ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

Reviewing innovation policy in Piedmont

The Policy Context

Demand for regional action is strong in all OECD countries

- **Regions and globalisation:**
  - Changes in the way firms decide what they produce and where
  - ...leading to an evolution of the relative "value" of regional assets
- **Background of societal concerns:**
  - OECD Ministerial meeting conclusions – Governments need to communicate better the threats and opportunities of globalisation
  - Views of EU citizens (Eurobarometer): globalisation = delocalisation
- **Perception from the regions:**
  - Always someone, somewhere that can do what we do, but cheaper
  - Is it better to be specialised or not? How can regions move up the value chain and anchor their key industries?

Common answer is often "be more innovative"…

The Policy Context

Policy streams are converging: regions are where innovation happens…

Policy	Old	New
Regional	Redistribution to lagging regions; exogenous drivers	Building competitive regions by building local capacity; innovation the key driver
Science and Technology	Narrow definition of innovation; single sector projects in basic research	Broader definition; Collaborative and multi-sectoral research; focus on business applications
Industry and Enterprise	Subsidies to firms; national champions	New or hard to reach innovation –SMEs, services, public sector, eco-inno

And now Ministries of Economy and Finance – innovation's role in moving out of recession

The Policy Context

…some general models, but no clear best practice…

	Federal, decentralised	Centralised	Small country
Innovation environment	↔	↑	↑
Innovation poles, clusters and science parks	↓	↔	↔
R&D, pure research/applied	↔	↑	↑
Enterprise support for innovative firms	↓	↔	↔

↔ = both central and regional levels involved ↓ = essentially a regional responsibility; ↑ = essentially a regional responsibility

Source: Based on Technopolis et al. (2006)

The Policy Context

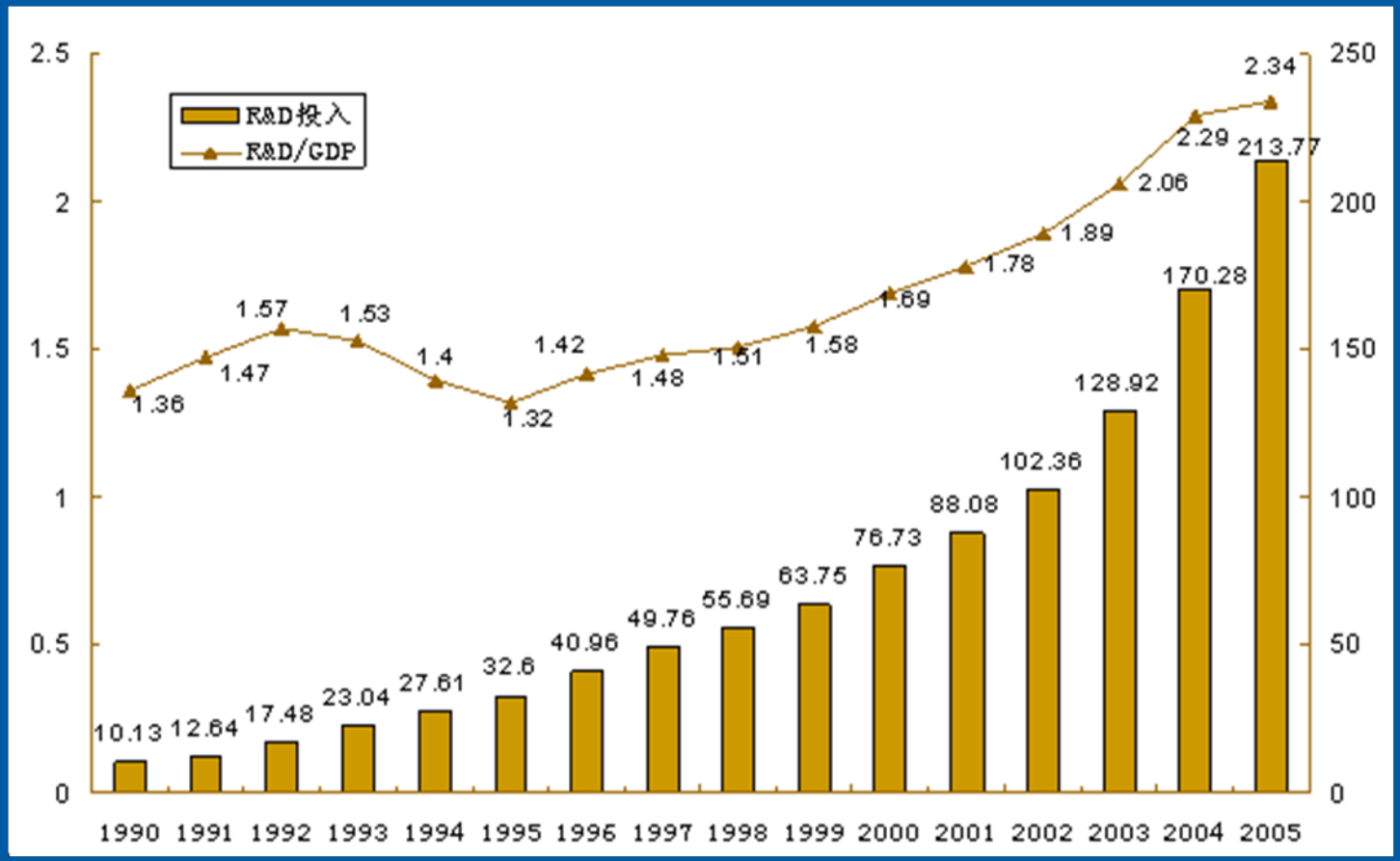
The scope for regional intervention is becoming clearer…

