BCN-NYC Affordable Housing Challenge

Announcement of finalists
Anna Majó
Digital Innovation Director
Barcelona City Council

Eduard Cabré
Internacional Relations Consultant
Housing Department
Barcelona City Council
Barcelona's i.lab: collaborative innovation to address citizens' needs
Why?

RESIDENTS
Better services
Real needs met

ADMINISTRATION
Support internal innovation
Cultural change
Innovation in Public Procurement
Ethical technology

BUSINESS & ACADEMIC CENTERS
Economic promotion
Visibility, testing and scaling
Research and innovation

OTHER CITIES
Collaboration, sharing and scaling solutions
i.lab: Barcelona’s urban, social and sustainable innovation lab

- Addressing city’s challenges and citizens’ needs
- Collaborative innovation (4H) & other cities
- Ethical use of technology & data
- Social impact, sustainability & scalability
- Economic promotion & business innovation
## Methodology

<table>
<thead>
<tr>
<th>Activate</th>
<th>Lab</th>
<th>Scale up</th>
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<tbody>
<tr>
<td>Challenge definition</td>
<td>Call for solutions</td>
<td>Evaluation</td>
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</tbody>
</table>

### AREAS
- Mobility
- Environment
- Housing
- Quality of life

### COLLABORATION

**Areas**

- Mobility
- Environment
- Housing
- Quality of life
## Ongoing projects

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Partner</th>
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<tbody>
<tr>
<td>Women &amp; Tech Challenge</td>
<td>Mobile World Capital Foundation, d-LAB</td>
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<tr>
<td>Data and Mobility Challenges</td>
<td>DataCity by NUMA, Abertis &amp; Ferrovial Data and Mobility Departments</td>
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<tr>
<td>BCN-NYC Housing Challenge</td>
<td>NYC and Housing Department</td>
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<tr>
<td>Playground Areas</td>
<td>Urban Ecology Department - Environment and Urban Services</td>
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</tbody>
</table>
Barcelona 2016-2025
Right to Housing Plan
The call seeks **innovative technologies and tools** to shorten project timelines, reduce costs, and promote a cleaner and more sustainable industry, thus driving down the cost of construction and rehabilitation in dense urban areas and **making housing more affordable for all**.
Offsite Prefabrication
Alternative Building Materials
Building Information Modelling
Virtual Reality / Augmented Reality
Autonomous Drones
Resource Accounting & Material Flow Analysis
3D Printing
Smart Devices and Mobile Based Solutions
Evaluation Criteria:

Innovation
Relevance
Impact
Scope of Implementation
Citizen Engagement and Co-creation
Inclusivity
Replicability
Multi-stakeholder Collaboration
Soundness
Organization
Environmental Awareness

✔ Evaluation Committee
✔ Jury of Honor
BCN-NYC Affordable Housing Challenge
54 submissions from 16 countries!
“... a human being cannot be in two places at the same time. In addition, we have different needs in different phases of life.”

-Peter Sloterdijk
elasticLIVING saves space

net area 36 m²  →  60 m² living area

living – dining 20 m²

bedroom 18 m²

office 10 m²

kitchen 12 m²
elasticLIVING adapts to life
elasticLIVING delivers 50% more density

elasticLIVING apartments $12 \times 60 = 720 \text{ m}^2$

conventional apartments $8 \times 55 = 440 \text{ m}^2$
elasticLIVING is urbanism

307 Union Ave, Brooklyn

Carrer d'Avila 101

NYC

BCN
elasticLIVING is immediately livable
elasticLIVING advantages

1. construction speed

Timeline of conventional construction process

2. spatial efficiency

Usable space in a 36m² elastic_LIVING® apartment:

<table>
<thead>
<tr>
<th>Room</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Living &amp; Dining</td>
<td>20.13 m²</td>
</tr>
<tr>
<td>Office</td>
<td>9.06 m²</td>
</tr>
<tr>
<td>Bedroom</td>
<td>18.40 m²</td>
</tr>
<tr>
<td>Kitchen</td>
<td>11.80 m²</td>
</tr>
<tr>
<td>Bathroom</td>
<td>1.04 m²</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>60.43 m²</strong></td>
</tr>
</tbody>
</table>

