



# GARDEN CITY

Teaching through gaming

Candidati  
PIERFRANCESCO ANDRESINI  
PIETRO CULIN

A.A. 2020-2021

Relatore  
LUCA CATTANEO  
Supervisione  
MARCO MAZZAGLIA

# GAME DESIGN

---

Pierfrancesco Andresini  
Pietro Culin

A.A. 2020-2021

**GARDEN CITY**



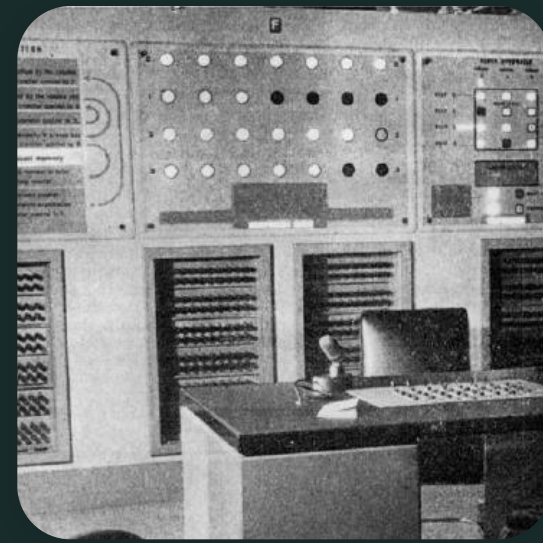
Nim · Edward U. Condon  
World's Fair in New York, USA

1940



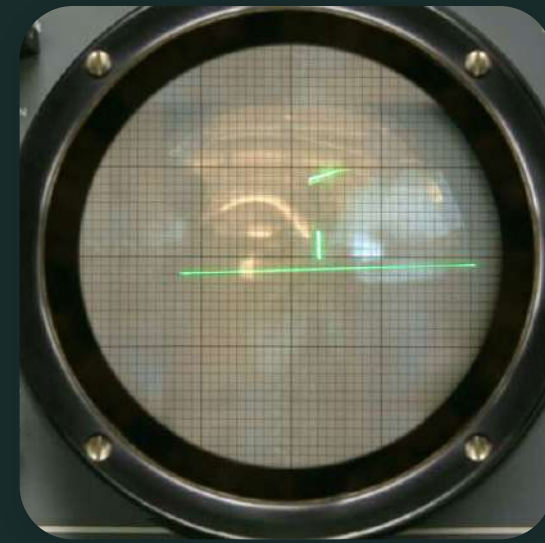
CRT Amusement Device · Goldsmith Jr  
Passaic, New Jersey, USA

1947



Nimrod · Ferranti  
Festival of Britain, UK

1951



Tennis for Two · W. Higinbotham  
Brookhaven National Laboratory, NY, USA

1958



Spacewar · Steve Slug Russel  
MIT, Cambridge, USA

1961

Computer Space · N. Bushnell  
Mountain View, California, USA

1971



Atari 2600 · Atari  
California, USA

1977



Space Invaders · T. Nishikado  
Tokyo, Giappone

1978

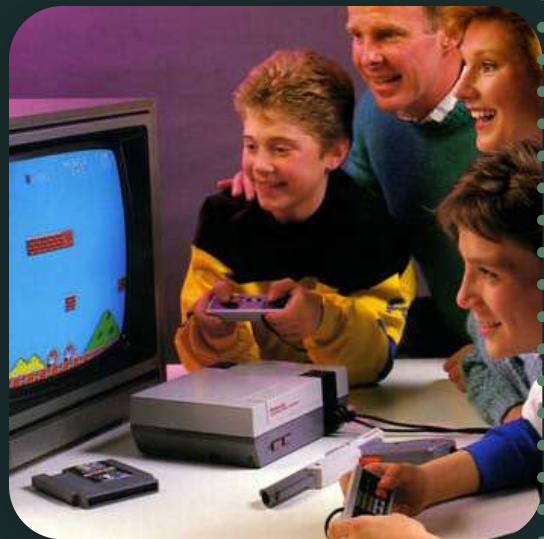


Pac Man · T. Iwatani  
Tokyo, Giappone

1980



# GLI ESORDI



Famicom (NES) · Nintendo  
Kyoto, Giappone **1983**



Mega Drive · Sega  
Tokyo, Giappone **1988**



Game Boy · Nintendo  
Kyoto, Giappone **1989**



Play Station · Sony  
Tokyo, Giappone **1995**



The Sims · Maxis  
Emeryville, California, USA **2000**



Halo · Bungie  
Bellevue, Washington, USA **2001**



Wii · Nintendo  
Kyoto, Giappone **2006**



Kinect · Microsoft  
Redmond, Washington, USA **2010**

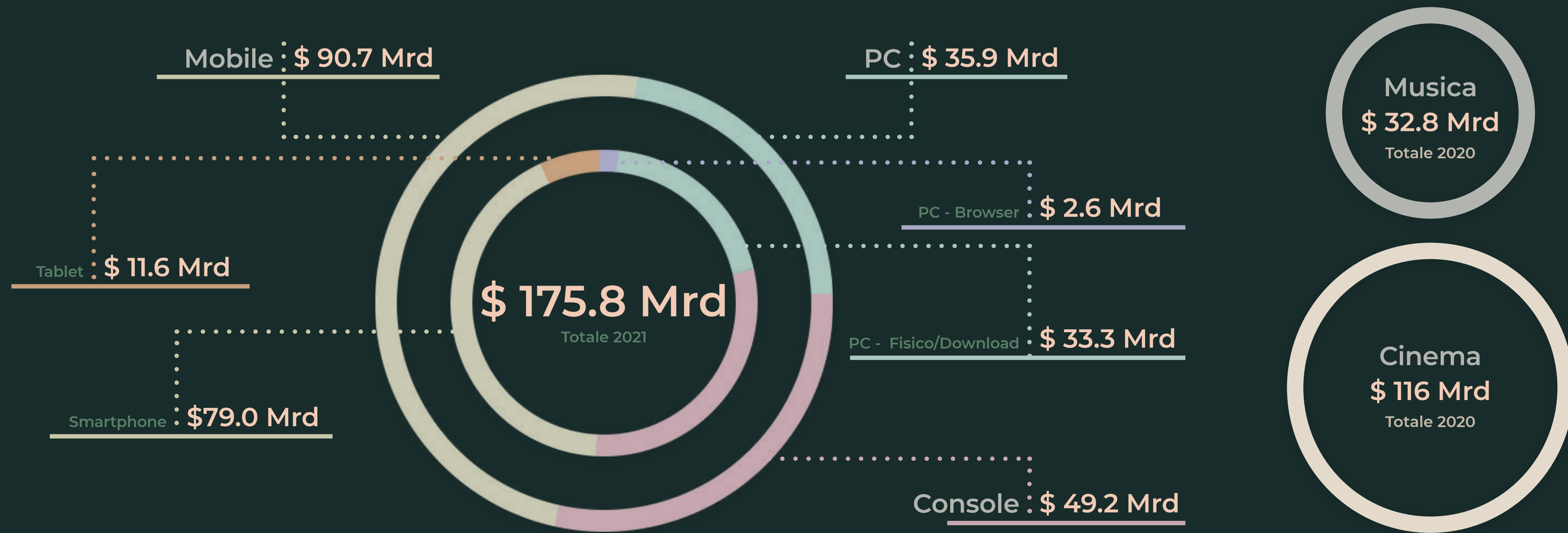


Half Life Alyx · Valve  
Bellevue, Washington, USA **2020**

# LA NUOVA ERA

## Valore di Mercato

Newzoo Global Report 2021



# ECONOMIA

## Secret Oops!

Mixedbag - 2019



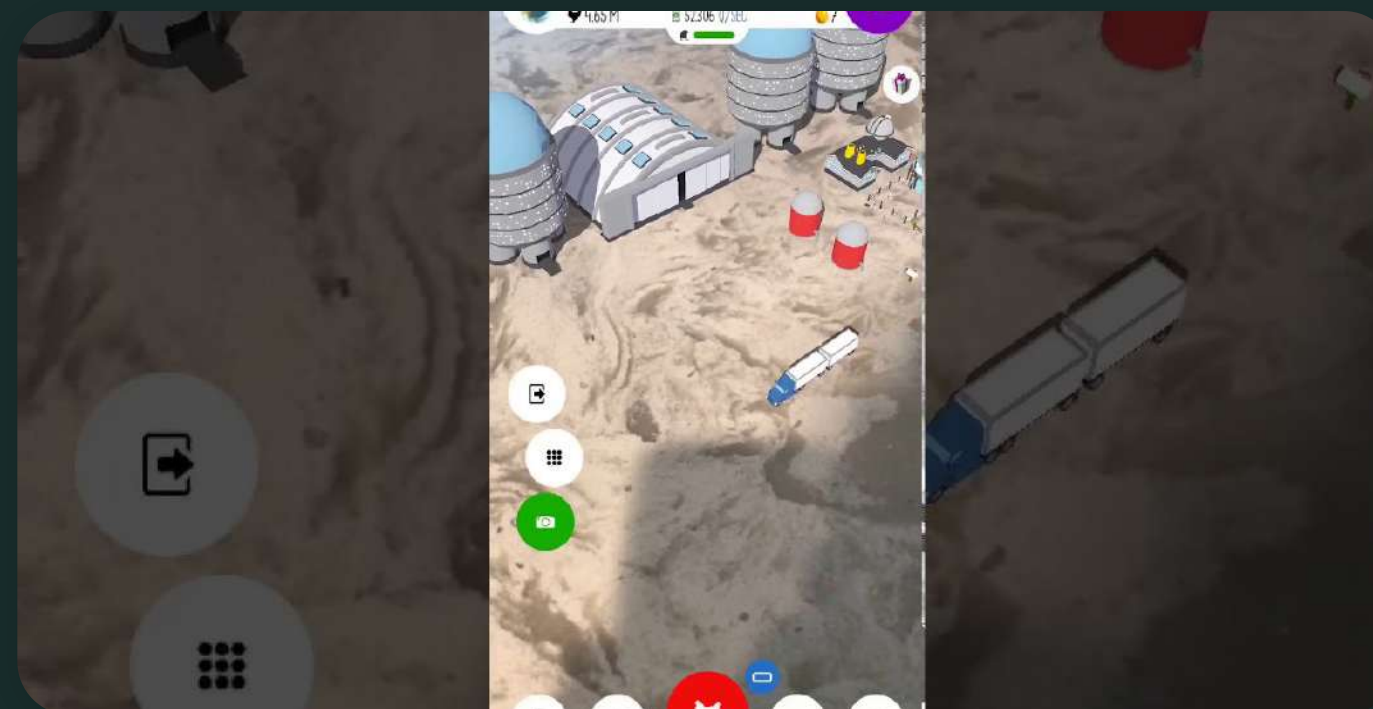
## Pokemon Go!