Category	National policy	Regional policies
Area of specialisation	"anonymous" framework of regulations and institutions	collaboration among identifiable actors; importance of proximity relationships
Types of innovation support	basic research, applied research	close to the market, assisting firms to translate knowledge into marketed products and services
Strategic approach	overall policy focus for national innovation system	building regional consensus based on needs assessment; addressing specific gaps (e.g., alternative institutions)
Rationale for intervention	market failure	market "opportunities"

The Policy Context

How the system functions is as important as level of investment

Shanghai aims to increase R&D intensity to 3.3% by 2020…



Where Piedmont fits in:

A leading example of what regions can achieve

The key challenges for Piedmont …

- Reversing long-term economic decline and promoting transformation
- Addressing sub-regional disparities
- Utilising new constitutional powers
- Creating new innovation networks
- Reinvigorating the public sector's role

Key themes for the review…

- Innovation performance
- The innovation "system"
- Innovation policy and governance
- Threats and challenges

What the review found:

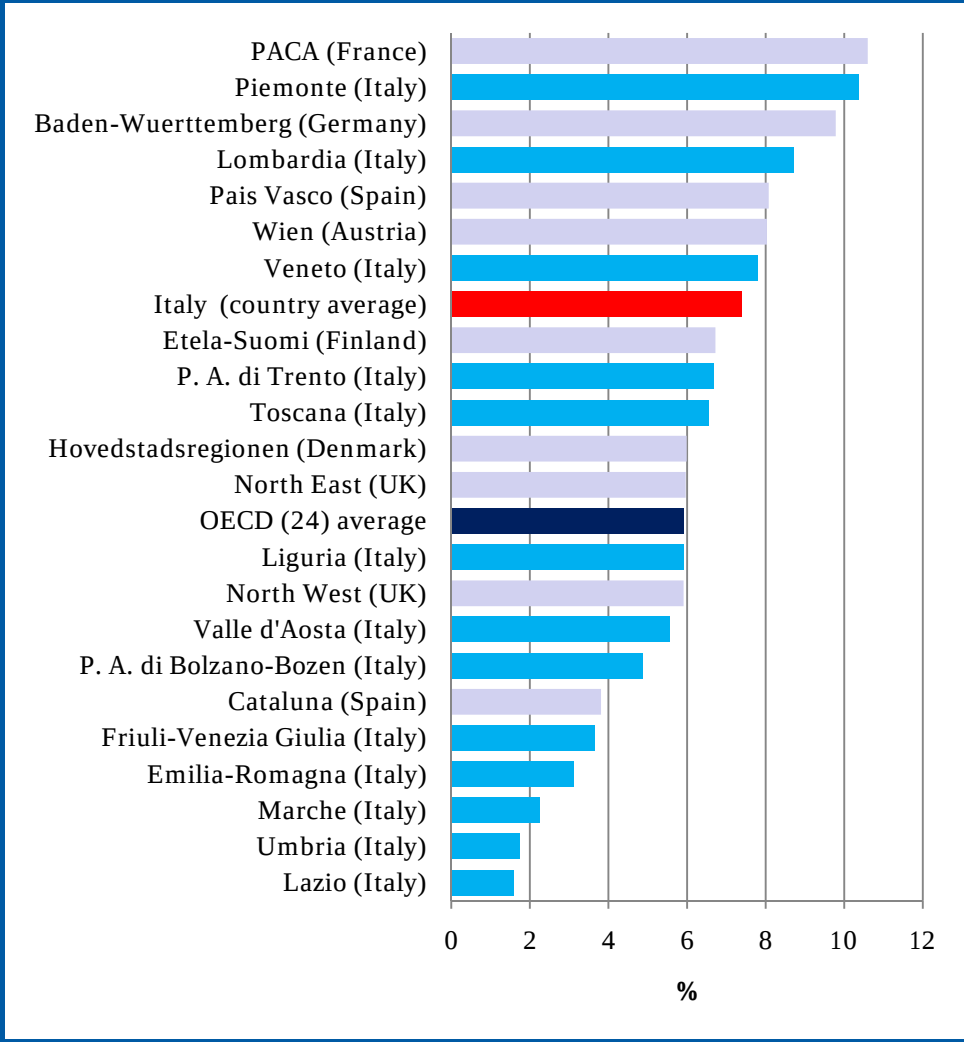
Piedmont's innovation performance…

- Piedmont ranks 1 or 2 in Italy on innovation measures but is less prominent in Europe
- Manufacturing declining as elsewhere but from a very high start point (and unusually stable high tech output and employment)
- But slower growth than other Italian regions and slippage on innovation indicators is a concern
- Innovation policy outcomes have not yet "trickled up" but research funding success is encouraging

Piedmont's innovation performance…

A marketable manufacturing tradition and technological base

High-tech manufacturing:
Percentage of high-tech manufacturing employment in total employment, country average and regional level (TL2), 2005

