

**UNECE Team of Specialists on Innovation
and Competitiveness Policies**
Geneva, 14 February 2008

**New developments in innovation policy:
Optimizing the functioning and
effectiveness of
innovation intermediaries**

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The changing framework for innovation

1. Increased **awareness** of the role of innovation as crucial ingredient for economic development
2. **Interactive** view of innovation - innovation differs from R&D
3. **System-based** approach to innovation, emphasis on **learning and diffusion / absorption** of knowledge
4. **Mobility of tacit knowledge** embedded in humans becomes a key performance factor
5. **Glocalisation** : localised nature of (tacit) knowledge spillovers - importance of **global** connections



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Policies for innovation systems

From “stocks” to “flows” as main focus of policy attention

▶▶ **Flows** in the system need to be addressed in priority

From “raising resources” towards “promoting change”

▶▶ Performance is affected by **learning** abilities of firms and others

From “best practice” towards “context-specific” solutions

▶▶ Policies should be fine-tuned to **specific system failures**

From “standard” policy-making towards policy “learning process”

▶▶ There is a need for more **strategic intelligence** in policy-making



Policies for “activating knowledge”



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Traditional innovation policy instruments in EU regions

FORM AND FOCUS OF SUPPORT		
Target of support	<i>Input resources</i>	<i>Behavioural additionality</i>
<i>firm-oriented</i>	A	B
<i>(regional) system-oriented</i>	C	D



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Policy instruments targeting innovation in SMEs

- Focus of policy instruments
 - 1 Finance - risk sharing
 - 2 Technology - technical know-how
 - 3 Qualifications - personnel
 - 4 Market access - information
 - 5 Time constraints - Organisation - Strategic capabilities
- Lack of "market orientation" of policy tools
- Accent primarily on innovation hardware



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Policy instruments targeting innovation in SMEs

- Value of “umbrella” instruments
- Appropriate policy portfolio : based on combination of regional and firm’s deficits
- There is no one-size-fits-all policy system
- Policy designers and implementers need : high degree of understanding of the innovative firm's behaviour, self-reflexive capacity and openness to evaluation
- Division of labour within government causes policy fragmentation



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Implications for Science Parks

The BRIDGE

- ✓ Technology transfer
- ✓ From source to recipient
- ✓ A specific place
- ✓ Focused support
- ✓ Material support
- ✓ In-house support
- ✓ Technology gap

The CLUSTER of COMPETENCE

- ✓ Dialogue creation
- ✓ Multilateral exchanges
- ✓ A node in a system
- ✓ Multiple support
- ✓ “Learning support”
- ✓ Clearing house
- ✓ ...and managerial gap