Niantic - 2016



## Egg inc.

Auxbrain - 2016



## Angry Birds AR

Rovio - 2019



# REALTÀ AUMENTATA

Pierfrancesco Andresini

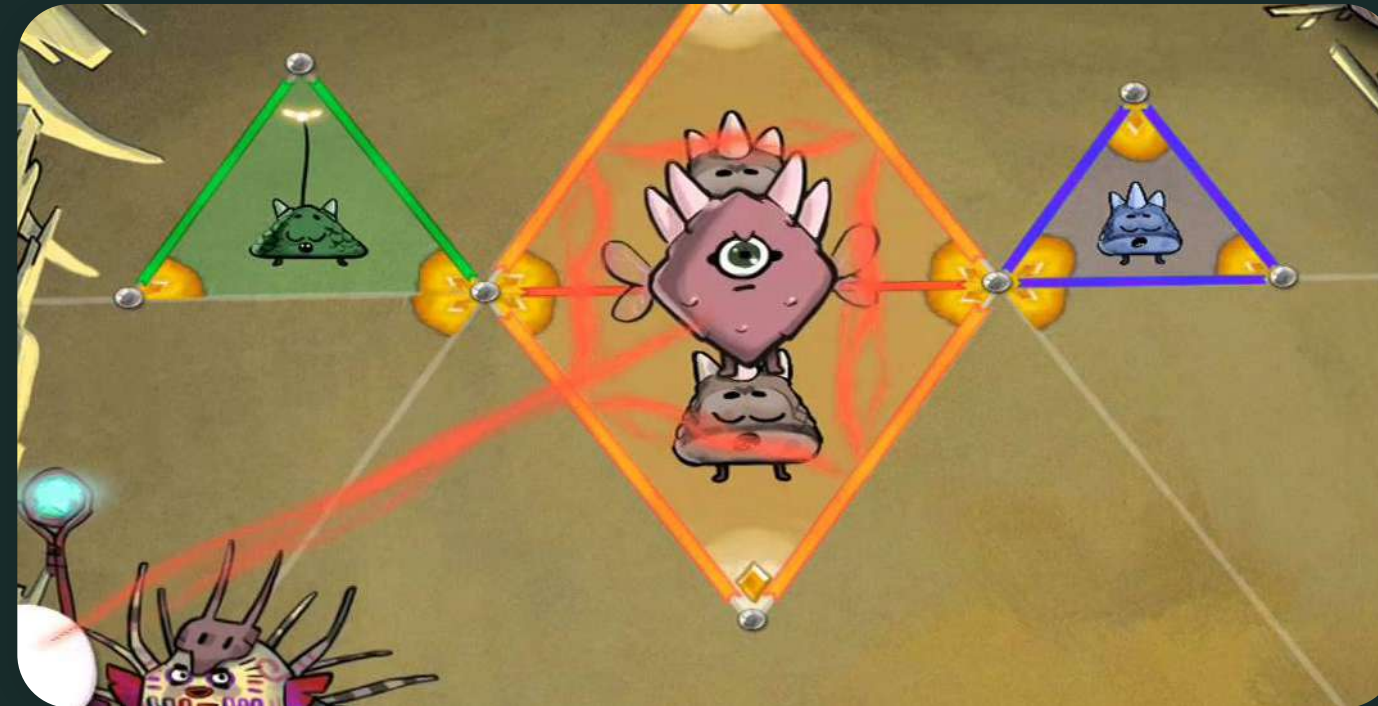
Pietro Culin

A.A. 2020-2021

GARDEN CITY

## Dragon Box Elements

Kahoot - 2019



## Pulse!!

USA government - 2007



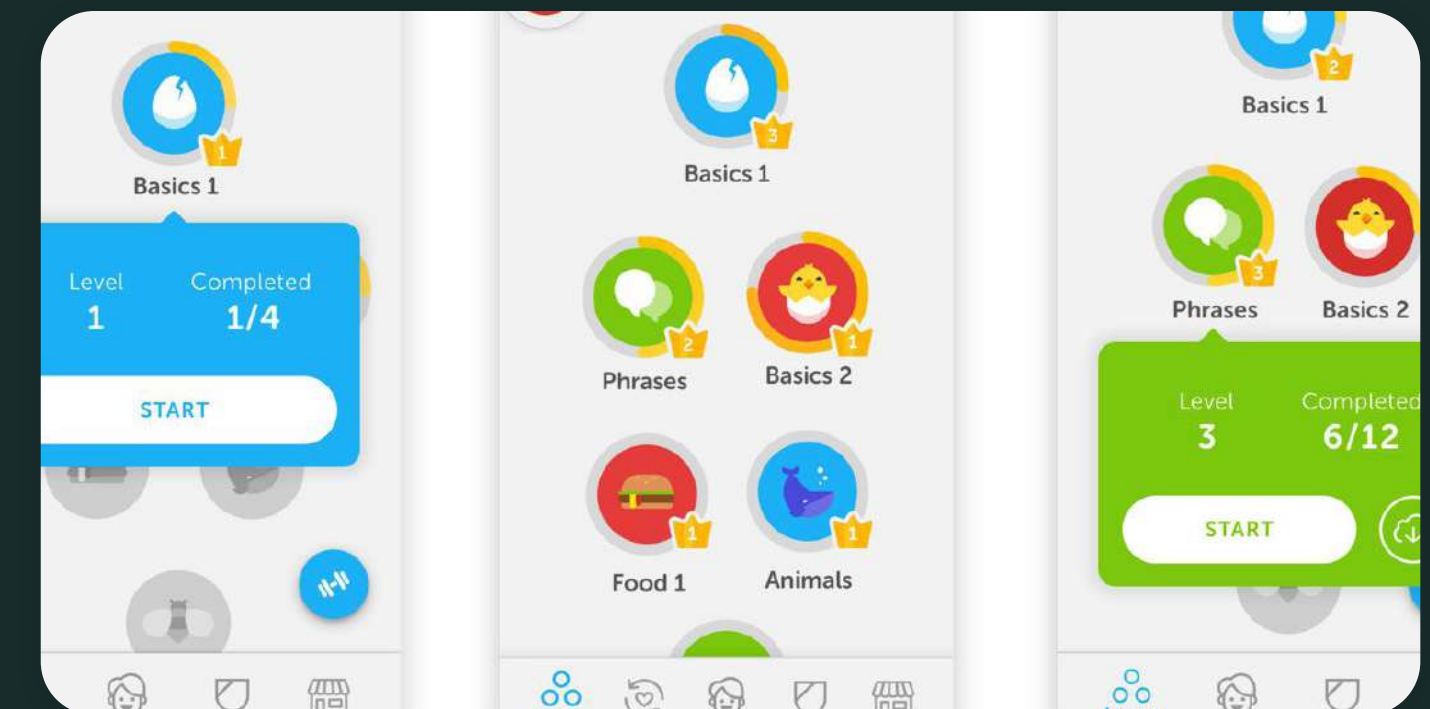
## Pacific

Gamelearn - 2018



## Duolingo

Duolingo - 2011



# APPLIED GAMES

Ubisoft Studios Montreal



**Creative**  
Department



**Technical**  
Department



**Art**  
Department



**Sound**  
Department



# DEVELOPERS

Pierfrancesco Andresini  
Pietro Culin

A.A. 2020-2021

**GARDEN CITY**

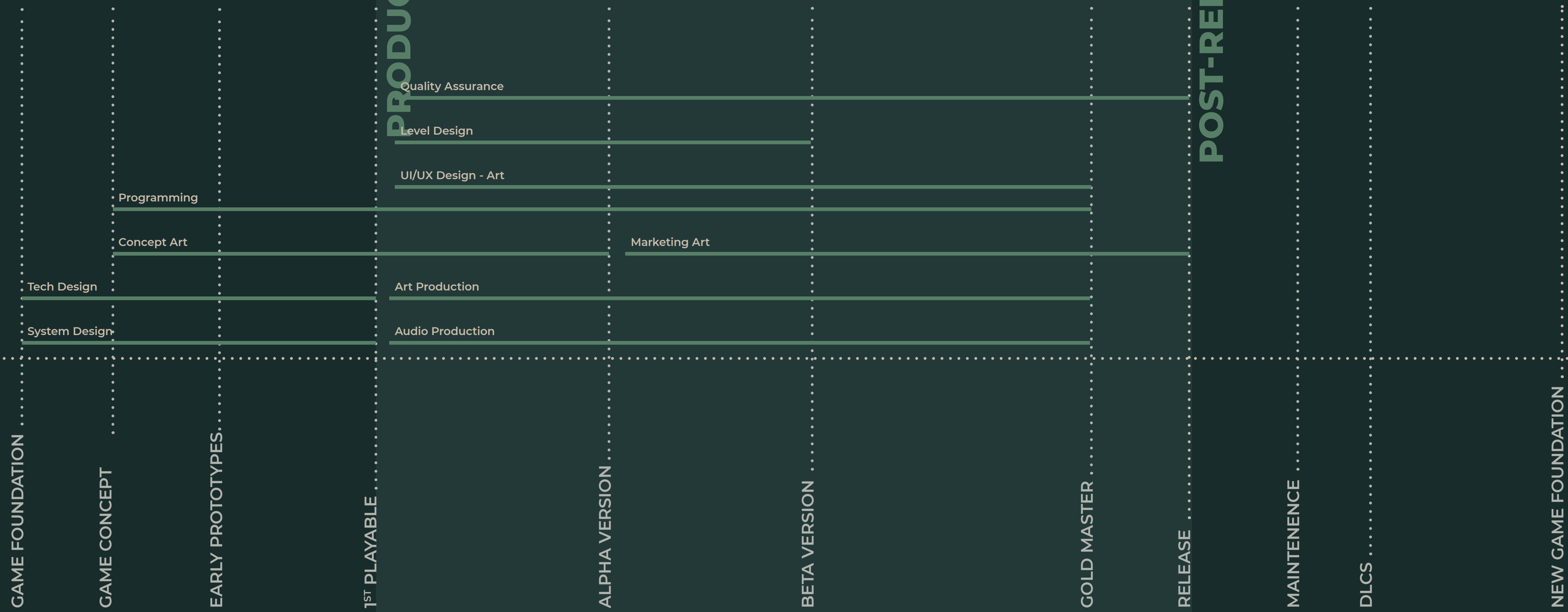


# PRE-PRODUCTION

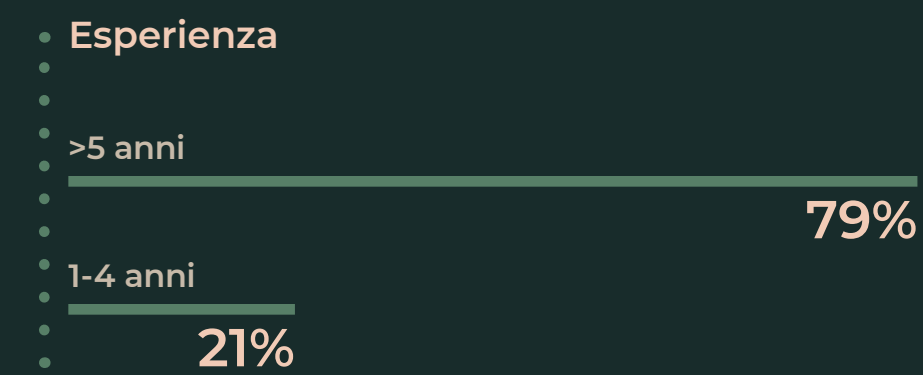
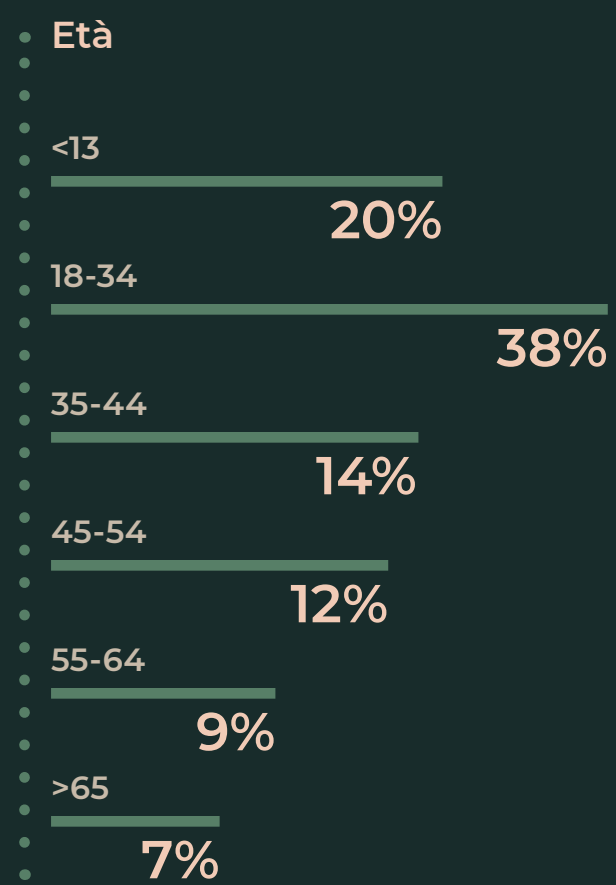
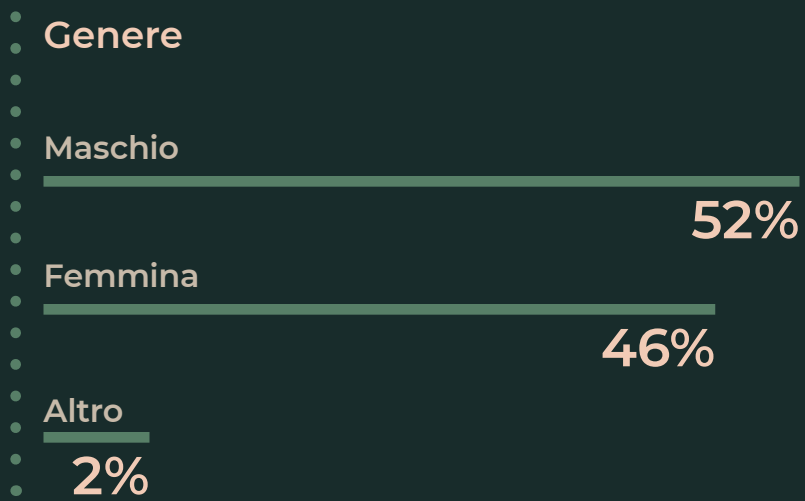
# PRODUCTION

# POST-RELEASE

# DEVELOPMENT



# INSIGHTS



## CASUAL

## MID-CORE

## HARD-CORE

### Parent



Rosamaria Cassano - 50  
Proprietaria di un Garden Center

### Teacher



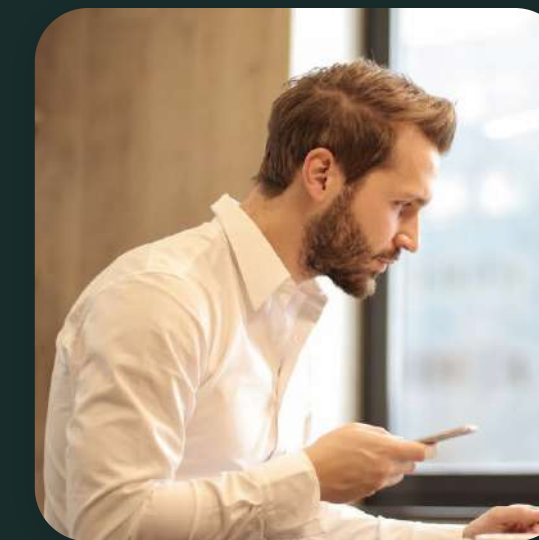
Fabio Serra - 36  
Professore di Biologia (Liceo)

### Rooke



Gianluca Rizzo - 14  
Studente (Liceo)

### Stressed



Marco Barbieri - 31  
Programmatore

### Streamer



Beatrice Benedetti - 20  
Streamer

# PERSONAS

## Cities Skylines



Colossal Order - Paradox - 2015

City Builder - Simulazione

## SimCity Build it



Maxis - Electronic Arts - 2014

City Builder - Casual

## Terra Nil



Free Lives - Devolver Digital - 2022

City Builder - Casual

## Frostpunk



11bit Studios - 11bit - 2018

City Builder - Survival

## My Country AR



Game Insights - Game Insights - 2017

City Builder - Casual

## World without oil



Ken Eklund - CPB - 2007

Applied Game - Alternate Reality Game

## City One



IBM - IBM - 2010

Simulazione - Applied Game

## McDonald's Game



Molleindustria - Molleindustria - 2006

Gestionale - Parodistico

# CASI STUDIO

Pierfrancesco Andresini

Pietro Culin

A.A. 2020-2021

## GARDEN CITY

..... CONCEPT .....