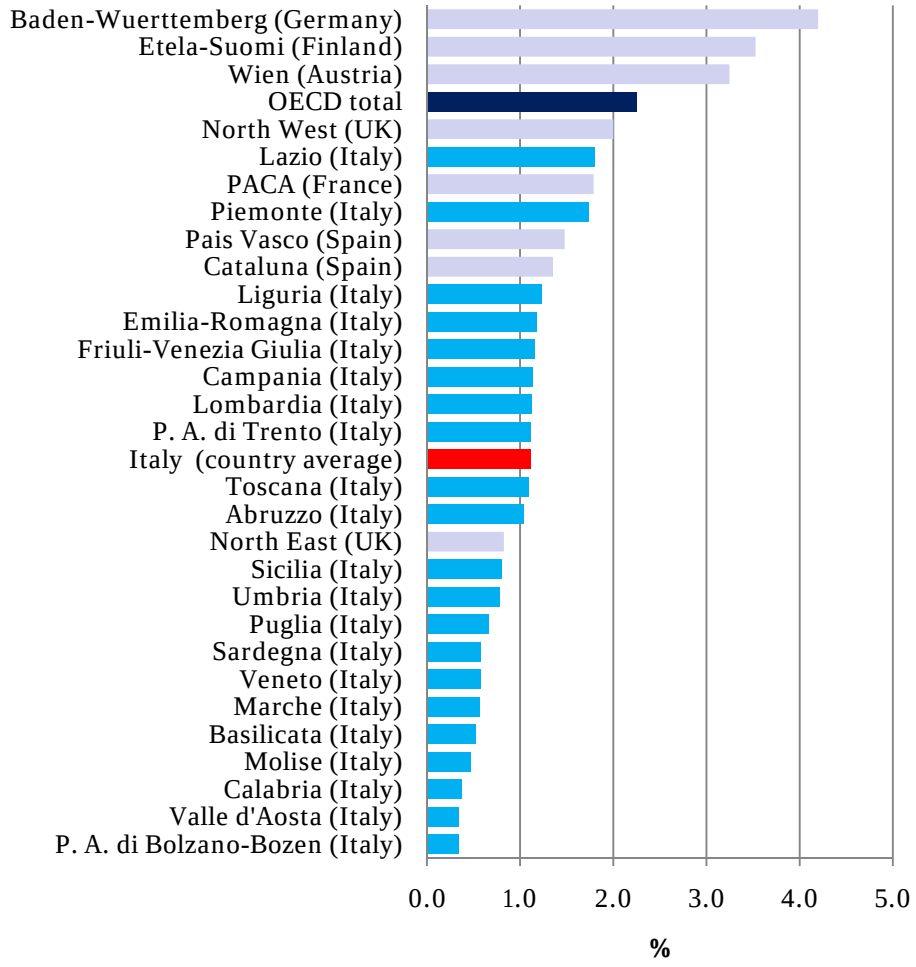


Piedmont's innovation performance…

Scores well on national comparisons