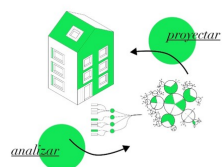


Domestic Big Data. 800.000 dwellings to give back to society

Advance consulting to analyze and rehabilitate obsolete housing and to return them in use as fast as possible with full guarantees after boomurbs in 2007 in Spain



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Technological Offers type

Technological solutions

Research and innovation areas

- Industry, Materials and Circular Economy

ODS



Available from: 2020

Where?

Collective Housing

Keywords: | [Construction](#) | [households](#)

Brief description of the technology solution and the added value it provides

The Research Group in Collective Housing, GIVCO, has developed a tool for the analysis, diagnosis and assessment of housing which has become obsolete, which allows us to design full guaranteed projects bringing them back into market.

In Spain, according to National Institute of Statistics, there are more than 3.4 millions of empty dwellings. From this, 800 000 of them result unpurchased due to 2011 construction breakdown.

Because of that, we offer that analysis through a software whose database allows us to compare the real state of any house to rehabilitate with our reference template of 60 algorithms. With this, it is possible to detect weakness which must be improved, reducing both economical and social risks on it.

Description of the technological base

The aim of this research is to create a tool based on Big Data technologies which could help architects to analyse and design from domestic parameters on collective dwellings and contemporary users necessities. We call this application Domestic Big Data for its wide range of measurable database of collective housing projects, which makes it able to put them into specific parameters.

The graphic interface of this tool turns data into a template reference. After that, we could use this graphic template to compare with another building in order to tackle the challenge of any housing rehabilitation project.

Once implemented, and after introducing normative standards and minimum values of architectural quality, the parametric model is able to generate a quantitative assessment or rating of the potential for improvement of any particular dwelling.

"This is important for its further implementation in public or private initiatives related to renovation of the existing housing stock"

Market demands

Housing Stock nowadays

- In Spain there are currently more than 3.4 million empty dwellings, in stock, due to the real estate boom after the crisis of 2007 (National Statistics Institute).
- Only twelve Spanish provinces added a bag of empty homes of 1.4 million of real estate, with Barcelona, Madrid and Valencia to the head (Renting Market in-depth study 2014)
- It means that 13.7% (811.000) of the total number built from 2001 to 2012 (index of housing rental market, IMAV). Private — banks, building companies — will have the intention of knowing how a greater amount of money will save into every rehabilitation.

Devalued social housing

- Spain intended only 1.1% for social housing, against 32% of Netherlands, Austria 23%, 18% of United Kingdom and 17% of France, among others. (source: report Amnesty International "evicted rights.") (The right to housing and mortgage eviction in Spain", June 2015).

Design with algorithms

- Developers of software for the parametric design of buildings – Autodesk Revit – put your main interest in acquiring a parametric tool of language clear and high efficiency in the ratio of database and visualization.

"Return the assets in housing more than 800,000 real estate stock to be inhabited again, is a necessary approach to 2015 challenge (Radiografía 2014, rental market)"

Competitive advantages

Analysis of contemporary housing from 60 algorithms that are collected into 5 main categories:

- Urban Gradient
- Energetic Optimization
- Habitability
- Adaptability
- Social

Development stage

- Concept
- Research
- **Lab prototype**
- Industrial prototype
- Production

Contact

Contacto Domestic Big Data

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