat II power plant is a 583MW gas-fired combined-cycle power plant planned to be constructed near the existing Meghnaghat power plant site on the northern banks of the Meghna River in Meghnaghat, Bangladesh. Estimated to cost £410m ($510m), the project is expected to be one of the biggest combined-cycle power plants in Bangladesh. scheduled for commissioning in March 2022.	*https://www.nsenerg

continents	corridors	MoU, platforms	countries	project name	state	type	type	date	cost (million USD)	players	database	details	links
Asia	BCIMEC	ACD, ASEM, CICA	Bangladesh	Bangladesh: Municipal Water Supply and Sanitation Project	Approved	Energy, Water and ICT systems	Water	2019	209.5	AIIB (Loan 100), WB/IDA(Loan 100), Governo (9.53)	AIIB	increase access to improved water supply and sanitation services in selected pourashavas (municipalities) and strengthen the pourashavas' institutional capacities for delivering water and sanitation services.	
Asia	BCIMEC	ACD, ASEM, CICA	Bangladesh	Paira or Lebukhali Bridge (Construction)	-	Mobility	Bridge	-2019	159	CONTRACTORS Longjian Road & Bridge Co. Ltd IMPLEMENTERS Bangladesh Roads and Highways Department FUNDERS OPEC Fund for International Development Kuwait Fund for Arab Economic	RA	In April 2016, a construction contract for the Paira or Lebukhali bridge was awarded to Longjian Road & Bridge Co. Ltd. In April 2017 the Roads and Highways Department of Bangladesh suggested the total cost of the project would be 200% higher than originally planned. As of May 2017, 7% of the construction works were completed.	
Asia	BCIMEC	ACD, ASEM, CICA	Bangladesh	Bangladesh: Mymensingh Kewatkhali Bridge Project	Proposed	Mobility	Bridge	2018	387.5	AIIB Loan 269.8 AIIB Grant (AIIB Project Preparation Special Fund) 2.1 Government of Bangladesh 115.6	AIIB	Reduce congestion and improve mobility and connectivity by addressing the cross-river bottleneck between Mymensingh and Shambhuganj on the Dhaka-Mymensingh-India corridor	
Asia	BCIMEC	ACD, ASEM, CICA	Bangladesh	3rd Shitalakhya Bridge (Construction	Under Construction	Mobility	Bridge	2017-2020	57	CONTRACTORS Sinohydro IMPLEMENTERS Bangladesh Roads and Highways Department FUNDERS Saudi Fund for Development (SFD) Bangladesh	RA	This project is for the construction of a bridge over the Shitalakhya river at Bandar Upazila and Narayanganj to establish a direct connection between Bandar Upazila and the Narayanganj district. Financed by the Saudi Fund for Development and the Government of Bangladesh, a contract for the bridge's construction was awarded to Sinohydro in February 2017.	
Asia	BCIMEC	ACD, ASEM, CICA	Bangladesh	Uttara-Pallabi Dhaka Metro Line 6 (Construction)	Under Construction	Mobility	Light Rail	2016-2022	2800	CONTRACTORS Italian-Thai Development Public Co., Ltd. Sinohydro CONSULTANTS Nippon Koei Co. Ltd IMPLEMENTERS Dhaka Mass Transit Company Ltd. FUNDERS	RA	Line 6 of the Dhaka Mass Rapid Transit Development Project will be implemented in 3 phases. This project refers to the 4.7 Uttara-Pallabi route, to be completed in 2022. In May 2017 a contract with Sinohydro was signed for MRT Line-6, and the partial trial operation of MRT Line 6 up to Agargaon is expected to start by the end of 2019. Commercial operation of the full system is expected by the end of 2020. The Dhaka Metro Rail is the first-ever metro rail service of the country, stretching from Uttara to Motijheel. covering the distance of 18.9 kilometers.	
Asia	BCIMEC	ACD, ASEM, CICA	Bangladesh	Akhaura - Laksam Railway (Renovation)	Announced/Under Negotiation	Mobility	Rail	2016-2020	845.0	-CTM Joint Venture -Asian Development Bank (ADB) 505 million -European Investment Bank (EIB) 175 million -Bangladesh Railway	RA	The Asian Development Bank and European Investment Bank (EIB) financed the construction and renovation of 144 kilometers of double-gauge rail lines between Akhaura and Laksam, Bangladesh.	
Asia	BCIMEC	ACD, ASEM, CICA	Bangladesh	Dhaka-Jessore Railway (Construction)	Preparatory Works	Mobility	Rail	2016-2022	3400	CONTRACTORS China Railway Construction Corporation Ltd. IMPLEMENTERS Bangladesh Ministry of Railways China Railway Construction Corporation FUNDERS Bangladesh	RA	The Padma Bridge Rail Link (also known as the Dhaka-Jessore Railway) connects Dhaka and Jessore via the Padma Bridge in Bangladesh. In February 2015, the government completed feasibility studies and designing work for the project. In July 2016 the Bangladeshi government granted approval to the China Railway Group to build the rail line, and in August 2016 the China Railway Construction Corporation signed an official construction contract. In February 2018, the Export-Import Bank of China also committed funds for the project. The project is being developed in 2 phases. The first is	
Asia	BCIMEC	ACD, ASEM, CICA	Bangladesh	Dhaka - Narayanganj Double-Gauge Railway (Construction)	Started	Mobility	Rail	2017-2019	495.0	CONTRACTORS Power Construction Corporation of China IMPLEMENTERS Bangladesh Railways FUNDERS Bangladesh 15.2 million Japan	RA	Dhaka - Narayanganj Rail Line Project is project to upgrade lines to dual-gauge on the Dhaka to Narayanganj route in Bangladesh. The project got a green light from the government in January of 2015, and a construction contract was signed with Power Construction Corporation of China Limited in June 2017. In August 2017, environmentalists and rights activists protested, seeking to relocate the Narayanganj station and construct a road over the rail tracks.	
Asia	BCIMEC	ACD, ASEM, CICA	Bangladesh	Dohazari - Cox's Bazar - Gundam Dual-gauge Railway Line, Chittagong	Started	Mobility	Rail	2017-2022	2300	ADB 300 million CONTRACTORS China Railway Corporation China Civil Engineering Construction Corporation Toma Group CONSULTANTS SMEC International Private Ltd.	RA	This project, under the South Asia Subregional Economic Cooperation is one of several ADB railway projects to help Bangladesh meet its targets under its Seventh Five-Year Plan and Railway Master Plan. This rail link is set to become a part of the Trans Asian Railway route. INITIATIVES Belt and Road South Asia Subregional Economic Cooperation (SASEC) Trans-Asian Railway	
Asia	BCIMEC	ACD, ASEM, CICA	Bangladesh	Barisal - Payra Port Rail (Construction)	Under Construction	Mobility	Rail	2021	This project is one piece of a 1.28 billion dollar multi-part project to connect Paira Port to Bhanga via Barisal.	CONTRACTORS China Civil Engineering Construction Corporation IMPLEMENTERS Bangladesh Railways FUNDERS Bangladesh	RA	This railway line from Paira Port to Barisal will be one of two projects, the second one will be a line from Barisal to Bhanga. Through Bhanga, Paira port will be connected to the broader Bangladeshi railroad network. An additional railway connection in the works will link Paira Port's railway to the Padma Bridge, which will tie this project into the region's broader infrastructure connectivity vision and reduce the travel time between Bhanga and the capital of Dhaka by 3 hours, according to Bangladesh Railways.	
Asia	BCIMEC	ACD, ASEM, CICA	Bangladesh	Ishwardi - Dhalarchar Rail	Under Construction	Mobility	Rail	2017-	72	CONTRACTORS Mir Akhter Hossain Ltd Ranken Railway Construction Group Co., Ltd IMPLEMENTERS Bangladesh Railways	RA	In December 2015, a contract was signed with Mir Akhter Hossain Ltd. and Ranken Railways Construction Co. Ltd. for the construction of the 78.80 km mainline from Ishwardi to Dhalerchar via Pabna, along with a 10.87-kilometer loop line in the Natore and Pabna districts.	
Asia	BCIMEC	ACD, ASEM, CICA	Bangladesh	Aminbazar - Azimpur Expressway (Construction)	Announced/Under Negotiation	Mobility	Road	2013	524.0	CONTRACTORS -Guizhou No 2 Power Engineering Construction -Maisha Group IMPLEMENTERS -Bangladesh -Bangladesh Roads and Highway	RA	The construction of an expressway between Aminbazar and Azimpur in Bangladesh will be financed through a public-private partnership. In May 2013 Maisha Group and Guizhou signed an MoU to invest in the project.	
Asia	BCIMEC	ACD, ASEM, CICA	Bangladesh	Bangladesh: Sylhet to Tamabil Road Upgrade Project	Approved	Mobility	Road	2020	568.9	AIIB Loan: 404.0 million Government: 164.9 million	AIIB	improve cross-border connectivity between Bangladesh and India via a safe and efficient road link between Sylhet and Tamabil.	
Asia	BCIMEC	ACD, ASEM, CICA	Bangladesh	Jhilmil - Dhaka Mawa Road Flyover and 4th Buriganga Bridge (Construction)	Preparatory Works	Mobility	Road	-2016	338	CONTRACTORS China Railway Construction Corporation CONSULTANTS Mott MacDonald Pvt. Ltd Pricewaterhouse Coopers (PwC) IMPLEMENTERS Rajdhani Unnayan Kartripakkha (RAJUK) FUNDERS	RA	The purpose of this project is to facilitate north-south traffic movement in Dhaka. This flyover will link with Dhaka Mawa road on the existing road network adjacent to Jhilmil R/A. The proposed flyover is about 11 Km in length and includes the construction of the 4th Buriganga Bridge.	https://reconnecting
Asia	BCIMEC	ACD, ASEM, CICA	Bangladesh	Dhaka-Ashulia Elevated Expressway (Construction)	Started	Mobility	Road	2015-2022	2000	CONTRACTORS China National Machinery Imp. & Exp. Corp. CONSULTANTS Bangladesh University of Engineering and Technology IMPLEMENTERS Bangladesh Bridge Authority FUNDERS	RA	This 24-kilometer expressway is an extension of the 26 km Dhaka Elevated Expressway, which will link Dhaka's Shahjalal International Airport to Chandra intersection on the Dhaka-Chittagong highway near Shanir Akhra.	
Asia	BCIMEC	ACD, ASEM, CICA	Bangladesh	Dhaka-Sylhet Road (Widening and Rehabilitation)	Started	Mobility	Road	2016-2018	2200	CONTRACTORS China Harbor Engineering Company IMPLEMENTERS Bangladesh Roads and Highways Department OPERATORS China Harbor Engineering Company FUNDERS	RA	This project involves upgrading the 226 kilometer long Dhaka-Sylhet road into a four-lane highway. It is being upgraded as part of the ongoing reform works on 3,813 kilometers of national highways to 4 lanes across Bangladesh. In October 2016, the China Harbour Engineering Co Ltd. (CHEC) was appointed to construct the road. Construction started in 2017, and was to be completed in 2018, but has run into roadblocks. In May 2017, CHEC found the proposal of the Bangladeshi government unfavorable and suggested it would withdraw from the project. In June 2017, CHEC	
Asia	BCIMEC	ACD, ASEM, CICA	Bangladesh	Sitakunda-Cox's Bazar Expressway (Construction)	Started	Mobility	Road	2014-2021	2800	CONTRACTORS China Harbor Engineering Company IMPLEMENTERS Bangladesh Roads and Highways Department FUNDERS Bank of China	RA	The Sitakunda-Cox's Bazar Marine Drive Expressway involves the construction of a 170-km-long marine drive expressway along the coastline of the Bay of Bengal. The seaside expressway will connect Chittagong's industrial hub, Sitakunda with the sea beach in Cox's Bazar. This expressway will be connected with the Bangladesh–China–India–Myanmar (BCIM) Economic Corridor and Asian Highway-41. The project includes approximately 100 bridges and 80 km of coastal protection works.	
Asia	BCIMEC	ACD, ASEM, CICA	Bangladesh	Chittagong Karnaphuli River Tunnel (Construction)	Under Construction	Mobility	Road	2015-2021	1100	CONTRACTORS China Communications Construction Company CONSULTANTS Arup Cowi IMPLEMENTERS Bangladesh Bridge Authority	RA	3.4 kilometer-long, 10 meter-wide tunnel under the river. The project includes approximately 6 kilometers of connecting roads, and will connect the port of Chittagong to the industrial area of the city to relieve pressure on the three existing bridges. Sedimentation issues precluded the possibility of building an additional bridge. The tunnel is expected to be completed in 2021, and will be the first of its kind in Bangladesh.The tunnel is expected to improve the Dhaka-Chittagong-Cox's Bazar highway network and will connect to the Asian Highway Network. The China Communications	
Asia	BCIMEC	ACD, ASEM, CICA	Bangladesh	Dhaka Elevated Expressway (Construction)	Under Construction	Mobility	Road	2013-2018	1200	OPERATORS Italian-Thai Development Public Co., Ltd. FUNDERS China Development Bank 9 million	RA	The Expressway is financed by a private partner and a loan from the China Development Bank. It will go from Hazrat Shahjalal International Airport to a connection with the Dhaka-Chittagong Highway in Kutub Khali via. Kuril, Banani, Mohakhali, Tejgoan, Moghbazar, Kamlapur, Saidabad and Jatrabari. This project was financed through a Public-Private Partnership between the Government of Bangladesh and First Dhaka Elevated Expressway (FDEE) Co. Ltd., a Special Purpose Vehicle (SPV) created to implement the project. Italian Thai Development Ltd. is the concessionaire.	
Asia	BCIMEC	ACD, ASEM, CICA	Bangladesh	Shahjalal International Airport - Gazipur Road, Dhaka	Under Construction	Mobility	Road	2017-2018	*106.9	CONTRACTORS China Gezhouba Group Corporation (CGGC) IMPLEMENTERS Bangladesh Roads and Highways Department FUNDERS Bangladesh Asian Development Bank (ADB)	RA	This project includes 19 stoppages, six flyovers, an eight-lane bridge over the Turag river at Tongi and a 4.5km elevated road from Tongi to Uttara. This project is part of a project that will connect Gazipur with Hazrat Shahjalal International Airport and Keraniganj.	*http://www.china.org
Asia	BCIMEC; MARITIME	ACD, ASEM, CICA	Bangladesh	Payra Deep Sea Port (Construction)	Preparatory Works	Mobility	Seaport	2013-2023	15000	CONTRACTORS China Harbor Engineering Company China State Construction Engineering Corporation (CSCEC) Jan De Nul Group CONSULTANTS Bangladesh University of Engineering and Technology	RA	19 separate components, 13 of which will be implemented under foreign direct investment, and six of which will be financed through government-to-government deals. The total cost of the port is estimated to be 11-15 billion USD. In September 2017, the Bangladesh University of Engineering and Technology won a contract to prepare the master plan and design of the port. The China Harbour Engineering Company and China State Engineering and Construction Company (CSCEC) were awarded contracts worth USD $600 million to develop two of the 19 components. CHEC will construct the	
Asia	BCIMEC	Myan Joint Statem. 2016, ACD and ASEM all	Bangladesh, China, India, Myanmar	Kunming– Mandalay–Chittagong–Dhaka– Calcutta HRS	Proposed	Mobility	Rail	2015	up to 1200	-	WB	(BCIM corridor) Chinese officials reiterate support for the idea, but no concrete plans.The rail corridor will pass through Mandalay in Myanmar and the Bangladeshi cities of Chittagong and Dhaka before entering West Bengal and ending in Kolkata. The economic corridor project, along the old southern Silk Route, envisages the building of transport, energy and telecommunication networks. *	*https://economictime
Asia	BCIMEC	ACD, ASEM, CICA both	Bangladesh, India	Dhaka- Bongaon rail	Proposed	Mobility	Rail	2015*	3000*	China's Exim Bank China Major Bridge Engineering Company Limited*	WB	Still being discussed	*http://www.xinhuane

continents	corridors	MoU, platforms	countries	project name	state	type	type	date	cost (million USD)	players	database	details	links
Europe	NELB		Belarus	Postavy Susbstation Project, Vitebsk	Completed	Energy, Water and ICT systems	Power station	2015-2017	40.7	CONTRACTORS China Power Engineering Consulting Group Co Ltd RUE Belelektromontazhnaladka	RA	*One of Belarus' largest electrical substations.The Postavy substation site lies on the border between Braslav District and Postavy District. This is one of the key facilities of the project to connect the Belarusian nuclear power plant to the national power grid. The high-technology 330kV substation is expected to enable interstate power transmission between Belarus and Lithuania via 330kV overhead power lines.	*https://eng.belta.by/
Europe	NELB		Belarus	Minsk-Severnaya Substation (Renovation)	Under Construction	Energy, Water and ICT systems	Power station	2016-2019	48.3	The Export-Import Bank of China 48.3 million	RA	*China Exim will administer a ten-year preferential buyer's credit for the implementation of the investment project to renovate the 330/110/10 kV substation Minsk-Severnaya with 110 kV high-voltage line located in Minsk District, Minsk Oblast.	*https://eng.belta.by/
Europa	NELB		Belarus	Rehabilitation and Upgrading of National Road R46	Proposed	Mobility	Road	2019*	286	AIIB (25B), Government(28)	AIIB	The project will rehabilitate and upgrade the road section between KM 0+000 and KM 61+500 of the R46 (from Lepel to Polotsk); construct a new bypass around the city of Polotsk, including a major bridge over the Western Dvina River, and strengthen the existing city bridge allowing for local/city traffic and traffic loads above current 5 ton/axle limit. Increase the road transport capacity of a prioritized section of National Road R46 in order to accommodate fast-growing transport needs of freight and passengers along the route, specifically related to the increasing international through-	*https://www.developi
Europe	NELB		Belarus	Electrification of Molodechno-Gudogay-State Border Line	Completed	Mobility	Rail	2013-2017	90	CONTRACTORS China National Electric Import & Export Corporation (CIEC) IMPLEMENTERS Belarus Railways OPERATORS Belarus Railways FUNDERS	RA	The Molodechno-Gudogay railway connects Belarus and Lithuania, a vital transit corridor for passengers and goods bound for Baltic ports. The electrification is an upgrade to existing track announced for the 50th anniversary of the electrification of railways in the Socialist Republic of Belarus.	
Europe	NELB		Belarus	China-Belarus Great Stone Industrial Park (Construction) CMG LOgistics Park - Phase I	Under Construction	Zoning	Industrial Parks	2010-2045 2015-	30000 550	CONSULTANTS Belkommunproject HuaBei Planning and Design Institute Minskinzhproject IMPLEMENTERS Belarus Ministry of Economy OPERATORS China CAMC Engineering Co. Ltd.	RA	Advertised as the "pearl of the Silk Road Economic Belt," the Great Stone Industrial Park will be the largest industrial park in Europe established by China. The park is located 25km east of Minsk, right next to the Minsk National Airport, and will occupy an area of approximately 80km2. The project is expected to be completed in about 30 years, although segments of the park will open as they are finished. Belorussian government officials expect to have about 10,000 people working and living in the park by 2020, and more than 130,000 people by 2030. They plan for the project to attract	*http://www.smolevic
Europe	-	MoU 2017 China - CEEC 16+1	Bosnia Herzegovina	Kamengrad Thermal Plant, Sanski Most	Preparatory Works	Energy, Water and ICT systems	Power plant	2017	1200	FUNDERS China Energy Engineering Corp Ltd	RA	*Construction of two thermal power units with a capacity of 215 megawatts (MW) each. It would be built near the Kamengrad coal mine, located near Sanski Most.	*https://www.gem.wi
Europe	-	MoU 2017 China - CEEC 16+1	Bosnia Herzegovina	Tuzla Coal Fired Power Plant Unit VII	Preparatory Works	Energy, Water and ICT systems	Power plant	-2022	833.3	-China Gezhouba Group Company Limited -Guangdong Electric Power Design Institute -JP Elektroprivreda BiH d.d. Sarajevo -China Eximbank 614 million	RA	Tuzla Thermal Power Plant is a 715-megawatt (MW) coal-fired power station in Bosnia-Herzegovina. Two additional units have been proposed. On March 7, 2019, the Bosnia-Herzegovina Federal House of Representatives approved a loan guarantee for EUR 614 million from the China Exim Bank loan for the Tuzla 7 coal power plant. The House of Peoples has still to vote on the final stage of approval.	
Europe	-	MoU 2017 China - CEEC 16+1	Bosnia Herzegovina	Gacko 2 Thermal Power Plant, Balkan	Suspended	Energy, Water and ICT systems	Power plant	2016-	588	CONTRACTORS China Machinery Engineering Corporation Dongfang Electric Corporation Ltd Poly Group Corporation IMPLEMENTERS Republika Srpska FUNDERS China Africa Investment and Development	RA	*State-owned utility Elektroprivreda Republike Srpske, together with China Machinery and Engineering Corporation (CMEC) and Emerging Markets Power Fund, plans to build a new 350 MW lignite power plant in Gacko, near the town's existing plant, and in December 2017 a Memorandum of Understanding was signed to move the project forward.	*https://bankwatch.o
Europe	-	MoU 2017 China - CEEC 16+1	Bosnia Herzegovina	Banja Luka - Novi Grad - Dobrin Rail (Modernization)	Started	Mobility	Rail	2017-	24.0	CONTRACTORS/FUNDERS Shandong Hi-Speed Group	RA	*Zeljeznice Republike Srpske deal with China Shandong International Economic & Technical Cooperation Group for reconstruction of the Banja Luka-Novi Grad railway line. The railway line runs from the capital of Republika Srpska to the border with Croatia located in the Novi Grad municipality.	*https://www.railway
Europe	-	MoU 2017 China - CEEC 16+1	Bosnia Herzegovina	Banja Luka - Milniste Highway	Preparatory Works	Mobility	Road	2014-2018	1400	CONTRACTORS Power Construction Corporation of China SinohydroIMPLEMENTERS JP Autoceste FBiH (JPAFBH) OPERATORS Republic of Srpska Motorways Public Company (PS Autoputevi Republike Srpske) Sinohydro	RA	The Ministry of Transport and Communications RS says that, according to estimates, the entire project of the highway Banja Luka - Milniste will cost about 1.4 billion euros, and that this road, beside the highway Banja Luka – Doboj, is one of the priority routes.	
Europe	-	MoU 2017 China - CEEC 16+1	Bosnia Herzegovina	Vukosavlje-Doboj Highway Project (Vukosavlje-Brcko Section)		Mobility	Road	2018-	410.2	Sinochem Capital Co and China Orient Asset Management*	RA	The Doboj - Vukosavlje - Brcko motorway will stretch over some 100 kilometres in the northern part of the Serb Republic. The Doboj-Vukosavlje section lies on pan-European Corridor Vc on the territory of Bosnia's Serb Republic and will be 46.6 kilometres long. The future Vukosavlje-Brcko section will help link the northern town of Brcko with Corridor Vc. In addition, the motorway would lead to Bijelijina, on the Serbian border, via Brcko. *	*https://seenews.com
Asia	MARITIME	ACD, APEC, ASEM, ASEAN	Brunei	Muara Container Terminal (Upgrade)	Started	Mobility	Seaport	2017-	-	*joint-venture company, Muara Port Company Sdn Bhd (MPC), formed on February 15, 2017, by Brunei's Darussalam Assets Sdn Bhd and China's Beibu Gulf Holding (Hong Kong)	RA	In February 2017, Muara Port Company Sdn Bhd (MPC) started running Muara Container Terminal (MCT), Brunei's largest container terminal, according to Reuters.	*http://en.people.cn/n **http://bigpowerchina
Europa	- (ccwaec)	MoU 2015 China - CEEC 16+1, ASEM	Bulgaria	Zimnicea-Svishtov Bridge PPP		Mobility	Bridge	2019-	562.5	National Commission for Strategy and Prognosis	HKTDC	In April 2019 the Romanian government approved the fourth PPP in Romania's new PPP pipeline, involving the construction of a bridge across the Danube between the town of Zimnicea on Romania's southern border and Svishtov on Bulgaria's northern border. The project, which the eventual private partner is likely to operate as a toll road, is due to be procured in partnership with the Bulgarian government.	
Europe	- (ccwaec)	MoU 2015 China - CEEC 16+1, ASEM	Bulgaria	Edirne - Sofia High Speed Rail (Construction)	Announced- Under negotiation	Mobility	Rail	2019	300*	*European Union	RA	*Double-track railway for high-speed trains from Istanbul to Edirne, Plovdiv and Sofia will be built "as a continuation of the Silk Road", Edirne's District Governor Günay Özdemir announced.	*https://www.novinite
Asia	CICPEC	ACD, ASEM, ASEAN, CICA	Cambodia	Stung Tatay River Hydropower Dam, Koh Kong	Completed	Energy, Water and ICT systems	Hydropower	2014-2015	540	CONTRACTORS China Gezhouba Group Corporation (CGGC) CONSULTANTS Poyry Global OPERATORS China National Heavy Machinery Corporation FUNDERS	RA	*Exim Bank provided a $540 million loan to Cambodia for the construction of a 246 MW hydroelectric power plant in Koh Kong province. Construction for the Stung Tatay dam was contracted to CNHM; the bulk of the work was undertaken by China Gezhouba Group Corporation. Construction began in March 2010, and the dam began operations in August 2014. CNHMC signed a BOT agreement with Cambodia, which means the Chinese company will operate the dam for 37 years and sell electricity to the Cambodian Government.	*https://china.aiddata
Asia	CICPEC	ACD, ASEM, ASEAN, CICA	Cambodia	Cambodia: Fiber Optic Communication Network Project	Approved	Energy, Water and ICT systems	ICT	2019	75	AIIB	AIIB	The objective is to support the development of both the fiber backbone network and the metro network in Cambodia.	
Asia	CICPEC	ACD, ASEM, ASEAN, CICA	Cambodia	Siem Reap New International Airport, Siem Reap	Preparatory Works	Mobility	Aviation	2017-2022	1000	The Export-Import Bank of China	RA	*New International Airport (also known as the NSRIA project) is a proposed airport development to replace the existing Siem Reap Airport. It is estimated to have a maximum handling capacity of 10 million passengers p/a, with construction scheduled to commence in late 2017 or early 2018 and is expected to last up to five years.	*https://centreforasia
Asia	CICPEC	ACD, ASEM, ASEAN, CICA	Cambodia	7th Cambodia-China Friendship Bridge (Koh Thom Bridge), Kandal	Announced/Under Negotiation	Mobility	Bridge	2014-2017	22.0	-China Road and Bridge Corporation -Exim Bank	RA	The 415-meter-by-13.5-meter bridge, spanning the Tonle Bassac River, is located in Koh Thom district, about 60 km south of Phnom Penh, the capital city of Cambodia. The bridge will provide huge benefits to the people, particularly those living in the Koh Thom district.	*http://www.xinhuane
Asia	CICPEC	ACD, ASEM, ASEAN, CICA	Cambodia	Preah Vihear-Kaoh Kong Railway	Announced/Under Negotiation	Mobility	Rail	2013-2017	9600	CONTRACTORS China Railway Group IMPLEMENTERS Cambodia Iron and Steel Mining Industry Group FUNDERS Cambodia Iron and Steel Mining Industry Group	RA	The construction of the Preah Vihear-Kaoh Kong Railway line is a joint-venture between two Chinese companies, China Railway Group and Cambodia Iron and Steel Mining Industry Group. The designated rail line is expected to connect a steel plant in Rovieng in Cambodia's northern Preah Vihear province to the island of Kaoh Smach in the southwestern province of Koh Kong. 11 stations will be constructed to run along the designated route, which will run through Koh Kong, Kampong Speu, Kampong Chhnang, Kampong Thom. and Preah Vihear provinces. The entire length of the route	
Asia	CICPEC	ACD, ASEM, ASEAN, CICA	Cambodia	Phnom Penh– Sihanoukville	Under construction	Mobility	Rail	2017-2023	1900	CONTRACTORS China Communications Construction Company hina Railway 17 Bureau Group and Sino Great Wall International Engineering Royal Group*	RA + WB	Cambodia's only deepwater port. Accompanying special economic zone planned. Expected completion of all projects by 2023.	*https://english.camb
Asia	CICPEC	ACD, ASEM, ASEAN, CICA	Cambodia	National Road 6A, Siem Reap - Kampong Cham Expressway	Completed	Mobility	Road	2013-2017	248	CONTRACTORS Shanghai Construction Group CONSULTANTS Guangzhou Wanan Construction Supervision Co, Ltd. IMPLEMENTERS Cambodia	RA	In April 2017, 40km of National Road No. 6A officially opened to traffic. The road connects Prek Leap commune in Phnom Penh's Chroy Changvar district to the junction of Kompong Cham's Batheay district. "National Road 6A is in fact one of the busiest roads in Cambodia and this section of the road connects Phnom Penh to various provinces through Kandal to the border with Thailand [...]," Samdech Prime Minister Hun Sen said at the grand opening of the road on 6 April. "We have decided to build	
Asia	CICPEC	ACD, ASEM, ASEAN, CICA	Cambodia	National Road Project No. 11 (NR1: Neak Loeung – NR7: Thnal Tortoeung)	Completed	Mobility	Road	2015-	63	China 63 million	RA	National Road Project No. 11 connects the National Road No. 1 and National Road No. 7 from Neak Loeung to Thnal Tortoeung.	https://oprf.ru/files/M
Asia	CICPEC	ACD, ASEM, ASEAN, CICA	Cambodia	Construction of Second Ring Road	Under Construction	Mobility	Road	2016-2019	-	FUNDERS China Road & Bridge Corporation (CRBC)*	RA	*http://en.people.cn/n3/2020/0316/c98649-9668594.html	

continents	corridors	MoU, platforms	countries	project name	state	type	type	date	cost (million USD)	players	database	details	links
Asia	CICPEC	ACD, ASEM, ASEAN, CICA	Cambodia	Ksemksant-Thnal Totueng Road (Expansion)	Under Construction	Mobility	Road	2017-2020	40.9	CONTRACTORS China Road and Bridge Corporation IMPLEMENTERS Cambodia FUNDERS The Export-Import Bank of China 40.8 million	RA	The renovation project of expanding National Road 51, which links between National Roads 1 and 5, will further alleviate traffic.	https://www.dohanew
Asia	CICPEC	ACD, ASEM, ASEAN, CICA	Cambodia	National Highway No. 5 Extension Project	Under Construction	Mobility	Road	2013-2016	*261	CONTRACTORS Shanghai Construction Group CONSULTANTS Guangzhou Wanan Construction Supervision Co, Ltd. FUNDERS China 56.8 million	RA	*The 135-kilometre road section will be expanded to four lanes. National Road 5 will be an important road for the region, linking us to Thailand, Myanmar and even China in the north, while connecting to National Road 4 all the way to Sihanoukville's port, and to National Road 1 all the way to Vietnam.	*https://www.khmerti
Asia	CICPEC	ACD, ASEM, ASEAN, CICA	Cambodia	NR 58 Banteay Meanchey - Otdar Meanchey Road (Construction)	Under Construction	Mobility	Road	2015-2018	122	CONTRACTORS Shanghai Construction Group Co. LTD IMPLEMENTERS Cambodia Ministry of Public Works and Transport OPERATORS Cambodia Ministry of Public Works and Transport	RA	The new road is being built to accelerate economic growth in the countryside near the border with Thailand, and connects Banteay Meanchey Province on the Thai border to Otdar Meanchey Province directly to the east.	
Asia	CICPEC	ACD, ASEM, ASEAN, CICA	Cambodia	Pursat-Thmorda Road (Construction)	Under Construction	Mobility	Road	2015-2018	133	CONTRACTORS China Road and Bridge Corporation IMPLEMENTERS Cambodia FUNDERS China 140 million	RA	Prime Minister Hun Sen requested a loan from China for the development of a 190 km road. The new project, National Road 55, will branch off National Road 5. This new road will allow for easier transportation to and access to Cambodia's western border with Thailand.	
Asia	CICPEC	ACD, ASEM, ASEAN, CICA	Cambodia	Udong-Thnal Totoeng Road (NR 51)	Under Construction	Mobility	Road	2017-2020	40	-	RA	National Road 51 renovation: stretching from Kandal province's Thnal Totoeng Market west of the capital to Kampong Speu province's Oudong Market, National Road 51 is currently being renovated with funds from the government of China.	*https://www.realesta
Asia	CICPEC	ACD, ASEM, ASEAN, CICA	Cambodia	Sihanoukville Port	Under construction	Mobility	Seaport	2018	74	$209 million soft loan from the Japan Government (expansion)	WB	Partly operational; full completion by 2023. Accompanied by special economic zone built on Shenzhen model, touted as "next Macao".	
Asia	CICPEC	ACD, ASEM, ASEAN, CICA	Cambodia	Cambodia-China Investment and Development Pilot Zone		Zoning	Industrial Parks		18100	Union Development Group CO., LTD	HKTDC	This Cambodian project is the Union Group's first overseas investment made in response to China's "Belt & Road" Initiative. It has twice been included as a key project in China-Cambodia collaboratioN. The site lies in the coastal area of Cambodian Wave Hole Sand Fruit National Park. 360 square kilometer including the 90-km premium coastline which is 1/2 the length of Cambodia's coastline. Planned as 3 functional zones to support development of 4 key industries and simultaneous implementation of 12 ultra-large projects.	
Asia	CICPEC	ACD, ASEM and ASEAN, CICA both	Cambodia, Vietnam	Vietnam- Cambodia rail Phnom Penh--Ho Chi Minh City	Proposed	Mobility	Rail	-2020	600	China	WB	Still being discussed. Though work on the Bangkok-Phnom Penh rail crossing has commenced.	
Asia	-	ACD, APEC, ASEM, CAREC China - CEEC 16+1, CASCF, SCO, CICA	China	China: Beijing Air Quality Improvement and Coal Replacement	Approved	Energy, Water and ICT systems	Air quality	2017	250	AIIB	AIIB	The objective is to improve air quality and reduce air pollutions, such as CO2 emissions, particulate matter, SO2 emissions, and NOx emissions, through replacing coal with natural gas in rural villages in outskirts of Beijing.	
Asia	-	ACD, APEC, ASEM, CAREC China - CEEC 16+1, CASCF, SCO, CICA	China	China: Beijing-Tianjin-Hebei Low Carbon Energy Transition and Air Quality Improvement Project	Approved	Energy, Water and ICT systems	Air quality	2019	500	AIIB	AIIB	The objective is to increase the availability of natural gas to help reduce coal consumption and related emissions in the region of Beijing, Tianjin and Hebei (the BTH region). The project is in line with China's endeavor to transition to a lower carbon energy supply structure.	
Asia	-	ACD, APEC, ASEM, CAREC China - CEEC 16+1, CASCF, SCO, CICA	China	Badaling Station Project, Beijing - Zhangjiakou Rail Line, Beijing	Under Construction	Mobility	Intermodal	2016-2019	4700	CONTRACTORS No.5 Institute of China Railway OPERATORS China Railway Corporation	RA	*Badaling has the world's deepest and largest high-speed railway station, along the 174-kilometer Beijing-Zhangjiakou Railway. Badaling station is located 102 meters below the surface, with an underground construction area of 36,000 square meters, equal to five standard soccer fields, making it the deepest and largest high-speed railway station in the world. **The railway line is a major project for the 2022 Olympic and Paralympic Winter Games. It will reduce the travel time between Beijing and Zhangjiakou, the co-host city of the 2022 Olympics, from currently over three	*https://www.chinada **http://www.xinhuan
Asia	-	ACD, APEC, ASEM, CAREC China - CEEC 16+1, CASCF, SCO, CICA	China	Guangzhou - Shenzhen - Hong Kong Express Rail Link (Hong Kong - Mainland China)	Completed	Mobility	Rail	2010-2018	10000*	CONTRACTORS Leighton Asia OPERATORS MTR Corporation	RA	*Arup and Atkins China Ltd appointed to carry out the preliminary design of the Hong Kong tunnel section for the Guangzhou-Shenzhen-Hong Kong Express Rail Link (XRL). XRL provides high speed rail services and a connection to the national high-speed passenger rail network serving major mainland cities outside Guangdong province. The total length of the XRL is 142km and the Hong Kong section consists of approximately 26km of tunnel from a new terminus station in West Kowloon to the boundary at Huanggang. The work includes tunnel ventilation	*https://www.scmp.c **https://www.arup.c
Asia	-	ACD, APEC, ASEM, CAREC China - CEEC 16+1, CASCF, SCO, CICA	China	Hami-Ejin Railway Ejin-Hami Part (Construction)	Completed	Mobility	Rail	2014-2015	1515	CONTRACTORS China Railway No .14 Bureau Group Co., Ltd IMPLEMENTERS Lince Railway Co., Ltd.	RA	Ejin--Hami Railway is a railway line in western China between Ejin located in western Inner Mongolia and Hami in the eastern region of Xinjiang Province. The Railway is part of a rail corridor that will extend from Tianjin, on the Bohai Gulf in North China to Torugart Pass on the border with Kyrgyzstan. The rail shortens the distance from Hohhot to Kazakhstan by over 800 km.	
Asia	-	ACD, APEC, ASEM, CAREC China - CEEC 16+1, CASCF, SCO, CICA	China	Golmud-Korla Railway	Under Construction	Mobility	Rail	2014-2019	5756	China Railway Construction Corporation	RA	*The 1,206 km Golmud-Korla railway links Golmud and Korla. The new rail artery, which will cut the travel time between Golmud and Korla from about 26 hours to roughly 12 hours, is the third railway line facilitating exchanges between Xinjiang and other regions. The line also connects with the Qinghai-Tibet Railway, the world's highest rail system, and the network as a whole will link Xinjiang, Qinghai and the Tibet Autonomous Region, facilitating exchanges in western China.	*http://www.xinhuane
Asia	-	ACD, APEC, ASEM, CAREC China - CEEC 16+1, CASCF, SCO, CICA	China	G6 Beijing-Lhasa Expressway	Under Construction	Mobility	Road	2016-2020	104	-	RA	Is part of the Chinese national expressway network and is planned to connect the nation's capital, Beijing, to the capital of the Tibet Autonomous Region, Lhasa.	*https://www.mysteri
Asia	- (ccwaec)	ACD, APEC, ASEM, CAREC China - CEEC 16+1, CASCF, SCO, CICA	China	Sichuan-Tibet Railway (Construction)	Under Construction	Mobility	Rail	2014-2021	36880	China Railway Construction Corporation	RA	The Chinese Government announced the railway link in the 13th Five-Year Plan (2016-20). China's second Tibetan railway after Qinghai-Lhasa Railway, Sichuan-Tibet Railway envisions to connect Tibet's capital Lhasa to China's logistics hub Chengdu.	
Asia	- (maritime)	ACD, APEC, ASEM, CAREC China - CEEC 16+1, CASCF, SCO, CICA	China	Quzhou-Ningde Railway	Under Construction	Mobility	Rail	2015-2020	1225	China Railway High-speed (CRH)	RA	The railway line, from Quzhou in Zhejiang province to Ningde in Fujian province, will run through Suichang, Longquan and Qingyuan in Zhejiang and Songxi, Zhenghe, Jiaocuo, Pingnan, Zhouning and Jiaocheng in Fujian. After being opened to traffic, the Quzhou-Ningde Railway, with a projected speed of 160 kilometers/hour, will deliver 40 passenger trains a day in each direction and 60 million tons of cargo per year. The railway will play a significant role in bridging Northeast Fujian and outside areas and will facilitate the development of the West-Straits Economic Zone.	
Asia	CCWAEC	ACD, APEC, ASEM, CAREC China - CEEC 16+1, CASCF, SCO, CICA	China	Xinjiang International Logistics Park	Under Construction	Mobility	Intermodal	2014-2015	765	-Xinjiang Land Port Investment Co. Ltd.	RA	This is a logistics park being developed in Urumqi, Xinjiang's Urumqi Economic and Technological Zone (10 km from Urumqi's West Railway Station) as part of the One Belt One Road/Silk Road Economic Belt initiative. The objective is to integrate railways, highways and air transit in the region. The project recently announced that the Urumqi Economic and Technological Development Zone signed an MOU with the Port of Duisberg in Germany.	https://www.flickr.com .
Asia	CCWAEC	ACD, APEC, ASEM, CAREC China - CEEC 16+1, CASCF, SCO, CICA	China	Hami-Ejin Railway Linhe-Ejin Part (Construction)	Completed	Mobility	Rail	-2009	658	Lince Railway Co., Ltd.	RA	Linhe--Ejin Railway is a railway line in western China it links Linhe located in western Inner Mongolia and Ejin in eastern Inner Mongolia. The Railway, mainly constructed for coal transportation, is part of a Hami-Linhe Railway that connects Mongolia and Xinjiang Province through Inner Mongolia to Capital Beijing.	
Asia	CCWAEC	ACD, APEC, ASEM, CAREC China - CEEC 16+1, CASCF, SCO, CICA	China	G3012 Turpan--Hotan Expressway	Under Construction	Mobility	Road	2015-	536.26.00	IMPLEMENTERS Xinjiang Communications Construction Bureau FUNDERS China	RA	*The Turpan-Hotan Expressway(Tuhe Expressway) connects the G30 Lianyungang--Khorgas Expressway at Xiaocaohu, in Toksun County, Turpan, with China National Highway 315 in Lop County, Hotan Prefecture. The expressway, designated G3012, is a spur of the G30 Lianyungang–Khorgas Expressway and is completely in Xinjiang. It is 1,931 kilometres (1,200 mi) in length.	*https://www.combsth
Asia	CICPEC	ACD, APEC, ASEM, CAREC China - CEEC 16+1, CASCF, SCO, CICA	China	China: Guangxi Chongzuo Border Connectivity Improvement Project	Proposed	Mobility	Road	2020	300	*Chongzuo Urban Construction Investment Development Group Co., Ltd Contractor: AIIB	AIIB	The objective of the Project is to expand economic and trade activities between China and Vietnam in the border area through (i) construction of the missing road link connecting the Shuolong Port to the existing expressway network; and (ii) improvement of the road and border port infrastructure in the border area around Shuolong Port.	*https://www.bidsta
Asia	CMREC	ACD, APEC, ASEM, CAREC China - CEEC 16+1, CASCF, SCO, CICA	China	Southern Coal Railway: Gushun Suhait– Baotou Khuut–Tavan Tolgoi–Gushun Suhait	Under construction	Mobility	Rail	-2019	-	-	WB	Civil works underway in Mongolia, scheduled completion in 2019. Chinese section operational.	
Asia	CMREC, NELB	ACD, APEC, ASEM, CAREC China - CEEC 16+1, CASCF, SCO, CICA	China	China: Zhengzhou International Hub Expansion	Proposed	Mobility	Intermodal	2020	151.7	AIIB	AIIB	To facilitate cross-border trade by expanding the supporting facilities of CR Express in Zhengzhou China, and to prepare for the commercialization of a rail logistics service provider.	

