

Rejuvenating Barcelona with digital technologies

Barcelona was deeply transformed in the early 90's for the Olympics. However, the rise of connected devices and advanced manufacturing are challenging the city's development. To seize this new opportunity, Barcelona has embraced new technologies by encouraging FabLabs. With a local network of five FabLabs, the city is becoming a playground for testing, prototyping and shaping tomorrow's industry. This is helping Barcelona to reinforce its leading role in the field of innovation.

The City of Barcelona has developed through the years a set of policies and reforms pointing towards becoming a Smart and Digital City.

Since 1990's, especially after the 1992 Olympics, the city proved that it can transform, fostering closed collaboration between politicians, companies,

academic institutions and residents and improving the city competitiveness by creating a proper innovation ecosystem. Barcelona's Smart and Digital knowledge was developed thanks to a strong industrial network and cluster that enabled the creation of a relationship space, social network between



companies, institutions, the city hall and citizens. Besides its industrial network and clusters, the presence of relevant academic institutions, with their know-how in the area, enabled the creation of the city's innovation ecosystem and the development of the "smart city" vision (i.e. the Barcelona Smart City Strategy).

Key initiatives

Barcelona is fostering innovation from different point of view (core markets, new markets, old and new entrepreneur partners). Today innovation paradigm implies the creation of less formal and dynamic process where involved stakeholders (researchers, investors, entrepreneurs and public authorities) jointly work to accelerate and speed up the business environment. This is the objective behind the creation of Fablabs.

FabLab Barcelona

The FabLabs are amongst the key initiative in Barcelona. They are the makerspace for excellence that offer digital (and analog) manufacturing to make a wide range of artefacts/services-processes. As a network (almost 600 in the world), it is now rapidly growing and attracting increasing interest, from policymakers, educators and technology developers alike.



Through the FabLab network, a single FabLab represents the nodal point of an innovation network consisting of hubs that encourage and enable new processes of grassroots change, based on participation (relationships peer2peer), the sharing of know-how, the promotion of open source and a culture that makes itself a flying wheel for a wider perspective of social innovation at the service of the community.

The FabLab Barcelona is one of the leading laboratories of this worldwide network and the first laboratory in the European Union founded in 2007 by the Institute for Advanced Architecture of Catalonia (IAAC) with the partnership of the Ministry of economics and Competitiveness.

It is currently developing projects in different scales, from smart devices for data collection by individuals (Smart Citizen project), to the development of the new generation of FabLabs in the Green FabLab project or to the new production models for cities with the FabCity project, started in Barcelona in 2014.

FabLab Barcelona is also the headquarter of the global coordination of the Fab Academy program, which aims to be the largest University campus in the world regarding applications and implications of digital manufacturing technology.

Currently in Barcelona more than five public and private Fab Labs are already operational (3 public, Fab Lab Barcelona, Green Fab Lab, Made Maker Space, Fab Café, Atta33, etc), and others are under construction. Furthermore, Fab Lab Barcelona is contributing in several very traditional sectors, such as the Spanish construction and the wood sectors as an example, trying to implement along with these stakeholders several innovation initiatives trying to implement new ways for their products and business models, focusing in locally productive cities which are globally connected.

The innovation district of 22@Barcelona

22@Barcelona is an innovative and challenging campus that will transform the city into an experimental and innovation laboratory, the center of which will be the Smart City Campus, a cluster where companies, universities, entrepreneurs, and research centers can set up in the spheres of information technologies, ecology and urban development.

Led by IMI – Urban Habitat (Barcelona city Council) and Barcelona Urban Lab and with several partners involved (CISCO, UPC, i2cat Foundation, Indra, Tradia, etc.), 22@Barcelona project transforms 200 hectares of industrial land into a district offering modern spaces for the strategic concentration of intensive knowledge-based activities.

It is the most important project of urban transformation in Barcelona for the last years and one of the most ambitious of Europe of these characteristics, with a high real estate potential and a EUR 180 million public investment.

