



UNIVERSITAT ROVIRA I VIRGILI  
Chair for University  
and Knowledge Region

# Meeting of Directors General for Higher Education 16 – 18 October 2016 Bratislava

Contribution of higher education institutions to regional development  
and innovation.

**The case of Universitat Rovira i Virgili, driving force of a *Knowledge  
Region* in Southern Catalonia**

Francesc Xavier Grau

## Contents

- Facts & figures for URV and the region
- URV Mission & Strategy
  - Key elements
  - Achievements
- Some insights from the European Regional Policy. RIS3
- Lessons learned / recommendations

## URV Facts & Figures. Academic year 2015-16

The university tradition in the region dates back to the 16th century.

In December **1991**, the Catalan Parliament approved to divide the University of Barcelona into four independent universities: Universitat de Barcelona, Universitat de Girona, Universitat de Lleida and **Universitat Rovira i Virgili**, which embraces all the higher education institutions of **Southern Catalonia** (the region of Tarragona), with initial campuses in Tarragona and Reus.

Today, URV faculties are located in: Tarragona, Reus, Tortosa, Vila-seca and El Vendrell.

**Students: 13.977**

**Bachelor: 11.500**

**Master: 1.226**

**Doctoral: 1.251**

(32% international students)

**Students L<sup>3</sup>: 3.941**

**Personnel**

**Teaching staff (FTE): 1.154**

**Admin/Services staff: 666**

**Budget (M€): 98,9**

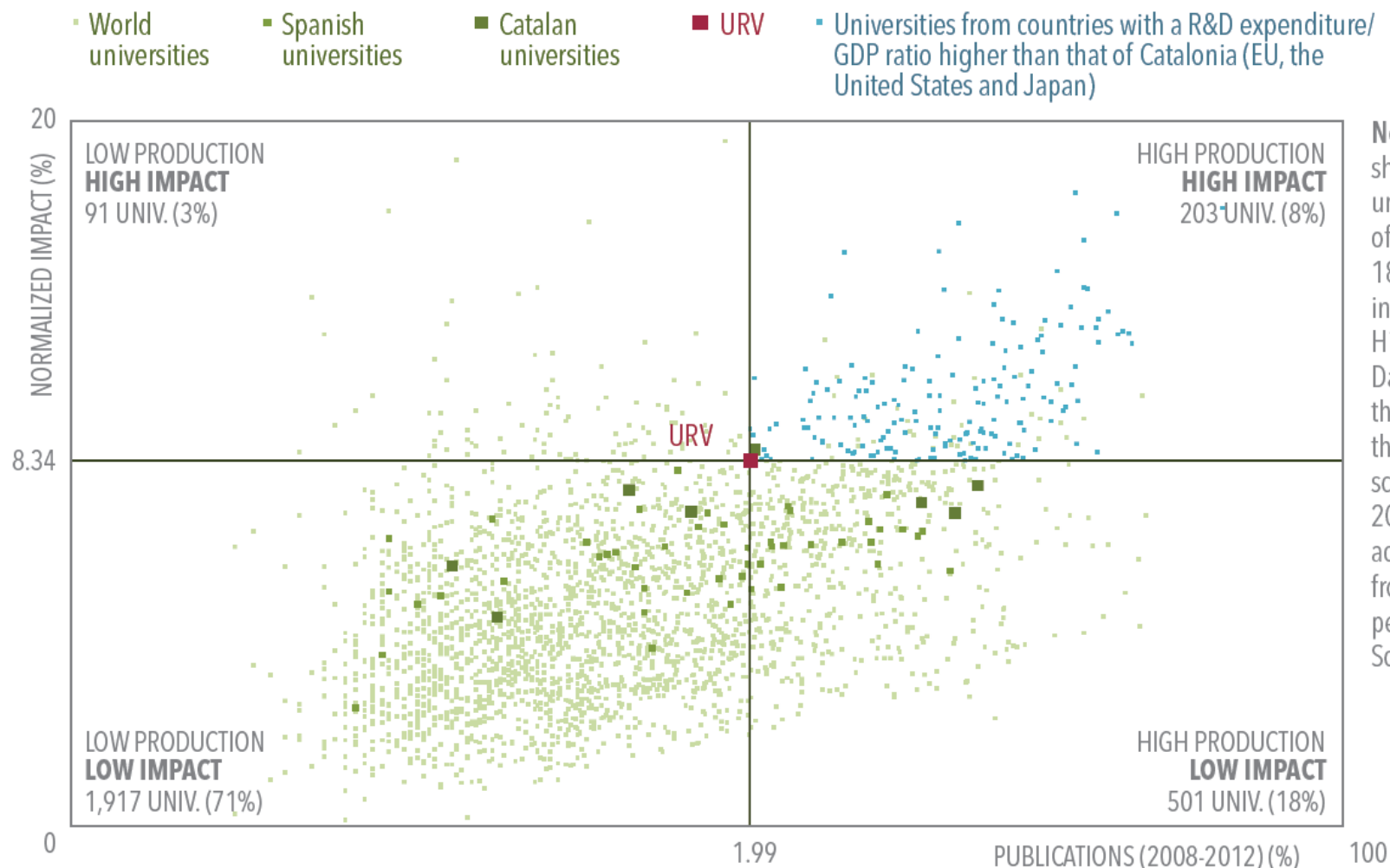
**Theses defended: 191**

**WOS/SCOPUS Pub.: 1.224**

(42% international collaboration)

# URV Scientific Position

## SCIENTIFIC PRODUCTION AND IMPACT



**Note:** This graphic shows the 2,713 universities out of the more than 18,000 universities in the world (World Higher Education Database, 2014) that published more than 100 articles in scientific journals in 2012 and takes into account publications from the 2008-12 period listed in the Scopus database.

