



# The Role of Universities in Innovation and Regional Development

**Efforts in Collaborative Design of a Smart Specialisation Strategy**  
Comparative Insights from the University of Aveiro and the Autonomous University of  
Barcelona

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# What guides my research?

## An interest

- Universities are expected to support regional innovation (Charles, 2016; Drucker & Goldstein, 2007; Nilsson, 2006)
  - Aside from links with firms and industry, universities' engagement in governance activities is becoming commonplace and an increasing object of study (Gunasekara, 2006; Aranguren et al., 2009; Rodrigues & Melo, 2013; Pugh et al., 2016; Marinelli et al., 2016)
- Universities' potential in regional planning (Rodrigues et al., 2011).
- Emerging paradox to be resolved in the subject of university engagement? (Howells, Ramlogan & Cheng, 2012)

## How can it be explored?

# A review of the literature

- **Third mission and the regional role of universities**
  - Third mission *“re-positioning universities as primary institutional spheres in economic regulation, alongside industry and the state”* (Gunasekara, 2006, p. 3);
  - Channeling global knowledge into local processes (Charles, 2016).
- **Intensifying link with regional and local government in innovation policy**
  - Hybridisation of spheres (Etzkowitz & Leydesdorff, 1997);
  - Public policy becoming more complex → Science for evidence-based policy (Arbo & Benneworth, 2007; Uyarra, 2010);
  - Universities’ consultancy at the policy-level, occupying spaces of governance (Gunasekara, 2006; Pugh et al., 2016; Rodrigues & Melo, 2013; Uyarra, 2010);

# A review of the literature

- **Mutual benefits in university's participation in policy-design**
  - Multidimensional policy for the creation of public value (Bryson et al., 2014; Jørgensen & Bozeman, 2007);
  - More democratic and deliberative processes (Ostrom & Ostrom, 1971; Thomson & Perry, 2006; Boyte, 2011)
  - Institutional capacity building (Healey et al., 1999)
- **Paradigmatic example of the Smart Specialisation Strategy**
  - Universities as central in identifying priorities and guidelines (S3) (Foray et al., 2009; 2011);
  - Participation process of external actors in definition of trajectory and policy-design;
  - Ex-ante conditionality.

## Aims

- To understand the dynamics of universities' participation and consultation in innovation policy;
- To ascertain the level of involvement of universities in the policy sphere, and particularly in innovation and regional development policy;
- To identify points of tension and potential opportunities in this model of engagement.

## Research Questions

- In what manner does the university-regional government collaboration in the S3 design differ when taking into account territorial aspects?
- What institutional mechanisms were created to accommodate the need for collaboration in the S3 design? If none, what repercussions have arisen, and what good examples can be taken from either case?
- Which were the general impacts in the region originated from this particular collaboration?

# Methods

- Qualitative approach and content analysis;
- Desk-based research of reports, policy and institutional documents;
  - Strategy for Territorial Development of the Region of Aveiro 2014-2020 (CIRA, 2014);
  - RIS3CAT (S3 of Catalonia) + supporting documents (elaboration process, action plan, monitoring system...)
- Semi-structured, in-depth interviews with academics, universities' top-management figures and policy-makers involved in the innovation policy.
  - Aveiro (2 interviews, 1 policy-maker, 1 academic) + more in coming months.
  - Barcelona (13 interviews, 5 academics/top-management; 4 policy-makers; 4 representatives of intermediate organisations) + 5 predicted in the next weeks.

# Policy in context – Strategic Plan of the Region of Aveiro

| Strategy for Territorial Development  |   |  |
|---|---|--|
| 5 Axis  | Instruments & Actions   | Leading sectors  |
| <ul style="list-style-type: none"> <li>• Support to Innovation and Entrepreneurship;</li> <li>• Protect and value natural resources;</li> <li>• Capacitate communities in an inclusive manner;</li> <li>• Territory as identity, resource and brand;</li> <li>• Qualify governance</li> </ul> | <ul style="list-style-type: none"> <li>• <b>Intermunicipal programme of Territorial Specialisation;</b></li> <li>• Entrepreneurial region programme;</li> <li>• Innovation checks;</li> <li>• <b>Creative Science Park;</b></li> <li>• Agency for Sustainability and Competitiveness;</li> <li>• Polis Ria Aveiro and RiaMais.</li> </ul> | <ul style="list-style-type: none"> <li>• Agro-industry;</li> <li>• Forest;</li> <li>• Sea;</li> <li>• ICT;</li> <li>• Materials;</li> <li>• Health &amp; Well-being;</li> <li>• Biotechnology;</li> <li>• Tourism</li> </ul> |

# Perceptions - Universities' role in Strategic Plan RA

“We do what is yet not done in Portugal... Right? Which is working collaboratively for so long.”