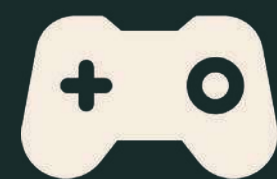
# “ Teaching through gaming ”

Facitare l'insegnamento tramite sistemi di gioco complessi

..... GUIDELINES .....



Learn



Have fun



Express yourself



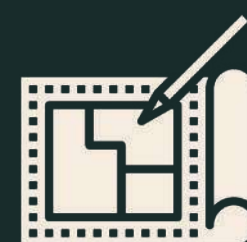
Share it

..... PROGETTAZIONE .....



### Game Design

- Obiettivo
- Conflitto
- Core Loop
- Sistemi di Gioco



### User Experience

- Flusso
- Wireframing
- Prototipazione Adobe XD



### Art Direction

- Pilastrini visivi
- User Interface



### Val. Economica

- Analisi Competitiva
- Piano di Sviluppo
- Budget
- Monetizzazione



### Playtesting

- Questionario
- Risultati



..... ELEVATOR PITCH .....

# GARDEN CITY

Un videogioco mobile in Realtà Aumentata

in cui il giocatore deve popolare e migliorare la propria città  
costruendo edifici unici in un ecosistema vivo e reattivo.

Pierfrancesco Andresini

Pietro Culin

A.A. 2020-2021

**GARDEN CITY**

..... **OBIETTIVO** .....



---

Migliora la città



---

Soddisfa i bisogni  
della Popolazione



---

Ottimizza le risorse





Catastrofi naturali

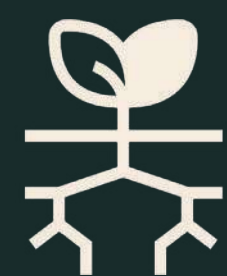


Epidemie



Mantieni l'equilibrio

CONFLITTO



Raccogli Risorse



Costruisci / Migliora



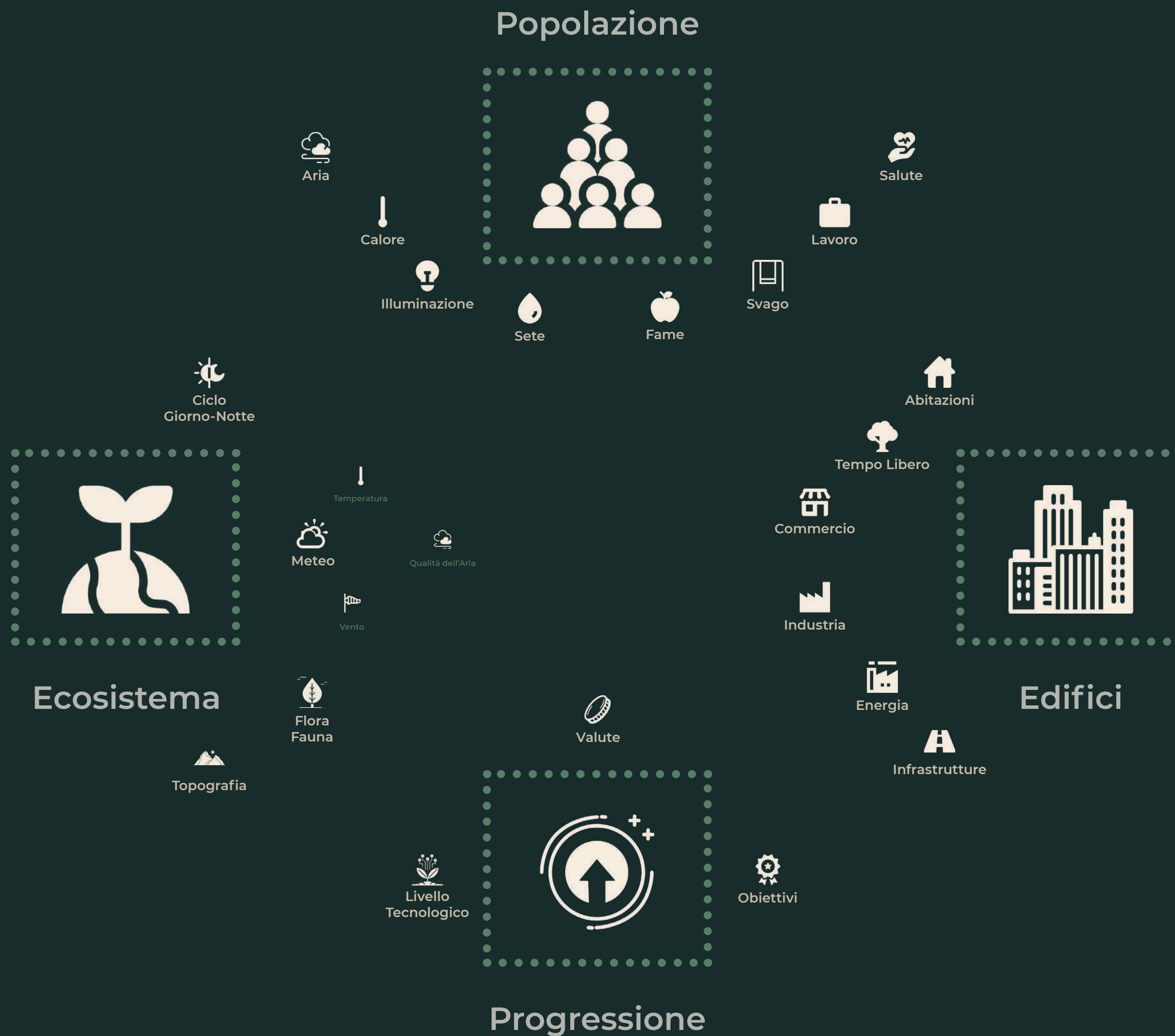
Level Up

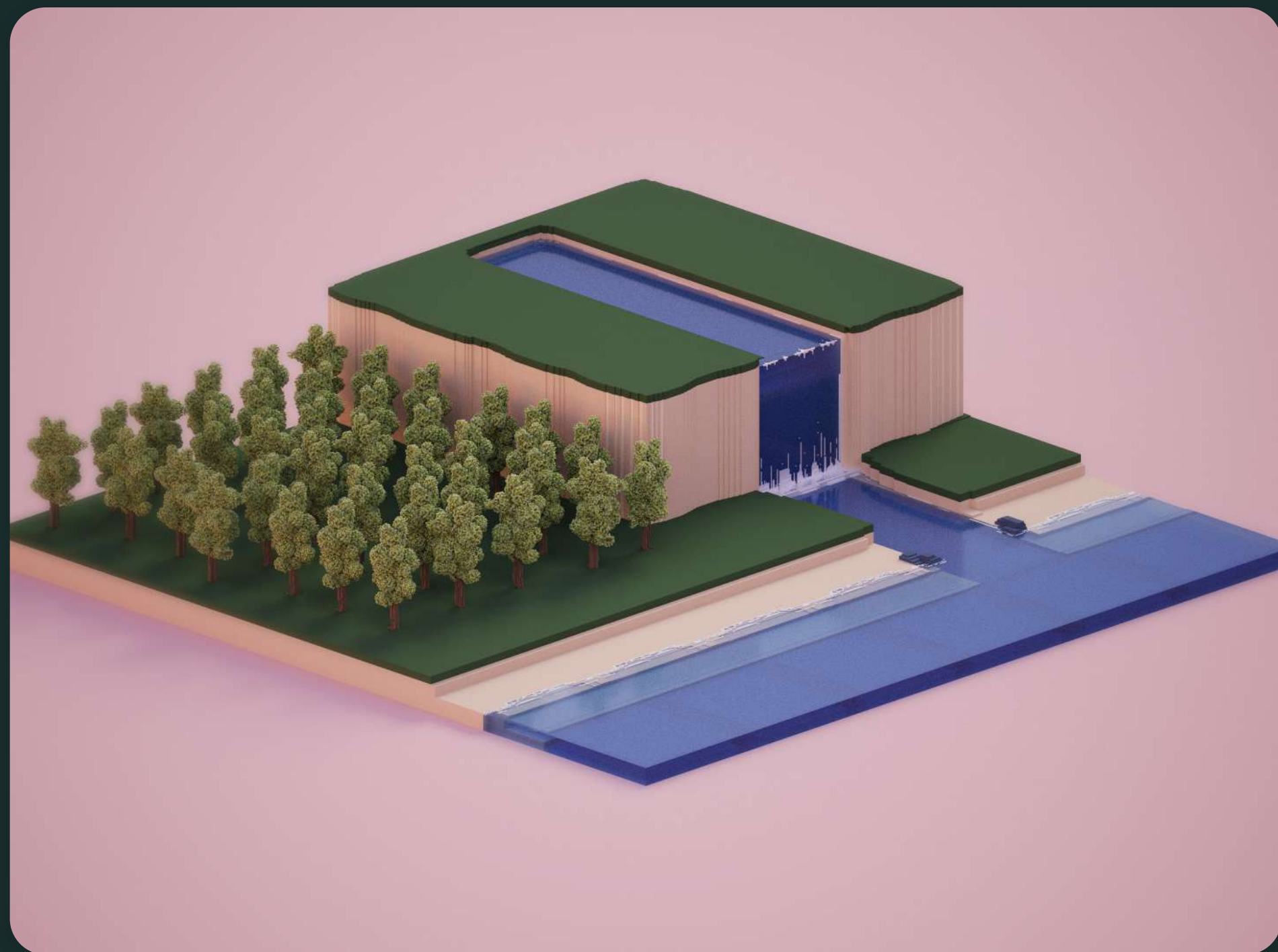


Aspetta

CORE LOOP

SISTEMI DI GIOCO



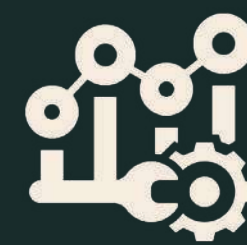


Topografia



Progressione

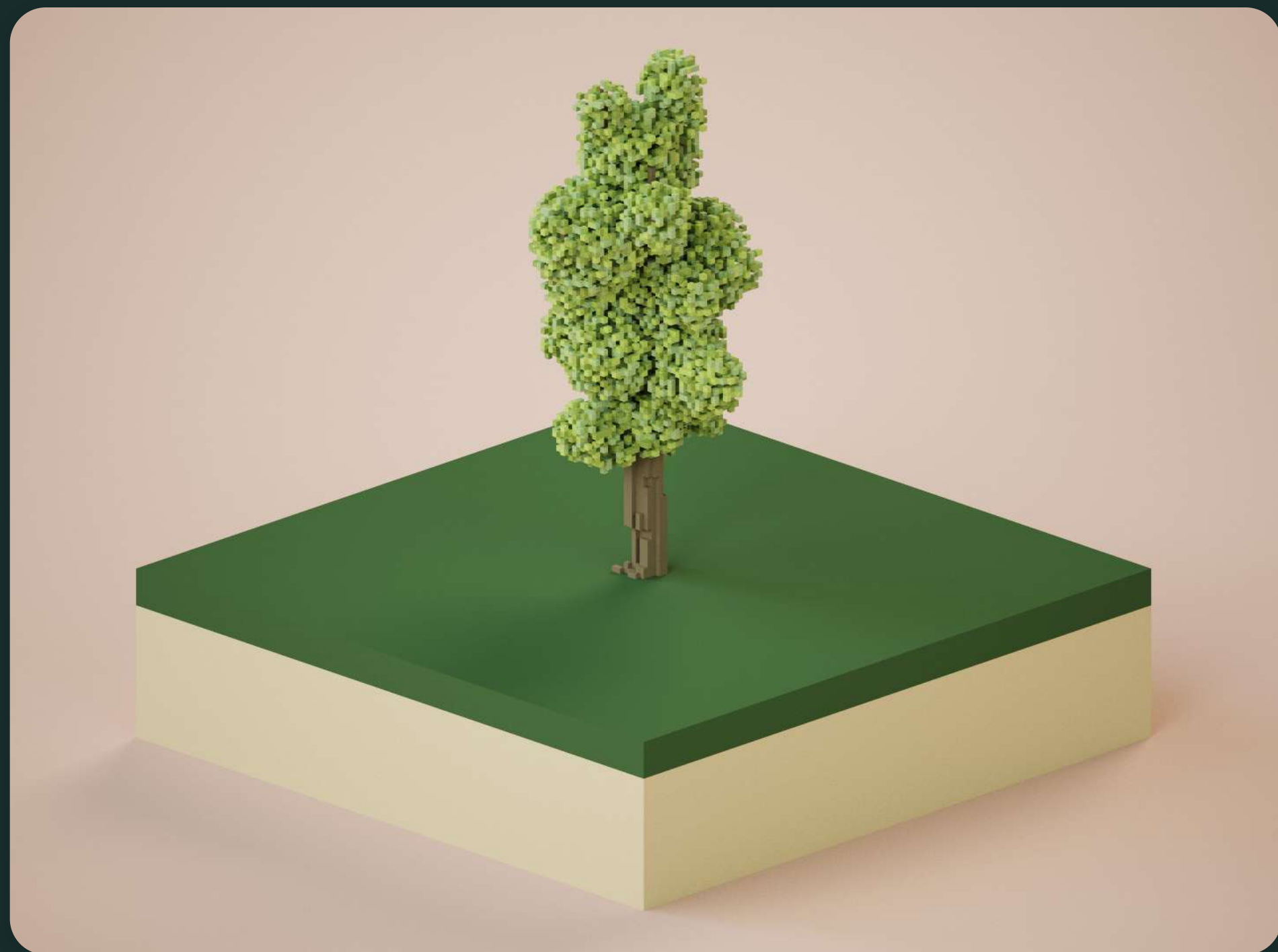
- Nuovi lotti di terra
- Tool di modifica



