

BARCELONA

Historically known as the ‘Catalan Manchester’ for its role as the city’s industrial centre in the 19th and early 20th century, particularly in the textile sector, Poblenou has undergone a strong territorial transformation in the last years. After a period of decay, Poblenou underwent an intense transformation, with the 1992 Olympic Games being the main trigger for this change. On account of its organization and for other purposes, dozens of commercial facilities as well as streets and industrial spaces were demolished. Since then, Poblenou has been a testbed for different urban visions, such as the “Forum de las Culturas” in 2004, the BIT Habitat (Barcelona Institute of Technology for the Habitat) agency, opened in 2015, the first Barcelona superblock implemented in 2016, or the initiative 22@District, which was approved in 2000 and more active in its implementation since the end of 2020.

As a consequence of its historical past and transformations, nowadays the share of green space in the neighborhood is 11.6%, amidst a population density of 20,466 people per square kilometer. Presently, El Poblenou embodies a crucial part of Barcelona's industrial heritage, continually attracting new technological companies to the district, while artists, local makers, manufacturers, and artisans fight to keep its productive identity towards more socially-engaged and circular practices.

City Population size	L	Productive focus	Woodwork, textile, digital technology
Population density	Barcelona El Poblenou: 20,465.5 people/km2	Partners	Fab Lab Barcelona, Catalunya FP, Poblenou Urban District
Pilot scale	Neighborhood	Website	Cartography web: https://www.CENTRINNO-cartography.org/barcelona



Figure 14. Map of the Barcelona pilot area by Metabolic Institute

Vision

To test and implement collaborative activities involving citizens and local organizations in Poblenou in order to valorize industrial heritage and foster circularity through a network of local makers and manufacturers. It involves the exploration of traditional artisanship with digital fabrication and the promotion of new ways of learning.

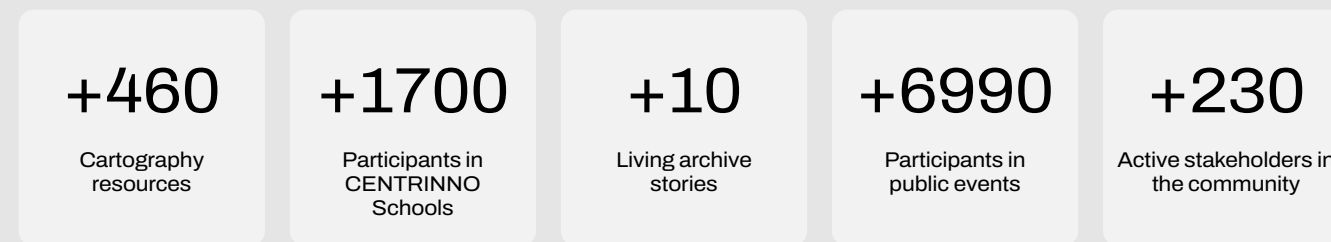


Figure 15. Barcelona Pilot Key Performance Indicators



SPRINT 1: M8-M14

Understanding the context of Poble Nou industrial heritage transformation and its circularity of knowledge and resources.

SPRINT 2: M19-M25

Linking circular economy skills, manufacturing traditions, and community-based urban regeneration

SPRINT 3: M30-M36

Unlocking the productivity potential of Sant Marti through local manufacturing, circular economy practices and skill building programs

Legend for acronyms

MOOC: Massive Open Online Courses

- * Trigger moment for policy recommendation
- * Tool development and application

SCHOOL HACKATHON

"Get out of the classroom!". An innovative programme to make education respond to real needs

Hybrid
Setting

Vocational training students and professors, local organisations

Target

VT Programme
Format



Photo by Fab Lab Barcelona

What is it about?

The CENTRINNO School Hackathon in Barcelona is a programme that tries to connect local and global challenges with formal vocational training programs to foster local innovation. Initially prototyped in the neighborhood of Poble Nou, this short-term event uses design thinking and a human-centered approach to solve complex problems through multi-actors cooperation.

Story behind

The main goal of the Hackathon is to fill the gap between the theory, taught in the classroom, and the practice, requested in the job market, by facilitating collaboration among students, teachers and local organizations. The result was connecting students with real-life scenarios for product and services creation and job opportunities.

Key steps

- Local challenges mapped as source of inspirations for students
 - Creation of a core group with local organisations
 - Meetings with teachers and development of a specific training session
 - Co-definition of challenges with partners and students based on previous research and data collection
 - Organization of a distributed event by:
 - Identifying the location
 - Inviting vocational training schools
 - Promoting the event through communication campaigns
 - Development of the event and celebration of the winners of each challenge
 - Facilitation of follow-up meetings, logistics support and connections between businesses and winners to ensure the new solutions will be implemented
- Check some of the students' solutions [here](#).