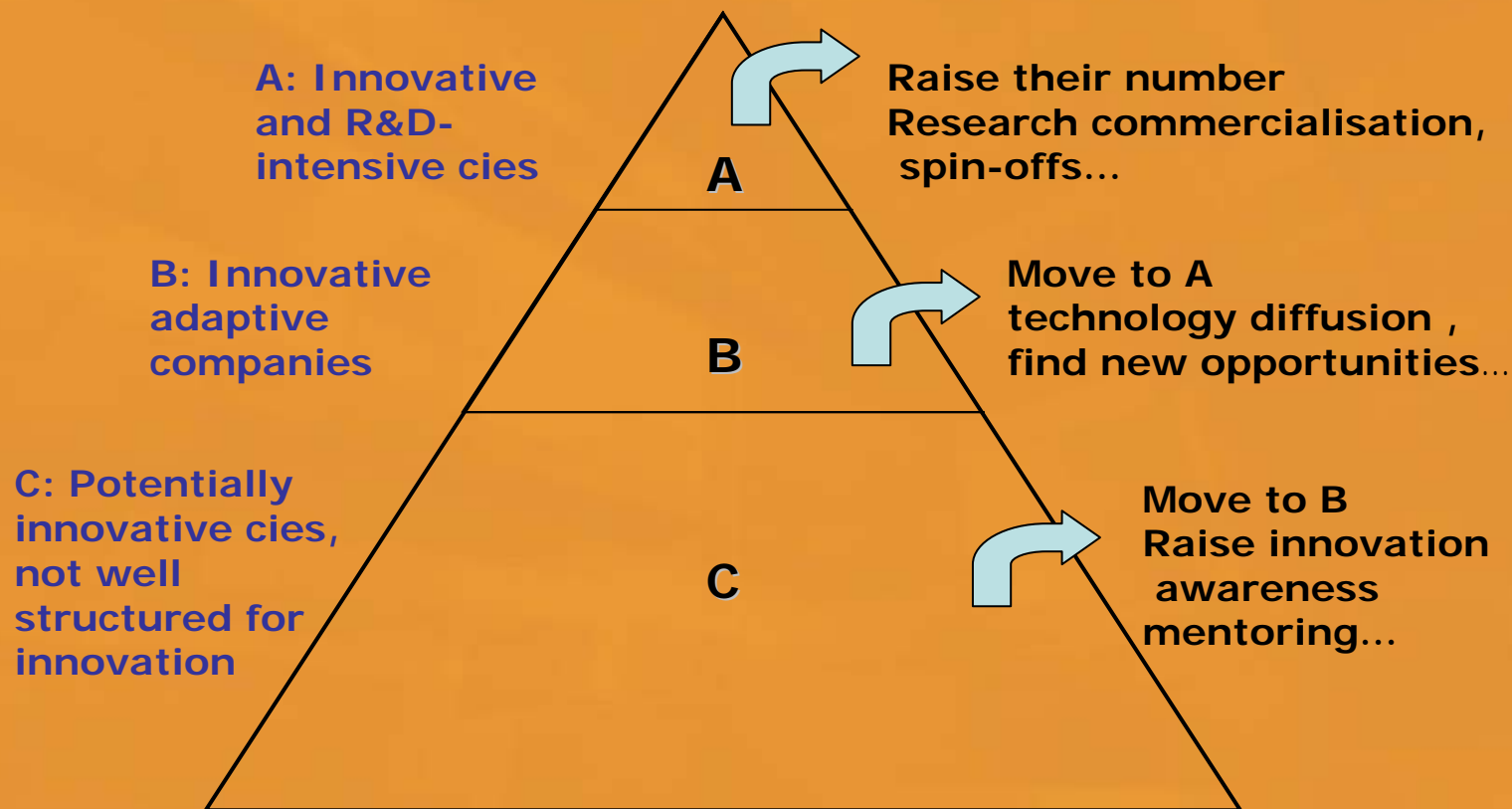


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S&T intermediary system in Wallonia