but less well internationally

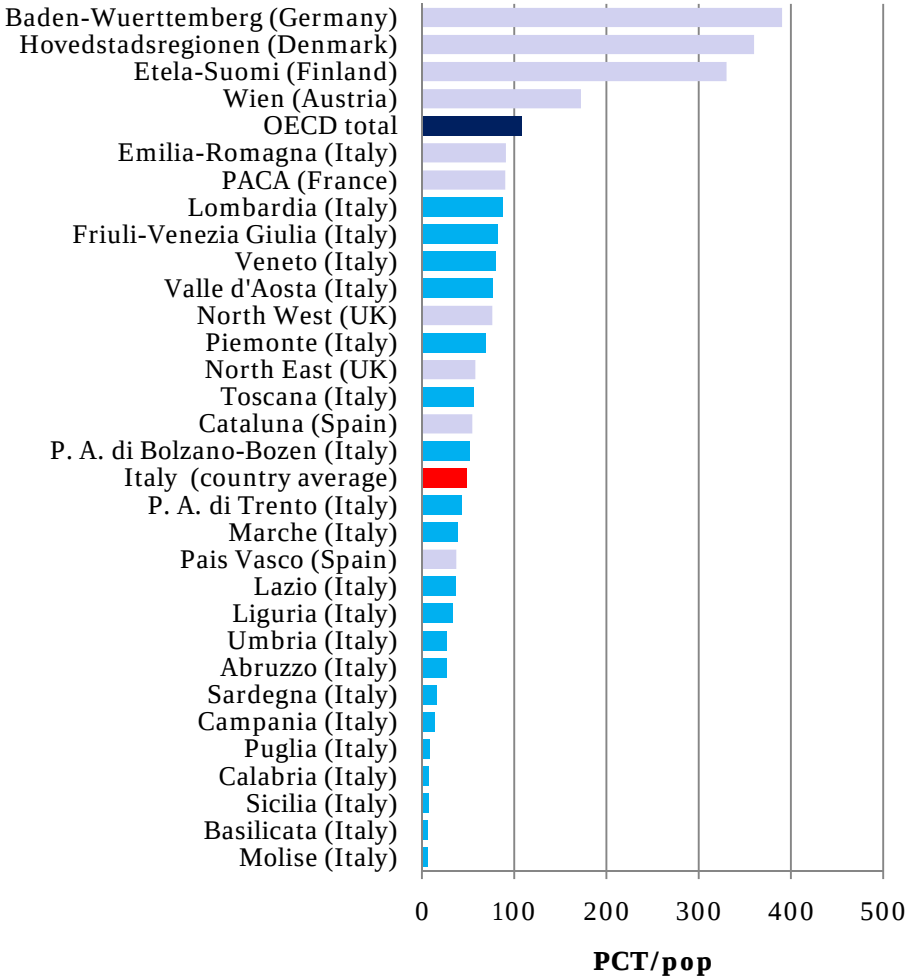
Research and development expenditures:

