RIS3: The Spanish Case Study

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EUA RIS3 Workshop
Universities in regional innovation ecosystems: coherent policies for Europe beyond 2020

University of Tartu, Estonia, October 17th 2017
Basic Facts

Population: 46.77 million
Area: 505,940 km²
GDP per capita: €23,200 (Spain) €25,000 (European average)

R&D investment: 1.22% GDP (Spain 2015) 1.4% GDP (Spain 2010, -22%) – COTEC 2017
UE-28: 1.95 GDP%; OECD: 2.4% GDP (2015)

Strengths

• High number of qualified graduates

• Clusters of regional excellence - Campus de excelencia (Universities involvement in regional development)

• A highly qualified scientific and technological system.

• A large experience in cross-border programs.

• Good results in European projects participation (H2020, ERC, Marie Curie, etc.)

• Very attractive country for students’ mobility

Weaknesses

• Severe economic crisis (with fiscal and salary adjustments)

• High unemployment rate (20.9% general, 12.5% population with high education studies) (Source: INE 2015)

• Moderate GDP growth (below 3%, FMI 2016)

• Brain drain (7.8% of university graduates in 2009/10 were working abroad in 2014 - INE 2015)

• High percentage of micro companies (Spain: 94.1%, Germany: 81.8%, UK: 89.5%)

• Low investment and participation of the private/industry sector in R&D&I

• High level of public debt

• Low number of researchers/1000 employed people (6.61 vs 7.87 UE 2015)

• Slow rate of economic recovery (Bloomberg, El Economista, 2013):
  • Low attention to R&D&I
  • Difficult access to financing
  • Rigid labour relations and excessive bureaucracy.
RIS3 - The Spanish Case Study | Spanish Higher Education System

MAPA DE UNIVERSIDADES ESPAÑOLAS

Source: Contribución económica del SUE 2012 – Ministry of Education, Culture and Sports and IVIE - Datos y Cifras MECD. 2015-2016

50 Public -34 Private
2015-16: 1.500.000 students
140.000 graduates

Universities and Scientific Production
65 % of the Spanish scientific production
#10 World    #5 Europe

• Over 40% of entrepreneurs come from university (GEM2015)
• H2020 – 4th position return raised 9,8% 2014/2016
• Universities 19,5% (2nd after enterprises)

23,3%
Spanish economy growth

Spanish University System | 2,5 € Spanish society

For every euro destined
RIS3 - The Spanish Case Study | About RIS3 in Spain

Spain is divided into 17 regions/autonomous communities
Universities are a competence of regional governments.

However,
Research and innovation are, essentially, a competence of the central government (except in the Basque Country)

Multiple systems/regions coexist in the country, and they are very asymmetric.
The relationship between universities and their regional governments strongly influence the different university policies

Therefore, the degree of involvement of universities in RIS·3 in Spain is heterogeneous

The Spanish Secretary of State for Research, Development and Innovation has tried to perform an exercise of coordination between Spanish Central Administration (AGE) and Autonomous Regions (CCAA), thus:
- The priorities of the various regional RIS3 usually fall into the priorities of the “national strategic plans”.
- Most of these priorities appear in the whole RIS3 Strategies

Source: Crue-CPU-EUA workshop Nov.2015. Presentation Carmen Vela, Secretary of State for Research, Development and Innovation

Universities “feel” that, although the Spanish Central Administration has tried to coordinate the RIS3 process, more efforts could have been done to promote universities’ participation

Crue Spanish Universities pushed for the competent authorities to insist to regional authorities about the importance of university participation
RIS3 - The Spanish Case Study | CRUE – EUA collaboration in the RIS3 Strategy

Expert Group on Research and Innovation Strategies for Smart Specialisation (RIS3) - Madrid Workshop (2015)

- Workshop on “Universities promoting regional innovation across Europe”
- Convened jointly by Crue/CPU and EUA and kindly hosted by the Autonomous University of Madrid (November 24, 2015)
- Six case studies from regions in Spain, France, Portugal and Germany
- Discussion on the thematic areas of:
  - The role of universities in the design and implementation of Smart Specialisation (RIS3)
  - Coordination of regional, national and European programs
  - Regional perspectives on Smart Specialisation

About RIS3 in Spain

- The Spanish Universities were very interested in the new RIS3 initiative.
- In 2013 the R+D Crue Commission promoted a working group for RIS3.
- Most of the Universities contacted their regional governments in order to participate in the definition of regional RIS3.
- Meetings and workshops (mentioned before) were promoted at the Spanish level
  - The role of the university in the intelligent specialization strategy for innovation. CRUE_CYD. Madrid 14-July 15, 2014.
  - Working day of RIS3 discussions, Barcelona, June 3, 2015
RIS3 - The Spanish Case Study | About RIS3 in Spain
Universities - International Campus of Excellence

