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Indicator needs for the impact assessment of EU research policy

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Structure

- I. Impact assessment as a tool for policymaking
- II. What lessons about indicators can we draw from impact assessment?
- III. Impact assessment of EU policy: some questions to address
- IV. Where could new indicators help?
- V. Conclusion



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I. Impact assessment as a tool for policymaking



EC Impact assessment: Definition

EC Impact assessment involves an ex-ante analysis of the likely economic, social and environmental impacts of all major Commission policy proposals

Economic

- * Economic growth
- * Price level and stability
- * Effects on public authority budgets
- * Human capital formation and employment
- * Innovation
- * Etc.

Social

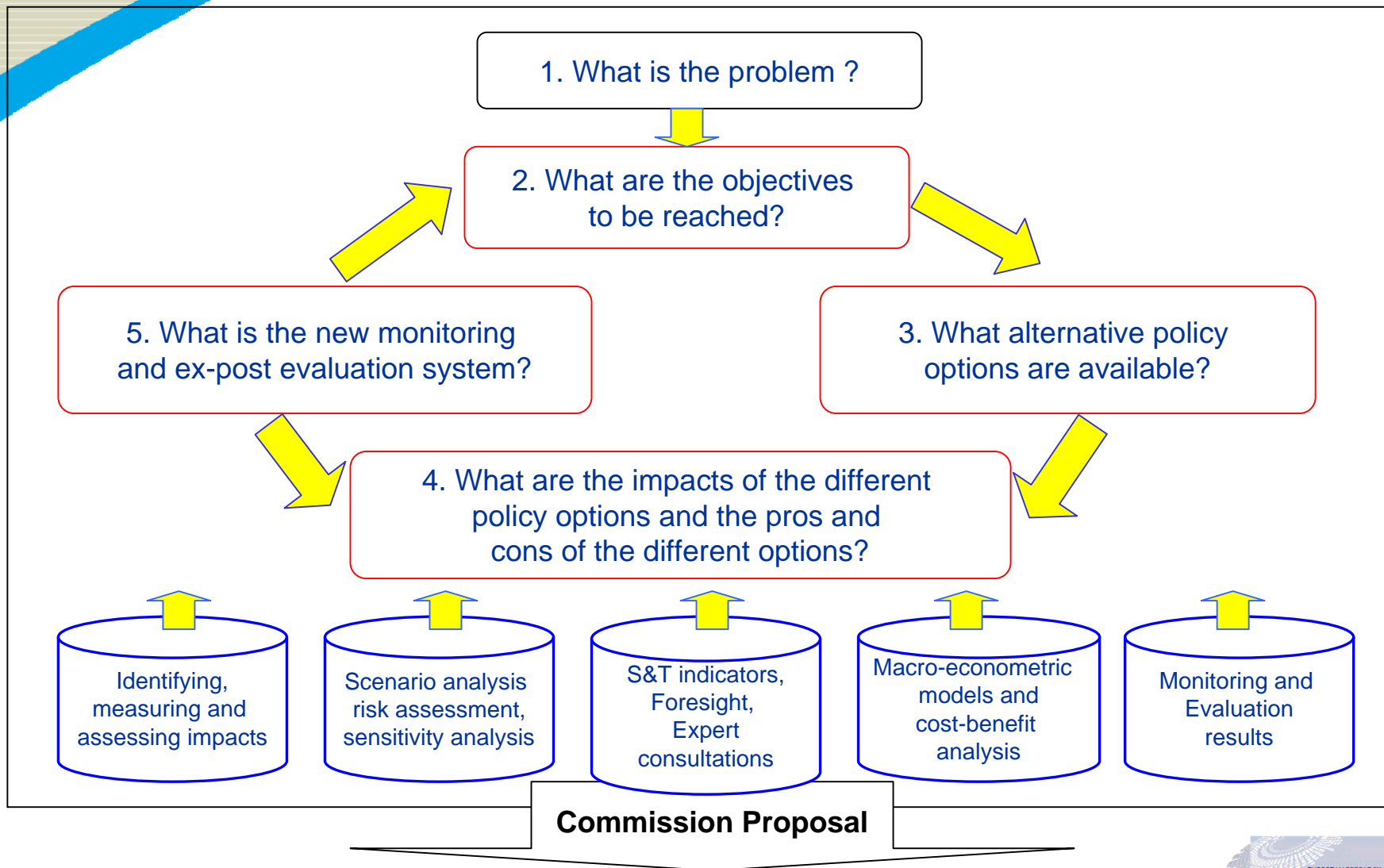
- * Social cohesion
- * Employment quality
- * Health systems and security
- * Social protection and social services
- * Etc.

