CERCA
Research Centres of Catalonia
Fostering excellence in research for the benefit of society
January 2018
Catalonia is the top destination in Southern Europe in terms of projects, job creation and capital investment.

- 19.4% biotechnological industry
- 47% pharmaceutical industry

The FDI Life Sciences Industry in Catalonia accounts for:
- 52.3% capital investment into Spain
- 42.2% jobs created
- 44.8% projects received

16% of population
20% of GDP
23% of R&D investment
25.5% of all Spanish exports
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The Catalan System of R&I

1.652 Research Groups and 8 Networks of reference

- 12 Universities
- 3 Large Scale Infrastructures, 8 support infrastructures
- 61 Research centres (40 CERCA, 21 CSIC), 15 institutes in hospitals
- 300 SPIN-OFF and 8,600 Innovative enterprises
- 22 Technological centres
- 22 Scientific and Technological Parks

Around 25,000 researchers: 14,000 in universities, 5,000 in CERCA centres, 1,300 in CSIC centres and 5,000 in hospital research institutes.

Some 45,000 people work in R+I in Catalonia, approximately 1.50% of the employed population (data SOUTH, INE and IDESCAT)
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40 CERCA Centres
A collective effort
Who is part of the CERCA Centres?

- Government of Catalonia
- Universities
- Enterprises and banks
- Town Halls
- Philantropic foundations
- Others
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Mainly located in Barcelona and Universities Campus
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UAB campus

The scientific policy regarding CERCA centres in Catalonia has been developed under a framework of political consensus and institutional collaboration especially with universities and hospitals, searching win-win synergies for the country.
## Excellence as the basis of their activity

2012 - 2014 Data WoS Thomson Reuters

<table>
<thead>
<tr>
<th></th>
<th>Articles</th>
<th>Highly cited papers</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNRS</td>
<td>101.380</td>
<td>2.461</td>
<td>2.43%</td>
</tr>
<tr>
<td>CSIC</td>
<td>32.486</td>
<td>1.037</td>
<td>3.19%</td>
</tr>
<tr>
<td>Max Planck</td>
<td>30.032</td>
<td>1.342</td>
<td>4.47%</td>
</tr>
<tr>
<td>CERCA</td>
<td>20.263</td>
<td>1.116</td>
<td>5.51%</td>
</tr>
</tbody>
</table>
Good results in the main competitive calls for proposals in Europe

Total: 121 ERCs

- Starting grants (StG) 42
- Advanced grants (AdG) 29
- Consolidator grants (CoG) 22
- Synergy grants (SyG) 2
- Proof of concept grants (PoC) 26
Good results in the main competitive calls for proposals in Europe

H2020 FUNDS ATTRACTED TO CATALONIA SHOW THE COMPETITIVENESS AND EXCELLENCE OF INSTITUTIONS, COMPANIES AND RESEARCHERS

<table>
<thead>
<tr>
<th>Country</th>
<th>Inhabitants (in M)</th>
<th>M€</th>
<th>Funding received per population (ratio)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DENMARK</td>
<td>5.603</td>
<td>230.33</td>
<td>41</td>
</tr>
<tr>
<td>FINLAND</td>
<td>5.427</td>
<td>119.79</td>
<td>37</td>
</tr>
<tr>
<td>AUSTRIA</td>
<td>8.489</td>
<td>265.73</td>
<td>31</td>
</tr>
<tr>
<td>CATALONIA</td>
<td>7.547</td>
<td>226.77</td>
<td>30</td>
</tr>
<tr>
<td>ISRAEL</td>
<td>7.797</td>
<td>154.91</td>
<td>20</td>
</tr>
<tr>
<td>SWITZERLAND</td>
<td>8.037</td>
<td>108.67</td>
<td>14</td>
</tr>
</tbody>
</table>

CATALONIA has attracted 73% more funds from the H2020 than the two first years of the FP7. The two first years of H2020, Catalonia received 226.8 M€. Compared to other countries from the European Research Area (ERA) and with similar population, Catalonia overcomes Israel and Switzerland in absolute figures.