Source: SIR 2014

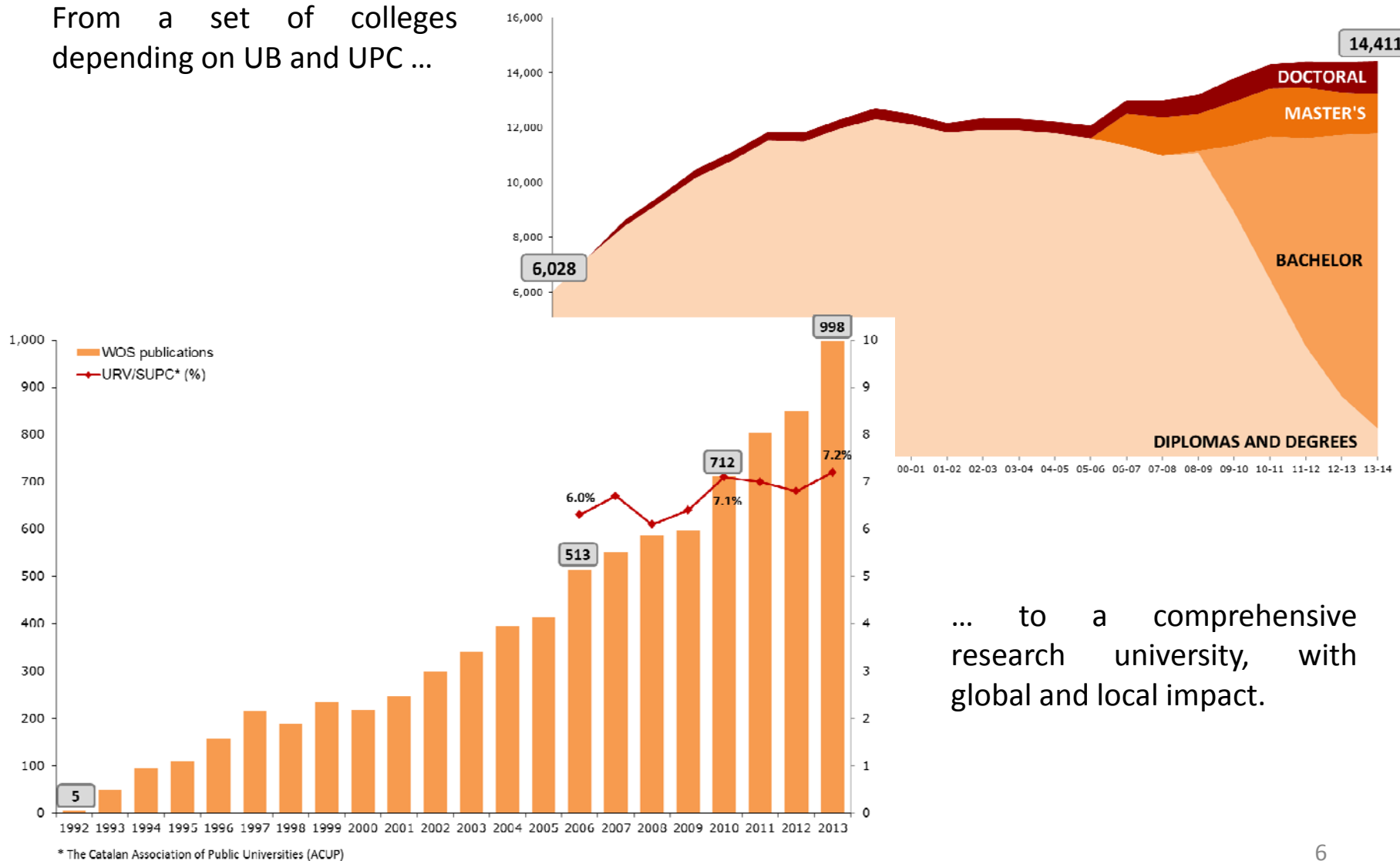
## URV Position in Rankings

### THE URV IN WORLD UNIVERSITY RANKINGS

<b>TIMES HIGHER EDUCATION</b>	<b>RANK</b>
150 UNDER 50 - 2016	83
World University Rankings - 2017	401-500
<b>ACADEMIC RANKING OF WORLD UNIVERSITIES (ARWU) - 2016</b>	
Institutional Ranking	401-500
Subject Ranking - Computer Science	101-150
Subject Ranking - Chemistry	151-200
<b>CWTS LEIDEN RANKING (TOP PP 1%) - 2016</b>	
World	286
Europe	134
Spain	4
<b>UNIVERSITY RANKING BY ACADEMIC PERFORMANCE (URAP) 2015-16</b>	
World Rank	351
<b>MAPPING SCIENTIFIC EXCELLENCE (2008-2012)</b>	
Biochemistry, Genetics and Molecular Biology	478
Chemistry	138
Computer Science	119
Engineering	18
Medicine	762
Physics and Astrophysics	312

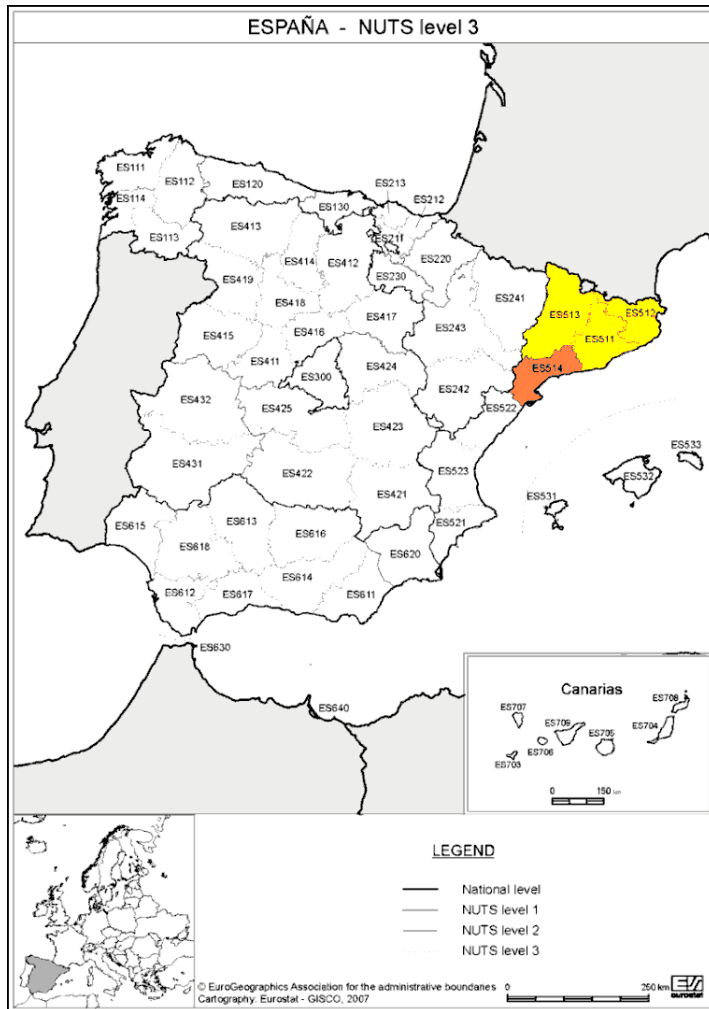
## 25 years of URV: Evolution of annual students & publications

From a set of colleges depending on UB and UPC ...