Risorse

- Acqua
- Qualità dell'aria

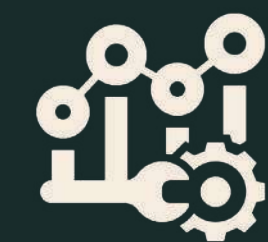
..... ECOSISTEMA .....



Flora e Fauna

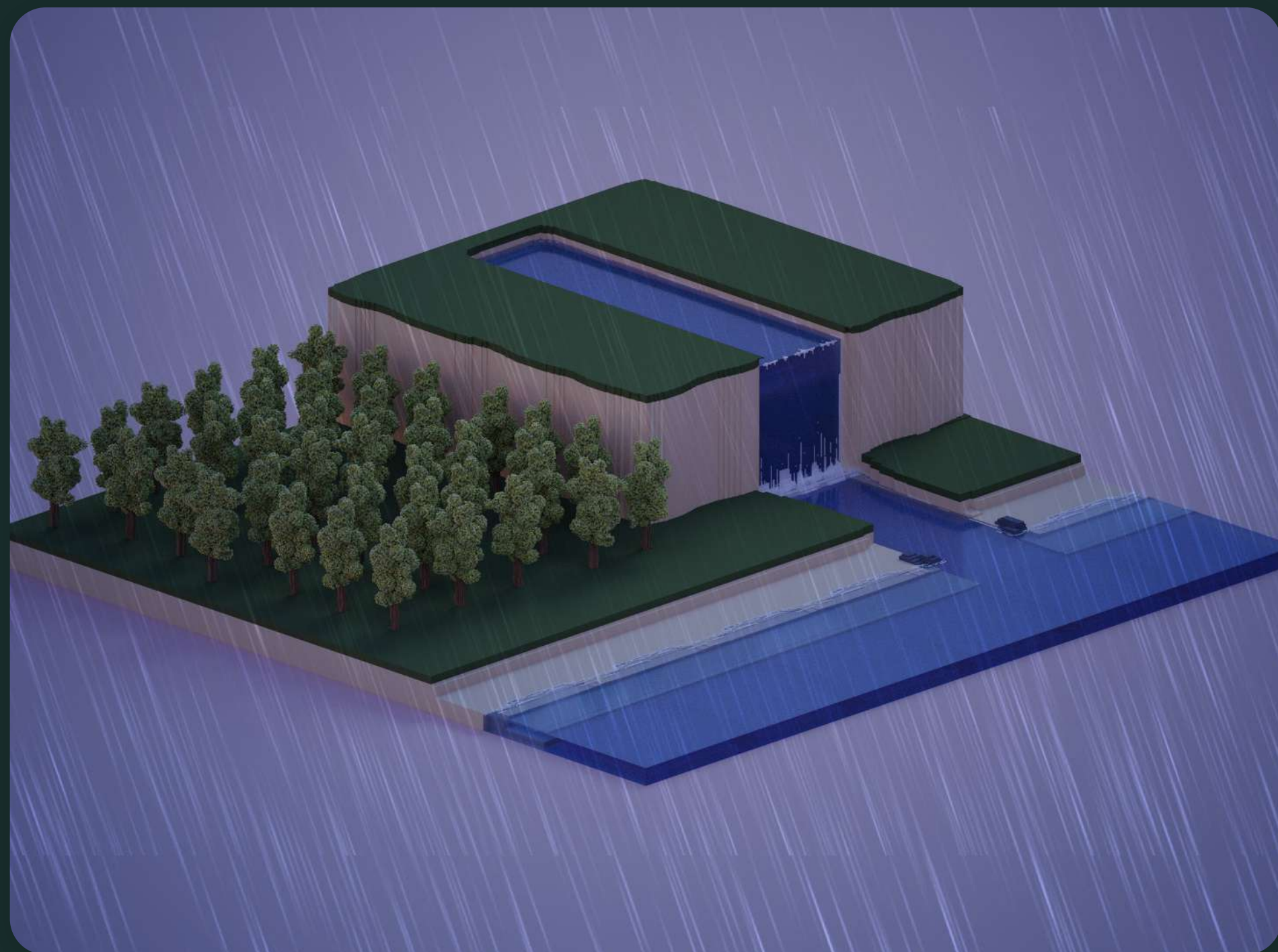


Edifici



Risorse

- Cibo
- Qualità dell'aria



Meteo



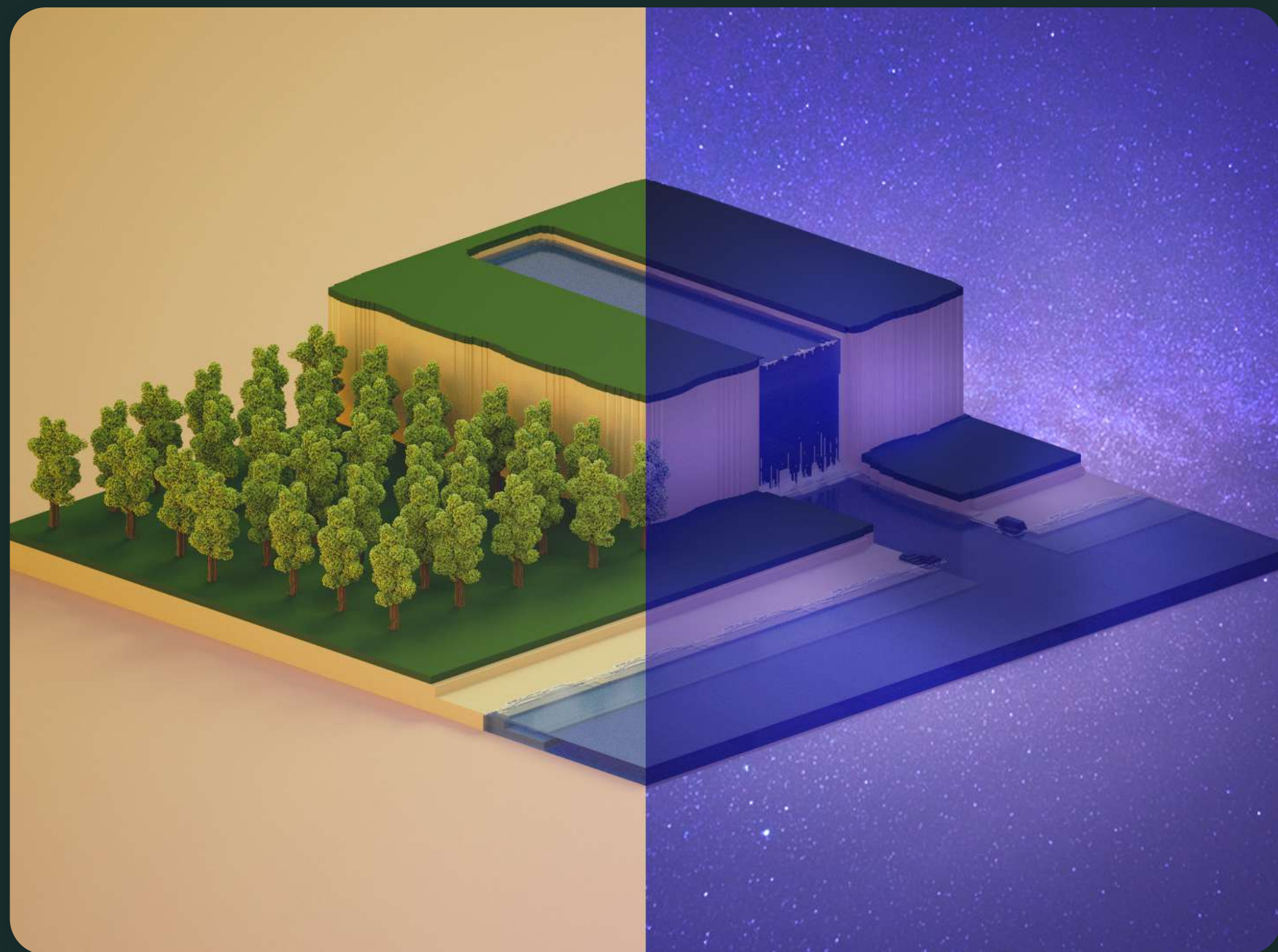
Qualità dell'aria



Risorse

- Temperatura
- Qualità dell'aria
- Acqua

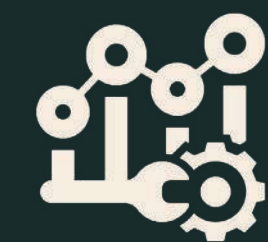
..... ECOSISTEMA .....



