



# University as a Driver of Regional Socio-Economic Development

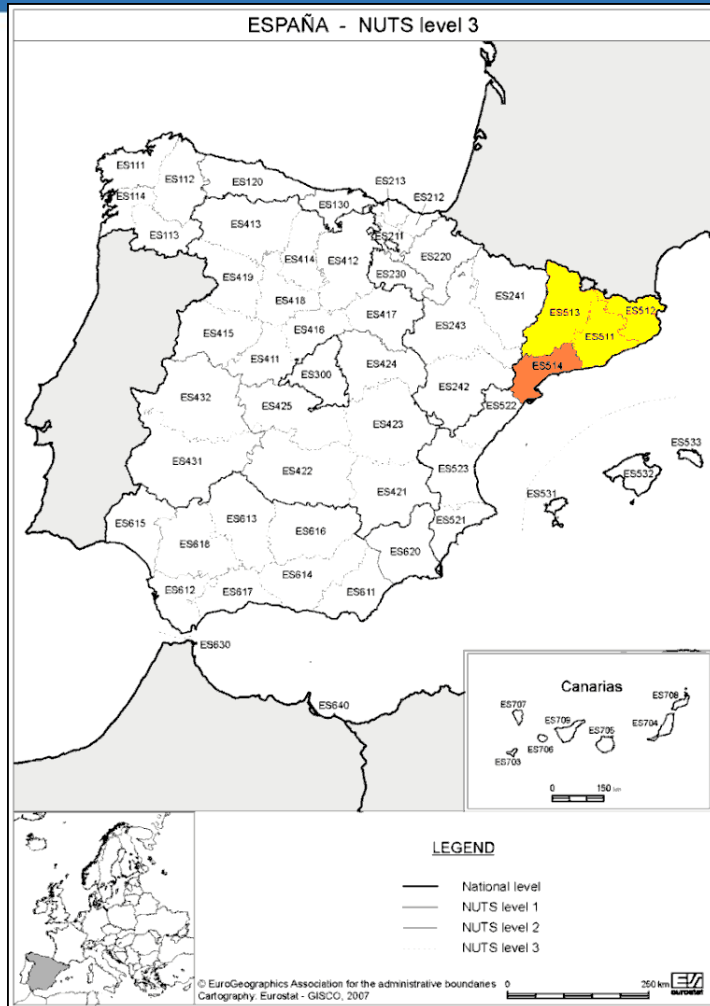
**ASSESSING THE REGIONAL INNOVATION IMPACT OF UNIVERSITIES**

**The case of Universitat Rovira i Virgili and Southern Catalonia**

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Secretary for Universities and Research  
Ministry of Business and Knowledge  
Government of Catalonia - Spain**

June 18th 2019  
Bucharest, Romania

# Southern Catalonia (Tarragona), a 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 ...



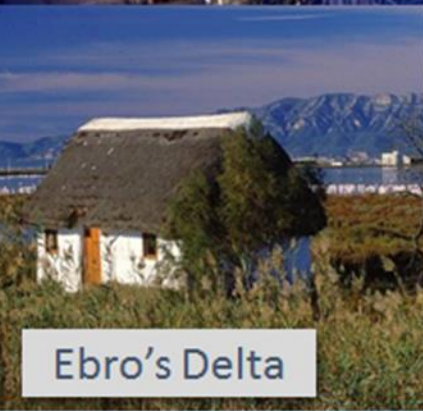


Oil Refinery & petrochemical site

Priorat wine, among the best rated in the World



The Wine Advocate  
**100**



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



# URV Facts & Figures. Academic year 2017-18

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: 13.701**

**Bachelor: 11.141**

**Master: 1.358**

**Doctoral: 1.202**

(32% international students)

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**Students L<sup>3</sup>: 4.348**