... to a comprehensive research university, with global and local impact.

## Tarragona – NUTS 3 region with specific strengths



- 10,7 % Population (793.155 )
- 10,4 % GDP (20.674 M€)
- 19,1 % Cultural heritage
- 50 % Chemical industry
- 91 % Energy production
- 25 % Tourist activity
- 60% Wine D.O.

Related to  
Catalonia

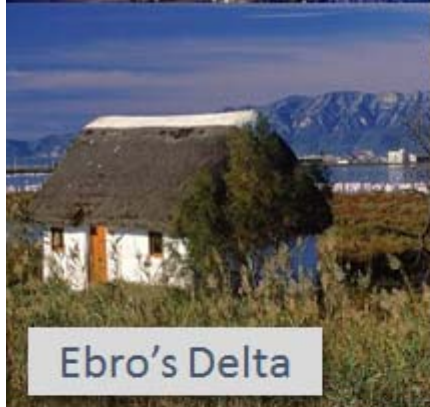
- Ebro's delta, Tarragona's Harbour, Reus Airport, Tarraco World Heritage, 1/3 of nuclear plants in Spain, biggest oil refinery and petrochemical complex in Spain, Port Aventura ...





Oil Refinery &  
petrochemical site

Priorat  
wine,  
among the  
best rated  
in the  
World



Ebro's Delta



Tarraco UNESCO's  
World Heritage



Port Aventura, 6<sup>th</sup> most visited  
European thematic park



Salou – Costa Daurada



2 nuclear  
plants in Ascó



# University Mission

## URV's Statutes

- To improve regional organisation and widen participation in higher education.
- To encourage critical thought, freedom and pluralism.
- To provide life-long quality education and training.
- To generate growth.
- To promote responsible and sustainable human development in southern Catalonia, through independent research and the transmission and application of knowledge.
- To emphasise the universality of knowledge and internationalisation.

“to place knowledge at the service of society so as to contribute to the social and economic development of our environment”

## Vision

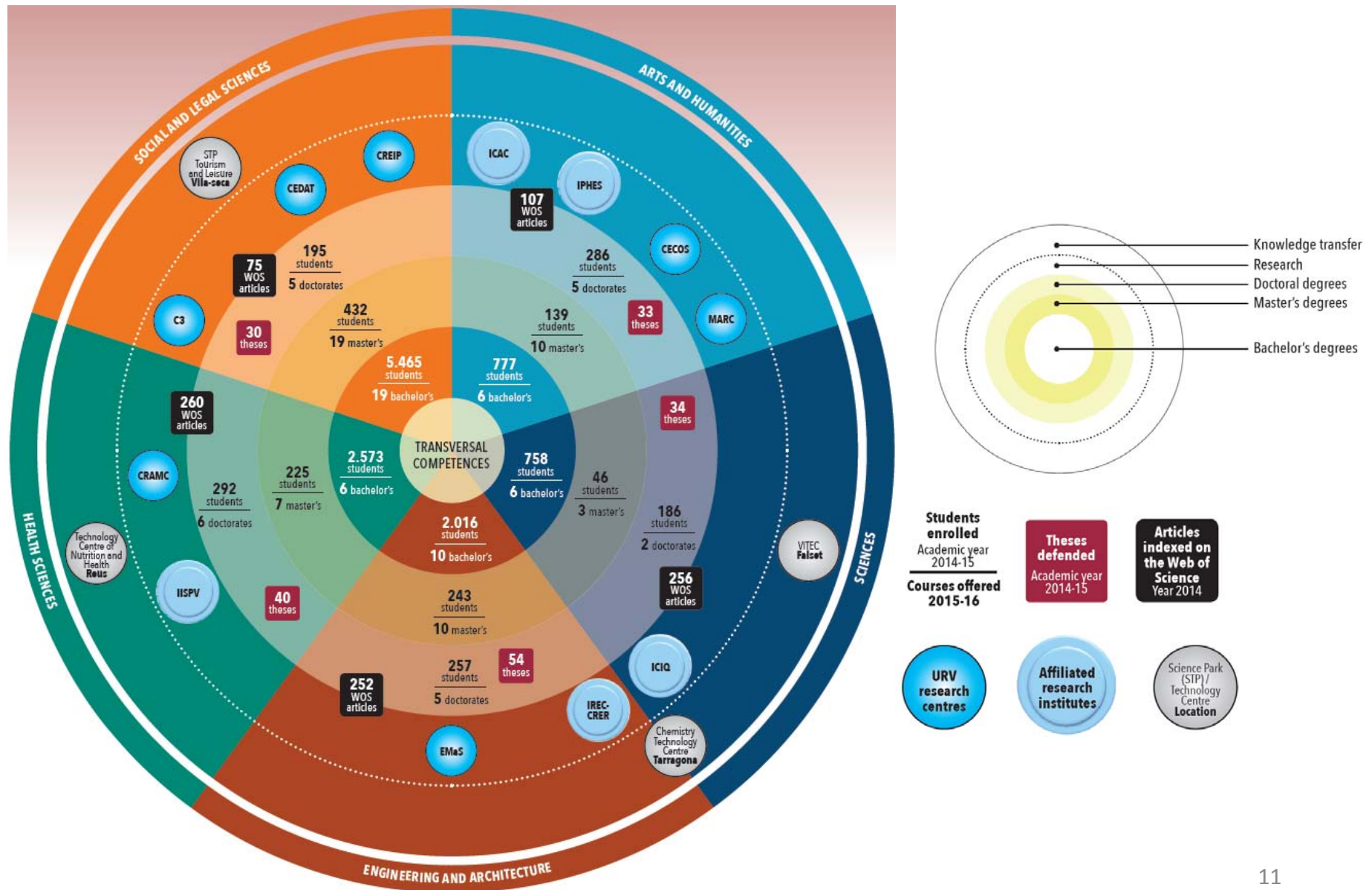
To constitute an international pole of knowledge that, from its strategic position at the meeting of the Mediterranean arch and the Ebro valley and its specialisation in a set of scientific fields, contributes decisively to the involvement of Catalonia and Spain in the cultural, social and economical development of the world .

