



ERAWATCH, Foresight and Industrial Research

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Institute for Prospective Technological Studies**

JRC Information Day

26 May 2008, Ljubljana

IPTS core policy areas

- 1) Knowledge for growth
 - *focusing on research policy and its interfaces with related policies, especially innovation*
- 2) Information society
 - *focusing on policies to stimulate Europe's take-up of the Information Society and the competitiveness of Europe's ICT industry*
- 3) Competitiveness and sustainability
 - *focusing on sustainability policies relating to the manufacturing, energy and transport industries*
- 4) Agriculture and life sciences in the economy

Mission of the Knowledge for Growth Unit

To provide evidence-based techno-economic intelligence towards improving research and innovation policies and corporate R&D strategies in support of the revised Lisbon Strategy

Objectives of the Knowledge for Growth Unit

- To develop a web based knowledge management and intelligence service on research policies
- To support evidence based ERA-Policies, notably on specialisation, researchers, universities and joint programming
- To understand economic and strategic aspects of Industrial Research and Innovation (IRI)
- To combine traditional foresight and modelling techniques to support the design of research and other policies

Three key products

- ❑ The ERAWATCH web information and intelligence service on EU and third countries research policies



<http://cordis.europa.eu/erawatch/>

- ❑ The EU Industrial R&D Investment Scoreboard

<http://iri.jrc.ec.europa.eu/>



- ❑ The On-line Foresight Guide

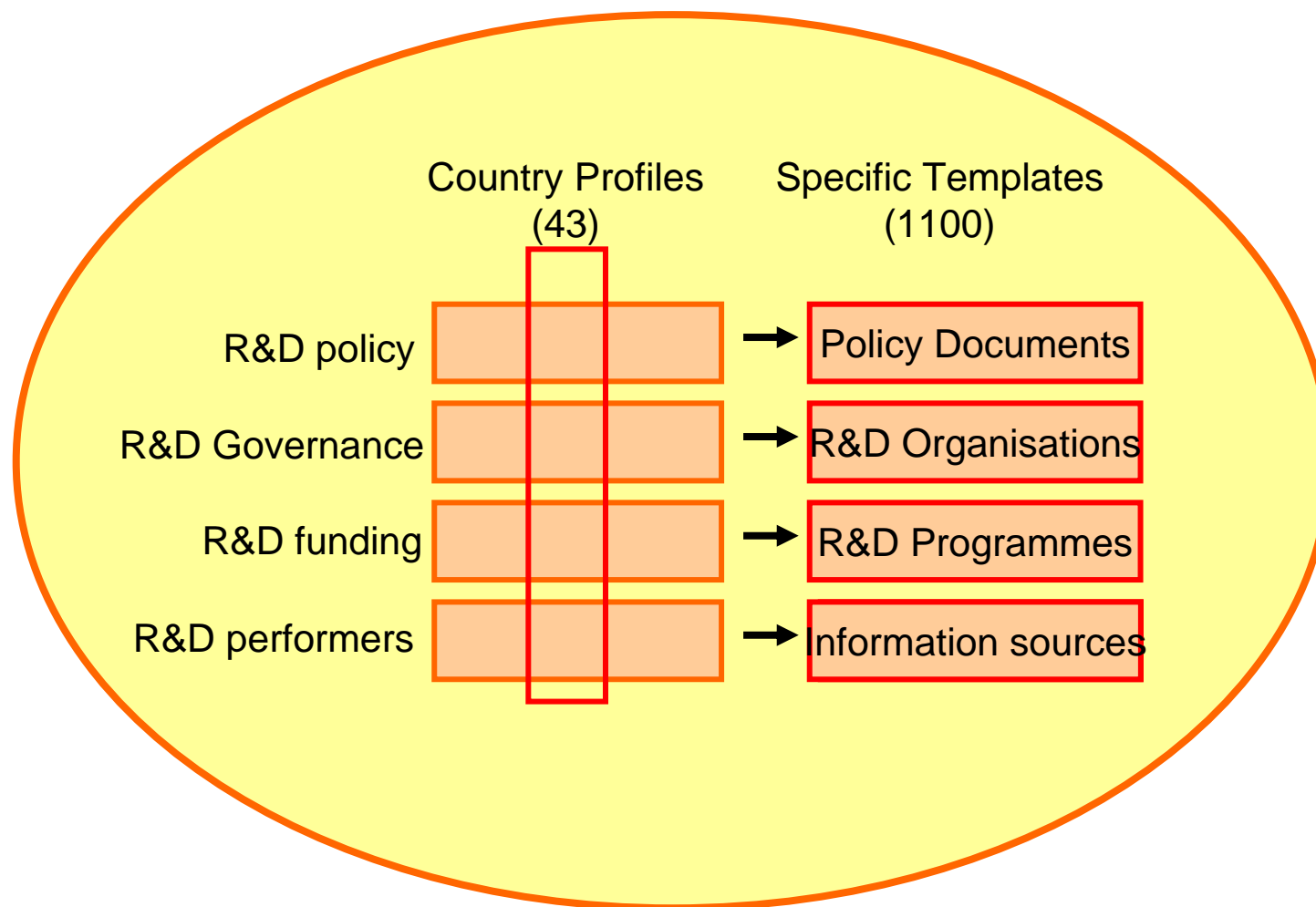
<http://forlearn.jrc.ec.europa.eu/>

FOR-LEARN

ERAWATCH

- **ERAWATCH is the largest information service on national R&D policies worldwide**
- **ERAWATCH is one key initiative of the EC to support the realisation of the European Research Area (ERA)**
- **Strong user orientation: aimed at those interested and active in research policy making in Europe - decision makers, policy analysts, researchers, NGOs.**
- **ERAWATCH is a joint effort of DG RTD and the JRC**

ERAWATCH Research Inventory





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about ERAWATCH

Why ERAWATCH, who participates, how it operates.

- ▶ What is ERAWATCH
- ▶ Download brochure
- ▶ Related initiatives (TrendChart)
- ▶ Register and receive e-mail alerts

highlights

- ▶ Six new countries profiles now available: Australia, Brazil, Canada, India, Republic of Korea, New Zealand
- ▶ Hungary-Mid-term science, technology and innovation policy strategy (2007-2013)
- ▶ Key research indicators now updated
- ▶ Search ERAWATCH content by themes

research inventory

Country-based information on national and regional research policies.

- ▶ Access information by country
- ▶ Access information by themes
- ▶ Search for programmes, documents, organisations, policy priorities

intelligence service

Analysis of the structure, content and evolution of research systems and policies in Europe.

