Agenda

1. **Framework**
2. 22@Barcelona: **Where**
3. 22@Barcelona: **Knowledge City**
4. 22@Barcelona: **Smart City**
5. 22@Barcelona: **Knowledge Economy**
6. 22@Barcelona: **Knowledge Society**
7. **Q&A**
1 Framework
Knowledge-based Economy

Knowledge

Knowledge Infrastructure

Innovation

Economy

Geography

Political Economy

Open Innovation

TRIPLE HELIX. Local & Global Innovation System

Cluster Model

Categories of cluster actors

- Government
- Institutions for Collaboration (IFCs)
- Financial Institutions
- Research Community
- Companies

Source: Adapted from Sölvell et al. (2003)
Born Global Companies

The Ecology of Innovation

Research Universities

Entrepreneurs

Angel Investors

Venture Capital

Good Infrastructure (Social and Physical)

Highly Trained Workforce with Global Access

Good Food, Wine and Coffee

Good Business Climate

Source: The Ecology of Innovation, Tapan Munroe, 2008
Talent: Who is your city?

Source: Richard Florida, 2008
Source: Xavier Marcet and Roser Salvat, 2009
2 22@Barcelona: Where
Among the main European capitals
Barcelona’s Metropolitan Area
22@Barcelona, included in the Ensanche’s plan (1859)
1860 - 1960: the “Catalan Manchester”
1960 - 1990: obsolescence and degradation
1986 - 1992: the opening of the waterfront
The Barcelona’s eastern transformation

- Sagrera AVE
- Olympic Village 1992
- Forum 2004
- 22@Barcelona
3  22@Barcelona: Knowledge City on Smart City
Knowledge City on Smart City

A new model of making city
The City as a Platform of the Knowledge Economy and Society
Conceptual model

Phase 3

Phase 2

Phase 1

Smart City
- Town Planning
- Building
- Infrastructure

Knowledge Economy
- Companies

Knowledge Society
- Citizens
The 22@ Plan, a Model of Knowledge City on Smart City

<table>
<thead>
<tr>
<th>@ ECONOMICS</th>
<th>GREEN INFRASTRUCTURES</th>
<th>HOUSING</th>
<th>INCLUSIVE</th>
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<tr>
<td>SCIENCE AND TECH</td>
<td>MOBILITY</td>
<td>QUALITY OF LIFE</td>
<td>IDENTITY</td>
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4 22@ Barcelona: Smart City
The scale of 22@Barcelona

<table>
<thead>
<tr>
<th>The scale of the project:</th>
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<tbody>
<tr>
<td>Territory</td>
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<tr>
<td>New gross floor space</td>
</tr>
<tr>
<td>• Productive Activities</td>
</tr>
<tr>
<td>• Housing, facilities and services</td>
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<tr>
<td>Increase in green spaces</td>
</tr>
<tr>
<td>Increase in facilities</td>
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<tr>
<td>Investment in infrastructures</td>
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<tr>
<td>Territory</td>
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<tr>
<td>New gross floor space</td>
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<tr>
<td>Increase in green spaces</td>
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<tr>
<td>Increase in facilities</td>
</tr>
<tr>
<td>Investment in infrastructures</td>
</tr>
<tr>
<td>198,26 Ha (115 city blocks)</td>
</tr>
<tr>
<td>4,000,000 m²</td>
</tr>
<tr>
<td>3,200,000 m²</td>
</tr>
<tr>
<td>800,000 m²</td>
</tr>
<tr>
<td>114,000 m²</td>
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<tr>
<td>145,000 m²</td>
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<td>200 million €</td>
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</table>
Special Infrastructures Plan: The Backbone of the Smart City

- New mobility plan
- Wi-fi and optic fiber
- New energy networks
- Selective pneumatic waste collection
- New heating and cooling system
- Underground galleries
Open Innovation in Cities

**Government**
- The City as a Platform
- The City as Organization
- Public Procurement

**University**
- Driven Research
- Tech Transfer
- Urban Lab

**Triple Helix**
- City Challenges
- Citizens needs
- Ecology of Innovation

**Industry**
- Golden References
- Customer Insights
- Scalability
5  22@ Barcelona: Knowledge Economy
# Urban clusters

<table>
<thead>
<tr>
<th>Cluster strategies</th>
<th>MEDIA</th>
<th>ENERGY</th>
<th>MEDTECH</th>
<th>ICT</th>
<th>DESIGN</th>
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<td>Transversal programs</td>
<td>Clusters policy</td>
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<td>Entrepreneurship</td>
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<td>Services for companies</td>
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<td>Internationalization</td>
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<td>Community of professionals</td>
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<td></td>
<td>Relation between clusters</td>
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<td></td>
<td>Marketing</td>
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Leadership of projects: current situation and forecast

22@Barcelona: Clusters & activities

- Companies
- Institutions
- Universities
- Technological centers
- Incubators

- Energy
- ICT
- MedTech
- Media
- Design

- Entrepreneurs
- Specific spaces
- Dissemination spaces
- Residences
- Other services
### Media: Barcelona Media Park

- **Companies**: MediaPro, Lavinia, Cromosoma…
- **Institutions**: RNE, CAC, Barcelona TV…
- **Specifics spaces**: Audiovisual Production Centre (PBM)
- **Universities**: UPF, UB, UOC
- **Technological centers**: Barcelona Media-Innovation Centre
- **Incubators**: Media-TIC Building
- **Residences**: Melon District / Ciutadella
- **Dissemination**: Media Factory
### ICT: Network of R+D centres related to ICT