## Building Blocks

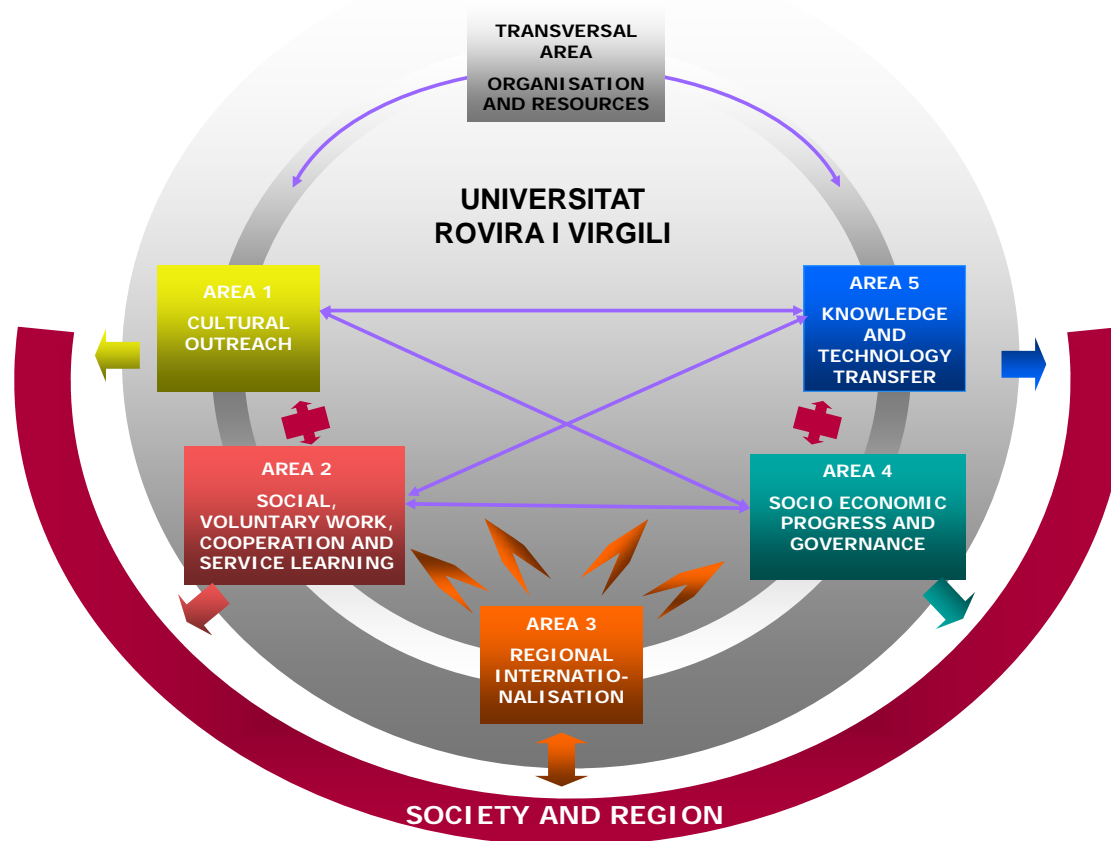
Defined by successive **milestones** during the development of the university's **scientific policy**:

- **Strategic Research Plan** (Senate 2001), which identifies priority areas
    - Chemistry and chemical engineering
    - Classical and prehistoric archaeology
    - Oenology
    - Tourism and leisure
    - Nutrition and health
  - **Strategic Teaching Plan** (Senate 2003)
  - **Postgraduate policy and teaching-research alignment** (Governing Council 2004)
  - **Third Mission and Internationalisation strategic plans** (Senate 2009)
- 
- **Campus of International Excellence Southern Catalonia (CEICS)** (Ministry of Education 2010)

# Alignment of Teaching-Research-Innovation strategies



# Strategic plan for the 3<sup>rd</sup> Mission



3M STRATEGIC PLAN ACHIEVEMENT						
TOTAL	Area 1	Area 2	Area 3	Area 4	Area 5	Trans. Area
53.1%	77%	52%	59%	37%	49%	25%
62.4%	79%	60%	74%	54%	57%	25%
62.3%	61%	60%	77%	58%	60%	25%
69.0%	73%	58%	89%	67%	69%	45%

IMPACT of 3M ACTIVITIES			
Economic	Territorial	Social	
3,657	12.00	3.60	0.90
3,994	14.00	4.40	0.80
3,886	15.00	4.50	0.90
3,950	15.00	3.90	0.80
€/M€ GDP	% municipalities involved	% Population >25 involved	Students LLL % pop (25-65)

# Building of a Campus of International Excellence



The URV and the Southern Catalonia region have set in motion all the elements to develop a regional strategy for smart specialisation.