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## **Personnel**

**Teaching staff (FTE): 1.146**

**Admin/Services staff: 704**

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**Budget (M€): 103,2**

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**Theses defended: 234**

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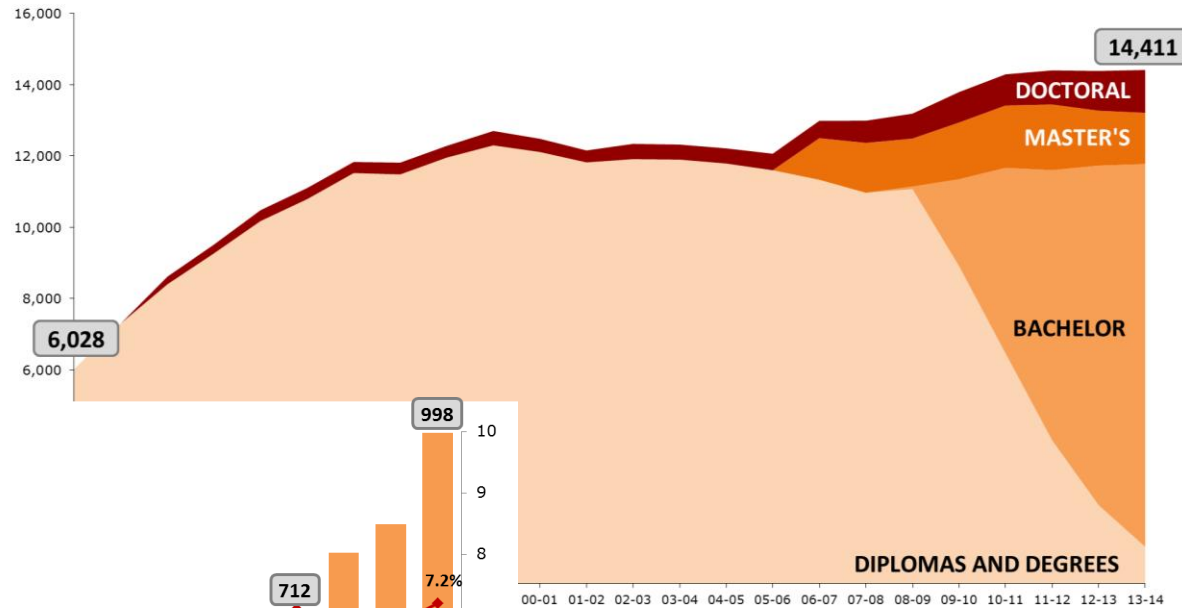
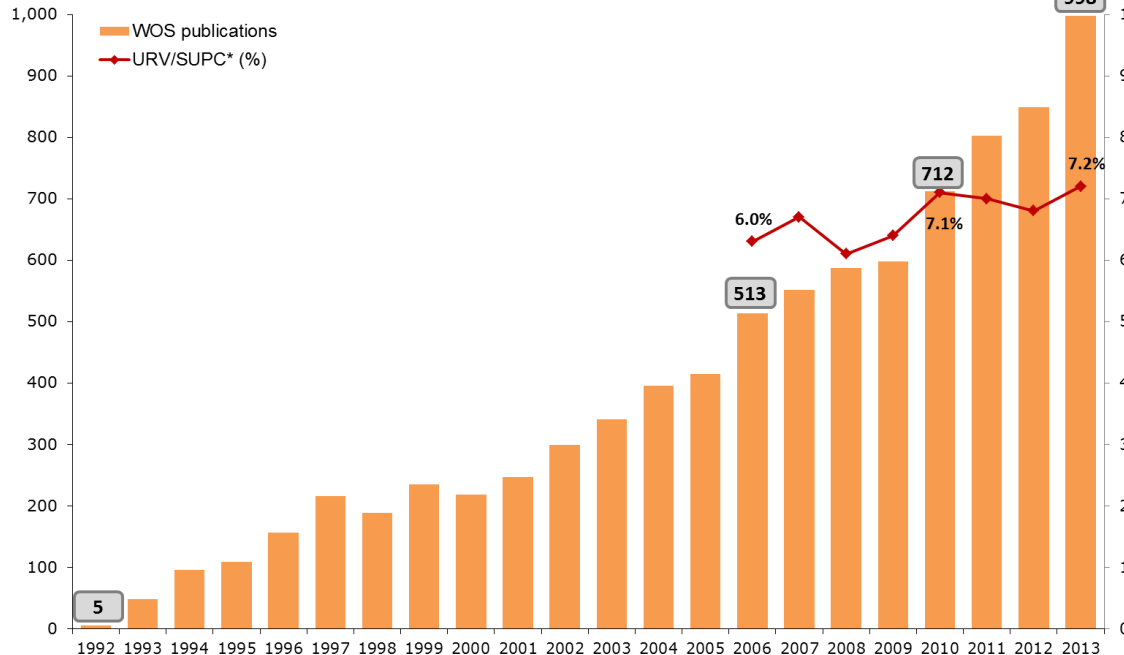
**WOS/SCOPUS Pub.: 1.313**

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(42% international collaboration)<sup>4</sup>

# 28 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.

\* The Catalan Association of Public Universities (ACUP)

# URV Position in Rankings

## THE URV IN WORLD UNIVERSITY RANKINGS

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

The **U-Ranking 2019 (Synthetic Indicators of Spanish Universities, 7<sup>th</sup> edition)** ranks universities according to **teaching, research & innovation and technological development**, offering a classification of institutions for each area and for all university activities. (Released, April, 25, 2019)

Ranking	Index	University	
1	1.7	Universitat Pompeu Fabra	●
2	1.5	Universidad Carlos III	
3	1.4	Universitat Politècnica de Catalunya	●
3	1.4	Universitat Politècnica de València	
4	1.3	Universidad Autónoma de Madrid	
4	1.3	Universidad de Cantabria	
4	1.3	Universitat Autònoma de Barcelona	●
4	1.3	Universitat de Barcelona	●
4	1.3	Universitat Rovira i Virgili	●
5	1.2	U. de Santiago de Compostela	

