20 years of Research and Innovation strategic planning in Castilla y León: from Regional Technology Plan to Smart Specialisation Strategy.
Brief Presentation of Castilla y León
Main features

- **Land:**
  - 95,000 km²: third-largest in Europe; larger than 16 MS.

- **Local administration:**
  - 9 provinces
  - 2249 municipalities.

- **Population:**
  - 2.5 million inhabitants
  - 27 inh/km² – Spain: 89.3 inh/km²

- **GDP per capita:**
  - Previously Objective 1. Now “Phasing-in”.

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Brief Presentation of Castilla y León
Convergence with the EU

Evolution of GDP per capita.
Comparison with EU-27 averages.

Regional disparities: convergence of provinces (NUTS III) with EU-27 (2007)
Legal Framework for regional policies

- Spanish Constitution of 1978: recognises the “State of the Autonomies”: 17 “autonomous communities” (NUTS II) and 2 “autonomous cities” with autonomous self-government and legislative power.

- The Constitution states the sharing out of competences between the State and the Regions

- Each region has its “Statute of Autonomy”, that defines the region’s competences.

- Statute of Castilla y León: in 1983. Modified in 2007; includes “research, technical development and innovation”.

Brief Presentation of Castilla y León
Castilla y León in the 90’s & the Regional Technology Plan
Castilla y León in the 90’s & the Regional Technology Plan

Castilla y León in mid 90’s

- Convergence with EU-15 (1995): 74% (Spain: 79%)
- Activity rate (1995): 47.61% (Spain: 51.01%)
- Unemployment rate (1995): 20.47% (Spain: 22.76%)
- GERD/GDP (1995): 0.50% (Spain: 0.81%)
R&D&I policy in Castilla y León in mid 90’s

- Boecillo Technology Park (since 1990):
  - 36 companies established in 1995.
- Technology Incentives Call (since 1985).
- Calls for research projects, congresses, etc. (since 1985).
The Regional Technology Plan

- European Commission’s pilot project:
  - 8 regions, 2 DG’s.
  - Previous to RIS
- Project launched in 1994, finished in 1996.
- **Qualitative impact**: change in the way of making policy.
  - Systematisation and coherence of innovation policy.
  - Optimisation and organisation of resources.
  - Awareness about the need for innovation.
- **Quantitative impact** (1996-2001):
  - GERD / GDP: from 0.52% to 0.80%.
  - Business Expenditure on R&D: from 32.8% to 53.7% of total GERD.
  - R&D personnel in private sector: from 16.9% to 26.6% of total personnel devoted to R&D.
Keys of success:

- **Involvement of main actors:** sectoral meetings, in-depth analysis...
- **Open mentality:** acceptance of critics.
- **Decisions based on consensus:** Allows having everybody on board, pushing in the same direction.
- **Strong political support by the Regional Government:** Public budget increased from an initially foreseen 400.000 € to a final 600.000 €. High-level political leadership (President, Minister).
- **Dragging effect of big companies** on the rest of the economic tissue.
- **Simple structure and contents.**
Regional Technology Plan

### Mobilised resources

<table>
<thead>
<tr>
<th></th>
<th>1997-2000</th>
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<tbody>
<tr>
<td></td>
<td>Foreseen (M€)</td>
<td>Actual (M€)</td>
<td>Ratio actual / foreseen</td>
<td></td>
</tr>
<tr>
<td><strong>Public resources</strong></td>
<td>245,09</td>
<td>350,87</td>
<td>143,16%</td>
<td></td>
</tr>
<tr>
<td><strong>Junta de Castilla y León</strong></td>
<td>147,25</td>
<td>232,74</td>
<td>158,06%</td>
<td></td>
</tr>
<tr>
<td><strong>Other public sources</strong></td>
<td>97,84</td>
<td>118,13</td>
<td>120,74%</td>
<td></td>
</tr>
<tr>
<td><strong>Private resources</strong></td>
<td>198,33</td>
<td>887,29</td>
<td>447,38%</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>443,42</td>
<td>1,238,16</td>
<td>279,23%</td>
<td></td>
</tr>
</tbody>
</table>
The consolidation of the regional R&D&I policy (2000-2010)
Key elements of the Science and technology Regional Policy

Legal basis

• Law 17/2002, of December 19th, of Promotion and General Coordination of the Scientific Research, Development and Technological Innovation (R&D&I) in Castilla y León.