continents	corridors	MoU, platforms	countries	project name	state	type	type	date	cost (million USD)	players	database	details	links
Asia	CPEC	ACD, APEC, ASEM, CAREC China - CEEC 16+1, CASCF, SCO, CICA	China	Tashkurgan– Yarkant (Shache) Road	Proposed	Mobility	Road	-	-	-	WB+ RA	No evidence of progress on proposed class-II highway	
Asia	MARITIME	ACD, APEC, ASEM, CAREC China - CEEC 16+1, CASCF, SCO, CICA	China	Lianyungang Port	Under Construction	Mobility	Seaport	2013-	98	CONTRACTORS Kazakhstan Temir Zholy Lianyungang Port Company OPERATORS Kazakhstan- China International Logistics Company of port Lianyungang Lianyungang Port Company Kazakhstan Temir Zholy	RA	The logistics terminal construction project is designed to be a "platform for goods from central Asian countries to go overseas and a boost to the construction of the Silk Road Economic Belt."	
Asia	NELB	ACD, APEC, ASEM, CAREC China - CEEC 16+1, CASCF, SCO, CICA	China	Urumqi- Khorgos rail	Operational	Mobility	Rail	*2017 (passenger line)	-	-	WB	A new section of railway came into operation between Khorgos and Urumqi.	*http://www.xinhuane
Asia	CCWAEC	ACD, CAREC, SCO, CICA	China, Kyrgyz Republic, Tajikistan	Kashgar- Dushanbe Railway	Announced/Under Negotiation	Mobility	Rail	*2014-	1900	IMPLEMENTERS Tajikistan Ministry of Transport and Communication OPERATORS SUE Rohi ohani Tojikiston (Tajik Railways)	WB + RA	Part of the China - Kyrgyzstan - Tajikistan - Afghanistan - Iran Railway	*https://www.chinadi
Asia	CCWAEC	ACD,CAREC, SCO, CICA	China, Kyrgyz Republic, Uzbekistan	Kashgar- Tashkent rail	*Announced	Mobility	Rail	-2018	*2000	-	WB	Line opened June 2016. (Kashgar–Andijan-Pap–Tashkent)	*https://www.ciob.org
Asia	CICPEC	ACD and ASEM both, Laos ASEAN, CN CAREC, CASCF, SCO	China, Laos	Kunming-Vientiane Railway	Under construction	Mobility	Rail	-2021	1000**	*Laos-China Railway Co. Ltd., a joint venture based in Vientiane responsible for the construction and operation of the China-Laos railway CREC-5, CREC-8	WB	Almost 25% works done, project to be completed by 2021. Kunming-Hekou rail on China side operational, with wider track boosting cargo capacity. *There are 75 tunnels with a total length of 198 km along the China-Laos Railway, of which 10 are major long tunnels with lengths over 5 km.	*http://www.xinhuane **https://www.kunmi
Asia	CMREC	ACD, APEC, ASEM, CAREC China - CEEC 16+1, CASCF, SCO, CICA	China, Mongolia	Eastern Rail Corridor Bichigt–Chifeng Chifeng–Jinzhou Choibalsan–Bichigt	Proposed	Mobility	Rail	-	-	-	WB	Proposed and still being discussed. China, Russian Federation and Mongolia ready to operationalize the agreement.	
Asia	BCIMEC	Joint Statem. 2016, ACD and ASEM both, ASEAN Myan, Ch CAREC, CASCF, SCO	China, Myanmar	Kyaukpyu (Rakhine, Myanmar) - Kunming (Yunnan, China) Rail Line	Preparatory Works	Mobility	Rail	2018-	20000	CONTRACTORS China Railway Engineering Corporation (CREGG) IMPLEMENTERS Myanmar Ministry of Rail Transportation	RA	*CREEG has applied to conduct feasibility studies for a railway between Mandalay and Kyaukphyu, Myanmar. The line is part of the Muse-Mandalay railway. The line would connect a deep sea port in Kyaukphyu, which is being developed by China, with Kunming, China, via Muse on the Myanmar-China border. The project would also connect Mandalay with Yangon, and improve access between China and the Indian Ocean.	*https://www.railjourn
Asia	-	ACD	China, Nepal	Nepal-China Cross Border Railway	Announced/Under Negotiation	Mobility	Rail	2019*	5500*	China Railway First Survey & Design Institute**	RA	***Trans-Himalayan railway from Nepal's capital Kathmandu to Kerung on the Chinese side of the border will then link to the Tibetan plateau, traveling along some of the highest passes in the world. The joint project is considered extremely challenging due to the rugged topography of the Himalayas.	*https://chinadialogue **http://www.xinhuane ***https://www.efe.co
Asia	CPEC	Joint decl. 2018, ACD, APEC, ASEM, CAREC China - CEEC 16+1, CASCF, SCO, CICA	China, Pakistan	Karakoram Highway: Kashgar–Khunjerab Shinkiari–Burhan Raikot–Shinkiari Thakot - Raikot (Upgrade) Raikot -Khunjerab (Upgrade)	Under construction	Mobility	Road	-2020 2015-2020	50(Thakot - Raikot) 1300 for the Thakot-Havelian section 930 for Karakoram Highway Phase II*	CONTRACTORS China Railway No. 17 Bureau Group Co., LtdChina Road and Bridge Corporation CONSULTANTS Nespak IMPLEMENTERS Pakistan National Highway Authority (NHA) OPERATORS	WB + RA	Reconstruction of China-Pakistan Highway still underway and is expected to be completed by 2020. Highway follows historic trade route. Khunjerab Pass is the only connection between China and Pakistan. The Thakot to Raikot section of the Karakoram Highway is a 281 kilometer long stretch envisioned as a 2-lane highway. The stretch falls along the new alignment of the Karakoram Highway that falls along four dams planned by	*https://www.beltroad https://reconnectingc . https://reconasia-pro https://reconasia-pro https://reconasia-pro
Asia	CMREC	APEC, ACD, ASEM, SCO, CICA	China, Russia	Mohe-Daqing Pipeline (Construction)	Completed	Energy, Water and ICT systems	Pipeline	2016-2017	-	IMPLEMENTERS China National Petroleum Company (CNPC) Rosneft Ltd	RA	Crude Oil This pipeline runs parallel to an existing line from Mohe to Daqing. The parallel lines can transmit 30 million tons of oil a year.	
Asia	CMREC	APEC, ACD, ASEM, SCO, CICA	China, Russia	Nizhneleninskoye -Tongjiang Rail Bridge (Construction)	Completed	Mobility	Rail	2015-2019	300.0	CONTRACTORS -China Railway Engineering Corporation (CREGG) -Giprostroymost Institute -Third Railway Survey and Design Institute Group Corporation IMPLEMENTERS -Rubicon LLC	RA	Program of Cooperation between the Eastern Regions of Russia and Northeast China 2009-2018 The Amur River Rail Bridge project aims to create a new trade corridor between the Nizhneleninskoye Jewish Autonomous Region in Russia and the Heilongjiang Province in China. The Russian side is responsible for constructing 310 meters of the estimated 2,209 meters long bridge. The Russian section is estimated to	
Asia	CMREC	APEC, ACD, ASEM, SCO, CICA	China, Russia	Seaside Corridors - Northern Sea Routes Primorye-1, linking Harbin and Russia through Suifenhe Vostochny Port Primorye-2, linking Jilin Province and Zarubino	Completed	Mobility	Rail and Road	-2018	-	*-RMB Investment Fund (Ch+Ru) -China Energy Engineering Corporation -China Railways (CRC) Chinese Gov. Russian Gov.	WB	**Creation of international traffic corridors between Primorsky Krai in the Russian Far East and China. Such international traffic corridors (Primorye-1 and Primorye-2 projects) are seen as a symbol of the link between the Russia-led Eurasian Economic Union and the China-led Silk Road Economic Belt15, with the aim of creating a freight transportation route from Jilin and Heilongjiang Provinces in China to the Port of Vladivostok, the Port of Troitsa (formerly Zarubino), and the Port of N akhodka in Russia.	*https://www.silkroad **https://www.tandfo
Asia	CMREC	ACD, APEC, ASEM, CAREC China - CEEC 16+1, CASCF, SCO, CICA	China, Russia	Asian Highway route No. 3 from Ulan-Ude (Russian Federation) – Ulaanbaatar (Mongolia) –Beijing to Tianjin port (China)	Operational	Mobility	Road	-2016	125*	ADB Loan and others*	WB	The link was tested for operations in August 2016 and has been in use since. It is Ulaanbaatar's only modern road link to China and Russian Federation.	https://www.iru.org/ne
Asia	CICPEC	APEC, ACD and ASEM, CICA	China, Vietnam	Bac Luan 2 Bridge, Mong Cai (Quang Ninh, Vietnam) - Dongxing (Guangxi, China)	Announced/Under Negotiation	Mobility	Road	2014-2017	14.8	*joint companies of Phong Trach Quang Dong manufacturing equipment Co., Ltd., An Duc Quang Tay Development JSC, and PTY SANSHE Co., Ltd	RA	**154.5 meters long on the Vietnamese side, 463.5 meters long on the Chinese side, and 27.7 meters wide, will help boost bilateral cooperation in various fields, including trade, investment and tourism, between Quang Ninh and Guangxi. The two sides are preparing for the establishment of a bilateral economic cooperation area at one end of the new bridge, and the connectivity between the Mong Cai border gate economic zone and a development zone in Dongxing, Guangxi, said the Vietnamese official.	*https://www.alotrip.c **http://global.chinad
Europe	- (ccwaec, maritime)	MoU 2017 China - CEEC 16+1, ASEM	Croatia	Peljesac Bridge (Construction)	Under Construction	Mobility	Bridge	2018-2022	651.0	CONTRACTORS China Road and Bridge Corporation CONSULTANTS Institut IGH d.d. IMPLEMENTERS HZ Infrastruktura FUNDERS European Union	RA	The new bridge will connect the Dubrovnik–Neretva County to the rest of Croatia, by crossing the Mali Ston Bay over the Adriatic Sea. This will facilitate a smooth flow of goods and people, especially at the peak of the tourist season, according to the European Commission. The project is vital for the Dubrovnik–Neretva County, which currently lacks direct connection with the rest of Croatia. As it stands now, overland travelers need to pass through a coastal territory of Bosnia and Herzegovina, a non-EU country, to access mainland Croatia, an EU member, thereby passing through two	
Europe	- (ccwaec, maritime)	MoU 2017 China - CEEC 16+1, ASEM	Croatia	Modernization of Rijeka-Zagreb Rail (section Oštarije – Škrljevo)	Preparatory Works	Mobility	Rail	2017-2020	*7	CONTRACTORS China Railway Eryuan Engineering Group Co. Ltd. China Road and Bridge Corporation **EU funding *consortium of bidders consisting of the companies ZPD d.d., Granova d.o.o., Institut IGH d.d., Riekaprojekt d.o.o. and	RA	**Modernisation of Karlovac – Oštarije section, part of M202 Zagreb–Karlovac – Rijeka corridor. The aim of the project is the development of the study and project documentation for the modernisation and construction of Zagreb – Rijeka corridor, connecting the Karlovac and Oštarija areas.	*https://eng.hzinfra.h **https://www.railway
Africa	MARITIME	CASCF	Djibouti	Djibouti Seaport	Under Construction	Mobility	Seaport	-2021**	**3500	*Djibouti Ports and Free Zones Authority together with three major Chinese partners: China Merchants Group, Dalian Port Authority and IZP	WB	A regeneration project to turn the historical Port of Djibouti into an international business district has begun. The six-phase regeneration plan will see the port transformed into a district called the East Africa International Special Business Zone.	*https://www.maritim *https://www.maritim ***https://www.portst
Africa	MARITIME	CASCF	Djibouti	Djibouti FTZ	Under Construction	Zoning	Special Economic	-2018**	370**	*Djibouti Ports and Free Zones Authority together with three major Chinese partners: China Merchants Group, Dalian Port Authority and IZP	WB	**DIFTZ, set to be the largest free trade zone in Africa once complete, presents dynamic new opportunities for businesses from around the world. The initial phase, a 240-hectare zone, is the result of a $370 million investment and consists of three functional blocks located close to all of Djibouti's major ports. The full free zone will focus on the development of industries such as the logistics, marine, construction, automotive, and home electrical industries. Once complete, it will soan an area of 4.800 hectares.	*https://www.maritim **https://dpfza.gov.di
Africa	- (maritime)	no Mou Dji, Ethiopia MoU 2018, Dji CASCF	Djibouti, Ethiopia	Addis Abeba- Djibouti Railway	Operational	Mobility	Rail	2018-2013	4000*	Anhui Conch Cement Company Limited	WB	Commercial operations began January 2018. To be operated by Chinese firms until 2023, and after by the Ethio-Djibouti Standard Gauge Rail Transport S.C., a joint venture between Djibouti and Ethiopia.	*https://www.scmp.c
Africa	-	MoU 2016, CASCF, CICA	Egypt	Egypt: Egypt Round II Solar PV Feed-in Tariffs Program	Approved	Energy, Water and ICT systems	Solar Power Plant	2017	70/75	AIIB Loan of USD17.5-19 million, IFC and other lenders for up to USD41 million, and the balance will be covered by equity.	AIIB	The objectives are to increase Egypt's generation capacity by exploiting its vast renewable energy potential and help the country to meet its power demand and to reduce the dependence on gas and fuel for electricity generation and move to a more balanced and environmentally sustainable energy mix.	
Africa	-	MoU 2016, CASCF, CICA	Egypt	Egypt: Sustainable Rural Sanitation Services Program, Phase-2	Approved	Energy, Water and ICT systems	Water	2018	694	Cofinanziato: AIIB (300 Loan), WB (300 Loan), Borrower (94)	AIIB	strengthen institutions and policies to increase access and improve rural sanitation services in selected governorates in Egypt: implementing key sector and institutional reforms together with rehabilitation and construction of integrated infrastructure for collection, treatment, and disposal of household sewage.	
Africa	MARITIME	MoU 2016, CASCF, CICA	Egypt	Suez Economic and Trade Cooperation Zone	Under construction	Zoning	Special Economic	2016 (start of the real effort)	200*	*China-Africa TEDA Investment Co. Ltd Chinese motorcycle giant Dayun Group	WB	Area provides incentives for Egyptian and Chinese companies to set up factories and R&D with focus on tech. Located near Suez Canal.	*http://www.xinhuane

continents	corridors	MoU, platforms	countries	project name	state	type	type	date	cost (million USD)	players	database	details	links
Europe	- (nelb)	China - CEEC 16+1, ASEM	Estonia	Nordshore Multi-Modal Logistics Terminal at Muuga	Under Construction	Mobility	Intermodal	2016-	*2500	China	RA	*RB Estonia, the national implementing body for the Rail Baltica project in Estonia, has launched a call for tenders for the design of the Muuga multimodal freight terminal. The Muuga terminal will be the only Rail Baltica cargo terminal connected to the harbour. Includes a freight station, the terminal connections and the infrastructure directly related to them such as the railway tunnel, the catenary equipment, the traffic control systems and control centre and the rolling stock maintenance depot.	*https://railway-news
Africa	- (maritime)	Ethiopia MoU 2018, Kenya MoU 2018	Ethiopia, Kenya	Addis Abeba- Nairobi Raiway	Proposed	Mobility	Rail	-	-	-	WB	Kenya-Ethiopia link mentioned among other proposals. No evidence of concrete steps. *Part of the East African Railway Master Plan.	https://www.theafrica *https://en.wikipedia.
Asia	-	CAREC	Georgia	Georgia: 280 MW Nenskra Hydropower Plant	Proposed	Energy, Water and ICT systems	Hydropower Plant	2017	1083	AIIB (Loan100), ADB EBRD EIB KDB (758)	AIIB	The objective of the Project is to (i) increase the country's power generation capacity year-round, (ii) reduce dependency on fossil fuel-fired power plants and thus decrease their associated pollution; and (iii) reduce imports of electricity from neighboring countries.	
Asia	- (ccwaec)	CAREC	Georgia	Georgia: Batumi Bypass Road	Approved	Mobility	Road	2017	315.2	AIIB (114), ADB (114), Borrower (87.2)	AIIB	The objective is to improve regional connectivity in Georgia and improve efficiency for road transport along the EWH in Georgia.	
Asia	- (ccwaec)	CAREC	Georgia	Anaklia Deep Sea Port (Construction)	Under Construction	Mobility	Seaport	2016-2021	2500	CONTRACTORS -Black Sea Group Conti International -Kerry Logistics Network -Van Oord NV CONSULTANTS -BLC Law Offices -Maritime & Transport Business Solutions	RA	Anaklia Deep Sea Port will serve as the main gateway for imports for approximately 17 million inhabitants of landlocked Caucasus and Central Asian countries and provide critical supply routes for nearly 146 million people living within the Port's immediate region. The goal is to serve Central Asia and the New Silk Road trade route between China and Europe.As part of the agreement, the Georgian Government will invest $100 million in the construction and development of the transportation links connecting the port to the region.Port construction is overseen by the Anaklia Development	https://stanradar.com -
Africa	MARITIME	MoU 2018	Ghana	Tema Port	Operational	Mobility	Seaport	2016-2019*	1500*	*-Meridian Port Services (MPS)joint venture between the Ghana Ports and Harbours Authority (GPHA) and Meridian Port Holdings, with Bolloré Transport & Logistics and APM Terminals -IFC World Bank -China Harbour Engineering Company is the marine contractor.	WB	In use but some civil works are still ongoing. There are concerns over government's inability to negotiate a better deal with port developers.	*https://aecom.com/a https://ppi.worldbank
Europe	MARITIME	MoU 2018 China - CEEC 16+1, ASEM	Greece	Athens- Piraeus Port	Operational	Mobility	Seaport	2016	312*	COSCO	WB	New berths were added this year. Piraeus, the 7th largest seaport in Europe was in 2016 sold to a Chinese firm by Greece. COSCO Shipping acquired the majority of Piraeus Port Authority S.A. (PPA) shares in 2016 after an international tender, while the Chinese company's subsidiary, Piraeus Container Terminal S.A. (PCT), has managed the port's container terminal since 2009.	*https://www.reuters.
Europe	- (ccwaec, maritime)	MoU 2015 China - CEEC 16+1, ASEM	Hungary	V0 Budapest Bypass Railway (Construction)	Announced- Under negotiation	Mobility	Rail	2013-	1454	-Chinese State Railway Company	RA	The primary objective of this bypass is to diminish cargo traffic through Budapest, a fact that excludes the project from certain EU funding sources ("Connecting European Facilities" Transportation Development Fund) due to its domestic focus. The project's acceptance of Chinese funding and construction is somewhat contentious, as China has not allowed mutual investment in the construction of Chinese railways.	
Europe	- (ccwaec, maritime)	MoU 2015 China - CEEC 16+1, ASEM	Hungary	Budapest-Belgrade High-Speed Railway - Hungarian Section (Construction)	Started	Mobility	Rail	2020-	2000	CONSULTANTS Econoad Fomterv IMPLEMENTERS China Railway Construction Corporation Ltd. Hungary State Railways (MÁV) Kinai-Magyar Vasúti Nonprofit	RA	INITIATIVES CEEC "16+1" This Chinese-backed high-speed railway is intended to link the capitals of Hungary and Serbia and has been celebrated as a flagship project under China's "16+1" format and Belt and Road initiative. Construction is expected to start in 2020.	
Europa	- (ccwaec, maritime)	Hu MoU 2015 and China - CEEC 16+1 and ASEM, Ukr no Mou	Hungary, Ukraine	Railway Logistic Project		Zoning	Logistic Parks			Agrocom Handels GmbH	HKTDC	A big land plot is available in Tuzser / Hungary for a logistic project from 14ha to 34ha (plus additional extension available) next to the boarder Hungary with Ukraine. Main gateway to Europe (rail and trucks), Russian and European railway lines on the plot, National road next to the plot, close to the highway, Available workforce and cheap labour costs	
Asia	-	Joint decl. 2015, ACD, APEC, ASEM, ASEAN	Indonesia	Indonesia PLN East Java & Bali Power Distribution Strengthening Project	Proposed	Energy, Water and ICT systems	Energy transmissio	2019	900 (estimated)	AIIB loan: USD 310 million PLN: USD 590 million	AIIB	To improve access to and quality of power services by strengthening the power distribution network in East Java and Bali.	
Asia	-	Joint decl. 2015, ACD, APEC, ASEM, ASEAN	Indonesia	Kayan I-III-IV	Preparatory Works	Energy, Water and ICT systems	Hydropower	2018-	2000	CONTRACTORS Power Construction Corporation of China Shanghai Electric Group Co Ltd IMPLEMENTERS PT Kayan Hydro Energy OPERATORS PT Kayan Hydro Energy FUNDERS	RA	*Power Construction Corporation of China (PowerChina) has signed an agreement with PT Indonesia Kayan Hydropower Energy to build a cascade of five hydropower plants, with a combined capacity of 9000 MW on the river Kayan in the Indonesian province of North Kalimantan, which is located on the island of Borneo.	*https://www.hydropo
Asia	-	Joint decl. 2015, ACD, APEC, ASEM, ASEAN	Indonesia	Jatigede Dam	Under Construction	Energy, Water and ICT systems	Hydropower	2015-2019	224.0	CONTRACTORS PT Pembangunan Perumahan Energi Sinohydro Corporation Co Ltd OPERATORS P.T. Perusahaan Listrik Negara FUNDERS The Export-Import Bank of China	RA	*The Jatigede Dam is a rock embankment dam at the Cimanuk River in Sumedang Regency, West Java, Indonesia. its located 19 km east of the town of Sumedang. Construction of the dam started on 2008 and it was completed on 2015. The power station is expected to be commissioned in 2019. Water in the reservoir will be used to serve a irrigation 90.000 Ha of farmland and the power station is expected to have a 110 MW capacity.	*https://www.indraka
Asia	-	Joint decl. 2015, ACD, APEC, ASEM, ASEAN	Indonesia	Indonesia Multifunctional Satellite PPP Project	Approved	Energy, Water and ICT systems	ICT	2020	540 (estimated)	AIIB loan: USD 150 million	AIIB	The Project objective is to improve connectivity to public service points in the least developed, frontier, and outermost regions of Indonesia.	
Asia	-	Joint decl. 2015, ACD, APEC, ASEM, ASEAN	Indonesia	Pelintung Dumai Industrial Area Power Complex	Announced/Under Negotiation	Energy, Water and ICT systems	Power plant	2014-2018	675	CONTRACTORS China Machinery Engineering Corporation IMPLEMENTERS PT BTN Energy Prima	RA	*Bildzmilah Tambang Nusantara (BTN) and BTN Power joint venture, BTN Energy Prima (BEP) has partnered with China Machinery Engineering Corporation (CMEC) for construction of coal-fired power plants in Riau, Sumatra, Indonesia. Construction of the three 150MW coal-fired power plants in the Pelintung Dumai Industrial Area at a cost of $675m.	*https://www.nsenerg
Asia	-	Joint decl. 2015, ACD, APEC, ASEM, ASEAN	Indonesia	Cilacap Steam Turbine Power Plant Expansion Phase I	Completed	Energy, Water and ICT systems	Power plant	-2016		CONTRACTORS Huadian Power International Corporation Ltd PT Hutama Karya (Persero) OPERATORS P.T. Perusahaan Listrik Negara FUNDERS China Export & Credit Insurance	RA	*A private consortium consisting of Chinese and Indonesian entrepreneurs will build a Steam Power Plant (PLTU) in Cilacap Regency, Central Java. The PLTU with a capacity of 5 x 1000 megawatts is prioritized to serve special electricity for the new industrial area in Bunton Village, Adipala District, Cilacap Regency with an area of approximately 450 hectares.	*https://www.merdek
Asia	-	Joint decl. 2015, ACD, APEC, ASEM, ASEAN	Indonesia	Cilacap Jawa Energy Power Plant Phase II	Preparatory Works	Energy, Water and ICT systems	Power plant	-2022	139.8	OPERATORS P.T. Perusahaan Listrik Negara PT Sumber Energi Sakti Prima FUNDERS PT Bank Rakyat Indonesia (Persero) Tbk China Development Bank Bank of China	RA	The overall project development objective is to improve access to urban infrastructure and services in targeted slums in Indonesia.	
Asia	-	Joint decl. 2015, ACD, APEC, ASEM, ASEAN	Indonesia	Dam Operational Improvement and Safety Project II	Approved	Energy, Water and ICT systems	Water	2017	300 (estimated)	AIIB loan: USD 125 million World Bank: USD 125 million Borrower: USD 50 million	AIIB	The Project Objectives are to increase the safety and functionality of existing dams in selected locations and strengthen the operation and management capacity for dam safety.	
Asia	-	Joint decl. 2015, ACD, APEC, ASEM, ASEAN	Indonesia	Strategic Irrigation Modernization and Urgent Rehabilitation Project	Approved	Energy, Water and ICT systems	Water	2018	578 (estimated)	AIIB loan: USD 250 million World Bank: USD 250 million Borrower: USD 78 million	AIIB	The Project Objective is to improve irrigation services and strengthen accountability of irrigation schemes management in selected areas.	
Asia	-	Joint decl. 2015, ACD, APEC, ASEM, ASEAN	Indonesia	Purukcahu-Bangkuang Rail (Construction)	Preparatory Works	Mobility	Rail	2018-2023	5465	CONTRACTORS China Railway Group IMPLEMENTERS Indonesia Government of Central Kalimatan Province OPERATORS Ministry of Transportation of Indonesia	RA	The construction of the Purukcahu – Bangkuang railway is meant for coal transportation with the capacity of 50 million ton/year. This project has been in the works for nine years and according to Indonesia's Committee for Acceleration of Priority Infrastructure Delivery, the project is yet to receive the Borrow-to-use Permit for Forest Area for the Railway Line from the Ministry of Environment and Forestry.	
Asia	-	Joint decl. 2015, ACD, APEC, ASEM, ASEAN	Indonesia	Manado-Bitung Toll Road (PPP)	Under Construction	Mobility	Road	2017-2019	503	CONTRACTORS Hebei Road and Bridge Group PT Hutama Karya (Persero) PT Jasa Marga (Persero) Tbk PT Pembangunan Perumahan (Persero) Tbk (PT PP) PT Wijaya Karya (WiKa) Sino Road and Bridge Co., Ltd.	RA	This toll road connects Manado and Bitung in Northern Sulawesi Island, Indonesia, supporting the future Bitung Port and Bitung SEZ. It supplements the old road, which has become crowded and congested. In June 2016, Jasa Marga won the 40-year toll road concession under the SBOT (Supported-Build-Operate-Transfer) scheme. The government will provide assistance in acquisition of land, construction of 13.5 kilometers, and support for financial feasibility of the project. The 39 kilometers long Manado-Bitung toll road consists of two sections: Section 1 is 13.5 kilometers lono and is the	
Asia	-	Joint decl. 2015, ACD, APEC, ASEM, ASEAN	Indonesia	Indonesia: Mandalika Urban and Tourism Infrastructure Project	Approved	Others	Urban	2018	316.50 (estimated)	AIIB loan: USD 248.39 million GoI: USD 68.11 million	AIIB	The objective of the Project is to provide sustainable core infrastructure for the development of a new tourism destination in the Mandalika region of Lombok.	
Asia	-	Joint decl. 2015, ACD, APEC, ASEM, ASEAN	Indonesia	Indonesia: National Slum Upgrading Project (NSUP)	Approved	Others	Urban	2016	1743	AIIB loan: USD 216.5 million World Bank: USD 216.5 million Borrower: USD 1310 million	AIIB	The project objective is to increase access to infrastructure finance at the subnational level through creation of a sustainable financial intermediary, a Regional Infrastructure Development Fund (RIDF), that channels funds from AIIB, the World Bank, and the government to the sub-national governments. Other Social Services (20%), Urban Transport (20%), Solid Waste Management (60%)	

continents	corridors	MoU, platforms	countries	project name	state	type	type	date	cost (million USD)	players	database	details	links
Asia	- (maritime)	Joint decl. 2015, ACD, APEC, ASEM, ASEAN	Indonesia	Pangkalan Susu Power Plant Phase I Unit II Pangkalan Susu Power Plant Phase II Unit I	Completed Under Costruction	Energy, Water and ICT systems	Power plant	-2016 -2018	564.9	CONTRACTORS Guangdong Power Engineering Corporation PT Bagus Karya PT. Nincec Multi Dimensi PT Nusantara Energi Mandiri Sinohydro Corporation Co Ltd OPERATORS P.T. Perusahaan Listrik Negara	RA	*Pangkalan Susu power station is a 440-megawatt (MW) coal-fired station North Sumatra Province, Indonesia. The Pangkalan Susu power station is a two-unit, 440-MW coal-fired power plant being built by PLN. Unit 2 went online in July 2014, and Unit 1 was in testing as of February 2015. In June 2015, PLN said that Unit 1 was operating. An additional 400 MW has been proposed at the same location. In July 2013, PLN announced that it had signed a construction contract with Chinese company Sinohydro to build two additional 200-MW coal-fired units at the plant.	*https://www.gem.wi
Asia	- (maritime)	Joint decl. 2015, ACD, APEC, ASEM, ASEAN	Indonesia	Jakarta Monorail Project, Jakarta (Special City District)	Cancelled	Mobility	Light Rail	Demolition in 2017	1500	CONTRACTORS China Communications Construction Company OPERATORS PT Jakarta Monorail	RA	The Jakarta city administration decided to cancel its contract with the PT Jakarta Monorail (JM) to develop the monorail routes proposed by the company. According to Jakarta governor, Basuki 'Ahok' Tjahaja Purnama, the company did not fulfill at least 15 requirements proposed by the city. The pillars, erected several years ago for the monorail project, were set to be demolished in 2017.	https://www.flickr.com
Asia	- (maritime)	Joint decl. 2015, ACD, APEC, ASEM, ASEAN	Indonesia	Jakarta-Bandung High-Speed Rail (PPP)	Started	Mobility	Light Rail	2016-2021	5900	CONTRACTORS China Railway Construction Corporation Ltd. China Railway International Group PT Jasa Marga (Persero) Tbk PT Kereta Api (Persero) PT Perkebunan Nusantara PT Wijaya Karya (WiKa)	RA	Jakarta-Bandung High-Speed Rail, one of the Indonesia's first high speed rail projects, connects Jakarta to Indonesia's 2nd largest city Bandung in West Java. It might be extended later to connect to Surabaya in Northeastern Java. In 2016, the government of Indonesia granted the PT Kereta Cepat Indonesia-China a 50-year Engineer-Procure-Construct (EPC) contract. The construction is expected to finish in 2019 and the operation of the line to start in 2020 but the delays in land acquisition may affect its completion date.	https://www.flickr.com
Asia	-	Joint decl. 2015, ACD, APEC, ASEM, ASEAN	Indonesia	Jambi Integrated city		Zoning	Industrial Parks	*2015	-	PT Sentosa Jaya Purnama, PT ELL Environmental Indonesia	HKTDC	Industrial estate in Jambi Indonesia.	https://www.ji-city.co
Asia	- (maritime)	Joint decl. 2015, ACD, APEC, ASEM, ASEAN	Indonesia	Fuel Cell Factory in Sorong SEZ		Energy, Water and ICT systems	Energy	*2018-2023	400	PT. Sorong Global International	HKTDC	Investment to produce commercially available fuel cell systems for use in residential, commercial, or industrial settings in Sorong SEZ	*https://www.meti.go
Asia	- (maritime)	Joint decl. 2015, ACD, APEC, ASEM, ASEAN	Indonesia	Solar / Gas Power Plant in Sorong SEZ		Energy, Water and ICT systems	Solar - Gas Power I	*2016-2019	199.5	PT. Sorong Global International	HKTDC	Electricity in Sorong SEZ (special economic zone). SOLAR power plant (be preferred) and Gas power plant. Initial requirements 60 MW and then running time will increase to 1000 MW. We also have more than one smelter industry inside	*https://www.pumorn
Asia	- (maritime)	Joint decl. 2015, ACD, APEC, ASEM, ASEAN	Indonesia	Komodo Airport, Flores		Mobility	Aviation	*-2020	*88	*PT Cinta Airport Flores (CAF), a business consortium 80 percent owned by publicly listed local aviation services company Cardig Aero Services and 20 percent owned by Singapore's Changi Airports International	HKTDC	This project is the development at Komodo Airport at Labuan Bajo, Florest Inland Province. The project aims to increase the capacity at the airport from 150,000 passengers to an estimated 2.2 milion passengers by 2025. The Ministry Of Transportation invites the private sector to concession/licensing agreements that involves long-term contracts to manage and operate all Komodo Airport infrastructure prodided significant initial investment.	*http://asean.travel/2
Asia	- (maritime)	Joint decl. 2015, ACD, APEC, ASEM, ASEAN	Indonesia	Semarang to Jakarta Highway		Mobility	Road	*2021	17.8	PT Ruby Pratama Logistik Indonesia * Kereta Cepat Indonesia China (KCIC)	HKTDC	This is a project of 350-kilometre highway. There are 3 rest areas on the highway. The road surface uses cement mixed with clay, and it is 1.3 metres above the ground.	*https://www.silkroad
Asia	- (maritime)	Joint decl. 2015, ACD, APEC, ASEM, ASEAN	Indonesia	Kendal Industrial Park		Zoning	Industrial Parks	*2016	*475	PT Kawasan Manyar Sejahtera, Sembcorp	HKTDC	The development of Kendal Industrial Park covers a total of 2000Ha and its located in Kendal Regency, Central Java along the Pantura Highway. 860Ha in phase 1 is currently open for sale. Prepared land plot for industrial, commercial and recidential and ready built factories are available	*https://www.kendalir
Asia	- (maritime)	Joint decl. 2015, ACD, APEC, ASEM, ASEAN	Indonesia	Morotai Special Economic Zone		Zoning	Special Economic :	2014*	**640	PT Jababeka	HKTDC	Morotai Special Economic Zone has development focuses on industry, hospitality, tourism and property development. Morotai is included in corridor six of the Masterplan for Acceleration and Expansion of Indonesia's Economic Development (MP3EI).	*https://investinindon **https://www.strateg
Asia	MARITIME	Joint decl. 2015, ACD, APEC, ASEM, ASEAN	Indonesia	Bitung International Sea Port		Mobility	Seaport	2017-2019*	24360*	PT Consociate Jakarta Corporindo	HKTDC	The project is International Hub Port that will be fully integrated with industrial estate and marketplace. The site is located in Bitung, North Sulawesi, Indonesia.	*https://kppip.go.id/e
Asia	MARITIME	Joint decl. 2015, ACD, APEC, ASEM, ASEAN	Indonesia	Java Integrated Industrial and Port Estate (JIIPE) - Industrial Area		Zoning	Industrial Parks	2018		PT Kawasan Manyar Sejahtera	HKTDC	JIIPE is the first integrated area in Indonesia, with a total area of 3,000 hectares, consisting of industrial estates, multifunctional public ports, and residential cities. Located in Gresik, East Java province, JIIPE is a pilot area for industrial development in Indonesia. JIIPE industrial area covering 1761 ha with sea port facilities in an area of 400 ha, and occupancy with the concept of an independent city in an area of 800 ha is a joint government private project between Pelabuhan Indonesia III (Pelindo III through its subsidiary PT Berlian Jasa Terminal Indonesia known as BJTI Port) with PT	https://www.jiipe.com https://www.akr.co.id
Asia	MARITIME	Joint decl. 2015, ACD, APEC, ASEM, ASEAN	Indonesia	Sorong Special Economic Zone		Zoning	Special Economic :	-2019*	183.1*	PT. Sorong Global International	HKTDC	Industrial estate: 523.7 Ha(ready) and 6,000 Ha(coming soon), new industry area call Sorong SEZ (Special Economic Zone). One stop service (OSS) for all permit & clearences. More incentives in this area such as easy of doing business, negative list of investment shall not be applied in SEZ, value added tax, tax holidays, import duties and excise, raw materials, tax of industrial support machinery and spare parts. Simplified immigration formalities.	*https://theinsiderstor
Asia	CCWAEC	ACD, CICA	Iran	Iran-Armenia Rail Link (Iranian Side) (PPP)	Preparatory Works	Mobility	Rail	-2022	3500	OPERATORS Rasia FZE Investment Company	RA	In 2009, Armenia and Iran signed an agreement to construct a railway that would connect Yerevan and Tabriz via Syunik. The total railway line has a length of 470 kilometers and its construction will have an estimated total cost of USD 3.5 billion.In 2016, a Memorandum of Understanding was signed between the Ministry of Transport and Communication of the Republic of Armenia and the Ministry of Transportation and Urban Development of the Islamic Republic of Iran. According to this agreement, Iran will construct the railway in its territory after Armenia finishes 30% of	https://reconasia.csis
Asia	CCWAEC	ACD, CICA	Iran	Tehran-Mashhad Railway Electrification	Under Construction	Mobility	Rail	2017-	2600	The Export-Import Bank of China 1500 million Iran 200 million China Export & Credit Insurance Corporation (Sinosure)	RA	The Tehran-Mashhad line is one of the prioritized railway lines undergoing electrification. With a length of 926 kilometers, the Tehran-Mashhad line is one the most frequented railway lines of Iran and one of the few double-track lines of the country. The highest possible speed on this route is 160 Km/h which is set to increase to 200 km/h after the electrification project is completed. Electrification project started in 2017 and is projected to be completed in 48 months	
Asia	CCWAEC	ACD	Iran, Islamic rep.	Tehran-Isfahan HSR	Under construction	Mobility	Rail	2015-2021	2700	CONTRACTORS China Railway Engineering Corporation (CRECG) Khatam Al-Anbia Construction CONSULTANTS Italferr Siemens AG IMPLEMENTERS	WB + RA	Expected completion 2021. The Islamic Republic of Iran's first high speed rail connection.	
Asia	CCWAEC	CASCF, CICA	Iraq	Baghdad Monorail	Announced/Under Negotiation	Mobility	Light Rail	2019		*Baghdad Elevated Train An Alstom-led Consortium, together with its partner Hyundai Engineering & Construction	RA	*Will be developed with Transport Ministry and Baghdad Investment Authority, and operate alongside the metro. Development of 25-kilometre-long monorail on a viaduct comprising stations in Baghdad. Phase 1 from Mustansiriya to the Central Station in Alawi al-Hilla will include a 15.5 km monorail with 12 internal stations. The second phase will run from Baya area to Doora highway and will end at Masbah metro station, 4.5 km monorail.	*https://metenders.c
Asia	- (maritime)		Israel	Ashdod Port - Southport Terminal (Construction)	Under Construction	Mobility	Seaport	2014-2021	1008	CONTRACTORS Pan Mediterranean Engineering Company (PMEC) IMPLEMENTERS The Israel Ports Development & Assets Company Ltd OPERATORS Terminal Investment Limited	RA	The Southport Terminal at the Ashdod Port is part of Israel's port expansion drive to meet their growing trade demand. The expansion at the existing Ashdod Port is designed to increase the overall trade capacity of Israel as well as provide an alternative to the current Suez Canal route for East-West trade.	
Asia	CCWAEC	Joint decl. 2015, ACD, ASEM, CAREC, SCO, CICA	Kazakhstan	Beineu-Bozoi-Shymkent Gas Pipeline (Construction)	Under Construction	Energy, Water and ICT systems	Pipeline	2013*	2500*	IMPLEMENTERS KazMunaiGaz FUNDERS Bank of China 1800 million China Development Bank	RA	**The Beineu – Bozoy – Shymkent gas pipeline is one of Kazakhstan's major infrastructure projects implemented in partnership with China. Brought on stream in 2015, the 1,477 km-long pipeline unites local operating pipelines into a single system to diversify gas transportation across Kazakhstan in any direction and make the nation fully independent of imported gas. The project received over 110 kt of 1,067 mm API 5L-compliant pipes from Vysota 239, ChelPipe Group's white metallurgy plant.	*https://www.reuters. **https://chelpipegrou
Asia	CCWAEC	Joint decl. 2015, ACD, ASEM, CAREC, SCO, CICA	Kazakhstan	Bas Energy Solar Power Plant, Kyzylorda	Under Construction	Energy, Water and ICT systems	Solar Power plant	2015-2016	21.0	CONTRACTORS Bas Energy IMPLEMENTERS ET Solar Group Corporation Samruk Kazyna United Green Energy Ltd	RA	*Kazakhstan's Kyzylorda region. The solar power plant will be launched in 2016. Its capacity is expected to hit 50 MW. Kyzylorda region's electricity demand is 54 MW.	*https://www.eywind.
Asia	NELB	Joint decl. 2015, ACD, ASEM, CAREC, SCO, CICA	Kazakhstan	Ekibastuzskaya GRES-2 Expansion Power Plant	Under Construction	Energy, Water and ICT systems	Power plant	-2024	1200	CONTRACTORS LLC Inter Rao Engineering CONSULTANTS Lahmeyer International FUNDERS Eurasian Development Bank Vnesheconombank 245 million	RA	*The Ekibastuz-2 power station (or the GRES-2 Power Station) is an existing 1,000-megawatt (MW) thermal power station in Ekibastuz, Kazakhstan. A new 636 MW unit has been proposed.	*https://www.gem.wi
Asia	NELB	Joint decl. 2015, ACD, ASEM, CAREC, SCO, CICA	Kazakhstan	Badamsha Wind Power Plant	Announced/Under Negotiation	Energy, Water and ICT systems	Wind Power Plant	2016	400.0	IMPLEMENTERS Unique Capital Management CONTRACTORS Hydrochina Corporation	RA	*HydroChina has been chosen to construct the 200-MW Badamsha wind power plant in Kazakhstan for US firm Unique Capital Management, which acquired a controlling stake in the project last year. The two parties signed a memorandum of understanding (MoU) for the wind scheme. As part of the preliminary plan for the project, all applications are to be submitted to the relevant authorities in June.	*https://renewablesn
Asia	NELB	Joint decl. 2015, ACD, ASEM, CAREC, SCO, CICA	Kazakhstan	Shelek I Shelek II Shelek III	Announced/Under Negotiation	Energy, Water and ICT systems	Wind Power Plant	-2018	688.1	CONSULTANTS Hydrochina Corporation OPERATORS Samruk-Energy FUNDERS China Development Bank Development Bank of Kazakhstan	RA	*The European Bank for Reconstruction and Development (EBRD) and the Asian Development Bank (ADB) are considering providing finance to Access-Power LLP for the construction and operation of the 50 MW wind power plant, located 37 km east Shelek town in Enbekshikazakh district, Almaty region.	*http://www.access-p

continents	corridors	MoU, platforms	countries	project name	state	type	type	date	cost (million USD)	players	database	details	links
Asia	NELB	Joint decl. 2015, ACD, ASEM, CAREC, SCO, CICA	Kazakhstan	Zhanatas 100 MW Wind Power Plant	Approved	Energy, Water and ICT systems	Wind Power Plant	2019	136.2 (estimated)	AIIB loan: USD 46.7 million	AIIB	Mobilize private capital to promote use of renewable energy by investing in a 100 MW wind power project in Southern Kazakhstan	
Asia	NELB	Joint decl. 2015, ACD, ASEM, CAREC, SCO, CICA	Kazakhstan	Khorgos Dry Port	Completed	Mobility	Intermodal	2013-	187	CONTRACTORS Bazis-A Construction Company Kalmar IMPLEMENTERS SEZ "Khorgos – Eastern gates" Managing Company" JSC OPERATORS Dubai Ports World	RA	Nurly Zhol Touted as a "New Dubai" and a "game-changing development," this dry port and logistics center on the Kazakhstan-China border could be a bellwether for other ambitious One Belt, One Road projects.	
Asia	NELB	Joint decl. 2015, ACD, ASEM, CAREC, SCO, CICA	Kazakhstan	Astana Light Rail	Under Construction	Mobility	Light Rail	2015-2020	1800	CONTRACTORS Guangdong Power Engineering Corporation PT Bagus Karya PT. Nincec Multi Dimensi OPERATORS P.T. Perusahaan Listrik Negara FUNDERS The Export-Import Bank of China	RA	The rail will connect key locations in Astana - the international airport, the expo area, Nazarbayev University, Abu Dhabi Plaza and the House of Ministries - and will terminate at the new railway Astana Nurly Zhol railway station. The Astana Light Rail falls under Kazakhstan's efforts to promote its "Nurly Zhol," or "path to the future" program, and link it to China's Belt and Road Initiative.	https://reconasia-pro
Asia	NELB	Joint decl. 2015, ACD, ASEM, CAREC, SCO, CICA	Kazakhstan	Khorgos-Aktau Railway: Khorgos–Zhetygen Beyneu–Shalkar Jezkazgan – Saksaulsky	Operational	Mobility	Rail	-2017	*2700	-	WB	The railway links the world's biggest dry port Khorgos (China) and Aktau port (Kazakhstan). Jezkazgan and Beyneu rail links completed in 2015. Khorgos opened in 2017. Aktau port is continuously being upgraded but remains operational. This project makes it feasible to ship from Xinjiang to the Caspian sea.	*https://jg.fi.com/site https://jamestown.or
Asia	NELB	Joint decl. 2015, ACD, ASEM, CAREC, SCO, CICA	Kazakhstan	Khorgos- Almaty road	Operational	Mobility	Road	2013-2016	1300	CONTRACTORS Dogus Insaat Evrascon JSC Gulsan Holding Kazakhdorstroy LLP OHL ZS a.s. (Czech Republic) Todini Costruzioni Generali S.p.A. Salini Impregilo S.p.A.	WB + RA	Currently in use although some related civil works mostly funded by China are still underway.	
Asia	NELB	Joint decl. 2015, ACD, ASEM, CAREC, SCO, CICA	Kazakhstan	Highway P4/A17 Astana–Pavlodar	Operational	Mobility	Road	-	*2000	-	WB	Currently in use although other civil works are still underway.	*https://www.ciob.org
Asia	NELB	Joint decl. 2015, ACD, ASEM, CAREC, SCO, CICA	Kazakhstan	South-West Roads Project, Western Europe-Western China International Transit Corridor (CAREC 1b and 6b)	Under Construction	Mobility	Road	-2018	2500	FUNDERS Kazakhstan 375 million The World Bank 2125 million	RA	The South-West Roads Project aims to increase transport efficiency along the Western Europe-Western China transport corridor between the city of Aktobe and the Russian border. The project includes rehabilitation of the roads as well as the development of action plans for road safety and services.	
Asia	NELB	Joint decl. 2015, ACD, ASEM, CAREC, SCO, CICA	Kazakhstan	Tosontsengel - Uliastai Road (Construction) (PPP)	Under Construction	Mobility	Road	2016-2018	-	CONTRACTORS Guangzhou Wanan Construction Supervision Co, Ltd. Xinjiang Beixin Road and Bridge Construction Co., Ltd IMPLEMENTERS Mongolia Ministry of Economic Development	RA	The Government of Mongolia plans to complete the aimag centers with paved roads in 2016-2020 to complete the 114 km paved road in Tosontsengel-Uliastai. The road was officially opened by Minister of Road and Transportation D.Ganbat, Deputy Speaker of the State Great Hural Ya. Sanjmyatav and the local authorities and the local people on the 26th of this month. The road will be a 3-lane road with 7 meters wide and 5 cm thick asphalt pavement.	http://nigscass.cssn.c
Asia	NELB	Joint decl. 2015, ACD, ASEM, CAREC, SCO, CICA	Kazakhstan	Aktau Port	Operational	Mobility	Seaport	*2014-2020	***17	**DP World / Port of Aktau	WB	Aktau port is continuously being upgraded but remains operational. This project makes it feasible to ship from Xinjiang to the Caspian sea.	*https://blogs.worldb **https://www.project ***https://openjicarep
Africa	- (maritime)	Kenya MoU 2018, South Sudan no MoU, yes CASCF	Kenya, South Sudan	Juba-Mombasa Railway	Under construction	Mobility	Rail	*2014	*448	*World Bank Group, United Nations, Islamic Development Bank, African Union Commission and European Union	WB	China has agreed to finance and green light has been given by governments. So far only Nairobi-Naivashsa has been built, less than 1/10 of the way to Juba.	*https://www.treasury
Asia	CCWAEC	ACD, CAREC, SCO, CICA	Kyrgyz Republic	Bishkek Thermal Power Plant Modernization	Completed	Energy, Water and ICT systems	Power plant	2014-Z'17	386.0	CONTRACTORS Electric Stations Tebian Electricity Apparatus Stock Co Ltd FUNDERS The Export-Import Bank of China 386 million	RA	*Bishkek power station is a 910-megawatt (MW) coal plant in Kyrgyzstan. It is expected that four outdated turbine generators will be dismantled, and the two new ones will be installed in their place by 2018.	https://www.gem.wiki
Asia	CCWAEC	ACD, CAREC, SCO, CICA	Kyrgyz Republic	(Kashgar- Dushanbe rail) Jalalabad—Töö Ashuu	Under construction	Mobility	Rail	2013-2015	400	CONTRACTORS China Road and Bridge Corporation CONSULTANTS Kyrgyzdortransproekt IMPLEMENTERS Kyrgyzstan Ministry of Transport and Roads FUNDERS	WB+ Reconne	In 2013, China Road and Bridge Corporation (CRBC) appointed as contractor, funds linked to a loan from the Export- Import Bank of China.	https://stanradar.com
Asia	CCWAEC	ACD, CAREC, SCO, CICA	Kyrgyz Republic	Alternative North-South Highway Kyzyl-Jyldyz - Aral and Karzarm - Jalal-Abad (Rehabilitation)	Completed	Mobility	Road	2013-2015	400.0	CONTRACTORS -China Road and Bridge Corporation CONSULTANTS -Kyrgyzdortransproekt IMPLEMENTERS -Kyrgyzstan Ministry of Transport and Roads FUNDERS	RA	This project rehabilitated 154 km of the Alternative North-South highway in Kyrgyzstan, sections Kyzyl-Jyldyz - Aral (km 183-195) and Karzarman - Jalal-Abad (km 291-433). It is the first phase of a larger, 3-stage project that will cost $850 million and construct a 433km road connecting the Kyrgyz cities of Balykchy and Jalal-Abad. The construction of this Alternative Road will have profound effects on the ability to transport Chinese exports to Uzbekistan, Tajikistan, Kazakhstan and other surrounding countries through Kyrovzstan.	
Asia	CCWAEC	ACD, CAREC, SCO, CICA	Kyrgyz Republic	Alternative North-South Road Aral - Kazarman (Construction)	Under Construction	Mobility	Road	2015-2020	284.0	CONTRACTORS -China Road and Bridge Corporation CONSULTANTS -Kyrgyzdortransproekt IMPLEMENTERS -Kyrgyzstan Ministry of Transport and Roads FUNDERS	RA	This project is the second phase of a 3-part project to construct the 433 km Alternative North-South Road through Kyrgyzstan for $850 million. Phase two constructed 96 km of new road, connecting Aral - Kazarman. When the Alternative North-South Road is completed, it will have profound effects on the ability to transport Chinese exports to Uzbekistan, Tajikistan, Kazakhstan and other surrounding countries through Kyrgyzstan.	
Asia	CICPEC	ACD, ASEM, ASEAN	Laos	Nam Ngum 3 Hydroelectric Power Project	Under Construction	Energy, Water and ICT systems	Hydropower	2015-2020	1200	CONTRACTORS Sinohydro Corporation Co Ltd OPERATORS Electricite du Laos FUNDERS The Export-Import Bank of China	RA	*Nam Ngum 3 Hydropower Project is located on the Ngum River in Xaysomboune Province, central of Laos, about 130 km north of Vientiane. It is a Concrete Face Rockfill Dam (CFRD) with a total capacity of 480 MW (3x160 MW) and construction is undertaken by Sino Hydro Corporation, a Chinese contractor.	*https://www.egati.co
Asia	CICPEC	ACD, ASEM, ASEAN	Laos	Nam Ngum 4 Hydroelectric Power Project	Under Construction	Energy, Water and ICT systems	Hydropower	2016-2023	706	FUNDERS The Export-Import Bank of China 600 million CONTRACTORS China National Heavy Machinery Corp. Electricite du Laos VLV Koumphonphakdy	RA	*The government has granted permission for a local company to build the Nam Ngum 4 hydropower project in Paek district of Xieng Khuang province to supply the rising demand for electricity in Laos. With an installed capacity of 220 MW, the project is expected to generate 822kWh annually through the Electricite du Laos grid, mainly to supply the northern regions.	*https://wle-mekong.
Asia	CICPEC	ACD, ASEM, ASEAN	Laos	Vientiane–Boten Railway (Construction)	Under Construction	Mobility	Rail	2015-2021	5800	CONTRACTORS China Railway Group, Ltd. China Railway No 5 Engineering Group China Railway No 8 Engineering Group China Railway No 2 Engineering Group IMPLEMENTERS Laos-China Railway Company FUNDERS	RA	Singapore-Kunming Rail Link A part of the Kunming - Singapore Railway, this standard gauge (1435mm), 420-km railway goes from Boten, Luang Namtha Province at the China-Laos border to Vientiane and then Nong Khai Thai-Laos border crossing. It represents a major development to Laos' railway system. A Memorandum of Understanding (MoU) was initially signed in 2010, between Laos and China, with construction starting in 2016. China Railway Group Limited (CRG), through its subsidiaries. is constructing sections I, II, III, and VI, of the rail.	https://reconasia-pro
Asia	CICPEC	ACD, ASEM, ASEAN	Laos	Climate Resilience Improvement of National Road 13 South Project (Section 3)	Approved	Mobility	Road	2020	40 (estimated)	AIIB loan: USD 30 million GoL: USD 10 million	RA	To improve the road condition, safety, and climate resilience of the south section of the National Road 13 (Section 3)	
Asia	CICPEC	ACD, ASEM, ASEAN	Laos	National Road 13 Improvement and Maintenance Project	Approved	Mobility	Road	2019	128 (estimated)	AIIB loan: USD 40 million IDA: USD 40 million NDF: USD 9.5 million GoL: USD 38.50 million	AIIB	To improve road conditions, safety and climate resilience on critical sections of National Road 13 using an innovative contracting model (OPBRC). The road design will also be strengthened to meet ASEAN standards.	
Europe	- (nelb)	China - CEEC 16+1, ASEM	Lithuania	Klaipeda Container Port Construction	Announced/Under Negotiation	Mobility	Seaport	-2021	141.6	CONTRACTORS China Merchants Group	RA	China Merchants Group plans to build a new outer seaport on the existing Klaipeda port in Lithuania. The project was first proposed in 2009, but a lack of funding prevented its realization. The port of Klaipeda is a major seaport in Lithuania and could serve as a gateway between the Baltic Sea and Lithuania's landlocked neighbor, Belarus, where China is investing large funds under its Belt and Road Initiative.	
Europe	- (maritime)	China - CEEC 16+1	Macedonia	Kicevo-Ohrid Highway (Construction)	Under Construction	Mobility	Road	2014-2018	375	CONTRACTORS Granit Construction Stock Co. Sinohydro IMPLEMENTERS Macedonia Public Enterprise for State Roads FUNDERS The Export-Import Bank of China	RA	Officials between the government of Macedonia and the EXIM Bank of China signed a loan agreement on November 26, 2013 wherein a loan would be provided to pay for 10 percent of a new motorway project in Macedonia. On March 22, 2014, construction of the Kicevo-Ohrid Highway began, which will measure 56.7 km long, and was expected to be completed in 2018. The construction of the 53 km Miladinovci-Stip motorway is expected to be completed in May 2017. The project encountered delays in 2017 and, followino a chanae in government. was blocked by the Ministrv of Transport	
Europe	- (maritime)	China - CEEC 16+1	Macedonia	Miladinovci-Stip Highway	Under Construction	Mobility	Road	2014-2018	250	CONTRACTORS Sinohydro FUNDERS The Export-Import Bank of China 250 million	RA	*North Macedonia opened for traffic the Miladinovci-Stip motorway, local media reported on Wednesday. The 47-km long motorway will provide a safer and quicker link between the capital Skopje and the eastern town of Stip, MIA news agency reported. North Macedonia launched the construction of the 206 million euro ($231.8 million) motorway in 2014.The project was financed with the proceeds of a loan provided by China's Ex-Im Bank, whereas the construction works were carried out by China's Sinohydro Corporation.	*https://seenews.com
Asia	CICPEC	ACD, APEC, ASEM, ASEAN	Malaysia	Gemas-Johor Bahru Rail (Double Tracking & Electrification)	Preparatory Works	Mobility	Rail	2016-2020	2192	CONTRACTORS China Railway Group, Ltd. China Communications Construction Company OPERATORS China Railway Corporation China Railway Construction Corporation Ltd.	RA	Master Plan on ASEAN Connectivity Singapore-Kunming Rail Link The Gemas to Johor Bahru Rail is a continuation of the Singapore - Kunming Rail Link. The line will provide Malaysia with electrified tracks that connect to the southern tip of the country.	