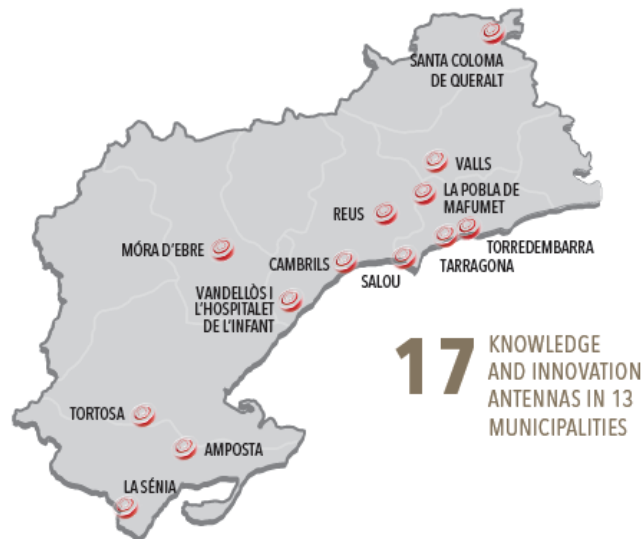
## CAMPUS OF INTERNATIONAL EXCELLENCE SOUTHERN CATALONIA



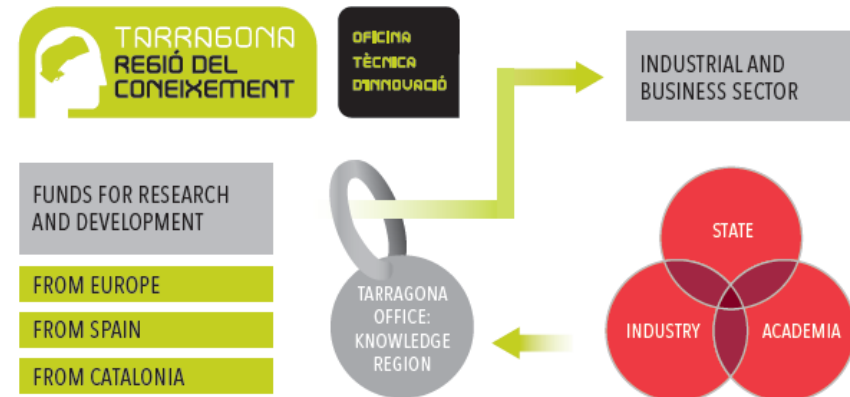


# Building of a Region of Knowledge

## EXTENDED CAMPUS: KNOWLEDGE AND INNOVATION ANTENNAS



## TARRAGONA OFFICE, KNOWLEDGE REGION



\* Joint initiative with Tarragona County Council



CHAMBER OF  
COMMERCE,  
INDUSTRY AND  
NAVIGATION OF  
REUS

CHAMBER OF  
COMMERCE,  
INDUSTRY AND  
NAVIGATION OF  
TARRAGONA

CHAMBER  
OF COMMERCE  
AND INDUSTRY  
OF VALLS

NATIONAL  
WORKERS'  
COMMITTEE  
OF CATALUNYA

GENERAL  
UNION OF  
WORKERS

FARMERS'  
UNION OF  
CATALUNYA

CONFEDERATION  
OF BUSINESSES  
OF THE PROVINCE  
OF TARRAGONA

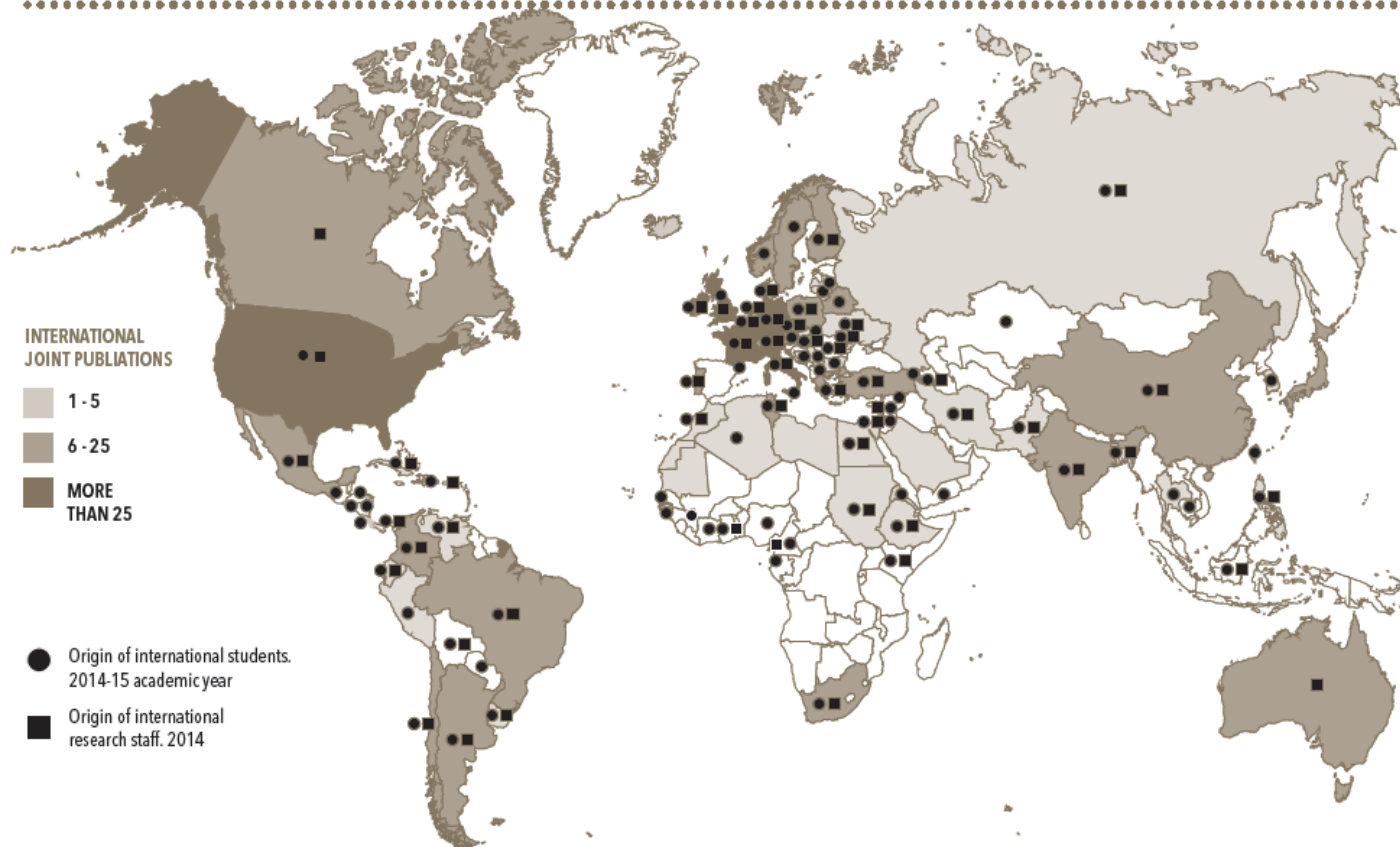
PIMEC,  
SMALL AND  
MEDIUM  
BUSINESSES  
OF CATALUNYA

PORT OF  
TARRAGONA

UNIVERSITAT  
ROVIRA I VIRGILI  
(COORDINATOR)

# Achievements: Academic & Scientific international impact

## INTERNATIONAL DIMENSION



2014: 400 joint publications with international institutions (42% of the scientific production indexed on the Web of Science)