● Catalanian university



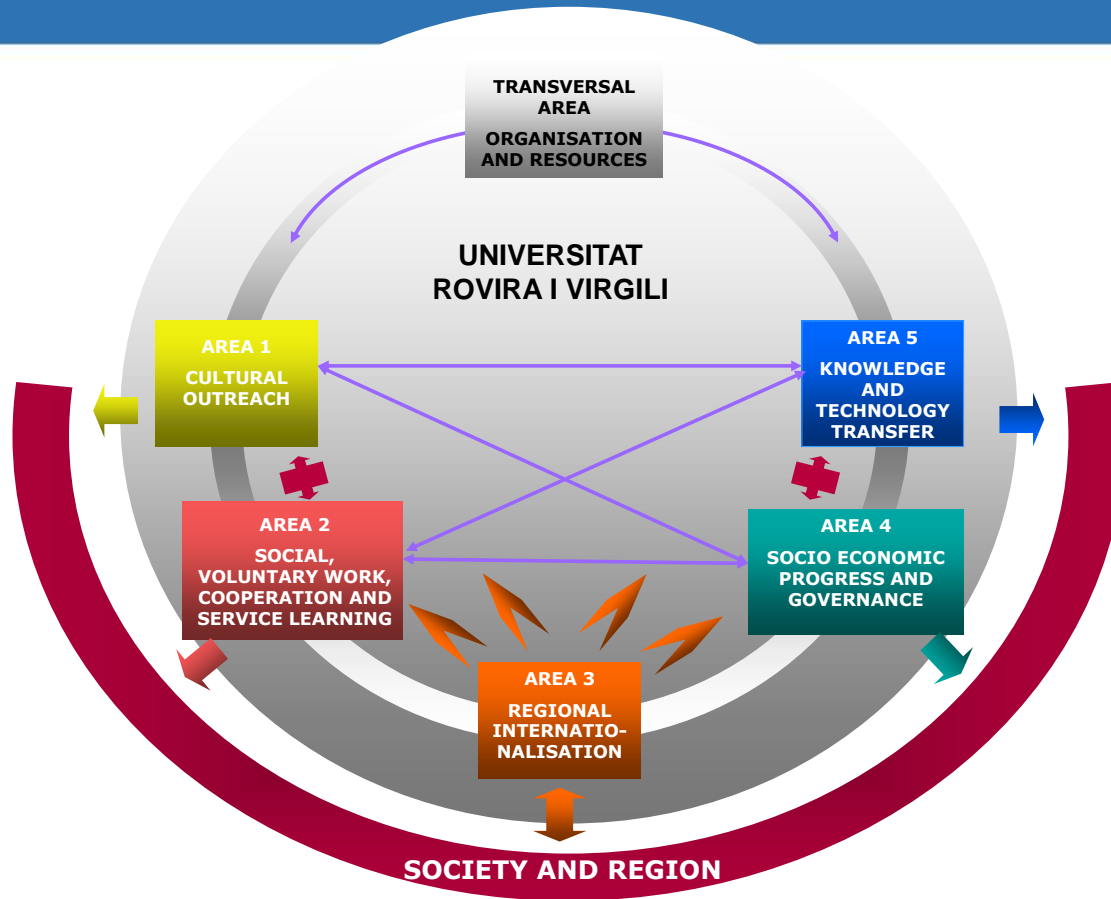
**Indicadores Sintéticos de las Universidades Españolas**

# Building Blocks for a local-global strategy

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)

# Strategic plan for the 3rd 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
2009	3,657	12.00	3.60
2010	3,994	14.00	4.40
2011	3,886	15.00	4.50
2012	3,950	15.00	3.90

€/M€ GDP

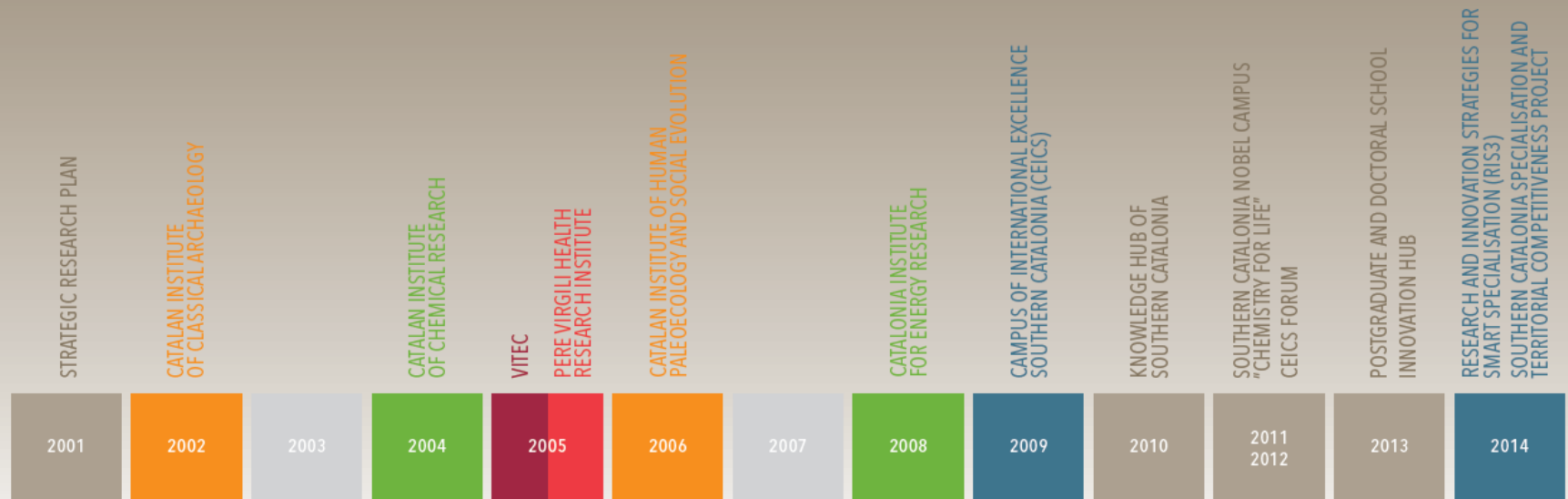
% municipalities involved

% Population >25 involved

Students LLL % pop (25-65)