continents	corridors	MoU, platforms	countries	project name	state	type	type	date	cost (million USD)	players	database	details	links
Asia	CICPEC	ACD, APEC, ASEM, ASEAN	Malaysia	Besar–Kuala Lumpur HSR	Proposed (suspended)	Mobility	Rail	-2031	*9872 (cost before being postponed)	*MMC Corp Bhd YTL Corp Bhd UEM Group Bhd with Ara Group to form a consortium with European companies as Talgo, while Global Rail is said to be talking to Canada's Bombardier Inc and China Railway Group	WB	Part of the Kuala Lumpur- Bangkok line. Discussions still underway. Operations are targeted to begin by end of 2026.	*https://www.thestar.j
Asia	CICPEC	ACD, APEC, ASEM, ASEAN	Malaysia	Kuala Lumpur-Tumpat Railway (Construction)	Under Construction	Mobility	Rail	2017-2024	1070	CONTRACTORS China Communications Construction Company CONSULTANTS AECOM IMPLEMENTERS Land Public Transport Commission of Malaysia (SPAD)	RA	This 688km rail from Malaysia's main sea port to the Thai border began construction in 2017. Although the project was temporarily suspended due to cost concerns, Malaysia and China agreed to resume construction after negotiating a lower cost	
Asia	CICPEC	ACD, APEC, ASEM, ASEAN	Malaysia	Gemas-Johor rail upgrade	Under construction	Mobility	Rail	2016-2022	2196	CONTRACTORS China Railway Group, Ltd. China Communications Construction Company OPERATORS China Railway Corporation China Railway Construction Corporation Ltd.	WB + RA	Malaysia Transport Minister reports that upgrade is 20% complete, to be finished in 2022. The Gemas to Johor Bahru Rail is a continuation of the Singapore - Kunming Rail Link. The line will provide Malaysia with electrified tracks that connect to the southern tip of the country.	
Asia	MARITIME	ACD, APEC, ASEM, ASEAN	Malaysia	Kuantan Port	Operational	Mobility	Seaport	-2018	*736.4	*Kuantan Port Consortium -- majority owned by Malaysia's LIM Corporation with Hong Kong's Beibu Gulf Holding having a 40 per cent stake **China's Guangxi Beibu Gulf International Port Group	WB	The upgrading works were completed in 2018, however the port will be affected adversely by the suspension of ECRL project by Malaysia. *is Malaysia's closest port to China, with ships taking just three days to reach it from Beibu Gulf Port in the Guangxi Zhuang autonomous region.	*https://www.scmp.c **https://www.seas.e
Asia	MARITIME	ACD, APEC, ASEM, ASEAN	Malaysia	Penang Port	Operational	Mobility	Seaport	-	-	-	WB	Now in use and cruise ships have started docking.	*https://www.ilf-oecd
Asia	MARITIME	ACD, APEC, ASEM, ASEAN	Malaysia	Kuala Linggi Port	Planned	Mobility	Seaport	2020**	2800**	*Linggi Base Sdn. Bhd. (LBSB) is the master developer; Taq Marine; The project will be financed by Chinese investor	WB	The project is situated near the river-mouth of Sungai Linggi. Administratively, the project is located in Mukim Kuala Linggi, District of Alor Gajah in the State of Malacca. Situated midway between the One Fathom Bank Lighthouse and Tg. Piai, it is strategically located to benefit from more than 100,000 ships that transit the Straits of Malacca which is a vital lifeline for the maritime trading routes between Europe and Asia. Its location has proven suitable for various development aspects, i.e. from engineering, environmental and economic persoectives.	*http://www.klip.my **https://www.theinew
Asia	MARITIME	ACD, APEC, ASEM, ASEAN	Malaysia	Melaka (Malacca) Gateway	Under Construction	Mobility	Seaport	2014-2019	1970	CONSULTANTS PowerChina International IMPLEMENTERS KAJ Development Sdn Bhd (KAJD) PowerChina International Rizhao Port Group Co., Ltd. Shenzhen Yantian Port Group Co., Ltd. OPERATORS	RA	Melaka (Malacca) Port is located 156 km by road from Kuala Lumpur. It is part of a massive urban and resort development project that China and Malaysia are jointly implementing, called the "Melaka Gateway". The Melaka (Malacca) Port construction project is aimed at boosting bilateral trade, shipping, and logistics along China's New Silk Road. Please click here to download the Malacca Port Authority's handbook on its port operations. Port was scheduled for completion in 2019. As of 2018 no construction has been done and regulatory approval has officially lapsed. Future of project is	
Asia	CICPEC	Sing MoU 2017, ACD, APEC, ASEM and ASEAN both	Malaysia, Singapore	Kuala Lumpur-- Seremban-- Singapore HRS	Cancelled/postponed	Mobility	Rail	2018-2023*	11000**	*MyHSR, a unit of Malaysia's Ministry of Finance, is working with Singapore's Land Transport Authority on the high-speed rail (HSR) project Suruhanjaya Pengangkutan Awam Darat Land Public Transport Commission of Malaysia (SPAD) is the policymaker and regulator for co-ordinating the project	WB	Officially suspended on Sep 5, 2018 at Malaysia's request. Singapore officials report that the construction will resume by May 31, 2020.	*https://www.constru **https://www.railway
Asia	CICPEC	Thai Joint Statem. 2014, ACD, APEC, ASEM and ASEAN both	Malaysia, Thailand	South China Sea - Malacca Railway Link	Under Construction	Mobility	Rail	2017	13000	CONTRACTORS China Communications Construction Co. Ltd IMPLEMENTERS China Malaysia	RA	*The East Coast Rail Link (ECRL) is a 640 km long railway under construction in Peninsula Malaysia. This standard gauge double-track railway will connect Port Klang on the Straits of Malacca to Kota Bharu at the northern end of the east coast. The railway will pass south of Kuala Lumpur at Putrajaya Sentral, where it will interchange for services to KL and Kuala Lumpur International Airport.	*https://livinginasia.c
Asia	MARITIME	Joint Statem. 2017	Maldive	Greater MaléWaste-to-Energy Project	Approved	Energy, Water and ICT systems	Energy	2020	151.13 (estimated)	AIIB loan: USD40.00 million ADB loan: USD38.21 million ADB grant: USD35.18 millionJapan Fund for the Joint Crediting Mechanism (JFJCM) grant: USD10.00 million - Government of Maldives: USD27.74 million	AIIB	The main objective of the project is to establish a regional solid waste treatment system in Greater Malé.	
Asia	MARITIME	Joint Statem. 2017	Maldive	Maldives Solar Power Development and Energy Storage Solution	Proposed	Energy, Water and ICT systems	Solar Power Plant	2020	67.65 (estimated)	AIIB loan: USD 20 million IDA: USD 12.4 million CTF: USD 30 million Canada Facility: USD 5.25 million	AIIB	To increase generation capacity from renewable energy sources and to facilitate the integration of renewable energy into Maldives' grid infrastructure.	
Asia	MARITIME	Joint Statem. 2017	Maldive	Male-Hulhule Bridge (Construction) China-Maldives Friendship Bridge (PPP)	Completed	Mobility	Bridge	2014-2018	210	CONTRACTORS CCCC Second Harbour Engineering Company Limited (CCCC2Harbour) FUNDERS Maldives 12.6 million China 126 million	RA	This project involves a bridge connecting Male to the airport island of Hulhule in the Maldives. It was financed through a Public-Private Partnership on a Design Build Finance Maintain Operate (DBFMO) basis.	https://maldivesinder https://eng.yidaiylu.c
Africa	-	CASCF	Mauritania	N'Diago Port	Under construction	Mobility	Seaport	*2016	*325	*Mauritiana government	WB	*Chinese Polytechnology company, specialized in defense equipment, which has been under fire in Africa and around the world for bribery and money laundering, will build a military and commercial port at the Mauritanian city of N'Diago, sitting on the bank of Senegal River, few miles from the Senegalese city of St. Louis, reports say.	*https://northafricapo https://constructionr
Asia	CMREC	ACD, ASEM, CAREC, CICA	Mongolia	Sainshand Wind Farm	Under Construction	Energy, Water and ICT systems	Wind Power Plant	-2018	120	CONTRACTORS China Machinery Engineering Corporation OPERATORS Ferrostaal Power Industry GmbH FUNDERS European Bank for Reconstruction and Development (EBRD) European Investment Bank (EIB)	WB + RA	*The 55MW Sainshand wind farm project in Mongolia was announced in August 2017. It is being developed near Sainshand city in the Gobi desert in Mongolia. The site is located 250km away from the Zamiin-uud Port to China, which will make transportation of equipment easier and cheaper. The wind assessment of the site has concluded that it is a powerhouse of wind resources, with an average speed of 7.7m/sec at 80m.	*https://www.nsenerg
Asia	CMREC	ACD, ASEM, CAREC, CICA	Mongolia	Bayankhongor - Baidrag Bridge (Govi-Altai) Road Project	Announced/Under Negotiation	Mobility	Bridge	2016-2018	59.8	CONTRACTORS Oyu Tolgoi LLC Shanghai Construction Group IMPLEMENTERS Mongolia Ministry of Economic Development FUNDERS China	RA	The 129.4 km paved road in the Bayankhongor-Baidra Bridge is part of the paved road connecting the Govi-Altai aimag center to the capital. The access road will enable the people of Khovd and Bayan-Ulgii provinces to travel safely and securely through the Govi-Altai aimags, as well as the number of foreign and domestic tourists visiting these aimags to support the region's economy.	
Asia	CMREC	ACD, ASEM, CAREC, CICA	Mongolia	Northern Rail Corridor Erdenet–Salkhit Kyzyl–Arts Suur– Ovoot Erdenet - Ovoot - Arts Suuri Rail Line	Announced/Under Negotiation	Mobility	Rail	2013-2018	1800	CONTRACTORS China Railway No. 20 Bureau Group Co., Ltd China Gezhouba Group Corporation (CGGC) CONSULTANTS SMEC International Private Ltd. Xi'an Engineering Consultancy & Supervision co., LTD.FSDI OPERATORS	RA	*Northern Rail Corridor extends the national rail network from Erdenet, to Aspire's Ovoot Coking Coal Project and onto the Russian border at Arts Suuri. The Russian Government has further plans to then link the rail from Arts Suuri to the Trans-Siberian Railway at Kyzyl, thereby creating an international rail link connecting Russia, and northern Mongolia with China. The Northern Railway will open up significant new opportunity for various industries, small business, the community and local economy in northern Mongolia, as well as providing a direct route to the Chinese market for	*https://aspiremining
Asia	CMREC	ACD, ASEM, CAREC, CICA	Mongolia	Sainshand - Ereentsav, Nomrog, Bichil Rail Route	Announced/Under Negotiation	Mobility	Rail	-	1400	Silk Road Fund Asian Infrastructure Investment Bank	RA	The Sainshand - Ereentsav, Nomrog, Bichil (via Hoot) Rail route is a project under the Mongolian Economic Corridor within the larger China - Mongolian - Russia Economic Corridor.	https://www.arabnew
Asia	CMREC	ACD, ASEM, CAREC, CICA	Mongolia	Tavan Tolgoi-Gashuun Sukhait Rail (Construction)	Suspended	Mobility	Rail	2013-2020	1000	CONTRACTORS Shenhua Group CONSULTANTS Third Railway Survey and Design Institute Group Corporation OPERATORS Mongolian Railway MTZ FUNDERS	RA	The Tavan Tolgio Rail Project will link Mongolia's Tavan Tolgoi coal mine to the Chinese border. Mongolia has already invested $200 million but the project needs another $800 million.	
Asia	CMREC	ACD, ASEM, CAREC, CICA	Mongolia	Ulaanbaatar - Khoshig Valley Airport (NUBIA) Highway (Construction) (PPP)	Completed	Mobility	Road	2016-2018	-	-China Railway Construction Corporation Ltd. -Mongolia Ministry of Economic Development	RA	The New Ulaanbaatar International Airport (NUBIA) is being constructed at Khushigt Valley in Tuv Province, around 50km south of Mongolia's capital city Ulaanbaatar. Also known as Khoshig Valley Airport, construction started in May 2013. It was scheduled for completion by the end of 2016, but delays have extended this to first half of 2020. The airport will be capable of handling approximately three million passengers a year. New infrastructure and reserved land will enable future expansions to serve an estimated 12 million passengers a year.*	*https://www.airport-t
Asia	CMREC	ACD, ASEM, CAREC, CICA	Mongolia, China	Western Rail Corridor Arts Suur–Urumqi	Proposed	Mobility	Rail	-	-	-	WB	Proposed under Mong. national rail policy and joint China-Mong.-Rus. declaration. No concrete steps taken.	
Europe	- (ccwaec, maritime)	MoU 2017 China - CEEC 16+1	Montenegro	Kolasin-Kos Railway Upgrade (Part of Bar-Belgrade Railway Reconstruction Project)	Completed	Mobility	Rail	2015-2017	8.5	CONTRACTORS China Civil Engineering Construction Corporation OPERATORS China Civil Engineering Construction Corporation FUNDERS European Bank for Reconstruction and	RA	A subsidiary of China Railway Construction Corporation, the China Civil Engineering Construction Corporation was contracted to repair 9.86 km of tracks between Kolasin and Kos in Montenegro. The rehabilitation was completed December 2017.	
Europe	- (ccwaec, maritime)	MoU 2017 China - CEEC 16+1	Montenegro	Bar-Boljare Motorway (Section of European Motorway XI)	Started	Mobility	Road	2014	807.0	CONTRACTORS China Communications Construction Company China Road and Bridge Corporation FUNDERS The Export-Import Bank of China Government of Montenegro 145 million	RA	This highway will cost over $1 billion and is being built and mostly financed by Chinese firms. The project, covering mountainous terrain, will comprise 42 tunnels and 92 bridges and viaducts.	https://www.akta.ba/
Europe	- (ccwaec, maritime)	MoU 2017 China - CEEC 16+1	Montenegro	Adriatic-Ionian Motorway - Montenegro	Stated	Mobility	Road	-2030	-	-China Pacific Construction Group	RA	This project is a part of the Adriatic-Ionian Motorway that will stretch across the Balkan Peninsula from Italy to Greece.	https://reconasia-pro https://www.timesca

continents	corridors	MoU, platforms	countries	project name	state	type	type	date	cost (million USD)	players	database	details	links
Europe	- (ccwaec, maritime)	MoU 2017 China - CEEC 16+1	Montenegro	Bar–Boljare Highway Smokovac-Matesevo Section (Construction)	Under Construction	Mobility	Road	2014-2019	1100	CONTRACTORS China Communications Construction Company China Road and Bridge Corporation CONSULTANTS Cowi IMPLEMENTERS Montenegro Ministry of Finance	RA	*The highway from Bar to Boljare is 169.2km-long. The section Smokovac Matesevo, is 40.8km-long, with 20km of tunnels and 4.5km of bridges and is the most difficult due to the tunnels, bridges and viaducts that will make up almost 60% of its total length. This highway is the greatest engineering construction project in Montenegro and one of the biggest projects being implemented in the European market. The section will require the construction of 19 tunnels (double pipe), 36 bridges and viaducts.	*https://www.geodata
Africa	- (maritime)		Mozambique	Beira Port	Operational	Mobility	Seaport	**2018-	*230 **500 (NCTB)	*EIB	WB	In use, continuous improvements ongoing. **New Coal Terminal Beira (NCTB) is a proposed new coal terminal at Beira Port in Sofala province, Mozambique.	*https://www.eu-afric **https://www.gem.w
Africa	- (maritime)	-	Mozambique	Techobanine Port	Proposed	Mobility	Seaport	-	-	-	WB	The three countries Mozambique, Botswana and Zimbabwe signed MoU in 2006 but no physical progress. Discussions have been resumed after hiatus.	
Asia	BCIMEC	Joint Statem. 2016, ACD, ASEM, ASEAN	Myanmar	Myingyan 225 MW Combined Cycle Gas Turbine (CCGT) Power Plant Project, Myanmar	Approved	Energy, Water and ICT systems	Gas Power Plant	2016	-	AIIB: USD 20 million	AIIB	The 225 MW power plant will be the largest Gas-Fired Independent Power Producer (IPP) in Myanmar increasing much needed reliable and clean energy to the country's demand (currently installed power capacity in Myanmar is around 4,700 MW). When completed, the new facility will help to ease the country's severe power deficit.	
Asia	BCIMEC	Joint Statem. 2016, ACD, ASEM, ASEAN	Myanmar	Muse-Mandalay High-Speed Railway	Announced/Under Negotiation	Mobility	Rail	*2018	8900*	*Mandalay railway, CREEG	RA	On 8 November 2018, Myanmar and China agreed to scale down the project from US$10 Bn to US1.3 Bn, from 10 to 2 berths.	*https://www.railjourn
Asia	BCIMEC	Joint Statem. 2016, ACD, ASEM, ASEAN	Myanmar	Kyaukpyu–Ann	Planning	Mobility	Rail	-	1300	-	WB	On 8 November 2018, Myanmar and China agreed to scale down the project from US$10 Bn to US1.3 Bn, from 10 to 2 berths.	
Asia	MARITIME	Joint Statem. 2016, ACD, ASEM, ASEAN	Myanmar	Kyaukpyu Deep Sea Port (Construction)	Preparatory Works	Mobility	Seaport	2016-	7200	CONTRACTORS Charoen Pokohand Group China Harbor Engineering Company China Merchants Holding International Company Ltd. CITIC Group TEDA Investment Holding Yunnan Construction Engineering Group	WB + RA	A CITIC Group-led consortium won the tender to build the Kyaukpyu Deep Sea Port in December 2015. Under the agreement, the CITIC Group will take a 70 percent stake, while the Myanmar government and 42 domestic companies hold the rest. Originally, a $7.2 billion 10-berth port was planned, but later on Myanmar started to renegotiate with the CITIC Group to scale down the project. Construction will be completed in four stages as originally planned but will not proceed to the next phase until certain demand conditions are met. In the first stage, worth roughly $1.3 billion, one wharf	
Asia	-	ACD	Nepal	Nepal Distribution System Upgrade and Expansion Project	Approved	Energy, Water and ICT systems	Energy transmissio	2019	157.1	AIIB Loan: USD 112.3 mln AIIB Special Fund (grant): 1 mln Government of Nepal: 32 mln Nepal Electricity Authority (NEA): 11.8 million	AIIB	The project objective is to increase access to and improve quality and efficiency of electricity supply in selected areas ofWestern Nepal	
Asia	-	ACD	Nepal	West Seti Hydropower Project	-	Energy, Water and ICT systems	Hydropower	-2022	1800	-China Three Gorges Corp	RA	The 750-megawatt (MW) West Seti Hydroelectric Project in Nepal's Far-Western Development Region (FWDR), proposed by West Seti Hydro Limited (WSH), is a storage scheme designed to generate and export large quantities of electrical energy to India.	*https://www.adb.org
Asia	-	ACD	Nepal	Budhi Gandaki Hydropower Project	Announced/Under Negotiation	Energy, Water and ICT systems	Hydropower	-2022	353.8	CONTRACTORS China Gezhouba Group Corporation (CGGC)	RA	*Budhi Gandaki Hydropower Project is a proposed storage type project located in Central/ Western Development Region on the Budhi Gandaki River of Nepal. It would allow both alleviating the country's energy deficit and decreasing its reliance on fossil fuels.	*https://tractebel-eng
Asia	-	ACD	Nepal	Upper Trishuli-1 Hydropower project	Approved	Energy, Water and ICT systems	Hydropower	2019	647.4	Equity: USD194.2 million Debt: USD453.2 million AIIB: Senior loan of up to USD90 million	AIIB	The objective of the Project is to reduce the acute power shortages in Nepal by increasing power generation capacity in the country to meet its power demand.	
Asia	-	ACD	Nepal	Tamakoshi V Hydroelectric Project (TV-HEP)	Proposed	Energy, Water and ICT systems	Hydropower	*2018	165 (estimated)	GoN: USD 53 million AIIB: USD 112 million	AIIB	The objective of the proposed Project is to reduce the supply and demand gap by providing additional power to the national grid. The Project would also help stabilize the grid by contributing to meeting the daily peak demand.	*https://ewsdata.righ
Asia	-	ACD	Nepal	Kabeli-A Hydropower Plant, Panchthar, Mechi Zone	Under Construction	Energy, Water and ICT systems	Hydropower Plant	2017-2020	108.6	CONTRACTORS Asia Pacific Technology Inc IMPLEMENTERS Kabeli Energy Ltd. FUNDERS Canada Climate Change Program (CCCP) 19.3 million The World Bank	RA	*Kabeli Energy Limited (KEL) is a special purpose company formed for the development of Kabeli-A Hydroelectric Project (KAHEP) under build, own, operate and maintain the project during the Concession Period for the purpose of supplying electric power to Nepal Electricity Authority in accordance with the Power Purchase Agreement. KAHEP is located in Panchthar and Taplejung districts of State -1 of Nepal. This project utilizes a 15 km loop of Kabeli River formed with Tamor River. Kabeli River is diverted through 4.33 km (approximately) twin tunnel and	*https://www.hpc.cor
Asia	-	ACD	Nepal	Nepal Urban Governance and Infrastructure Project	Proposed	Others	Infrastructure	*2020-2025	300 (estimated)	IDA: USD 150 million AIIB: USD 150 million	AIIB	To improve core municipal infrastructure services and strengthen institutional capacity in participating ULGs. Sub-Sector: Municipal infrastructure (Urban Transport, Solid Waste Management, Drainage, Water Supply, and Wastewater Management)	*https://projects.worl
Asia	-	ACD	Nepal	Nepal: Urban Infrastructure Investment Project	Proposed	Others	Infrastructure	2017	100	GoN: USD 17 million AIIB: USD 76 million Municipality: USD 7 million	AIIB	The objective of the proposed project is to improve provision and quality of key infrastructure and basic services in the participating municipalities of Nepal's Terai region.	
Asia	-	MoU 2018, ACD, CASCF	Oman	Ibri II 500MW Solar PV Independent Power Plant Project	Approved	Energy, Water and ICT systems	Solar Power Plant	2020	400 (estimated)	AIIB loan: USD 60 million	AIIB	The objectives of the Project are to: (a) increase the availability of the renewable power generation capacity and contribute to fill the anticipated gap in the peak demand; and (b) reduce the dependence on gas and other fossil fuels for electricity generation and move to a more balanced and environmentally sustainable energy mix.	
Asia	- (maritime)	MoU 2018, ACD, CASCF	Oman	Oman Broadband Infrastructure Project	Approved	Energy, Water and ICT systems	ICT	2017	467	AIIB loan: USD 239 (?) million	AIIB	The objective of the Project is to improve the telecommunications connectivity in Oman and increase the digital literacy and productivity of its human capital.	
Asia	MARITIME	MoU 2018, ACD, CASCF	Oman	Duqm Port Commercial Terminal and Operational Zone Development Project, Duqm	Announced/Under Negotiation	Mobility	Seaport	2017-2020	353.3	OPERATORS Special Economic Zone Authority of Duqm (SEZAD) FUNDERS Asian Infrastructure Investment Bank (AIIB) USD 262 million	WB + RA + AII	The port is part of Omani's development masterplan initiated in 2011 to make Duqm an important port/city in the Arab World.	
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Tarbela 5 Hydropower Extension Project	Approved	Energy, Water and ICT systems	Hydropower	2016	823.5	AIIB loan: USD 300 million BRD loan: USD 390 million Government: USD 133.5	AIIB	The Project Objective is to facilitate the sustainable expansion of Pakistan's electricity generation capacity providing a low cost, clean, renewable energy option. The Project will add capacity of 1,410 Megawatt (MW), with annual electricity generation of over 1,800 Gigawatt-hours (GWh), primarily during the summer season when demand is highest.	
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Azad Pattan Hydropower Project	Preparatory Works	Energy, Water and ICT systems	Hydropower	2018-2024	1400	CONTRACTORS -Daelim Industrial Co Ltd -Lotte Engineering & Construction CONSULTANTS -Korea Midland Power Co Ltd OPERATORS -Azad Pattan Power Private Ltd	RA	*The Azad Pattan hydropower project is a 700MW run-of-the-river hydroelectricity generation facility being developed on the Jhelum River in Pakistan occupied Azad Jammu Kashmir.	*https://www.nsenerg
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Balakot Hydropower Development Project	Proposed	Energy, Water and ICT systems	Hydropower	2020	755	AIIB: USD 280 million ABD loan:USD 300 million GoPA: USD 175 million	AIIB	The objective of the Project is to increase energy access and promote renewable energy by developing a 300 MW run- of-river hydropower plant.	
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Taunsa Hydropower Project	Announced/Under Negotiation	Energy, Water and ICT systems	Hydropower plant	-	-	IMPLEMENTERS China International Water and Electric Corporation Punjab Power Development Board FUNDERS China	RA	*PPDB is launching development of 135 MW Taunsa Hydropower Project on Taunsa Barrage in District Muzaffargarh (Punjab) through private investment under NEPRA's Competitive Bidding Tariff Regulations (CBTR-2017). The Expression of Interest (EOI) has been invited vide local and international newspapers.	*https://www.ppp.cor
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Bunji Hydropower Project	Preparatory Works	Energy, Water and ICT systems	Hydropower plant	-2023	6900	CONTRACTORS China Three Gorges Corp CONSULTANTS Development Management Consultants MM Pakistan (Pvt.) Ltd. Mott MacDonald Ltd Nippon Koei Co. Ltd IMPLEMENTERS	RA	*With a capacity of 7,100 megawatts, the proposed Bunji Hydropower Project would be the largest of its kind in Pakistan. The project would be located on the Indus River near Gilgit, with a powerhouse and dam 348 and 380 miles (560 and 612 kilometers) from Islamabad, respectively.	*https://www.mottma

continents	corridors	MoU, platforms	countries	project name	state	type	type	date	cost (million USD)	players	database	details	links
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Dasu Hydropower Project Phase I	Under Construction	Energy, Water and ICT systems	Hydropower plant	2017-2025	3800	CONTRACTORS China Railway First Group Co., Ltd. OPERATORS Pakistan Water and Power Development Authority FUNDERS The World Bank 588 million	RA	*The objective of the Dasu Hydropower Stage I Project (DHP-1) for Pakistan is to facilitate the expansion of electricity supply of hydropower in Pakistan. The Project will also improve access to socio-economic services for local communities in the project area. This will be achieved by installing a 2,160 MW hydropower plant on the main Indus River, which can be expanded to 4,320 MW in future at very low cost.	*https://projects.worl
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Karot Hydropower Station	Under Construction	Energy, Water and ICT systems	Hydropower plant	2015-2020	2000	CONTRACTORS China Machinery Engineering Corporation China Yangtze Three Gorges Development Corporation FUNDERS International Finance Corporation (IFC) (World Bank) 100 million	RA	*The Karot Hydropower Station in Pakistan is the first investment project of the Silk Road Fund and is part of the China-Pakistan Economic Corridor. It is a run-of-river concrete-core rock fill gravity dam with an installed capacity of 720 MW. Its is one of five hydropower stations planned to be built on the Jhelum River. The dam is expected to be 95.5m-high and 460m across the Jhelum River.	*https://www.beltroad
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Keyal Khawar Hydropower Project	Under Construction	Energy, Water and ICT systems	Hydropower plant	2013-2020	246.4	CONSULTANTS Lahmeyer International NDC Pvt. Ltd. FUNDERS European Investment Bank (EIB) KfW IPEX-Bank	RA	*The german (KfW finances the new construction of the hydropower plant Keyal Khwar, located at the eponymus river in the province Khyber Pakhtunkhwa. The new hydropower plant will be a run-of-river power station with a daily storage reservoir for peak-time demands. The installed capacity shall be at 122 MW and the average power generation 418 GWh/year.	*https://devtracker.fc
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Kohala Hydropower Project	Under Construction	Energy, Water and ICT systems	Hydropower plant	2015-2023	2400	CONTRACTORS China Three Gorges Corp OPERATORS Pakistan National Transmission and Despatch Company	RA	*Kohala hydropower plant is a 1.12GW run-of-the-river project being developed on the Jhelum River in the Muzaffarabad district of Azad Jammu Kashmir (AJK), Pakistan. It is one of the six hydropower projects planned to be built on the Jhelum River in the State of AJK.	*https://www.nsenerg
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Suki Kinari Hydropower Station	Under Construction	Energy, Water and ICT systems	Hydropower plant	2016-2022	1900	CONTRACTORS China Gezhouba Group Company Limited SK Hydro (Private) Limited OPERATORS SK Hydro (Private) Limited FUNDERS Industrial and Commercial Bank of China The Export-Import Bank of China	RA	*Suki Kinari hydropower project is an 870MW run-of-the-river hydropower project being developed in Kaghan Valley, Mansehra district, Pakistan.	*https://www.nsenerg
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Karachi Nuclear Plant 2 Karachi Nuclear Plant 3	Under Construction	Energy, Water and ICT systems	Nuclear plant	2015-2020 2016-2021	4800	CONTRACTORS China National Nuclear Corporation China Nuclear Engineering & Construction Corporation China Zhongyuan Engineering Corp OPERATORS Pakistan Atomic Energy Commission	RA	*Pakistan's first nuclear plant in Karachi is undergoing a 2.2GW capacity extension with two 1.1GW pressurised water reactor (PWR) units of Chinese design. The $10bn project is being built with financial assistance from China, the biggest energy and infrastructure investor in Pakistan.	*https://www.power-t
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Gwadar-Nawabshah Pipeline (Construction)	Cancelled	Energy, Water and ICT systems	Pipeline	2017	2000	CONTRACTORS China Petroleum Pipeline Bureau FUNDERS The Export-Import Bank of China	RA	*The idea of establishing an LNG terminal in Gwadar and constructing a pipeline to Nawabshah shall pave the way for the IP project and reduce the works that are needed to implement the IP project at a later stage. In the vicinity of Gwadar a Floating Storage and Re-gasification Unit (FSRU) shall be operated near the shoreline. A metering station and a connecting pipeline of 32"/4 km length shall provide the gas for the main pipeline. In 2013 the idea was presented to the Pakistan decision makers.	*https://www.ilf.com/i
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Gwadar Coal Fired Power Plant Units I & II	Announced/Under Negotiation	Energy, Water and ICT systems	Power plant	2017	542.4	-China Communications Construction Co. Ltd -CIHC Pak Power Company Limited -CONSULTANTS Gwadar Development Authority -Tianjin Energy Investment Group	RA	*Gwadar power station is a proposed 300-megawatt (MW) coal plant in Balochistan province, Pakistan. According to a December 2014 overview of the CPEC in Pakistan Today, "Gwadar Coal Power Project 300 megawatts" is listed among the "significant energy projects" totaling 10,400 MW that are being installed.	*https://www.gem.wi
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Rahimyar Khan Coal Power Project Unit I-Unit II	Cancelled	Energy, Water and ICT systems	Power plant	-2021	1600	CONTRACTORS Huaneng Shandong Power Generation Co., Ltd.	RA	*Rahim Yar Khan power station is a proposed 1,320-megawatt (MW) coal plant in Punjab province, Pakistan.	*https://www.gem.wi
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Bhikki LNG Power Plant Gas Turbine 1&2, Steam Turbine	Completed	Energy, Water and ICT systems	Power plant	2017,2018	728.1	CONTRACTORS Harbin Electric International Co Ltd	RA	*The 1,180MW Bhikki combined-cycle power plant is a re-gasified liquefied natural gas (RLNG)-based power plant located near Sheikhupura, about 60km west of Lahore in the Punjab province of Pakistan.	*https://www.nsenerg
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	HUBCO Coal Power Plant Unit I	Completed	Energy, Water and ICT systems	Power plant	2017-2018	2000	CONTRACTORS Northwest Electric Power Design Institute Co Ltd Tianjin Electric Power Construction Co IMPLEMENTERS Hub Power Company FUNDERS China Bank of Communications	RA	*Hub power station is a 1,320-megawatt (MW) coal plant in Balochistan province, Pakistan. Unit 1 was synchronized on January 1, 2019, and went into service in March 2019.	*https://www.gem.wi
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Muzaffargarh Cogeneration Power Plant	Completed	Energy, Water and ICT systems	Power plant	-2017	250	CONTRACTORS China Shipbuilding Industry Corporation IMPLEMENTERS Fatima Energy Limited	RA	*Muzaffargarh sugar mill power station is a 120-megawatt (MW) powered plant fueled by coal and sugarcane in Punjab province, Pakistan.	*https://www.gem.wi
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Nandipur Combined Cycle Power Plant	Completed	Energy, Water and ICT systems	Power plant	2008-2015	577.7	CONTRACTORS Dongfang Electric Corporation Ltd CONSULTANTS Berkeley Group Holdings FUNDERS The Export-Import Bank of China BNP Paribas	RA	*Pakistan has changed the fuel source of the Nandipur Power Plant from furnace oil to liquefied natural gas (LNG) thereby increasing its capacity to 525MW. Conversion of the power plant into a regasified LNG (RLNG) powered unit is expected to increase the energy generation as well as bring down the operating costs.	*https://www.nsenerg
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Port Qasim Coal Fired Power Plant Unit I - II	Completed	Energy, Water and ICT systems	Power plant	2015-2017 (II nel 2018)	1912.2*	CONTRACTORS SEPCOIII Electric Power Construction Corp OPERATORS Port Qasim Electric Power Company (Private) Limited FUNDERS Sinohydro Resources Limited Al Mirqab Capital	RA	**The project is located in the Port Qasim Industrial Park, 37 km southeast of Karachi, and consists of plant, jetty and channel. The plant adopts the world's leading technology - supercritical thermal technology with gross capacity of 2*660 MW.	*http://cpec.gov.pk/p **http://pk.chinesepr
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Sahiwal Coal Fired Power Plant Unit I, II	Completed	Energy, Water and ICT systems	Power plant	2015-2018	1800	Albario Engineering Pvt Ltd Habib Rafiq (pvt) Ltd Huaneng Shandong Ruyi (Pakistan) Energy (Private) Ltd SEPCO1 Electric Power Construction Corporation	RA	*Sahiwal power station is a 1320-megawatt (MW) coal plant in Punjab province, Pakistan. Unit 1 went online in May 2017. Unit 2 was completed in June 2017 and began operation in July 2017.	https://www.gem.wik
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Bin Qasim Power Station III Unit I Bin Qasim Power Station III Unit II	Preparatory Works	Energy, Water and ICT systems	Power plant	2018- 2019-	1000 1000	CONTRACTORS SEPCOIII Electric Power Construction Corp	RA	*Pakistan's first ultra-supercritical power plant in Deh Ghangiaro, Bin Qasim, Karachi. The project will add up to 660 megawatts (MW) of electricity to the national grid - the equivalent power needed to supply up to 1.3 million Pakistani homes and industries.	*https://www.ge.com
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	K-Electric Coal Fired Power Plant I and II	Preparatory Works	Energy, Water and ICT systems	Power plant	-2020	1000	CONTRACTORS China Machinery Engineering Corporation	RA	*Port Qasim Datang power station was a proposed 700-megawatt (MW) coal plant in Port Mohammed Bin Qasim near Karachi, Pakistan.	*https://www.gem.wi
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Thar Block I Power Plant Unit I Unit II Thar Block VI Power Plant Phase I-II Thar Block II Power Plant Phase II Unit II	Preparatory Works	Energy, Water and ICT systems	Power plant	2017-2020 -2021 -2021	1900 1500 497.7	CONTRACTORS Shanghai Electric Power Co., Ltd. CONTRACTORS SEPCO Electric Power Construction Corp FUNDERS China Export & Credit Insurance Corporation (Sinosure)	RA	*The Thar Block-1 integrated coal mine and power project involves a 7.8 million tonnes per annum (Mtpa) open-pit coal mine and a 1.3GW ultra-supercritical coal-fired power plant in the Thar region in Pakistan's Sindh province. **Thar Block IV power station is a proposed 660-megawatt (MW) coal plant in Sindh province, Pakistan. The sponsors K-Electric and Harbin Electric International are also proposing the Bin Qasim power station.	*https://www.nsenerg **https://www.gem.w ***https://www.gem.w
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	HUBCO Coal Power Plant Unit II	Under Construction	Energy, Water and ICT systems	Power plant	2017-2019	2000	CONTRACTORS Northwest Electric Power Design Institute Co Ltd Tianjin Electric Power Construction Co IMPLEMENTERS Hub Power Company FUNDERS China Bank of Communications	RA	*Hub power station is a 1,320-megawatt (MW) coal plant in Balochistan province, Pakistan. In January 2015, the Hub Power Company announced that it plans to build a 1,320 MW (2 x 660 MW) coal plant next to its current 1,208 MW (4 x 302 MW) oil-fired power station, about 25 km southwest of the town of Hub in Balochistan. The plant would gradually be expanded to 3,960 MW (6 x 660 MW).	*https://www.gem.wi
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Punjab Combined Cycle Power Plant	Under Construction	Energy, Water and ICT systems	Power plant	2016-2020	802	CONTRACTORS China Machinery Engineering Corporation	RA	*The 1,180MW Bhikki combined-cycle power plant is a re-gasified liquefied natural gas (RLNG)-based power plant located near Sheikhupura, about 60km west of Lahore in the Punjab province of Pakistan. The plant is owned and operated by Quaid-e-Azam Thermal Power Limited (QATPL).	*https://www.nsenerg
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Thar Block II Power Plant Phase II Unit I Phase I Unit I	Under Construction	Energy, Water and ICT systems	Power plant	-2021 -2019	498.0 2000	CONTRACTORS China Machinery Engineering FUNDERS China Development Bank Industrial and Commercial Bank of China Habib Bank ltd. United Bank Ltd.	RA	*Thar Block II power station, also known as Thar Engro, is a 660-megawatt (MW) coal plant in Pakistan. Unit 1 was successfully synchronized to the grid in March 2019. A formal inauguration ceremony was held in April, with full commercial operation scheduled to begin by the end of June. Units 1 and 2 passed trial operation and began commercial operation on July 9, 2019.	*https://www.gem.wi
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Quaid-E-Azam Solar Park Phase I- II	Completed	Energy, Water and ICT systems	Solar Power plant	2015-2015 2015-2016	215.0	CONTRACTORS TBEA Xinjiang Sunoasis Co Ltd IMPLEMENTERS Zonergy Co OPERATORS Quaid-e-Azam Solar Power (Pvt.) Ltd. FUNDERS Government of Punjab	RA	*Located in the desert area of Lal Sohanra, spanning 2,630 hectares with installed flat-panel PV and a total installed capacity of 1,000 MW, the Quaid-e-Azam Solar Park is one of the world's largest solar power plant. Being the first utility-scale, grid connected solar power plant of Pakistan, the project consists of three phases (Phase I – 100 MW, Phase II – 300MW and Phase III – 600MW).	*https://www.beltroad
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Matiari-Lahore Transmission Line (Construction)	Announced/Under Negotiation	Energy, Water and ICT systems	Transmission line	-2021	1700	OPERATORS China Electric Power Equipment and Technology Co Ltd State Grid Corporation of China IMPLEMENTERS Pakistan National Transmission and Despatch Company Private Power and Infrastructure Board	RA	*The Matiari-Lahore transmission project is an 878km-long, 660kV high voltage direct current (HVDC) transmission line being constructed under the framework of China-Pakistan Economic Corridor (CPEC) as part of China's Belt and Road Initiative (BRI). It is the first HVDC line and the first private sector transmission project to be developed in Pakistan.	*https://www.nsenerg