Source: AGAUR from Eurostat 2013 / CERCA 2015
Good results in the main competitive calls for proposals in Europe

EU R&D framework programmes Funds evolution in Catalonia
Million of Euros

FP3 90-94  FP4 94-98  FP5 98-02  FP6 02-06  FP7 07-13
34 79 132 222 992

H2020 14 – 16 (...)*

507
## CERCA Research Centres of Catalonia

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**Companies Investees**

Companies owned by CINNNE or CINNNE Tecnología for industrialization, and market of technologies worldwide.

### 1st Generation (since 1996 to 2010)

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Description</th>
</tr>
</thead>
</table>

### 2nd Generation (after 2011)

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soluciones Integradas de Ingeniería y Gestión Structuralia S.A.</td>
<td>Company founded in 2011 by CINNNE and Teusa (OML). Model Shareholding and licensing of technologies. Company devoted to online learning services for engineers in Spain. This company was sold to KEPLAG Group in 2011.</td>
</tr>
<tr>
<td>Ingenia A.E.</td>
<td>Company founded in 2004 as a cluster between 14 companies with CINNNE. Main CINNNE: Quantech and Compass. Engineering consultancy services and joins the aeronautical sector.</td>
</tr>
</tbody>
</table>

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**Return to the society in the form of companies, products, therapies, knowledge...**
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Research Centres of Catalonia

Fostering excellence in research for the benefit of society

Return to the society in the form of companies, products, therapies, knowledge...

Instrumentation

Radiantis is a state-of-the-art instrumentation providing compact and effective solutions for the diagnosis, manipulation of laser beams for a broad range of applications. Designed for ease of use and simple installation, these systems can be easily interfaced with Radiantis' families of GP0s and diagnostic generators in independence with other lasers and applications.

SeaWave NIR Spectrometer

A top of the range NIR spectrometer, showing the footprint in the market for its cost, the highest acquisition speed (100 spectra/second) and an excellent resolution. Optima for a broad detection range in the NIR 1500nm.

PowerSense Optical Power Meter

An extremely compact, fully-integrated optical power meter incorporating both the detector unit and power metering under the same enclosure. The serial range of power (0.1mW to 1W) is measured with a single display. The meter can be equipped with different power detectors.

Origin Spectrophotometer

Origin is a range of comprising spectrophotometers, extremely compact, robust and easy to use, designed to provide a cost effective solution for spectrophotometry.

Training

- Undergraduates
- Master students
- PhD students
- Postdoctoral researchers
- Complementary training

We pave the way for your research career in Chemistry

ICIQ has a strong commitment to offer training programmes for undergraduates, graduate students and doctoral researchers. We prepare a new generation of researchers with the skills and knowledge needed to tackle the most important challenges in chemical research. We are also eager to prepare graduates and postgraduate students to undertake research careers in chemistry.

News

June 15, 2017
Congratulations Dr. Saharander
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Regular evaluation of its scientific and management activities

Assessment Report on CERCA Research Centres 2012-2013
Executive Summary
Featured sponsorship recipients and from private donors

- Fundació Cellex i Dr. Pere Mir
- Fundació Bill i Melinda Gates
- Fundació Ester Koplowitz
- Pere Balsells
- Fundació La Caixa
- Fundació Josep Carreras
- (...)

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Main issues for the future

BIG Data agreement CERCA / Barcelona Supercomputing Center

Balancing gender issue

BIG Science projects

Opening / closing / merging centres

Growth in KTT

Fund-Raising
A clear vision rigorously implemented without extreme resources allocation and in the short term have driven to the creation of R&D centres able to be competitive at national and international level.

Prof. Andreu Mas-Colell

Minister of Economy and Knowledge of Catalonia (2010-2016)