Institutions

• Commission for the Coordination on Science and Technology.
• Commissioner for Science and Technology.

Planning

• University-Business Strategy.

Consensus-building (social dialogue)

• Economic and Industrial Competitiveness Forum: Strategic Competitiveness Framework.
• Industrial Competitiveness and Innovation Framework Agreements of Castilla y León (2006-09, and 2010-13).
The Regional R&D&I Strategy 2002-2006

- **2nd RIS generation**: financed with regional resources, based on the experience of the Regional Technology Plan 1997-2000, and elaborated in close cooperation with European experts.

- **Coordinated by the** (at that time) **new Science and Technology Coordination Commission**.

- **Included basic research**, not only technological development and innovation: integrated approach (still separate Plans).

- **Defined through consensus**, taking into account business’ demands and strategic sectors.

- **Based on methodologies that proved to be successful** in the Regional Technology Plan.
The consolidation of the regional R&D&I policy (2000-2010)

Strategic Competitiveness Framework.
The Regional R&D&I Strategy 2007-2013

- Made up in a **new context**: 
  - Globalisation.
  - Renewed Lisbon Strategy.
  - Enlargement of the EU.
  - Reduction of Structural Funds (exit from “Objective 1”).
- Part of the **competitiveness policy**.
- **Complete integration** of Research and Innovation.
The consolidation of the regional R&D&I policy (2000-2010)

The Regional R&D&I Strategy 2007-2013

- Interim evaluation and upgrade in 2010.
  - Foreseen in the Strategy.

- Changes:
  - Less priorities.
  - Simplification of programmes.
  - Re-definition of objectives.
  - Re-distribution of resources to be mobilised.
Evolution of science and technology expenditure in the Regional Government annual budget (1996-2011)

Source: Annual budgets of Castilla y León.
Science & Technology budget distribution among Government Departments

- Autonomic Administration: 6.4%
- Health: 6.6%
- Economy and Employment: 43.9%
- Infrastructures, transport, communications: 14.0%
- Education: 20.3%
- Farming and Livestock: 7.2%
- Public Finances: 0.3%
- Family and equality of opportunities: 0.0%
- Environment: 1.2%
- Culture and Tourism: 0.2%

Source: Annual budgets of Castilla y León, 2011.

Current situation: the regional Science-Technology-Business system
Evolution of the technological effort

GERD as % of GDP

Spain Castilla y León

0.29 0.46 0.45 0.53 0.53 0.50 0.52 0.52 0.52 0.62 0.64 0.67 0.70 0.81 0.82 0.83 0.85 0.85 0.88 0.89 0.91 0.94 0.95 0.97 1.03 1.05 1.07 1.10 1.13 1.16 1.20 1.27 1.35 1.38 1.39

Remarks:
1) Brackets denote total expenditure in R&D in Million Euro.
2) Data elaborated from annual publications of the National Statistics Institute (INE): Statistics on R&D activities.
Evolution of the technological effort

Source: National Statistics Institute (INE), OCDE, EUROSTAT.

Source: Statistics on R&D activities (INE, OECD, EUROSTAT)
Current situation: the regional Science-Technology-Business system

Participation of the private sector in R&D expenditure

Remarks:
1) Brackets denote total expenditure in R&D in Million Euro.
2) Data elaborated from annual publications of the National Statistics Institute (INE): Statistics on R&D activities.
Participation of the private sector in R&D Expenditure

Companies of High and Medium-High Technology ‘HAMHIT’ (2010)

- HAMHIT Enterprises: 1.39%
- Other: 98.61%

Business Expenditure on R&D (2010)

- HAMHIT Enterprises: 65.97%
- Other: 34.03%

Towards a Smart Specialisation Strategy

(2014-2020)
S3 aspects already existing in the Regional R&D&I Strategy

- Progressive integration of policies:
  - Research and innovation – including the University-Business Strategy.
  - Within economic policy.

- Consensus building with regional actors:
  - Since the Regional Technology Plan (1996).