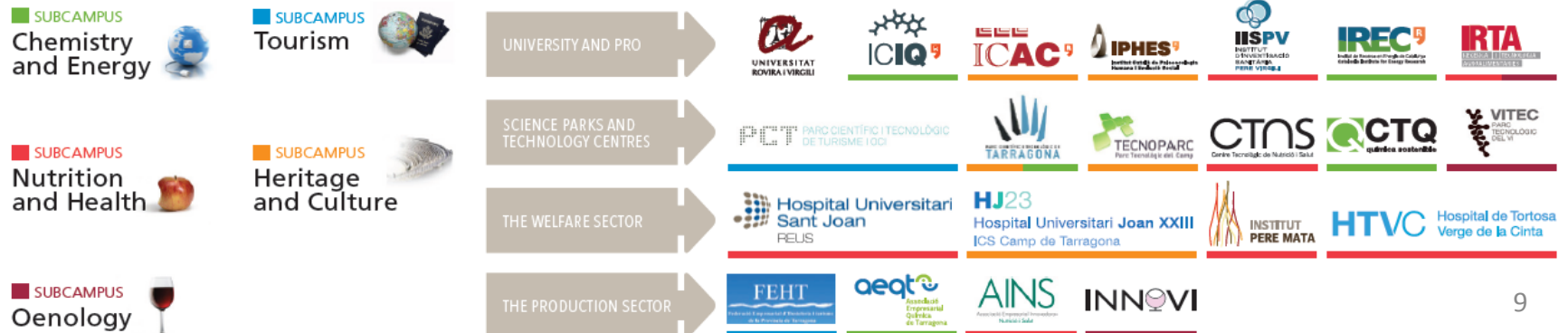


# Building of a Campus of International Excellence: Research and innovation environment



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

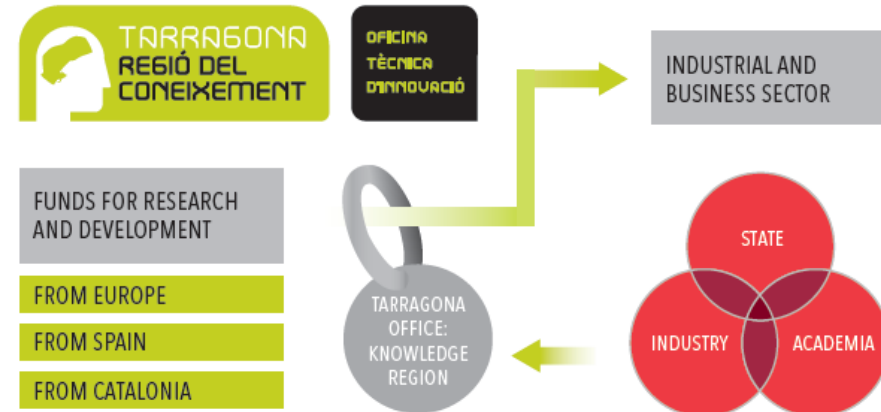


# Building of a Region of Knowledge: Social and economic alliances

## EXTENDED CAMPUS: KNOWLEDGE AND INNOVATION ANTENNAS



## TARRAGONA OFFICE, KNOWLEDGE REGION

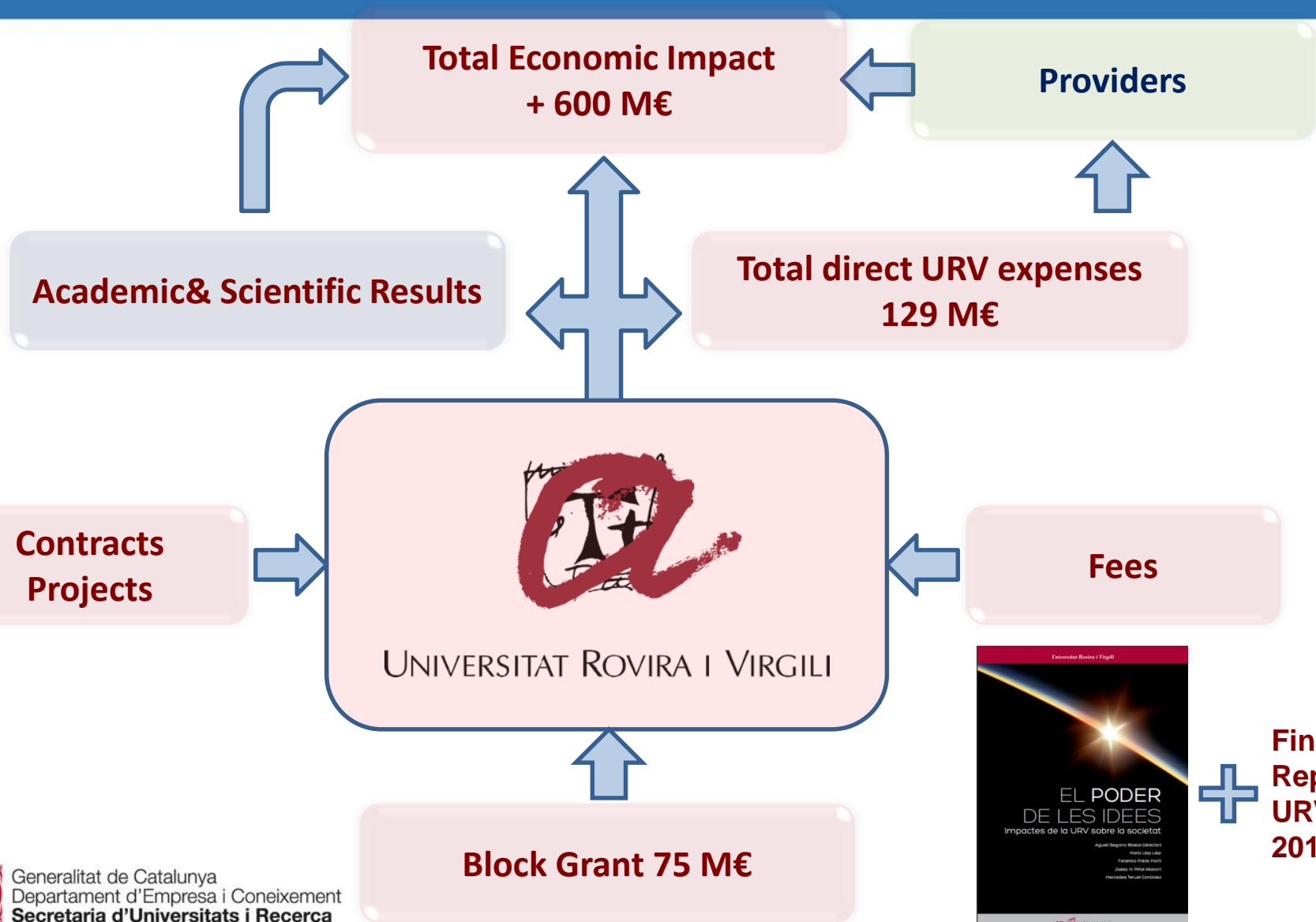


\* Joint initiative with Tarragona County Council