Firms' needs

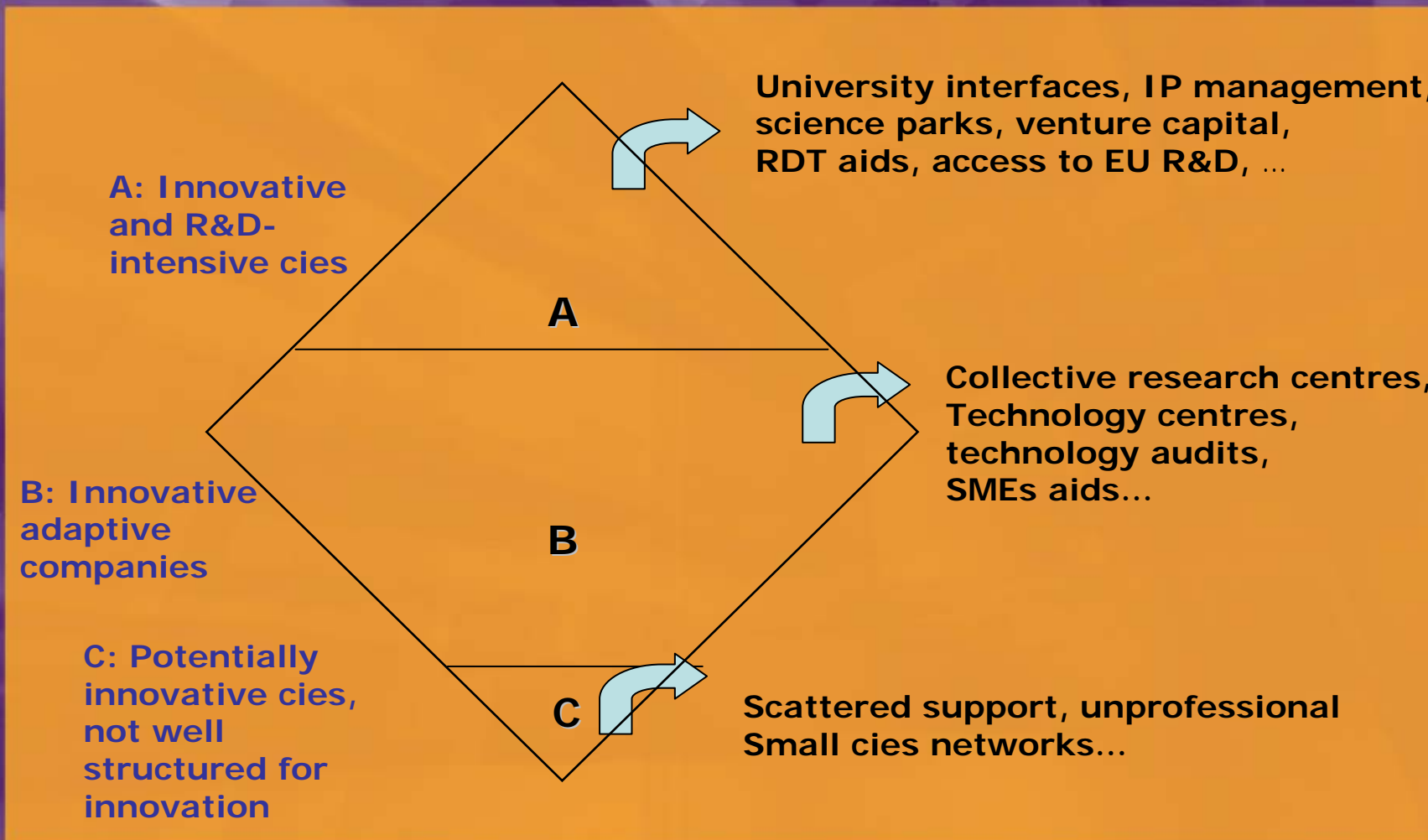


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S&T intermediary system in Wallonia

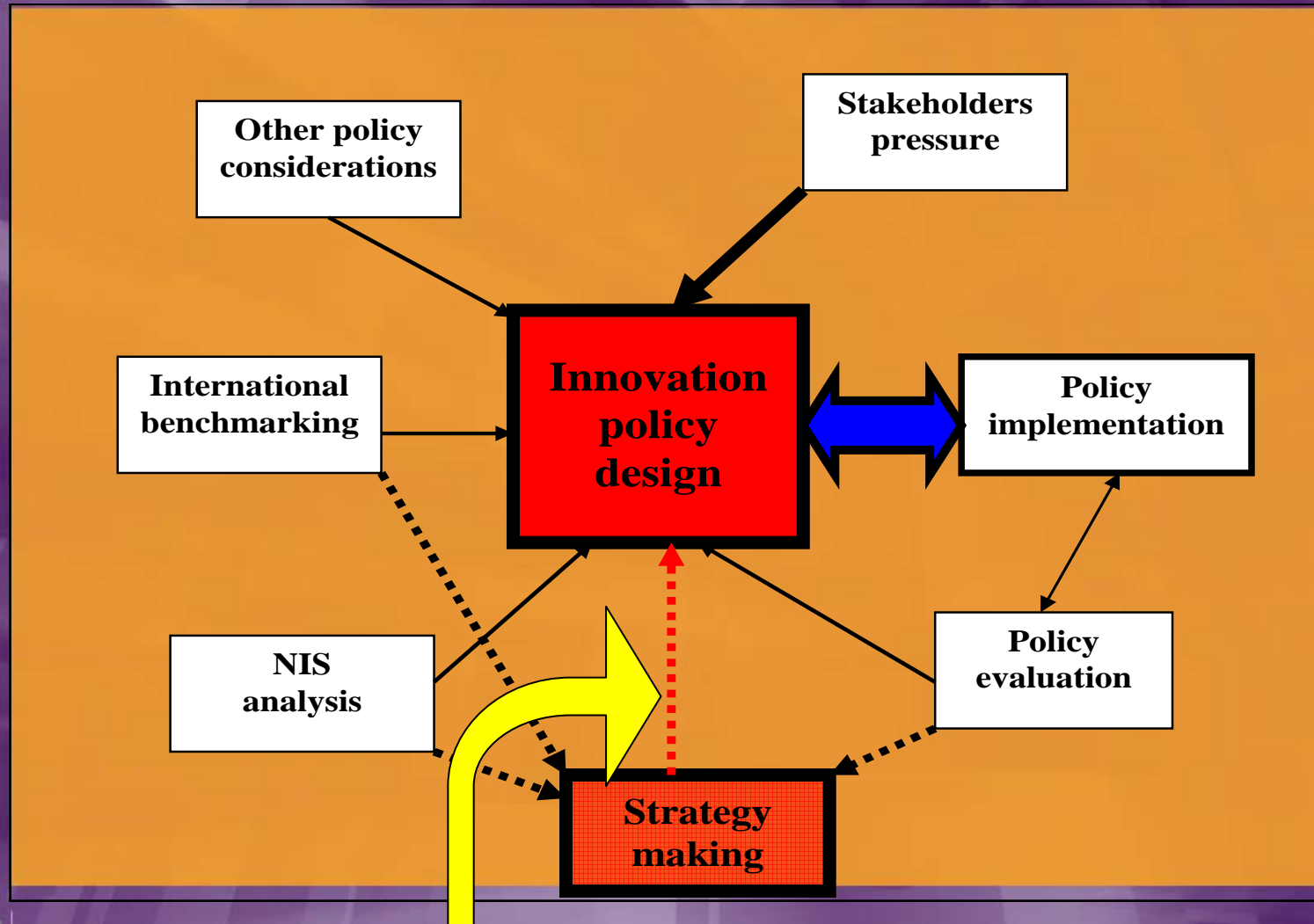
Organisation of support



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Inside the black box of policy-making



How to reinforce this loop ?