Environmental

- * Air, water, soil, climate
- * Renewable or non-renewable resources
- * Biodiversity, flora, fauna
- * Land use
- * Etc.

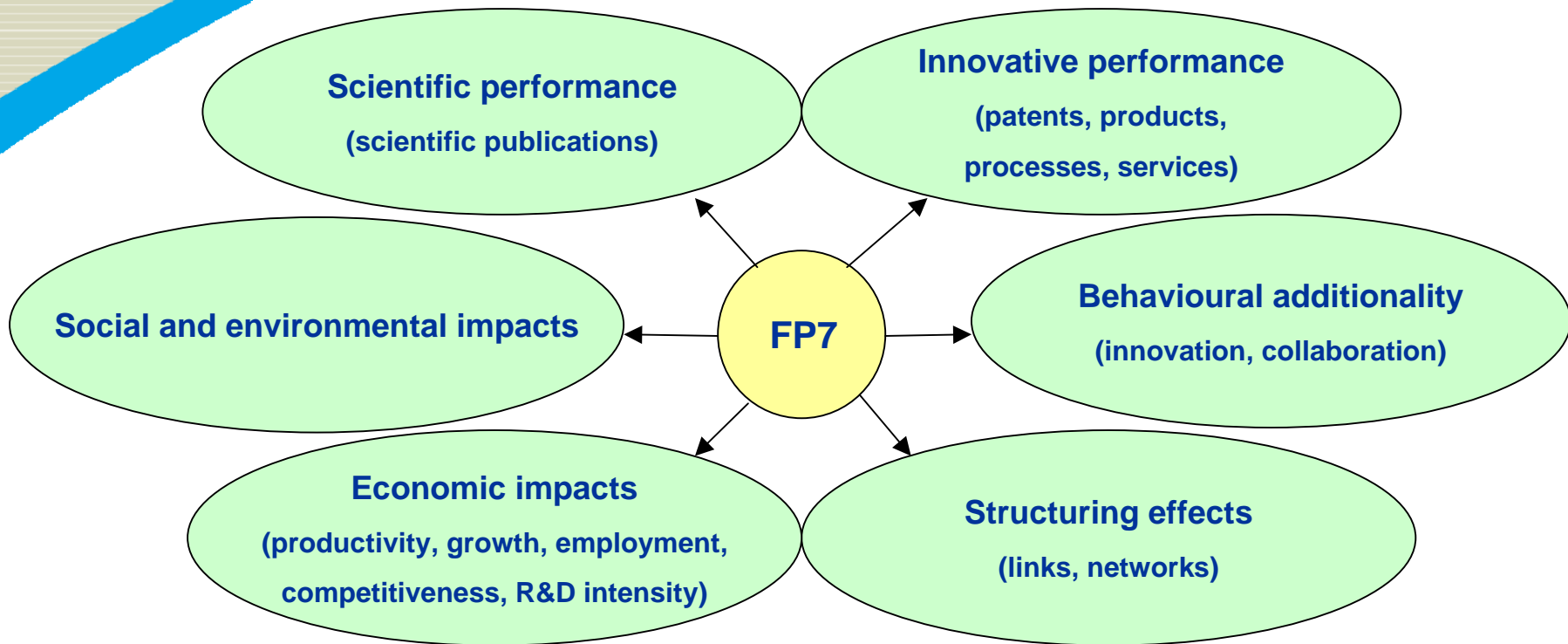


Impact assessment: process





Expected impacts of the 7th EU Framework Programme for RTD: Overview





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II. What lessons about indicators can we draw from impact assessment?



Some lessons from impact assessment

- Analysing options for research policy is still hampered by a limited evidence base
- Indicators providing objective and quantified evidence and are a key component to be developed
- It is particularly important to develop more indicators of the impact of policies



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III. Impact assessment of EU research policy: some questions to address



Some questions to address

- What are the impacts of government intervention in R&D at national and EU level (EU Framework Programme for RTD)?
- How are these impacts additional to what would have happened anyway (additionality)?
- What public support for research should be provided at regional, national and EU level (subsidiarity)?
- What is the European Added Value of EU intervention?
- What is the return on investment for public research?
- How can the EU organize its research system more efficiently and effectively?



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IV. Where could new indicators help?