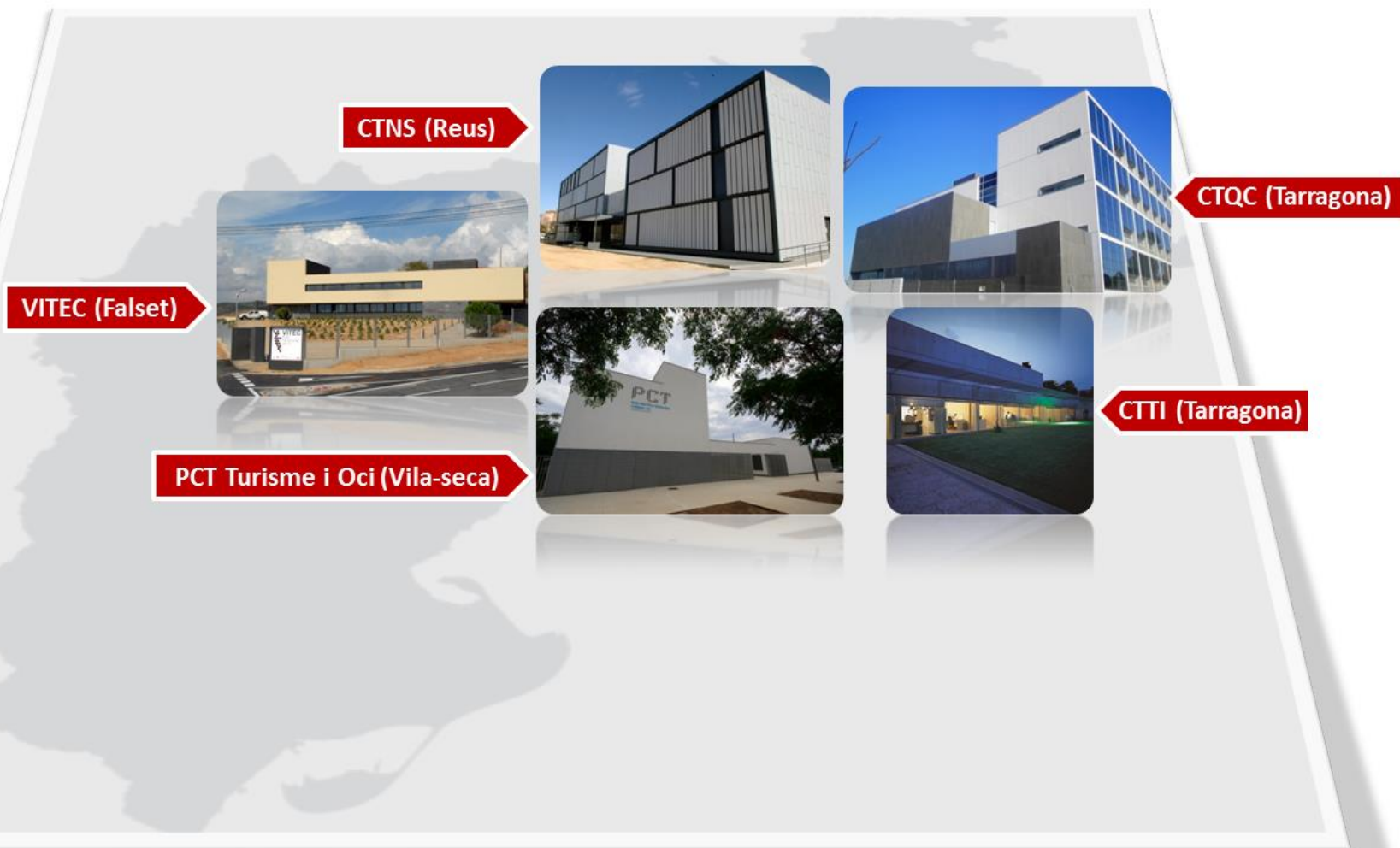


- CHAMBER OF COMMERCE, INDUSTRY AND NAVIGATION OF REUS
- CHAMBER OF COMMERCE, INDUSTRY AND NAVIGATION OF TARRAGONA
- CHAMBER OF COMMERCE AND INDUSTRY OF VALLS
- NATIONAL WORKERS' COMMITTEE OF CATALONIA
- GENERAL UNION OF WORKERS
- FARMERS' UNION OF CATALONIA
- CONFEDERATION OF BUSINESSES OF THE PROVINCE OF TARRAGONA
- PIMEC, SMALL AND MEDIUM BUSINESSES OF CATALONIA
- PORT OF TARRAGONA
- UNIVERSITAT ROVIRA I VIRGILI (COORDINATOR)