Ciclo Giorno-Notte



Tempo Reale



Risorse

- Temperatura

Popolazione

- Bisogni

POPOLAZIONE



Bisogno - Fame



Difetto



Malnutrizione

Eccesso



Obesità





Ecosistema



Risorse  
Disponibili



Edifici



Sete



Fame



Illuminazione



Calore



Lavoro



Svago



Soddisfazione



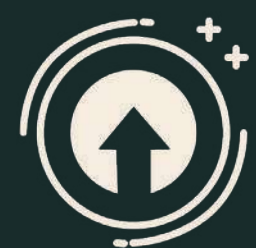
Salute



Abitanti

POPOLAZIONE

EDIFICI



Progressione  
Tecnologica



⇓  
Costruttori



⇓  
Valuta



⇓  
Tempo  
Costruzione



Nuovo  
Edificio



Edificio  
Migliorato

EDIFICI



Abitazioni

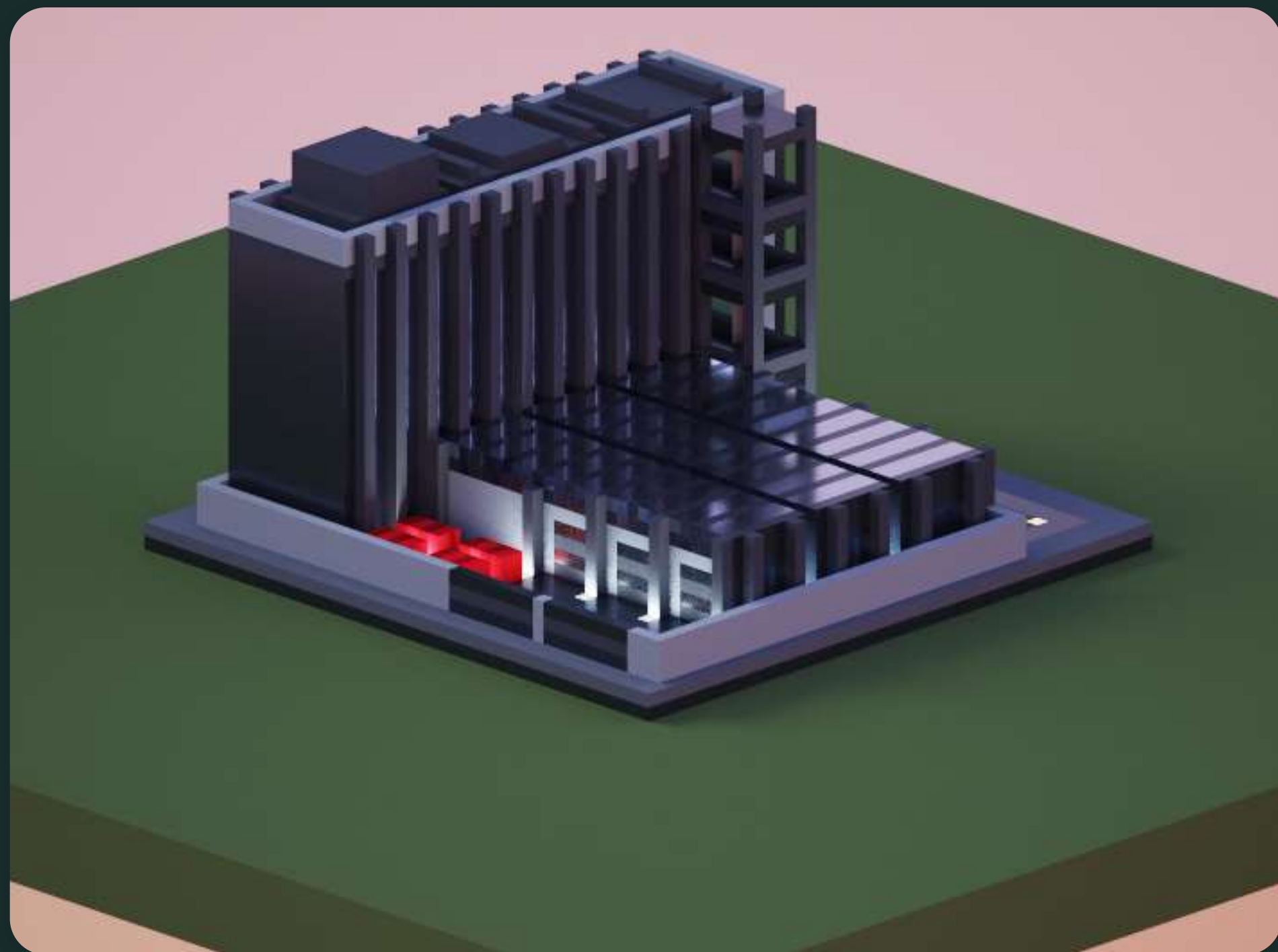
Consumi

- ⚡ Elettricità
- 🍴 Cibo
- 💧 Acqua

Produzione

- 👤 Max. Abitanti
- 💰 Monete
- 🌬️ Qualità dell'aria

EDIFICI



Industria

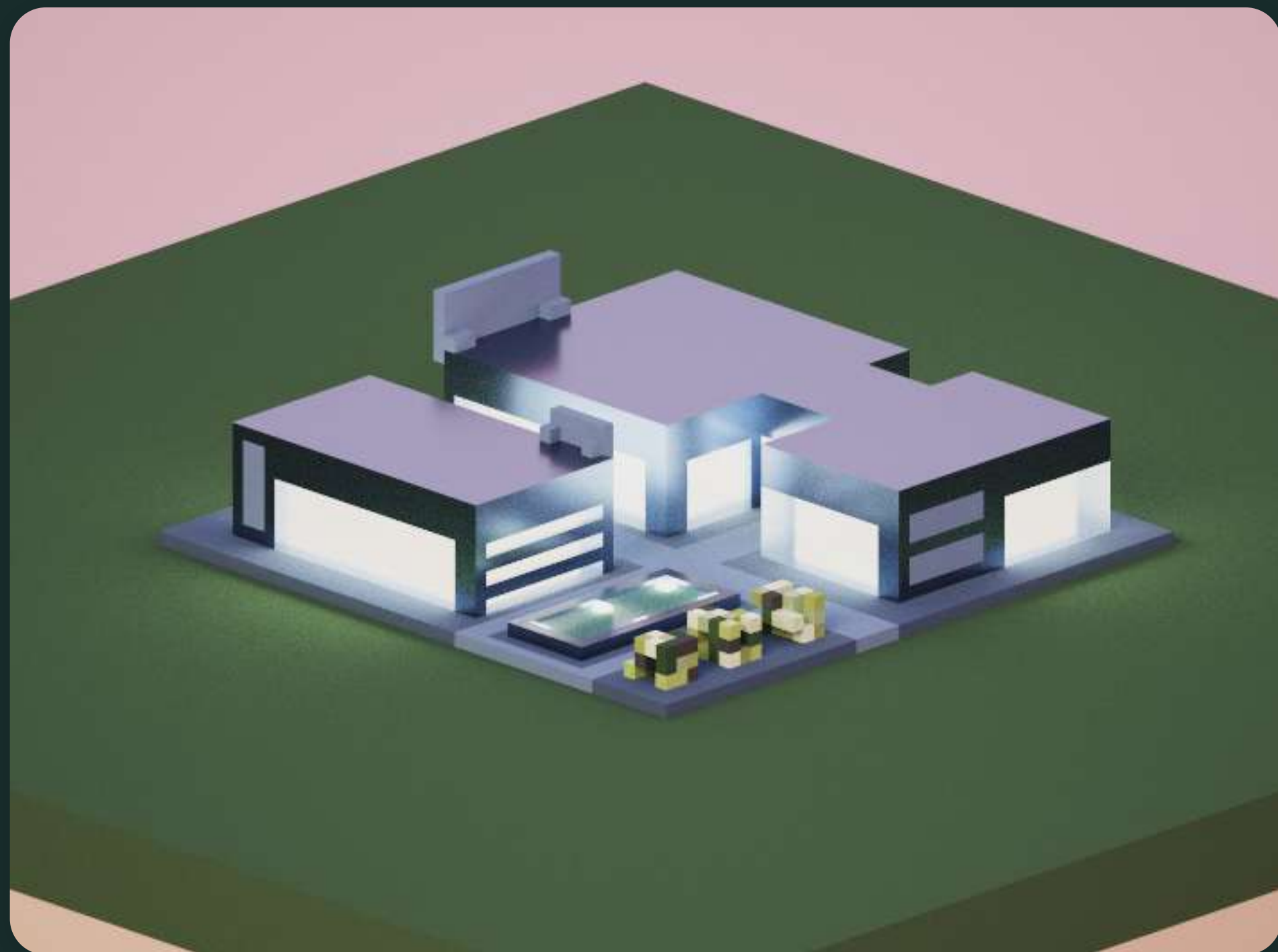
Consumi

- ⚡ Elettricità
- 💧 Acqua
- ⚡ Altre risorse

Produzione

- ⬆️ Risorse Raffinate
- ⬆️ Occupazione
- ⚡ Qualità dell'aria

EDIFICI



Commercio

Consumi

⚡ Elettricità

💧 Acqua

Produzione

📈 Monete

📈 Occupazione

⚡ Qualità dell'aria

..... EDIFICI .....



Tempo Libero

Consumi

⚡ Elettricità

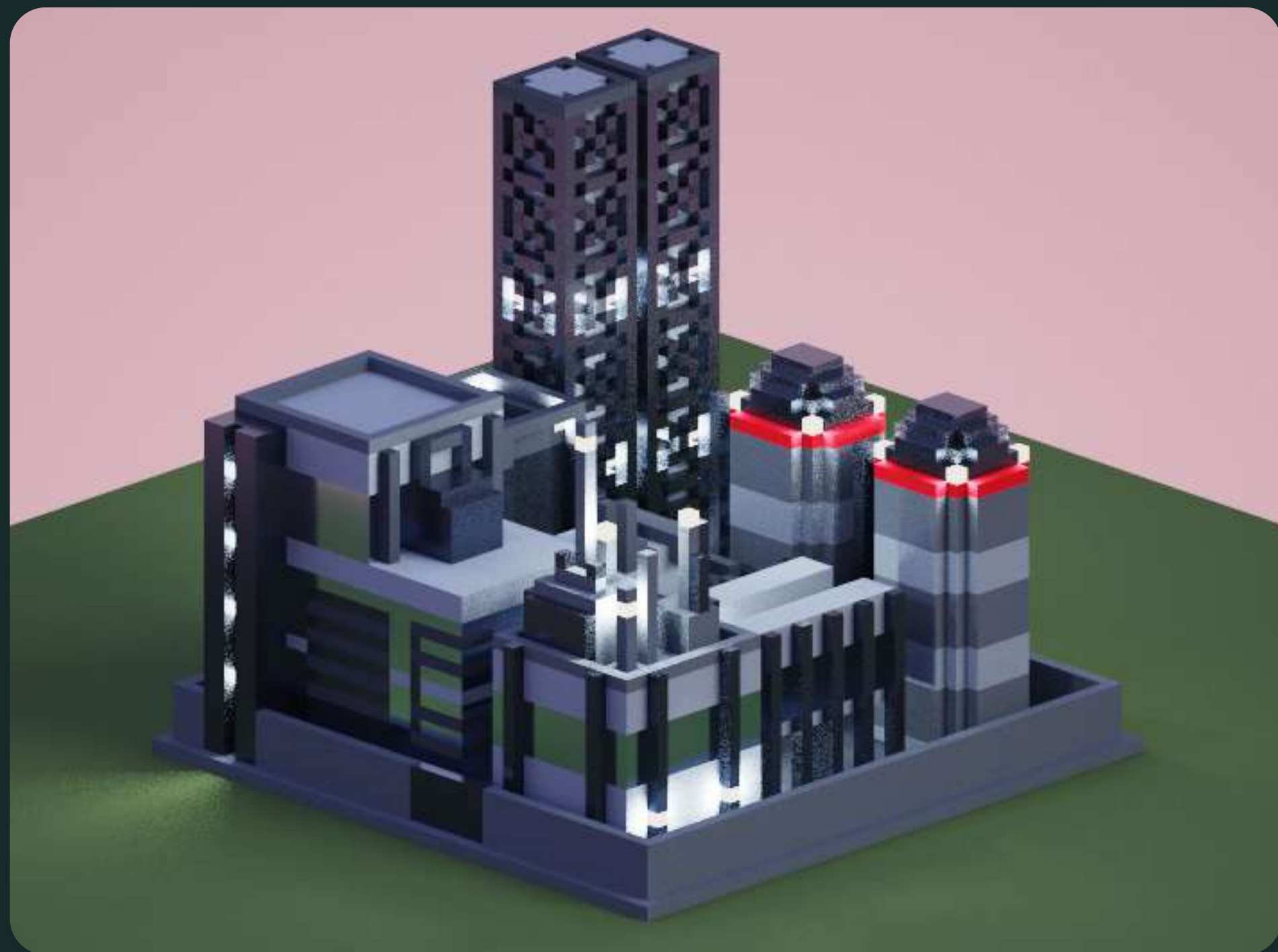
💧 Acqua

Produzione

📈 Svago

📈 Qualità dell'aria

..... EDIFICI .....



Energia

Consumi

⚡ Energia

💧 Acqua

Produzione

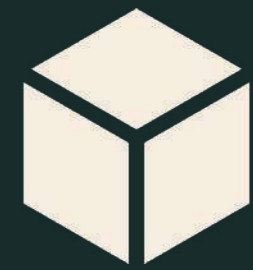
⬆️ Elettricità

⬆️ Riscaldamento

⬆️ Occupazione

⬇️ Qualità dell'aria

Naturali



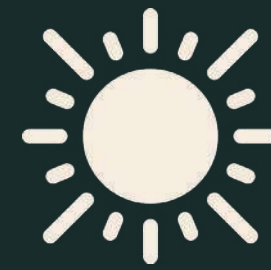
Caselle



Cibo



Acqua



Sole



Vento



Qualità aria

RISORSE



Monete



Foglie



Occupazione



Elettricità



Riscaldamento

Artificiali



Requisiti



PROGRESSIONE

Obiettivi

Ottenimento

↑↑ Foglie

↑↑ Punti Esperienza

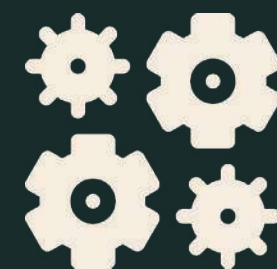
..... **ESPANDIBILITÀ** .....