<table>
<thead>
<tr>
<th>Category</th>
<th>Entities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Companies</td>
<td>T-Systems, Indra, Telefónica</td>
</tr>
<tr>
<td>Institutions</td>
<td>CMT, FBD, Localret, AENOR</td>
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<tr>
<td>Specifics spaces</td>
<td>Interface building, Media-TIC building</td>
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<tr>
<td>Universities</td>
<td>UB, UPC, La Salle</td>
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<td>Technological centers</td>
<td>Technological ICT Center</td>
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<td>Incubators</td>
<td>Media-TIC building</td>
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<td>Residences</td>
<td>Melon District</td>
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<td>Dissemination</td>
<td>ICT House</td>
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</tbody>
</table>
Media & ICT Cluster: 2006 - 2010

- VILA CASAS MUSEUM OF CONTEMPORARY ART
- AUDIOVISUAL PRODUCTION CENTRE (BARCELONA ACTIVA)
- IMAGINA BUILDING: Mediapro, CIBM, Yahoo!, TCI, etc.
- T-SYSTEMS HQ. & BARCELONA DIGITAL
- BARCELONA TV
- GREEN AREAS
- INTERFACE BUILDING: IMI, Indra & AENOR
- T-SYSTEMS HQ. & BARCELONA DIGITAL
- INDRA
- RNE
- SUBSIDIZED HOUSING
- MEDIA-TIC BUILDING
- COMMUNICATION FACULTY (UPF)
- VILA CASAS MUSEUM OF CONTEMPORARY ART
# Energy: Interuniversity Campus of Besòs

<table>
<thead>
<tr>
<th>Category</th>
<th>Institutions</th>
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<tbody>
<tr>
<td>Companies</td>
<td>Endesa, Ecòtècnia, Agbar</td>
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<tr>
<td>Institutions</td>
<td>ITER, BCN Chamber of Commerce</td>
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<td>Universities</td>
<td>UB, UPC</td>
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<td>IREC</td>
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<td>Incubators</td>
<td>b_TEC Incubator</td>
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<td>Residences</td>
<td>b_TEC Residence</td>
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<td>Dissemination</td>
<td>Campus services</td>
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<tr>
<td>Category</td>
<td>Organizations</td>
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<tr>
<td>------------------------</td>
<td>-----------------------------------------------------------------------------</td>
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<tr>
<td>Companies</td>
<td>Matachana, Gaes, Sanofi Aventis, Isdin, Telemedicine</td>
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<tr>
<td>Institutions</td>
<td>CatSalut, Blood Bank, BIOCAT</td>
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<tr>
<td>Specifics spaces</td>
<td>Health Building, BIO Enterprise Park</td>
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<tr>
<td>Universities</td>
<td>UB, UPC, Official Nursing College</td>
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<td>Technological centers</td>
<td>22@MedTech</td>
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<td>Incubators</td>
<td>Health Building</td>
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<tr>
<td>Residences</td>
<td>Nido</td>
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<tr>
<td>Dissemination</td>
<td>Health Building</td>
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### Design

<table>
<thead>
<tr>
<th>Companies</th>
<th>G-Star Raw, ADD, Node, Estudi Arola, ruiz+company, Morera Design</th>
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</thead>
<tbody>
<tr>
<td>Institutions</td>
<td>BCD</td>
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<td>Specifics spaces</td>
<td>Palo Alto, PBM, Hub Design</td>
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<td>Universities</td>
<td>University of Vic, UPC, IAAC</td>
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<td>Technological centers</td>
<td>KIM BCN</td>
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<tr>
<td>Incubators</td>
<td>Media-TIC, “Projecte Bressol” (textile)</td>
</tr>
<tr>
<td>Residences</td>
<td>Melon District / Ciutadella</td>
</tr>
<tr>
<td>Dissemination</td>
<td>Hub Design</td>
</tr>
</tbody>
</table>
Cluster's leader agents
New companies and new jobs at 22@Barcelona

New companies installed in the district since 2000
(Accumulated data at 12.31.2009 in number of companies)

(December 2009)

Companies already located or in process to be installed: 1,502

41.8% newly created

New jobs in 22@Barcelona since 2000
(Accumulated data at 12.31.2009 in number of employers)

(December 2009)

Employees of companies already located or in process to be installed: 44,600

61.7%

The pie chart shows the distribution of new jobs by sector:

- Design: 24%
- ICT: 26%
- Media: 11%
- Energy: 4%
- MedTech: 5%
- Others: 9%

New companies in 22@Barcelona

- 24% Design
- 5% MedTech
- 11% Media
- 26% ICT
- 4% Energy
- 9% Others

(Combined accumulated data as of December 2009 in number of employers)
22@ Barcelona: Social and Cultural
Space of personal relation

22@ Space of Personal Relation

22@Talent

For the professionals

- International Community: IN22@
- Access to education
- Relationship spaces
- Networking: 22@Update Breakfast,…
- 22@Voluntariat

For the neighbours

- 22@CreaTalent
- 22@Digital District
- Actions of direct communication
- 22@Staying in company

Increase of the belonging feeling
Creation of the community 22@
Pride to work/live in 22@
The City as Externality: Art, Culture and Technology creation

22@ Cultural Factories

Old Factories as Public Space for Art, Culture and Technology creation.

www.hangar.org
www.laescocesa.org

Can Ricart

La Escocesa
7 Q & A