

Smart specialisation

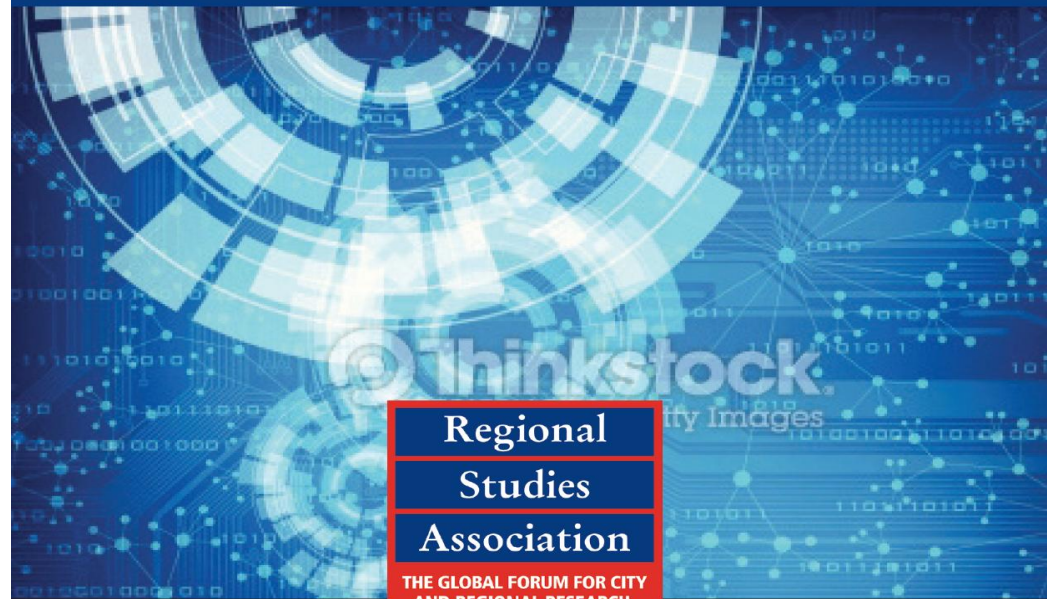
Dominique Foray

Week of Innovative Regions in Europe 2014

Athens, June 12 & 13 th 2014

SMART SPECIALISATION

OPPORTUNITIES AND CHALLENGES FOR
REGIONAL INNOVATION POLICY



D.Foray and B. van Ark
Smart Specialisation in a truly integrated research area is the key to attracting more R&D to Europe, 2008

D.Foray, P.A. David and B.Hall
Smart Specialisation: the Concept, 2009

http://ec.europa.eu/research/era/publication_en.cfm

REGIONS AND CITIES

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Smart specialisation

- One important driver of industrialisation and diversification is the infallible sequence:
- Entrepreneurial discovery
- Entry and agglomeration (clustering)
- Structural change (related variety)

Entrepreneurial discovery

- The key event : discovery of a new domain potentially rich in innovation and spillovers
 - Entrepreneurial discovery opens/explores a new domain of opportunity.
 - It is neither public research nor routinized innovation
 - Essential phase or decisive link that allows a system to reorient and renew itself
- Anatomy
 - knowledge integration – science – technology – insights and vision;
 - and economic experimentation
- Locus of entrepreneurial discovery

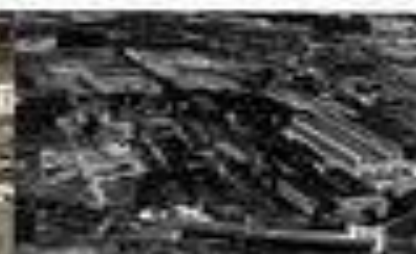
Anibal Abrantes led the first Portuguese mould making company

The market of glass industry declined

Mass production of plastic products began

Abrantes started to experiment and explore the production of mould for this new material

E.D.: the decisive link that allows a system to re-orient and renew itself



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- One important driver of industrialisation and diversification is the infallible sequence:
 - Entrepreneurial discovery (opening of a new domain of opportunity)
 - Entry and agglomeration (clustering)
 - Structural change (related variety)
 - Smart specialisation reflects the capacity to develop new specialities and generate structural change via research and innovation

Is a policy needed?

- Some times ED and SS processes happen spontaneously – thanks to private capabilities of entrepreneurs
- Many times, policy is needed to build and develop projects :
 - **Poor capabilities for ED**
 - **Information externalities**
 - **Scale and agglomeration economies**
 - **Coordination failures**
- Horizontal policy aiming at improving framework conditions with ‘neutral interventions’: not enough!