# Achievements: Economic impact on the region



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





# 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



BIOMASA

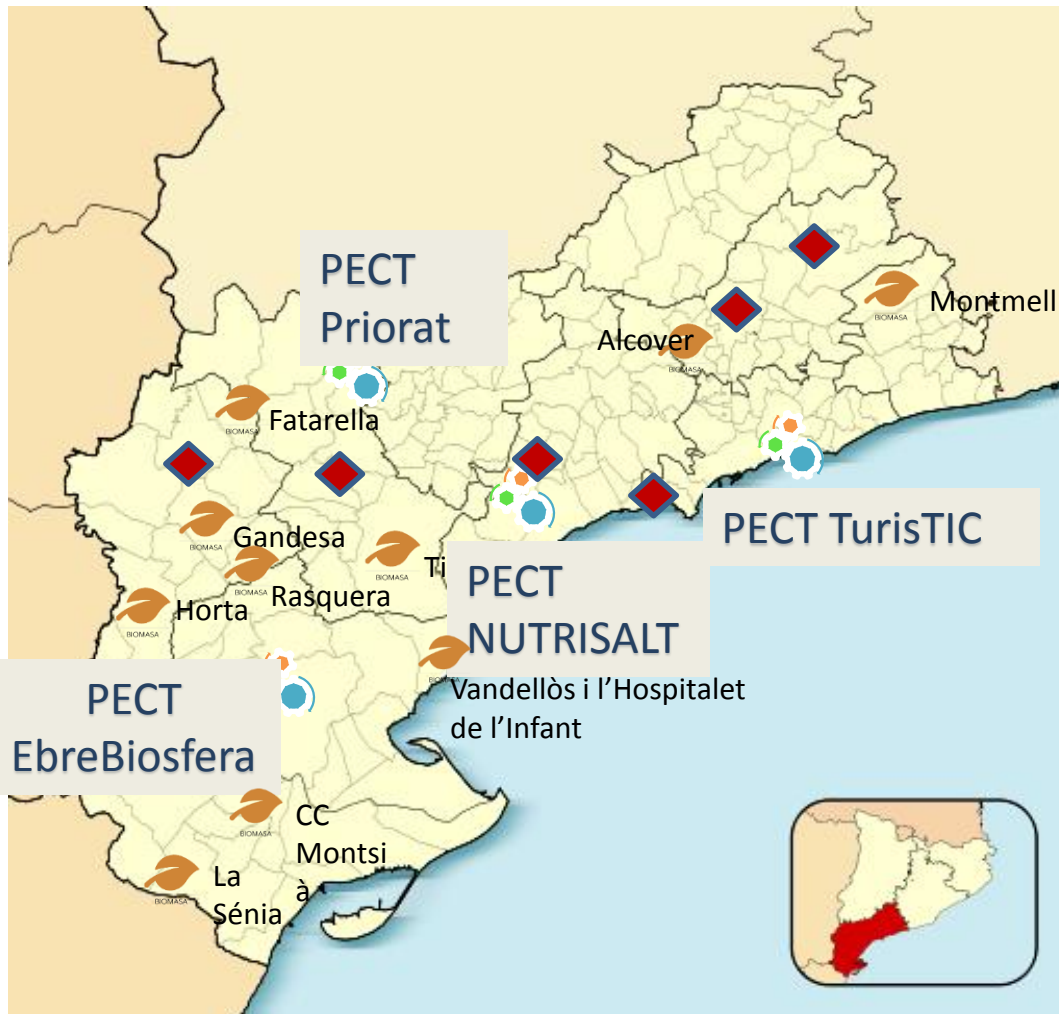
Axis 4

- **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





Generalitat de Catalunya  
Departament d'Empresa i Coneixement  
**Secretaria d'Universitats i Recerca**

# Recommendations (from EU RIS3 and URV experience): How HE's can 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
- Introduce some **economic/demographic** min-max criteria for developing a single RIS3 strategy

**Horizon Europe:** Introduce the **value of regional impact assessment as additional criteria:** look for synergies with Structural funds

# Recommendations (from EU RIS3 and URV experience): How HE's can increase their contribution to regional development and innovation

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:

- Promoting local-global connectedness;
- Enhancing cooperation academia-industry focused on the support of clusters;
- Improving and developing capabilities and skills for research, innovation and entrepreneurship + 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.



## Support slides (if needed during discussion)

**“University as a Driver of Regional Socio-Economic Development -  
University-Industry Cluster Development in Southern Catalonia”**