R&D intensity, 2005 Country average and regional (TL2)



Patents:

PCT patent applications per million population, 2005



Piedmont's innovation performance…

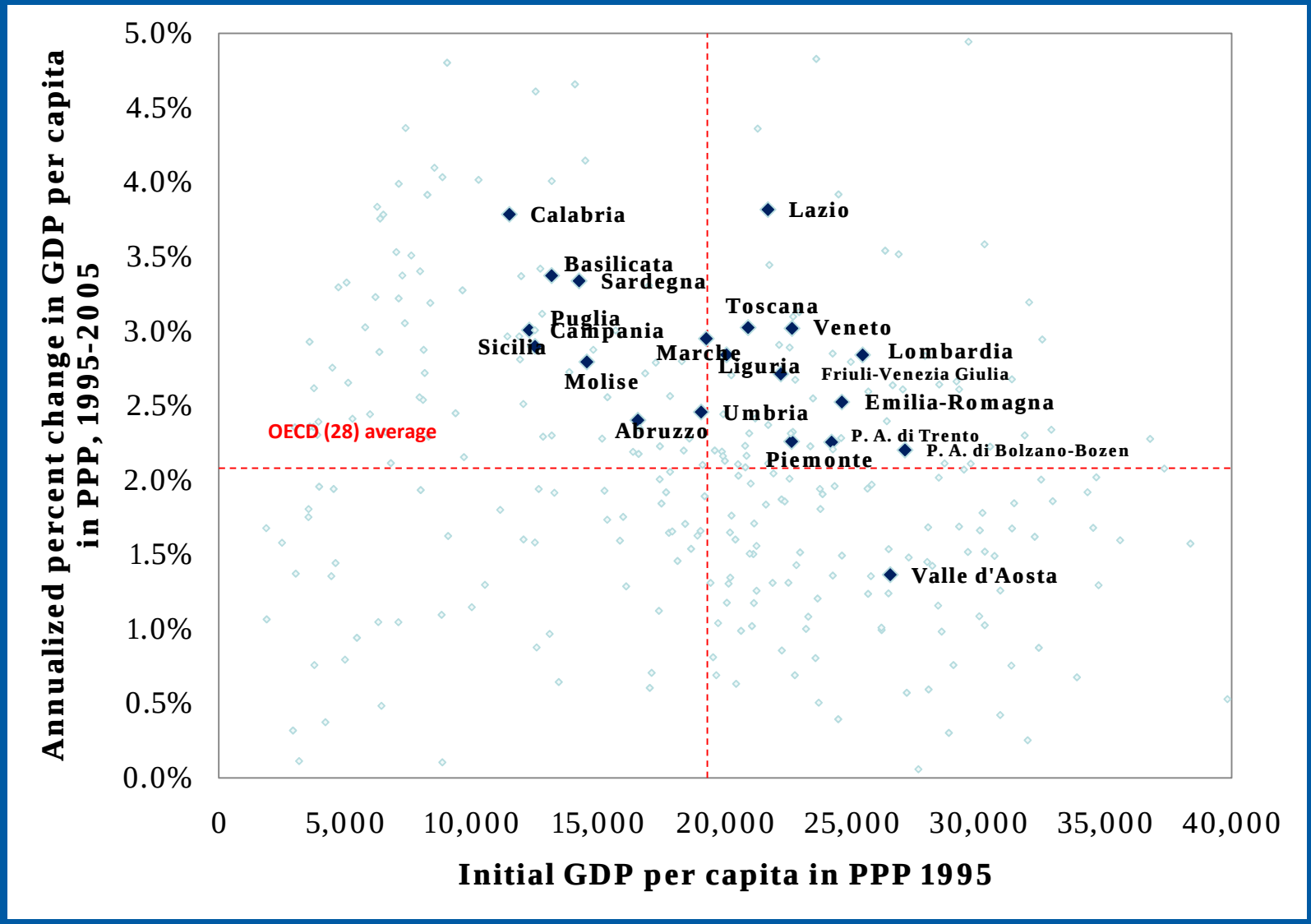
Over performs in EU research programmes, with recent growth