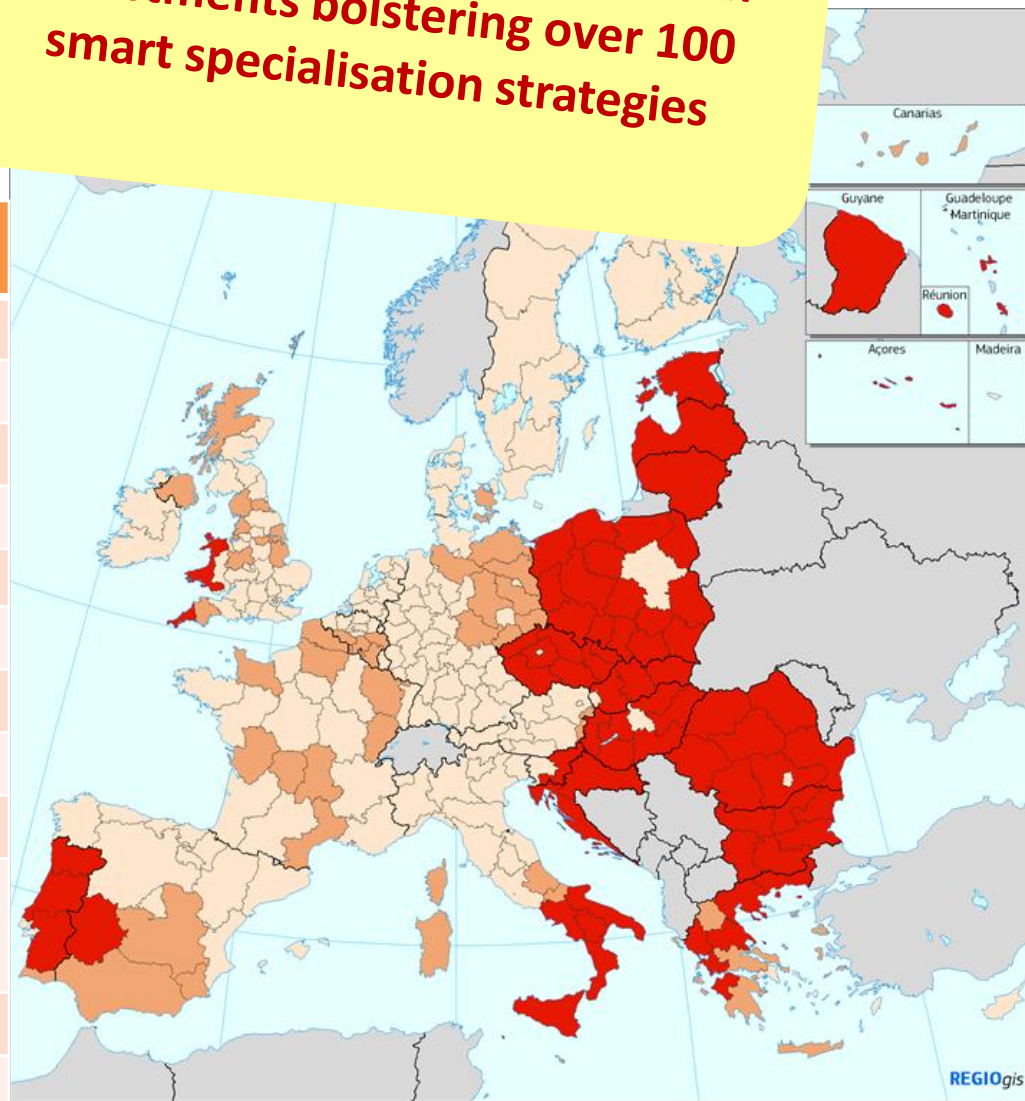
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- Smart specialisation strategy means: putting in place a process whereby such a dynamics of new specialty development can be facilitated thanks to targeted government intervention in order to support in a *preferential way* the most promising new activities in terms of discovery, spillovers and structural changes
 - Such process involves:
 - to identify focal points where the connection between research and industry (or agriculture or services) is crucial to open a new activity;
 - to support the development of these new activities (priorities), by achieving critical mass (networks, clusters) and helping coordination between complementary investments
 - to measure progress (innovation, job, structural change)

Eligibility map 2014-20

- Less developed region (GDP/head: less than 75%)
- Transition regions (GDP/head between 75% and 90%)
- More developed region (GDP/head: more than 90%)

Up to €100 billion for innovation investments bolstering over 100 smart specialisation strategies