continents	corridors	MoU, platforms	countries	project name	state	type	type	date	cost (million USD)	players	database	details	links
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Port Qasim-Faisalabad Transmission Line (Construction)	Announced/Under Negotiation	Energy, Water and ICT systems	Transmission line	-	1500	IMPLEMENTERS Pakistan National Transmission and Despatch Company OPERATORS China Electric Power Equipment and Technology Co Ltd State Grid Corporation of China	RA	*New transmission line between Port Qassim, located in Matiari in the province of Sindh and Faisalabad, located in the province of Punjab, Pakistan. In the first feasibility study of the project it had been recommended to first start laying the Matiari-Lahore line and then initiate work on the second line from Port Qasim to Faisalabad.	*https://www.zawya.c
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Karachi Water and Sewerage Services Improvement Project-2 (KWSSIP-2)	Approved	Energy, Water and ICT systems	Water	2019	100	AIIB: USD 40 million Borrower:USD 20 million World Bank: USD 40 million	AIIB	The project Objective is to improve access to safe water services in Karachi and increase KWSB's financial and operational performance.	
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Karachi Water and Sewerage Services Improvement Project-2 (KWSSIP-2)	Proposed	Energy, Water and ICT systems	Water	*2014-2021	600	Borrower: USD 120 million AIIB: USD 240 million World Bank: USD 240 million	AIIB	The Project objectives are to increase water availability, improve the safety of water and sewerage services in Karachi, and increase KWSB's financial and operational performance.	*http://documents1.w
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Lahore Water and Wastewater Management Project	Proposed	Energy, Water and ICT systems	Water	2018-	533.3	AIIB: USD 400 million Lahore Water and Sanitation Agency:USD 133.3 million	AIIB	The project objective is to: (i) ensure sustainable supply of safe water; (ii) reduce deteriorating environmental impacts due to untreated sewage disposal; and (iii) strengthen institutional capacity of LWASA to deliver improved services to the people of Metropolitan Lahore, and to become a financially strong entity.i	
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Dawood Wind Power Project	Completed	Energy, Water and ICT systems	Wind Power Plant	2015-2017	112.7	CONTRACTORS Hydrochina Dawood Power (Pvt) Ltd. FUNDERS Industrial and Commercial Bank of China 25 million	RA	*The Dawood wind power station is located on 1,720 acres of tidal flats 70 km east of Karachi in Sindh province, Pakistan. At present, Pakistan's renewable energy (excluding hydropower) generation volume is small, accounting for only 0.4% of the country's total electricity generation. The Dawood wind power project in Pakistan is one of the first 14 priority energy projects in CPEC.	*https://green-bri.org
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Sachal Wind Farm	Completed	Energy, Water and ICT systems	Wind Power Plant	2015-2017	134	CONTRACTORS HydroChina International Engineering Co Ltd OPERATORS Sachal Energy Development (Pvt.) Ltd. FUNDERS Industrial and Commercial Bank of China 110 million	RA	*Sachal Windfarm Project is a wind farm, developed on 275 hectare of land, with a total installed capacity of 49.5 MW. The project is located in the Jhimpir wind corridor in the Thatta District, Province of Sindh.	*https://www.beltroad
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Tenaga Generasi Wind Park Phase I Tenaga Generasi Wind Park Phase II	Completed	Energy, Water and ICT systems	Wind Power Plant	-2016 -2016	130 100.8	Habib Bank ltd. International Finance Corporation Overseas Private Investment Corporation Soneri Bank	RA	*Tenaga Generasi Limited (TGL) have installed Tenaga Generasi Wind Power Project at Gharo, District Thatta, Sindh, Pakistan. The site is about 35 km to the south west of Gharo Town.	*http://www.geotech
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Triconboston Wind Power Project Phase 1,2,3	Preparatory Works	Energy, Water and ICT systems	Wind Power Plant	-2018	110 111	CONTRACTORS Hydrochina Corporation FUNDERS Bank Alfalah Ltd. Asian Development Bank (ADB) 66 million	RA	*The project involves the construction, commissioning and operation of three 50 MW wind power projects located in Thatta District, Sindh Province, in the south of Pakistan.	*https://www.adb.org
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Cacho Wind Power Project	Under Construction	Energy, Water and ICT systems	Wind Power Plant	-2019	-	OPERATORS Cacho Wind Energy (Pvt.) Ltd. GD Power Development Co Ltd	RA	-	
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Three Gorges Wind Farm Phase 2- Phase 3	Under Construction	Energy, Water and ICT systems	Wind Power Plant	2017-2018	113.1	CONTRACTORS China Huashui Development Corporation China International Water & Electric Corp Three Gorges Second Wind Farm Pakistan Ltd. CONSULTANTS Lahmeyer International OPERATORS	RA	*The two projects, Three Gorges Second Wind Farm and Three Gorges Third Wind Farm, have a designed capacity of 49.5 MW and 33 wind turbines each.	*https://www.beltroad
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Havelian Dry Port (Construction)	Announced/Under Negotiation	Mobility	Intermodal	2017-	65	CONSULTANTS Pakistan Ministry of Communications IMPLEMENTERS Pakistan Railways OPERATORS Pakistan Railways FUNDERS China	RA	The Havelian Dry Port is being constructed in the anticipated demand of future freight traffic resulting from the China-Pakistan Economic Corridor. A request for Chinese financing was submitted in November of 2016, and the feasibility study was completed in June 2017. This project is part of the China-Pakistan Economic Corridor and the Belt and Road Initiative.	
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Karachi Circular Railway (Construction)	Started	Mobility	Light Rail	2017-2020	2000	*Japan External Trade Organisation (JETRO) feasibility project Karachi Urban Transport Corporation (KUTC) FUNDERS China Pakistan	RA	The KCR will be constructed along an existing abandoned track which runs through Shah Faisal Colony, COD, Gulistan-i-Jauhar, NIPA, Gulshan-i-Iqbal, Federal B Area, Manghopir, SITE, Baldia, Orangi, Wazir Mansion and Chanesar in Karachi, a port city in Pakistan. In October 2017, the Executive Committee of the National Economic Council approved the project under the China-Pakistan Economic Corridor (CPEC) framework.	*https://www.railway-
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Orange Line Metro Train Project	Under Construction	Mobility	Light Rail	2014-2018	1600	CONTRACTORS China Railway Corporation China North Industries Corporation OPERATORS Guangzhou Metro Corporation Punjab Mass Transit Authority FUNDERS The Export-Import Bank of China	RA	This is an automated light rail rapid transit system under construction in Lahore, Punjab, Pakistan. The Orange line is the first of the three proposed light rail lines proposed for the Lahore Metro. When operational in 2018, it will become Pakistan's first light rail line. It will span 27.1 km with 25.4 km elevated and 1.72 km underground.	
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Peshawar Circular Railway (Upgrade and Construction)	Under Construction	Mobility	Light Rail	2019-	1600	*China Railway Construction Corporation Limited (CRCC) feasibility project	RA	**The Circular Rail Track in The Greater Peshawar Region will achieve the following aims and objectives; I. Linking the Urban Nodes of Greater Peshawar and providing easy access and instigating growth of Urban Hubs. II. Reducing the need to shift to Peshawar City from hinterlands and controlling growth of Urban	*http://enpcpost.com **http://kp.gov.pk/upl
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Karachi-Lahore-Peshawar Rail Line (Expansion & Restoration)	Announced/Under Negotiation	Mobility	Rail	2017-2022	8200	CONTRACTORS China Railway Engineering Corporation (CRECG) IMPLEMENTERS Pakistan Ministry of Communications Pakistan Railways FUNDERS China	RA	The project is intended to rehabilitate and improve the existing ML-1 railway connecting Karachi, Lahore, and Peshawar. Upgrades will double the existing rail track from Karachi to Peshawar as part of China-Pakistan Economic Corridor. Under negotiation, but Pakistan recently cut funding by 2 Bn USD. This railway connects all of Pakistan's major cities and is a transport backbone for the country.	
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Spezand-Sariab-Kuchlak, Quetta Rail (Construction)	Announced/Under Negotiation	Mobility	Rail	2017-	687	CONTRACTORS China Communications Construction Company China Harbor Engineering Company FUNDERS Pakistan China Chinese Policy Bank	RA	This project is a railway line intended to serve Quetta, Balochistan, which will be single-track from Spezand to Sariab and double-track from Sariab to Kuchlak. It is part of the China-Pakistan Economic Corridor (CPEC)'s western route. Phase one of the Quetta Mass Transit system, a 48.5 kilometer railroad, will be completed by 2019. The original feasibility report for phase one was submitted and reviewed by provincial authorities and Chinese officials in November of 2016, and in November 2017 it was announced that the project will secure funding from a Chinese bank. Phase-I	
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Besima-Jacobabad and Besima-Quetta Railway	Planning	Mobility	Rail	**2025-2030	6000	*Pakistan Railways	WB	*Feasibility study and documentation to lay Besima-Quetta and Besima-Jacobabad tracks, has been finalized and submitted to the Planning Commission for approval.	*https://www.brecord **http://www.bprevie
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Havelian-Hyderabad capacity expansion (ML- 1) Havelian--Larkana-- Hyderabad	Under construction	Mobility	Rail	-2022	*6808	**-China Railway Eryuan Engineering Group Co,. Ltd. (CREEC) leading partner -CREEC + NESPAK + PRACS joint venture -Pakistan Railways	WB	Upgrade of ML-1 of Pakistan Railways began in 2018. The project's two phases are expected to be completed by 2022.	*http://cpec.gov.pk/p **http://pk.chinesepo
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Chakdara-Kalam Motorway (Widening and Rehabilitation)	Announced/Under Negotiation	Mobility	Road	-2018	32.0	CONSULTANTS EA Consulting Pvt. Ltd. FUNDERS Saudi Arabia Pakistan	RA	This motorway project will widen and rehabilitate highway that is part of the Belt and Road Initiative's China-Pakistan Economic Corridor. To the south, It connects to the Havelian-Abbottabad-Mansehra-Shinkiari-Bathagram-Thakot road. The construction of the road was announced in November 2015, and is expected to be completed in 2018. EA Consulting [Design/Architect] (Pakistan)	http://nha.gov.pk/wp-
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Khuzdar-Basima Road (Construction)	Announced/Under Negotiation	Mobility	Road	*2019-	119	IMPLEMENTERS Pakistan National Highway Authority (NHA) OPERATORS Pakistan National Highway Authority (NHA) FUNDERS China The Export-Import Bank of China	RA	The 110 kilometers long road project that consists of a 2-lane highway from Basima to Khuzdar project includes objectives such as the road contributing to the economic and social development of Balochistan, serving mineral rich Sandak and Rekodek areas, and linking the National Highways N-85, N-25 and Motorway M-8.	https://reconasia-pro *https://www.thenew
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Naukundi-Mashkhel-Panjgur Road (Construction)	Announced/Under Negotiation	Mobility	Road	*-	188	FUNDERS China Pakistan 45.1 million	RA	This project will connect National highway N-40 with CPEC Route N-85 and Zhob-Kuchlak, which is part of the Western Corridor CPEC Phase-II project. The Pakistani government decided to include this project in CPEC in September of 2017, and as of November 2017 a pre-feasibility study of the project was completed and a detailed design was in progress.	http://cpec.gov.pk/pr
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Karachi Bus Rapid Transit Red Line Project	Approved	Mobility	Road	2019-2024	*323	AIIB: USD 71.81 million ABD loan:USD 235 million AFD: USD 71.81 million GCF: USD 49 million GoS: USD 75.71 million	AIIB	The objective of the Project is to provide an efficient and sustainable public transport system in Karachi by delivering the city's Red Line Bus Rapid Transit (BRT) corridor.	*https://www.adb.org
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Khuzdar to Kori - Package 1, M-8 Highway (Sukkur-Gwadar) Quba Saeed Khan to Ratodero - Package 2, M-8 Highway (Sukkur-Gwadar) Gwadar - Turbat - Hoshab Section (200 km) M-8	Completed	Mobility	Road	- - 2014-2016 (Gwadar-Hoshab)	- - 90 (Gwadar-Hoshab)	*CONTRACTORS Frontier Works Organization (FWO) IMPLEMENTERS Pakistan National Highway Authority (NHA) FUNDERS Pakistan National Highway Authority (NHA) CONSULTANTS ACE Consultants Ltd	RA	The M-8 is a strategically important motorway being constructed in Pakistan that will connect the eastern, western and central alignments of the China-Pakistan Economic Corridor. It's total length from Gwadar to Ratodero is 892 KM out of which 64 KM is in Sindh while 828 KM will be in Balochistan. This particular segment of the CPEC connects Khuzdar to Kori and has been completed.	*https://books.google

continents	corridors	MoU, platforms	countries	project name	state	type	type	date	cost (million USD)	players	database	details	links
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Sukkur-Shahdadkot-Besima (M8)	Operational	Mobility	Road	-2018	6,98	Contractors: Pakistan National Highway Authority (NHA) Frontier Works Organization (FWO) Constructor: Pakistan National Highway Authority (NHA)	WB	*The M-8 is a strategically important motorway being constructed in Pakistan that will connect the eastern, western and central alignments of the China-Pakistan Economic Corridor. It's total length from Gwadar to Ratodero is 892 KM out of which 64 KM is in Sindh while 828 KM will be in Balochistan. This part of the M-8 is currently under construction.	*https://reconnecting
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	N-25 from Karachi to Chaman	Operational	Mobility	Road	2017-	*1248	*Central Development Working Party (CDWP)	WB	*The 790-km N-25 connects Karachi Port with Quetta and provides access to Afghanistan through Chaman. The project includes construction of additional carriageway and rehabilitation of existing road where required to make it a four-lane divided carriageway. **Karachi segment was revamped in 2017 and highway lights were installed till Hub River Bridge.	*https://www.dawn.c **https://en.wikipedia
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Chakdara-Chitral-Shandora-Gilgit Road (Construction)	Preparatory Works	Mobility	Road	2016	422.0	FUNDERS China Pakistan	RA	This CPEC project is in the planning and development phase. It will connect Chakdara in Khyber Pakhtunkhwa to Gilgit in Gilgit-Baltistan via Chitral and Shandora. In September of 2017, the project was officially included in the China-Pakistan Economic Corridor under the Belt and Road Initiative of China. A detailed design and feasibility study was completed in October 2017, and planning was underway in November 2017.	
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Mirpur-Muzaffarabad-Mansehra Road (Construction)	Preparatory Works	Mobility	Road	2016-	2500	FUNDERS China 1648 million Pakistan	RA	This China-funded road project in Pakistan will stretch across 209 km. Upon completion, it will be the shortest route from Central Punjab to CPEC, through AJK, shortening the existing route by 50 km and saving around four to six hours of travel time.	
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Gwadar Port East Bay Expressway (Construction)	Under Construction	Mobility	Road	2017-2020	168	CONTRACTORS China Communications Construction Company IMPLEMENTERS Gwadar Port Authority Pakistan Ministry of Ports and Shipping OPERATORS Gwadar Port Authority	RA	The project will link Gwadar Port with the Makran Coastal Highway in Balochistan, which will improve the logistics of transportation of imports and exports. It is part of the China-Pakistan Economic Corridor, which is a part of China's Belt and Road Initiative. China offered an interest-free loan of USD 130 million for the project in September of 2015, and the groundbreaking ceremony was in November 2017	
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Hakla-Dera Ismail Khan Motorway (Construction)	Under Construction	Mobility	Road	2016-2018	685	CONTRACTORS Frontier Works Organization (FWO) Khalid Rauf & Company Pvt Ltd Limak Holding A.S. National Logistics Cell Zahir Khan & Brothers (ZKB) IMPLEMENTERS Pakistan National Highway Authority (NHA)	RA	This Project consists of five sections, which are as follows: Yarik /Dl Khan (on N-55) to Rehamani Khel (55-Km), Rehamani Khel via Kundal to Daud Khel (70-Km), Daud Khel to Tarap (50-Km), Tarap to Pindigheb (50-Km) and Pindigheb to Hakla on M-1 (60-Km). The Government of Pakistan committed financing to this project in November of 2017, and the groundbreaking ceremony was held in May 2016. This project is being developed under the Belt and Road Initiative China-Pakistan Economic Corridor (CPEC) framework. This project is being constructed as part of the Western	
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Jaglot - Skardu Road (S-1) (Improvement)	Under Construction	Mobility	Road	2016-2020	193	CONTRACTORS Frontier Works Organization (FWO) OPERATORS Pakistan National Highway Authority (NHA) FUNDERS Pakistan National Highway Authority (NHA) 139 million	RA	The Jaglot – Skardu (S-1) strategic road is a major link between Karakoram Highway and Skardu in northeastern Pakistan.	
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	National Trade Corridor Highway Tranche 2 (Hasanabdal-Havellian Expressway)	Under Construction	Mobility	Road	2014-2017	238	CONTRACTORS JV China Gezhouba Group Co., Ltd/Ameer Muhammad Associates CONSULTANTS Dohwa Engineering Co. Ltd. National Engineering Services Pakistan (Pvt) Ltd. IMPLEMENTERS	RA	*Expressway that will improve connectivity within the country and Central Asia. The project will develop the Hasanabdal-Havellian Expressway to link the northern area of the country to the existing expressway network and lead to better connectivity with Afghanistan, the People's Republic of China, and other central Asian countries. The proposed Project 2 is part of the Central Asia Regional Economic Cooperation (CAREC). The Project is almost parallel with existing N-35 which is urbanized in many sections. Due to high traffic volume and	*https://www.adb.org
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Peshawar-Karachi Motorway Faisalabad-Multan (M-2, M-3 bridge) Lahore-Abdul Hakeem Section (M-3) Multan Highway (M-3, M-4)	Under Construction	Mobility	Road	2015-2019	M-3 942 M-3,4,5,6,9 2900 tot N-5 1620 M-9 224	*CONTRACTORS China Railway No. 20 Bureau Group Co., Ltd China State Construction Engineering Corporation (CSCEC) National Engineering Services Pakistan (Pvt) Ltd. Zahir Khan & Brothers Engineers & Constructors	RA + WB + AIIB	Karachi-Peshawar Motorway project is intended to construct a 6-lane motorway connecting Karachi through M-9 to Hyderabad. The total intended length of the highway is 1100 kilometers. The Multan-Sukkur section of the Motorway will be 392 kilometers. "The first section of the two-way six-lane road was launched in 2018 and is operational. The rest is under construction and to be completed by 2019." -M-3 completed 2019 -Karachi-Lahore 1152 km, six-lane, high-speed, controlled access, under	https://reconasia-pro https://nation.com.pk http://nha.gov.pk/wp-
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Khyber Pakhtunkhwa Cities Improvement Project	Proposed	Others	Urban	*2019-2024	380	Borrower: USD 38 million AIIB: USD 142 million ADB: USD 200 million	AIIB	The objective of the project is to improve access to safely managed water, sanitation, SWM services and green urban spaces in selected cities of the KP province.	*https://www.adb.org
Asia	CPEC (maritime)	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Gwadar rail Kotla Jam–Quetta– Gwadar (ML-2)	Planning	Mobility	Rail	-	**4500 (estimated)	-	WB	*Feasibility report from Gwadar was completed on June 30, 2019. Distance from Gwadar to Quetta of proposed railway line was about 925 Kilometers, Quetta to Zohab about 320 Kilometers, Zohab to Kotla Jam about 497 Kilometers and from Kohat to Peshawar about 65 Kilometers	*https://www.urdupoi **https://www.thenew
Asia	MARITIME, CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Gwadar Port Breakwater (Construction)	Completed	Mobility	Seaport	2013-	123	IMPLEMENTERS Gwadar Port Authority OPERATORS China Overseas Ports Holding Company Pakistan FUNDERS China	RA	Expansions to continue until 2025. Port given to China on 40-year lease due to payment difficulties. This deep-sea port is the flagship project of the $62 billion CPEC and will be located in a free trade area modelled on China's "Special Economic Zones." *Under the Concession Agreement, however, construction of breakwaters and dredging works are the responsibilities of Gwadar Port Authority. For construction of berthing facilities on the eastern side of the existing multi-purpose terminal (4.200 km), a 1.200-1.500 km long breakwater has to be constructed.	*http://cpec.gov.pk/p
Asia	MARITIME, CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Gwadar Port Dredging of Berthing Areas & Channels (Construction)	Started	Mobility	Seaport	-2017	27	IMPLEMENTERS Gwadar Port Authority OPERATORS China Overseas Ports Holding Company Pakistan This project is financed through Chinese Government Concession Loan (CGCC).	RA	*This project is part of a larger series of construction projects on Gwadar Deep Sea Port, the flagship project of the CPEC. It aims to construct additional terminals and facilitate shipments. *For construction of Container Terminals on the western and north western side (initially 1.200 km &upto maximum 10.00 km) of the existing multi-purpose terminal and second phase terminals on the eastern side (4.200 km), capital dredging works on continual basis and maintenance dredging on continual bases are required.	*http://cpec.gov.pk/p
Asia	MARITIME, CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Gwadar Port (Freshwater Treatment and Supply)	Under Construction	Mobility	Seaport	2016	130	IMPLEMENTERS Gwadar Port Authority OPERATORS China Overseas Ports Holding Company Pakistan	RA	*The project is aimed at implementing water supply, distribution system, desalination plant, sewerage collection system and treatment plant as planned in the Master Plan of Gwadar as a mega port city in the medium term (2030) and long-term (2050) scenarios. Objective of the Project: This project will aim at catering future water demand and sewage disposal systems in Gwadar required for Deep Sea Port, its associated industry, and the city itself.	*http://www.cpec.gov
Asia	MARITIME, CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Gwadar Port (Infrastucture for Free Zone & EPZs Port related Industries)	Under Construction	Mobility	Seaport	-2018	32	IMPLEMENTERS Gwadar Industrial Estates Development Authority Export Processing Zones Authority OPERATORS China Overseas Ports Holding Company Pakistan	RA + WB	*Pieces of lands have already been earmarked/acquired for the purpose: Gwadar port free zone: 2,280 acres GIEDA industrial zone: 3,000 acres EPZA export processing zone: 1,000 acres Infrastructure is required to be developed for these industrial zones, for example, access roads, internal roads, water, gas, power, custom facilities, fencing, security, some warehouses, office and other allied infrastructure, etc.	*http://cpec.gov.pk/p
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Western Energy Jhimpir Wind Power Project	Announced- Under Negotiation	Energy, Water and ICT systems	Wind Power Plant	**2016- (?)	116.2	*-OPERATORS: Western Energy (Private) Ltd (owner) -Shanghai Marine Diesel Engine Research Institute -TAPAL Energy Consultant: -AEDB INVESTOR:	RA	*The project involves the construction of a 50MW wind farm project. It includes the construction of a substation, and access roads, the installation of 25, H-111 wind turbine generators of 2MW each, 80m high wind towers comprising 75 blades with 55.2m length and the laying of transmission lines.	*https://www.zawya. **https://reconasia-p
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	UEP Wind Farm	Completed	Energy, Water and ICT systems	Wind Power Plant	2015-2017	250.0	CONSTRUCTOR: -China Gezhouba Group Company Limited -Hydrochina Corporation INVESTOR: UEP, CDB OPERATOR: -United Energy Pakistan (UEP)	RA	*The UEP Wind Farm is one of five Wind Farms developed under the China-Pakistan Economic Corridor (CPEC) of the Belt and Road Initiative. With an installed capacity of 99 MW it is the largest wind power project developed under CPEC. Like most other wind projects in Pakistan, the UEP Wind Farm is located in Jhimpir, which is part of the so-called "Gharo-Jhimpir wind corridor", a 180 km stretch of coastal land with high wind power production potential.	*https://www.beltroad
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Zhob - Kuchlak Road (N-50)	Announced- Under Negotiation	Mobility	Road	*2020-	188.0	**National Highway Authority (NHA)	RA	*On existing alignment (section of N-50) with geometric improvements 331 km in length. Existing 2 lanes are in very good condition. Addition of 2 new lanes for dualization of Existing N-50 to 4 lane. Geometric improvements will be made to the existing alignment to achieve the design speed. 100m R.O.W will be acquired to upgrade it to 6 lanes in future.	*http://cpec.gov.pk/p **https://profit.pakist
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Yarik-Zhob Road (Upgradation)	Preparatory Works	Mobility	Road	2017-2020	195.0	-Pakistan National Highway Authority (NHA)	RA	The project focuses on the western alignment of the China-Pakistan Economic Corridor (CPEC).	
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	Zhob - Mughalkot Road (Rehabilitation)	Under Construction	Mobility	Road	2016-2018	85.0	-Pakistan National Highway Authority (NHA)	RA	Construction, which was started in December 2016, was in full swing as of November 2017 and will be completed by December 2018.	
Asia	CPEC	Joint decl. 2018, ACD, ASEM, CAREC, SCO, CICA	Pakistan	High-tech Industrial Park in Islamabad	*Under Construction	Zoning	Industrial Parks	*2017-	*50 (initial)	Federal Government of Pakistan	RA + HKTDC	Located on the outskirts of Islamabad and currently owned by the Information Technology Department of the Federal Government of Pakistan, the 32-acre site would be the first IT High-tech Industrial Park in Pakistan	*https://www.pakistar
Asia	-	Joint decl. 2017, ACD, APEC, ASEM, ASEAN	Philippines	South Pulangi Hydroelectric Powerplant Project	Announced/Under Negotiation	Energy, Water and ICT systems	Hydropower plant	2019	*699	CONTRACTORS: China Communications Construction Co. Ltd IMPLEMENTERS: China Malaysia	RA	**The dam and power plant will use the Pulangi River where it pours through a lush, forested canyon on the island of Mindanao. With 250 megawatts (MW) of capacity, the South Pulangi Hydroelectric Power Plant (SPHEPP) is intended to boost electricity supply on Mindanao, the country's second largest island and home to more than 24 million people.	*http://eia.emb.gov.p **https://chinadialog
Asia	-	Joint decl. 2017, ACD, APEC, ASEM, ASEAN	Philippines	Metro Manila Flood Management Project	Approved	Energy, Water and ICT systems	Water	2017	500	Borrower: USD 84.79 million AIIB: USD 207.60 million World Bank: USD 207.60 million	AIIB	The Project objective is to improve flood management in selected areas of Metro Manila.	

continents	corridors	MoU, platforms	countries	project name	state	type	type	date	cost (million USD)	players	database	details	links
Asia	-	Joint decl. 2017, ACD, APEC, ASEM, ASEAN	Philippines	Subic-Clark Railway	*Planning	Mobility	Rail	**2020-	**1038	**$83 million of the total project cost will be financed via official development assistance or ODA.	HKTDC	The Subic-Clark Railway Project (SCRP) is a component of PNR Luzon System Development Framework. It is a 71-km freight railway connecting Subic Bay Freeport Zone (SBFZ) and Clark Freeport Zone (CFZ), providing a railway link between the Port of Subic Bay (PSB) and Clark International Airport (CRK). Eventually, the railway will accommodate passenger service and will be extended to New Clark City (NCC).	*http://www.build.gov **https://www.bworld
Asia	-	Joint decl. 2017, ACD, APEC, ASEM, ASEAN	Philippines	Silangan Gold and Copper Mining	*Planned	Others	Mining	*2022-	*745	Firsst pacific Company Limited	HKTDC	Silangan is a major sub-level caving gold and copper mining development project in the Mindanao region of the Philippines. The project has recently completed its definitive feasibility study and the shareholders are now seeking equity partners to fund capital expenditures to bring the mine to operations.	*https://www.nsenerg
Europa	NELB	MoU 2015 China - CEEC 16+1, ASEM	Poland	DCT Gdansk Container Port PPP Sale	*Approved	Mobility	Intermodal	-2016	1300	Macquarie Global Infrastructure Fund II Its key customers include Maersk, MSC, COSCO Shipping, Evergreen Line, CMA CGM, and OOCL.	HKTDC	The sale of the DCT Gdansk Container Port concession to a PSA International-led consortium, for a deal worth up to EUR 1.3bn, to a consortium comprising IFM, PSA International and Poland Development Fund, in May 2019. The asset, which specialises in handling ultra-large container vessels shipping goods between the Far East and Europe, has begun to see the benefit of a EUR 200m terminal launched in 2016.	*https://www.ebrd.co
Asia	- (maritime)	ACD, CASCF, CICA	Qatar	East West Corridor	Under Construction	Mobility	Road	2014-2017	612.4	CONTRACTORS China Harbor Engineering Company Joannou & Paraskevaides (Overseas)	RA	The East West Corridor will consist of 22km of new road that runs five lanes in each direction. It is slated to stretch from west of Barwa City to south of Air Force Roundabout on Al Matar Street (Airport Road.)	
Asia	- (maritime)	ACD, CASCF, CICA	Qatar	New Doha Port Navy Wharf Project	Announced/Under Negotiation	Mobility	Seaport	2014-	170	CONTRACTORS China Communications Construction Co. Ltd	RA	CHEC won the bid for Qatar Newport Navy Wharf Project. The project client is Qatar Newport Administrative Committee; the contract amount is about USD 170 million and the contract period is 572 days. China-Central Asia-West Asia Corridor The project comprises of the excavation of quay wall foundation trench of the navy wharf, construction of wharf quay wall, revetment, breakwater, some backfill, floating pier, and construction of navigation mark facilities and so on.	
Asia	-	ACD, ASEM, SCO, CICA	Russia	Nizhnevartovskaya GRES-Sovetsko Transmission Line (Construction)	Announced/Under Negotiation	Energy, Water and ICT systems	Transmission line	2017-	-	OPERATORS Rosseti State Grid Corporation of China	RA	-	
Asia	-	ACD, ASEM, SCO, CICA	Russia	Karelia Offshore Wind Farm	Announced/Under Negotiation	Energy, Water and ICT systems	Wind Power Plant	2017-2020	138.5	CONTRACTORS SINOMEC FUNDERS Russian Direct Investment Fund (RDIF)	RA	*Russia's fledgling wind industry is getting a boost from a first offshore project planned in the White Sea, while talks are underway between state-owned nuclear group Rosatom and foreign partners over the construction of three wind farms in Russia with a joint capacity of 610MW.	*https://gwec.net/boo
Asia	-	ACD, ASEM, SCO, CICA	Russia	Infrastructure Development Program (Previously: Russian Federation Transport Sector Investment Loan)	Approved	Mobility	Road	2019	500 million	AIIB Funding of USD 500 million	AIIB	To improve road network connectivity in key economic corridors	
Asia	-	ACD, ASEM, SCO, CICA	Russia	Bronka Port Dredging Northern Sea Route	Completed	Mobility	Seaport	2015-2015	175.0	CONTRACTORS China Communications Construction Company Royal Boskalis Westminster OPERATORS CJSC Baltstroy	RA	*The project, which was awarded by CJSC Baltstroy, involves the construction of a 6km long shipping channel, turning basin and berth pockets for the new Bronka port facility. Bronka is currently being constructed to increase the container throughput capacity in the St Petersburg region.	*https://www.greenp
Asia	- (nelb)	ACD, ASEM, SCO, CICA	Russia	Power of Siberia 2 (Altai) Pipeline (Construction)	Announced/Under Negotiation	Energy, Water and ICT systems	Pipeline	*-2030	**14000	-China National Petroleum Company (CNPC) -Gazprom	RA	*Supplies to China via this new route called Power of Siberia 2 or the Altai route may total up to 50 billion cubic meters (bcm) per year.	*https://www.icis.com **https://www.gem.w
Asia	CMREC	ACD, ASEM, SCO, CICA	Russia	Elegest-Kyzyl-Kuragino Railway	Announced/Under Negotiation	Mobility	Rail	-2022	2111	CONTRACTORS China Railway Construction Corporation IMPLEMENTERS Russian Railways Tuva Energy Industry Corporation-TEPK FUNDERS National Welfare Fund of the Russian Federation	WB + RA	Construction started on section to Ovoot coal mine, to finish in 2019. Section beyond Ovoot is only planned. Final feasibility study approved in April 2018. Delays due to funding shortfalls.	http://ik.mofcom.gov.c
Asia	CMREC	ACD, ASEM, SCO, CICA	Russia	Vostochny Port (expansion)	Operational	Mobility	Seaport	*2017-2020	**547	*JSC Vostochny Port	WB	*Existing Capacity (Million tonnes per annum): 18 Additional Proposed Capacity (mtpa): 14.5 According to the forecasts of Managing Port Co. LLC, the port capacity is to reach 24.5 million million tonnes of coal by 2017, 28.5 million mt by 2019, and 32.5 by 2020.	*https://www.gem.wi **https://www.dry.ca
Asia	CMREC, NELB	ACD, ASEM, SCO, CICA	Russia	Power of Siberia Pipeline (Construction)	Under Construction	Energy, Water and ICT systems	Pipeline	2014-2019	17500	IMPLEMENTERS China National Petroleum Company (CNPC) Gazprom	RA	Natural Gas. With estimated cost of $17.5 billion, The Power of Siberia pipeline is expected to transport 38 billion cubic meters of natural gas from Russia to China each year through one of the harshest winter climates on the plant.	
Asia	MARITIME	ACD, ASEM, SCO, CICA	Russia	Arkhangelsk Deepwater Port Northern Sea Route	Announced/Under Negotiation	Mobility	Seaport	*2018-2028	2021	CONTRACTORS China Poly Group Corporation	RA	*2018-2023: design, construction, launching; 2026-2028: port infrastructure extension and reaching projected capacity. The port is located 52 km to the North from Arkhangelsk in the water area of Dvinsky Bay in the territory of Primorsky municipal district of the Arkhangelsk region.	*http://atpu.ru/en/the
	MARITIME	ACD, ASEM, SCO, CICA	Russia	New Dvina Port (Arkhangelsk port) Northern Sea Route	Planning	Mobility	Seaport	2035*	2300	*COSCO (interest) Poly International Holding Company (agreement)	WB	This new mega port valued at 2.3 Bn USD would be Russian Federation's central hub for trade with Europe, the Asia-Pacific region and North America. The project includes construction of a modern transport hub consisting of four multi-purpose and two dedicated terminals for mineral fertilizers and LNG, with a total annual capacity of up to 38 mln tonnes by 2035, as well as road and rail connections.	*https://port.today/ru
Asia	NELB	ACD, ASEM, SCO, CICA	Russia	Moscow-Kazan High Speed Railway	Preparatory Works	Mobility	Rail	2013-2022	22400	CONSULTANTS China Railway Eryuan Engineering Group Co. Ltd. FAU Glavgosexpertiza OJSC Mosgiprotrans OJSC Nizhegorodmetroproekt IMPLEMENTERS JSC Russian Railways	RA	The Moscow-Kazan High Speed Railway will connect the Russian capital to Kazan, the capital of the Republic of Tatarstan, passing through Vladimir, Nizhny Novgorod and Cheboksary. It plans to reach speed up to 400km/h, and will cut traveling time from 14h7' down to 3h30'. The Moscow-Kazan section may later be extended to China, via Kazakhstan. The average annual passenger traffic is estimated at 195 mln people. The Moscow-Kazan High Speed Railway's total length will stand at around 770 kilometers.In May 2018, Eurasian Development Bank committed to funding, signing a	
Asia	MARITIME	ACD, ASEM, SCO, CICA	Russia	Zarubino Port Construction	Under Construction	Mobility	Seaport	2014-2018	3000	-China Merchants Holding International Company Ltd. -Summa Group	RA	To accommodate transit of Chinese goods between the northeastern and southern provinces of China, Russia's Summa Group is cooperating with China Merchants Holding International to build a deep-water port 80km from Vladivostok at Zarubino.	
Asia	-	ACD, CASCF	Saudi Arabia	Bridge at Arafat Road and Al-Kharj Road in Riyadh	Announced/Under Negotiation	Mobility	Bridge	-	-	CONTRACTORS China Civil Engineering Construction Corporation	RA	China Civil is constructing a bridge at the intersection of Arafat Road with Al-Kharj Road in Riyadh (BIAK for short).	http://www.belkomur
Asia	-	ACD, CASCF	Saudi Arabia	Hamza Intersection Bridge	Announced/Under Negotiation	Mobility	Bridge	-	-	CONTRACTORS China Civil Engineering Construction Corporation	RA	China Civil is constructing a bridge at Hamza Intersection in Najran.	https://www.arabnew
Asia	-	ACD, CASCF	Saudi Arabia	Prince Muteb Intersection Bridge in Najran	Announced/Under Negotiation	Mobility	Bridge	-2020	-	China Civil Engineering Construction Corporation	RA	China Civil is constructing a bridge at the Prince Muteb Intersection in Najran.	
Asia	-	ACD, CASCF	Saudi Arabia	Dammam Riyadh Freight Line Phase 2	Completed	Mobility	Rail	2015-2017	43.0	CONTRACTORS China Railway Construction Corporation IMPLEMENTERS Saudi Railways Organization (SRO)	RA	Saudi Railways Organization awarded China Railway Construction Corp (CRCC) a 160m riyal contract to undertake the 91 km second phase of upgrading the Dammam – Riyadh freight line. The specifications for the 23 month project is to increase capacity includes raising the maximum axleload to 32.5 tonnes. In 2014, CRCC was awarded a 123m riyal contract to renew 78.4 km of the route.	
Asia	-	ACD, CASCF	Saudi Arabia	King Abdulaziz Intersection Tunnel	Announced- Under negotiation	Mobility	Tunnel	-2019*	-	-China Civil Engineering Construction Corporation	RA	China Civil, an engineering construction corporation from China, is currently involved in the construction of a tunnel at the intersection of King Abdulaziz Road with Palestine Street and Al-Hamra Street in Jeddah (KAAT).	*https://www.constru
Asia	-	ACD, CASCF	Saudi Arabia	Obhur Creek Bridge PPP Proje	Under Construction	Mobility	Bridge	2015-	-	Metro Jeddah Company	HKTDC	Metro Jeddah Company in Saudi Arabia is developing a bridge PPP. Obhur suspension bridge will link the north and south banks of Obhur Creek in north Jeddah. It will extend 2 kilometres across the creek and will be 74 metres wide with a maximum clearance of 51 metres. The bridge is designed to include four lanes for road traffic in each direction and a segment of the planned Jeddah Metro Orange Line.	https://www.meed.co

continents	corridors	MoU, platforms	countries	project name	state	type	type	date	cost (million USD)	players	database	details	links
Asia	-	ACD, CASCF	Saudi Arabia	Jeddah Light Rail Transit	Under Construction	Mobility	Light Rail	2014-2022*	*12000	Metro Jeddah Company	HKTDC	The Saudi Arabian Ministry of Transport plans to construct a Light Rail Transit in Jeddah. First Line go through Sari Street, second line go through (Alfahlia) Street and the third line go through (Falastin) Street. The US$1,500 million project includes the following: 1. Construction of 38km light rail transit 2. Construction of three depots 3. Construction of associated facilities	*https://www.zawya.c
Asia	-	ACD, CASCF	Saudi Arabia	Riyadh Dammam High-Speed Rail	Planning	Mobility	Rail	-	14000	Saudi Railways Organisation	HKTDC	Saudi Railways Organisation (SRO) is planning to construct a Riyadh Dammam high-speed rail in Saudi Arabia. The US$14,000 million includes the following: 1. Construction of railway line 2. Construction of stations 3. Infrastructure works 4. Associated facilities	https://www.railway-t
Asia	- (maritime)	ACD, CASCF	Saudi Arabia	Abu Bakar Intersection Bridge (China-Central Asia-West Asia Corridor)	Under Construction	Mobility	Bridge	-2017	-	-China Civil Engineering Construction Corporation	RA	China Civil is constructing a bridge at the intersection of Arafat Road with Abu Baker.	https://www.arabnew
Europe	-	MoU 2015 China - CEEC 16+1	Serbia	Belgrade Metro	Preparatory Works	Mobility	Light Rail	2019	3000	CONTRACTORS Power Construction Corporation of China OPERATORS City of Belgrade	AIIB	*According to the preliminary design of the project, the Belgrade metro network will initially consist of two lines - of 22 km and 19.8 km in length, respectively - and will also integrate four urban railway lines. The first line of the metro will run along the Sava river, crossing downtown Belgrade, and will link the Makisko Polje area in the southwestern part of the Serbian capital to the Mirijevo neighbourhood in the northeast, near the Danube river. The second line will connect Zemun, a northwestern suburb of Belgrade. to the Mirijevo neighbourhood through the New Belgrade urban	*https://seenews.com
Europe	- (maritime)	MoU 2015 China - CEEC 16+1	Serbia	Budapest-Belgrade High-Speed Railway - Serbian Section (Construction)	Under Construction	Mobility	Rail	2017-2020	2976	FUNDERS The Export-Import Bank of China 297.6 million	AIIB	This Chinese-backed high-speed railway is intended to link the capitals of Hungary and Serbia and has been celebrated as a flagship project under China's "16+1" format and Belt and Road initiative. The Hungarian and Serbian sides combined, the total project is expected to cost 3.2 billion euros ($3.80 billion) and is slated to become the main transport route for Chinese goods that arrive by sea at the Greek port of Piraeus to other parts of Europe, according to Reuters.	https://www.railwayp
Europe	- (maritime)	MoU 2015 China - CEEC 16+1	Serbia	Corridor XI E-763 Belgrade-South Adriatic Highway Ljig-Preljina Section	Completed	Mobility	Road	2012-2016	308.0	CONTRACTORS AzVert LLC CONSULTANTS CIP Institute of Transportation Corridors of Serbia Ltd. IMPLEMENTERS Serbia Ministry of Construction, Transport and Infrastructure	AIIB	A part of the Pan-European Corridor XI, this new highway connecting Ljig and Preljina will cut traveling time between the two cities in half, taking 30 minutes instead of a full hour. Section Ljig - Preljina (L=40,36 km) consists of three sections: Donji Banjani - Boljkovci (L=10,72 km) Boljkovci - Takovo (L=12,57 km) Takovo - Preljina (L=17,07 km)	http://www.koridor10
Europe	- (maritime)	MoU 2015 China - CEEC 16+1	Serbia	Corridor XI, E-763 Highway, Belgrade – South Adriatic, Surcin – Obrenovac	Completed	Mobility	Road	2016-2019	233.7	CONTRACTORS: China Communications Construction Co. Ltd OPERATORS: Serbia Ministry of Construction, Transport and Infrastructure FUNDERS: The Export-Import Bank of China	AIIB	*For the section Belgrade (Surčin) - Obrenovac, 17,58 km in length, the construction contract was signed with the representatives of the company "China Communication Construction Company (CCCC)". The supervision on that section of the highway is done by The Highway Institute.	*http://www.koridor1
Europe	- (maritime)	MoU 2015 China - CEEC 16+1	Serbia	Belgrade Bypass Road	Under Construction	Mobility	Road	2016-2020	207.0	CONTRACTORS Sinohydro China's Power Construction Corporation (Powerchina) IMPLEMENTERS Serbia Ministry of Construction, Transport and Infrastructure FUNDERS	AIIB	*Powerchina has completed the breakthrough of the left tube of the Strazevica tunnel that lies on the 20 km-long Ostruznica-Bubanj Potok section of the bypass road, the ministry said in a press release on Tuesday. "The section from Ostruznica to Bubanj Potok will be finished in 2022, which will additionally relieve traffic in the city," infrastructure minister Zorana Mihajlovic said at the ceremony marking the completion of the left tube breakthrough.	*https://seenews.com
Europe	- (maritime)	MoU 2015 China - CEEC 16+1	Serbia	Corridor XI motorway (Obrenovac-Ub and Lajkovac-Ljig sections)	Under Construction	Mobility	Road	2014-2017	334.0	CONTRACTORS Shandong Hi-Speed Group FUNDERS The Export-Import Bank of China 301 million Serbia 32.7 million	AIIB	*The Belgrade-South Adriatic E-763 is a branch of the Trans-European Highway, which connects its main route from Gdansk to Athens and Istanbul with the Adriatic Sea and Port of Bar on the territory of Serbia and Montenegro. The highway represents the connection between Serbia and Montenegro, namely Belgrade and the southern Adriatic, and in a wider context connects Romania, Serbia, Montenegro and Italy. Section 3: Obrenovac-Ub, length 26.2 km Section 5: Lajkovac-Ljig, length 24 km	*https://www.mgsi.go
Europe	- (maritime)	MoU 2015 China - CEEC 16+1	Serbia	Preljina - Pozega Section, Corridor XI, E-763 Highway	Under Construction	Mobility	Road	2017-	502.0	CONTRACTORS China Communications Construction Company IMPLEMENTERS Serbia Ministry of Construction, Transport and Infrastructure FUNDERS The Export-Import Bank of China	AIIB	The contract for the construction of the 31 kilometer Preljina - Pozega highway was signed in November 2017. The segment is part of the E-763 highway, which is included in the Trans-European Transport Network, Corridor XI.	https://www.mgsi.gov
Europe	- (maritime)	MoU 2015 China - CEEC 16+1	Serbia	Stublenica Industrial, Commercial, and Technology Park	Started	Zoning	Industrial Parks	2014-	1200	China National Electric Engineering Co Ltd China National Machinery Industry Corp	AIIB	*The plan includes the construction of industrial and commercial facilities and stipulates opening of representative offices of different companies (from various fields of work) from People's Republic of China.	*https://www.mgsi.go
Asia	MARITIME	ACD, CICA	Sri Lanka	Matara-Kataragama Railway Phase 1 (Extension)	Under Construction	Mobility	Rail	2013-2020	1000	CONSULTANTS WSP	Parsons Brinckerhoff IMPLEMENTERS Sri Lanka Ministry of Transport and Civil Aviation FUNDERS The Export-Import Bank of China 200 million	RA	Phase 1 of the Project is intended to modernize and extend the railroad from Matara to Beliatta. It aims to improve the quality of railway connection in the southern Sri Lanka. *It is one of the pilot projects being built under the Mahinda Chinthnaya (which means Vision for the Future in Sri Lanka's Sinhala language), a multi-year policy programme launched by the Sri Lanka Government with the aim of driving the nation's economic growth rate forward.	*https://www.railway-
Asia	MARITIME	ACD, CICA	Sri Lanka	Ratnapura - Palawela - Karawita Road (Upgrade)	Completed	Mobility	Road	2013-2016	300	China Development Bank 300 million	RA	*Chinese Development Bank has provided 300 Million for the Priority Road Project. Total road length of 199.2 km has been selected to develop under this project. Stage I of PRP III, will be implemented under 13 contract packages. 12 contracts have already been awarded and construction works of road sections were commenced during the year 2014 (one of them is Ratnapura - Palawela - Karawita Road.	*https://www.parliam
Asia	MARITIME	ACD, CICA	Sri Lanka	Ruwanpura Four lane Expressway Project	Preparatory Works	Mobility	Road	2017-2021	70	CONTRACTORS China Harbour Engineering Construction Company China National Technical IMP & EXP Corp IMPLEMENTERS China Government of Sri Lanka	RA	*The Proposed Ruwanpura Expressway from Kahathuduwa to Pelmadulla via Ratnapura is connecting Western Province with Sabaragmauwa Province. First phase of the Expressway from Kahathuduwa to Ingiriya will be 24.3km long.	*http://www.rda.gov.l
Asia	MARITIME	ACD, CICA	Sri Lanka	Central Expressway E04, Kadawatha-Mirigama Section (Construction)	Under Construction	Mobility	Road	2014-	4500	CONTRACTORS China Merchants Group Taisei Corporation CONSULTANTS Consulting Engineers and Architects Associated (CEA) GreenTech Consultants Resources Development Consultants	RA	This is the first section of the E04 Central Expressway project in Sri Lanka, which will connect Colombo to Kandy. This section entails the road construction between Kadawatha and Mirigama.	
Asia	MARITIME	ACD, CICA	Sri Lanka	E01 Southern Expressway (Construction) Galle - Matara	Under Construction	Mobility	Road	2015-	180	CONTRACTORS A.A. Group Ltd. China Aviation International Engineering Corporation China Construction Corporation China Harbor Engineering Company IMPLEMENTERS Road Development Authority (RDA)	RA	The Second Phase of the E01 Expressway from Galle to Matara was commissioned on 15th March 2014. Entry from Galle to the expressway is from Pinnaduwa Interchange. Exit to Matara is from Godagama Interchange. From Pinnaduwa Interchange proceeding towards Matara, the first interchange that comes across is Imaduwa Interchange. It connects to Galle-Deniyaya-Madampe main road. The second Interchange coming across is Kokmaduwa Interchange which connects to Imaduwa -Kananke road. Passing Kokmaduwa Interchange, the exit to Matara is through	
Asia	MARITIME	ACD, CICA	Sri Lanka	Hambantota Deep Sea Port Phase I (PPP)	Completed	Mobility	Seaport	2007-2010	505	CONSULTANTS Erisha International Pvt. Ltd. Flanders Investment and Trade Lanka Hydraulic Institute Ramboll Consulting Resources Development Consultants SNC Lavalin CONTRACTORS	RA	This project is for the construction of a deep-sea port in south-eastern Sri Lanka's Southern Province. Currently, construction is between phases II and III, although widespread public anger persists over the financing agreement between the Sri Lankan government and Chinese funders. In December 2016, the Sri Lankan government announced that it would sell an 80% stake in the Hambantota Port to China Merchants Port Holding Co. for $1.12 billion. This announcement triggered protests by trade unions and opposition groups causing the two parties to revise China's stake in the joint	https://www.ship-tech https://www.zawya.c
Asia	MARITIME	ACD, CICA	Sri Lanka	Hambantota Deep Sea Port Phase II (PPP)	Completed	Mobility	Seaport	2012-2015	809.4	CONTRACTORS China Communications Construction Company China Harbor Engineering Company Sinohydro IMPLEMENTERS Sri Lanka Ministry of Transport and Civil Aviation	RA	Funding for the port was split into three types of loans, all financed by Chinese companies. The port failed to attract the needed traffic in order to pay back high government debt to China and in late December 2016, President Maithripala Sirisena announced that the port would be lease 80 percent ownership of the port operating companies to China Merchants Holding for $1.12 billion over 99 years. This announcement triggered protests by trade unions and opposition groups causing the two parties to revise China's stake in the joint venture to 70 percent. The concession	https://www.zawya.c
Asia	MARITIME	ACD, CICA	Sri Lanka	Hambantota Deep Sea Port Phase III	Preparatory Works	Mobility	Seaport	2018-2021	550	CONTRACTORS China Communications Construction Co. Ltd IMPLEMENTERS China Sri Lanka Ports Authority FUNDERS The Export-Import Bank of China	RA	*The third phase is expected to be completed by 2023. It will add a dockyard.	*https://www.ship-tec
Asia	MARITIME	ACD, CICA	Sri Lanka	Colombo Port City	Under Construction	Mobility	Seaport	-2020	1500	AIIB Loan: USD 200 million GoSL: USD 84 million Private partner: USD 5 million CHEC Port City Colombo (Pvt) Ltd	WB + AIIB + H	Built on land reclaimed from the Indian Ocean and funded with 1.4 Bn USD Chinese investment. To be completed in 2020. Project aims to create a world class city in Sri Lanka on the model of Dubai. The Colombo Port City project is located in the southern coastal waters of the South Container Terminal in Colombo, Sri Lanka, and is connected to the existing Central Business District in Colombo. The project is a large-scale reclamation of land and municipal supporting construction project invested	https://www.portcityc
Asia	MARITIME	ACD, CICA	Sri Lanka	Reduction of Landslide Vulnerability by Mitigation Measures (RLVMM) Project	Approved	Others	Risk management	2019	110	AIIB Loan: USD 80 million GoSL: USD 30 million	AIIB	The objectives of the proposed Project are to improve the housing conditions of low-income communities and increase land use efficiency in Colombo through investments in the construction of affordable housing and redevelopment of land, along with the associated enhancement of systems and policies.	https://ewsdata.rightt
Asia	MARITIME	ACD, CICA	Sri Lanka	Colombo International Financial City	Announced/Under Negotiation	Zoning	Special Economic :	2014-2019	1400	CONTRACTORS China Harbour Engineering Construction Company FUNDERS China 1200 million	RA	The new city will function as a special jurisdiction area with its own economic and commercial laws to facilitate the operations of global multinational corporations. The completed city will have reclaimed 269 hectares with 116 hectares being handed over to China Communications Construction Company (CCCC), which is the parent company of China Harbour Engineering Company (CHEC). The remaining land, which will be owned by the Sri Lankan Government and will be divided with 62 hectares to be used to set up a financial city and 91 hectares to be used as public	https://www.portcityc
Asia	MARITIME	ACD, CICA	Sri Lanka	Anuradhapura Wastewater Management Project	Proposed	Energy, Water and ICT systems	Water	2018-	120	AIIB Loan: USD 50 million GoSL: USD 50 million AFD: USD 20 million	AIIB	The objective of the proposed project is to increase access to improved sanitation services1 and to reduce wastewater pollution in Anuradhapura city. The expected results of the proposed project are improved sanitation services for the people living in Anuradhapura city and reduced wastewater pollution in the Anuradhapura city area.	https://www.ship-tec