---

### Nuovi Biomi

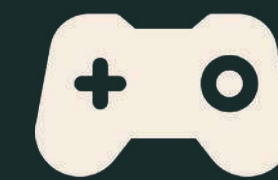
- Taiga
- Savana



---

### Nuovi Sistemi

- Epidemie
- Acque Reflue



---

### Nuovi Contenuti

- Nuovi Edifici
- Temi Festività
- Personalizzazioni

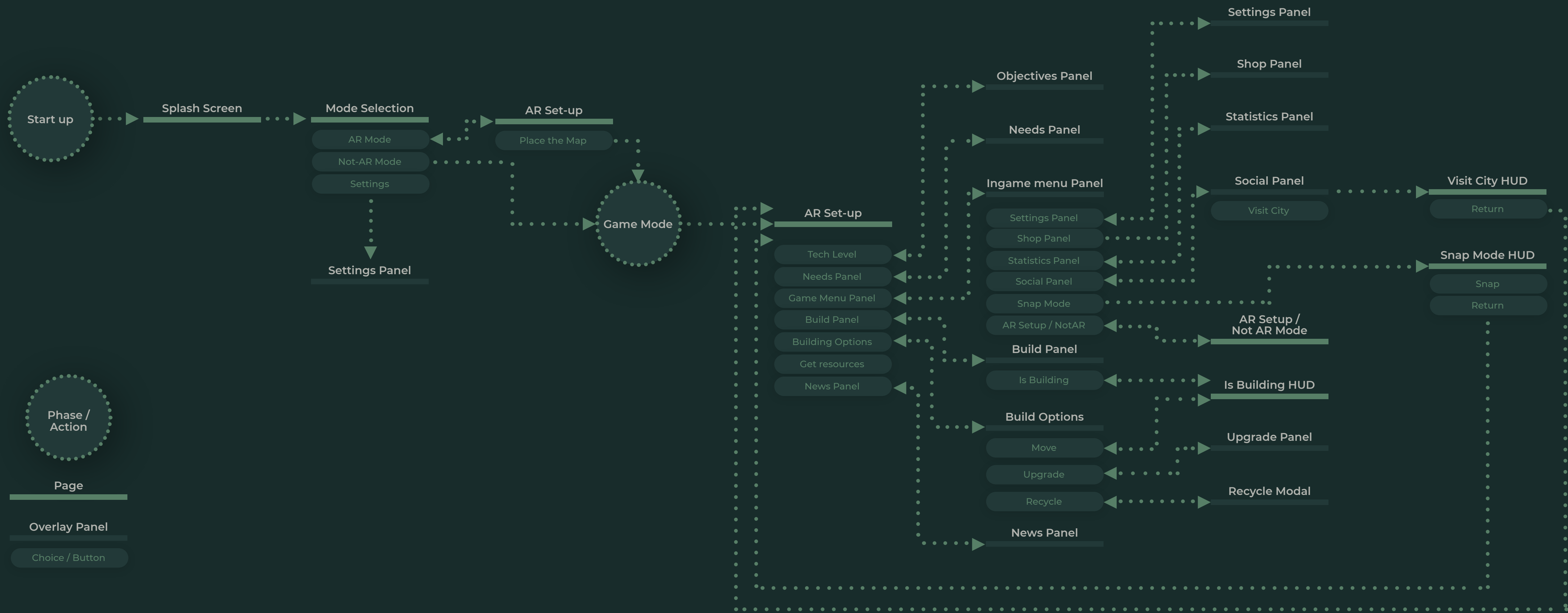
# USER EXPERIENCE

---

Pierfrancesco Andresini  
Pietro Culin

A.A. 2020-2021

**GARDEN CITY**



# FLOW CHART

Pierfrancesco Andresini

Pietro Culin

A.A. 2020-2021

## GARDEN CITY

## Splash Page



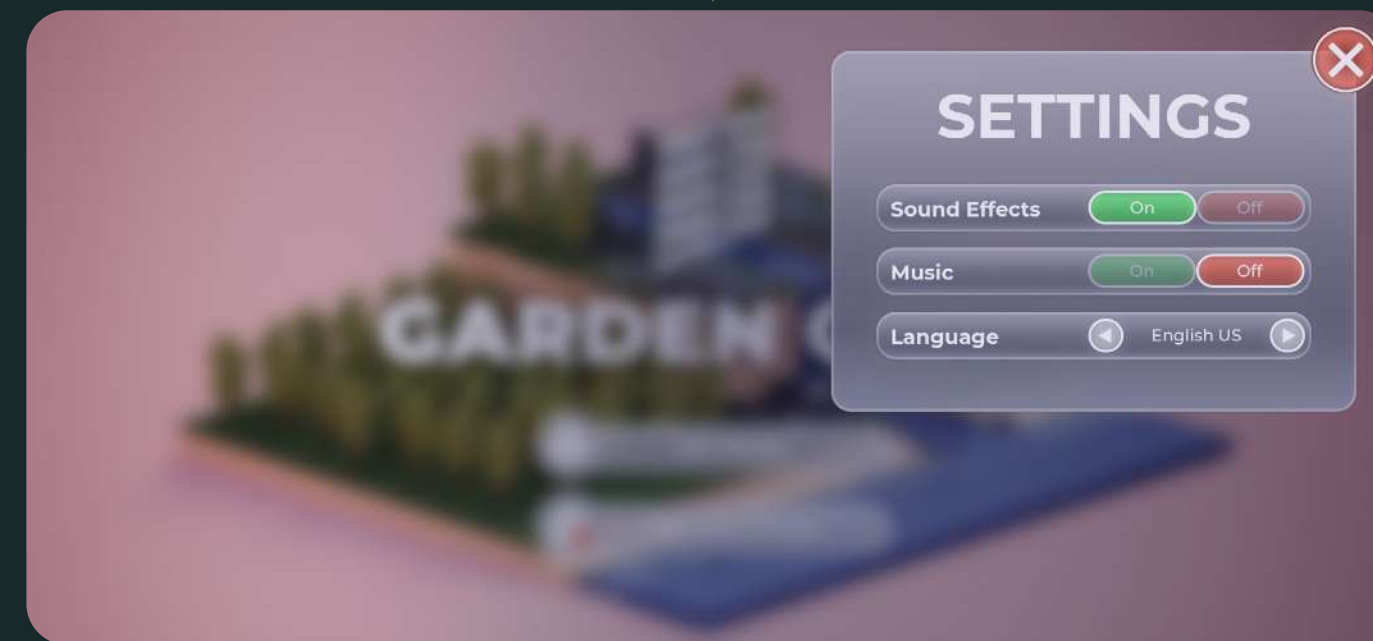
## Mode Selection



## HUD



## Settings



## WIREFRAMES

Pierfrancesco Andresini

Pietro Culin

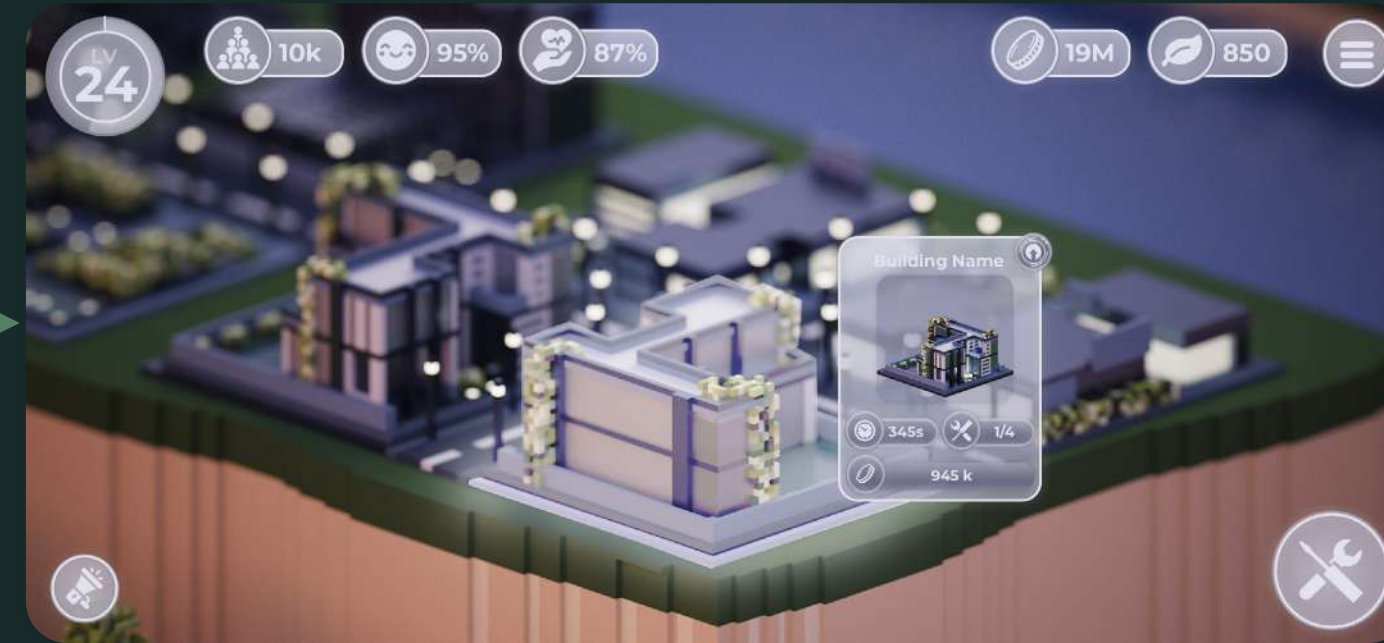
A.A. 2020-2021

GARDEN CITY

HUD Close up



Upgrade Building



Move - Build Positive



Selected Building



Recycle Building



Move - Build Negative



## WIREFRAMES

Pierfrancesco Andresini

Pietro Culin

A.A. 2020-2021

# GARDEN CITY

## Objectives Menu



## Needs Panel



## Drop Down Menu



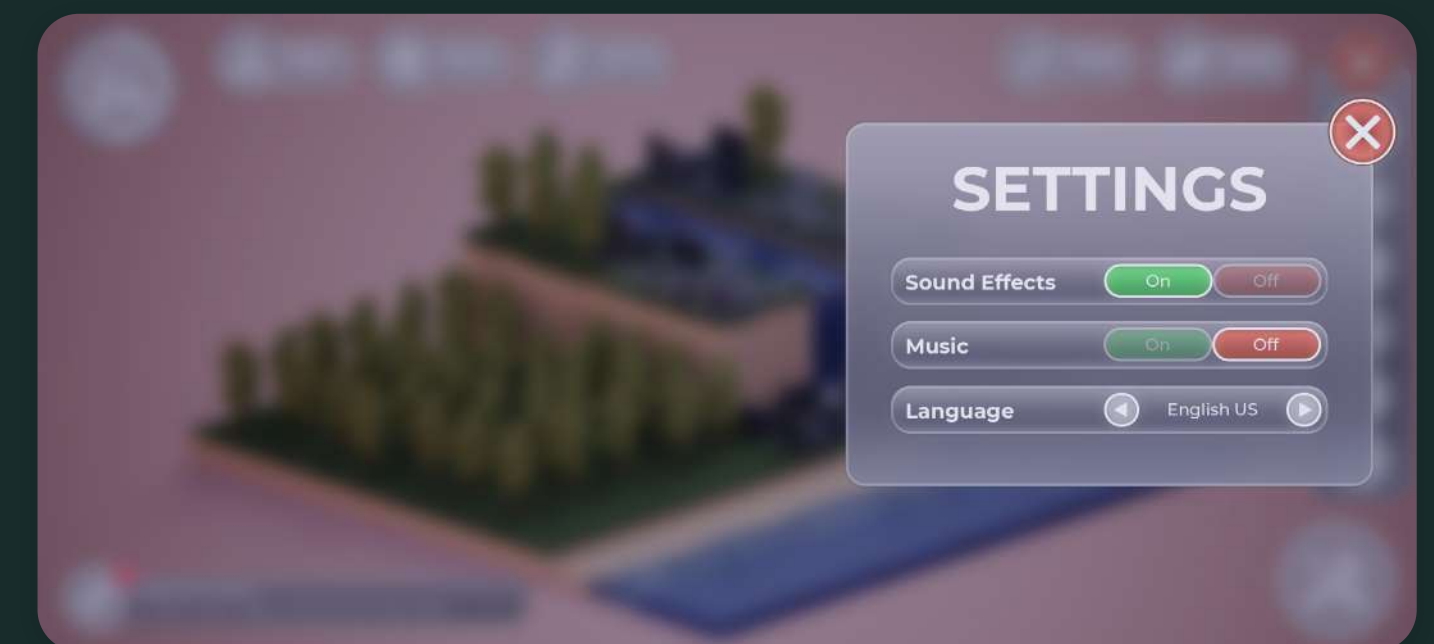
## News Menu



## Build Menu



## Settings In Game



## WIREFRAMES

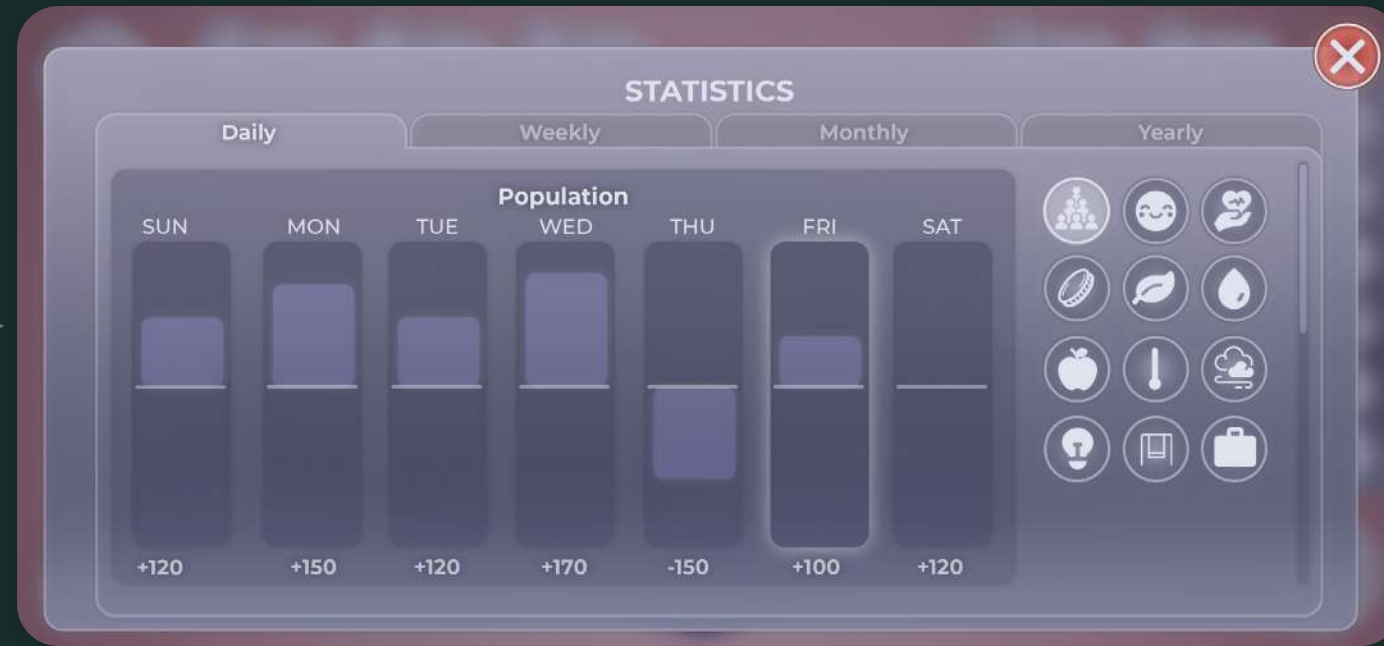
Pierfrancesco Andresini

Pietro Culin

A.A. 2020-2021

GARDEN CITY

## Statistics Menu



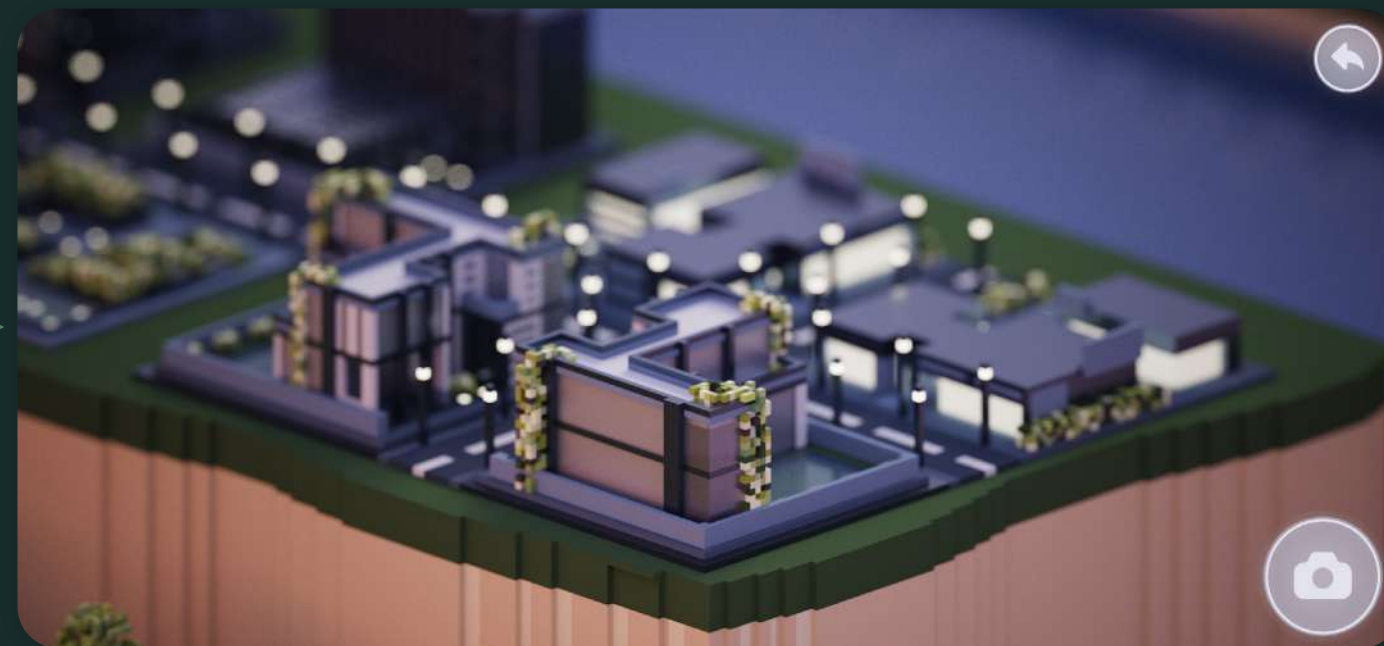
