EUROPEAN COMMISSION
DIRECTORATE-GENERAL
Joint Research Centre

Joint Research Centre

Policy Community Perspectives on Indicator Needs and Challenges

2nd Workshop on Indicators in the Knowledge Economy

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ipts

THE CHALLENGE

- “In March 2000, at the Lisbon European Council, Heads of State and Government set the Union the goal of becoming "the most competitive and dynamic knowledge based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion" by 2010”.
- “Creating a European Area of Research and Innovation within the European Knowledge Area is one of the key steps in the Union's path towards achieving that objective. Scientific and technological progress is crucial to sustainable growth and quality employment in today's knowledge-based economy”.
- Cited from COM(2002)499: More Research for Europe: Towards 3% of GDP

THE CHALLENGE

- “Knowledge is a critical factor with which Europe can preserve its international competitive advantage. It is by pooling resources and ensuring a competitive environment for research based on excellence that the EU can best contribute to improve the research potential of Europe. Greater and more efficient investment in knowledge and innovation is needed in order to meet the overall EU target for research investment of 3% of GDP and to develop the capacities and the tools to make Europe more competitive, create jobs and ensure sustainable growth”.
- Cited from COM(2005)330 final: Common Actions for Growth and Employment: The Community Lisbon Programme
- More information: http://europa.eu.int/growthandjobs/key/index_en.htm

THE CHALLENGE

How to fully exploit the potential societal welfare emanating from R&D?

THE CHALLENGE

A View from the US
Wanted: Better benchmarks!!!

"The question is not whether R&D investments are important, but what investment strategies are most effective in the rapidly changing global environment for science"

"The structure of…data collection is tied to models of R&D performance that are increasingly unrepresentative of the whole of the R&D enterprise. It would be desirable to devise, test and, if possible, implement survey tools that more directly measure the economic output of R&D in terms of short-term and long-term innovation"

Cited from Editorial to Science, Vol. 308, 20 May 2005 – John H. Marburger III, Director OSTP, Executive office of the President of the US

REMARKS ON INDICATORS

- Quality and Comparability of data improved
- Increasing Complexity of R&D system as challenge for collection and use of information/data
  - Need for actors to position themselves (composite indicators)
  - Actor orientation requires more disaggregated information
  - Indicators *indicate* changes/trends and not measure them perfectly
  - Complementary information based on surveys, panel data required

ERAWATCH

- **Joint initiative by DG-RTD and JRC-IPTS, supported by the ERAWATCH network**
  - ERAWATCH network: 16 core members from 13 countries and 33 associated members from 25 countries
  - Collect and analyse in a comparable way existing national/regional qualitative and quantitative information on R&D policies, programmes and organisations
- **User driven and long-term undertaking in order to,**
  - support evidence-based policy making in the research field, based on a robust understanding of past and present
  - to contribute to the realisation of the European Research Area
  - Results of service publicly available on CORDIS

"MODUS OPERANDI" OF ERAWATCH

- **EXAMPLE: Envisaged Analysis on R&D specialisation**
- **OBJECTIVES:**
  - Enrich policy debate on R&D fragmentation and duplication
  - Identify and assess need and potential to include more disaggregated data in ERAWATCH
  - Understand better relation between national economic structures and public R&D investments
- **APPROACH:**
  - Whole economic system, not only high-tech
  - Dynamics over last decade (1995-2005)

"MODUS OPERANDI" OF ERAWATCH R&D SPECIALISATION

- **CONTENTS:**
  - **Analysis of R&D and economic data**: EUROSTAT R&D data, patents, bibliometric VS. economic structure
  - **Case studies**: complementary, representative for EU25
  - **Extended quantitative analysis**: disaggregated public R&D data (socio-economic objectives, type of research, fields of research)
- **FEASIBILITY TEST :**
  - **Methodological issues**: quality, comparability, reliability
  - **Relevance**: potential added value for ERAWATCH
  - **Implications for future Data Collection**: R&D AND socio-economic data, additional resources needed

OUTLOOK

- **The R&D enterprise is radically changing on a global scale, with implications for R&D Policy**
- **R&D policy requires new 'intelligence'**
- **ERAWATCH will contribute to the required new 'intelligence' on R&D policies**