continents	corridors	MoU, platforms	countries	project name	state	type	type	date	cost (million USD)	players	database	details	links
Asia	MARITIME	ACD, CICA	Sri Lanka	Veyangoda - Ruwanwella Road	Completed	Mobility	Road	2015-2017	300	FUNDERS: China Development Bank 300 million Kuwait Fund for Arab Economic Development	RA	*Project Description: In May 2013 the China Development Bank promised Sri Lanka a 300 million USD loan for the rehabilitation of 15 roads under the project called 'Improvement and Rehabilitation of Priority Road Project 3' (Phase I) (PRP-3).	*https://china.aiddata
Asia	-	ACD, CAREC, SCO , CICA	Tajikistan	Nurek Hydropower Rehabilitation Project, Phase I	Approved	Energy, Water and ICT systems	Hydropower	2017	350 (estimated)	AIIB: 60 million World Bank (IDA Credits and Grants): 225.70 million Eurasian Development Bank: 40 million Financing Gap: 24.30 million	AIIB	Objectives of the Project are to rehabilitate and restore the generating capacity of three power generating units of Nurek HPP, improve their efficiency, and strengthen the safety of the Nurek dam.	https://projects.world
Asia	CCWAEC	ACD, CAREC, SCO , CICA	Tajikistan	Dushanbe-2 Power Plant Expansion	Completed	Energy, Water and ICT systems	Power plant	2012-2017*	349.0	*CONTRACTORS Tebian Electricity Apparatus Stock Co Ltd FUNDERS The Exim Bank 331 million Tajikistan 17.4 million	RA	*Dushanbe-2 is the largest thermal power plant in the country and the main consumer of domestic coal. It consumes about 45 per cent of the coal mined in the country. About 180 000 tonnes of coal are used monthly during the heating season. The coal is delivered to the plant by vehicles from the Ziddi coal deposit. Operation of the power plant has lead to a drastic increase of coal mining in Tajikistan.	*https://bankwatch.o
Asia	CCWAEC	ACD, CAREC, SCO , CICA	Tajikistan	Vahdat-Yavan Railway Construction (part of China - Kyrgyzstan: Tajikistan - Afghanistan- Iran railway)	Completed	Mobility	Rail	2014-2016	72.0	CONTRACTORS China Railway No. 19 Bureau Group Co., Ltd IMPLEMENTERS SUE Rohi ohani Tojikiston (Tajik Railways) Tajikistan Ministry of Transport and Communication FUNDERS The Export-Imoort Bank of China	RA	INITIATIVES Central Asia Regional Economic Cooperation Program (CAREC) Belt and Road The China - Kyrgyzstan - Tajikistan - Afghanistan - Iran Railway The project involves the construction of the railway along with five bridges and three tunnels. The proposed route will improve bulk cargo transport capacity from south of Dushanbe to the capital.	
Asia	CCWAEC	ACD, CAREC, SCO , CICA	Tajikistan	Dushanbe– Kolkhozabad (part of China - Kyrgyzstan: Tajikistan -Afghanistan- Iran railway)	Proposed	Mobility	Rail	-	-	*IMPLEMENTERS: SUE Rohi ohani Tojikiston (Tajik Railways)	WB	Discussions still underway between China and Tajikistan	*https://reconnecting
Asia	CCWAEC	ACD, CAREC, SCO , CICA	Tajikistan	Dushanbe-Uzbekistan Border Road Improvement Project	Approved	Mobility	Road	2016	*105.9	*AIIB 27.50 million EBRD 62.5 million Government of Tajikistan 15.9 million	AIIB	Under the Project, the 5-km section will be rehabilitated and upgraded between Avicenna Roundabout and West Gate of the Dushanbe-Uzbekistan border road. The project road, which is the last missing section of the Asian Highway Network and the CAREC Corridor 3 in Tajikistan's territory, was built 30 years ago and is currently in a poor condition.	*https://ewsdata.right
Asia	CCWAEC	ACD, CAREC, SCO , CICA	Tajikistan	Obigarm-Nurobod Road Project - Long Bridge and Approach Roads	Proposed	Mobility	Road	2019-	68.7 (estimated)	AIIB Loan: USD 55.0 million AIIB Grant: USD 3.2 million Borrower: USD 10.5 million	AIIB	The objective of the Project is to maintain and improve connectivity between Dushanbe, the northeast region of Tajikistan and the Kyrgyz Republic via the M41 highway, which is located on Central Asia Regional Economic Cooperation (CAREC) corridors 2, 3, and 5.	
Asia	CCWAEC	ACD, CAREC, SCO , CICA	Tajikistan	Khojend-Isfara Highway (Rehabilitation)	Under Construction	Mobility	Road	2016-2020	54	CONTRACTORS China Railway Group CONSULTANTS Baker Tilly Klitou and Partners China Railway Wuju Group Dohwa Engineering Co. Ltd. IMPLEMENTERS Tajikistan Ministry of Transoort and	RA	This is the second phase of the Central Asia Road Links (CARs) program, which has the overall development objective to increase transport connectivity between neighboring countries in Central Asia along priority cross-border road links and to support improvements in road operations and asset management practices. This project aims to increase transport connectivity between the Republic of Tajikistan and neighboring countries and to support improvements in road operations and asset manaoement oractices. The road sections to be	
Africa	MARITIME		Tanzania	Bagamoyo Port	Planned	Mobility	Seaport	2013	*10000	*China Merchants Holdings International (CMHI) State General Reserve Fund (SGRF) Oman Tanzania	WB	Port approved in 2013, negotiations still in progress. Possibly shelved by Tanzania gov't in favor of existing Dar es Salaam. The Bagamoyo Port project is being implemented in Bagamoyo, Tanzania. **It is expected to be one of the largest government infrastructure projects in the country. The Bagamoyo port and its affiliate industrial zone is meant to address congestion at the old port and support Tanzania to become East Africa's leading shipping and logistics centers.	*https://www.ofonlin **https://construction
Africa	MARITIME		Tanzania	Dar es Salaam Port	Under construction	Mobility	Seaport	*2017-2024	*421.0	BORROWER: The united republic of Tanzania Implementing agency: Tanzania Ports Authority (TPA)	WB	Improvements for Dar es Salaam port commenced.	*https://projects.worl
Asia	CICPEC	Joint Statem. 2014, APEC, ASEM, ASEAN, CICA	Thailand	Thai/Kra Canal Satun–Songkhla	Proposed	Mobility	Canal	-	*28000 (estimated)	***Thailand Gov. (NESDC) China Gov.	WB	Thailand still discussing with China to build the new canal. Proposed and cancelled many times. Thailand's new king wants to execute the canal project as part of the BRI: Canal would bypass Malacca Straite chokepoint. **Thailand mulls replacing $28bn Kra canal idea with a railway	*https://www.globalc **https://www.globalc ***https://www.bangk
Asia	CICPEC	Joint Statem. 2014, APEC, ASEM, ASEAN, CICA	Thailand	Sino-Thai High-Speed Rail (Phase 1), Section Nakhon Ratchasima - Nong Khai	Announced/Under Negotiation	Mobility	Rail	-	*16300 Nong Khai - Bangkok	China Railway Rolling Stock Corporation (CRRC)	RA	*The planned second phase of the project will link Nakhon Ratchasima with Nong Khai on the border with Laos, which will connect with the China-Laos railway in a railway artery linking Thailand, Laos and China, according to Xinhua News Agency. China is responsible for the design of the railway, supervision of construction and manufacturing of trains and signal systems, among others, in the spirit of "wide consultation, joint construction and shared benefits."	*https://www.globaltir
Asia	CICPEC	Joint Statem. 2014, APEC, ASEM, ASEAN, CICA	Thailand	Bangkok–Pedang HSR (part of future Kunming–Singapore railway)	Proposed	Mobility	Rail	2026-	-	-	WB	Discussions still underway. Operations are targeted to begin by end of 2026.	http://www.xinhuanet
Asia	CICPEC	Joint Statem. 2014, APEC, ASEM, ASEAN, CICA	Thailand	Sino-Thai High-Speed Rail (Phase 1), Section Bangkok-Nakhon Ratchasima Sino-Thai High Speed Rail (Phase 2), Section Kaeng Khoi-Map Ta Phut	Under Construction	Mobility	Rail	2017-2021	*16300 Nong Khai - Bangkok	CONTRACTORS Thailand Department of Highways IMPLEMENTERS State Railway of Thailand (SRT) FUNDERS Thailand 5948 million	RA	Will connect Bangkok to Nong Khai, in northern Thailand, where passengers will be able to first cross into Vientiane in Laos, and eventually Kunming in China. Formal talks on the rail began in 2014 but were beset by delays, including disagreements over design, financing and technical assistance. In 2016, Thailand decided against Chinese financing for the project because of high interest rates and decided to fund the Thai portion of project itself. As of April 2019, Thailand's government said it is "making progress" with the	*https://www.theedge
Asia	CICPEC	Joint Statem. 2014, ACD, APEC, ASEM and ASEAN both	Thailand, Laos	Bangkok–Pedang HSR (part of future Kunming–Singapore railway)	Under construction	Mobility	Rail	2013-2023	*5943	State Railway of Thailand China Railway International Co China Railway Design Corporation	WB	Conventional rail operational since 2009. High Speed Rail upgrade from Bangkok to Nakhon Ratchasima exp. by 2023 (Contract 2.3 with China)	*https://www.bangko
Asia	CCWAEC	MoU 2015, ACD, CICA	Turkey	Turkey Gas Storage Expansion Project	Approved	Energy, Water and ICT systems	Energy storage	2018-	2735	AIIB Loan: 600 million World Bank Loan: 600 million Islamic Development Bank Loan: 350 million Commercial Loans: 450 US$ million BORROWER: BOTAS 735 million	AIIB	*The Project Development Objective is to increase the reliability and security of gas supply in Turkey by expanding underground gas s torage capacity in the country.	*https://projects.worl
Asia	CCWAEC	MoU 2015, ACD, CICA	Turkey	Efeler 97.6MWE Geothermal Power Plant Expansion Project	Approved	Energy, Water and ICT systems	Geothermal Power	2019	250	AIIB Loan: 100 million	AIIB	To increase power generation of renewable geothermal resources. The Project aims to contribute to the development of base load, indigenous energy resources in Turkey which are essential to support macro-economic stability in a sustainable manner to reduce Turkey's needs for energy imports.	https://www.ebrd.com
Europe	CCWAEC	MoU 2015, ACD, CICA	Turkey	Ciner Kazan Soda Gas Fired Power Plant	Completed	Energy, Water and ICT systems	Power plant	2018	1500	OPERATORS Ciner Grubu CONTRACTORS China Tianchen Engineering Corp Siemens	RA	*The Kazan Project of the Ciner Group consists of three main plants; namely the largest solution mining plant in the world, one of the largest dense soda ash and sodium bicarbonate plants in the world and the largest cogeneration power plant in Turkey.	*https://www.power-t
Asia	CCWAEC	MoU 2015, ACD, CICA	Turkey	Izmir Metro Expansion Phase 4: Fahrettin Altay – Narlidere Line Project	Approved	Mobility	Light Rail	2020	362	EBRD A-loan: EUR 80 million (disbursed) EBRD B-loan: EUR 25 million (disbursed) BSTDB loan: EUR 50 million (disbursed) AIIB loan: Up to EUR 50 million IMM / Other sources:EUR 95 million-equivalent	AIIB	The Project involves the construction of a new 7.2-kilometer, 7-station metro line extension to meet the increasing demand for high-capacity public transport in the city of Izmir. The Project is the fourth expansion of Izmir's single-line metro system and will connect the western areas located between Fahrettin Altay and Narlidere Kaymakamlik with the city center, in line with the city's urban rail network expansion plan and Transport Master Plan (TMP) 2030.	https://www.railwayp
Asia	CCWAEC	MoU 2015, ACD, CICA	Turkey	Halkali-Cerkezkoy Rail Project	Proposed	Mobility	Rail	2020	721.1	AIIB Loan: 350 million EBRD Loan: 108 million Government of Turkey: 263.1 million	AIIB	The objective of the proposed project is to develop safe, sustainable, low-carbon, and expedient passenger and freight rail transport between Turkey and the European Union to further facilitate trade via a new high-speed rail from Halkali to Cerkezkoy.	https://ewsdata.right
Asia	CCWAEC	MoU 2015, ACD, CICA	Turkey	Istanbul Ambarli Port (Kumport Terminal)	Operational	Mobility	Seaport	2015	*920	INVESTORS: China Merchants Cosco Pacific CIC Capital	WB	Kumport Container Terminal is strategically located on the European side of Istanbul, 22 miles west of the Istanbul Strait. Kumport Terminal has excellent links to and from the hinterland. The Port is in use and expansions are still ongoing. * Aim of using Kumport as a gateway to the Turkish market rather than as a regional hub.	https://www.joc.com/ https://www.mei.edu
Asia	CCWAEC	MoU 2015, ACD, CICA	Turkey	Istanbul Seismic Risk Mitigation and Emergency Preparedness Project	Approved	Others	Risk management	2019	300 (estimated)	AIIB loan: USD 300 million	AIIB	The objectives of the project are to improve the disaster resilience of critical public facilities and to enhance emergency preparedness of the City of Istanbul.	https://eq.worldbank
Asia	CCWAEC	CAREC	Turkmenistan	Turkmenbashi port	Operational	Mobility	Seaport	2013-2018	*1500	CONTRACTORS: Gap Inşaat IMPLEMENTERS: Turkmenistan State Marine and River Transportation Service	WB + RA	* The Turkmenbashi International Sea Port is one of the largest in the Caspian Sea. The port is planned to become an important link in the maritime system by allowing users access to the Black Sea, Europe, Middle East, and Asia and be a part of the TRACECA transport route at the end of the Trans-Caspian railway line: the port should triple Turkmenistan's cargo-handling capacity to 25-26 million tons a year. He also mentioned that Ashgabat is ready to discuss the use of the seaport with its landlocked neighbors and it may be utilized by international organizations, such as the	https://www.gapinsaa

continents	corridors	MoU, platforms	countries	project name	state	type	type	date	cost (million USD)	players	database	details	links
Europe	-		Ukraine	Nikolaev Wind Farm, Mykolaiv Oblast	Announced/Under Negotiation	Energy, Water and ICT systems	Wind Power Plant	2018-2020	500	CONTRACTORS Tebian Electricity Apparatus Stock Co Ltd IMPLEMENTERS State Architectural and Construction Inspection of Ukraine (SACI)	RA	*The Chinese group invests into the installation of the wind farm in the city of Nikolaev in Mykolaiv Oblast. The plant is expected to become operational by 2019 and be the largest wind power facility of its kind in Eastern Europe.	*https://renewablesn
Europe	-		Ukraine	Boryspil Airport - Kiev Rail (Construction)	*Operational	Mobility	Aviation	2013-2018	28.15.00	-China National Machinery Industry Complete Engineering Corporation -China Road and Bridge Corporation -State Administration of Railway Transport of Ukraine (Ukrzaliznytzya) -Exim Bank	RA	*Rail link between the capital city of Kyiv and Boryspil airport, the busiest airport of the country. It is the first airport rail connection in Ukraine. The new train is branded the Kyiv Boryspil Express.	*https://www.railtech
Europe	- (ccwaec)		Ukraine	Yuzhny Port	Operational	Mobility	Seaport	-2018	*38	China Harbor Engineering Company	WB	China Harbor Engineering Company finished work to deepen Yuzhny Port. Located near Odessa, it provides an alternative to Russian-held Sevastopol.	*https://global.chinac
Asia	-	Framework Agr. 2017, ACD, CASCF, CICA	United Arab Emirates	Mohammed Bin Rashid Al Maktoum Solar Park - 4	Announced/Under Negotiation	Energy, Water and ICT systems	Solar Power plant	2018-2020	3900	CONTRACTORS: -Shanghai Electric Group Co Ltd CONSULTANTS: -Ashurst LLP -KPMG Lower Gulf -Mott MacDonald Ltd. OPERATORS: -ACWA Power International	RA	Dubai Electricity and Water Authority (DEWA) is implementing the Mohammed bin Rashid Al Maktoum Solar Park, which enhances the sustainable development of Dubai and supports the Dubai Clean Energy Strategy 2050 to make Dubai a global hub for clean energy and green economy. The strategy aims to provide 75% of Dubai's total power output from clean energy by 2050.	https://www.dewa.go
Asia	-	Framework Agr. 2017, ACD, CASCF, CICA	United Arab Emirates	Abu Dhabi Metro		Mobility	Light Rail	*2013-	7000	Abu Dhabi Department of Transport	HKTDC	In order to provide a fast service between the city's main commercial areas, the Department of Transport (DOT) has drawn up a plan to develop a metro railway in Abu Dhabi as part of a master public transport plan for implementation stretching to the year 2030.	*https://web.archive.
Asia	-	Framework Agr. 2017, ACD, CASCF, CICA	United Arab Emirates	UAE University: Industrial Park for Innovation and Development	Under Construction	Zoning	Industrial Parks	*2017-2021	6471	UAE University	HKTDC	* The UAEU Science and Innovation Park (SIP) was launched as part of the UAEU strategic plan 2017-2021 in alignment with the UAE Vision 2021 national agenda and the National Innovation Strategy to become a global hub for research, innovation and entrepreneurship to foster the transitioning of the UAE economy towards a Knowledge Economy.	*https://uaeusip.uaeu
Asia	- (maritime)	Framework Agr. 2017, ACD, CASCF, CICA	United Arab Emirates	Khalifa Port Container Terminal 2	Announced/Under Negotiation	Mobility	Seaport	-2018	738	IMPLEMENTERS: -Abu Dhabi Ports Company (ADPC) OPERATORS: -COSCO Pacific	RA	*Aligned with Abu Dhabi Economic Vision 2030 to drive growth, attract investment, support economic diversification and create sustainable jobs, Abu Dhabi Ports and COSCO SHIPPING Ports Limited opened CSP Abu Dhabi Container Terminal on 10 December 2018. The CSP Abu Dhabi Terminal has a design capacity of 2.5 million TEU and will begin with a handling capacity of 1.5 million TEU, with 1200 metres of quay. The water depth of the terminal is 16.5 metres, allowing it to accommodate mega-vessels typically carrying in excess of 20,000 TEU.	*https://www.adports
Asia	CCWAEC	ACD,CAREC, SCO, CICA	Uzbekistan	Tashkent Combined Cycle Power Plant Modernization Project	Completed	Energy, Water and ICT systems	Power plant	2013-2017	521	CONTRACTORS: Istroenergo Group SNC Lavalin OPERATORS: UZBEKENERGO Joint Stock Company FUNDERS: China Development Bank JBIC. JICA. OJSCB Uzpromstrovbank.	RA	* The project aims to construct a gas-fired combined cycle power generating unit (370MW-class) inside the Tashkent Thermal Power Plant on the outskirts of the capital Tashkent in Uzbekistan, thereby ensuring a stable power supply in the capital Tashkent and outlying regions in Uzbekistan, making effective use of home-produced natural gas and reducing environmental burden.	* https://www.jica.go
Asia	CCWAEC	ACD,CAREC, SCO, CICA	Uzbekistan	Samarkand Solar Power Project	Completed	Energy, Water and ICT systems	Solar Power plant	*2013-2020	276.0	CONTRACTORS: China Singres Holding Limited OPERATORS: UZBEKENERGO Joint Stock Company FUNDERS: Asian Development Bank (ADB) 110 million USD Uzbekistan Reconstruction and	RA	Solar photovoltaic power plant with a capacity of up to 100 MWac/131 MWp located in the Samarkand region of Uzbekistan. Samarkand SPP is among the first private solar projects in Uzbekistan which will pave the way for a pipeline of renewable projects in the country.	https://www.adb.org/
Asia	CCWAEC	ACD,CAREC, SCO, CICA	Uzbekistan	Bukhara Region Water Supply and Sewerage Phase II (BRWSSP II)	Proposed	Energy, Water and ICT systems	Water	2020-	236	AIIB loan: USD 200 million (85%) GoUz: USD 36 million (15%)	AIIB	The project objective is to provide access to safe, reliable and affordable water and sanitation services in the Bukhara region	https://www.aiib.org/
Asia	CCWAEC	ACD,CAREC, SCO, CICA	Uzbekistan	Karakalpakstan and Khorezm Water Supply and Sanitation Project	Proposed	Energy, Water and ICT systems	Water	2020-	488.8	AIIB loan: 430.1 million (88%) GoUz: 58.7 million (12%)	AIIB	*Karakalpakstan and Khorezm are located in the driest part of Uzbekistan. Over the last three decades, the drying up of the Aral Sea has further aggravated the water shortage problem. Since mid-2000, Karakalpakstan and Khorezm have been suffering from the worst drought in 100 years. About 90 percent of the rice crop and 75 percent of the cotton crop were lost in 2000 and 2001.	http://www.fao.org/ne
Asia	CCWAEC	ACD,CAREC, SCO, CICA	Uzbekistan	Angren-Pap Railway (Construction)	Completed	Mobility	Rail	2013-2016	1600	CONTRACTORS -Belam-Riga SIA -China Railway Tunnel Group -Chkz-Export -JSC Yuzhnouralskiy Armaturno-Izolyatorniy Zavod -Jiangsu Zhongtian Technology Co., Ltd. -Leostrov	RA	The Project Objective is to provide access to safely managed water and Central Asia Regional Economic Cooperation Program (CAREC) This railway improves connectivity with Uzbekistan's Fergana Valley and allows freight traffic to bypass neighboring Tajikistan. The Qamchiq Tunnel, an important part of the Angren-Pap railway line, is the longest tunnel in Central Asia and was constructed by a Chinese company, China Railway Tunnel Group.	https://staroradar.com https://24.kg/english/ https://24.kg/parlame http://glovo.kg/?p=43
Asia	CCWAEC	ACD,CAREC, SCO, CICA	Uzbekistan	Bukhara-Miskin-Urgench-Khiva Railway Electrification Project	Proposed	Mobility	Rail	2020-	404.35 (estimated)	AIIB loan : 105.0 million ADB loan : 157 million, the rest will be funded by JSC "Uzbekistan Railways" + Government of Uzbekistan.	AIIB	To improve freight and passenger railway services in Western Uzbekistan by electrifying the existing railway line linking Bukhara, Miskin, Urgench and Khiva.	https://www.adb.org/
Asia	CCWAEC	ACD,CAREC, SCO, CICA	Uzbekistan	Uzbekistan Bukhara Road Network Improvement Project (Phase 1)	Approved	Mobility	Road	2020-	214.7 (estimated)	AIIB loan: USD 165.5 million (77%) Government of Uzbekistan (GoU): USD 49.2 million (23%)	AIIB	To improve road efficiency, safety, and climate-resilience of major international cross-border roads in Bukhara and road networks in Karakalpakstan and Khorezm regions, through applying modern technical and contractual management methods for road rehabilitation and maintenance	https://www.uzavtoyo
Asia	CCWAEC	ACD,CAREC, SCO, CICA	Uzbekistan	Rural Infrastructure Development Project (Previously: Prosperous Villages Project)	Approved	Others	Infrastructure	2019-	183.6	AIIB loan: USD82 million World Bank's IDA: 100 million Government of Uzbekistan: USD1.6 million	AIIB	Approximately 300 villages in Andijan, Ferghana, Namangan, Jizzakh, and Syrdarya regions of Uzbekistan will receive funding for community-level projects. In each of these villages, community members will collectively decide on the types of projects based on village priorities and resources. The project will improve the quality of basic infrastructure, including schools, roads and internet service, with village residents deciding collectively which priorities will receive funding.	https://www.worldbar
Asia	CCWAEC	ACD, CICA Uz, Iran, CAREC Uz, Turk	Uzbekistan, Turkmen., Iran	Samarkand-Ashgabat--Mashhad rail	Operational	Mobility	Rail	-	-	-	WB	Completed, and now operational.	https://www.globalco http://www.chinadail
Asia	CICPEC	ACD, ASEM, ASEAN	Vietnam	Bac Giang International Logistics Industrial Park	Approved	Zoning	Industrial Parks	*2016-	66	Hainan Qicheng Asset Management Co., Ltd.	HKTDC	Modern and multi-functional international logistics centre in the northern part of Vietnam, creating an important link in the cargo supply chain network of China's southbound channel. Is expected to become Asia's largest integrated logistics base.	* https://vietnam-logi
Asia	CICPEC	ACD, ASEM, ASEAN	Vietnam	"Project Green" Alternative Industrial Cluster		Zoning	Industrial Parks		-	Peaceful Asia Limited	HKTDC	"Project Green" was seeded across three rising strategic industrial hubs at the North of Vietnam - Hung Yen, Hai Duong and Bac Ninh. 400,000 sqm of land open for investment. The project aims to provide an alternative for business owners who want to be based in Vietnam other than the traditional industrial cluster, and to operate at its own well-established location without worrying about the eco-system, utilities, and facilities.	

Appendix II - Interview

Interview with Ing. Davide Muzio, Managing Director of Intermodal Terminal of Mortara s.r.l. - 26.05.2021

How did the Mortara intermodal terminal enter the BRI circuit and for what reason?

DM]: We had the honours in 2017 when we started the Italy-China direct rail link project and at that time we were the first terminal to offer this kind of service. [...] Usually there is a promoter group, in that case the Chinese Chengdu Group, a private Chinese group, fourth in China in the absolute sense in the automotive sector and first among private companies, so in theory a colossus. In my opinion, they arrived with unclear ideas about what they wanted to do in the market.

Was the idea proposed by them (the Chinese)?

[DM]: [...] There are very strong conventions from the Chinese government or rather from the different Chinese municipalities, which are in competition with each other, so the driving force was them and they felt they had enough material from China to Italy and they were also looking for commercial partnerships [...]. In November 2017 we managed to make this first Mortara-Chengdu train, but it was not followed by a second one, first of all because at that time the municipality of Chengdu was sponsoring that destination, the following year the geopolitical order changed and therefore almost all the interesting railway destinations went to Xi'an and no longer to Chengdu. [...] With experience we then realised that there was a very strong imbalance between imports and exports, much more demand for rail transport from Italy to China and almost nothing from China to Italy because relatively high value products are transported from Italy to China, which can benefit from travelling by train, paying a slightly higher price than by ship in order to arrive earlier. On the other hand, material arriving from China tends to have a lower value and therefore the transport costs are higher, so if there are no particular incidences or timeframes, we take the ship. [...] We have been faced with significant fluctuations both in import-export and in the import-export flow up and down [...].

What kind of products were imported and exported?

[DM]: Well, the first test trains contained a bit of everything, some luxury cars, I think Alfa Romeo with a Ferrari engine, tiles, furniture. That was on the first experimental trip. After that there was a large order for railway materials[...] Whereas the incoming tends to be domestic appliances manufactured or assembled in China, but there is no intrinsic preponderance.[...] Once this experience had been gained, with such variable volumes, we opted for a more traditional choice, namely to triangulate towards northern Europe. Mortara-Duisburg and then from Duisburg to China. [...] It's true that triangulating to northern Europe adds a hundred kilometres to the journey, a couple of days to the journey time and perhaps 200 euros to the cost of the ticket, but that's not what makes the difference, it's an acceptable concept and, above all, it makes it possible to drastically reduce the risk, because if I have one container to ship I ship one, if I have ten I ship ten. [...] The initial Chinese disappeared somewhat over time and the CMA/CGM

group, the world's fourth-largest shipping group, took over the marketing of the service [...] but they also do land and rail traffic: in China alone they have some 35/40 logistics centres, with which we went ahead for a few years. Then over time other intermodal centres tried to do direct trains: after us a direct Busto Arsizio-Chengdu/XI'an train was announced, [...] Melzo, where they did one or two test trains but they too had stopped. Then DB Schenker announced a service to Verona, and they said they had started the service, even though it was actually going by truck to Poland and then by train from Poland to China [...] They too have returned to a more traditional concept of triangulation in northern Europe, in the sense that in northern Europe between Duisburg, Rotterdam and Antwerp there is basically the sorting centre for everything that arrives by rail from China.

Are more Italian intermodal centres trying to create connections or vice versa?

[DM]: Usually there is a promoter, in this case FELB (Far East Landbridge) in Melzo, and they consider whether they have enough units to make a direct train instead of going via Northern Europe. [...] The fact that there is already traffic on China, regardless of the fact that there are direct Italy-China trains, is an important fact, so the question is whether you can channel flows to a point where a train can be filled. There is always a saturation price for trains: it makes sense for it to run if it is at least 80% full, otherwise you lose money. [...] Maybe we will also have direct trains, but it is not something that is particularly urgent.

In general, apart from the Silk Road, how does the traffic in Mortara work, where does it arrive and where does it go?

DM]: Speaking of Mortara, 99% of our traffic comes from northern Europe, i.e. Germany, Holland and Belgium. We started by offering a service to Rotterdam, then a stop&go was added at the Dutch-German border, then a direct train was tested, then another one to Belgium was added and this is our core business, then a train to Marseille was added, then to France, which then meets a train to Paris. [...] In fact, the most important terminals in Italy are Busto Arsizio and Verona, where Busto Arsizio works mainly on the Gotthard axis and now a little on the Simplon as well, but also on Cologne, Antwerp and Rotterdam. Verona works more on Munich, Hamburg and then the eastern part of Germany - of course they also serve Rotterdam, Antwerp etc. - and maybe they have some trains going to Eastern Europe as well.

Once the flows have been channelled, how are they redistributed?

DM]: Let's say that the radius of influence of a terminal is around 150-200 km, the intermodal rail routes are usually around - in this case - a thousand kilometres, so let's say that the catchment area for us is northern Italy: then it also happens that we transport further south. There is a radius of around 60-100 km where it is even possible to make two rounds a day, so the haulier takes the unit, goes in the morning for delivery to one place, comes back and takes a second delivery. [...]Melzo has grown a lot lately, but it does both maritime and continental, both combined but radically different, because it belongs to the Contship group whose core business is maritime, while continental was born as a surplus which now has its own weight, with 50% maritime and 50% land. As far as maritime activities are concerned, their reference point is La Spezia, where they own 70-80% of the interport terminal. What arrives by ship in Italian ports stays in Italy, almost

nothing goes to create an intermodal link. We talk about Genoa rather than La Spezia, which saves five days of travel compared to going to Rotterdam, saves CO2 and fuel, but the ships still go to Rotterdam, because the service efficiencies are not comparable [...].

In terms of cooperation between the various intermodal hubs, do you work together with Novara, for example?

[DM]: Basically not. First of all, we need to understand the type of governance of the intermodal centres. We are an independent intermodal centre, totally private, [...] we can do business with whoever we want; Busto Arsizio belongs to Hupac so [...] it does not collaborate with other terminals except other Hupac terminals, in some way Novara, Piacenza, Pordenone, or with other terminals with which it shares trains: if Hupac makes trains in collaboration with Mercitalia for example, then it is possible that it collaborates with other marshalling terminals. [...] So in terms of cooperation between terminals, no, there are individual intermodal operators who may have traffic with several terminals, but there is no reason for particular cooperation, also because it is not the terminals that decide how to channel flows, it is the carrier that decides which operators and MTOs to work with. The MTOs in turn use the railway companies, the railway companies in turn already have their preferences on where to go but ultimately [...] it is the market that decides, it is liquid flows that go where they find the least resistance.

We are studying the production area between Turin and Milan: how do small-scale production facilities such as wine, rice and tapware relate to a place like Mortara?

DM]: It's difficult to answer that because we have an intermodal operator as a customer, the one that markets the rail service, which in turn has customers as carriers, who in turn have customers who are producers, so let's say that we don't exactly have control over who and what exactly goes into the containers and swap bodies that leave our terminal, we know which terminal they come from and which terminal they go to, but from there on we don't know because for us transport goes from terminal to terminal. We know which terminal they arrive at and which terminal they go to, but we don't know from there because for us, transport goes from terminal to terminal. For what we see by train, for example, a lot of chemicals travel, because anything dangerous is safer travelling by train than by lorry, particularly through Switzerland where there are a series of restrictions so it is almost obligatory to travel by train, but the products are very diverse, ranging from rice, oil, wine, foodstuffs, tiles, manufactured and semi-manufactured iron products, everything. [...] We don't deal directly with individual local entities, but somehow these individual local entities, if they are very small, probably don't manage transport, so perhaps it's a problem that doesn't even interest them, but even medium-sized entities sometimes find it hard to be aware that there is an intermodal centre from which they could benefit greatly. Quite simply, when they put out their tenders for their logistics services, they could, for example, include a certain component of intermodality among the constraints of the tender, because there is a certain environmental sensitivity that could be interesting: their products could travel by train to here and perhaps make the last few kilometres by truck. [...] In terms of demand for logistics it might make sense, but the local realities have so far expressed extremely limited needs. The warehouses we have planned have a reference lot of around five thousand square metres, because they were designed for logistics operators who would have settled in the freight

village: [...] Dhl or other giants talk about one hundred thousand square metres as an entry figure to the freight village, while the small rice farmer with ten pallets is a completely different market.

Have these logistics operators managed to establish themselves, at least in part?

[DM]: Partly yes and partly no. The main difficulty we have encountered here is the road network, in the sense that while on the railway side we are, all things considered, in a sufficiently well-served and central location, the lines are of a very good standard and therefore the railway lines in general work very well, here in Mortara a motorway was planned, the Broni-Mortara motorway, which was to be built by 2016. The project has seen a series of objections at local level due to alleged environmental impacts, which have in fact blocked the process, as often happens in Italy when tenders are invited and then there are appeals that block things indefinitely. This is mainly agricultural land, and so these various rice farmers were saying that the motorway would change the irrigation systems, and then there's always the approach of saying that this is not an industrial area and therefore the motorway is not needed. But if there were a motorway there would be industrial development and there would be growth in the area, whether one sees the absence of an activity as an opportunity to establish it or instead as a constraint not to do so, is a matter of perspective. For us, this is clearly a constraint because our competitors, on the other hand, have primary roads or motorways very close by. If I have to distribute within a radius of one hundred kilometres and the first fifty are problematic, it becomes much more difficult. So today in the warehouses we are actually hosting a company that does document archiving and therefore does not have any major transport needs, but above all storage needs, and then operators who instead work with the terminal and therefore carry out platform activities and sort and reshape the load of vehicles. The Mortara terminal was launched in 2009, practically in the midst of the European crisis, and therefore everything that was involved in setting up and designing the terminal was done in the early 2000s in a totally different economic context. [...]

We saw that there were many more buildings on the maps than were actually built, why?

DM]: Yes, that's right, in the project status here there was to be the terminal, the first thing that was started, and then warehouses for 150,000-180,000 square metres of covered space. In fact, an initial 30,000-square-metre warehouse was built, partly for demonstration purposes. The first one was completely filled, now before making the others we tend to build on the sold, so if there is someone who wants to make a multi-year contract for significant sizes a warehouse is made, if not it is not made because there is still a certain uncertainty on the real estate market and then there are also other places, now they have made warehouses in Marcallo, they are making warehouses in Trecate. Our strength is that we have the whole intermodal part next door. [...] I believe in development, because intermodality as a concept is an absolutely growing market, and I say this without fear, on the one hand there is the issue of the tunnels to Switzerland, the Gotthard, the Simplon, then there is also the Brenner Pass on Austria, which will also be extended, and this will effectively double the transalpine rail capacity through Switzerland. In the last few years, transport through Frejus to France has decreased, because it's difficult, expensive and the rail services are poor, so we go through Switzerland, which is easier. If there was a decent connection, Turin

could probably hope to do something and there might even be some new traffic to France. The entire Lyon area, for example, is very interesting from the traffic point of view, but the distance is too short to be done at competitive costs with the current infrastructure. With a different, higher-performance infrastructure, it could be done. However, the opportunity arises from these considerations: if we base ourselves on the fact that there is little traffic and therefore the work is not needed, we do not take into account that if the work were there there would be more traffic.

So the project we can see on the site is not from 2009, when it was actually built?

[DM]: No, the project actually dates from the late 1990s, around 1999, and then work began around 2005/2006, and was completed at the beginning of 2009, at least for the terminal part, because contrary to what usually happens, we started first with the terminal and then with the warehouses. [...] In 2009 we had great difficulty in obtaining a connection to the rail network, because as private individuals FS was extremely reluctant to allow other operators to enter the rail market.

Did the experience of the train to Chengdu have any influence on Mortara?

[DM]: No, because in terms of volumes they were marginal compared to the overall volumes, and therefore in terms of impact on the territory, I would say none. We have also had some contact with other Chinese who wanted to build a centre here: our interport is about 700,000 square metres in total, and they wanted to build two or three million. [...] They decide that something has to be built there and it is built, then whether it makes sense or not is relative.

What is the actual effort made by these promoters?

DM]: Let's say that the approach we've seen has always been a bit superficial, almost as if the ad effect was enough to create the business: we'll come, we'll make the train, the customers will come. Obviously it's not that easy. [...] Any project, especially one that has to cover 10,000 kilometres, cross several states, with the problems of the Russian gauge in the way, cannot be started with a zero budget and thinking that from day one it will be a stratospheric success and the project will become profitable. Some Chinese came to us wanting to make the train and then when they had enough customers they would start it up. [...] The haulier takes the train to get there quickly and if he is told he has to wait a long time before leaving, it's not worth it. [...] They are used to it because they have political decisions behind them, which allow things to happen, whether they have economic significance or not is of secondary importance. For us, especially when we are asked to put a bit of risk, it's not like that, Europeans tend to do business in another way. This has been the difficulty in interfacing with them, but not only ours: all those who have dealt with the Chinese have had more or less the same problems, so much so that no one has managed to trade regularly. In addition, the Silk Road also provided them with very high levels of funding, so that even from the Chinese point of view anything they did had to be labelled Silk Road: if it was labelled Silk Road then it had a certain type of subsidy. At the moment, traffic with China still tends to be by ship, even if they have had their problems now with the pandemic. Planes continue to be used for urgent and expensive goods, while trains continue to grow but are still very centralised on northern Europe. There are other

peculiarities, for example the fact that in China it is almost impossible or very difficult to transport dangerous goods, while in Italy it is exactly the opposite, or that it also subsidises a lot of traffic in 40-foot containers because they replace sea containers. [...]

Whereas between the ports of Genoa and Savona and Mortara there is no relationship whatsoever, as they are two different types of transport?

DM]: We worked with the port of Savona some time ago when the so-called Maersk platform was still under construction [...] on the assumption that we would do about 700,000 TEUs, which increased to 1,000,000 TEUs in the last few announcements, of which 40-50% would be rail, which is a very high share; Genoa does more or less 12% rail, the best performing ports of La Spezia and Trieste do 30-35%. [...] Savona has an enormous advantage because it has a very deep natural basin and can therefore accommodate large ships, but on the other hand it has a very small back harbour and no storage space. [...] This led to the need to create a series of outlets as a back harbour, including Mortara. With a view to testing rail services between us and Savona, in 2010/11 we carried out some tests, which in themselves worked well, but then nothing came of it, they delayed a lot the work on the platform, and now I know that they are working a bit with Rivalta, which was created as a back port. [...] The back ports need a lot of space because the shipping companies need a lot of space in which to store empty containers. So neither we nor Busto or Novara have these disposable spaces, perhaps Rivalta, which is much larger and much emptier, could be more suitable. Every now and then there is contact, not so much with the port authorities as with shipping companies, which are interested in activating services to decongest the port areas and decentralise the pick-up and storage points. Melzo and Rivalta work with La Spezia, Genoa with Rivalta and Padua, but roughly speaking the freight villages have been divided into those with a more strictly maritime vocation and those with a more terrestrial vocation, and we are decidedly more terrestrial at the moment.

Does the fact of being connected at the crossroads with the two TEN-Ts have a decisive influence on the flow of trade?

