Portugal: Towards a RIS3 strategy

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Outline

1. State of the play of national & regional road-maps
   – Analysis of the National R&I System
   – Identified national competitive and strategic advantages
   – Key challenges

2. Work in progress:
   – Priority-setting - “Strategic Intelligent Advantages”
   – Governance structures
   – Programming, Budgeting and Implementation
   – Measuring progress and evaluation mechanisms

3. Questions
Questions

1. How to articulate multiple-level strategies, thematically and in governance, to avoid duplication and dispersion of resources?

2. Priority-setting – best practice for theme identification and for strategic intelligence? Thematic workshops or road maps?

3. How to develop monitoring and evaluation mechanisms adapted to different levels of governance and actors?
PORTUGAL 2020 WILL BE A MORE COMPETITIVE, CREATIVE, AND INTERNATIONALISED ECONOMY BASED ON TRADABLE GOODS AND SERVICES WITH HIGHER INTENSITY IN R&I, THROUGH THE STRENGTHENING OF RESEARCH AND INNOVATION CAPABILITIES AND INCREASED SYNERGIES IN THE INNOVATION SYSTEM.
Road-map towards a RIS3 Strategy Portugal 2020

REGIONAL LEVEL

AÇORES
- Regional Government and Consultants, Advisory Groups
- SWOT Analysis in progress
- Thematic workshops

MADEIRA
http://pidti.madeiratecnopolo.pt/?page_id=5
- Regional Government and Madeira Tecnopolo
- R&I Action Plan completed
- Transnational cooperation in Macaronesia in progress

CENTRO
Crer 2020
- CCDRC and University, Trade Associations, Consultants
- SWOT Analysis of region in public consultation
- CCDR LVT and Consultants
- Up-date of the analysis in progress
- Thematic workshops

LISBOA E VALE DO TEJO
- CCDRA and University, Trade Associations, Consultants
- SWOT Analysis completed
- Thematic workshops

NAORTE
Norte 2020
http://www.ccdrn.pt/pt/norte-2020/o-que-e/
- CCDRN and stakeholders
- SWOT Analysis of region completed
- Thematic workshops (20)

ALENTEJO
- CCDRAL and University, Trade Associations, Consultants
- SWOT Analysis in progress
- Thematic workshops

ALGARVE
- CCDRAL and University, Trade Associations, Consultants
- SWOT Analysis in progress
- Thematic workshops

REGIONAL LEVEL
R&I SYSTEM SWOT ANALYSIS
Approach and Techniques and Stakeholders involvement
National Level: Dialogue Workshop Experts and National and Regional Policy Makers (Dec. 11-12, 2012)

http://www.fct.pt/esp_inteligente/docs/Programa_Workshop_11e12122012.pdf

SEC
CNCT
CE –DG REGIO
Presidência e Técnicos FCT
CC FCT
Observatório QREN
MNE
MEE
COTEC …
Research and Innovation System - Challenges, strengths and weaknesses towards 2020

• Prepared by FCT staff
• In Portuguese, but soon translated into English
• Presented in a Conference with more than 400 participants

• – on line version available:
  https://educast.fccn.pt/vod/channels/2lnv0qo781
A new approach on the analysis of the system: Focus on systems functions (1)

Components of the System

- Government
- Higher Education
- Business
- Non-profit

Enablers and Drivers

- Competences & Capacities
  - Inputs
- Innovation Interactions
  - Activities
- Human Resources
  - Enablers
- Institutions
  - Outputs
Focus on systems functions (2)

- Our approach S&W
- Methods and Techniques
  - Revealed Competitive Advantage: scientific fields and economic sectors
  - Cluster identification
  - Network analysis
  - Related variety
  - Bibliometric analysis
  - SWOT Analysis
  - Benchmarking
  - Scorecards
  - Qualitative research
Looking beyond your boundaries

SYSTEMATIC BENCHMARKING WITH 10 ERA COUNTRIES SELECTED BY PROXIMITIES

Knowledge circulation

- National and European Public Funding Analysis
- European and non-European
- ERA instruments
- Bibliometry Analysis

Mobility
- Human Resources

S&T Cooperation Analysis

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IDENTIFIED COMPETITIVE AND STRATEGIC ADVANTAGES
**Economic Comparative Advantages related to Scientific Comparative Advantage**

*Clusters of low and medium technological intensity*

**Economic Clusters:**
- Food and Beverages
- Textiles and Leather Products
- Paper, Furniture, Wood and Cork

**Research fields:**
- Food Science and Technology and Agriculture sciences
- Material Sciences – Textiles
- Forestry; Material Sciences – Paper and Wood

Source: INE
Economic Comparative Advantages related to Scientific Comparative Advantage

