Providing Leadership & Space for OPEN INNOVATION

UPC Innovation HUB Labs

Juan J. Perez
Vice-rector for International Policy
(juan.jesus.perez@upc.edu)
The Universitat Politècnica de Catalunya – BarcelonaTech is a public institution of Higher Education and Research, specialised in the areas of Architecture, Engineering, Science and Technology.
Leading Technology at the south of Europe
31,224 students
21 schools
275
3,015 teaching and research staff
63 Bachelor’s degrees
2016 budget (million euros) 275
49 doctoral programmes
205 research groups
70 masters’s degrees
Departments and Institutes

Agri-Food Engineering and Biotechnology
Architectural Design
Architectural Representation and Visual Analysis I
Architectural Representation and Visual Analysis II
Architectural Technology II
Automatic Control
Chemical Engineering
Civil and Environmental Engineering
Computer Architecture
Computer Science
Electrical Engineering
Electronic Engineering
Engineering Design
Engineering Presentation
Fluid Mechanics
Heat Engines
History and Theory of Architecture

Management
Materials Science and Metallurgy
Mathematics
Mining, Industrial and ICT Engineering
Nautical Science and Engineering
Optics and Optometry
Physics
Service and Information System Engineering
Signal Theory and Communications
Statistics and Operations Research
Structural Architecture
Telematics Engineering
Textile and Paper Engineering
Urbanism and Regional Planning
Research to Innovate

3,015 Researchers grouped in 205 Research groups

around 2,300 Papers in scientific journals per year

around 355 PhD theses presented per year

157 Technical and scientific awards

1,200 Research projects in progress each year

18 Specific research centers

11 UPC members of the catalan research network of excellence
455 Patent licenses (from 2009 to 2015)

From 1998 to 2015:
291 spin-off and start-up

62,507,381 € Research income (2016)
18,679,000 € of which coming from contracts with companies

2,494 Sponsoring and collaborating companies

ESA (European Space Agency) Business Incubation Center
Located in the UPC and supported by the UPC
UPC Technologies

- Materials Technologies
- Advanced Manufacturing Technologies
- Energy and Environmental Technologies
- Urbanism and Sustainability Technologies
- Infrastructure Technologies
- Information & Communication Technologies
- Biomedical Engineering Technologies
- Chemical and Food Industry Technologies
- Logistics and Mobility Technologies
Knowledge Innovation Communities (KIC) Innoenergy

- 6 co-location centres
- 27 shareholders
- 160 additional partners
- Activities in 17 countries
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Our Shareholders
- Research Institutes
- Universities

Co-location Centres

Map of European countries with locations for co-location centres and shareholders.
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IBERIA co-location center

Formal partners:
ESADE
Gas Natural FENOSA
Institut de Recerca de l'Energia de Catalunya-IREC
Instituto Superior de Lisboa
Universitat Politècnica de Catalunya

Associate partners:
Ciemat
Energías de Portugal
Iberdrola
Tecnalia Research and Innovation
Technology Transfer System, Entrepreneurship and Innovation UPC

- **Technology Transfer Center (CTT)**
- **1987**
  - PROGRAMA INNOVA (CE)

- **1999**
  - INNOVA 31
  - SCR

- **2001**
  - K2M PROGRAM PARC UPC (institutional)

- **2005**
  - OPL -UPC
  - VALORITZATION UNIT (SGI)

- **2008**
  - CIT UPC

- **2010**
  - ESPAII EMPRÈN
  - K2M PROGRAM TechPARC UPC

- **2013**

- **2016**
  - NEW STRUCTURE FOR EXCELENT TECH TRANSFER (in process)
  - NEW TOOLS AND PROGRAMMS FOR AN EXCELENT TECH TRANSFER (in process)
OPEN INNOVATION

IS NOT SUITABLE (nor possible) TO INNOVATE ALONE.

The most effective solution is to network in a context of open innovation. Sharing risk and reward with other partners.

Much of the funding for innovation is aimed at promoting cooperation between different companies and academic institutions.
OPEN INNOVATION

Classical University model

Isolated services: Patents Office, Licensing, Contract research, Individual relation with Companies

New model

More complex and network system. Collaborative research and development
• Training talented individuals in innovation and entrepreneurship
• Generating, growing and maturing innovative projects
• Preparing and filtering projects for corporate accelerator programmes
• Providing spaces for the creation and generation of public-private open innovation through innovation hubs
Open hub for industrial and academic partners from the areas of automotive and mobility research & innovation.