Thematic area	Bids		Awards	
	No.	% Italy	No.	% Italy
Technologies for the information society	704	12.7	159	14.7
Nanotechnologies and nanosciences	325	12.6	124	25.6
Sustainable development	303	12.6	96	15.9
Aeronautics and space	105	12.6	62	21.5
Specific activities for SMEs	452	12.6	24	5.0
Life sciences	173	12.6	17	3.9
Innovation and research	76	12.5	14	6.8
Research for the research policies support	177	12.6	12	7.2
Safety and quality of food products	120	12.6	9	4.4
Citizens and governance in the knowledge society	84	12.5	9	7.7
Support to international co-operation	252	12.7	7	6.5
Co-ordination of research activities	26	12.4	1	5.9
Euratom	24	10.8	1	2.3
Total	**! 821**	**12.6**	**535**	**12.6**

Source: Unioncamere Piemonte (2007), cited in Finpiemonte Background Report (2007).

Piedmont's innovation performance…

Yet GDP growth has been slow compared to other Italian regions



What the review found:

The innovation system…

- A strong and dense innovation generation system… but with peculiar characteristics (few universities; diverse national and private research centres)
- Innovation users mainly large firms; long “tail” of non-innovating firms
- Wide variety of intermediaries and brokers, with strong “histories” and potential for overlap
- Various science parks and industrial parks that are “in and out” of the system

Complex to manage but diverse and active…

What the review found:

Innovation policy…

- Aimed to focus research efforts on key sectors – has done this successfully
- Aimed to increase R&D volume and consolidate projects to gain critical mass – also successfully
- Aimed to generate culture of collaboration – joint projects have increased, but few with SMEs
- Aimed to streamline institutional structure – but influence beyond regional government and Finpiemonte is limited

Too new to evaluate success but signs are good

What the review found:

Governance…

- Multi-level system creates strategy and funding bottlenecks but also some synergies
- Diverse funding sources (EU, foundations, etc.) mean that policymakers need to persuade and can't assume that partners will follow
- Dilemma of whether to create unifying institutions to force coherence or allow smaller actors/institutions to grow/die organically
- Culture of evaluation is currently weak – hence evidence base also weak

In practice, policy action depends on maintaining consensus…so far so good

Threats and challenges:

Common barriers to achievement

The key challenge is sustaining momentum around a longer-term change process. Peer reviews suggest common reasons for failure:

- Abandonment of 'innovation' after one attempt
- Disillusionment with slow progress or failure
- Obsession with the new, neglect of the old
- Good plans, shame about the implementation

Success depends on credibility of policy and political support even for objectives that are long term or less "sexy"