## Social Panel

The Social panel is titled 'SOCIAL' and has a close button. It contains two main sections: 'Host a Friend' and 'Visit a Friend'. The 'Host a Friend' section includes the text 'Give your code to a friend in order to share your progress' and a code input field containing '9 2 2 - 3 4 4'. Below the code are four social sharing icons: WhatsApp, Telegram, Messenger, and a link icon. The 'Visit a Friend' section includes the text 'In order to visit another city, insert the friend code in the input field below.' and a 'Friend code...' input field with a 'GO!' button below it.

## Shop Menu

The Shop menu is titled 'SHOP' and has a close button. It features three tabs: 'Featured', 'Currencies', and 'Regular'. The 'Featured' tab is active, displaying four building items, each with a 'Building Name' label, an information icon, a price tag of '345e', a '1/4' progress indicator, and a '945 k' value. To the right of the items is a 'News Title' section with a tree image and the text 'We are partnering with Treadom to give life to the Garden City forest!' and a '[Read more on your browser]' link.

## Snap Mode HUD



## Visit Friend HUD



## WIREFRAMES

Pierfrancesco Andresini

Pietro Culin

A.A. 2020-2021

GARDEN CITY



# AESTHETICS

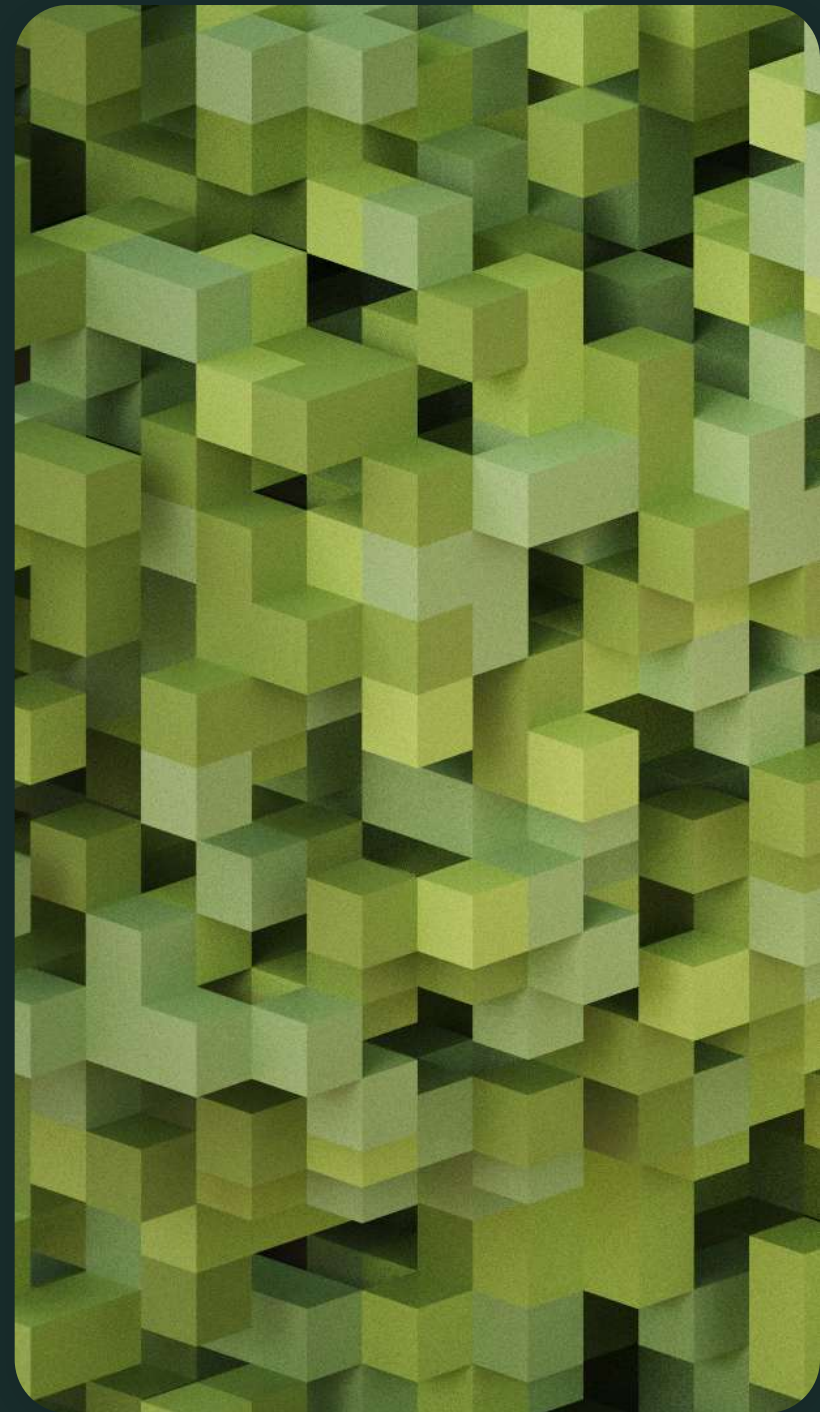


Pierfrancesco Andresini  
Pietro Culin

A.A. 2020-2021

**GARDEN CITY**

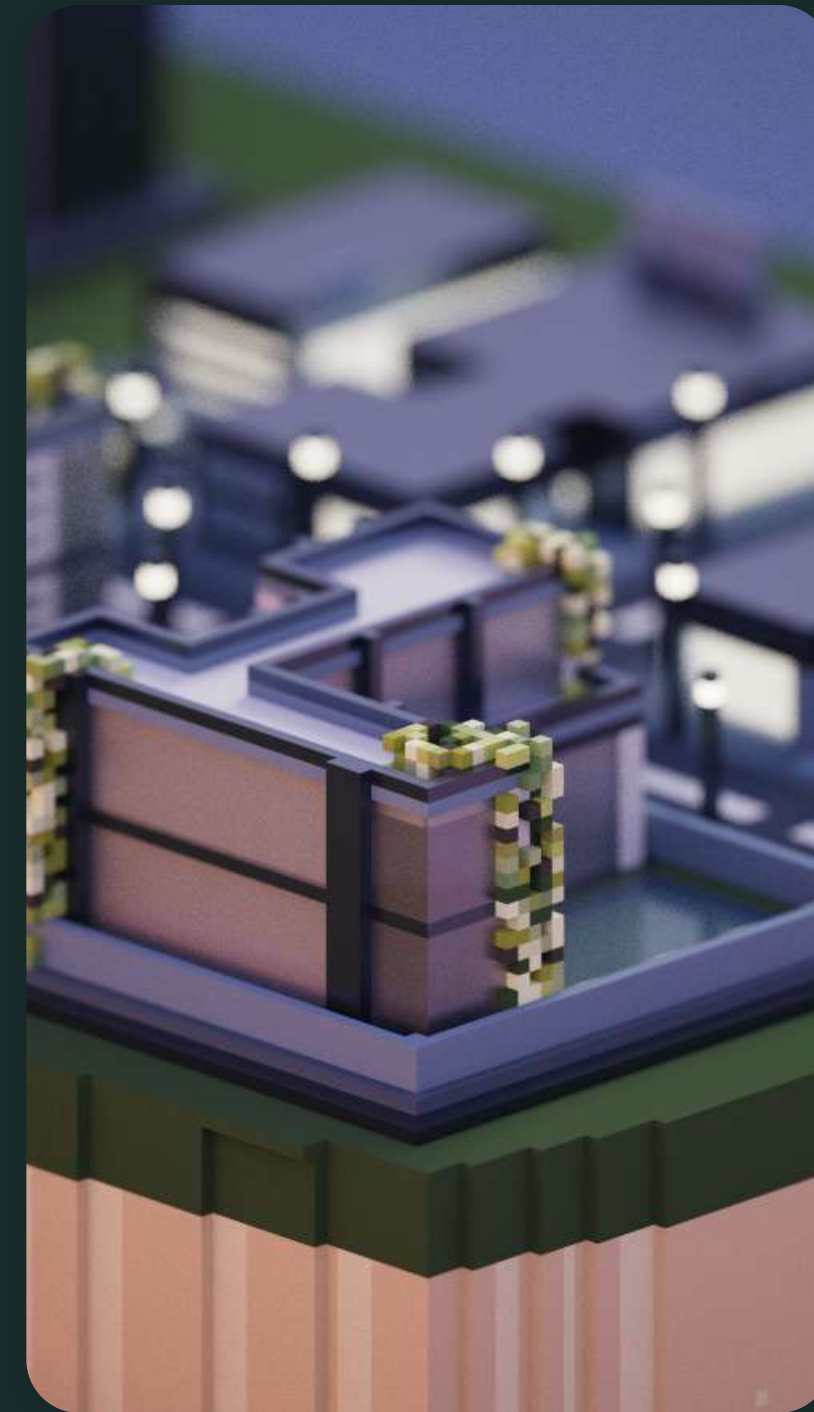
..... ART DIRECTION .....