Francesc Xavier Grau

# 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

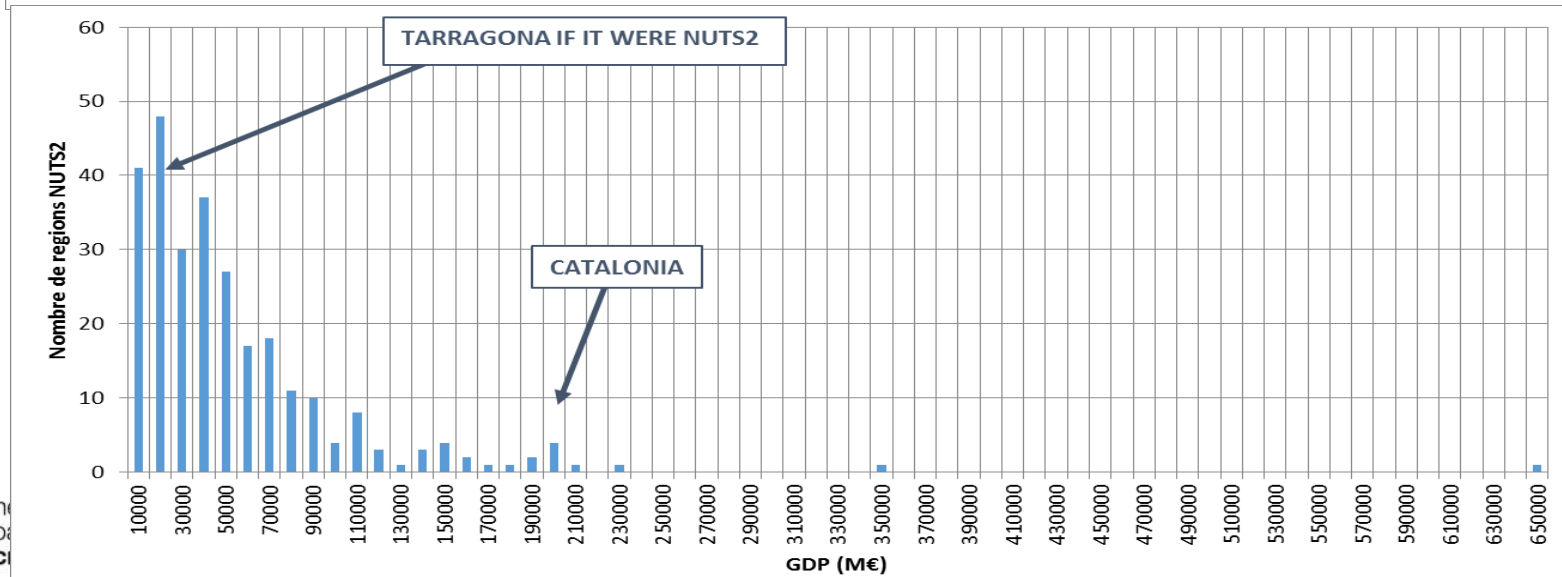
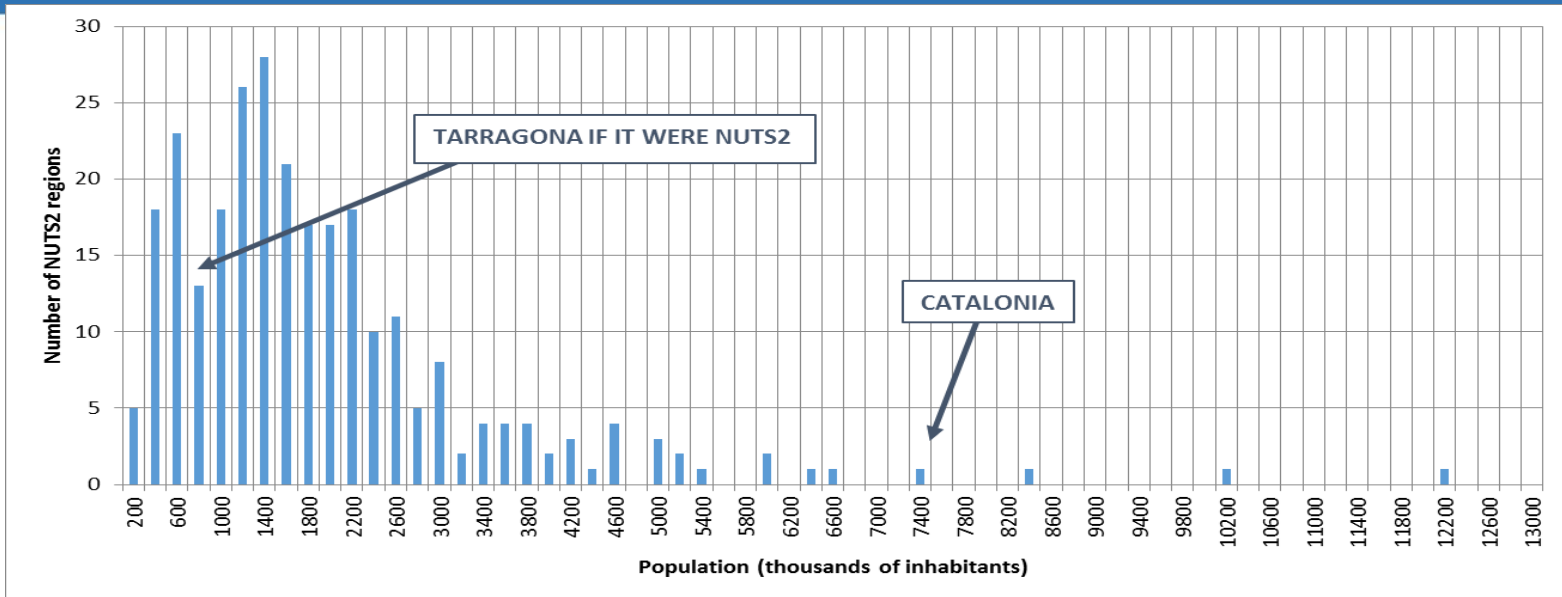
## Internal to URV