<table>
<thead>
<tr>
<th>Knowledge Field</th>
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<tbody>
<tr>
<td>Biomedicine / Health</td>
<td>18</td>
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<tr>
<td>Biotechnology</td>
<td>11</td>
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<tr>
<td>Sea and Marine Sciences</td>
<td>4</td>
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<td>Natural Sciences (Physics, Materials, Chemistry)</td>
<td>5</td>
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<td>Heritage and Culture</td>
<td>7</td>
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<tr>
<td>Information and Communication Technologies</td>
<td>6</td>
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<td>Environment &amp; Sustainability</td>
<td>14</td>
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<td>Energy</td>
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<td>Agriculture, food &amp; Nutrition</td>
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<tr>
<td>Social sciences &amp; Humanities</td>
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- Aggregation
- Internationalization
- Specialization

Source: Crue-CPU-EUA workshop Nov.2015. Presentation Juan Mª Vazquez, Universidad Murcia.
In order to know in more detail the current situation, Crue Spanish Universities conducted a survey containing 10 questions devised in order to know the level of involvement of universities in RIS3, and in the different regions:

- **Question 1: What is the current status of RIS3 development in your region?**
  1) Has the Strategic Plan been approved?
  2) Has the Operational Program been approved and implemented?
  3) Have calls been launched? Are they ongoing or resolved?

- **Question 2: Concerning the involvement of universities:**
  1) Has your university participated in the initial design of the strategy?
  2) Has it participated in the management committee or the monitoring committee?
  3) Has it participated in the design of the calls?

- **Question 3: Is the RIS3 strategy aligned with the strategy of the campus of excellence in your region?**

- **Question 4: Has the RIS3 contributed to a greater collaboration between universities and businesses?**

- **Question 5: What changes has RIS3 implied on the use of the structural funds (ESIF)?**
Question 6: Have research and innovation been prioritized over other actions (e.g. infrastructures)?

Question 7: Have actions been launched specifically addressed to research and universities? If possible, indicate them, as well as their main characteristics.

Question 8: Have any programs been launched in which the active participation of universities is a fundamental condition or an incentive in their evaluation? If possible, indicate them, as well as their main characteristics.

Question 9: In your region, do R&D not aligned with the RIS3 strategy have any type of funding?

Question 10: Please, indicate the main positive and negative aspects arising from the existence of RIS3 in your region.
Question 1: What is the status of RIS3 development in your region?

Source: Crue Spanish Universities
Question 2: Concerning the involvement of universities

- Initial design of the strategy: 17.6%
- Strategy management/monitoring committee: 5.9%
- Initial design of the strategy + strategy management/monitoring committee: 47%
- Initial design of the strategy + strategy management/monitoring committee + call design: 17.6%
- Only some universities of the region participated in the initial design of the strategy and/or strategy management/monitoring committee: 11.8%

Source: Crue Spanish Universities
Question 3: Is the RIS3 strategy aligned with the strategy of the campus of excellence in your region?

Source: Crue Spanish Universities
Question 4: Has the RIS3 contributed to greater collaboration between universities and businesses?

Source: Crue Spanish Universities
Question 5: What changes has RIS3 made in the use of structural funds?

- Fundamental changes: 29.4%
- Moderate changes: 29.4%
- Minor/no changes: 41.2%

Source: Crue Spanish Universities
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Question 6: Has research and innovation been prioritized over other actions (e.g. infrastructures)?

Source: Crue Spanish Universities
Question 7: Have specific actions been launched for research and universities?

Yes 58.8%
No 29.4%
Partially 11.8%

Source: Crue Spanish Universities
Question 8: Have any programs been launched in which the active participation of universities is a fundamental condition or an incentive in their evaluation?

Source: Crue Spanish Universities
RIS3 - The Spanish Case Study

Question 9: In your region, do R&D not aligned with the RIS3 strategy have any type of funding?

Source: Crue Spanish Universities
RIS3 - The Spanish Case Study | Conclusions

- Big differences between regions and universities’ involvement in RIS3

- Positive aspects:
  - Greater focusing: joining efforts in a common direction
  - Clear and common priorities
  - Increase of funding for R&D
  - More cooperation between public and private agents
  - Higher participation of universities in R&D
  - Inclusion of knowledge in the economic model
RIS3 - The Spanish Case Study | Conclusions

- Negative aspects:
  - ✓ Basic science and humanities (low TRLs), as well as non-RIS3 aligned research, are penalized
  - ✓ Excessive focus on transfer, to the detriment of research
  - ✓ Complex management and bureaucracy
  - ✓ The highest returns and benefits are for the business sector
  - ✓ Weight of the business sector is, in general, much higher than that of the Universities when it comes to implementing RIS3

Universities are a critical player in local research, innovation and development, and therefore in RIS3, in Spain, although there is room for improvement.
Thank you!