Clusters of High-tech Industry and knowledge intensive services

**Clusters:**
- Telecommunications and IT
- Pharma
- Industrial chemistry
- Automotive
- Machinery and tools

**Research fields:**
- ICT
- Health, Biotechnology, Applied Microbiology
- Applied Chemistry, Analytical Chemistry, Physics and Chemistry
- Transports; Engineering
- Instruments, Robotics

25,000 persons employed
Source: INE
### NATIONAL COMPETITIVE and STRATEGIC ADVANTAGES

| R&I system complete. R&I system approaching EU levels | • Lisbon – innovation leader  
• Centro – Innovation follower  
• Good universities and Research institutes  
• Good HR and Infrastructures |
|---|---|
| Advantages in generic technologies | • ICT  
• Materials  
• Biotech and Health |
| Advantages in scientific fields | • Ocean related sciences  
• Materials  
• Civil Engineering  
• Biosciences and food |
| Advantages in economic sectors | • Medium and low technology (food, textiles, garments and shoe, Mineral products, Metal products, Forestry derivatives, Chemical, Electronic and electric, automotive) |
| Growing High-tech Knowledge Intensive sectors | • Growing high-tech (Electric & Electronic, chemicals, Telecoms, Pharma, Computers, optics, informatics, Automotive, Media, Information) |
| Exploitation Blue Economy | • Sustainable development maritime and coastal resources  
• Maritime Biotechnology  
• Security and Transports  
• Energy |
Key challenges National/Regional

• Challenges
  1. Portugal has now a complete R&I system, the challenge is how to fully exploit its potential, to foster excellence and connectedness
  2. Increase competitiveness of traditional economic sectors and promote the growth of emergent knowledge intensive sectors
  3. Fully exploit the potential of the blue economy
  4. Reduce regional development inequalities through the upgrading of lagging regions to innovation leaders and followers

• Articulation Regional/National
  1. Regions face different economic challenges and have differentiated assets and specific S&T and economic specialisation profiles
  2. Local leading actors, from private and public sectors, are involved in the strategic intelligence phase
  3. National and regional RIS3 are at different stages of development
  4. Close cooperation between the national and regional levels will be deepened – e.g. exchange of information, participation in joint activities and working-groups – ‘Invisible network’ in the making
STRATEGIC INTELLIGENT ADVANTAGES
DEFINITION and MULTI-LEVEL SYNCHRONISATION
Multi-level strategies alignment is needed.

- ERA & IU
- ATLANTIC ARC
- MACORENESIAN
- MEDITERRANEAN COOPERATION
- PORTUGUESE SPEAKING COUNTRIES
- IBERO-AMERICAN COOPERATION
IDENTIFICATION of Strategic Intelligent Advantages

- Mix-approach to priority-setting
- Workshops
  - Stakeholder involvement
  - Structured brainstorming for scenario construction
  - One process – multiple actors
  - Background Document
  - Strategic Intelligent theme Report
- Synchronisation of priorities multiple levels
- Priority selection
  - Intermediary leading actors at national and regional levels in articulation

- Top – National and transnational themes
- Bottom-up – Open Call for Workshops
- Regional thematic workshops

- Interministerial Committee and PORTUGAL 2020
Regional Priorities Identified

**ACORES**
Blue Economy
Food industry
Infrastructures

**MADEIRA**
Agro-food
Maritime - Bio sustainability
Energy and climate change
ICT
Tourism

**NORTE**
Health and Life Sciences
Territory and Tourism
Maritime Resources and environment
Culture, Fashion and Creativity
Enabling Technologies
Mobility and Environmental Industries
Digital Growth

**CENTRO**
Agro-industry
Blue economy
Tourism
ICT
Materials

**ALENTEJO**
Quality of Life
Blue Economy
ICT
Stones
Agro and Forestry
Food industry
Logistics and
Heritage and
Renewable Energies

**ALGARVE**
Tourism
Blue Economy
Cultural Industries/Art/Communication
Technology
Engineering
Biotechnology
Advanced services
mobility

**TERRITORY**
Renewable energies
Blue economy
Tourism
Culture
Maritime Infrastructures
Fisheries
Thematic agglomeration of regional priorities
Digital Growth Priorities

National level

- Digital SWOT Analysis – Completed

- Priorities identified in the Digital Agenda:
  1. Large Broadband for all
  2. Very Fast Large Broadband
  3. Inclusion of SMEs in Digital Economy
  4. Standardisation and inter-operationality of norms
  5. Framework conditions for cultural goods return on investment
  6. New regulations for digital market
  7. Electronic Procurement – platform
  9. Intelligent networks
  10. Trust and security in services and networks
  11. ICT for the maritime activities
  12. Enlargement of supply of new services
Priorities selected
GOVERNANCE AND STAKEHOLDERS INVOLVEMENT
How to involve leading entrepreneurs in policymaking processes?