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Tensions in policy-making

- Competing rationalities across policy fields and different schools of thoughts
- Short-termism in resources allocations
- Innovation as a “homeless” policy
- New Public Management and need for coherence
- Individual ambitions versus grand visions



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Source: OECD
MONIT study (2004)

An example of strategic intelligence tool

IMPACTSCAN: a practical tool to picture and compare regional innovation policies, with a focus on intermediaries system.

It highlights:

- Regional policy objectives
- Intermediaries financed by the region
- Services subsidised by the region
- Impacts on firms' innovation enablers



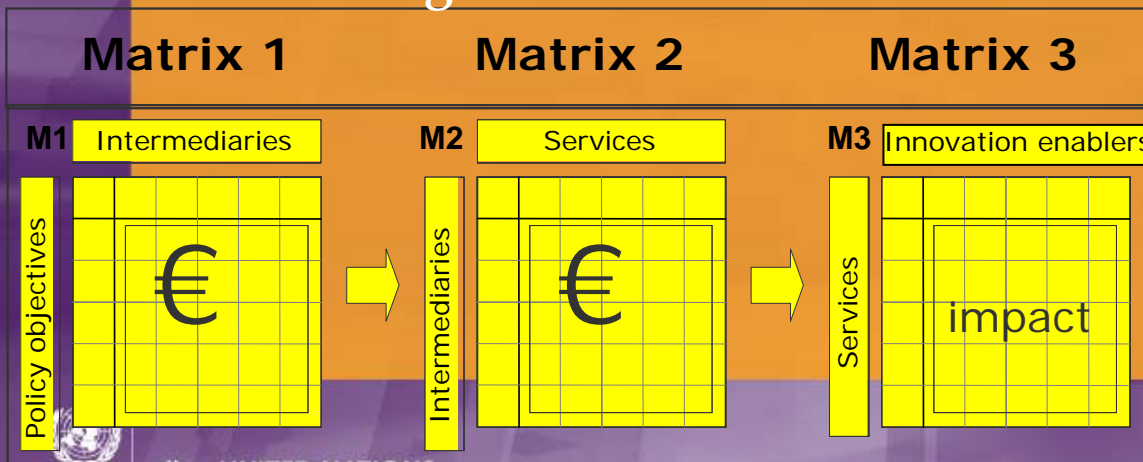
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IMPACTSCAN

- Matrix 1, Matrix 2 : Regional Innovation Budget (total, by objective, intermediary, service)
- Matrix 3 : Impact of services on innovation enablers (firms survey)
- Context: Indicators (quantitative, qualitative, description of the region)

