

# Applying science in policy – comparisons across Europe

Results from the 'Monitoring Policy and Research Activities on Science in Society in Europe' (MASIS) project

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# www.MASIS.eu

An extensive and easily accessible database with information on issues pertaining to science in society across Europe.

37 national reports covering the EU and associated countries



Country A	Country B	Country N
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- \* Use of science in policy-making
- \* Public participation in S&T
- \* Science communication

*The use of science in policy making; grouping of countries*

<b>Highly formalized / high impact</b>	<b>Less formalized / considerable impact</b>	<b>Formalized/ low impact</b>	<b>No formalization / low impact</b>
Denmark	Austria	Albania	Croatia
Estonia	Belgium	Montenegro	Cyprus
Finland	Bulgaria	Romania	Czech Republic
France	Israel	Spain	Greece
Germany	Luxembourg		Hungary
Ireland	Switzerland		Iceland
Italy			Latvia
Norway			Lichtenstein
Portugal			Lithuania
Sweden			Macedonia
The Netherlands			Poland
United Kingdom			Serbia
			Slovakia
			Slovenia
			Turkey

\* Extensive use of government research agencies  
 \* Ministries have in-house Scientific Officers  
 \* Research systematically commissioned as part of policy process  
 \* Permanent scientific councils, advisory bodies  
 \* Tutkas: Society of Research and Parliamentarians  
 \* Centres for risk research / technology assessment with reference to parliament

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'In Austria, there is little tradition of science-based policy making. Importantly, there are hardly any formal procedures for using science-based knowledge in decision-making. Scientific advice mostly occurs on an irregular and informal basis. It is important to note that *de facto* scientists often do exert an important influence on politics in Austria. However, the integration of scientific expertise happens on a somewhat erratic, informal and non-institutionalised basis and it is hard to predict when scientific advice will be followed and when it will not.'

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Legislative frameworks (e.g. Law on environmental protection in Albania) oblige policy-makers to consult scientists or take into account science-based knowledge, but in reality, science-based knowledge has a limited impact on final decisions.  
 'Although certain tools to ensure scientific advice in policy making were provided in the legislative framework [in Spain], the truth is that in general this advice was not taken into account'.



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\* Scarcity of institutions supporting interaction between science and policy-making  
 \* Weak policy coordination in general, lack of statistical agencies are mentioned as barriers to a more extensive use of science in policy-making  
 \* EU accession processes tend to invoke a stronger attention towards using science for policy.

*Models of public involvement in science and technology decision making*

<b>Formalized / high involvement</b>	<b>Formalized / low involvement</b>	<b>Not formalized / high involvement</b>	<b>Not formalized / low involvement</b>
Belgium	Albania	Austria	Bulgaria
Denmark	Croatia	Iceland	Cyprus
Finland	Estonia		Czech Republic
France	Greece		Hungary
Germany	Latvia		Ireland
Italy	Montenegro		Israel
Lithuania	Poland		Lichtenstein
Norway	Portugal		Luxembourg
Sweden	Slovakia		Macedonia
Switzerland	Slovenia		Romania
The Netherlands	Turkey		Serbia
United Kingdom			Spain

*Distribution of countries on three categories of 'science communication culture'*

Consolidated	Developing	Fragile
Belgium	Austria	Albania
Denmark	Cyprus	Bulgaria
Finland	Estonia	Croatia
France	Greece	Czech Republic
Germany	Hungary	Israel
Italy	Iceland	Lithuania
Lichtenstein	Ireland	Macedonia
Norway	Latvia	
Portugal	Luxembourg	
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	Slovakia	
	Slovenia	
	Switzerland	
	Turkey	

- Institutionalisation
- Political attention
- Stakeholder involvement
- Academic tradition
- Public interest
- Science journalism



**Science central**

- Consolidated science communication culture
- Formalized and salient use of science in policy-making
- Formal procedures and real involvement of the public in S&T decision-making