- Definition of priority sectors (Strategic Competitiveness Framework).
S3 aspects already existing in the Regional R&D&I Strategy

- Innovation / business oriented:
  - Integrated in economic policy.
  - Support to business start-ups (University-Business Strategy 2008-13).

- Monitoring and evaluation systems:
  - Statistical indicators – transparency.
### Revised strategic objectives

<table>
<thead>
<tr>
<th>Strategic Objective</th>
<th>Indicator</th>
<th>Source</th>
<th>2009*</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase the regional effort in R&amp;D&amp;I</td>
<td>R&amp;D effort (GERD).</td>
<td>INE</td>
<td>1,12%</td>
<td>2,00%</td>
</tr>
<tr>
<td>Stimulate a business sector highly innovative</td>
<td>% of private sector in GERD.</td>
<td>INE</td>
<td>53,0%</td>
<td>63,0%</td>
</tr>
<tr>
<td></td>
<td>% of technological innovation over GDP.</td>
<td>INE</td>
<td>1,43%</td>
<td>2,50%</td>
</tr>
<tr>
<td>Increase excellence and applicability of scientific</td>
<td>Nº of papers per 100 researchers in the public sector.</td>
<td>ISI WOK(**)</td>
<td>50,7</td>
<td>60,0</td>
</tr>
<tr>
<td>research.</td>
<td></td>
<td>INE</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nº of knowledge based business created by universities, technology</td>
<td>Annual Report</td>
<td>12</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>centres and research centres.</td>
<td>of the University-</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Business Strategy</td>
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</tbody>
</table>

(*): Last year with available data.
(**): Institute for Scientific Information, Web of Knowledge.
New $S^3$ aspects to include in the new Strategy definition.

- Further policy integration.
  - Digital Knowledge Society, Education...
- Definition of Plans, more specific than the Strategy.
- Reduction of priorities, and resources’ concentration.
  - Difficult: leave people “off-board”.
  - Stop the fall of private investment in R&D linked to public.
- Wider governance:
  - Mobilise the whole society, beyond the business sector.
- Evaluation and monitoring of programmes, not only the whole strategy.
- International approach:
  - Co-operation with other regions ("institutional").
  - Increase participation in international programmes.
Towards a Smart Specialisation Strategy (2014-2020)

The future Science and Technology Strategy 2014-2020

- Elaboration recently started.
  - Ready by the end of 2013.

- S3: **ex-ante conditionality** for operational programmes.
  - Must be ready by the end of 2012.
  - Increasing importance of Structural Funds, due to crisis.

- **More integration:**
  - R&D&I and Information Society (Digital Agenda), and Regional Operational Programme.
  - National S&T&I Strategy: regional priorities taken into account.

- Specialisation analysis (end 2012):
  - Sectors, science/technologies.
Towards a Smart Specialisation Strategy (2014-2020)

Clusters and Industrial Plan of Castilla y León

### Strategic
- Cluster which are needed for sustaining employment and economic wealth.
- Automotive
- Agro-food
- Tourism

### Emerging
- Clusters which are benefited from global trends in fields where Castilla y León have important technology capacities or comparative advantages.
- Oncology
- Renewable Energy
- Aerospace
- Chemical - Pharmaceutical
- Digital Spanish contents
- Seniors
- Sustainable infrastructures

### Complementary
- Clusters which are needed to improve competitiveness of the above.
- Mobility
- IT Security
- Advanced software
- Engineering
- Advanced Production technology
- Agro-food biotechnology

### Traditional
- Clusters with historic relevance in the employment and economy of Castilla y León, now under restructuring
- Wood and furniture
- Natural stone
- Fashion-textile

Source: ADE.
Towards a Smart Specialisation Strategy (2014-2020)

External support:

- **Process consultant** (contract by Regional Government).
- **ERDF technical assistance**.
- **Expert assessment** provided by DG REGIO.
- **Interreg** project “Know-Hub”.
  - 10 participating regions + EURADA.
  - Peer reviews of regional strategies, using the S$^3$ methodology, and three-day visits.
  - Identification of good practices.
  - Mutual learning circles.
- **S3 Platform**
  - In spring?
Thank you

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