Policy-maker

“It’s not THE university... It’s WHO at the university...”

“There is a work that the university can do for us, which is mobilize us, that is, create conditions for us to operationalise, (...) materialise our objectives.”

“There is a clearer guidance.”

“In the design phase, there was a strong presence [from the university] and a great level of interaction. But then in the implementation phase...”

“[What was most important] was in fact the effort made in order to put the university working together with municipalities, with other institutional settings, like the regional commission. Discourse and partnership creation is more important than the priority definition itself.”



Academic



# Policy in context – RIS3CAT

| RIS3CAT  |   |   |
|--|---|---|
| 7 Leading Sectors  | 6 Facilitating Transversal Technologies   | 9 Instruments   |
| <ul style="list-style-type: none"> <li>• Food;</li> <li>• Energy and resources;</li> <li>• Industrial systems;</li> <li>• Design-based industries;</li> <li>• Sustainable transportation;</li> <li>• Health industries;</li> <li>• Cultural and experience-based industries</li> </ul> | <ul style="list-style-type: none"> <li>• ITC;</li> <li>• Nanotechnology;</li> <li>• Advanced materials;</li> <li>• Photonics;</li> <li>• Biotechnology;</li> <li>• Advanced manufacture.</li> </ul> | <ul style="list-style-type: none"> <li>• <b>Comunitats RIS3CAT;</b></li> <li>• Emerging activities (through EPD);</li> <li>• Development of key technological capabilities;</li> <li>• Research and technology transfer infrastructures;</li> <li>• R&amp;D collaborative projects;</li> <li>• Innovative valorisation and transfer;</li> <li>• International cooperation;</li> <li>• Innovative public purchase;</li> <li>• <b>Specialisation and territorial competitiveness projects (PECT)</b></li> </ul> |

# Policy in context – RIS3CAT

## Consultation Process

| Expert Group                      |               |
|-----------------------------------|---------------|
| Sector                            | N.º of people |
| Universities and research centres | 3             |
| Business schools                  | 1             |
| Technological centres             | 2             |
| Companies                         | 6             |
| Public administration             | 3             |
| Third sector                      | 1             |
| R&D+I system                      | 3             |

| Public survey  |               |        |
|--|---------------|--------|
| <ul style="list-style-type: none"> <li>• Online</li> <li>• Diffusion through web page, e-mail, Facebook, Twitter, etc...</li> <li>• 176 replies</li> </ul> |               |        |
| Sector   | N.º of people | %      |
| Universities   | 50            | 28,41  |
| Research centres   | 34            | 19,32  |
| Technological centres  | 12            | 6,82   |
| Companies  | 36            | 20,45  |
| Public administration  | 9             | 5,12   |
| Others   | 35            | 19,89  |
| Total  | 176           | 100,00 |

# Perceptions - Universities' role in RIS3CAT

“We define different competitive calls, not defining the sectors but the rules of the game.”



Policy-maker

“The strategy was designed from ‘above’ from the Generalitat Government, that yes, that did consultations, but mostly on the individual level... they say that universities participated, but who participated was a professor from the university...”



UAB top-  
manager

“Speed of launch has hindered the quality of the instrument... There were a lot of problems in the calls, and companies and other stakeholders, well, they were not happy. They AREN'T happy.”



Representative of  
intermediate office

“The exercise [Comunitats] (...) was very interesting, and now, with some of these companies and sectors, we know each other much better, so I think that's the point to continue.”

UAB  
Academic



“There was no participation of the institutions as it might seem. (...) the experts were individual, they were not institutional.”



UAB top-  
manager

# Preliminary findings

## University of Aveiro

- Shared leadership crucial to the development of the plan;
- No institutional-level participation;
- Tensions (differing expectations) between academics and local government (Rosa Pires et al., 2017);
- High level of collaboration in early stages, less in implementation and monitoring phases.

## Autonomous University of Barcelona

- 2 distinguishing features of the RIS3CAT:
  - Not so specialised;
  - Followed a “real” entrepreneurial process of discovery.
- Policy-makers considered it a very consultative process vs academics/top-managers/intermediates didn't;
- Distinguishing factors from UAB?
- No institutional-level participation.

## Conclusions & Future Research

- Less complex region (with less actors), may permit more interconnected and direct collaboration;
- Local level seems key in enabling productive dialogue and trust-building;
- Difficulties in creating a productive and continued collaboration between actors;
- Inefficiency of certain institutional mechanisms in promoting this type of engagement;
- Still... increase of learning capacity and deliberative dialogue;
- But... Arnstein (1969) → Empty participation vs Affecting outcomes?

### Next steps:

- Continue interviews and content analysis;
- Observation of joint policy sessions;
- Follow monitoring process for evaluation of impacts.



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Thank you very much!

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