DM]: Not in my opinion, at least for the moment. First of all because the famous Rhine-Alps corridor used to go as far as Genoa, but now it often stops at the Alps. As the name suggests, Italy is only believed in up to a point. The Genoa-Rotterdam corridor is the backbone of all European traffic, with a few offshoots to Scandinavian countries and the Netherlands. [...] The corridor concept should facilitate all the infrastructure in this sense, like Switzerland, which has helped a lot because they have made huge investments in the railways. I would have expected something more from the Germans [...]: in 2017 there was a famous accident in Radstadt, where a railway subway collapsed, and in fact for two months transalpine traffic was practically blocked because the only alternative to do more or less the same route was to pass on a non-electrified railway line, which would have cost a lot of time and money. [...] The alternative was to go through France, but railway regulations prevented non-French locomotives from running on their infrastructure, so paradoxically we were stuck for two months. [...] From a corridor point of view, this has a lot to do with it, and we were also affected, because our traffic relies on those routes: our main customer came to the accident site by train and then by river to Rotterdam, to bypass the German railway. River navigation to Rotterdam is still important and relevant. The Mediterranean corridor, on the

other hand, is in fact still an idea. Theoretically, the flows will pass one day or another: right now we hope that the third pass will also arrive. In Switzerland rail traffic accounts for 70% of total traffic, 40% of which is intermodal. In Germany we are around 30% rail, in Austria 50%, and the same in the northern countries. Compared to them, we are light years behind, but it is also true that transalpine intermodal transport exists and works to a considerable extent; it is the domestic component that is far behind.

As far as the domestic component is concerned, our idea was to start from the train to China and, considering Mortara's central position with respect to these corridors, to imagine it as a potential major junction between Genoa, Rotterdam and the whole of Europe. Being aware of the inconsistency in filling containers, we wondered whether the creation of a local production system, given the highly productive area dotted with industrial districts between Turin and Milan, would be able to channel flows to Mortara and create a more centralised and integrated system?

[DM]: Conceptually yes, the problem is the difference between the idea and then doing it, in the sense that the concept of the north-west platform, as it has also been called in some more recent political contexts, the area between Liguria, Piedmont and Lombardy actually works as an idea. If we look at China, the really important part is what lies behind the Chinese vision: if we talk about putting together a system of individual small producers [...] to fill a container that then goes to fill a train, there needs to be a director, someone behind it who is usually a large international carrier that has the capacity to do this consolidation. It is already difficult to transport full loads, i.e. containers, and it is much more difficult to transport details, i.e. packages. Until recently, only Dhl and DB Schenker were able to do groupage, and now CNA is able to do it too, because it has bought Ceva and so they too have become good at logistics. [...] If some Chinese giant decides to buy as large an area as it likes in the area between Lombardy and Piedmont and create a logistics district there, not necessarily in Mortara but in the area, to concentrate traffic and make distribution, that becomes the driving force, a catalyst for business and interest. [...] But it takes someone with the critical mass to make a very important investment and then manage important logistics. It is very difficult to think that small individuals will agree among themselves to do something together. You need someone who has the size and capacity to direct an extremely complex and expensive project. European investors would be a good idea, but they are few, or the Chinese who come along and decide that they will carry out the project regardless of everything, since the state pays for it.

So in your opinion it could in any case take place within Mortara?

[DM]: Of course it could, but the local reality may require space for tens of square metres, the major transporter may require a few thousand square metres, the very important logistics company requires tens of thousands of square metres, and the Chinese who arrive require a few million square metres. So it's clear that if you wanted to create in Mortara a centre for the distribution of temperature-controlled products, for example, then I would bring frozen products from China and then distribute them from Mortara [...] our dimensions would still be compatible. But if someone tells me he wants 10 million square metres, there is no place in Italy that can offer it: the biggest freight villages are Verona, Padua and a few others, but we are in the order of 3-4 million square metres. Mortara, with 700,000 square

metres, is somewhere in between, but there is also the possibility of creating a major logistics hub. What penalises us is the road network. If there were a private or public initiative to create a logistics offer and this would be an incentive to create a road network, we would be very happy, or even better, if there were incentives from the region to establish a logistics or industrial centre, both roads would lead to the same result. As long as the attitude is to send someone ahead and then follow them, it will not be enough.

Is the motorway a project that should have been carried out after the interport or before?

[DM]: No, it was a pre-existing project compared to the interport, so much so that the interport was also based on the fact that there was going to be a motorway. We have the A4 above, the E25 and E26 going south, there's the Turin-Piacenza, but there's a square that within 20-30 km doesn't have any major roads. Then we also have some rivers in the middle with some unsafe bridges that don't help [...], a motorway that was an alternative to the A4 would have first of all decongested the A4 [...]. To the east, on the other hand, they have done a bit more. In the western part, apart from the quadrupling of the A4, there's been nothing new, so this part remains a bit out of the picture. [...]

We have seen on the Mortara interport website that there is a strong focus on encouraging the local economy and sustainability, how?

[DM]: The Mortara project was born on an impulse and an economic contribution from the Fondazione Banca Lombardia, so a banking foundation. Normally, the purpose of banking foundations is to support more or less philanthropic and cultural projects; in this case, the bank decided to make this kind of investment to support the economy of an area that is considered economically depressed, namely the Lomellina area. This is quite unusual in the context of banking foundations. Having this background, we are obviously keen to try and develop the economy of the area a little, after all there was nothing here before and now we are one of the most important in the area. I have to say that it hasn't always been an easy process, because there is a lot of parochialism and resistance to change, so the people of Mortaresi who saw people from Pavia coming to settle in their area weren't very happy. It was also very difficult to obtain permits, when in fact we bring wealth and work. Clearly, if I'm looking for extremely specialised people, I look everywhere, but if I'm looking for people to be trained, or less specialised people, I look for them in Mortara or in any case within a few kilometres, in order to make sense of this mission to develop the area. We also give priority to the local area when choosing our service providers.
Obviously there is also a knock-on effect, in the sense that even though we are relatively few in number, there are still a few hundred drivers who pass by every day and stop to eat and who use the services, and there is a significant knock-on effect in the area, with truck repairs, tyre dealers, distributors: everything that revolves around the concept of transport and people. Obviously there is some impact on the area, but much more could be done. The concept of freight villages was born as a point of logistical exchange between warehouses and road and rail transport; in some freight villages, warehouses have become outlets, and so they also become retail outlets, attracting a different type of clientele, perhaps instead of having a restaurant, they have a square, as is the case in shopping centres, with a number of different restaurants. These are all things that would

make sense: think of the Serravalle, Vicolungo and other outlets. They are born as centres where a few producers come together and then something bigger is born. In the end, something similar could be done with an inter-port perspective, but in this case too a series of factors are needed, such as accessibility [...].
In my opinion, neither Chinese trains nor freight villages have changed the territory and the fabric, they could do so, they could be a polarisation point for certain flows and certain changes. Intermodal transport as such is bound to grow: transalpine volumes through Switzerland will in any case double in the next twenty or thirty years. However, Ligurian ports are growing, with great delay and difficulty. Once there was talk of Genoa wanting to compete with Rotterdam: the latter handled 10 million TEUs a year, Genoa handled 1.7 million, and by 2010 they too wanted to reach 10 million: in reality they are at 2.5 million, Rotterdam at 14. However, Genoa has development programmes which could reach 3-4 million TEUs, La Spezia from 1.5 million to more or less 2 million, Savona from 0 to 1 million: yesterday the whole Ligurian arch was worth about 3 million TEUs, in the next few years it could be worth 6.5 million. Even if 10-20% were by rail, that's still a lot of trains: we're talking about something like 30-40 trains a day, and these trains have to go somewhere. In any case, intermodal transport, both sea and land, will grow a great deal over the next ten, twenty or thirty years, and this is a well-established trend, so the terminals in northern Italy are not even sufficient to accommodate all the transport expected in the near future. Maybe Mortara will become the centre of the world, maybe someone will decide to develop Alessandria, because we have been talking about Alessandria for ages, because Fiat has so much unused land. Between you and me, if I had to point to a wonderful place to do logistics, I'd point to Novara, which really is at the centre of the world because it's on the motorway, it's right at the crossroads of the two corridors, and it would have wonderful opportunities for expansion.

Is Novara complementary to Mortara?

[DM]: We don't really complement each other, because we are competitors, i.e. we do the same type of business and compete for customers. Novara is complex because its shareholders are CIM, which in turn is an expression of Fim Piemonte, so there are politics involved, and it could become another Swiss flagship because Hupac has bought a large part of it. The governance of Novara, however, is FS, even if there is no traffic there: the traffic is carried out by the Swiss of Hupac, but it is managed by the FS, who have no interest in developing Novara. [...] From my very personal point of view I would see Novara in the Hupac perspective, with Busto Arsizio consolidating the land part and Novara perhaps the sea part, then it would be geographically very interesting. There is also the matter of Segrate, where there is a project for a new mega-terminal. If Segrate is developed, it could become a very important terminal, but that too made sense a few years ago; now it is too close to the city, so there would be some difficulties. NSC, which is the world's number two maritime company, is organising itself to do things on its own, and therefore wants to have its own terminal in the Brescia area. There are many realities that are evolving, and traffic is in any case evolving and growing, and this is a fact. Then which way it will go depends on the opportunities and on who has the strength and capacity to do it. We are trying, and recently our traffic, which used to be marketed by a Dutch company, has now passed to the world's number one logistics company in Europe for overland intermodal traffic, so we are part of the most important network in Europe. This is another opportunity that we will try to seize.

Appendix III - Supplementary Studies

Chronology - Evolution of the Ancient Silk Route

What is commonly known as the ancient silk route was a bundle of maritime and land links, which over the centuries moved ideas, religions, goods and cultures across the vast Afro-Eurasian continent (Rezakhani, 2011). Of all the goods that were traded, silk was certainly not the most common, but it had a symbolic role of power and luxury and represented, in the Western imagination. That romantic idea of the Orient as a world of wonders, exotic and full of animals, is the reason why the German Von Richthofen named these connection "The Silk Road".
«Today, in the face of ongoing global transformations, retracing that long history is increasingly necessary to know the world and to rediscover a part of our roots» (Cardini, Vanoli, 2017). Parag Khanna (2016) in his book "*Connectography*" describes the present day as a new golden phase of globalisation, which began when empires relied on creating connections with other kingdoms to expand their power. These ancient trade connections that once linked Africa, Arabia, Persia, India, China, Southeast Asia are now flourishing again, although with other ways and goals.

The first stages of globalisation

In 4000 BC, trade between the nomads of the steppes and the sedentary populations of the south accelerated and became more constant thanks to the use of horses. One thousand years later, the Yellow Emperor, considered the founder of Chinese civilization, started to cultivate silkworms and to exchange textiles and cloth in Central Asia.
Between the 5th and 3rd BC, the Persian Empire was probably the most extensive one, criss-crossed by a dense network of roads linking the coast of Minor Asia with Babylon, Susa and Persepolis. Inherited by Alexander the Macedonian, he started to extend his empire eastwards, building outposts and landmark cities: the Alexandrias. By the time of his death, many soldiers had been moved to Bactria, attracting a great flux of merchants and artists, and beginning a series of expeditions from Alexandria Eschate.
Khujand at present- to Kashgar and Urumqi, where they came into contact with the "*Serious*", the silk people.
In the meantime the peoples of the steppes began to be a threat to the Chinese Empire, which was already experiencing a moment of ideological and political decline, due to the conflicts between the seven kingdoms settled in the valleys of the Yellow and Blue Rivers. The renaissance of the kingdom took place intellectually first, thanks to the presence of Kong Fucio (551 BC), Yang Zhu and the Daoists, pillars of Chinese culture and ideology (Dellios, 2020). Afterwards Qin Shi Huangdi's empire extended west to Gansu and Qinghai province, south to Guangdong, Guangxi and Hanoi, east to the sea and north to the Liaodong peninsula. Units of measurement, language and currency were unified, roads were built and the defensive walls of the individual states were united - later extended to form what was to become the Great Wall - to protect against the threat of the steppe peoples, the Xiongnu.
For the same reason the Han emperor created the Hexi Corridor in the 1st century BC, a protected tunnel linking the capital Chang'an (Xi'An) with the western regions, passing through the Jade Gate, a junction for the first silk routes. The

Chinese had begun trading silk with some nomadic chiefs from the steppes who saw it as a symbol of power, an idea that would grow to become a currency on a par with bronze under the Tang dynasty.

The Jade Gate, located near Dunhuang, was the starting point of some of the main routes taken by travellers and merchants of the time:

- Northwest route, through the Tian Shan Mountains
- North route through the cities of Kuqa and Turfan
- South-west route through the Taklamakan desert, passing through oases such as Loulan or Dunhuang, which in time became major trading cities
- Southern route on the edge of the desert towards the Pamir Mountains
- These roads rejoin in Kashgar or Fergana valley, with the trade network of trade routes of the Greco-Battrian and Persian empires, continuing on to the Caspian Sea through the Karakum desert and the Iranian plateau.

The Tributary System

During the many Chinese expeditions to the western seven kingdoms, many places had been discovered: the Daxia, Shengdu of India, Tiaozhi of the Middle East, Yancai of the northern Caucasus, Lijang the eastern part of the Roman Empire, Anxi of Persia. The sovereigns became vassals or protectorates of China and the gifts they exchanged took on the meaning of tribute to the Chinese emperor «Centre of the world and fulcrum of the cosmos, father of his subjects by mandate of Heaven» (Scarpari, 2009), creating a system of bureaucratic politics that was able to survive for more than a millennium (Dellios, 2013).
The gong ideogram 功 - lit. “effort” (Borruso, Marino, 2017) - was used to define both the national taxes owed to the sovereign by the Chinese provinces and those sent by foreign sovereigns, a system that lasted for about twenty centuries. The main difference between the Roman and the Chinese tax system is that it is not unilateral, as the emperor once received the gifts he returned gifts of the same value as those received, so it is basically a symbol of political power and an effective form of strictly controlled trade.

Roman Empire

At the time, the Roman Empire was also consolidating, especially after the union between Julius Caesar and Cleopatra. Alexandria became a Roman province, central point for one of the main maritime routes, through Iunopolis, proceeded across the Nile for twelve days to Qift, from where goods were transported by caravan to the port of Berenice. From Berenice it is possible to cross the Red Sea, to buy African or Arab goods and finally arrive in Leucecome, connected by land to Petra and Palmyra, from where routes to Central Asia and the Himalayas open up. The second option is to head towards India, sailing for thirty days to Ocelis, Mizeris, Becare, the main ports for the purchase of spices, textiles and jewellery, to Poduca, the furthest port to which the Romans arrived, attracted by pearls.
During the same period, many roads were joined in Sogdiana - part of present-day Tajikistan and Uzbekistan - whose people became almost monopolists of the Silk Road: Sogdian became a lingua franca and Samarkand the site of diplomatic negotiations between Persians, Turks, Indians and Chinese. In China, on the other hand, Chang’an expanded to become the largest city in the world with a northern part for the government and military, a western part for ordinary people, and an

eastern part for officials and courtiers.

Proselytism Routes

Along with goods, religions began to spread, particularly Buddhism, which had a great impact on the prosperity of the trade routes as it involved offerings to a buddha or bodhisattva to ensure salvation in the afterlife and happiness in this life.
During the 4th century A.D. the oases of the Silk Road were filled with monasteries and monks in search of the 'Seven Treasures' to decorate them: lapis lazuli from Afghanistan, crystal from India, red coral from the eastern Mediterranean, agate from the Vindhya mountains, pearls from Sri Lanka and the Persian Gulf, incense from the Arabian Peninsula and Chinese silk. In China, it had initial difficulties in establishing itself because the emperor was seen as the only summit of power, both religious and political, so it had to wait for the weakening of the emperor and the voyage of Xuanzang, a Buddhist monk symbolic of the Chinese cultural revival, who once arrived in Samarkand proceeded towards Bukhara, Balkh, Bamiyan and arrived in India via Nepal and the Ganges.

Between the 6th and 7th centuries, Islamism also began to flourish in some of the busiest cities in the known world up to that time, including Byzantium, a choke-point for trade between the Mediterranean Sea and Asia, and Mecca, which was the focal point where the tribal groups of the area met.
The first two caliphal dynasties expanded towards the territories of the Near East, and then further east, setting their capital in Baghdad, founded according to precise astrological criteria and consisting of four gates leading to Khorasan, Basra, Kufa and Damascus.
The world was imagined as round, of the circumference defined by Ptolemy, divided into climates and with the south at the top of the map. The centre depended on the author and ranged from Baghdad to Mecca, from which the lines representing the trade routes of the Islamic world departed. To the right there was the East, which was represented schematically, in a less romantic way than in European imagery, by only rivers and mountains.

In the 9th century, while the process of Islamisation was underway in Sicily, North Africa and Spain, some regions further east, while remaining faithful to the Muslim faith, began to be governed by autonomous local dynasties, such as that of the Samanids in Transoxiana, who ruled over the cities of Samarkand and Bukhara, from which three important trade routes to Central Asia departed: the first further north passing through the steppes of the Turkic nomads; the second eastwards towards Kashgar, the Tarim basin, to the Yellow River; the third through the mountainous passage of the Hindu Kush, Bamyan and Kabul to the Indus valley and the Sind region.

The Islamic World and the Pax Mongolica

During the Islamic period, the Mediterranean was basically divided between the Muslim East, which included Egypt and the regions of Western Asia, the al-Maghrib of North Africa, Sicily and Andalusia, and then Christian Europe. Sicily in particular attracted traders and travellers and it began a central point for commercial opportunities: from there it was possible to go easily to Kilwa and Zanzibar, centres for the gold trade, then up to the port of Aden in the Arabian Peninsula and

the port of Siraf - the main port of call in the Persian Gulf and the junction of land and sea routes - then to cross the Indian Ocean to Quilon in India and end up in Canton. The subsequent Arab conquests of Sri Lanka and the Sind region, located between India and Pakistan, aimed to control trade in the area through the strategic ports of Coromandel and Khambhat, well connected both to the inland textile centres and to the oceanic routes that carried ivory, precious stones, silk, spices, incense and horses.

Just as the Arabs did in the first millennium, the Mongols increased connections and mobility to organise their vast empire (Khanna, 2016) and allowed Europeans to push eastward with an ease they had never had before. The Crusades and the Commercial Revolution of the Middle Ages helped to flourish maritime trade and prepare for the period of European colonisation (Khanna, 2016). Indeed, Europe was undergoing cultural renewal, city building and technological innovation, thanks in part to the new merchant class, interested not only in luxury goods but also in everyday consumer goods.

The mercantile needs together with the religious urgency of preaching and exploring the known world, seen by Christians, and represented by Hereford, as a circle with Jerusalem in the centre, towards the north Asia, full
of ferocious animals, wonders and monsters, at the extreme of which was Eden, that is China; lower down is Rome with Europe on the left and Constantinople and Africa on the right (Le Goff, 1983).

Thanks to the *Pax Mongolica* Marco Polo began his journey together with his father in 1271 (Calza in Cardini, Vanoli 2017) with some letters from the Pontiff to be delivered to the Great Khan. The first stop on the way to Karakorum was Laias, on the Turkish Gulf, then they entered Armenia towards the valleys of the Tigris and Euphrates, proceeded to Baghdad and then to Basra where they stopped, before resuming towards the Pamir mountains. From here they set out on the road that Buddhists have travelled for centuries in reverse. Khanbaliq (Beijing), which was the capital of the Mongol empire despite its decentralised geographical position, thanks to its efficient infrastructure and mail system, was described by him as a perfectly geometric labyrinthine city, structured in three concentric walls, twelve gates and large streets.

Maritime Trade Routes

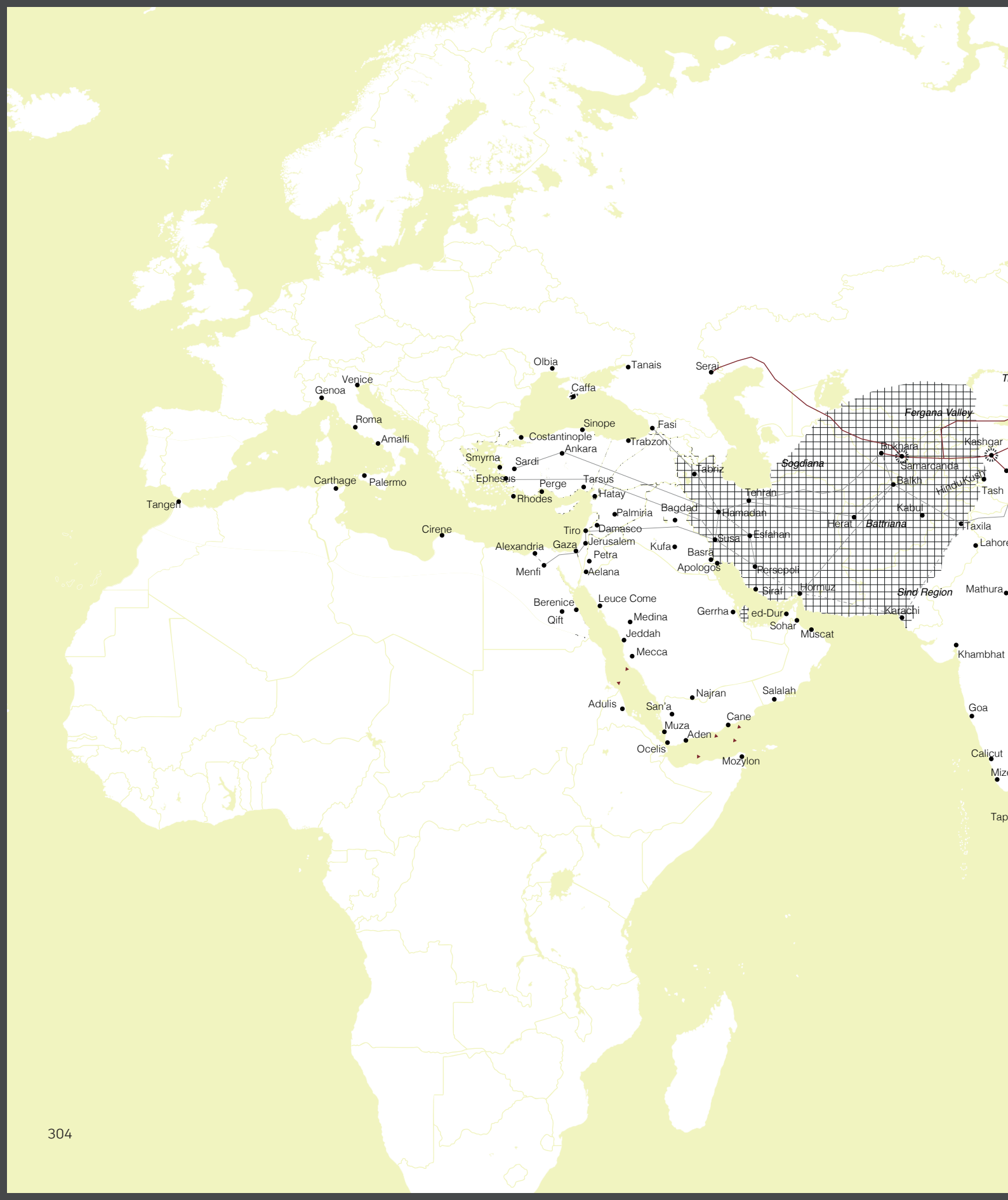
By 1388 the Ming emperor had finally regained control of Beijing and begun a period of exploration by sea, as the land routes had not only been partially destroyed during the Mongol invasion but had also become a means of spreading the plague. The emperor promoted seven expeditions aimed at territorial expansion and the discovery of foreign countries, led by General Zheng He. These were not colonial voyages, they served more to demonstrate China's renewed strength and to establish diplomatic relations. In fact only in cases where the reception was judged to be cold or hostile confrontations took place. Among the seven it is possible to distinguish the one from Suzhou to Vijaia in Vietnam and then to Java, which was one of the most important ports, and finally to Calicut; the one to Sri Lanka, Java and Thailand; the one on the Indian coast; the long journey to Hormuz and then around the horn of Africa; the longest one around the Arab and African kingdoms to renew the contacts lost during the Mongol horde. After an initial phase, China stopped its expeditions and began a process of closure,

which continued more and more with the advance of the European colonists, until it completely closed itself off to maritime trade, frightened by what was happening in Asia.

After the fall of Constantinople to the Turks and Ottomans, the discovery of America by Christopher Columbus in 1492 and the Protestant Reformation, an internal competition began between European countries in search of power, territorial and commercial expansion (Hobson, 1968).
The Portuguese immediately entered into competition with the Muslim merchants, conquering some of their key trading ports (Goa, Macao and Hormuz), forming the first intercontinental empire in the mid-1500s. The Russians expanded into Ukraine as protector of Slavic culture, competing with Poland and Lithuania. The Spanish created a connection between America and the commercial networks of China and Japan, through a colonial base in the Philippines. The Dutch set up bases in Japan and India and colonized the main islands of Malaysia and Indonesia, where they exterminated the indigenous population to import African slaves. The British expanded mainly in Africa and India, which had been fought over by many European forces since the 18th century.

In order to reduce travel time between Europe and the colonized countries, many infrastructure projects were planned: Russia signed its expansion into the East through the Trans-Siberian railway, while in 1869 the Frenchman Ferdinand de Lesseps built the Suez Canal with British funding. Before the outbreak of the First World War Britain was planning a train linking London, Istanbul and Delhi, which would never be realized, but whose idea is recalled by the Train Express d'Orient, which runs from Gare de l'Est in Paris to Varna and back to Istanbul to join other lines in Aleppo.
The supply lines and overseas administrative capitals built by colonial empires laid the foundations for an awareness of the importance of infrastructure as a form of domination, just as some of the largest empires had done before them, and as the great powers continue to do today (Khanna, 2016).

The one following the World Wars is «the story of a world that
became global and of the illusion that this globality carried the Western stigma along» (Cardini, Vanoli, 2017). With the end of colonialism, the emergence of new identities following the Cold War, population and migration explosion, the building of shared friends or enemies, climate change and the need for new resources, this stigma is breaking apart, leaving space to the existence of the Chinese initiative of the Silk Road Economic Belt and XXI Century Maritime Road.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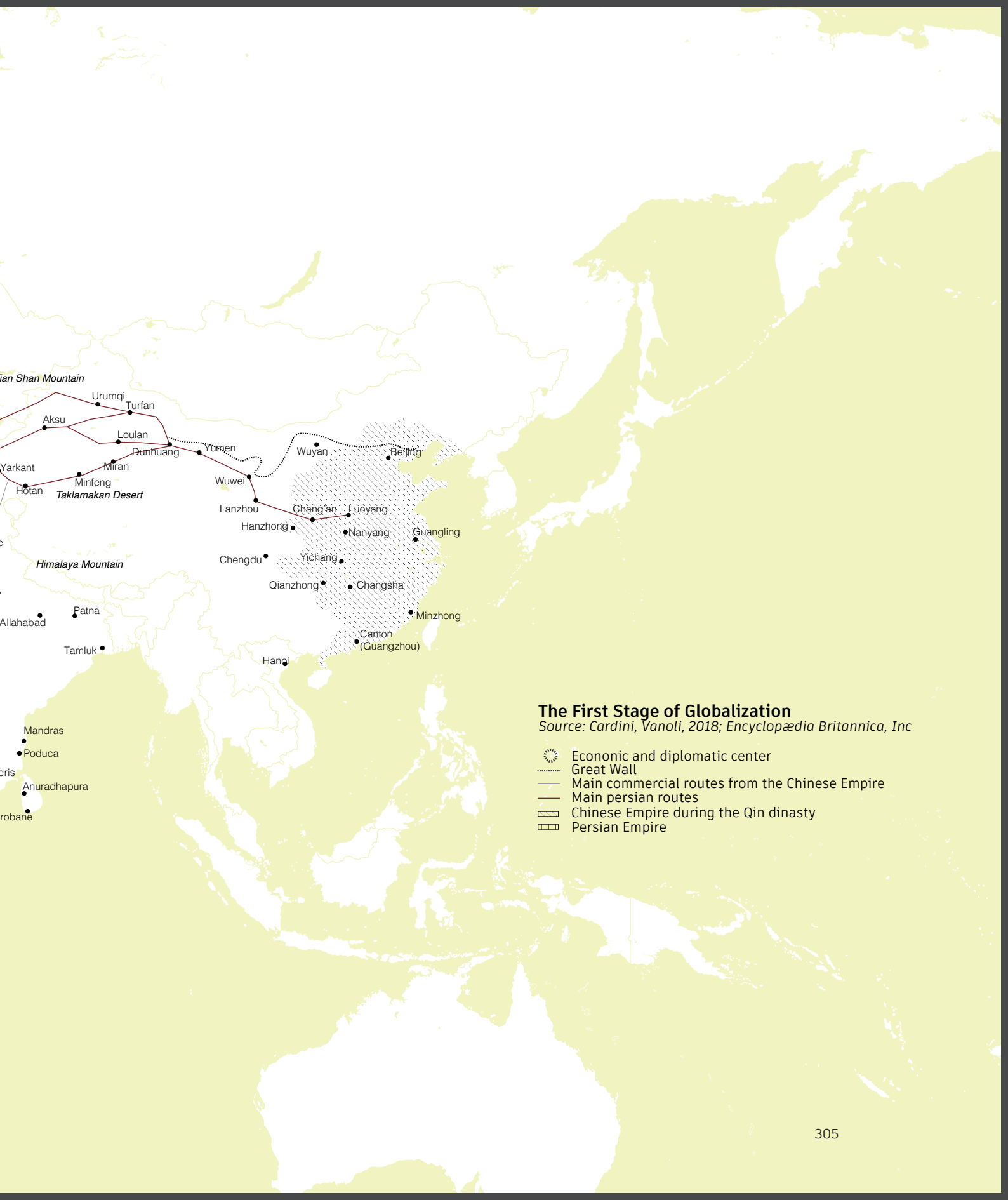
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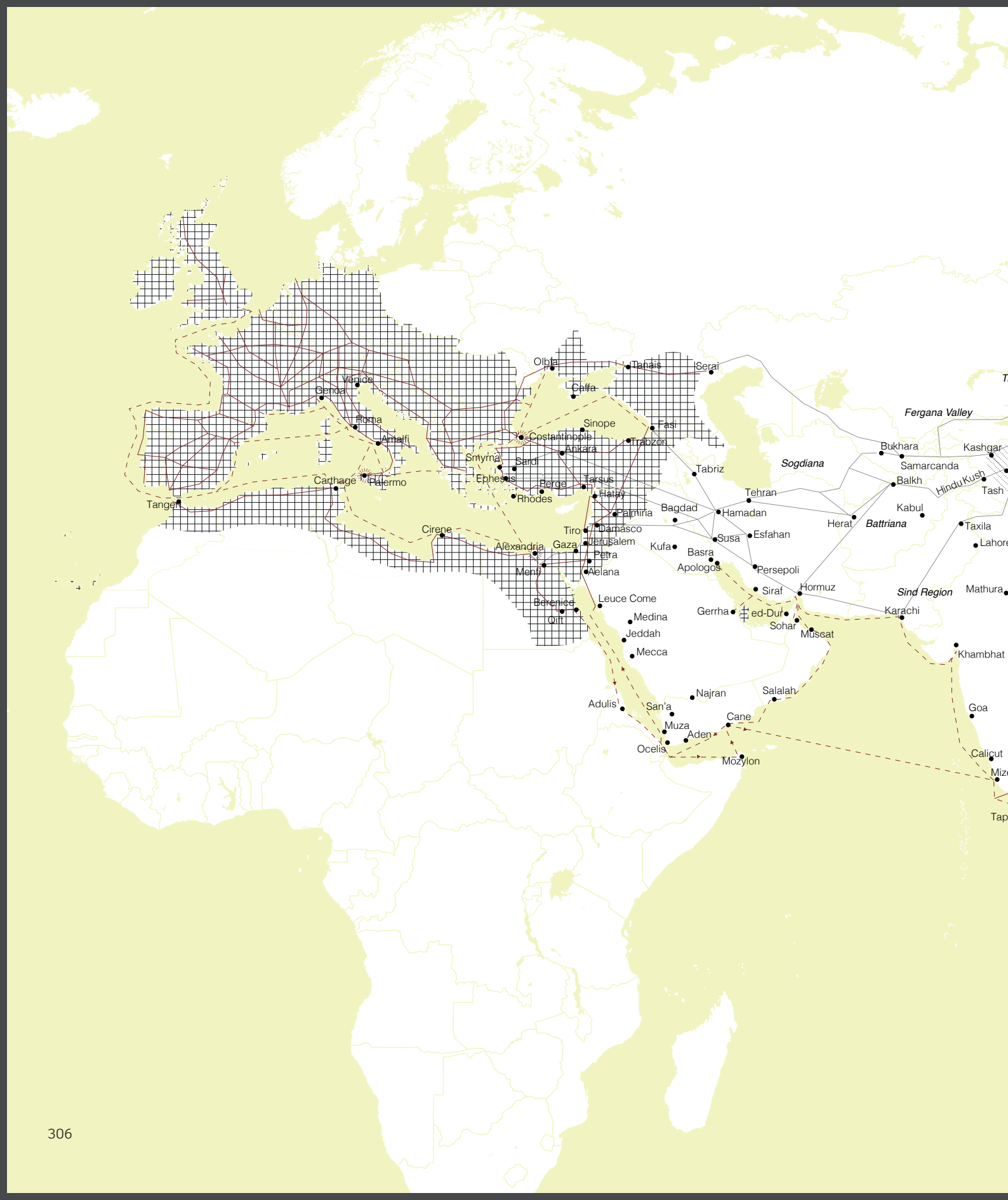
The First Stage of Globalization
Source: Cardini, Vanoli, 2018; Encyclopædia Britannica, Inc
Econonic and diplomatic center
Great Wall
Main commercial routes from the Chinese Empire
Main persian routes
Chinese Empire during the Qin dinasty
Persian Empire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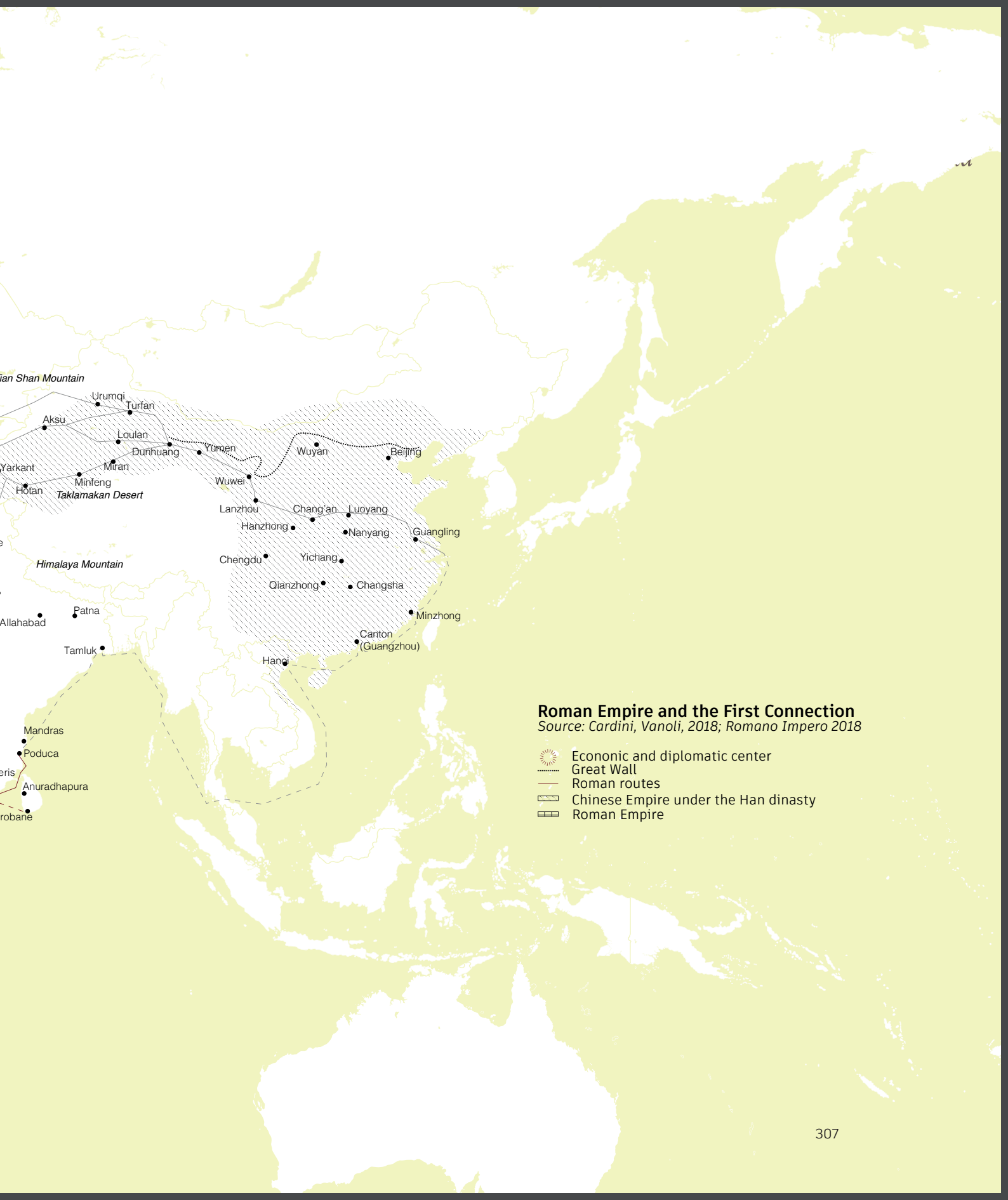
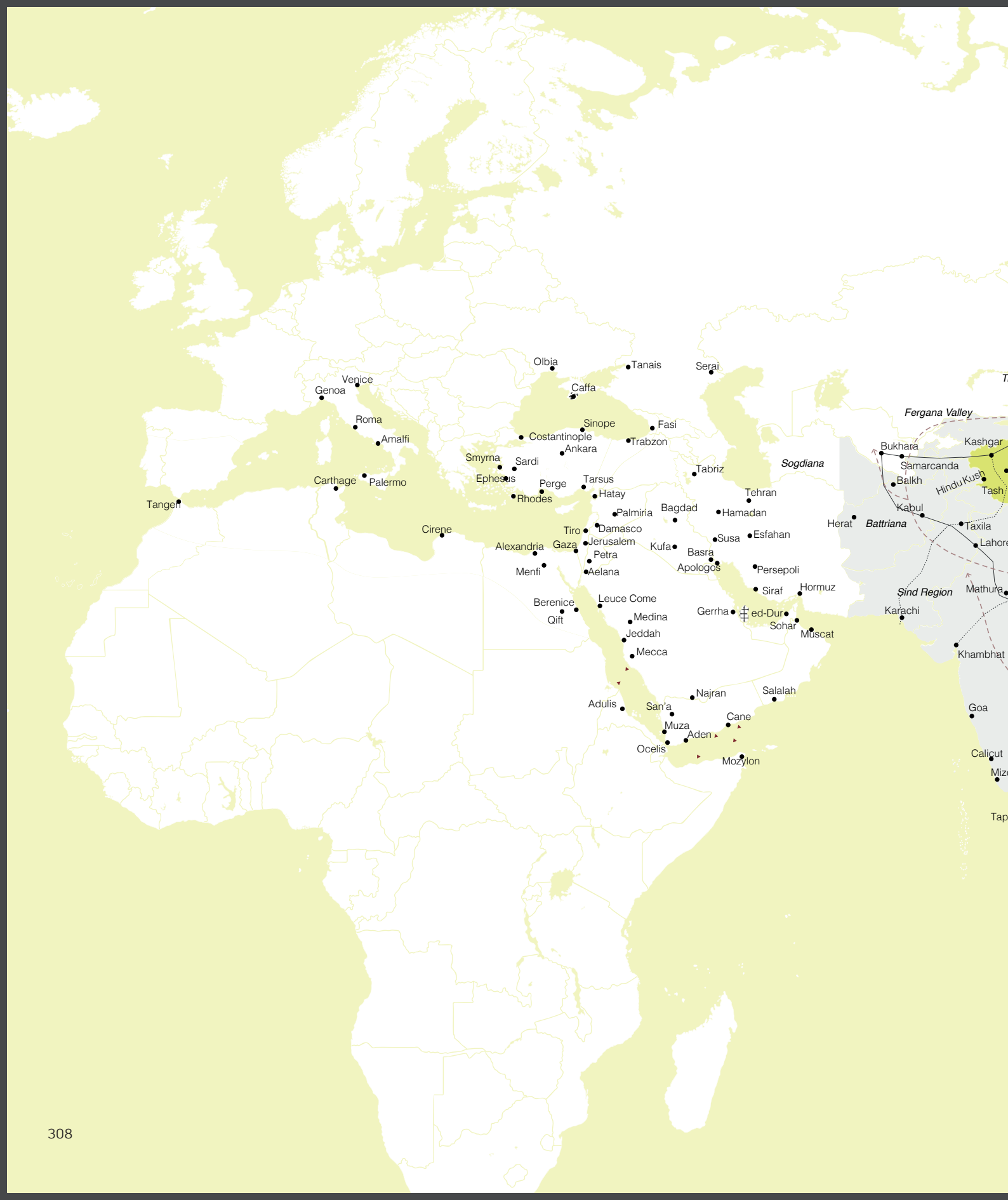


Roman Empire and the First Connection
Source: Cardini, Vanoli, 2018; Romano Impero 2018