	Billion EUR
Less developed regions	164.3
Transition regions	31.7
More developed regions	49.5
Cohesion Fund	66.3
European territorial cooperation	8.9
<i>Of which</i>	
<i>Cross border cooperation</i>	6.6
<i>Transnational cooperation</i>	1.8
<i>Interregional cooperation</i>	0.5
Outermost regions and northern sparsely populated regions	1.4
Youth Employment initiative	3.0
TOTAL	325.1



Knowledge economy

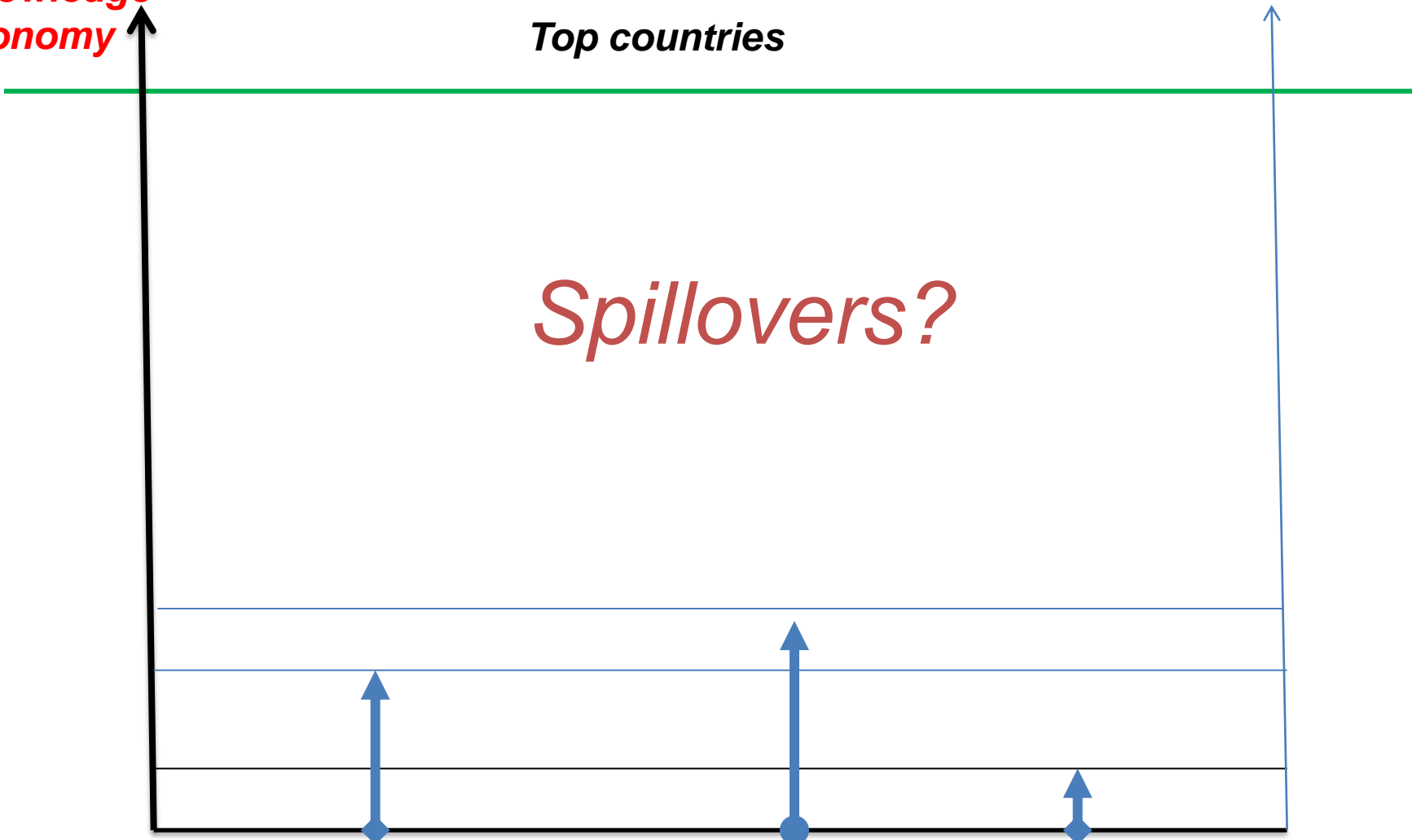
Top countries

Spillovers?