Recommendations for future applications

- The creation of a [dedicated Massive Open Online Course \(MOOC\)](#), offering a comprehensive guide delineating each step of the methodology allows educators, mentors, and practitioners to effectively apply and replicate the tool
- The mapping and co-creation of challenges with potential stakeholders, ensures that the participating organisations will be attracted and benefited by the experience
- Follow-up and connection between students and the organisations helps to provide the necessary infrastructure in terms of logistics, materials and necessary contacts
- The collaboration with public education departments can help to integrate the Hackathon format into an official methodology for to be implemented by educational departments in vocational training institutions

COLLECTIVE XXL EMBROIDERY INSTALLATION

A collaborative 2x2m embroidery panel to valorize women's rights while sharing handcrafts techniques

Offline
Setting

Makers, artisans, artists, citizens
Target

Participatory Exhibition Making
Format



Photo by Fab Lab Barcelona

What is it about?

This tool by the Barcelona pilot is a collaborative 2x2m embroidery panel created to foster community involvement and the exchange of traditional skills, all while reclaiming spaces for women across various fields of labour. The large feminine embroidery panel was a tool designed and created by a collective of women initiated under the scope of the [Poble Nou Fàbrica/ Fabrica Exhibition](#) by the Make Works members: La Clandestina Poble Nou (composed by Sonia Benitez, Lara Farbe, Estefania Franco), Un Taller para Todas (Women carpenters collective) and Fab Lab Barcelona. Check more information [here](#).

Story behind

The main goals were to foster community engagement and create interactions between local manufacturers; to promote skills-sharing activities and traditional techniques; to vindicate the role of women in the art world; and to create awareness about women's rights and traditional manufacturing skills.

Key steps

- Engagement with organisations and definition of strategy
- Meetings with the core team to design the installation and plan the participatory workshops
- Purchase of the materials
- Open call to the community to learn
- woodworking skills and cross-stitch embroidery
- Dissemination of activities
- Development of the workshops
- Videos and pictures taken
- Final exhibition of the installation in a participatory exhibition

Recommendations for future applications

- Looking for common interests among the local network helps to foster a greater willingness among participants to exchange knowledge and resources
- Exploring different locations, time and strategies of communication allows to boost participation and attendance in the open workshops
- Co-creating regular meetings and a plan for the intervention helps to distribute responsibilities and outlining actionable steps
- Strengthening relations among makers and manufacturers permits to create new synergies and promote new business ventures
- Collective experiences helps to promote circular economy and new ways of doing things

TOWARDS INCLUSIVE MANUFACTURING: ENGAGING LOCAL PRODUCTION NETWORKS THROUGH COMMUNITY-DRIVEN MAKING

Circular Economy

Heritage

Vocational Training
Innovation Spaces
Social Inclusion

Related key concepts

Heritage value and innovation

Policy-making mindsets
Contingency and macro trends
Spatial Planning and Urban Development Frameworks
Regulation
Funding

Knowledge and Capacities

Areas of influence

Recommendations

- Advocating for the establishment of learning hubs or creative centers within communities, encouraging citizen engagement through workshops focusing on traditional craft practices and digital technologies.
- Valorizing local talents by encouraging collaborative initiatives between local artisans, designers, and makers to create sustainable design solutions.
- Establishing formal partnerships between local governments and relevant organizations for the temporary use of heritage sites.
- Emphasizing the importance of inclusivity by involving citizens, educational institutions, businesses, associations, and the wider community in these collaborative spaces.
- Encouraging the use of leftover materials and local resources within urban landscapes to foster a culture of locally sourced and produced materials.
- Fostering practices that minimize waste, use local resources efficiently, and emphasize sustainable production methods.

Practical case

In collaboration with the public network of fab labs of Barcelona (Ateneus de Fabricació network) and manufacturers from Make Works Catalonia, the Barcelona pilot stands as an exemplary initiative to foster community engagement, capacity building and cultural heritage preservation. In the context of the local exhibition Poblenou Fàbrica/ Fabrica, the pilot orchestrated a series of inclusive workshops across Barcelona, held with support of the public agency BIT Habitat at Ca l’Alier, an iconic heritage site in Poblenou, and five other public facilities across the city. These workshops were designed to bring together traditional craftsmanship and digital fabrication techniques, promoting a shared space for learning and creativity within the community. By integrating traditional crafts and modern technologies, the program aimed to cultivate a sense of appreciation for the act of making, fostering an understanding of circularity in materials and knowledge. By encouraging this intersection, the initiative aimed to drive a culture of local production, promoting the utilization of local resources and talent within the city. Notably, the project successfully bridged the gap between digital fabrication and traditional artisanship, creating a space where these two domains intersected harmoniously and participants could share and learn from each other.