



POLITECNICO
DI TORINO

Honors thesis

COURSE OF

Architecture for Sustainable Design

Abstract

ECO-FRIENDLY DESIGN OF URBAN AREA

Environmental regulations, databases and product sheets for the project

Tutor

Roberto Giordano

by

Claudio Marchiafava
Massimo Messa

July 2018

This project has as its objective the exhibit of the aspects, whether positive or negative, of “I Criteri Ambientali Minimi” (CAM), decree that concerns the street furniture regarding Green public tenders.

More precisely, we will evaluate, simultaneously, the aspects tied to the environment, technology and materials, always aiming to the future through the Smart Street Furniture.

These design aspects of the street furniture have been studied considering the environmental sustainability and also the economical side.

The attention to the environment is a theme that has become very popular nowadays and it assumed an essential role within the regulatory apparatus formulation which rules our activities; so much that it got involved with the European and international dispositions, encouraging a “green” approach in almost everyone of its settings.

The economical sustainability, however, is rarely considered in the sustainability sphere of a product and/or service. For this reason we will try to consider and develop together the environmental aspect and the economical one, locating the respective contribution that could encourage the choice of a public administration.

Although it seems that the economical crisis isn't diminishing, the public tenders side is continuing to move huge quantities of human resources, capital and material ones, conditioning in a substantial way the financial market, which represents a big chunk of the national PIL. Data collected by the European Commission in 2014, demonstrates that in Italy this sector affects a high percentage of the national PIL, reaching about 15%.

Considering this, with this research we want to demonstrate how the decree regarding the street furniture isn't fully complete, and we find that it is necessary to integrate the economical aspects to the environmental ones.

Thanks to an analytical critique of the decree D.M. 5 February 2015 on the Criteri Ambientali Minimi regarding the street furniture, and a large market research, the result of our work can be summarised in the fulfilment of a catalogue for materials and street furniture products. We managed to classify the main street furnitures on the market, by creating a database from which we made product sheets. The latter represent and try to be a tool for whoever buys the furnishing accessories and wants to be informed about the most important aspects for ensuring the correct management. The sheets are separated per product type and they

summarise all the aspects concerning the placement, maintenance, durability, disassembling, material analysis and every other aspect that is necessary to carry out an economical analysis for whatever it's been chosen to be installed.

At last, associated to this cataloguing, we can hypothesize a scenario finalized to facilitate the management of the street furniture for the municipal institution by proposing a logical model for managing the urban apparatus. Through a hypothetical development of a software and an app for smartphone and tablet, we could be able to manage the theoretical system that would lead to the facilitation of the economical, maintenance and implementation matters and every other activity linked to street furniture.

For further information please contact:
Claudio Marchiafava: c.marchiafava@hotmail.it
Massimo Messa: max_92.messa@hotmail.it