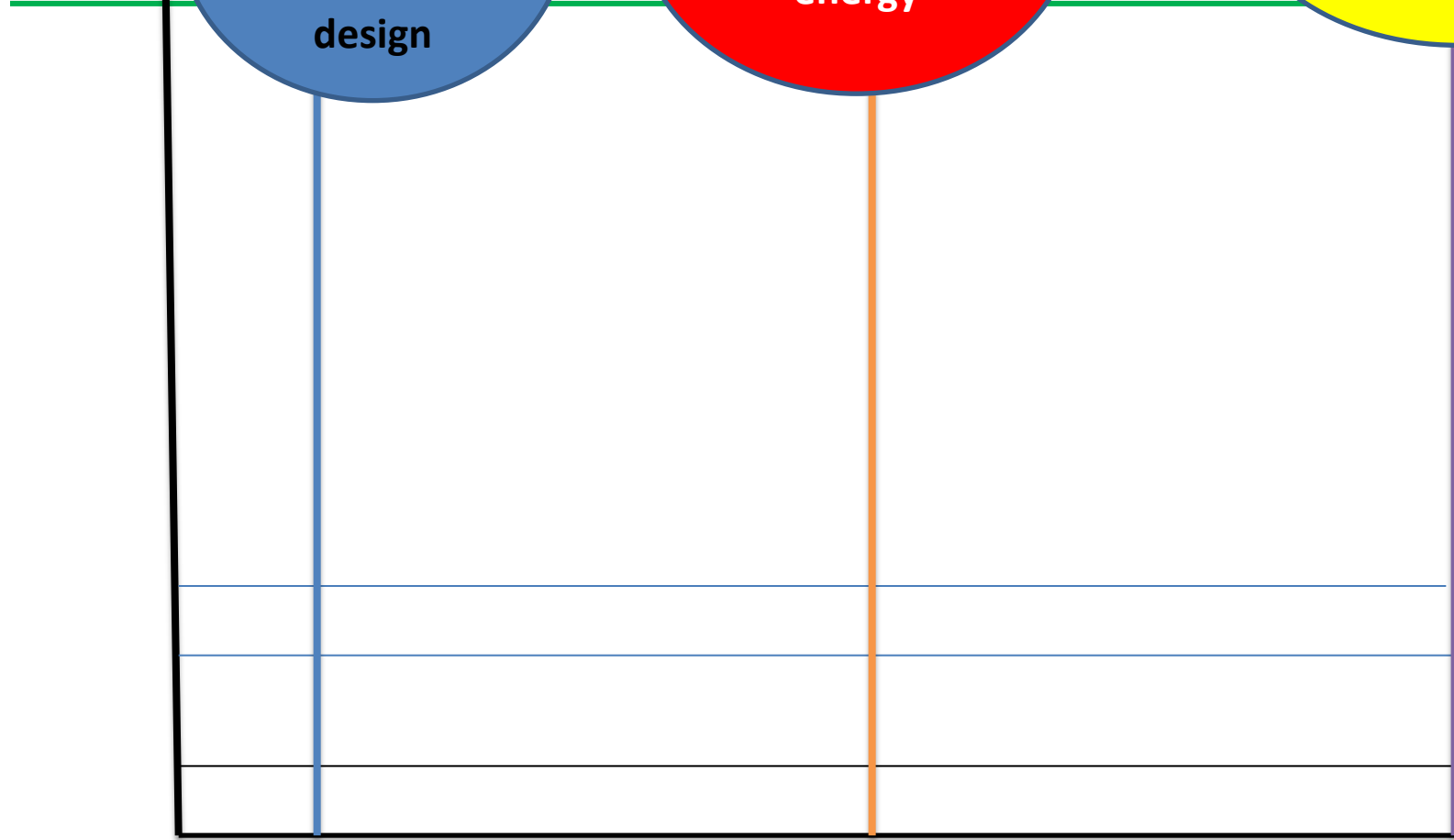
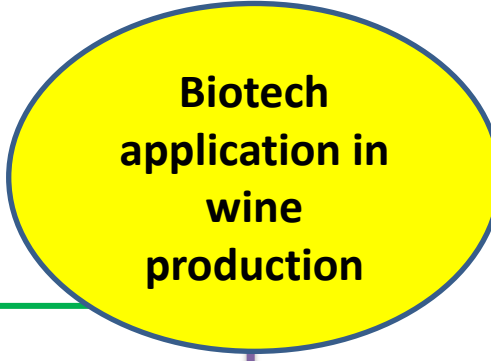
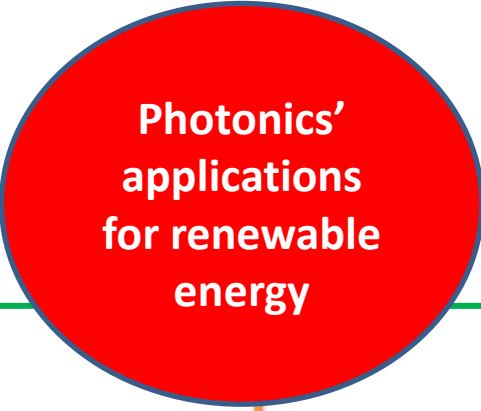
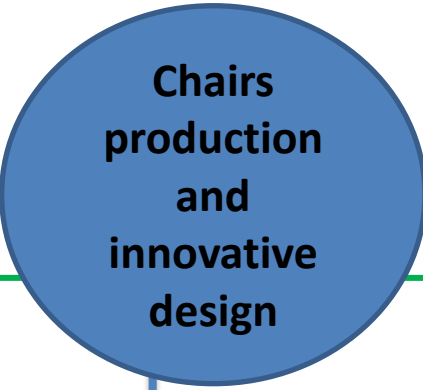
Scientific publications