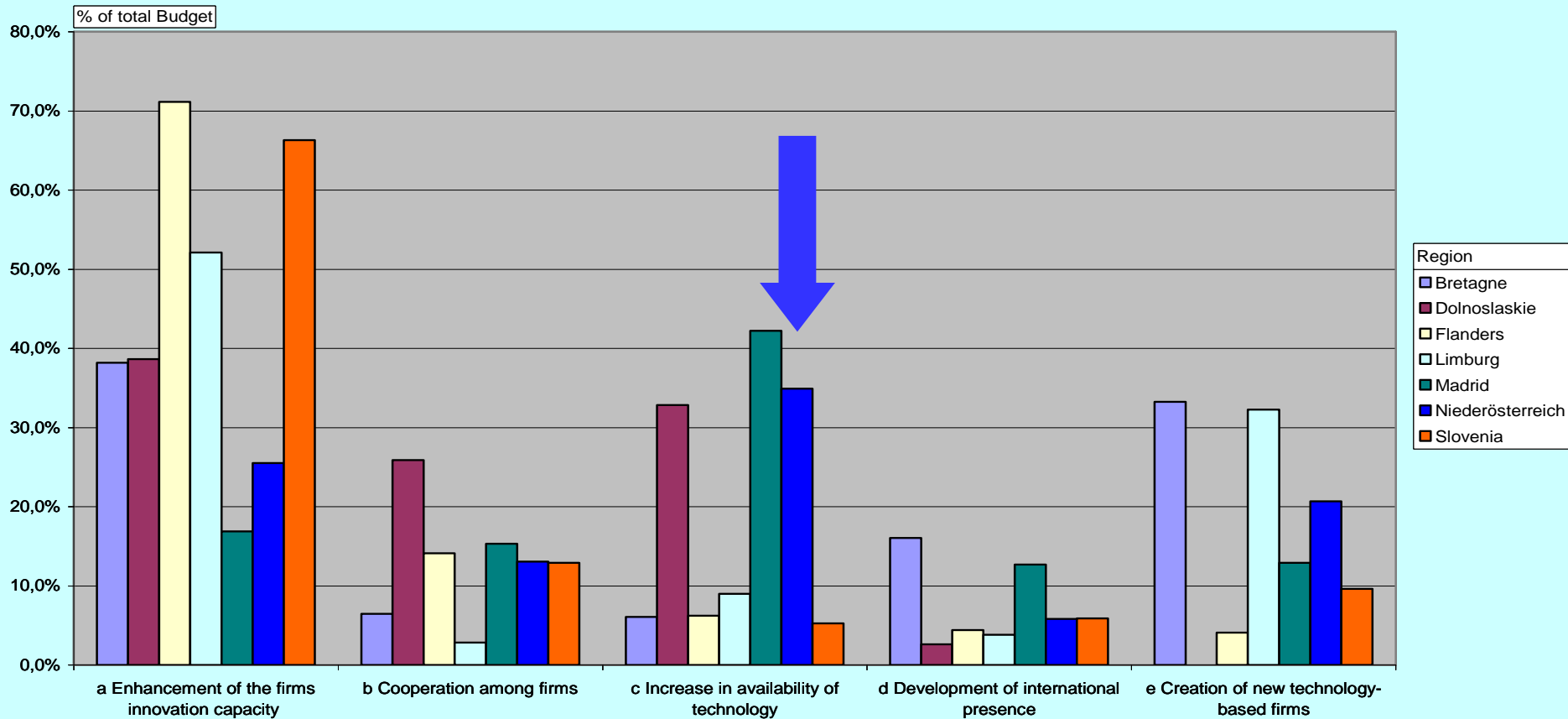
Context indicators



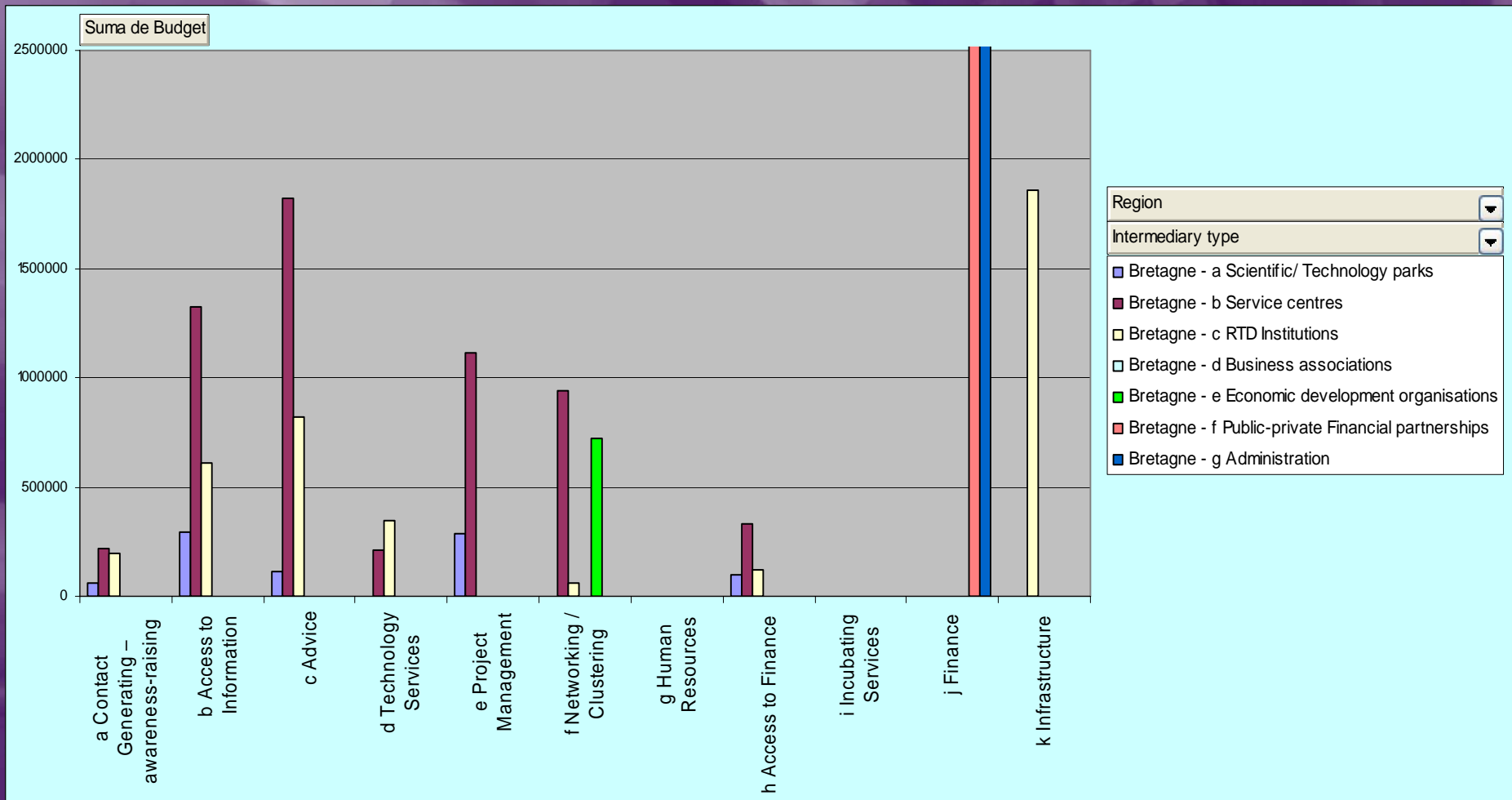
CONTEXT SETTING INDICATORS		162	162	162	162	162	162	162
		Bulgaria	Czechia	Netherlands	Germany	France	Italy	Spain
1.1 Size and diversity	Variable	Source						
1.1.1 Size (population)	European context setting	2008000	626161	1640000	1180000	2880113	2801004	1.697.000
1.1.2 Diversity of population	European context setting	110.5	469	82.6	120.8	145.5	102.5	181.2
1.2 Share of the national innovation budget	European context setting	4.28%	57%	15%	6.2	29%	18%	18%
1.3 Policy context (general position of region in knowledge economy)								
1.3.1 GDP per capita	European context setting	23389	27516	22097	27024	5441	25818	13.124
1.3.2 Growth rate of GDP per capita	European context setting	4.5	2.5	3	1.2	4.7	3.5	4.1
1.3.3 Regional Innovation Scoreboard 2006	European context setting	0.51	0.61	0.37	0.53	0.31	0.61	0.35
1.4 Health of the labour market	Context setting							
1.4.1 Total R&D expenditures on GDP	European context setting	92.7	94.6	95.7	94.6	77.2	93.2	89.1
1.4.2 Share of the region in national R&D expenditures	European context setting	1.64	2.28	2.83	1.96	4.39	1.28	1.45
1.4.3 R&D expenditures on GDP (GROSS - BERLIN)	European context setting	3.22%	67%	6.22%	7.23%	5.87%	39%	10%
1.4.4 GDP persons per million population	EU2006	73.08	78.36	78.84	94.67	2.801	17.158	21.3
1.5 Population with a tertiary education (% of 25-64 years age class)	Context setting							
1.5.1 EU2006	EU2006	20.1	23.11	13.12	18.31	13.22	20.03	15.37
1.5.2 EU2006	EU2006	16	20.6	9.2	16.4	14.7	22.3	16.6
1.5.3 EU2006	EU2006	6	9.1	1.3	14	5.9	12	10.34
1.6 Brain-drain or brain-gain situation (attrition/losses for labour)	Context setting							
1.7 Regional innovation policy governance								
1.7.1 Degree of awareness of the regional R&D system	Context setting							
1.7.2 Share of amount of "regional budget for innovation" per capita	M1-M2 budget	10.00	38.60	23.21	24.32	1.64	11.00	30.20