29% of university master's degree students and PhD candidates are international

766 students have participated in mobility programmes

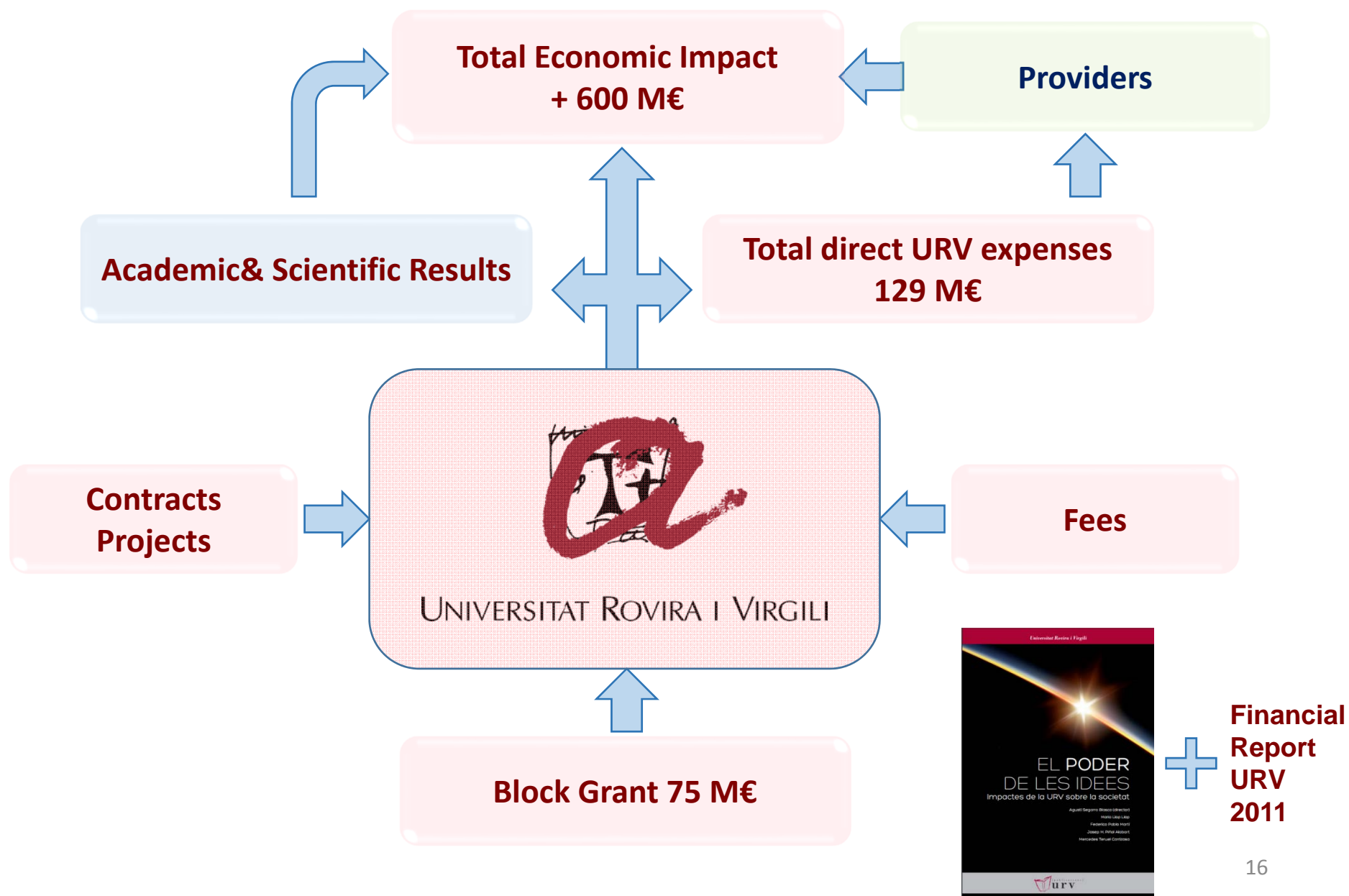
Summer Study Abroad courses made ad hoc for students from Egypt, the United States, Japan, Turkey and China

More than 40 international cooperation projects financed in recent years

## MEMBER OF



## Achievements: Economic impact on the region



## Achievements: An internal structure and organisation to support social engagement

### Social Programmes

- **Extended campus:**
  - 17 knowledge antennas and 22 Open Classrooms for Elderly, in > 20 municipalities:
- URV Citizenship: specific program for people over 55 years of age
- Service-Learning Program
- Extra-mural activities:
  - University Choir
  - URV Choral and Orchestra
  - URV Hiking
  - Theatre, Art, Cinema Groups

### Transfer of Knowledge

- Center for Transfer of Knowledge & Center for Continuous Education (URV Foundation);
- **4 Technological Centers** (URV Priority areas: Nutrition & Health, Chemistry, Tourism, Oenology), supported by URV-F
- 12 University-Industry Chairs (Sustainable Development, Entrepreneurship, Industrial Innovation, Data Privacy, Local and Regional Economy, Local Legal Studies, Environmental Law, Social Inclusion...)
- Tarragona Region of Knowledge Office (Support to industries to raise funds for research)

All activities are included, and valued, in the **Academic Staff Commitment Agreement**