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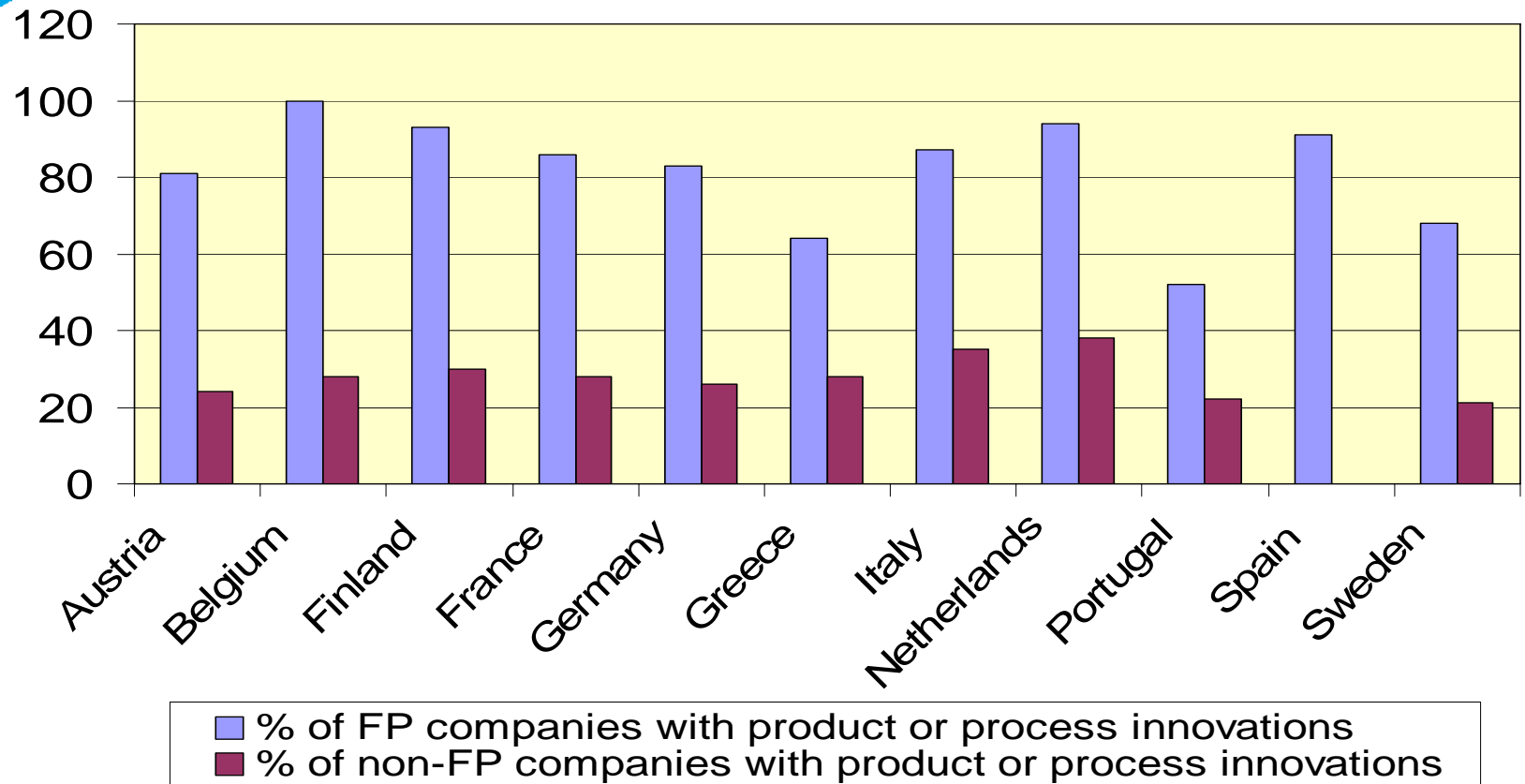
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Indicators of impact of government R&D support (EU and national)

- Economic impacts of government support: on sales/turnover, on GDP...
- Social and environmental impacts of government support
- Bibliometric indicators of the scientific output of government-funded research
- Effects of EU (and national) research funding on innovative activities
 - Product/process innovation
 - Cooperation, international alliances
 - Patents, prototypes, publications