1.7.3 Share of "regional budget for innovation" on the overall regional budget under the responsibility of the Regional government (regional government budget)	M1-M2 budget	6.80	0.91	0.56	7.27	2.00	0.35	0.94
1.7.4 Share of "regional budget for innovation" on GDP	M1-M2 budget	0.04	0.09	0.10	0.09	0.03	0.04	0.27
1.7.5 Level of regional innovation budget (influence of the regional government) on the global innovation policy on the regional level	M1-M2 budget	25.00	100.00	77.12	48.72	6.13	37.80	100.00
1.7.6 Evidence of coordination platform/management infrastructure for innovation policy (steering committee)	Context setting							
1.7.7 Evidence of public regional innovation strategy + existence of a regional plan/document allocating the regional innovation support strategy and addressing objectives, instruments, administrative activities	Context setting							
1.7.8 Strength of monitoring and evaluation efforts for innovation policy	Context setting							
1.7.9 Perspectives and plans for reinforcement of innovation policy	Context setting							
1.8 Quality of innovation ecosystem								
1.8.1 Existence of the local technology / R&D service ecosystem	Context setting							
1.8.2 Existence of a comprehensive regional innovation support infrastructure/activities on the innovation support other than R&D	Context setting							
1.8.3 Existence of a platform to facilitate firms' access to intermediate R&D support schemes	Context setting							
1.8.4 Existence of a platform to facilitate firms' access to intermediate R&D support schemes	Context setting							
1.8.5 Existence of a platform to facilitate firms' access to intermediate R&D support schemes	Context setting							
1.9 Business R&D								
1.9.1 Business R&D expenditures on GDP	European context setting	1.02	1.51	0.77	1.54	0.11	0.95	0.97
1.9.2 Share of employment in medium-high and high-tech manufacturing (% of total work force)	European context setting	4.71	7.95	6.64	5.68	6.28	3.52	8.50
1.9.3 Share of employment in high-tech services	European context setting	35.14	36.74	29.07	37.61	24.83	37.86	26.25
1.9.4 Quality of innovation culture and attitude towards risk	Context setting							