R&D centres

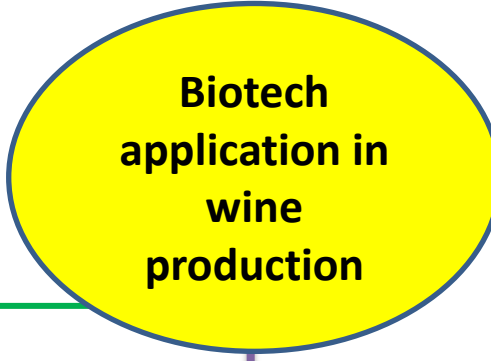
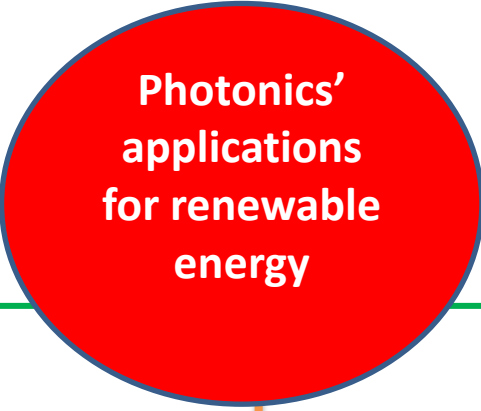
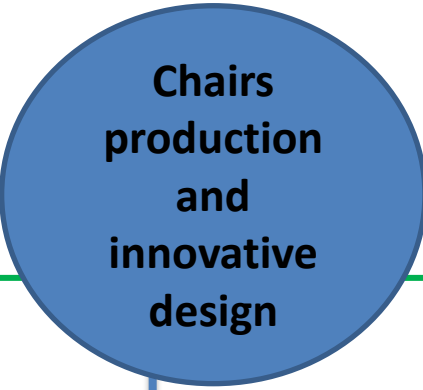
Doctoral programs



Knowledge economy

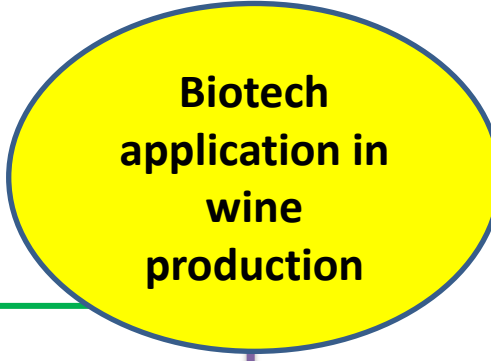
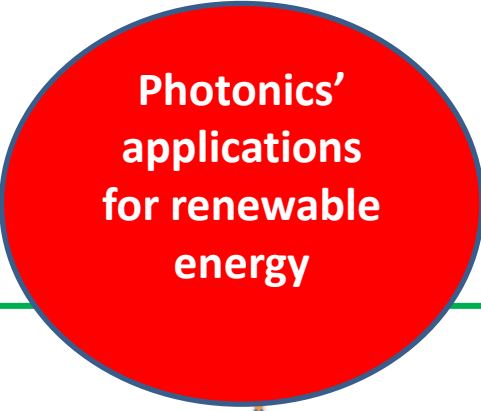
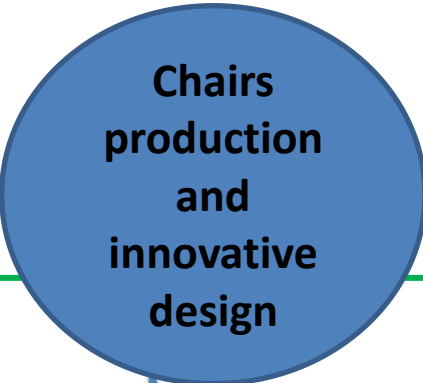