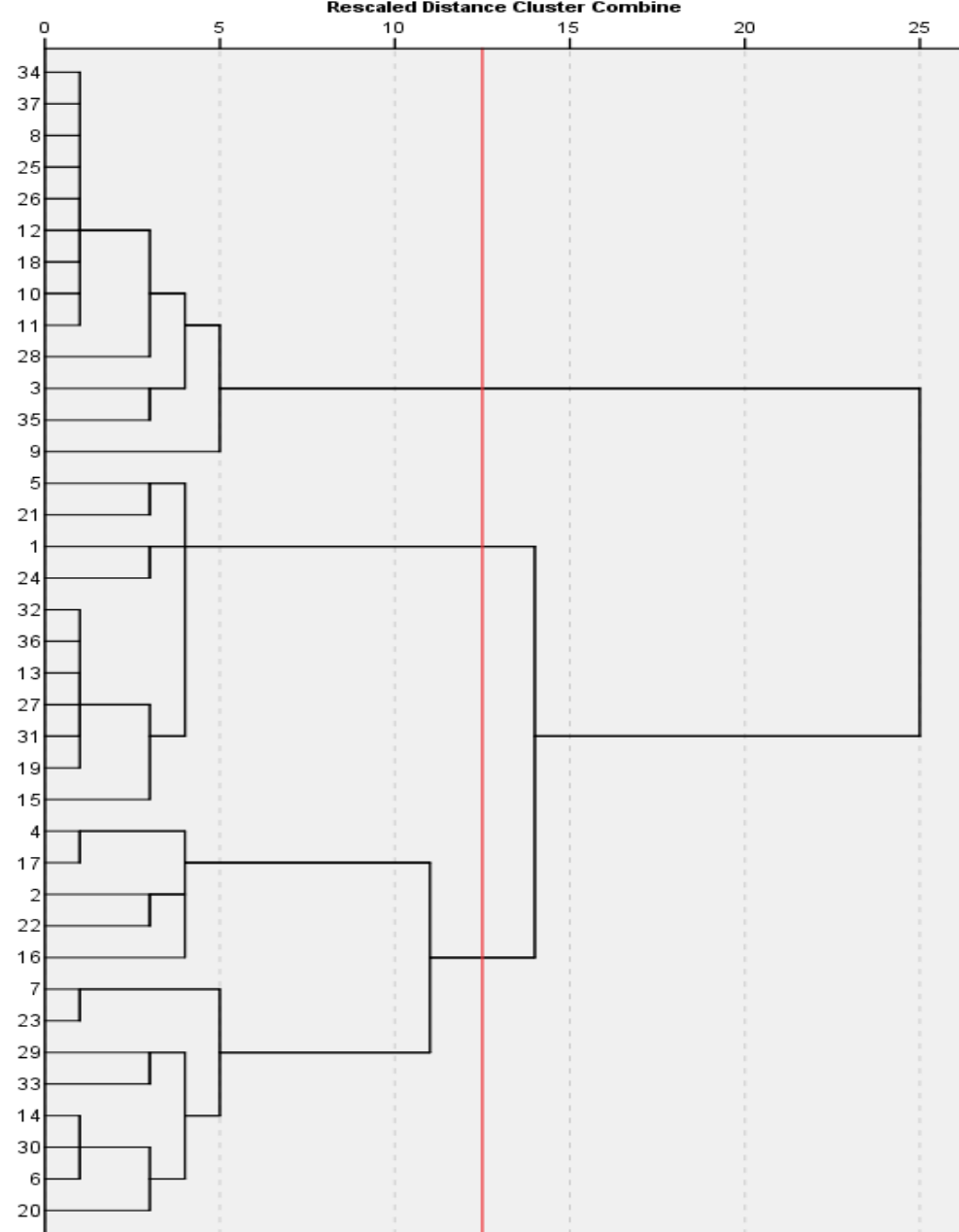
**Science dislocated**

- Fragile or developing science communication culture
- No formalized use of science in policy-making
- Some procedures supporting public participation in S&T decision-making, but not employed to full potential