Inter regional comparisons

Budget Allocation according Policy Objectives

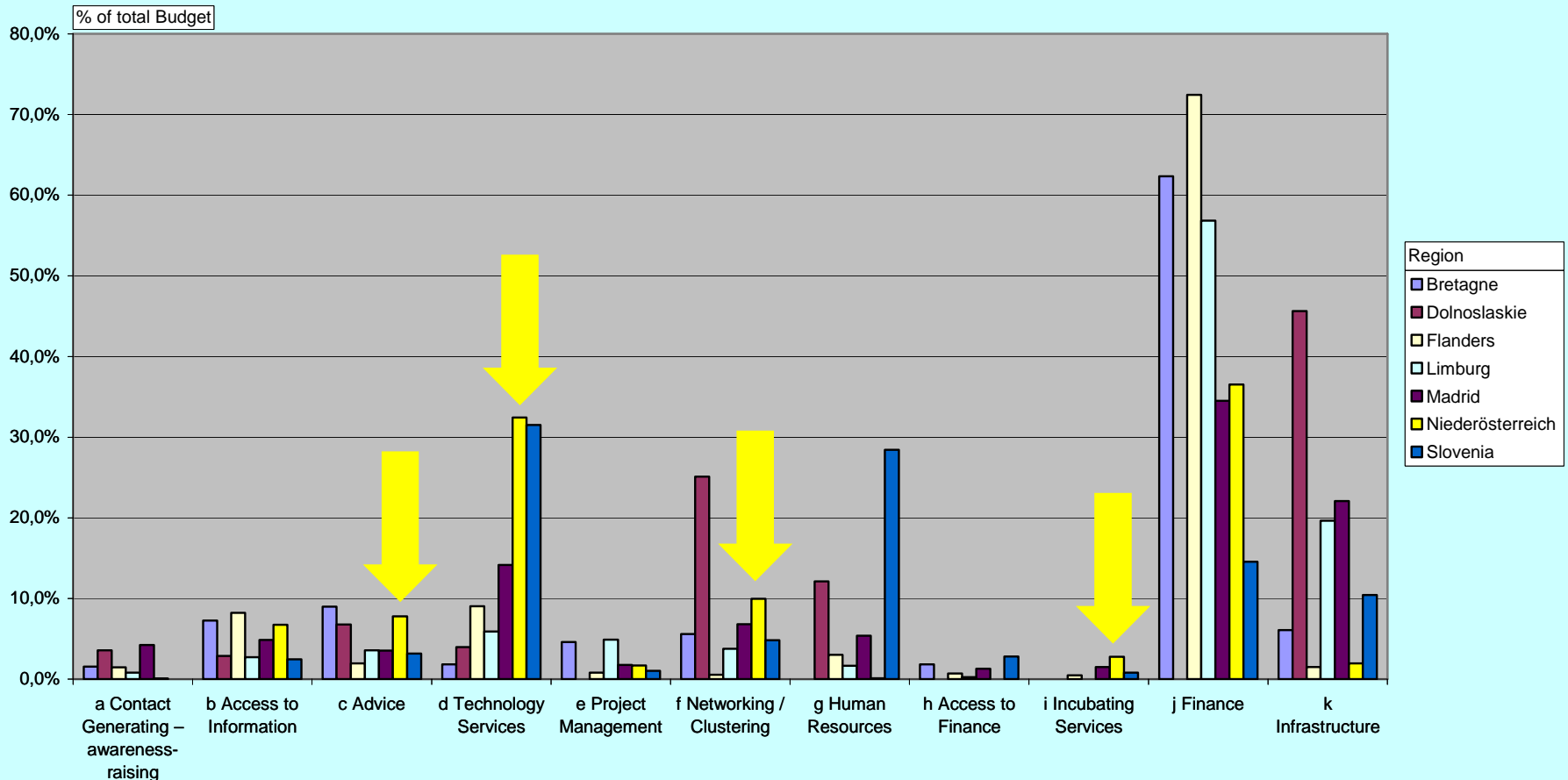


- Matrix 1: regional innovation budget by policy objective



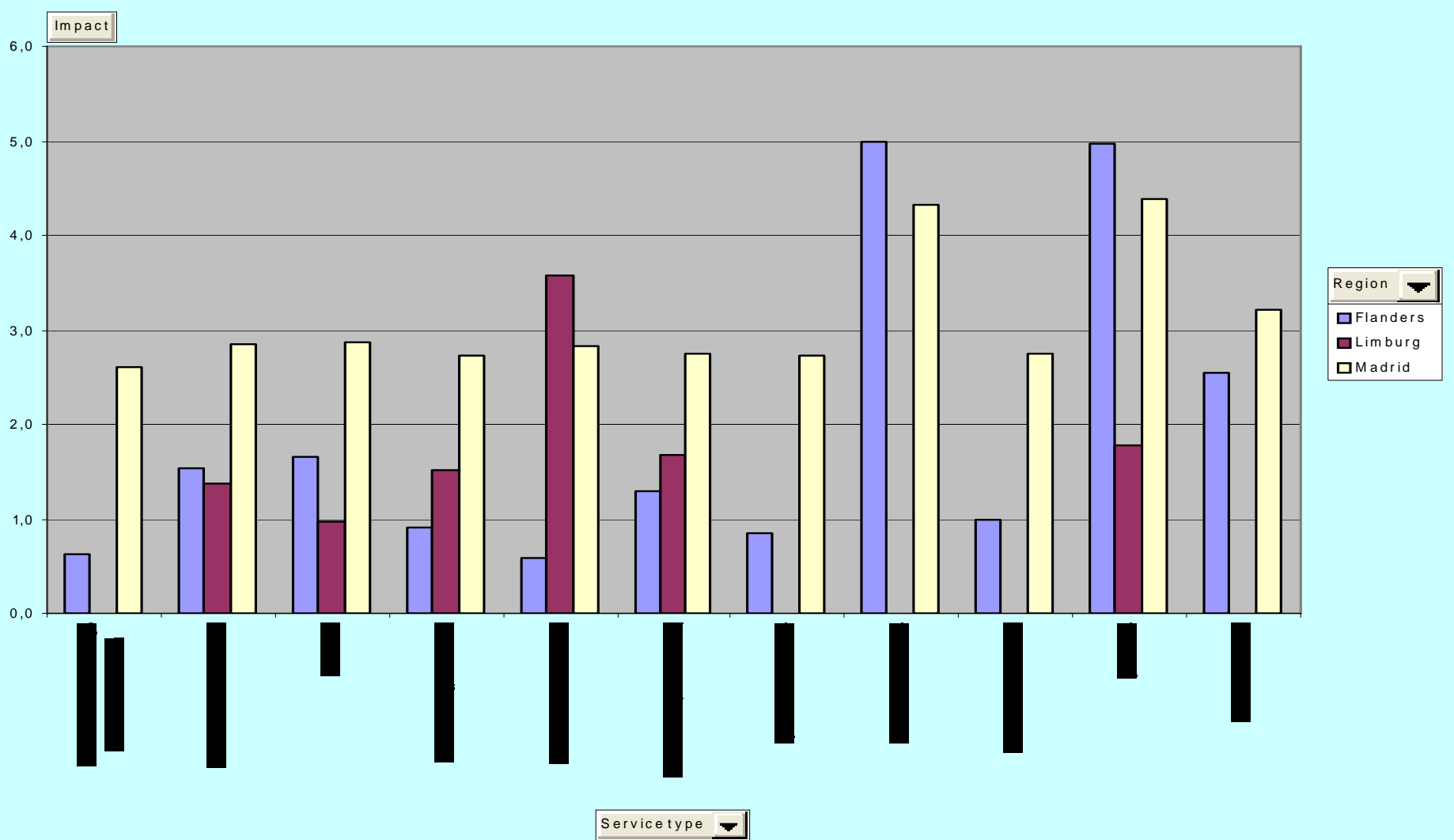
- Matrix 2: regional innovation budget by policy intermediary and service for one region

M2: Budget distribution over the service types



- Matrix 2: regional innovation budget by policy intermediary and service, comparisons between several regions

M 3 Innovation enablers vs Services



Innovation Policy : The way forward (1)

- Effectiveness of innovation systems depends on **balanced** combination of 3 capacities :
 - creation of knowledge
 - diffusion of knowledge
 - absorption of knowledge
- Growing importance of **framework conditions**
 - entrepreneurship
 - competition rules
 - labour market conditions
 - financial market
 - social capital, ...



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Innovation Policy : The way forward (2)

- Government's role shifts from investor to **facilitator** - promotion of public/private partnerships and **interface management**
- Improving **knowledge governance** in firms and clusters of firms becomes a key issue
- Policies need to "**open borders**" : between :
 - traditional fields of policy intervention
 - industries traditionally defined
 - various forms of knowledge production and diffusion



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Innovation Policy : The way forward (3)

- More efficiency through “**Policy packages**” rather than isolated instruments - Consider **Policy Mix**
- **Demand oriented innovation policies**: a “*set of public measures to induce innovations and / or speed up diffusion of innovations through increasing the demand for innovations, defining new functional requirement for products and services or better articulating demand.*” (Edler 2007)
 - Public procurement.
 - “Soft steering” concepts geared to the willingness and ability to accept, demand and apply innovations
 - Measures stimulating the articulation of needs, preferences, ideas and fears of potential users
 - Shaping of regulations and norms



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Innovation Policy : The way forward (4)

- Need for more **strategic policy intelligence**
 - monitoring and evaluation of policies
 - sound analyses of innovation systems
 - « intelligent » benchmarking practices
 - long term views
 - inclusive policy design processes



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