- ▶ Trends in Business R&D
- ▶ R&D specialisation
- ▶ Regional study reports

Welcome to ERAWATCH

ERAWATCH® provides information on national research policies, structures, programmes and organisations.

The aim of this service is to support policy making in the research field in Europe, by facilitating a better knowledge and understanding of national research systems, policies and the environments in which they operate.

Currently 43 countries are covered. With the service's evolution regional and other coverage is expected to increase over time.

ERAWATCH is a joint initiative of the European Commission's Directorates General for Research and Joint Research Centre- Institute for Prospective Technological Studies (IPTS).

ERAWATCH is targeted at all those interested in research policy making in Europe. [Read more](#)

[We welcome your feedback in order to ensure that this service better meets your needs.](#)





Overview

Broader policy context of research policy

Research policy

Impact of EU developments

Regional research policies

Research policy debate: current issues & concerns

Important policy documents

Structure of research system

Main Research policy setting mechanisms

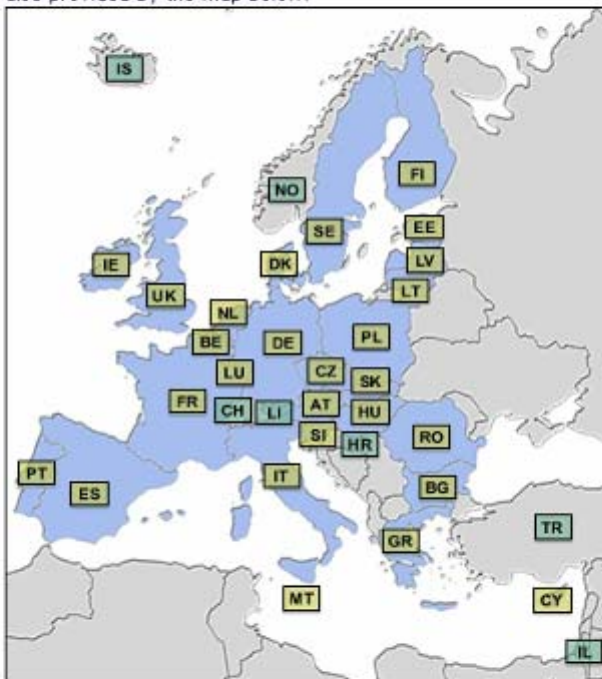
Research funding system

Important research programmes

Research performers

Key research indicators

This section provides country-based and aggregate information on national and regional research structures and policies, key actors, research programmes and policy initiatives. The flags in the horizontal navigation bar provide access to the inventory by countries. The vertical navigation bar structures the information in a topical way. Initial country access is also provided by the map below.



Member states
Austria AT
Belgium BE
Bulgaria BG
Cyprus CY
Czech Republic CZ
Denmark DK
Estonia EE
Finland FI
France FR
Germany DE
Greece GR
Hungary HU
Ireland IE
Italy IT
Latvia LV
Lithuania LT
Luxembourg LU
Malta MT
Netherlands NL
Poland PL
Portugal PT
Romania RO
Slovakia SK
Slovenia SI
Spain ES
Sweden SE
United Kingdom UK

Associated
Croatia HR
Iceland IS
Israel IL
Liechtenstein LI
Norway NO
Switzerland CH
Turkey TR

Other
Australia AU
Brazil BR
Canada CA
China CN
India IN
Japan JP
Rep. of Korea KR
New Zealand NZ
United States US



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**Overview**

- ▶ Basic characterisation of the research system
- ▶ Main challenges for research policies
- ▶ New research policy developments

Research policy**Important policy documents****Impact of EU developments****Regional research policies****Structure of research system****Main Research policy making mechanisms****Research funding system****Important research programmes****Research performers****Key research indicators****My ERAWATCH profile**

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feedback**OVERVIEW**
 **Slovenia - Overview and latest ERAWATCH information**

ERAWATCH content is regularly updated. For Australia, Canada, China, India and New Zealand a significant update will be completed by early March 2008.