**Science peripheral**

- Developing science communication culture
- Science used in policy-making but often with low impact on decisions
- Weak institutionalization of public involvement in S&T, and with low degrees of actual citizen involvement

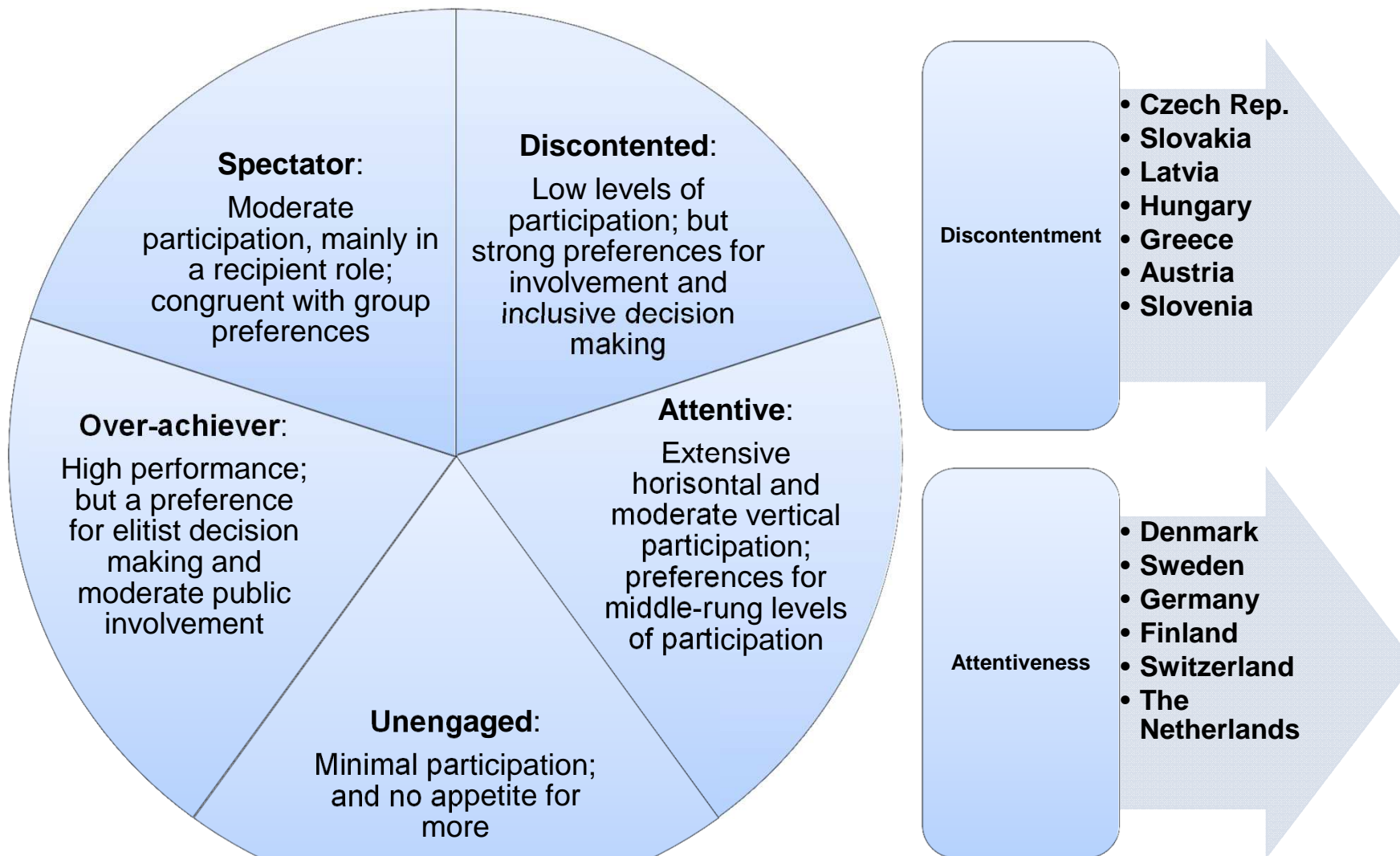
**Dendrogram using Average Linkage (Between Groups)**