FP participants are more likely to generate product/process innovations

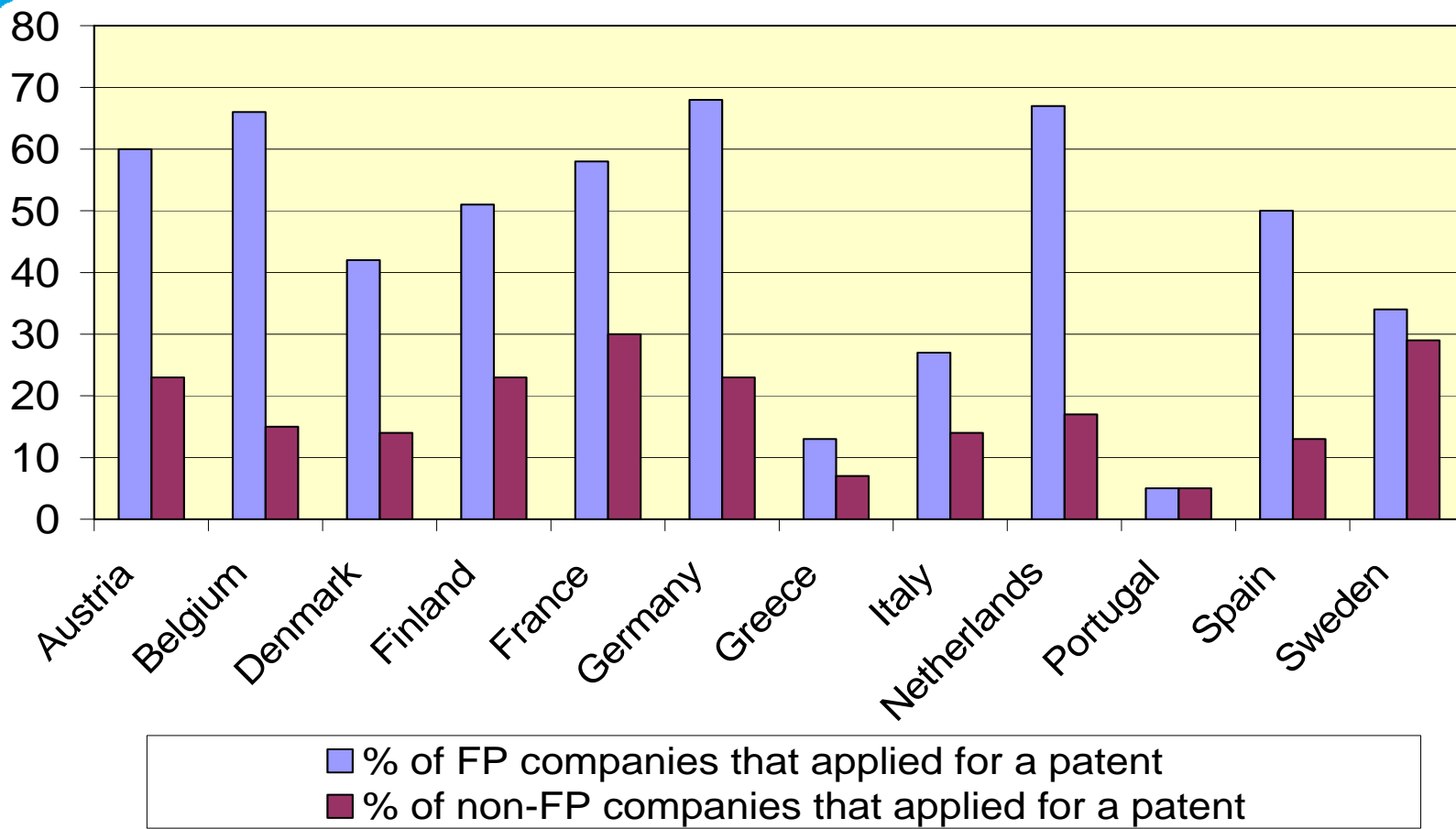


Source: DG Research, Eurostat; Data: Eurostat

Note: Results here are for firms in the manufacturing sector



FP participants are more likely to apply for a patent



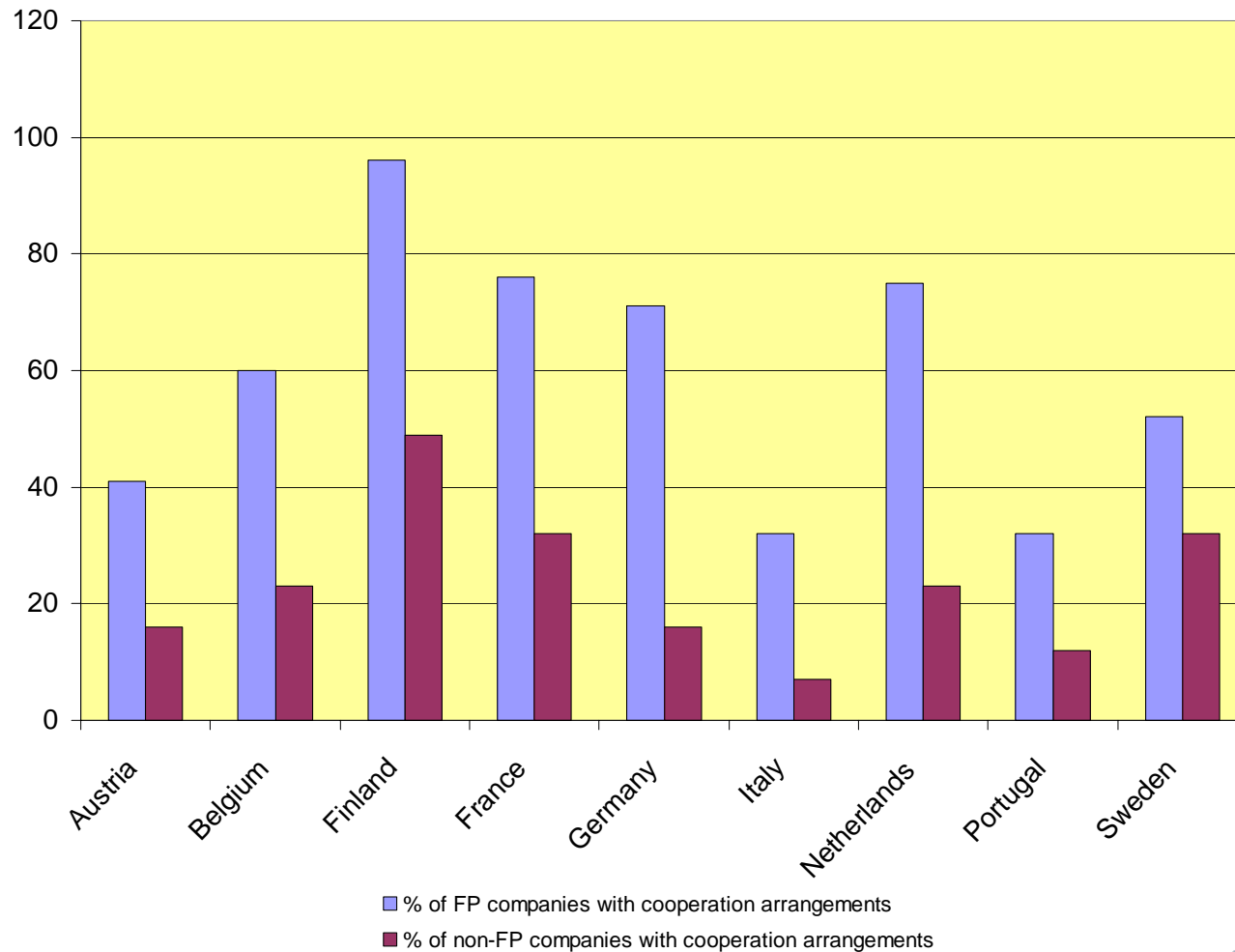
Source: DG Research, Eurostat; Data: Eurostat

Note: Results here are for firms in the manufacturing sector



Impacts of FP: Behavioural additionality

FP participants are more likely to collaborate





Indicators for the European Research Area: *How can Europe invest more efficiently and effectively in R&D? (1)*

- Indicators of input: investment by field of S&T (biotech, nanotech, health, energy R&D...) at national level and at EU level
- Indicators of the added value of European research projects
 - effects of trans-national networking/collaborative research
 - “critical mass” indicators: size of networks, scale of investment, effects of scale compared with those of nationally supported projects
- Rate of return on investment for national and EU public R&D support
- Indicators of duplication of R&D effort



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Indicators for the European Research Area: *How can Europe invest more efficiently and effectively in R&D? (2)*

- Degree of competition for R&D funding
- Indicators of national/regional/institutional specialization across the EU
- Transnational mobility of researchers



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V. Conclusions

To develop better indicators for impact assessment:

- Link indicators more to public policies
- Strengthen the measurement of the impact/outcomes of public support for R&D
- Add the dimension relating to the level of government intervention: regional, national and EU



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Impact Assessment of the 7th EU Framework Programme for RTD

The FP7 IA report can be found at:

http://europa.eu.int/comm/research/future/pdf/comm_sec_2005_0430_1_en.pdf