Knowledge economy



New activities emerge from the connections between entrepreneurs, lead users, local universities and public research organisations, etc.. to explore and open new opportunities

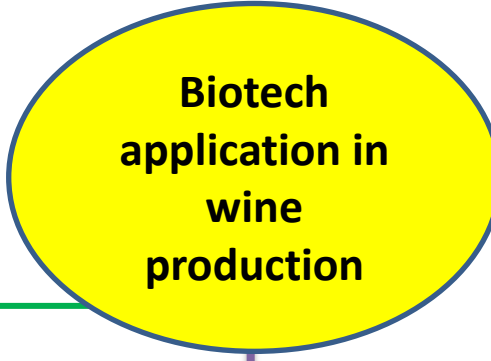
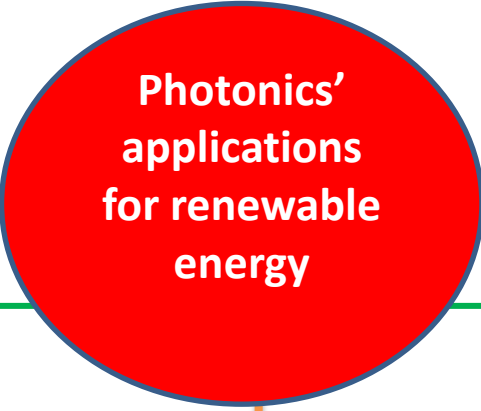
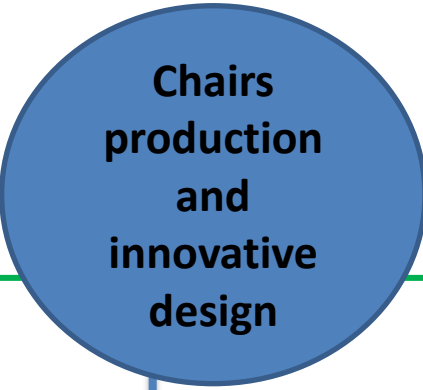
Knowledge economy



Structural changes (sector level)
Knowledge spillovers
New projects complement existing structures
Activities/sectors are connected



Knowledge economy



A hard policy process: 'haute couture'

'Haute couture' in Portugal!

- A traditional sector in Portugal : shoes' industry which is under competitive pressure because of the success of chinese footwear industry (average price in Europe: 4 Euros!)
- An engineering school in Porto : INESC develops fundamental and applied knowledge in advanced engineering
- Specialised suppliers and software companies develop and commercialize advanced tools (such as water jet equipments)
- Numerous shoes companies adopt such tools allowing to respond quickly to small orders and to market a variety of models and designs