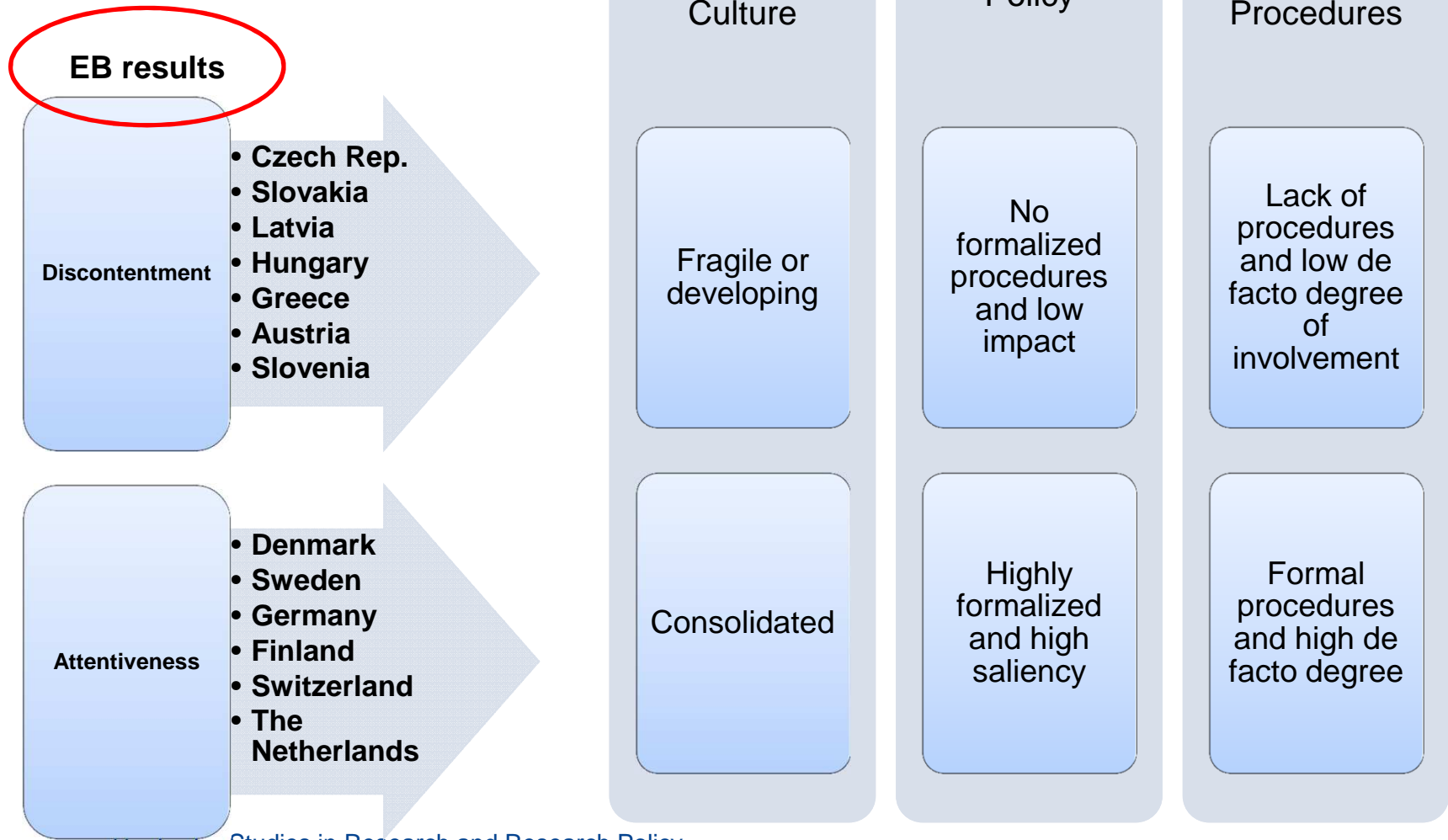
Impact on decisions

# Profiles of citizens based on 'performed' and 'preferred' participation

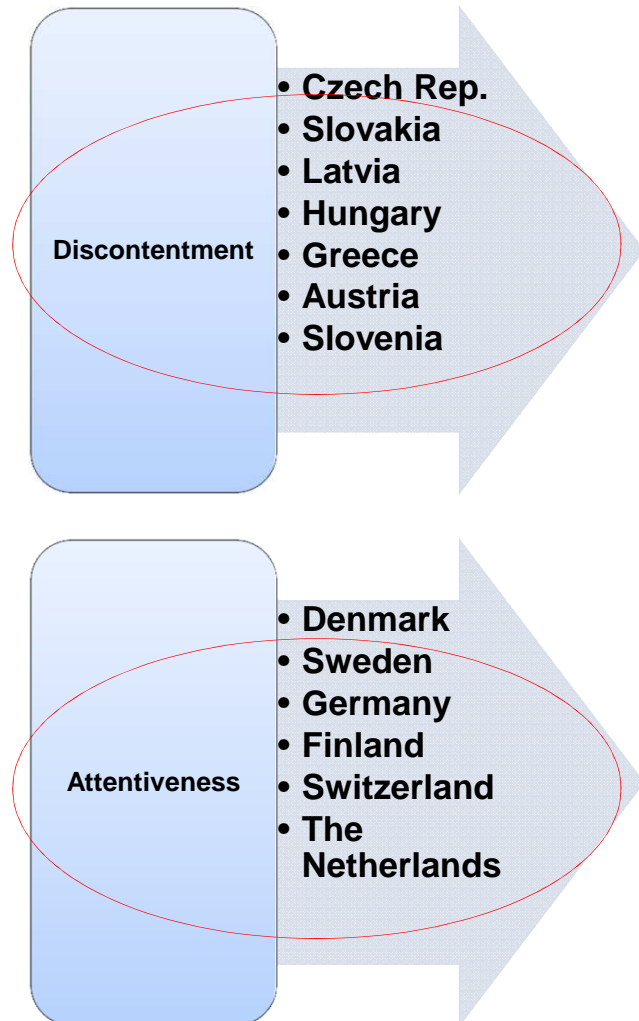
Source: EB 73.1 (2010); Mejlgaard & Staes 2012



## Contextualising survey results



## Excerpts from the national reports....



‘There are **no formalized procedures** of public engagement grounded in legislation or in governmental structures focused specifically on R&D&I in the Czech Republic’

‘In Slovakia, citizens are insufficiently involved in S&T decision making [...]Public engagement is very weak in any area of public policy due **to missing political and cultural tradition**’

‘The current political culture in Latvia features comparatively **limited incentives for involving citizens** in the process of priority setting’

‘The Danish case has attracted considerable attention throughout Europe and particularly **the consensus conference format has been considered a paradigmatic example of public involvement**’

‘In practice, there are no formalised procedures for citizen involvement in priority setting and **in the political activities** with regard to political leaders, and of the Austria. Although there are sporadic attempts to lead to taking greater public participation, these have been called “laboratory experiments” because **they have not influenced political decision-making**’

‘In Germany, citizens and civil society organisations have **a long tradition of bringing issues related to science and technology to the political agenda**’ realise their potential interests and demands’



# Conclusions

- › European heterogeneity regarding the role and responsibilities of science in society
- › This poses a challenge to the promotion of shared European research policies, development of a ERA, and common model of 'science in society'
- › The roots of discontentment at the individual level may be the dislocation of science at the national level
- › Also suggesting that there may be potential in combining data at different levels of aggregation in studies of science in society
- › Ref: Mejlgaard, Bloch, Degn, Nielsen & Ravn 2012: Locating science in society: clusters and consequences, *Science and Public Policy*