## Achievements: A specialized and “close to Industry” Transfer of Knowledge organization





## Achievements: the emergence of RIS3 in Southern Catalonia

**ERDF CATALONIA (2014-2020) 808.400.000 €**

**RIS3-CAT 172.000.000 €**

**Priority Axes 4 & 6: 60.000.000€**

**Call 2016 ..... 45.000.000 €**

Axis 4: Low carbon economy (energy efficiency) ..... 10.500.000 €

Axis 6: Environment and Cultural heritage related to tourism.... 34.500.000 €

**RIS3: 112.000.000 €**

**RIS3CAT ..... 72.000.000 €**

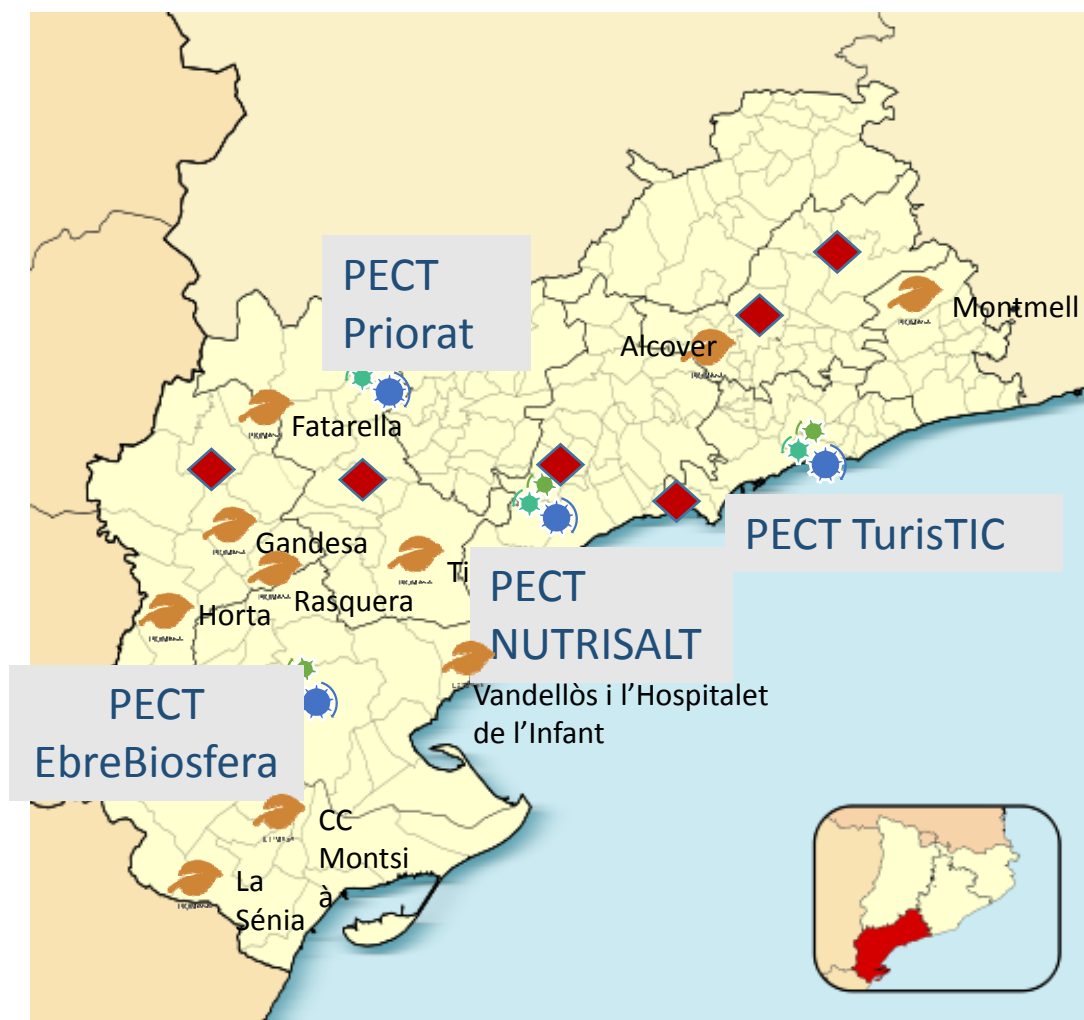
PECT Call 2016 ..... 50.000.000 €

✓ *Metropolitan BCN* ..... 20.000.000 €

✓ *Rest of Catalonia* ..... 30.000.000 €

**RIS3BCN ..... 40.000.000 €**

# Achievements: the emergence of RIS3 in Southern Catalonia



PECT

- **PECT EbreBiosfera.** 4 counties. Leader: County of Baix Ebre
- **PECT Turisme.** Leader: Provincial Council (Tarragona)
- **PECT Priorat.** Leader: County of Priorat
- **PECT NUTRISALT.** Leader : Reus



Axis 4

BIOMASA

**Biomass.** Leader: Provincial Council (Tarragona).

- **Efficiency in Public Lighting.** Leader: County of Montsià



Axis 6

- **Ebre i GR99.** Leader: County of La Ribera d'Ebre
- **Terra Alta.** Leader: County of Terra Alta
- **Valls.** Leader: City of Valls
- **Alt Camp.** Leader: County of Alt Camp
- **Escornalbou.** Leader: Provincial Council
- **Vila-seca.** Leader: City of Vila-seca

## Achievements: the emergence of RIS3 in Southern Catalonia

### EXAMPLE: TURISTIC

Projects	Responsible
1. Coordination	Prov. Council (PC)
2. TDS 2 +	PC - Tourism
3. Sustainable Mobility	TSMC
4. TurisTIC Platforms	PCTT (URV)
5. Cultural Heritage	PC - Tourism
6. Mamut	IPHES (URV)
7. History makes tourism	Montblanc
8. Innovative beach	PC - Tourism
9. Vineyards in family	PC - Tourism
10. Discovery space	PC
11. Habitat Laboratory	CENFIM
12. Healthy meals	Dept. Med. URV

- Governance:
  - ✓ **PC– PC-Tourism- PCTT (URV)**
  - ✓ **quadruple helix – engage society**
- Objectives:
  - ✓ **Economic transformation of touristic activity: develop the Familiar Tourism.**
  - ✓ **Develop and apply new knowledge and technology into the Familiar Tourism sector.**
- Period: **01/01/2017 a 31/12/2020**
- Amount: **5.000.000 €**

## Difficulties to overcome

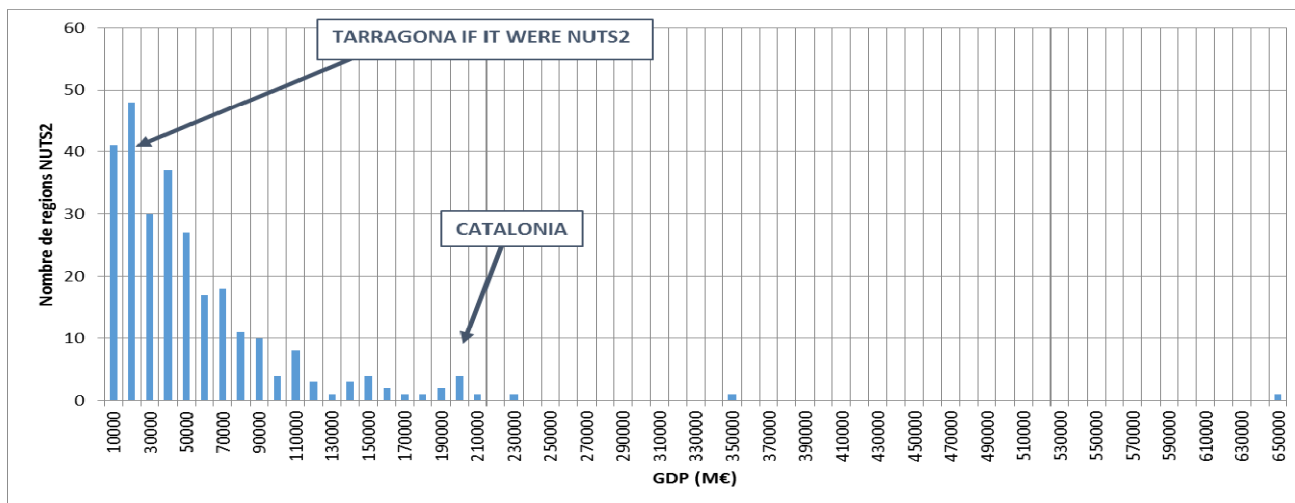
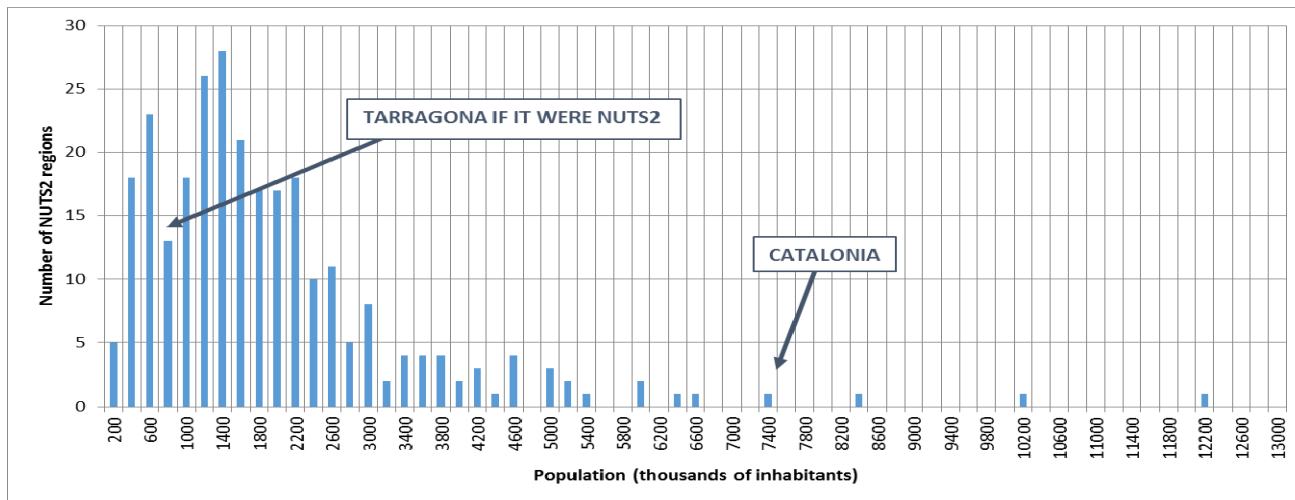
### Internal to URV