- 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





# URV Chair “University and Region of Knowledge”

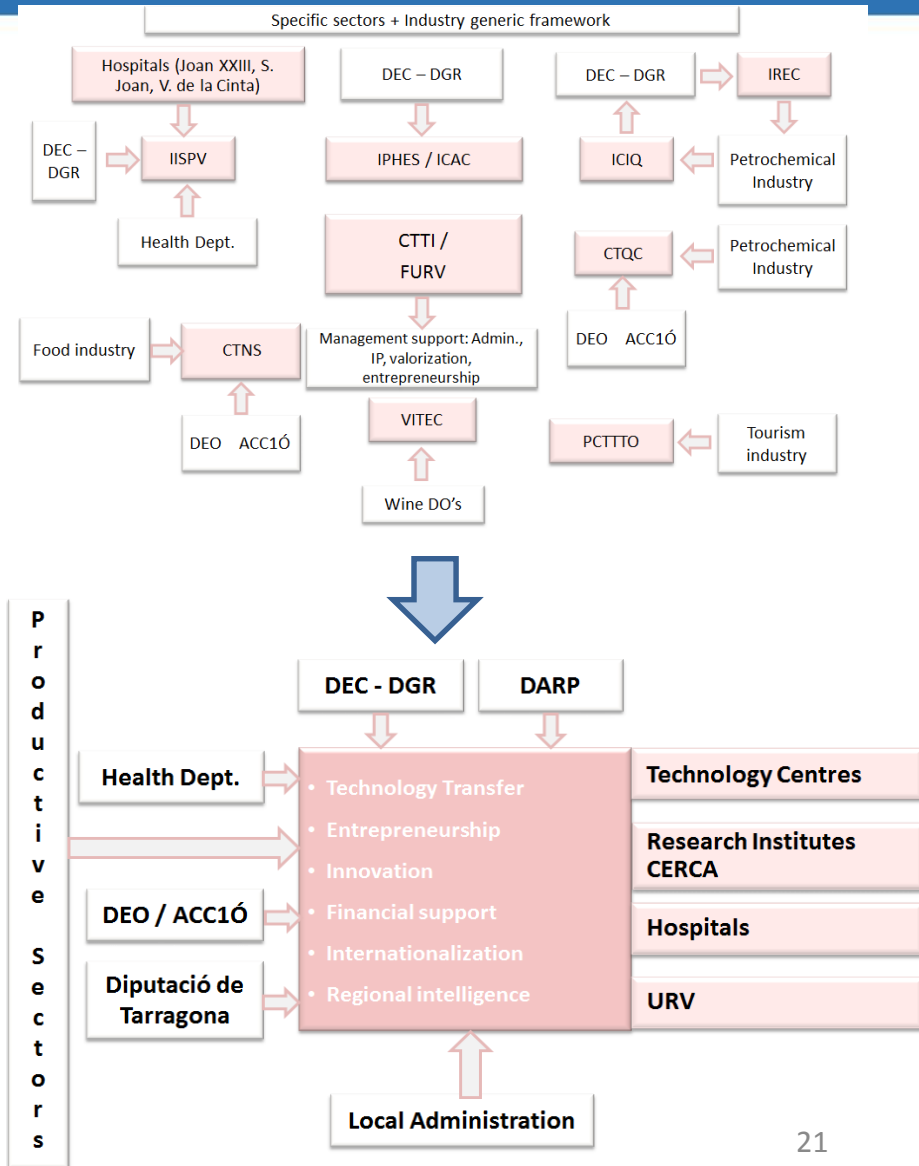
## Mission:

To promote the dissemination of specialized knowledge related to regional development linked to the university’s activity and to accompany the university in its regional smart specialization action, aimed at improving the welfare of citizens.

To facilitate and to contribute to the organization of a governance system for Southern Catalonia as a Region of Knowledge

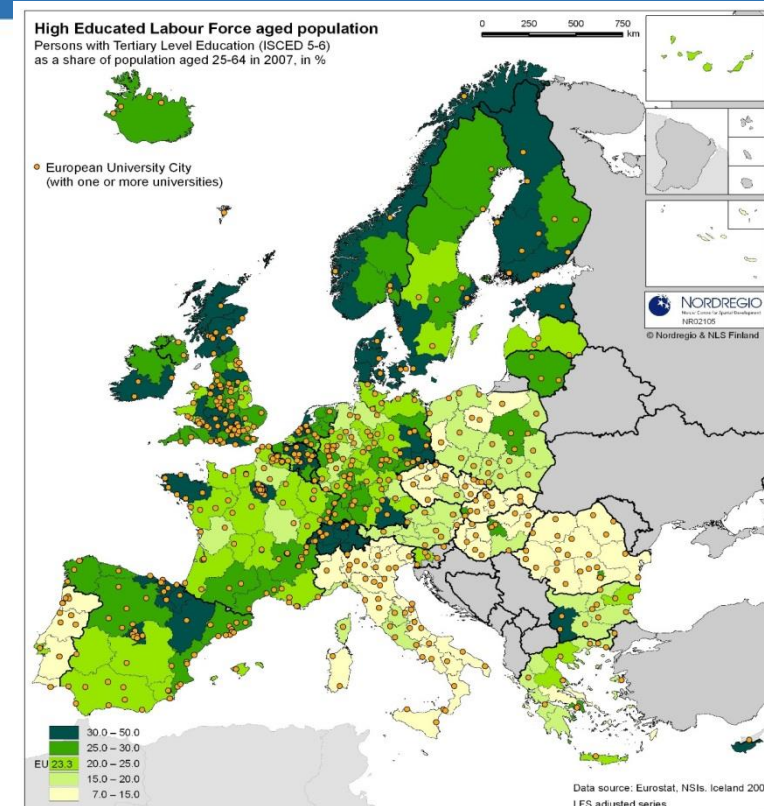
Regional Planning

Regional Development



# 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



# Higher education system in Catalonia

- 12 universities
- 265,000 students (54.1% women)
- 19,800 faculty and researchers