*CEI / Zipor
Group
Water jet
cutting systems* ★



***Modernisation & diversification through research and innovation**

Second largest European exporter
Second highest value shoes in Europe

***Spillovers to other sectors**

Metal working, furniture, automotive

***The process has two faces**

Transforming a sector
Building capabilities



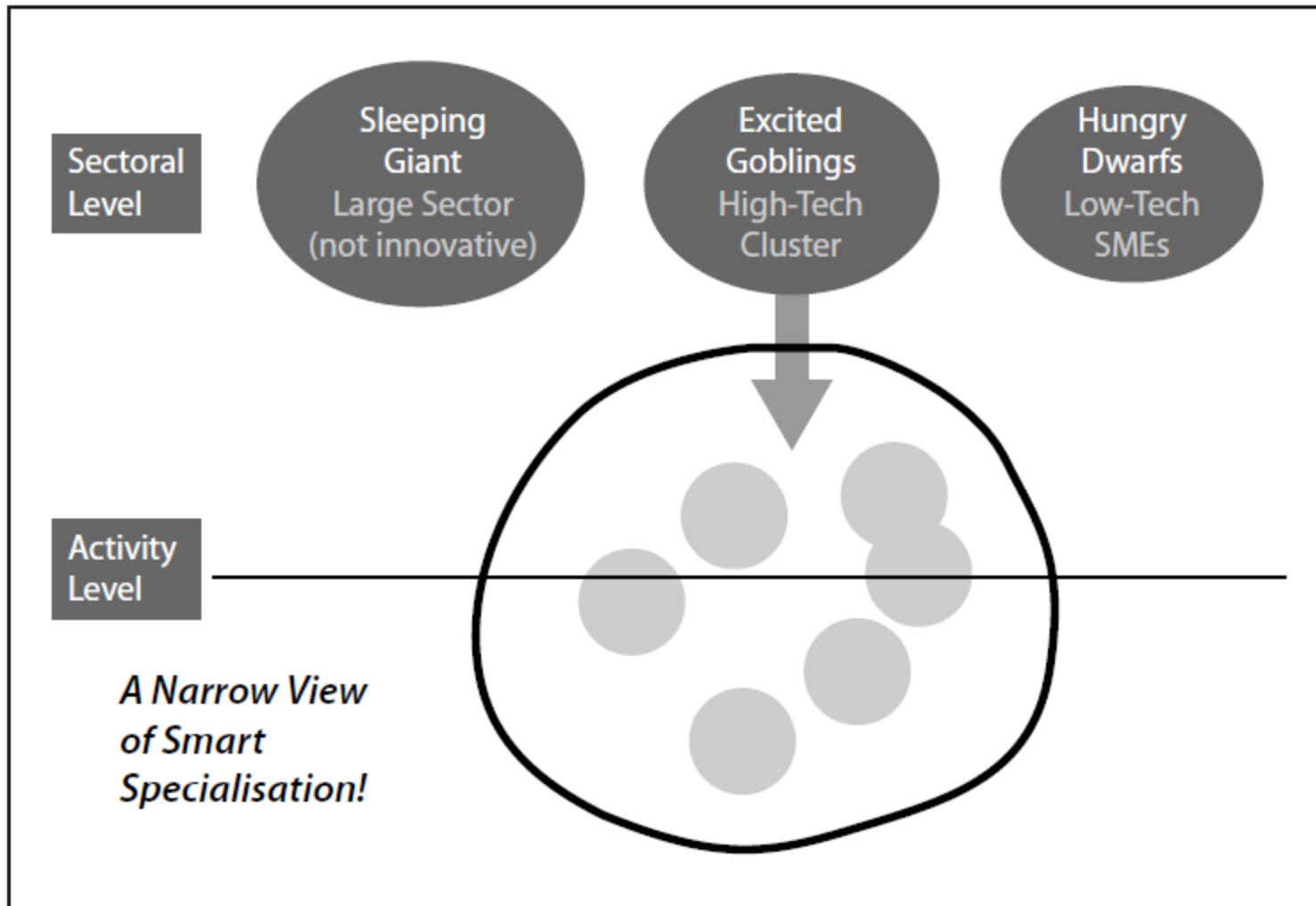
1 - Not sectoral prioritisation but *new activity*

- What is prioritized is not a sector but the *new activity* to develop advanced manufacturing tech. for the shoes' industry
- Sectoral prioritization creates distortions
- Activity level is the right one to see in detail the pieces of the knowledge economy that a region or country can take as a basis for its S3

2 - No omniscient planner anymore

- The government does not have innate wisdom or the *ex-ante* knowledge about future priorities.
- Reversing the logic of principal-agent model : the principal (the government) knows from the start which specialities should be developed and therefore confines itself to setting up the incentives for private industry to carry out the plan !
- **The discovery process is an issue in its own right.**
- In that case, the discovery and collective experimentation process forms an integral part of political action - strategic interactions between the government and the private sector.
- This is the essence of entrepreneurial discovery.