3. affordability
elasticLIVING is:
affordable, adaptable, sustainable, and readily implementable.

thank you!
ANGELO ROVENTA
RAFAEL GOMEZ-MORIANA
IGNAZ FURGER

www.elasticLIVING.eu
Everyday life Housing Network
A second-grade cooperative of multiple housing projects

Roser Casanovas, architect and urban planner, Col·lectiu Punt 6 SCCL
Everyday life Housing Network
A second-grade cooperative of multiple housing projects

How technology can socially help us share reproductive and care tasks?
What is an Everyday life housing network?
Everyday life Housing Network
A second-grade cooperative of multiple housing projects

Social responsibility of reproductive and care tasks outside the housing unit
Everyday life Housing Network
A second-grade cooperative of multiple housing projects

The everyday housing network include:

<table>
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<th>Collective Housing</th>
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<tr>
<td>Public property</td>
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<tr>
<td>Self-organized housing cooperatives</td>
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<tr>
<td>Public housing (HPO)</td>
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<tr>
<td>Senior assisted living housing</td>
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<tr>
<td>Self-organized housing cooperatives</td>
</tr>
<tr>
<td>Public property</td>
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</tr>
<tr>
<td>Public property</td>
</tr>
<tr>
<td>Private market housing units</td>
</tr>
<tr>
<td>Urban &quot;masoveria&quot;</td>
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</tbody>
</table>

EVERYDAY LIFE CARE SPACES

- Childcare space
- Community meeting space
- Adult care space
- Shared kitchen and dining space
- Shared pantry (food cooperative)
- Community gardens
- Construction and maintenance workshops
- Space for guests
- Coworking spaces
- Shared laundry spaces

Co-living spaces
Everyday life Housing Network
A second-grade cooperative of multiple housing projects

Scope of implementation

Neighborhood of Poblenou, Barcelona

Working group
Everyday life Housing Network
A second-grade cooperative of multiple housing projects

Collective housing
Everyday life Housing Network
A second-grade cooperative of multiple housing projects

Everyday life care spaces

- Childcare space
- BiciHub
- Guest Rooms
- Storage
- Food coop
- Community Kitchen
- Community Garden
- Roof Garden
- Youth House
- Wood Atelier
- Shared laundry
- Community center

Hard infrastructure

- Multi-local delivery service
- Kids clothing chain
- Home laundry services
- Walking school bus
- Family Take Away
- Safe Home
- Foster Grandparents
- Bank of time

Soft infrastructure
Everyday life Housing Network
A second-grade cooperative of multiple housing projects

Urban network
Contributions

1. Equal value to all spheres of life
2. Social value of the unpaid work
3. Breaking public-private barriers to everyday life development
4. Urban design, health and well-being implications
5. Making women visible
DENSIFYING THE CITY:

Expanded city:
- INFRASTRUCTURES
- RESIDENTIAL PROJECTS

Compact city:
- SUITABLE FILLING
- BUILT VOID
- PARALIZED PLOT
- EXPOSED PARTY WALL

Expanded city: over infrastructures

Compact city
CASE STUDY 01: França Station, BCN
Proposal to build over train rails

CASE STUDY 02: Fontana, BCN
Proposal to build over a Subway Station
CASE STUDY 03: Brooklyn Bridge, NYC _ Proposal to build over a great infrastructure

CASE STUDY 04: Taft Houses in Harlem, NYC _ Intervention in a residential polygon
CO-DESIGN:
Participatory design adapted to the different ways of living

Support with digital applications
CO-HOUSING

Collective spaces for housing
ADAPTABLE HOUSING:
Modular design that can progressively grow to adapt to different needs

CO-PRODUCTION:
- Future inhabitants
- Responsible public procurement
- Other agents
MANUFACTURE AND ASSEMBLY PROCESS
BUILDING SYSTEMS

Structural support mesh

Modular components

3D CONCRETE  3D WOOD  3D STEEL  ISO CONTAINER  2D WOOD  2D STEEL
www.habitatge.barcelona