• Past:
  – Low involvement in recent past
  – Entrepreneurial discover processes promoted by public policies through generic-type funding instruments and non-thematic calls
  – Danger of low strategic direction and dispersion

• Present:
  – Call for involvement of entrepreneurs for a co-construction of thematic priorities in coordination with other leading actors from academia and policy-makers
  – Policy-mix: alignment of policies, new instruments, and long-term vision
  – Synchronisation of strategies: aim to concentrate resources to promote variety and structural change
Governance Structure for Partnership Agreement EU-PT

Advice

Political Coordination

Minister of State and Regional Development

Technical Coordination

Agency for Regional Development

WG Portugal 2020

Theme: Competitiveness and internationalisation

Ministry of Economy

Inter-ministerial Committee

Regional Governments

Theme: Human Capital

Ministry of Agriculture, Maritime and Environment and Territory

Ministry of Education and Science

IAPMEI

FCT

CCDRs

Regional Governments

Others….
RIS 3 governance

LEADING ACTORS
(policymakers)

National level:
 – Policy-level:
   • MEEI
   • MEC
 – Intermediary level:
   • FCT
   • IAPMEI
 – Regional Level:
   • Regional Governments
   • CCDRs

LEADING ACTORS

• Universities
• Research laboratories and Institutes
• Clusters
• Companies (high-tech, medium and low-tech, small and large, spin-offs)
• Trade and Professional Associations
Programming, budgeting and implementation

National level

• Only the Governance Structure has been defined.

• **Regional Development Agency** – the new body, just approved, is a result of the merging of previous structural funds management agencies and the Observatory of QREN.

• The New Agency is responsible for the **programming, coordination, certification and payment**

• Thematic Operational Programmes will be managed by the Sectoral Agencies

• Transnational Territorial Cooperation will be managed by the selected Agencies by Member States

• IGF will be the Central Auditing Authority

Regional level

**Regional Operational Programmes will be managed by CCDR and Regional Governments**
Measuring the progress and evaluation mechanisms
Self-assessment – National Level

Driving economic change through smart specialisation/RIS3

Informal assessment - Portugal
Summary and next steps

• For a good RIS 3 strategy is crucial to have a good methodology to identify themes, great involvement of key players and a good process to articulate the multi-level strategies, including Horizon 2020, transnational strategies, national strategies and the regional ones.

• In Portugal the takeoff of RIS 3 was slow, but it is now well under way, with the support of policymakers and the community.

• RIS 3 is a good opportunity to strengthen evidence-based policy design processes, widely apply strategic intelligence, and promote wider involvement of stakeholders.

• Next Steps include priority choices, programming and monitoring systems
Question 1

- How to articulate multiple-level strategies, thematically and in governance, to avoid duplication and dispersion of resources?
  - RIS 3 is defined for regions with governance structures, which is not always the case in many European countries, namely in small ones
  - Multi-level governance is a missing link in the Guide RIS 3
  - Synchronisation of strategies is yet to be solved - strategies in development at multiple levels. How can a country be consistent with its own choices while having to deploy its resources by many and fragmented arenas. Risk of dispersion of internal capacities
  - Themes like research tend to be borderless. Global issues, themes were developed centred in national networks for critical mass and international visibility
Question 2

• Priority-setting – best practice for theme identification and for strategic intelligence?

• What is new in RIS 3 is the exploration of new modalities for priority-setting in the policy-making process. But many questions remain unanswered, like how to identify priorities? (OECD, 2013)

  – How to define themes that are ‘platforms’ or ‘generators of synergies’ crossing related sectors fields or technologies, on the basis of sectoral and disciplinary strengths?
  
  – Which are the best techniques to apply: foresight workshops or road-maps?

  – How can new domains be explored if they tend to be multidisciplinary - ‘homeless’ - and are promoted by weak actors, who do not have direct links to policymakers circles?

  – How new and emergent domains/competencies which might be the drivers of change match with the recommendation of focus on existing strengths/competitive advantages? ‘the winners take it all?’
Question 3

- How to develop monitoring and evaluation mechanisms adapted to different levels of governance and actors?
  - Monitoring and evaluation mechanisms developed at national level centred on structural funds supported programmes
  - Not yet consolidated transversally to all national/regional policies
  - Risk of fragmentation instead of consolidation
  - How to conciliate the monitoring of multiple interventions at various levels, e.g. Horizon 2020, transnational strategies, national programmes, regional programmes…?