- Econonic and diplomatic center
- Great Wall
- Roman routes
- Chinese Empire under the Han dinasty
- Roman Empire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(Guangzhou)
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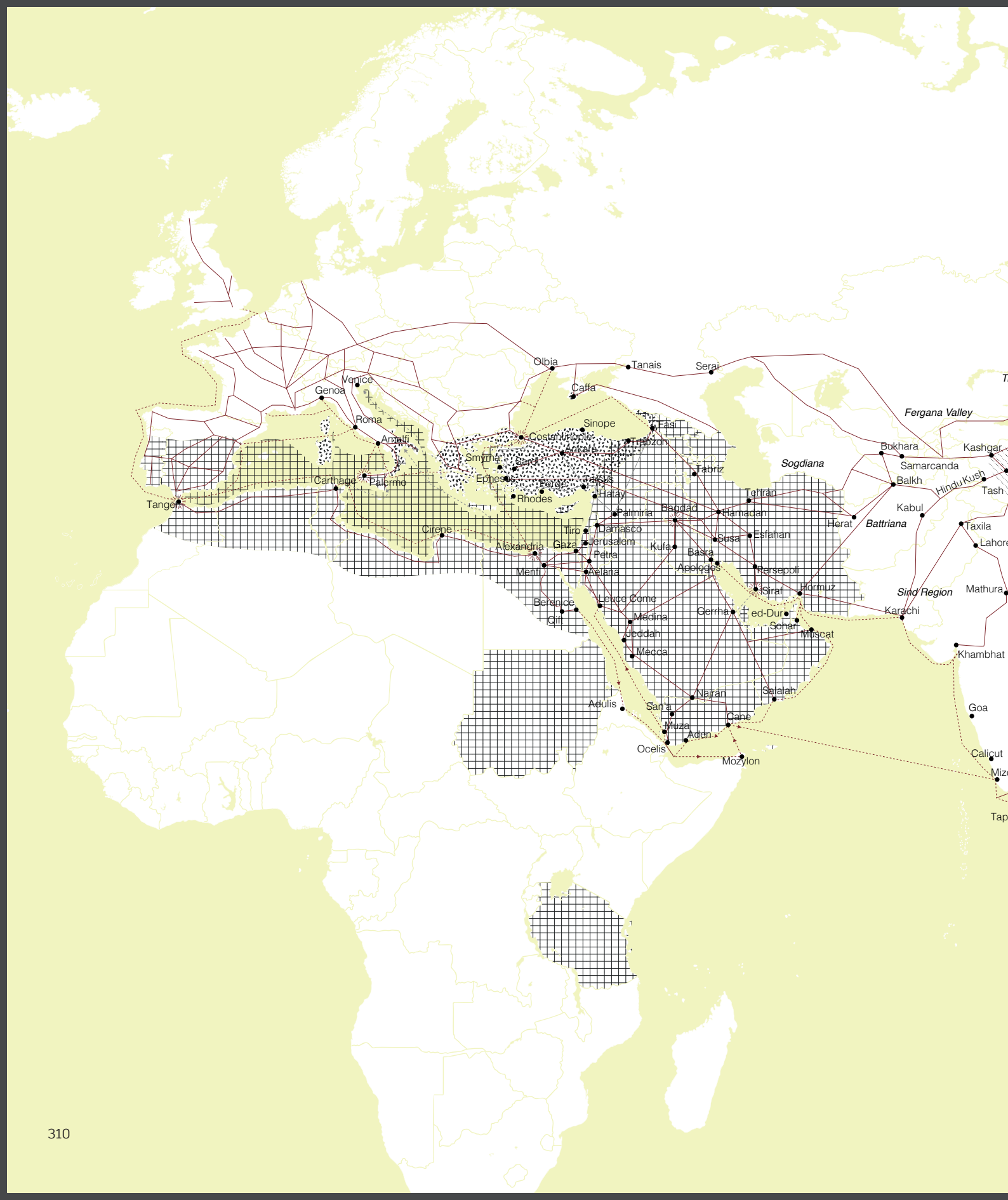
Hanoi
Mandras
Poduca
Anuradhapura
Influence of Buddhism on Trade Routes
Source: Cardini, Vanoli, 2018; Kartapranata 2014
Core of Buddhism
Great Wall
Expansion directions
Xuanzang travel
Buddhism routes
First expansion
Second expansion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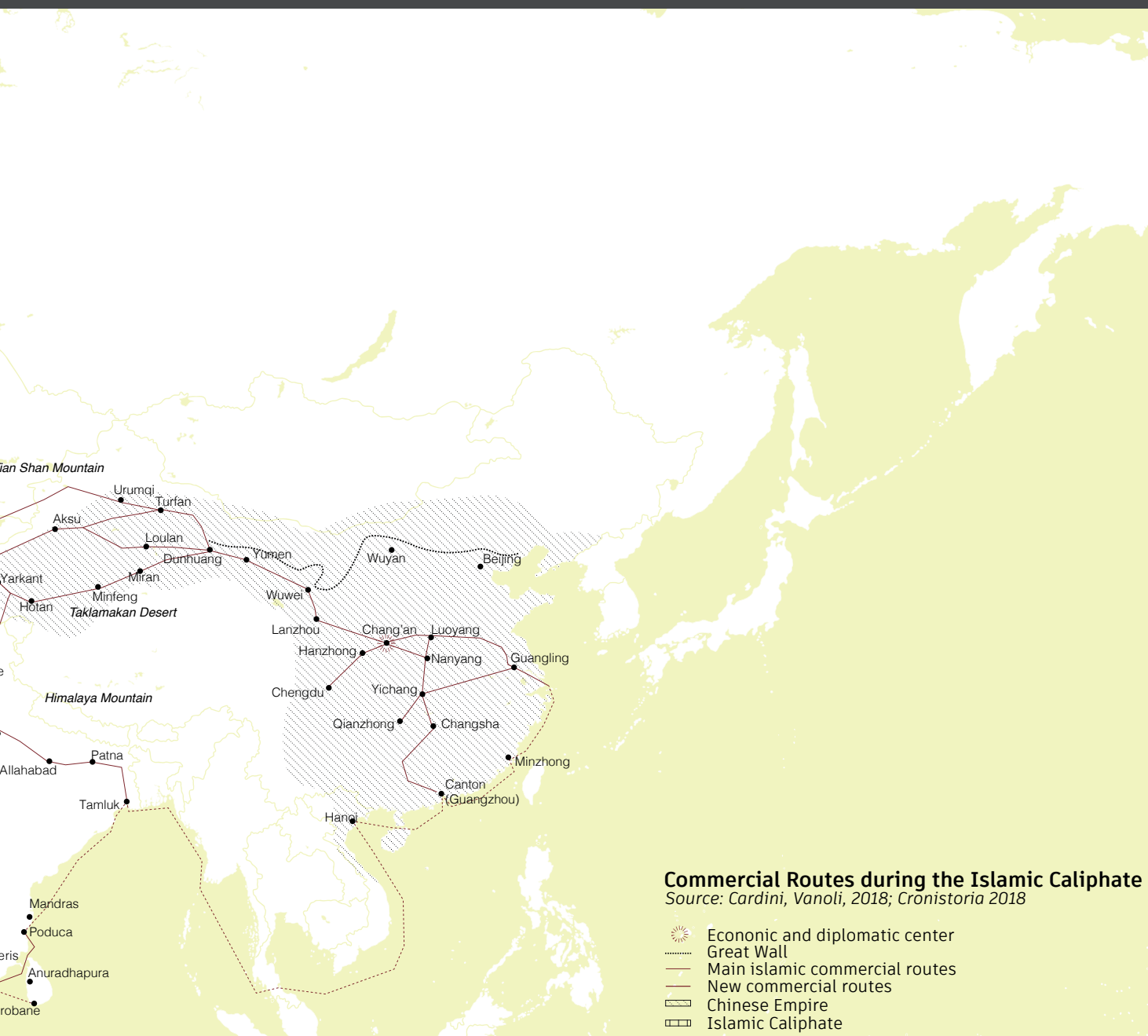
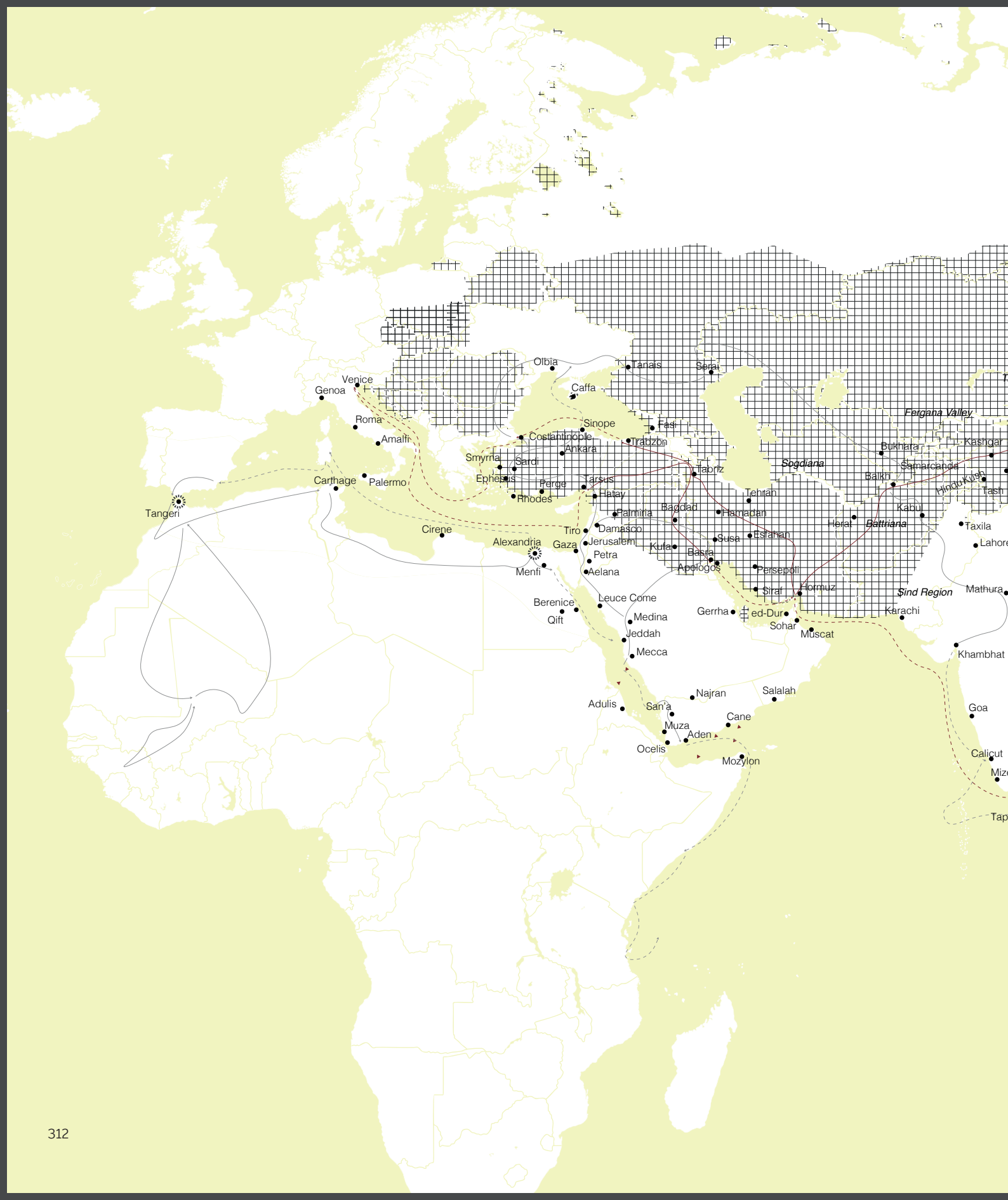


Commercial Routes during the Islamic Caliphate

Source: Cardini, Vanoli, 2018; Cronistoria 2018

- Econonic and diplomatic center
- Great Wall
- Main islamic commercial routes
- New commercial routes
- Chinese Empire
- Islamic Caliphate
- Byzantine Empire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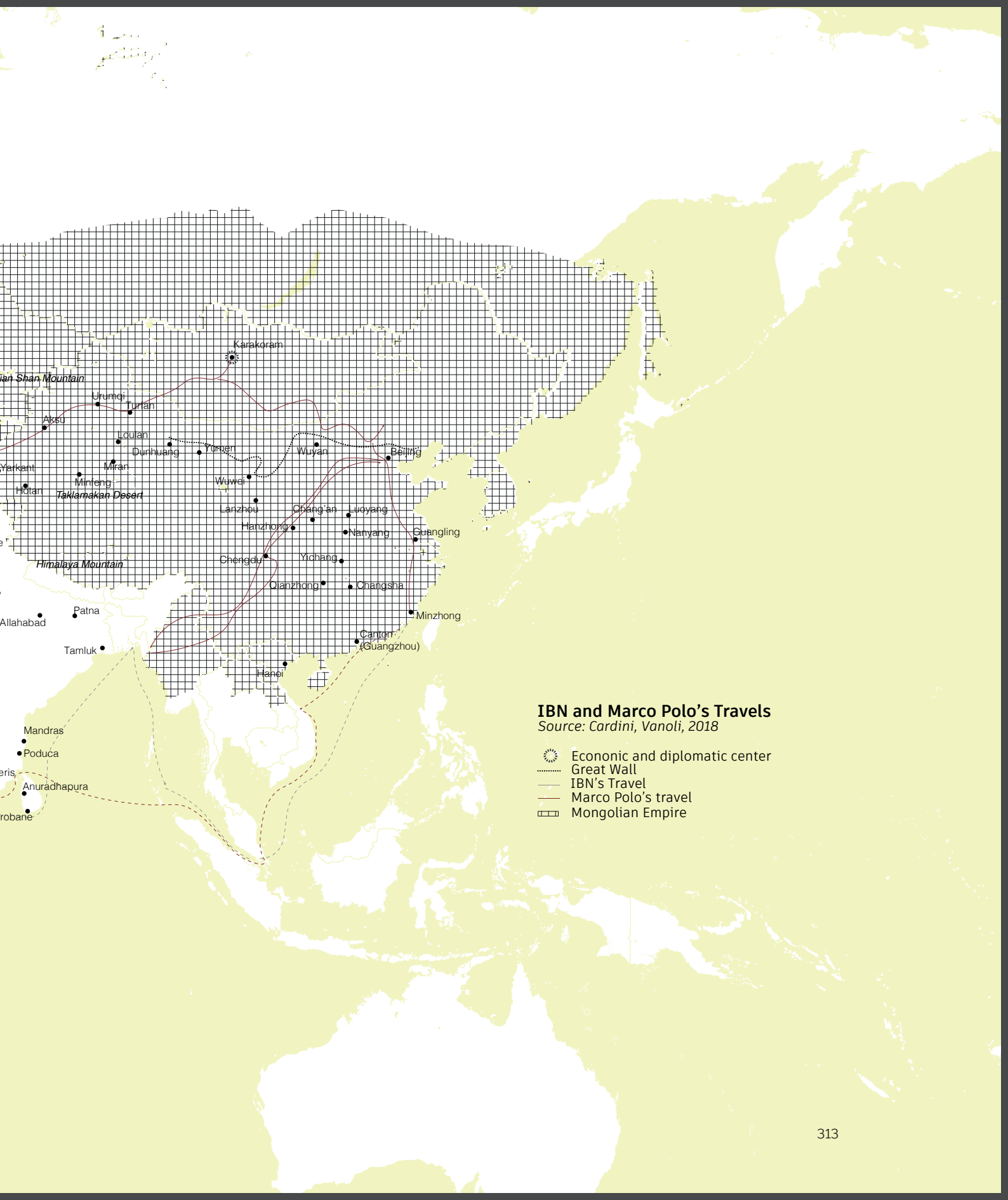
Samarcanda
Balkh
Hindu Kush
Tash
Kabul
Herat
Battriana
Taxila
Lahore
Sind Region
Mathura
Karachi
Khambhat
Goa
Calicut
Miz
Tap


Karakoram
Urumqi
Turfan
Aksu
Loulan
Dunhuang
Yumen
Wuyan
Beijing
Miran
Minfeng
Hotan
Taklamakan Desert
Wuwei
Lanzhou
Chang'an
Luoyang
Hanzhong
Nanyang
Guangling
Himalaya Mountain
Chengdu
Yichang
Qianzhong
Changsha
Minzhong
Patna
Allahabad
Tamluk
Canton
(Guangzhou)
Hanoi
Mandras
Poduca
Anuradhapura
IBN and Marco Polo's Travels
Source: Cardini, Vanoli, 2018
Econonic and diplomatic center
Great Wall
IBN's Travel
Marco Polo's travel
Mongolian Empire

Appendix III - Supplementary Studies

Positions - Origin of the Term

The etymological analysis of the term silk road is of fundamental importance in order to understand what it represents. Used for the first time in 1877 by Von Richthofen (*Tagebücher aus China*), the term will only be very successful in the 1930s.
With a training as a geographer, Ferdinand Von Richthofen travels extensively through Southeast Asia: after a stay in the United States, where he contributes to the topographical survey of California, he makes a further journey through thirteen of the eighteen Chinese provinces and begins to take an interest, as well as geology, including geography, with particular regard to settlement morphologies and the relationship of man with the environment (Waugh, 2010). The themes of Siedlungen (human settlements) and Verkehr (communication or transport) and their relationship with physical geography are recurrent in his early works, and starting from this reasoning he focuses his attention on exchange as an essential condition for the development of society complex (Waugh, 2010); the emergence of nodal points for the exchange represents for him the direct consequence of the key position they have on the communication routes.
The use of the term *Seidenstrasse* (Silk Road) in his texts is much more limited and prudent than one might imagine. Studying sources of imperial Rome (in particular the maps of Ptolemy and Marino di Tiro) he identifies a place called *Serer* (or *Serica*) and translates it as 'land of silk'. On the map, *Serica* and *Sinae* (China) are indicated as two different places; however, it is likely that Ptolemy, convinced that the Indian Ocean was a closed basin, had deformed the territory to the point of being convinced that Sinae and Serica were two different countries (Yule, 1866).
Von Richthofen also analyzes Chinese textual sources (annals) and identifies during the Han dynasty (206-220 BC) a period of expansion and commercial increase towards Central Asia.
Von Richthofen carries out his research through textual and never archaeological sources (at the time they were not found or were hidden by the Chinese empire; to date we are aware of several trade routes parallel to those identified by Von Richthofen) and not having a thorough knowledge of the Chinese language had to rely on translations.
Von Richthofen's use of the term *Seidenstrasse* occurs both in the singular with reference to the road identified by Marino di Tiro, and in the plural (*Seidenstrassen*) to describe the roads east and west of the Pamir (Waugh, 2010). In general, the term is rarely used and only in reference to the Han period (206 BC-220 AD): he prefers a subdivision into *Verkehr*, *Strassen* (roads and paths), *Hauptstrassen* (main roads) and *Handelstrassen* (trade roads). identifying as *Haupt-Handelstrasse* the road that runs along the Caspian Sea to the north, the Aral Sea to the south and then again to the north the Tien Shan towards the Gansu corridor.
Therefore, although he believed that silk was the most frequent and relevant trade and despite the identification of a main trade route, which was the only way for which he had a direct witness (Marino di Tiro), he exposes a much more complex picture of trade between the various populations. It should also be remembered that Von Richthofen never speaks of a direct commercial link between China and the Mediterranean; he argues instead that the former had intense trading relations with Central Asia.

In general, however, it is important to note the tardiness with which the term was coined: this is because in the epochs in which the aforementioned commercial exchanges took place, the phenomenon did not have such a meaning as to require a specific name but, evidently, it represented a route of commercial trade: the need to name the route is entirely posthumous to the phenomenon itself, perhaps born, in a more or less voluntary way, in an environment of orientalist influences and in the need to contrast the two cardinal points: its posthumous and synthetic origin acts in fact in this case is more of a contrast tool than a bridge. The origin of the scholar is explanatory: he is in effect a European, who moreover travels in Asia with the eyes of a Westerner of the time, and who, as such, defined an event born mainly thanks to Asian initiatives. From this point of view, it is essential not to forget that at the time these commercial exchanges had no rhetorical relevance that distinguished them, and therefore certainly had a different value. Nonetheless, analyzing the etymology of the term is still of great value as the mere denominative act of Von Richthofen has generated a re-evaluation of the fact, which from that moment has begun to characterize not only the latter, but also its modality, its relevance and the social and cultural connotations it entails.

The term *Seidenstrasse* was forgotten in studies following Von Richthofen's; Albert Herrmann's 1910 book is the first to feature the term *Seidenstrasse* in the title: he initially uses the term consistently with the original meaning, and then begins to use it in the plural (*Seidenstrassen*, 1915) and more freely (since 1938). In 1936 Sven Heldin, a pupil of Von Richthofen, also entitled a work *die Seidenstrasse*; with the Swedish archaeologist Aurel Stein, he collaborated in the attribution of a romantic aura to the concept of the Silk Road, moving further and further away from the initial conception of his mentor.
The success of Heldin's book, the new archaeological discoveries in Central Asia and the renewed interest in the subject in academic contexts led, in the 1930s, to the beginning of the diffusion of the term, extrapolated from its original meaning and attributed to more and more periods. extended as well as to an increasingly vast territory. The 1963 publication of Luce Bulnois (*La route de la soie*) represented the real turning point (Rezakhani, 2010) and the customs clearance of the use of the term in an increasingly broad and epidemic way.
Despite the progressively cautious academic use of the term since the 1990s, due both to the study and more careful processing of the sources and to new archaeological discoveries in Central Asia and China, it continues to have great success elsewhere.

The romantic and mysterious climate to which this concept refers continues in fact to be very popular. Marie Thorsten lists some of the most significant diffusion phenomena of the 1990s and early 2000s: since 1990 UNESCO has offered exhibitions, expeditions and multimedia products regarding the Silk Road in order to promote the diversity and cultural heritage of the countries concerned: in the same year the Japanese NHK and the Chinese CCTV collaborated in the making of a documentary that will have great success. In recent decades there has also been an increase in tours and trips along the ancient trade routes, with particular interest in Dunhuang and the Mogao caves (protagonists of countless archaeological expeditions, including those of Aurel Stein, in the twentieth century). In 1998 Yo-Yo Ma set up the Silk Road Project, a musical collective that brings together musicians from various regions along the Silk Road and related musical practices.

The interest in the concept of the silk road is therefore multi-disciplinary, and is perhaps more successful in fields such as archeology, music, art or poetry than it has ever had from a historical and geopolitical point of view.
For Thorsten, the success of this expression lies in the idea of a global community to which it refers, "the globalization's fashionable nostalgia" (Thorsten, 2013); the desire (*algia*) for a cosmopolitan 'home' (*nostos*); it is a desire not so much for the physical place, for the real connection between east and west, as for the global flow that it entails and which allows for adventure, romance and knowledge.
Returning to the original meaning of a set of geographical places connected to each other by a dense network of trade and cultural exchange starting from a specific historical moment (Han dynasty and imperial Rome) and passing through fixed physical and specific territories, criticism has, in the last decades, had much to contest with Von Richthofen and his successors.
Warwick Ball, an Australian archaeologist working in Syria, Iraq, Iran, Jordan and Afghanistan, argued in 1998 that: «the Silk Road is nothing but a myth»; the silk road is one of the most romantic and evocative geographical images, but it couldn't be further from reality. Ball therefore advises the abandonment of the concept: a meaningless neologism that has little connection with Eurasian realities (Waugh, 2010).
Adam Nobis denies the existence of unity inherent in the concept of the Silk Road; he studies the ancient view that the Chinese had of these trade routes and identifies the names they gave to each of these routes: Longshan Route (隴山 道) which leads from Xi'an to Wuwei, Hexi Road (河西 路) from Wuwei to Dunhuang, Oasis / Desert Road (綠洲 路 / 沙漠 路) between the Taklamakan oases to Kašgar, Grassland Road (草原 路) which crosses the Tian Shan towards the steppes to the north, Tea Horse Road (茶 马 道) through the Yunnan Mountains in the direction of India. It was therefore not the case of a single commercial artery that headed west, but instead of sections that had an individual meaning first of all, of connection - commercial and otherwise - between two places, and only secondarily and often indirectly as a set of sections and resting places that brought Chinese merchants to the Transoxiana region and the Mediterranean.

Contemporary authors such as Cardini and Frankopan who deal with the subject[7] continue to use the term, specifying in their respective introductions that the expression is fundamentally incorrect, since «in reality, that road was not there [...] there was rather a vast network of itineraries that extended from the heart of China through Asia, towards the Mediterranean, with connections and transversal routes that led north and south» (Cardini, 2018) but which is used to «describe the with which people, cultures and continents were intertwined [...] allows us to interpret the past not only as a series of isolated and distinct periods and regions, thus helping us to grasp the rhythm of a history in which the world has been connected for millennia in as part of a broader and more inclusive global past »(Frankopan, 2018).

Hillary Clinton, Secretary of State at the time, was the first to hint at a "New Silk Road" as an innovative model for reviving the Afghan economy. In September 2011 she spoke at the 'New Silk Road Ministerial Meeting' appealing to the millennial history of economic connection between the countries of Central Asia and the rest of the continent, underlining the central role that Afghanistan played within this

7 The first treating it as a historical phenomenon, the second as a resumption of the phenomenon in the contemporary period in order to indicate the BRI project.

connecting network: «let's set our sights on a new Silk Road - a web of economic and transit connections that will band together a region too long torn apart by conflict and division» (Clinton, 2011). Obviously, the interest of the United States was not limited to the desire to reintegrate Afghanistan into an economic-commercial network, but also to the tacit desire to exclude Moscow from the new geopolitical configurations (Laruelle, 2011).

Yet, in 2011 the idea of a new silk road was still far from being really taken into consideration, so much so that it was considered an imaginative vision of the future (Gavrilis in Kucera, 2011); the conflicts of Pakistan with Afghanistan and India and Uzbekistan with Tajikistan and Kyrgyzstan as well as the lack of willingness to cooperate between the latter, with the addition of China and Iran, removed this utopia from its possible realization (Kucera, 2011).

Only two years later, on 7 September 2013, Chinese President Xi Jinping delivered the famous speech 'Promote People-to-People Friendship and Create a Better Future' at the Kazakh University of Nazarbayev in which, evoking the millennial history of the terrestrial silk and China's robust relations with Kazakhstan, states that: "To forge stronger economic ties, deepen cooperation and expand the space for development in the Eurasian region, we should take an innovative approach and jointly build a New Silk Road [...] we need to focus on implementing projects in individual areas that will help stimulate large-scale regional cooperative development. Political communication, road connectivity, regular trade, currency circulation and cultural exchanges need to be strengthened "(Xi, 2013).

The Chinese initiative will formally be called 'Silk Road Economic Belt' (the land route) and '21st Century Maritime Silk Road' (the sea route); the overall project is known as One Belt One Road (OBOR) or Belt and Road Initiative (BRI).

Therefore, although the official name of the project differs widely from the historical one and does not in itself constitute a reference to the ancient Silk Road, when Xi Jinping announces the new project to the world, he does so by appealing to distant images of caravans in the desert and crowded market squares, thus evoking a romantic image that is known and shared by all. That of the ancient Silk Road has become a story that is part of a global collective imagination, a universalism where differences are celebrated. This nostalgic idea apparently ignores the conflict of 'us' against 'them' and instead admits each culture as distinct and equally worthy of participation within the global network (Thorsten, 2013). Precisely for this reason the project, which is in fact a Chinese project that satisfies internal interests first, is exposed by President Xi as a return to a horizontal economic order (Tavrovsky in Peimin, 2016). He makes frequent use of expressions such as renlei mingyun gongtongti (人类 命运 共同体) or community with a common destiny, or hezuogongyin (河 左 宫 阴), cooperation and prosperity. The Chinese government is very cautious not to use definitions such as the 'Chinese model' or 'the Beijing consensus'; not leadership or alliance, but partnership, dialogue and cooperation (Peimin, 2016).

When it speaks of a new Silk Road, China uses the language of the West in order to approach a way shaped and ordered by Western powers (Nobis, 2018); the result of this cunning operation is that for the world this language is much more understandable than a vision based on Chinese ideologies would be.

Appendix III - Supplementary Studies

Positions - Two different Weltanschauungen

Edward Said identifies the first moment of distinction between East and West with the Persian wars dealt with by Aeschylus (499 - 479 BC) and with Euripides' Bacchantes (407 - 406 BC). Here begins to form the idea of a strong and well-structured Europe as opposed to a distant and defeated, but also dangerous and mysterious, Asia.
While Africa and the Americas find legitimacy in the morphology of their territory, surrounded on all sides by waters, the Eurasian conflict has been inevitable since ancient times and has led, particularly in European civilizations, to the progressive definition of a schism between all that was known and that which unknown and distant.
Initially this classification and hierarchization of places took place between regions visited, explored or conquered by Herodotus or Alexander the Great and those still unknown. In any case, even with the increase in explorations, discoveries and trade with increasingly distant countries, this dichotomy will take on different meanings but not without continuing to compose the fundamental duality of the known world.
During the Middle Ages, the contrast between Europe and the rest of the world will be subsumed under the aegis of the *Respublica Christiana* (Marchettoni, 2012) and, when the religious indicator became no longer exhaustive, new determinations were introduced to distinguish European culture in the broad sense: here then we are witnessing an increasingly conspicuous gap between East and West, also to legitimize the imperial desire that was being defined in various European nations. The eighteenth-century vision, already generally tending to the classification of natural and human facts, attributed characteristics to the eastern man as well as to the eastern place, sanctioning the definitive schism from the western.
The world defined by Europeans is a world of contrasts, where the West is all that is familiar and the East is the unusual; it is a vision that creates and maintains the two worlds thus conceived as separate (Said, 1978).
The division into eastern-western, as well as the southern-northern equivalent, outlines two opposite realities that by definition do not interact with each other except in carrying out their task of opposite and complementary worlds.
In the modern era, the most widespread division has been that into rich countries (modern and developed) and poor countries (underdeveloped and developing). This conception, born as an economic subdivision despite the successive contaminations in the socio-political fields, has been correlated and strengthened by means of the cultural division between West and East, with a philosophical and sociological character (Huntington, 1996).
The dichotomous *Weltanschauung* that has emerged over the centuries in Europe (and later in the United States) is of essential relevance because it allows us to understand how the traditional global order has clashed with heterogeneous realities.

Western Sovereign Conscience: Formation of a Unique Identity

To grasp the schism that has occurred in European culture between East and West, it is first necessary to analyze the latter and the principles from which it starts. European thought first of all started from a Western Sovereign Conscience which is based on the conviction of being in a condition of undisputed centrality; from here an oriental world will emerge by antithesis, and therefore opposite, conforming first to vague general notions, then to a stringent logic assisted not only by the empirical notions that gradually accumulated, but also by a number of desires, removals, investments and projections (Said, 1978).
Edward Said highlights in *Orientalism* the extraordinary continuity created thanks to this flexible basis of a superiority of position, which allows Westerners, over the centuries, to cultivate the most varied forms of relationship with the East without ever losing their "relative prevalence".

The Greek world is often considered the foundation of today's Western civilization and, despite the undeniable and substantial influence it has had on European culture and society, it is important to note that «the homo religiosus of any traditional civilization inhabiting the vast Asian continent - from China, to Persia to Ancient Greece - he has always considered his homeland as the center of the world» (Perra, 2020); the same Shield of Achilles offers one of the most significant testimonies of sacred geography of Ancient Greece, with a decoration divided into five concentric circles that depict, starting from the center, the sky (space of the Divine), a civil and a military scene, agricultural and pastoral activities and finally the Ocean river that surrounds and contains the emerged land, beyond which the "land of the dead" rises, located to the west as direction of the sunset (from lat. *occidens*, part. pres. of *occidere*, to set). It therefore appears evident how much the Greek civilization, as well as the many other contemporary Eurasian civilizations, were very far from considering itself in the West, and indeed had an understanding of the world for which it was placed at the center and everything that was outside society itself was conceived as utterly alien and barbaric (Perra, 2020).
The same conviction of being «center and world» (Perra, 2020) belonged to Roman ideology, which even after Diocletian and the Schism of the Catholic Church did not change the conviction of its absolute centrality with respect to the Cosmos.
In general, in a world of cultures that are largely distant and alien to each other, each civilization described its own history as the main plot of human history, first of all Europe itself (Huntington, 1996). Such monocentric interpretations, Huntington points out, are becoming less and less important in a world made up of multiple civilizations.

The birth of Western thought is often indicated around 700-800 AD. (Huntington, 1996), coinciding with the emergence of European Christianity as a civilization in its own right (Huntington, 1996); we still speak here of an extremely theoretical notion, an abstraction invisible to time, which took shape only as *a posteriori* etiological research.
The most relevant material contribution to the concept of the West of the first millennium AD. was the existence of secular borders, which divided the peoples of the Christian West from the Muslim and Orthodox ones (Huntington, 1996) and in particular the eastern borders of the late Roman Empire (300-400 AD) and of the Holy Roman Empire (from 962 A.D); they constituted a great historical watershed (Huntington, 1996) which lasted for centuries and which will continue throughout

the second millennium AD. to represent, if not a palpable barrier, a cultural and religious division.

Although it is not yet relevant to speak of the West, there is no doubt that phenomena such as that of the Crusades contributed to, at least, confer an identity on two irremediably opposing and antagonistic factions: as Said argues, «before the East indicated a synonym for East Asia, it indicated the Islamic East», and as such, it was opposed to the Christian reality which occupied a well-defined territory and which gathered around common religious factors; the unitary idea later took on a completely different meaning, as Europe was moved by the urgent need to define itself in contrast to the others at a time when it was already engaged in the conquest of the new world (Marchettoni, 2012); the loss of meaning of the religious indicator will in fact lead to the explicit and voluntary search for a new, not only geographical differentiation of European culture from the others (Marchettoni, 2012), a task made extremely easy by the imminent colonial expansionist desire of various countries belonging to the European continent.

The European nineteenth century was in fact strongly characterized, for European nations, by the extension of their political and economic dominion over other societies in the world (Huntington, 1996), a phenomenon widely supported by theories such as that of the "responsibility of the white man" (Kipling, *the Burden of the White Man*, 1899) and, later, the concept of universal civilization (Huntington, 1996), or the tendency of a doctrine to propose itself as universal, that is, valid for all men. Above all, the latter contributed to the «justification of the cultural domination of the West over other societies and the need for the latter to imitate Western institutions and ways of life» (Huntington, 1996).
The phenomena of European colonization and imperialism are certainly key identifying elements of the West - even today the term recalls the empires "on which the sun never sets"[1] - so much so that Latouche identifies the term Westernization as a synonym for Colonization (Latouche, 1992).
Europe and the former European colonies in the Americas controlled 35% of the entire earth's surface in 1800, 67% in 1878 and 84% in 1914 (Huntington, 1996), relating to non-Western cultures with ideologies derived from the aforementioned and maintaining a close relationship between them thanks to «an active commercial network, a constant movement of people and a very dense network of ruling families» (Huntington, 1996).

The Russian Revolution of 1917, which led to the overthrow of the Empire in favor of the birth of a Socialist Republic, initiated a new type of intra-European conflict that had no historical precedent, the ideological one; first between fascism, communism and liberal democracy, then between the latter two (Huntington, 1996). The very elaboration of political ideologies such as liberalism, socialism, anarchism, corporatism, Marxism, communism, conservatism, nationalism, fascism and Christian-inspired democracy (Huntington, 1996) is itself born within the 20th century Western society.

The contemporary conception of the West, however, stems from the Second World War consequences, with the loss of purpose of the eastern European border, fixed for centuries, and generated a torn and defeated Europe, divided between winners

1 Used for the Habsburg Empire of Charles V, the Spanish empire of Philip II and more famously for the British Empire.

and defeated and subject to the United States or the newly formed USSR, strongly hostile to each other. The influence that the two extra-European powers place on Europe determined two opposing blocs, also ideologically; from here comes the denomination of the states under the Atlantic Pact as Western and those under the Warsaw Pact as Eastern (Ghisetti, 2020); it is perhaps by observing the European map of 1949-1989 that the East-West dichotomy takes on a concrete meaning. Now more than ever, the West assumes the fundamental role as a negative of the communist and oriental world; as a reaction, the North American and European states that were democracies by political and institutional culture (Ghisetti, 2020) come together under a denomination that means nothing, but which refers to the strength and cultural, technological, ideological prevalence that Europe had in the 19th century.

As Huntington writes, the West, after having experienced a phase of development and expansion that lasted several centuries in Europe, now reaches a second phase which is American: the "center of the West" then moves overseas.
However, it should be emphasized that this dichotomy, which is entirely valid from the historical point of view, represents a split into two fragments that is forced and devoid of content - if not political - of the territory and of populations that for centuries had been close to each other, above all from the cultural point of view, therefore both belonging to an hypothetical West (or East). Now more than ever there is the need to define the essence of the West (which now indicates US-EU geopolitical collaboration); «none of the attempts, however, seem to turn out to be fully satisfactory and therefore, in an essential sense, are destined to fail» (Ghisetti, 2020).
The Cold War, often remembered as "the East-West conflict" (Khanna, 2016) produces a bipolar reality, in which the two superpowers define their identities through their own ideology and, unlike what has happened up to then, «none of the two is a national state in the sense of the European tradition» (Huntington, 1996).
The forty years old Cold War conflict divided Europe into two different parts that have grown economically at two different speeds and that had dealt with the consequences of the war in two opposite ways; the collapse of the Berlin Wall and historical European communism, however, resulted in the extension of the North Atlantic alliance and liberal democracy to formerly socialist and eastern countries (Ghisetti, 2020); given the new correspondence of the Western and North Atlantic concept, this last term is now also extended to "European states that do not overlook either the Atlantic Ocean or the sea", proving the lack of a correlation between the term and its own meaning.

Huntington writes: «the creation of a European border was one of the main challenges that the West had to face in the post-Cold War world»; whereas thirty years ago the East referred to the Soviet Union, today it is difficult to attribute the adjective oriental to Russia, much less to the former Soviet European countries; the true "East" is Asia and its center is China (Khanna, 2016).

In 1989, the collapse of the Berlin Wall also sanctions the silent and much slower collapse of a categorization of nations in the west or east that for centuries had ordered the world; the purely geographical meaning of states «Western since within a certain group of meridians» (Ghisetti, 2020) seems to no longer have any value, not even as justification for broader reasons of politics, religion, economics or ideology, in a a world that is increasingly connected and infrastructured on the

one hand and increasingly turned towards an imminent section - the one between north and south - which will slowly replace the traditional partition.

The West now includes Europe, North America, Australia and New Zealand (Huntington, 1996), in a selection of states that is based on economic and social development indices, and which retains from geography solely its name. Some countries of South America or Africa, which are geographically located in the West, are not considered part of the Western world (Ghisetti, 2020), and Europe is found in the West only as a continent subordinate to the United States (Ghisetti, 2020), true fulcrum and homeland of the new West.

Particular, in this new concept of the West, is the role of the United States, which since its inception has distanced itself from European countries in order to build its own identity; in contrast to them, which symbolize a bygone era of oppression and class conflicts, the United States places itself as the «homeland of freedom, equality, opportunities, the future» (Huntington, 1996). This need to distance itself from Europe, however, disappears when, after World War II, the United States enters the world scene as the first world power: this led to the development of «a stronger sense of identification with Europe», to the point of recognizing itself as «an integral part and indeed a leading element of a broader identity», the West (Huntington, 1996). Once included in the definition of the West, the United States will always remain its foundation, making the concept itself evolve «in a way that is functional to US domination vis-à-vis subordinate states» (Ghisetti, 2020).

To explain the multipolarity and the facets of the contemporary West, scholars divide Western civilization into three main branches; one European and one North American, with the second as heir to the first, and a Latin American, (Huntington, 1996) the «third pillar of the Western world» (Khanna, 2016). The latter is inserted in a category of its own in that, despite being a direct product of European civilization, it retains its own distinct identity, which presents characteristics such as corporate-authoritarian culture, the lack of Protestant religious currents and the assimilation of indigenous cultures. (unlike in North America, where they have been eclipsed or suppressed) (Huntington, 1996). Huntington points out that South America can be considered a «subcivilty within Western civilization, or a civilization in its own right closely associated with the West».

To summarize, Khanna critically emphasizes the changing nature of the concept of the West, which originated as referring to the Judeo-Christian countries of Western Europe, was extended in the twentieth century to all members of NATO, and then expanded again until the today to indicate the European Union and North and South America in their entirety, as well as Australia and New Zealand: Asia and Africa are left out, showing the vacuous role of the East of the world.

A particular consequence of the contemporary West is the generation of the term "*westernization*" as a synonym for "*modernization*"; this is due to the fact that the West was the first civilization to "*modernize*" (Huntington, 1996) if by modernization we mean industrialization, urbanization, culture and education, wealth and social mobility as well as more complex and diversified occupational structures (Huntington, 1996). The synonymy between the two terms, however, does not coincide at the temporal level; the West was such long before it was modern (a process that began in the seventeenth and eighteenth centuries). The West is therefore at the head of a process of acquiring a modern culture

(Huntington, 1996), according to a plan which, however, it was he himself who set up and later imposed on countries that aspired to westernization.
The phenomenon of modernization in turn refers to the concept of universal civilization, since «as other societies acquire similar models in matters of education, work, wealth and class structure, this modern Western culture will become the universal culture of the planet» (Huntington, 1996).

Leaving aside the aspect of modernization, which as we have seen began to define the West only at a later time, the distinctive elements that have formed Western society are (following Huntington's classification in his essay *The Clash of Civilizations*): 'classical heritage, Catholicism and Protestantism, European languages, the separation between spiritual and temporal authority, the rule of law, social pluralism and representative bodies, individualism.
All these factors represent the concepts and ways of life that appear prevalent in the West; each of the categories, taken individually, can be applied to a multitude of civilizations including non-Western ones; their common presence, however, outlines a picture that «at least forms the constitutive nucleus» of Western civilization (Huntington, 1996).

The basis of the original idea of the West is undeniably the geographical meaning (as a state within a certain group of meridians), an idea however not robust enough in itself, because of its lack of a defined territorial border with respect to the peoples of the East: precisely this shortage of a true distinction has led to the need to connote this contrast through a previously religious, political-cultural and economic difference: the concept of the West has been declined according to the needs of the case and always in function of justification for the relations of force existing between dominant state, dominated states and non-subordinate states (Ghisetti, 2020).
While the West today mainly means economic robustness and high indices of human development, there are other attempts to give meaning and justification to the term; S. Bannon speaks of the West as a «Judeo-Christian civilization called to fight the Islamic-Confucian civilization» (Ghisetti, 2020) by retrieving the original definition of the West; scholars such as R. Berman, on the other hand, underline the juridical-institutional reason (Israel, South Korea, India, Taiwan, Japan against authoritarian states such as Russia, China, Iran, North Korea) that makes it necessary, even today , make this distinction. In general, however, as we will see later, the opinion against the use of the term prevails, incorrect to denote both a situation from the European and North American past, but above all to describe the current situation.

In conclusion, Western civilization is in reality the only one that does not identify itself as a determined civilization but rather with a cardinal point (Huntington, 1996). This peculiarity, combined with the multiple and non-monolithic nature of one's identity, meant that on the one hand the concept could be extended and restricted to various countries based on the circumstances, and on the other hand that it could find justifications and meanings not starting from the its very soul, but from the essence of time. It should also be remembered that Western civilization «is the only one to have exerted a profound and sometimes devastating influence on all other civilizations» (Huntington, 1996).

Conception of the East

Edward Said writes in his essay *Orientalism*: «as geographical and cultural entities, as well as historical, East and West are the product of man's material and intellectual energies. Therefore, just like the West, the East is an idea that has a history and a tradition of thought, images and language that have given it reality and presence for the West».
Precisely starting from the superiority of position and the solid absolute centrality of which the West is believed to possess, in the latter the reflection on the other is established; from here an oriental world will emerge, at first as an abstract, obscure and mysterious notion, then increasingly characterized to become a real branch of Western knowledge and beyond.
To understand the evolution of this thought, it is first necessary to clarify the concept of Orientalism; it can be defined as an «attitude characterized by a marked interest and a strong admiration for what is oriental» (Treccani, orientalism), it also falls within the more generic exoticism, a concept of particularly broad meaning as it indicates «every clearly identifiable foreign» (Treccani, exoticism) but, intertwined with the historical meanings of Romanticism, more specifically indicates «the complex of emotions provoked by the thought or contact of foreign countries» and therefore the romantic love for the other and the poetry of distance.
Although Orientalism touches a wide range of disciplines, such as the artistic one (Delacroix, Ingres, Pasini) and above all the literary one (Goethe, Chateaubriand, Lamartine, Hugo, de Nerval, Flaubert, Wilde): it represents more generally the the only secular language that the West adopts to study, understand, rework and transmit the East and therefore the very vision that the West has of its opposite historian.

As we have seen, it is the tragedies of Aeschylus and Euripides - as well as the historical work of Herodotism and the explorations and conquests of Alexander the Great - that delineate a boundary between what was known and familiar and the territory which, as unexplored, was potentially unlimited and mysterious. Precisely this classification and hierarchization of eastern territories in regions visited and traveled, if not invaded, and unknown territories, represents a first step in the construction of orientalist thought. Furthermore, since classical times the Near East (the only East truly perceived by the ancients) has represented «its own great complementary opposite» (Said, 1978), an orientalist aspect that will remain unchanged over time.

The affirmation of Christianity in Europe led to the transfer of one's interest from the East in the broad sense to Islam, which was the personification of Christian and European fears in general, which will have in them the consequences of a *lasting trauma* (Said, 1978); Islam becomes a symbol of dismay and devastation.
Islam, and therefore the East itself, became an image for Christian ideology, reinforced and exaggerated through a great patrimony of «poetic works, learned controversies and popular superstitions» (Said, 1978).
The erroneous conception of Islam became in fact an image through a representation of it that deviated more and more from reality; «in the end it was Western ignorance of Islam and not its knowledge that became more and more refined and complex» (Southern, 1962 in Said, 1978).
Orientalism became a specialized branch of knowledge with the Council of Vienna in 1312, and therefore in a purely religious context, during which university professorships in Arabic, Greek, heroic and Syrian were awarded. The Council of

Vienne is often considered the event in which orientalist thought originated.

Starting from the eighteenth century, systematic knowledge of the East grew, encouraged by the impulse of colonial policy and the renewed curiosity for the exotic and the unusual (Said, 1978); from this century on the awareness of one's own position of strength with respect to others is consolidated, and this allows us to look outside Europe with the will on the one hand to understand the stranger, on the other to forge one's own image of it, striving to adapt the Oriental to what the European expects of it.
As Said writes, Orientalism becomes the distribution of a geopolitical awareness within a set of poetic, erudite, economic, sociological, historiographical and philological texts, which not only contribute to a clearer geographical distinction of a world made up of two unequal halves, but also to the consolidation of a series of interests, such as the colonial one, which orientalism «creates on the one hand and helps to maintain on the other» (Said, 1978).

The seventeenth-century detachment now leaves room for authors who try to leave prejudices aside in favor of a human *Einfühlung*, a sympathetic identification that gives life and identity to the Orientals; this happens through a stereotyped classification system of the population and their "oriental" characteristics.
In particular, Said identifies four factors of the eighteenth-century current of thought as hinges on which the structure of the future Orientalist ideology will hinge: both the intellectual and institutional structures that are typical of modern (and academic) Orientalism will depend on them: the expansion of the concept expressed by the term, the more scientific and classificatory but also more sympathetic attitude, allowed a re-adaptation of the concept of the Orient on the basis of these latter characteristics.

A peculiarity of eighteenth-century Orientalism is the strengthening of the concept of the East as "image and mirror" of the Western imagination, so as to become a real «large stage annexed to Europe» (Said, 1978); this process confines the role and meaning of the East itself, which becomes a representation of exponents who have the task of representing the broader sphere from which they come, in a vicious circle that increasingly distances the East represented from the real one. Barthélemy d'Herbelot, French orientalist and author of the *Bibliotheque Orientale*, in his treatise assumes that the task of an orientalist is confirming the East in the eyes of the reader, and therefore proposing to them not a true East, but what Westerners expect and desire; this is carried out through a series of images of the East which are such as they represent or even stand in place of an object so vast as to be elusive, thus allowing it to be grasped (Said, 1978). The *Bibliotheque*, however, has the merit of presenting for the first time the East in a complete and clear way, while being careful not to shake the already consolidated beliefs of the reader, but rather to confirm them. D'Heblerot also relies more on orientalist texts rather than on direct oriental sources; in this way, «the orientalist stage becomes a morally and epistemologically rigid apparatus» and the East is orientalized, in a tacit agreement between writer and reader, in which the latter accepts the codifications made by the orientalist as if they were the true East. Thanks to the *Bibliotheque*, Westerners «become aware of their ability to embrace and orientalize the entire East» (Said, 1978).

The modern orientalist sees himself as a hero, who on the one hand redeems the East «from the darkness and alienation that he himself had opportunely brought

to light» (Said, 1978) and on the other proposes it to the Westerner so that he can understand and appreciate it. The writer restores, modernizes and brings the East closer to the present and, in doing so, he carries out a work that is of cooperation and support for the East; however, the traces of a power of which he believes himself to be the holder remain; «the power of having resurrected or even created the East» and, as the author of the transposition of the East into modernity, the Orientalist compares his own figure to that of a *lay demiurge* (Said, 1978).

Eighteenth-century European Orientalism develops mainly in France, Germany and Great Britain, and its diffusion leads, even in not strictly Orientalist authors, to an interest in the scenarios and meanings that "the Orientalist East" describes; Goethe in his *West-Östlicher Divan* expresses the fascination for the vastness to which the oriental place refers, as well as for the possible dialogue and confrontation between East and West; Schlegel will describe an idealized East, of the classical era, and an India of the past, revealing the implicit racism in his judgments on contemporary Eastern man and on Islam in general; Byron and Hugo will see the East as a form of liberation and a place of original possibilities; therefore, there is an ever-growing interest that in the nineteenth century will leave the artistic, literary and cultural fields in general to enter politics, science and economics.

The invasion of Egypt by Napoleon Bonaparte in 1798 therefore marks the passage of Orientalism from theory to practice. Considered as the event that gave rise to the beginning of modern Orientalism, with it comes a renewed interest in the Orientalist literary corpus inherited from the past that will lead many scholars to identify an "Eastern Renaissance". The beginning of the nineteenth century in fact brought about a greater awareness of the oriental concept due to the increasingly close relations between East and West, and the Napoleonic enterprise will determine a «fundamental model of scientific appropriation of one culture by another» (Said, 1978), reused and reworked throughout the nineteenth and part of the twentieth century.
The attention to the Egyptian episode is due to the fact that the Napoleonic approach is different for the first time from that of the Western invader; he first of all studies orientalist texts, and from them he draws evidence of «experiences belonging to the realm of ideas and myths» (Said, 1978). It was precisely from the orientalist texts that Napoleon was convinced of the feasibility of the invasion, since literature had provided him with the tactical, strategic, historical and textual knowledge of the East; for the first time, the Orientalism is placed directly at the service of Colonialism (Said, 1978).
The Napoleonic experience in Egypt will be entirely based primarily on Orientalist notions, and the use of scholars will be of fundamental importance in establishing contacts both with the local population and with the Imams, Qadis and Muftīs, who are urged to interpret the Koran in a manner favorable to the *Grande Armée*; the four years of French rule in Egypt and Syria (1798-1801) will be marked by the help of a team of orientalists at the service of the authorities.