3D Voxel Art

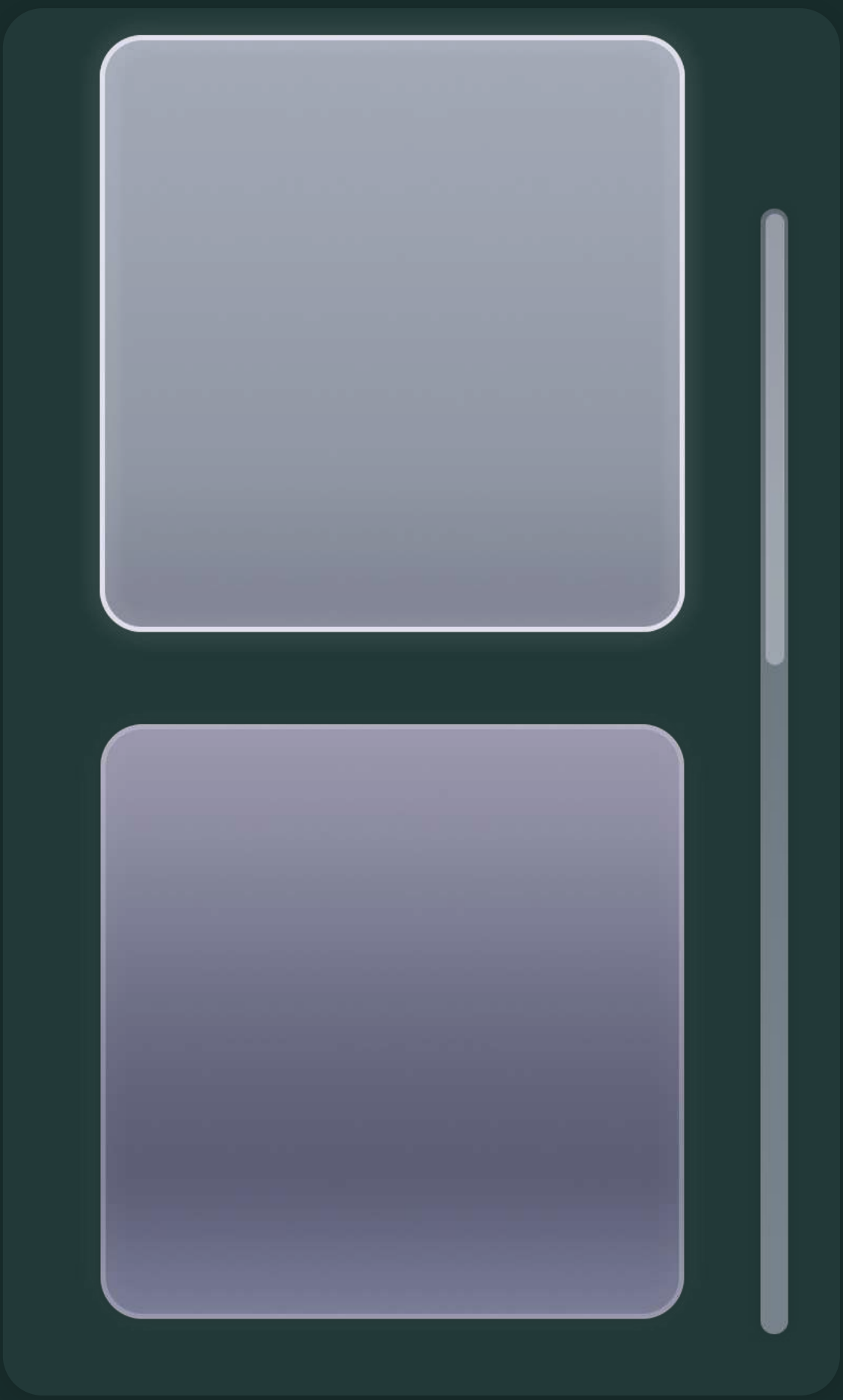
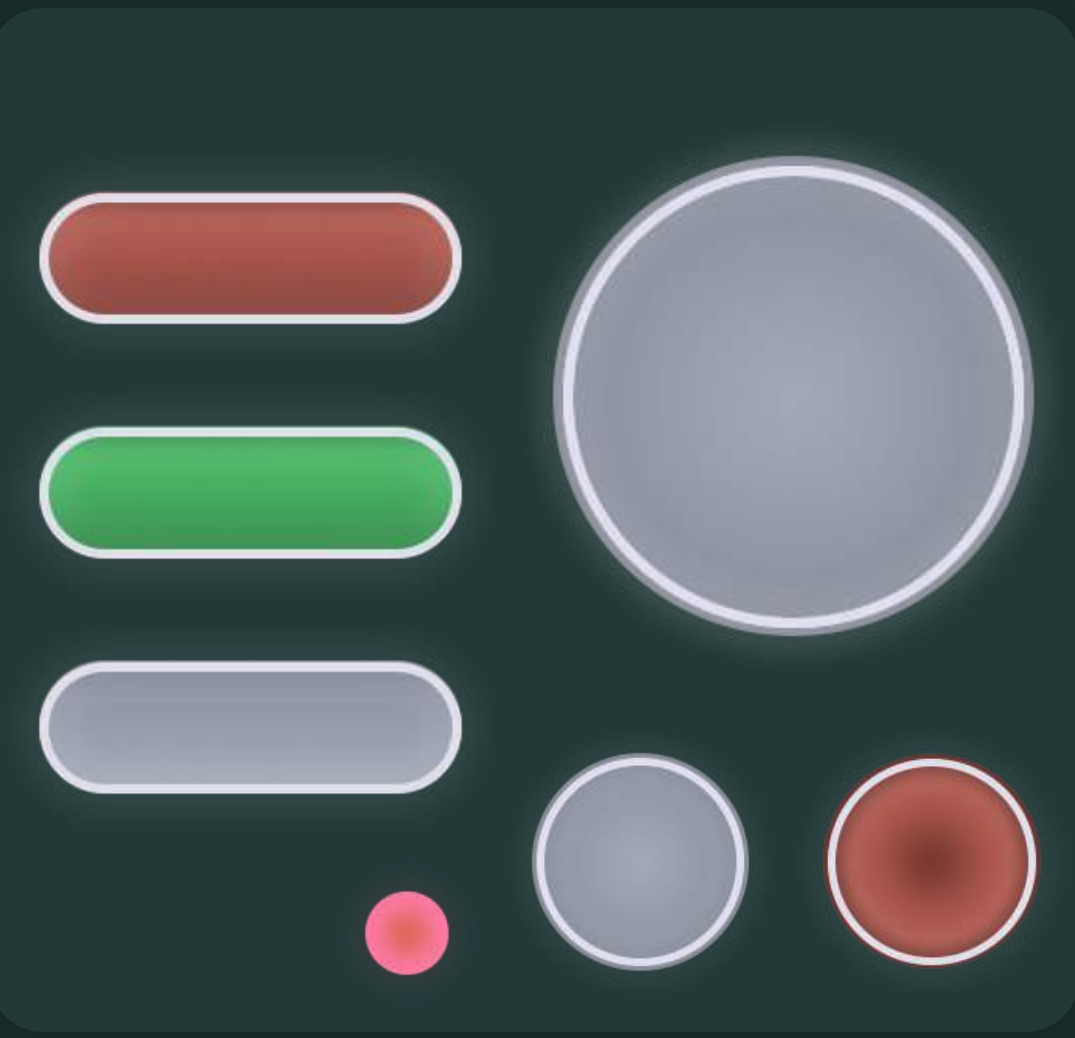
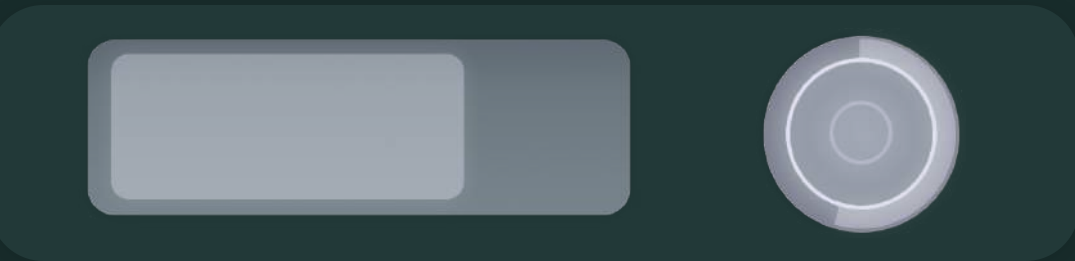


Mood Rilassato



Post-Processing

USER INTERFACE



# VALUTAZIONE ECONOMICA

---

**ANALISI  
COMPETITIVA**





# SVILUPPO

..... MONETIZZAZIONE .....



Modello Freemium



Valuta Virtuale



Acquisti in App



Partnership

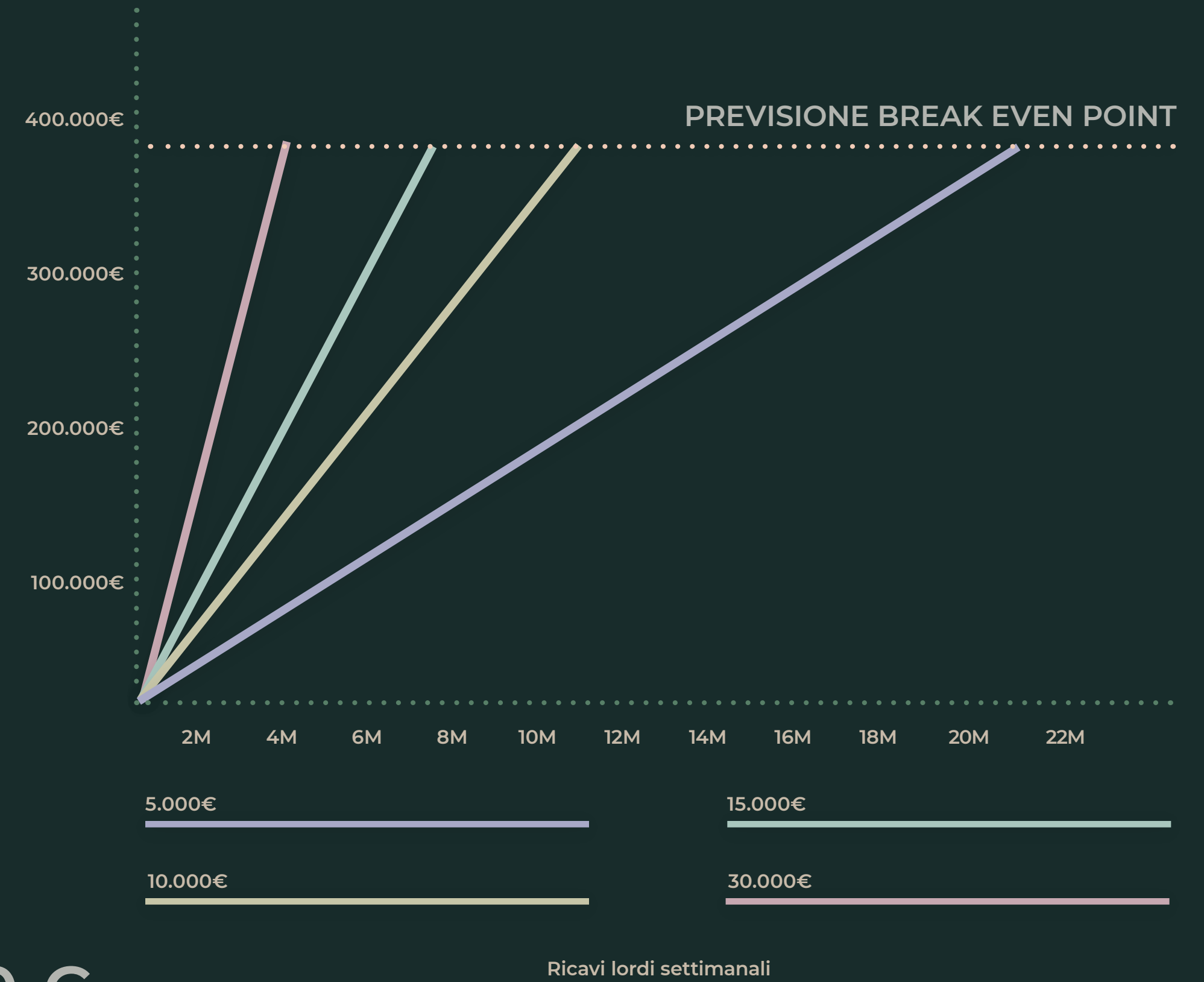
Costi Fissi

GAME DESIGN .....	50.000€
2D ART .....	50.000€
3D ART .....	50.000€
PROGRAMMAZIONE .....	100.000€
UFFICIO .....	80.000€
WELFARE .....	6.250€
SUBTOTALE	336.250€

Costi Variabili

SOUND DESIGN .....	15.000€
LOCALIZZAZIONE* .....	4.100€
QUALITY ASSURANCE .....	17.500€
ALTRO .....	4.650€
SUBTOTALE	37.150€

**377.500 €**  
**BUDGET**





# PLAYTESTING





**GRAZIE PER L'ATTENZIONE**

Pierfrancesco Andresini  
Pietro Culin

A.A. 2020-2021

**GARDEN CITY**