- Promotion of Academic Staff driven by criteria external to URV, homogeneous to all Spanish universities
- Salaries established also by law, common to all Spanish universities
- ⇒ Difficulties in establishing incentives and recognition schemes (Overcome partially by the Academic Staff Commitment Agreement)

### For Southern Catalonia

- Diversity of economical sectors that compete for resources (land, water, air... Chemistry, Tourism, Viticulture..)
- **Absence of regional governance**
  - Fragmentation (Twin cities, no supra-municipal structure, too many municipalities, counties, ...)
  - **No competencies in Planning & Development:** need for a new legal framework → Agreement with Government of Catalonia → Catalan Parliament
- **Catalonia** has not a regional policy and is **too big** to act as a **NUTS2 region** (and has a BCN-centric behaviour)

## Catalonia: too big for a NUTS2; Tarragona: a NUTS3 with NUTS2 characteristics

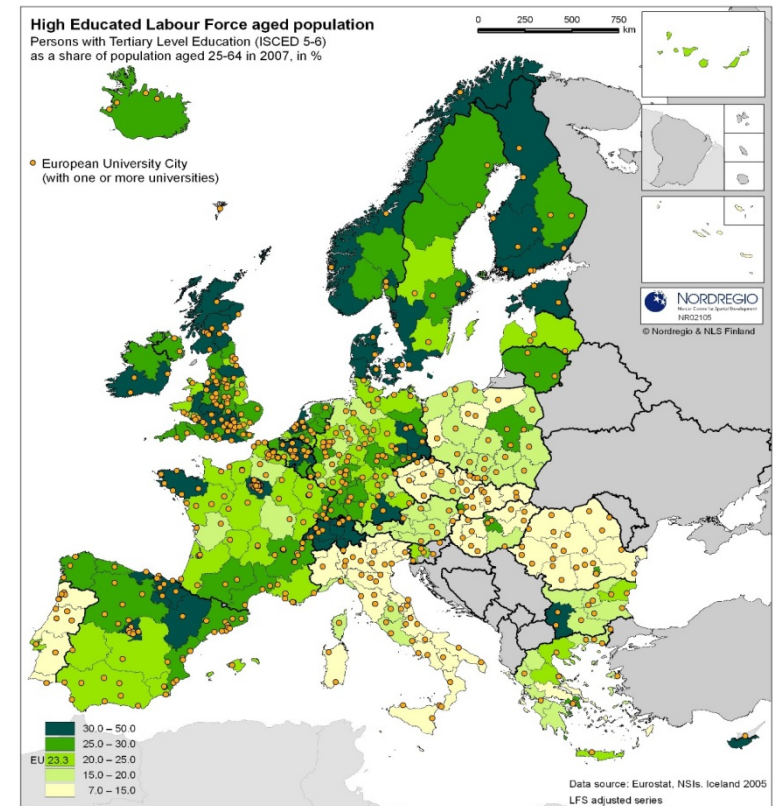






## Regions, Cohesion and Universities?

- **Regional differences** in KPI do not seem to diminish. Internal migration of talent doesn't help.
- Universities directly involved in two of the five objectives of Europe 2020, and indirectly in all. **The research university, is the core of knowledge of a region**
- **Retaining talent**, key to a more harmonious development: attractiveness of the regions for new investments and more knowledge-based companies
- Directing cohesion funds towards sustainable and smart growth (**RIS3**) an **excellent initiative**. Regional policies still too distant of university systems.
- **U-turn**: Need to develop policies with direct participation of universities, which should be engaged in, and with, the regional strategy



## Recommendations: How EU policies can help HE's increase their contribution to regional development and innovation.

- 276 NUTS2 regions (from pop. 10 M to 10 k, mean 1.5 M) following RIS3 : **Introduce the requirement of engagement of (at least) a Research University** to apply for structural funds oriented to innovation and economic development
- **Horizon 2020:** Introduce the **value of regional impact assessment as additional criteria**: look for synergies with Structural funds
- Follow the recommendations of the Final report of the Expert group (SEG): Synergies between FP7, the Competitiveness and Innovation Framework Program and the Cohesion Policy Funds:
  - Future national/regional Operational Programs related to RTDI, especially in convergence regions, should have a clear orientation on:
  - Promoting local-global connectedness;
  - Enhancing cooperation between academia and industry focused on the support of clusters;
  - Improving and developing capabilities and skills for research, innovation and entrepreneurship as well as giving high priority to the advancement of vocational training,
  - Promoting the modernization of universities and research and technology organizations, including professionalization of human resource development for research, upgrading and renewing advanced research equipment;
  - Including Research Infrastructures and Regional Partner Facilities in the regional development strategies.

# Thank you for your attention

(francescxavier.grau@urv.cat)



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