**CARNET founding members**

**CARNET Industrial partners**
A Cooperation Platform with the mobility industry, universities and institutional partners

- Scouting activities on „Urban Mobility“ in Barcelona
- Strategic contribution to **strengthen the automotive sector** in Spain / Catalonia
- Proactive **Recruiting** for the Automotive Industry
- **Networking** and international Research Funding

Maturing powertrain technologies
Lightweight materials
Quick advances in connected vehicles
New paradigm for people mobility choices
Emergence of autonomous vehicles
CARNET bridges the transfer gap between academic research and industrial product development.

Centralised collaboration (project house) with industrial guidance is a key factor for innovation and technology transfer.

http://www.carnetbarcelona.com
UPC Innovation Ecosystem

Training and Project Generation
Experimentation and Creation
Incubation and Services
Sectoral Acceleration
Corporate Venturing
Innovation Hubs
UPC Innovation Ecosystem
Programs and Services

01. Ideas Competition
   EMPRÈN UPC – YUZZ
   Technological ideas
   Competition that aims to
   flourishing technology projects
   and training of entrepreneurial
talent

02. Entrepreneurial
    Talent
    Access programs to talent UPC
    Training programs and preparation
    of seed technology projects. CBI
    Market Science, etc

03. Ideas
    Pre-incubation
    Accompanying and Mentoring
    programs and technological
    ideas validation

04. Bilateral Programs
    Development of bilateral
    programs to flourish
    technological projects,
solutions to challenges, access
to talent UPC, etc.

05. Fab Lab and creation Spaces
    Creative spaces, experimentation,
    prototyping and validating conceptual
    and technological products and services
    offered by the projects and startups
**Space Rental and Facilities**
Disposal of UPC spaces and their facilities, laboratories, equipment for incubated projects and companies, according to their needs.

**Community Generation**
Hosting events, conferences, networking activities, Meetups and tech fairs to facilitate the creation of a community where entrepreneurs learn to turn great ideas into promising startups and promote the link between the UPC and the productive land.

**Incubation Services and Startup Empowerment**
To provide strategic planning and network, 'go to market', fundraising, market analysis, service providers access to common lab device, fab lab and prototyping, software acceleration and growth.

**Linking Facilitator University – Companies**
Through the link with companies that want to be located in the UPC Park, UPC acts as a facilitator for the relationship of these companies with the range of services that UPC puts at their disposal to improve their competitiveness.
UPC Innovation Ecosystem
Programs and Services

01: Sectoral and Specialized Accelerators
Presence of sectoral accelerator program which includes the outputs of pre-incubation ecosystem and create synergies with various initiatives, dynamics and agents present in the community.

02: Initial Smart Money
First capital injection, which allows certain guarantees to start startups, which in turn comes from the hand of a relevant partner in the field of action of the startup.

03: Know How, Mentoring and market orientation
Access to mentoring programs and specialized acceleration with real knowledge of the sector and allowing better focus for the exit and consolidation of startups in the market.

04: Preparation and Funding Access
Investment Readiness programs, access to networking investors, events, meetings and presentations with potential investors, demo days, tech fairs, etc.

05: Scouting d’oportunitats
Startups as a source of opportunity to address new services and products that enable companies to diversify its business and generate competitive advantages.
Corporate Venture
Corporate incubation programs, pre-incubation programs, incubation corporate filtering...
Collaborating with startups to use them as engines of innovation generation and taking advantage of their entrepreneurial culture.

Innovation HUB
Space coordination and leadership of activities and programs for approaching companies to establish sustainable partnerships through the provision of different channels, vehicles and processes of innovation.

Interim Innovation
Making Interim Management work in the UPC, establishing a working space within the SGI UPC to coordinate the interests and programs of interest, facilitating the transfer of knowledge to the company.

Open Innovation
Open channels of innovation beyond R & D+I and internal innovation units.
Positioning the UPC as a technological partner in which companies can rely on for their innovation processes.

Bilateral Programs
Generating business projects oriented to the interest of the companies. Development of technologies aimed at solving market needs. Generation Challenges and innovation through programs talent UPC can provide solutions.
A network of core research facilities that play a prominent role in innovation and development, and turn ideas into reality.
Thank you for your attention!!