3 - Inclusiveness



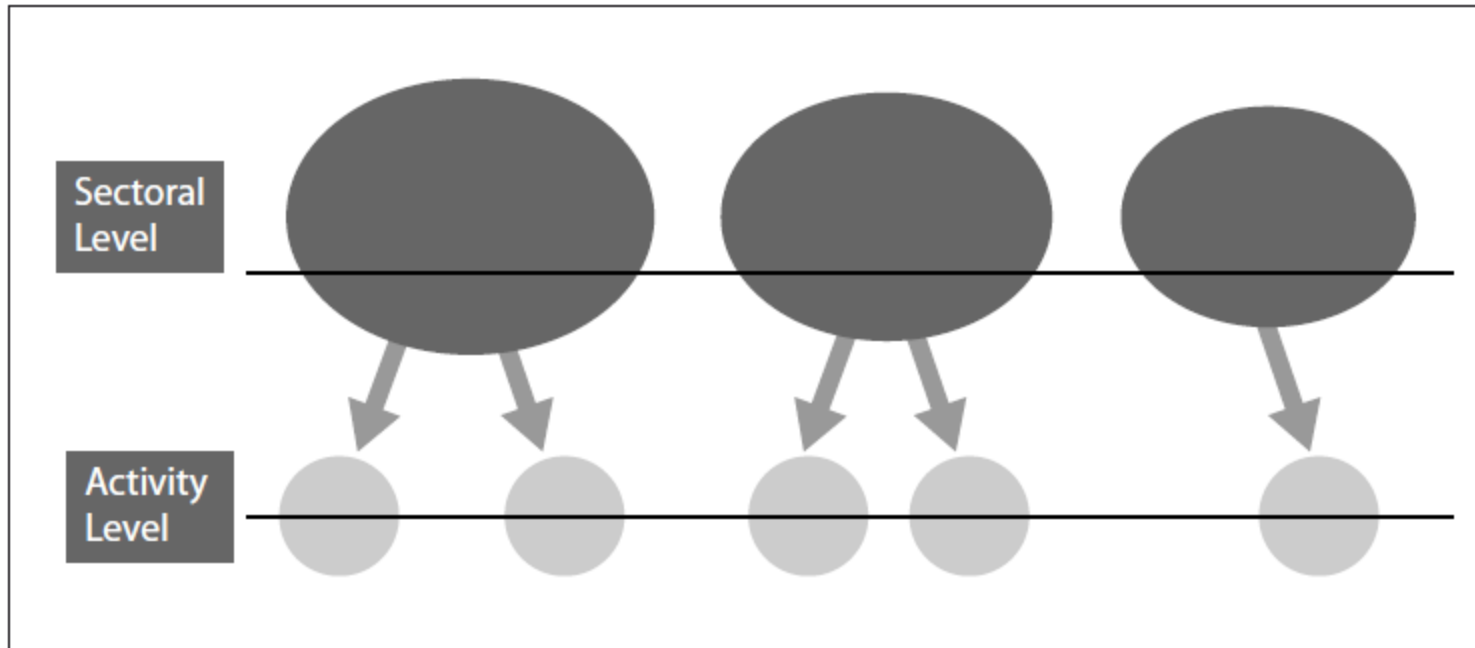


Figure 3.2: *An Inclusive Smart Specialisation Strategy.*

4 - Experimental nature and evaluation

- The point is not to reduce the risk of mistakes – which would result in no discovery at all – but to minimise the costs of mistakes
- Evaluation
 - Ex ante to assess potentials and select priorities
 - Ex post to measure progress according to clear benchmark

Nine criteria to assess ex ante projects or domains and select priorities

- * Proximity to market
- * Does the activity open a new domain potentially rich in innovation and spillovers?
- * What is the degree of collaboration, the number of partners involved?
- * Is public funding needed?
- * What is the significance of the activity for the regional economy?
- * What is the capacity of the region to keep the successful activity on its territory?
- * Can this activity drive the region towards leadership in the selected niche?
- * What is the degree of connectedness of the activity *vis-à-vis* the rest of the regional economy
- * Private firms are ready to submit themselves to monitoring and performance audits.

5 - Evolving prioritisation

- After n years, a new activity is no longer new
- Whether it is a success or a failure, it should not be prioritised anymore
- Sunset clause for withdrawing support (or self-destructing mechanism)

*CEI / Zipor
Group
Water jet
cutting systems* ★



Inovação

This is smart specialisation because:

What is prioritized is not a sector but *a new activity*

The agency has been instrumental in supporting the formation of a consortium to integrate knowledge and generate *entrepreneurial discovery*

Not just high tech but *high tech penetration into a traditional sector*

Expected outcomes :
structural change, spillovers
to other connected activities

Smart specialisation *versus* joining a GVC?

- Look back to the footwear industry facing the competitive shock of Chinese competition
- Two responses
- **Global value chains**: the Sinos Valley (Brazil)
 - Upgrading is imperative but limited
- **Smart specialisation** (Portugal)
 - Upgrading is imperative and has been fully accomplished!

Summary

- Putting in place a process in order to:
- Identify, evaluate and support a few ED projects
- Help ED projects to emerge in sectors with poor capabilities (inclusiveness) : platforms/programs
- Assess ED *ex ante* and prioritize
- Evaluate progress according to clear benchmark for success and failures (cost, productivity, innovation, job)
- Keep alerted : new opportunities will emerge while some projects will be terminated : *the strategy is a living document*

Go beyond the obvious (smart) specialisation

- In most countries only a limited number of sectors (and also actors) play a key role in the growth of BERD
 - Pharma, ICT, motor vehicles
 - By definition several priorities will be set here (*the excited goblins!*)
- But new mechanisms must be developed to generate projects/priorities in other sectors (*sleeping giants and hungry dwarfs*)
 - Platform, consortia
 - Private sectors entrepreneurs but also universities and other actors bid for public resources by bringing forth pre-investment proposals
 - Use twinning and teaming initiatives; twist FDI towards S3

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REGIONAL INNOVATION POLICY



What is important is to have a process in place (a strategy) which helps to reveal or to build the new activities that will construct the future competitive advantages of the country

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Thank
you!