Like Napoleon, de Lesseps[2] will also be part of a nineteenth-century generation of Europeans who will approach the East with a textual attitude; everything they knew before arriving in North Africa was borrowed from the Orientalist literature that they had carefully studied, so as to arrive in the East enriched by the experiences

2 As promoter and executor of the Suez and Panama Canals

of their predecessors; however, it is an attitude which, in addition to not taking into account the filter that the orientalist applies to reality by distorting it to his liking, starts from the assumption that he is dealing with a "silent Orient" (Said, 1978), where the Western countries can carry out their projects without having to involve indigenous peoples, unable to resist and even less to communicate effectively. A contrast is therefore increasingly emerging between «Western writing against Eastern silence» which justifies and encourages Europeans to advance resolutely towards the East.
The Napoleonic experience is a prelude to the colonialist propensity that nineteenth-century orientalism will have; the East is transformed from «somewhere in space and time to a district of European culture» (Said, 1978); it has the possibility of being stripped of all the meanings that had been attributed to it and to act as a nucleus around which different meanings crystallize depending on who looks at it, experiences it and describes it; the East becomes more and more an abstract concept conceived, administered, studied and judged with a method rich in inventiveness.
If on the one hand it involves feelings of challenge and competition in the Western, on the other the latter promptly takes steps to strip it of the fear it inspires, building stereotypes and artificial entities (the East tending to despotism, its imprecise and illogical ideology, its sensuality, its backwardness) that paint an East in need of attention and that must be saved: it is here that colonialism finds its legitimacy, in a game of cultural forces that help and are aided in making the distinctions ever clearer between East and West.
At the same time, those characteristics that make the east the ideal place to expand one's cultural influence also make it the «beneficial place of dérangement from the usual European mental habits», loved and esteemed for its pantheism, spirituality, stability and longevity which represents and contrasted with a western world which, although it is "the right part of the world", has lost some primitive characteristics due to its modernity. The East understood in this way, however, represents only a game, a distraction from real life, the esteem is followed by the opposite reaction and the East becomes «the place of the humiliation of the human condition, of anti-democratic, backward and barbaric institutions» (Said, 1978).

The growing Western interest in exoticism led, in the nineteenth century, to the refinement of Orientalist techniques under various aspects; first of all, there was a spread of the pilgrimage to the East as a cognitive technique for the orientalist; although travels are faced in a personal way by each author (from those who travel to collect material to those who travel for a personal urgency, from those who live oriental everyday life to those who observe with detachment) it seems that everyone comes to the awareness of an Orient that it is «a decrepit canvas awaiting restoration» (Chateaubriand in Said, 1978), a set of nations without territory, rights and laws (Lamartine in Said, 1978) that need European protection; the authors urge Europe to teach freedom to the Orientals, but on the contrary by doing so they seize and speak in the name of the East, confirming what Western political discourse was also reaching, namely the need for a mission to to carry out in the East in the name of the planetary vocation of the West, a concept further strengthened by the lack in the nineteenth century of the experience of a real autonomous force of the East (Said, 1978).
Secondly, the nineteenth-century technique used the theory of fragments as a tool: it starts from the assumption that the East is not knowable except through the work of the orientalist who, given that Oriental literature does not require

to be known in its entirety[3], is assumed the task of treating the sources with a *collage* operation of the various sources, modified in order to be made interesting according to the taste, intelligence and patience of a European (Said, 1978).
Silvestre de Stacy, in 1822 the first president of the French *Société Asiatique*, used the *theory of fragments* in an astute way, hiding from the reader the necessary caesura of oriental sources and making him forget the intervention of the orientalist; the objective structure and the subjective reconstruction thus become one. The fragmentation of the sources carried out by de Stacy and Renan (who as a philologist masters this technique even better) as well as the consequent flattening of the East, in order to make it more understandable (East as passive, feminine, silent, supine), will be resumed properties by most of the nineteenth-century orientalists.

Until the end of the nineteenth century, Orientalist interest will focus exclusively on the East of the classical period, considered by the Orientalists to be its period of maximum splendor and avant-garde. This involved the conception of the Semite who cannot progress beyond the level reached in the classical period; no Semite can «once and for all shake off the poor of the tribal camp in the desert» (E. Lane in Said, 1978); the black man remains chained to «general truths about his prototypical ancestors of a linguistic, anthropological and doctrinal nature» (Said, 1978) established by Western scholars.

This last aspect is at the same time the fruit and cause of the nineteenth-century mindset, in which theories began to form that attempted to identify the biological foundations as generators of differences between men (such as Spencer's social Darwinism, which laid the foundations of racism scientific) and between populations (such as sociobiology, especially Wilson). These theories attempted, among other things, to find a scientific motivation for the backwardness of the East, and in general of everything that was not the West, and the West itself. This entailed a growing awareness of Western superiority and an ever lower consideration of the East, perfectly explained in Kipling's *The White Man's Burden*, which will become a sort of manifesto of colonialism; the white man is human, correct, erudite and therefore he has the burden of the civilization of the excluded. And again, all this refers to one of the Orientalist pillars, that is the certainty that the oriental man (as well as the non-white man in general) is not able to see and represent himself, otherwise he would have already done so: «from the moment which is unable to do so, the task is carried out by a representation that is destined for the West and, faute de mieux, for the poor East» (Said, 1978). Edward Said illustrates this concept by quoting Karl Marx: «*sie können nicht vertreten,*

3 As it does not contain sufficiently interesting themes to merit publication except in the form of extracts (Said, 1978).

sie müssen vertreten werden»[4] (they cannot represent themselves, they must be represented).

The nineteenth century therefore represents the century in which the recovery of a lost part of humanity took place (Said, 1978); the product of this intense theoretical work of orientalist reworking and refinement led to a renewed interest in the subject on the part of every branch of culture. As already mentioned, the work of the Orientalists led to a growing fascination in the Western imagination starting from the end of the seventeenth century; the East refers to the fairy tale, to sensuality, to colors, flavors and smells that «contrast with the monotonous ordinariness and empty materialism of the Western world» (Angeletti, 2016); among other things, the eighteenth-century translation of Galland's Arab manuscript *Mille et une nuit* participates in this.
In general, it can be said that the artistic and literary relationship with the East follows a path that describes a more contradictory and conflicted relationship, sometimes clinging to the orientalist hierarchical confrontation between hegemon and subordinate, raising the East to the opposite of the West, but at other times, transforming him into an *alter ego*, minimizing differences and enhancing affinities.
Romanticism decided to borrow immateriality, sentiment and irrationality, dreams and eroticism, violence from Orientalist treatises; the Byronic poems tell of heroes who are pirates, adventurers, revolutionaries, despots; Beckford's novel describes an East of extremes and excesses (Saglia, 2002), Novalis, Hölderlin and Coleridge embrace the mystical and perturbing dimension of the East (Angeletti, 2016); fashion, theater, painting, opera and novels are influenced by the Turkish, Arabesque and *Chinoiserie* styles, confirming the inexhaustible fascination for the complex of «images, myths and narratives that have always been imported into the West along with exotic artifacts, goods and products» (Saglia, 2002). Le Goff speaks of the East seen, from medieval Westerners onwards, as a «dream horizon», or a «receptacle of dreams, myths, legends [...] a reality that is half real and half fantastic, half commercial and half mental» (Le Goff in Said, 1978).
If Orientalism never came to constitute a real artistic and literary current, it is deeply intertwined with romanticism, classicism and decadence; in the literary field, the authors that we have already mentioned and who are responsible for the most significant orientalist testimonies (among them Goethe, Byron, Lamartine, Coleridge, Hugo, Nerval, Flaubert) are in reality defined as romantic or decadentist and the orientalist one is only one pleasant digression. Also in the artistic field, and specifically in the pictorial field, among the exponents artists such as Delacroix, Decamps, Ingres also romantic or classicist painters, but fascinated by oriental studies and responsible for works that will remain in the imagination of many as visual testimonies of east to refer to.

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4 An expression that is undoubtedly of great impact and that has been quite successful in critical re-elaborations: however the quote is taken from "Der achtzehnte Brumaire des Louis Bonaparte" (1852), decontextualized with respect to the exclusively political framework within which it was inserted, referring to the Parzellenbauer (lit. the French peasants small owners) and their relationship with the lords. For Spivak (Can the Subaltern Speak?) The ambiguous use by Said is due to the term vertreten, which, like darstellen, is translated into English as represent; while the second has the meaning of re-presenting, understood as representation in the artistic, literary, philosophical fields, the first has a political meaning, speaking-for, as a delegation of one's representation to another. Therefore, Marx's statement does not have the vehemence that Said attributes to it, as it is purely political and not ideological.

If the nineteenth century was the time for Orientalism to recover a part of humanity that had been forgotten for too long, the twentieth century is an opportunity to put into practice what had so far been theorized; in fact, orientalism becomes a political tool. In a historical period in which it is increasingly widespread thanks to the reduction of geographical and imaginary distances (Said, 1978), opinions such as those of Bernard Faure, who maintains the absence in Eastern thought of the concept of peace (the Orientals are clouded by the their laziness and do not elaborate thoughts of history, country and nation), or of Louis Massignon, who for the umpteenth time highlights how the difference between west and east corresponds to that between modernity and tradition, or Henry Kissinger who affirms that the East still lives in an era before the scientific revolution, show that Orientalism has not changed at all and that on the contrary it becomes more threatening and insistent because it pursues ulterior motives.
From a perspective that continues to have as its ultimate goal the subjugation of non-Western populations, the effort of twentieth-century Europe is to try to remain a «productive machine capable of absorbing what is procured outside its borders and of enslaving it to its own material and ideal objectives while keeping the East in a state of disorganization» (Said, 1978).

However, the colonialist tendency of the early twentieth century differs from the previous one, in that «the Eastern disappointment towards Europe has become resentment and is about to turn into a hatred that only waits for the propitious moment to change into concrete acts» (Lévi in Said, 1978); the independence and anti-colonial currents begin to spread, and Europe must react on the one hand by tending to appease the East, and on the other by «appeasing Western fears of an imminent oriental flood»: many orientalists of the time argue that this is the time to demonstrate that the West has intervened in the development of the East, without listening to or consulting the latter, as the embodiment of a superior civilization.

The period of world conflicts on the one hand validates the exploitation by the West of currents such as the Orientalist one to justify and strengthen its anti-Semitic tendencies: the first Orientalist congress of 1873 had already demonstrated how the strong conservative spirit of Islamic specialists and Semites were concretely a «learned version of European anti-Semitism» (Said, 1978), and therefore modern anti-Semitism itself finds academic and intellectual legitimacy in Orientalism. On the other hand, the now constant multidisciplinary discrimination of the East is now accompanied by the need to make it intervene in history: always listed as a stable and immutable system, the competition between the Western powers of the First World War induces them to “goad the East” and to push him towards an increasingly active position. The Orientalists are entrusted with the arduous task of accompanying the East through its metamorphosis from a static to a dynamic system, without however allowing the new dynamism to go too far, feeding the already existing anti-imperialist and independence currents (Said, 1978).

Orientalists who had to redefine a relationship that would never be the same, because the West as a cultural political force had changed, fragmented and questioned, while the East had been called into question, acquiring a strength that before now it had never been granted to her.
In this climate, H. A. R. Gibb hopes for a more fruitful interaction between East and West; given that European domination is no longer accepted as a natural factor and since the East is no longer seen as in need of the Western Enlightenment, the

type of interaction between the two sides must be changed: for Gibb, European domination in the East had not come at the end (he was still convinced that the East was incapable of creating "a system for visible things", and therefore needed Western help), however, the relationship had to be carefully revisited.
In general, empathy for oriental peoples and condemnation of the West and its policy of conquest spread more and more among the orientalists; Louis Massignon well exemplifies the ideology of the time, which on the one hand finally accepts the diversity of the East, on the other considers it as an emblem of antiquity, of tribal and Semitic backwardness; for this reason, Massignon reveals his will to transform the east into what he wanted: from this picture comes a west that is guilty and despot and an east that is a victim, but still unsuitable and in need of the attention west.

As we have seen, the postwar period witnesses the transfer of the western headquarters from Europe (in particular from France and Great Britain) to the United States; here the East becomes an even more abstract, remote and relative concept, as it does not testify to a historical and cultural contrast, made up of centuries-old clashes and exchanges, motivated by religious differences, explorations into the unknown and attempts to construct identity.
The US approach is so diametrically opposed to the European one because it does not possess such a deeply rooted and respected Orientalist tradition: «the knowledge of the East had not gone through a similar refinement process» (Said, 1978) and, therefore, there was not the same emotional involvement; the East is a purely political and administrative problem for the United States; the figure of the specialist area is therefore outlined, by virtue of the need to protect the enormous network of interests that has been created between the United States and former Western colonial possessions, a surrogate for the orientalist and an expert in regional problems who disposition of the government and of the centers of power in general.
Furthermore, the North American tendency was to avoid literature to instead rely above all on contemporary facts and statistical data, deliberately ignoring the human and cultural component: the interest was in fact exclusively governmental, a "latent missionary attitude" towards the Orientals who needed to be helped. and re-educated, which did not require a vast literature and an in-depth study (as well as for the nineteenth-century orientalism of the fragments, the study of Orientals, Muslims and Arabs, of their thoughts and customs would not have led to a mutual enrichment).
On the other hand, if it is not so interesting to study the East as such, it is essential to create a popular American image of the East, and more specifically of Muslim Arabic (especially since the beginning of the Arab-Israeli conflict), who becomes a customary character to whom even the academic world pays more and more attention.

Once again, the relationship that the American orientalist has with his object of study is paradoxical; just like his European colleagues of previous centuries, he feels a basic dislike for the Orientals which inevitably leads to their devaluation; as Berger affirms, the work of the specialist has the merit of giving meaning and visibility to regions that would otherwise be ignored, due to the total absence in them of important cultural achievements; these areas are not studied because they are hardly worth studying and, if you want to take a chance, you need to be an orientalist as the only figure able to understand it.

Thus, as it had been for traditional orientalism, this new American current manages to establish itself as the most common and accepted opinion on the East, based on the same mechanisms on which the European one had succeeded. Increasingly, «Orientalists try to interpret the East as an imitation of the West that can only progress on condition that its nationalism is prepared to come to terms with the West» (Lewis in Said, 1978), and any deviations taken on the road to the West, it will be justified as caused by the irrationality of the east. In this way, we arrive more and more at an Arab world which is the intellectual, political and cultural satellite of the United States and which wants to prosper using European and American models.

As Said states, Orientalism is in itself the very antithesis of development, both as a thought and as a method; it always needs a West which describes and an East which is described; the latter is immobile *par excellence*, and since the object of study is immutable, not even the criterion can change, in an eternal relationship of strength that has a balance with which one must not interfere. Orientalism continually gets stuck in the gears of a vicious circle made up of «Western and Eastern categories which are at the same time the starting point and the end point of analyzes» (Said, 1978) and despite this, Orientalism with its failures and the frequent contacts with racist and discriminatory currents, with his «slender theoretical apparatus» (Said) and the countless flaws in his theories, still represents one of the only attempts (and the best successful) to explain a dichotomy that defines society past and present; it has been so successful that it has come to include the East itself among its accomplices in the orientalization process, thanks also to its acquiescence, and as a paradoxical result, the Oriental himself gets used to imagining himself as he is imagined; «Oriental periodicals abound with second-rate analyzes conducted by Arabs around the" Arab mentality "or" Islam"» (Said, 1978). The destiny of immobility to which orientalism is condemned is also due to the mindset of the scholar who decides to devote himself to it: he implicitly accepts that the east is east, that it is different from the west and so on, and therefore every re-elaboration and the subsequent articulation will be a reiteration of the initial decision to «confine the East within an ideal and pre-established space» (Said, 1978): the East itself thus becomes more and more superfluous, since Orientalism supplants it with a more tempting vision , romantic and idealized. Said quotes Kiernan in defining the East as the «collective daydream of Europe», or as «the theater in which to represent one's East» (Fourier in Said). Whatever it is intended, «it is Europe that gives shape and intelligibility to the East» (Said, 1978); the motion always starts from the west to head east, and orientalism is the means to be applied to reach it through «the study, geographical exploration and economic exploitation as well as with the set of daydreams, images and resources lexicals» (Said, 1978).

The criticisms of the concept of orientalism culminate in the 1960s with Malek, who identifies as critical indicators on the one hand the national liberation movements in the former eastern colonies, which are not compatible with the conception of them as a subject and passive people, and by He recognizes the problematic nature that orientalism presents both towards its own object of study, which substantially does not exist, and towards the methods and working tools that the discipline borrows from the human and social sciences: starting from these problems Malek theorizes the crisis of orientalism, which in the face of world wars, of its insinuation into anti-Semitic, racist and colonialist ideologies and in the face of the alteration of the concept of the West itself, gradually loses

its meaning until it ceases to have a contemporary value. For Malek, Orientalism entered a crisis by going beyond the «attempt to essentialize, denude and diminish the humanity of another culture to the point of making this impoverished and not very objective vision an eternal fact» (Said, 1978). Malek concludes his reasoning by admitting that despite the crisis of Orientalism, which causes the disappearance of the distinction between a Western us and an Oriental, it would not change the fact that «political and ideological distinctions shape the whole of contemporary knowledge» (Said, 1978); if not through the east-west dichotomy, the world will organize itself around a north-south, or rich-poor, imperialist and anti-imperialist, white and colored: it is therefore useless to ignore the presence of this character of Western knowledge; the very act of ignoring it would in fact lead to accentuating it in an even more marked way. The merit of Orientalism therefore lies in having studied a split that exists and that it is important to keep in mind.

The work of Said, to whom the study of the orientalist phenomenon belongs almost entirely and who in any case is the father of the most significant work in the field, has had an exorbitant influence for all the following specialists. With the success, Said also raises countless criticisms, first of all the accusation of a lack of historical accuracy (Kopf in Güven, 2019); Said is often blamed for a non-global and negative understanding in absolute terms (Warraq in Güven, 2019) of the imperialist phenomenon, which for others has occasionally contributed to the identity investigation of nations such as India, which instead benefited from British influence in the process of modernization of the Hindu religion and in the construction of an Indian national conscience (Macfie in Güven, 2019).
Sadik Jalal al-Azm was the author of one of the most famous Saidian critiques; he accuses him of having carried out the same Western intervention that he condemned, that is, “essentializing the Other”, speaking of a single entity opposed to the West, when in reality the East is composed of a series of identities that they exist by themselves and do not consider themselves as one (Macfie in Güven, 2019). On the other hand, there are those who reject Said’s theories that consider the East as a construct conceived by the West, seeing instead as a tangible reality and therefore defending Orientalism itself (Richardson in Güven, 2019). Al-Azm will also argue that Said’s work leads to an “Orientalism in reverse”, that is a process of Westernism, which is itself «a binary division, only which foresees the privilege of the East over the West» (Al- Azm in Güven, 2019).
However, the importance of Saidian work as a pioneer remains undisputed in its focus on a dynamic so consolidated that it is difficult to recognize; it clearly exposes, analyzes and divides a vision of the world that is bipartite and that has had such an influence on Western society as to remain inherent in it until today.

The orientalist discipline «lacks an equivalent in oriental cultures» (Said, 1978); this seems to reflect the basic asymmetry that the West perceives with respect to everything that is Eastern; also in terms of tools for reading world dynamics, the absence of an equivalent, a “Westernism”, seems to specialists to be yet another confirmation of the delay in the East.
Since the first contacts between the populations of the East and those of the West, the approach of the Westerners who arrived in the East was significantly more aggressive and active, while vice versa the attitude was one of contemplation and in part of a sincere and unspoken admiration for such a dissimilar existence (Said, 1978); culturally it has always been the West that has approached the East more or less kindly, with that mixture of fear and fascination, curiosity and resolve

that have then marked all the various Orientalist disciplines. Over the centuries «armies, auxiliary corps, commercial, scientific, archaeological expeditions always moved from west to east» (Said, 1978), demonstrating an inexhaustible interest that had no equivalent in the East: from the Council of Vienne onwards, the universities began to study it systematically. Even today, in the United States there are dozens of organizations for the study of the East, while in the Middle East and Asia, despite the massive and undeniable American cultural influence, there are no academic equivalents; this is a further demonstration of how much the dyadic nature of the world belongs entirely to Europe and the United States; populations outside this narrow cultural circle, as we will see, have a perception that causes fewer impediments and that is able to face the hierarchical changes of circumstances without running aground in crises and imbalances in their own ideologies.

West as a consequence of the East

As already analyzed by von Richthofen in 1877 (*Tagebücher aus China*), the two geographical entities resulting from Western ideology support and mirror each other. Their theorization responds to the need to define an entity that is not only immediately adjacent, but is also the main cultural competitor, the very essence of the symbol of the Different and has «contributed, by contrast, to define the image, the idea, the personality and experience of Europe» (Said, 1978). With a logic that seems all but coherent, the East is, among other things, also the instrument that Europe institutes in order to define itself and its own identity; it arises from the need to describe a drastically different, dark and impenetrable reality; the thirteenth-century map of Hereford, the first medieval map of the world with the European and biblical territories in the center (with Jerusalem at the core) and with depictions of monstrous beings with supernatural powers as one moves away from it, well expresses the fear that exerts the unknown, so much so that it molds itself into monsters and mythological figures. Faced with this feeling of fear and bewilderment, the identity of the observer gains strength, who fixes in his mind a familiar space as opposed to an outside in a completely arbitrary way, as it represents a frontier that is built in his own mind and it does not need the "barbarians" to accept it. The Orientals thus become "an otherness", in a process that can be seen as a form of construction of one's identity in a negative form.

Said writes: «the Orient is an integral part of European material civilization and culture»; with this he reaffirms a distance from the East which is not only imaginary, but which is an integral part of European culture even in a physical sense.
The East is on the one hand the alter ego, "«the need for another both at the individual level and at the collective and national level to self-define» (Angeletti, 2016), on the other it becomes more and more an inverted image of oneself, towards which one's desires as well as one's fears are projected: thus a relationship is formed that is increasingly conflictual as it is characterized by a continuous movement of attraction-repulsion. Precisely for this reason, for the romantics the East has represented a locus amenus, an artificial paradise that is both tangible territory to be conquered, and imaginary and dreamlike topos (Angeletti, 2016). Clearly, the romantic and subsequent prototypes have a partiality character (Amadio, 2016) which is expressed in a completely mystifying attitude, but necessary above all to build an identity of oneself: «we know who we are only when we know who we

are not» (Huntington, 1996); despite the legitimate and repeated criticisms of the dichotomy that is not at all exhaustive and full of stereotypes, not only grossly reductive but above all a mere instrument of the design of Western cultural political and economic hegemony (Marchettoni, 2012), the border lines were necessary in order to outline a world according to a logic of collaboration between like and enmity between dissimilar. Hurgronje (in Said, 1978) will specify the need for the distinction between East and West, which not only represents an academic cliché but is an essential and historical relationship that has been created between two areas that forge an inviolable identity for the East. and for the west.
In his *Clash of Civilizations* Huntington will dwell at length on the theory of differentiation, which originated in the field of social psychology: «man perceives himself in terms of the characteristics that distinguish him from others, especially from those who belong to his own social environment [...] a psychologist in the company of a dozen other women who deal with other things will consider herself a psychologist; in the company of a dozen psychologists, he will consider himself a woman». This is the premise by which he argues that peoples define their own identity by exclusion: «in the context of every single dimension, identity assumes the utmost importance at the most immediate level of opposition» (Huntington, 1996), man needs enemies, and conflict resolution leads only to the unleashing of individual, scoial and political forces that lead to the birth of new conflicts and new enemies. The binary Western concept of the Afro-Eurasian continent is not a peculiar and sporadic phenomenon: as it happens in Europe it also happens in the Middle East, where Muslims had distinguished between *Dar al-Islam* (home of peace) and *Dar al-Harb* (home of the war), a distinction that will be resumed in the American context to divide the world at the time of the Cold War into areas of peace and areas of unrest. The binary opposition is therefore for Huntington a universally inherent (and necessary) feature in all types of society, an operation to aid in the creation of personal classifications as a means of knowledge, which he himself uses; nevertheless he recognizes that the division in a cultural sense has no use, and that if the West has characteristics that can lead it to be seen as a cohesive entity, the same does not apply to non-Western societies, united by the mere fact that they are non-Western ; the world is indeed divided in two, «but the distinction is between the West as today's dominant civilization and a myriad of non-Western entities» (Huntington, 2016).

Crisis of the Western Model

In 1918 Oswald Spengler published his treatise *Der Untergang des Abendlandes* (The decline of the West), starting a current of thought that was initially much contested and criticized, but which was however more successful in the post-war period. Spengler argues that like all civilizations that existed before the Western one, it too is doomed to extinction: its phase of decline began in the nineteenth century, and in its time it manifests itself through «the domination of money and printing. , intellectual aridity and political fragility»; the decay, while remaining inevitable, is only slowed down by the continuous change of the reference models. The decline of the West follows a slow and uneven path for Spengler. If for Spengler the power of a civilization is measured by its ability to change the conduct of others, the West is losing this ability (Huntington, 1996); after an era of Westernization in the guise of European colonialism and the subsequent American hegemony, in which the West has extended its culture to a large part of the contemporary world, Huntington claims to live the period in which indigenous uses, customs, languages

and beliefs traditional ones return to spread (Huntington, 1996). Spengler's work was perhaps too premature, it fit into an academic environment that was not yet ready; the text was disclosed in the decade that absolutely witnessed the greatest expansion of Western influence: «in 1920 the West directly governed a territory of 41 million square kilometers, just over half of the planet. By 1933 this control had been reduced by half» (Huntington, 2016). However, Spengler's work has the merit of anticipating a phenomenon that has actually occurred, at least on a cultural and academic level; the end of the Cold War represented a real setback for a concept of the West that had already been tested with the world wars, which had brought about major changes in the hierarchy and in the world order; with it, in fact, the identity logic of the West as a socio-political entity that was opposed to a communist East collapsed. As Bravaj points out, the very notion of Russia as east was a relatively new concept (originally considered as a northern power, it was considered oriental from the 1830s and 1940s) (Wolff in Bravaj, 2011); It is therefore strange to observe how the dichotomy that seemed crystallized within the Western conception, which remained unchanged for centuries and centuries, has undergone so many changes of perspective during the nineteenth and twentieth centuries. Already at the beginning of the nineteenth century, in fact, some French and German scholars were beginning to replace an east-west division with a new one, namely the north-south one, which will get more and more interest until it becomes the most used classification to date (Bravaj , 2011). The twentieth century in particular witnessed the «transition from a unidirectional influence of a single civilization over all the others to a series of variegated and multidirectional interactions between all civilizations» (Huntington, 1996); in other words, «the expansion of the West has ended, and the revolt against the West has begun» (Huntington, 1996).

Although Islamic terrorism has for many constituted a "new sufficiently antithetical otherness in order to keep the West alive" (Bravaj, 2011) and an opportunity to reinvigorate the identity of a united West, the political differences over the war in Iraq caused a fragmentation of opinions in the "Atlantic Community", which led to a "double West", one European and one English-speaking: as Bravaj points out, two Wests are one too many, and this could indicate that none exist: here then yet another indicator of the decline of the West.

Marchettoni analyzes the *Leitmotiven* fabric that led Spengler to theorize the concept of sunset; not only the aforementioned theme of the cyclical nature of history and civilizations (a theme which, moreover, was already present in Heraclitus, which will be reviewed with Heidegger and his *Abendland*, by Toynbee, Löwith, Ortega and Gasset) but also the connection between the theme of the West and the conviction of its centrality in the Cosmos, two ideologies that clash, as the first implies a spatial reactivity: the idea of the decline of the West could therefore be a way of restoring its dominant position, thanks to a new a conception that implicitly contains the certainty of its own centrality.

Huntington, who seventy years after the publication of *The Sunset of the West* accepts and develops the thesis contained in the Spenglerian work, nevertheless recognizes that the West will remain the civilization that will prevail over the others for a good part of the 21st century, and then undergo a trial of gradual degrowth, in favor of an increasingly balanced division of powers between the Atlantic states and non-Western civilizations, however held back by what will be an undisputed primacy for the West in the fields of research and development

as well as technological innovation military and civilian. For Huntington, it was the nineties of the last century (ie the years in which he published his *Clash of Civilizations*) to witness a "identity crisis on a global scale": «wherever you look, people dismember themselves»: «who are we?»,«What do we belong to? »,«Who are the others?» (Huntington, 1996).
Huntington also deserves the credit for having recognized in Asian civilizations and in particular in China an incredible strength in power that would have manifested itself in the course of the 21st century, to the point of becoming !the major antagonist of the West in terms of influence on a world scale»(Huntington, 1996); he probably did not imagine what the scale of the economic and geopolitical expansion of Asia would be; if once "old world" meant Europe and "new world" meant Americas, now the West has become the "old" as a whole, while Asia is the "new"; now modernity shapes itself to the east and then flows to the west (Khanna, 2016).

A global Weltanschauung: Sinocentrism and Tiānxià

Speaking of East and West from the point of view of Asian and "Eastern" thought in general is extremely more difficult: on the one hand the sources are difficult to find and interpret, on the other hand this combination has a connotation for the European and American man that it does not exist on the other side.
Not based on a gnoseological subdivision that finds legitimacy in the act of opposing an antithesis to every thesis, to the eternal search for balance through opposites, the Asian cosmological vision, and specifically Chinese, can be considered freer: but it is in reality, the European vision constitutes the exception to what can be seen as a general rule: basically, the vision of populations and culture has always tended towards its own centrality with respect to the rest, both from a geographical point of view and from many others wait.
Sinocentrism is no exception, which has characterized the Chinese empire for millennia, in a perception of things that refers to its own territory as a starting point for getting to know the rest. And in fact the same meaning as China, Zhōngguó (中國 / 中国) can be literally translated as "middle country"[5]. The term, which originally had a geographical connotation (kingdoms of the central plains, cradle of Chinese civilization), then also assumed cultural value, always within the imperialist context (empire of the center).

The Han dynasty marked the apex of the diffusion of the concept of sinocentrism, in a way that comes close to the European concepts of geographical and cultural state: this ideology saw a China that was the cultural, economic and political center of the world, with a strong ethnocentric prerogative. However, here too we are dealing with visions that differ from their western equivalents: the Chinese maps of the time pay little attention to the boundary lines, which were fundamental in the European ones, to pay greater attention to the position that places have among themselves. them and the relationships that exist between them (Nobis, 2018). The hierarchical system of Sinocentrism, which prevailed in East Asia until

5 From 中 (chū, that is internal, center) and 國 (goku, nation, country) to literally mean Nation within, referring to the mainland, but also central, referring to its epicenter position.

the birth of the Westphalian system[6], can be interpreted as a system of concentric circles: the Chinese territory is a magic circle that attracts to itself a set of territories and inhabitants who, starting from the moment they entered it (that is, from the moment they are conquered and annexed to the empire), they are there forever. To a first circle corresponding to the real Chinese territory, others were added, with the same center but with a greater radius, to include all those states considered vassals of China, namely Japan, Vietnam and Korea, with which it had a relationship tax law. All territories outside this concentric system were considered "territories outside civilization" (*Huawaizhidi*, 化外 之 地).

This conception was obviously an extremely powerful tool for strengthening the legitimacy of the dynastic system, which in this perspective was seen as the one who fulfilled the Mandate of Heaven: the emperor (huángdì, 皇帝) was therefore the only legitimate ruler of the world, as the head of the one civilization.

It was also in the Han dynasty that the concept of Tiānxià was introduced, functional precisely to the definition of the system mentioned above: thanks to this, the maps were not used to officially demarcate the borders with other countries, as this would have contradicted the principle for which the emperor reigns over "all that is under the sky". For a long time the geographical area was considered as a discipline covered by a state secret, at least as regards the accuracy and dissemination of the maps.

However, the entire Sinocentric narrative was put into crisis during the reign of the Qing dynasty when, during the opium wars of the early 19th century, Russia and Japan forced the empire to give up the tributary system and control of several territories to the north. north-east and south (Nobis, 2018). For this reason, for the first time the dynasty was forced to carefully delimit its territories on maps, in order to safeguard what was left of it.

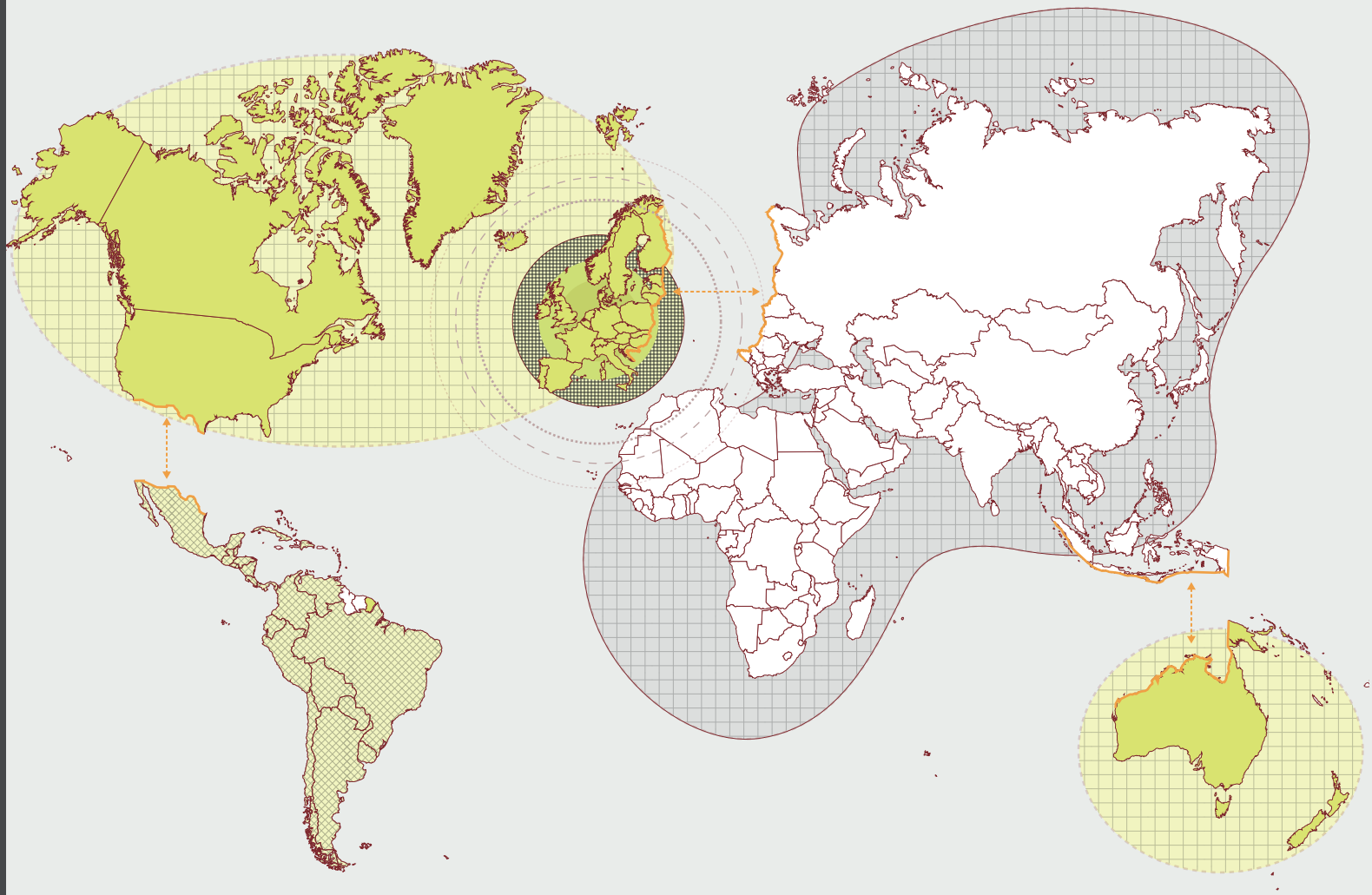
The sinocentric concept, however, was completely abandoned in the contemporary age also for political reasons, as it clashes with a government of a communist imprint: instead, the use of the notion TiānXià remains which, despite its imperialist origin, is well suited to both of the PRC, and to Western democracies. The term was used to justify China's new openness to foreign policy in the 21st century, in an attempt to justify large investments abroad without contradicting the fundamental principles of the Communist Party.

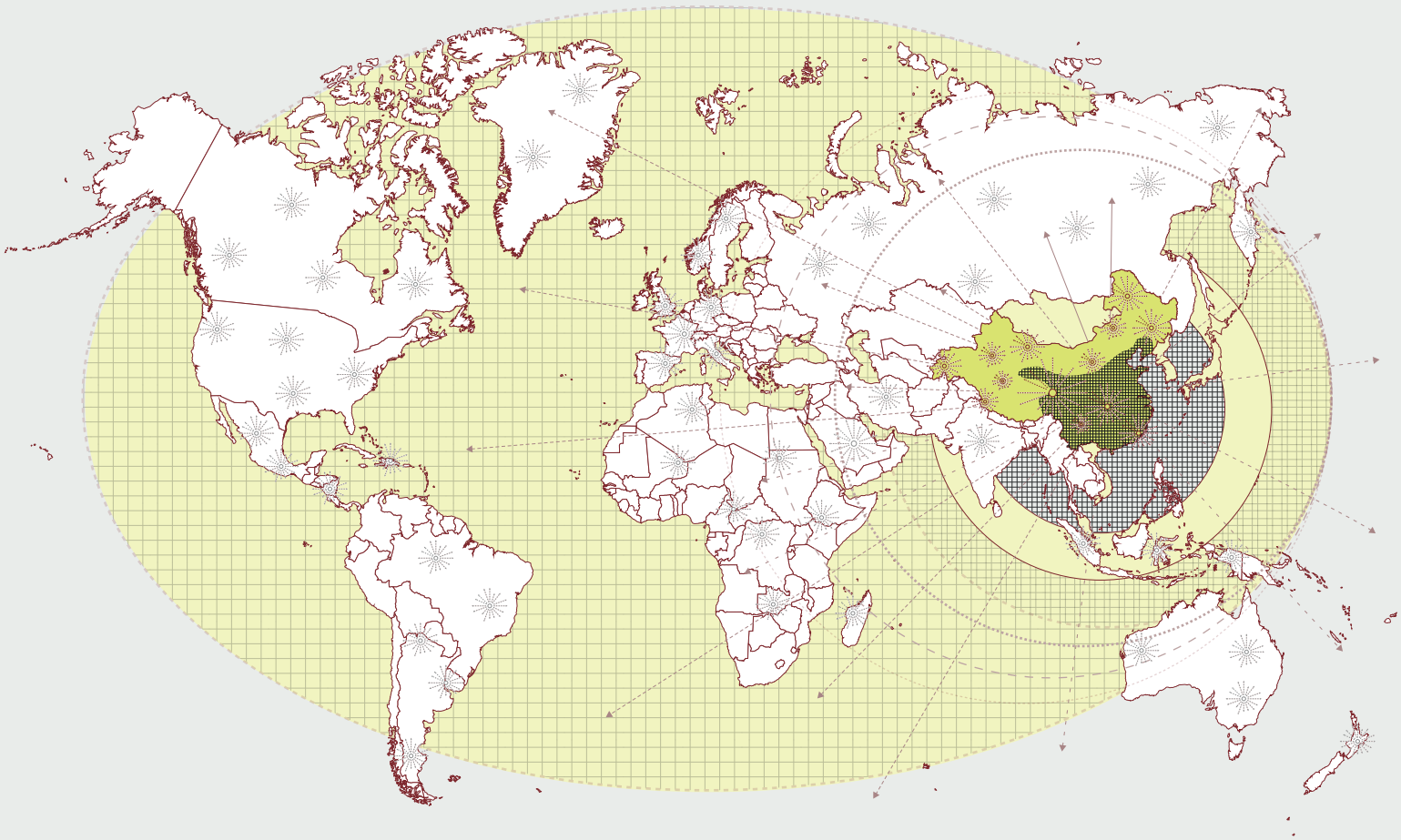
As Huntington points out, the power that distinguishes a vision like the Asian one of TiānXià lies in its universalistic connotation: in 1996 the Malaysian Prime Minister Mahathir stressed that «Asian values are universal values. European values are European values», and the Belt and Road project is no exception: if the European and North American dialectic still tends to get stuck in the restrictive and excluding dialectic of an opposite and opposite East and West, East Asian societies have it gave rise to a sort of universalism that can be shared, which differs from the proselytizing and universalizing claims that have characterized the past of Western powers such as the United States, United Kingdom, France, Spain and Portugal. The PRC does not try to incorporate its own ideologies and

6 Although it was a European event, the Peace of Westphalia of 1648 had permanent consequences in international relations and in the relations of recognition of the Other even in eastern Asia. For this reason, this agreement is often regarded as the moment when a real new world order was born.

cultures into global projects, but instead is inspired by 19th-century European Orientalism, confirming that it understands the complexity and diversity of the world, as well as its modern specificity and its new trends.

On the left page: European and American conception of the World according to S. P. Huntington. On the right page: Asian conception of the World according both to Sino-centrism and Tiānxià conceptions.





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-Clara

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Alla mia famiglia.
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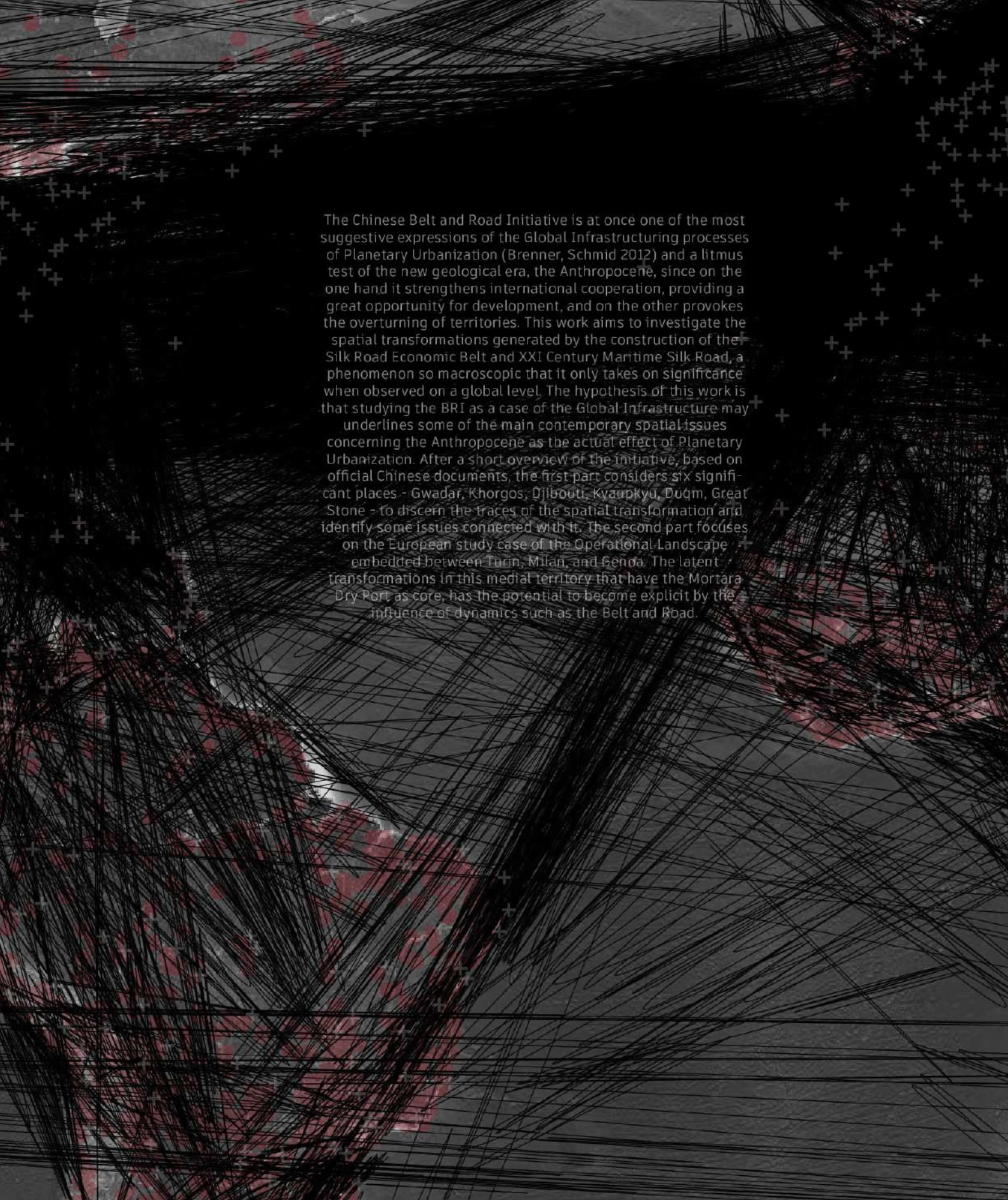
-Willi



The Chinese Belt and Road Initiative is at once one of the most suggestive expressions of the Global Infrastructuring processes of Planetary Urbanization (Brenner, Schmid 2012) and a litmus test of the new geological era, the Anthropocene, since on the one hand it strengthens international cooperation, providing a great opportunity for development, and on the other provokes the overturning of territories. This work aims to investigate the spatial transformations generated by the construction of the Silk Road Economic Belt and XXI Century Maritime Silk Road, a phenomenon so macroscopic that it only takes on significance when observed on a global level. The hypothesis of this work is that studying the BRI as a case of the Global Infrastructure may underlines some of the main contemporary spatial issues concerning the Anthropocene as the actual effect of Planetary Urbanization. After a short overview of the initiative, based on official Chinese documents, the first part considers six significant places - Gwadar, Khorgos, Djibouti, Kyaupkyu, Duqm, Great Stone - to discern the traces of the spatial transformation and identify some issues connected with it. The second part focuses on the European study case of the Operational Landscape embedded between Turin, Milan, and Genoa. The latent transformations in this medial territory that have the Mortara Dry Port as core, has the potential to become explicit by the influence of dynamics such as the Belt and Road.