ERAWATCH Network Country correspondent: Maja Bucar

Type of information	Content
Research country profile: Characterisation of national and regional system, main actors, debated issues and policy developments.	In 2005, several strategic documents (the Slovenian Development Strategy 2006-2013, the National Research and Development Programme 2005-2010 , and the National Reform Programme for Achieving the ... Read more Last updated on: 21/02/2008
Policy documents: Authoritative documents setting out research policy or influencing its development and implementation.	4 record(s) - View all Advanced search
Research programmes: Instruments and schemes for the support of research and related activities, currently implemented.	5 record(s) - View all Latest record(s) <ul style="list-style-type: none"> ■ Research Group Programme Financing Scheme (06/05/2008) Read more ■ (10/03/2008) Read more Advanced search
Organisations: Key organisations engaged in the development, implementation and review of research policy, the funding and performance of research.	6 record(s) - View all Advanced search
Information sources: Authoritative national sources of information on research related activities.	4 record(s) - View all Advanced search
Key research indicators: Key research indicators providing a quantitative perspective on the overall national situation with regards to their R&D activities.	View key research indicators for this country

[Structure of country profile](#)
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[Country profile only](#)
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ERAWATCH Analysis

- **Analysis of the structure, content and evolution of research systems and policies in Europe, with focus on:**
 - universities,
 - human resources
 - specialisation
 - joint programming
 - monitoring progress toward the ‘ERA’
- **Recent and forthcoming reports:**
 - Trends in Business R&D
 - R&D specialisation
 - Regional study reports
 - Reform of Public Sector Research Base
 - Strategic Governance of Research Policy

Regional Level Reports

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ERAWATCH Intelligence service

The "intelligence service" aims to provide regular and ongoing analyses of issues relevant to research policy-making. These analyses are in large part based on the ERAWATCH Research inventory. Key feature of the intelligence service is an unique combination of qualitative policy information and quantitative data (including indicators) under a Multi Level Multi Actor (MLMA) perspective, which is the a core characteristic of the European Research Area.

These analyses will include:

- periodic reviews of the status and evolution of research systems and policies and governance structures in EU Member States and beyond
- emerging themes and trends in the structure, content and evolution of research systems;
- synthesis and overview, at the European level, of Member State progress towards the various objectives of ERA and the Lisbon partnership for growth and jobs.

The information presented in this section is the product of a close co-operation between the European Commission's Joint Research Centre- Institute for Prospective Technological Studies- and a network of specialists. It is largely based on data featured in the [ERAWATCH Research Inventory](#), but it is also complemented by additional data specifically collected for the purpose, including unpublished information.

Current work of the intelligence services is dealing with:

- [trends in Business R&D](#)
- [R&D specialisation](#)
- [regional dimension of R&D](#)

NETWATCH

- **Preparatory Phase: 2008**
 - **Collection and analysis of information needs of ERA-NET stakeholders**
 - **Building scenarios on presentation of a Central Information Platform on ERA-NETS within ERAWATCH**
 - **Development of an analytical framework about the role of ERA-NETS and corresponding joint initiatives for ERA**
 - **Development of a participatory governance model to steer the implementation of the project in the operational phase**
- **Operational phase: 2009-2011**

Impacts of ERAWATCH

- CREST recommendations to Council and Commission supported by JRC-IPTS studies (e.g. internationalisation, fiscal measures, peer review of policy mixes, etc.)
- Main source of information and data for the Key Figures 2008 on monitoring progress towards the ERA
- Provision of information in support of the assessment of Member States Annual Progress Reports by EC
- Provision of information and data for the "Annual report on research and technological development activities of the European Union in 200X, chapter on '*Trends in EU Member States*'

Industrial Research Monitoring and Analysis (IRMA)

- Information collection:
 - Industrial R&D Investment Scoreboard & Survey
 - Direct exchanges with business
- Reflections on policy implications and issues for further research:
 - Analysis of the Scoreboard
 - Economic and Policy Analysis – Annual Digest
 - CONCORD-2009
- IRMA is a joint effort by DG RTD and the JRC



- **The Scoreboard provides information on the top 1000 EU companies and the top 1000 from outside (non-EU) which invest the most in R&D.**
- **The 2007 edition comprises R&D, economic and financial data over 2002-2006.**
- **The Scoreboard uses company data from audited annual reports, i.e. the R&D investment as funded by each company allocated to the country of its registered office. Companies are ranked by R&D investment volume and growth.**

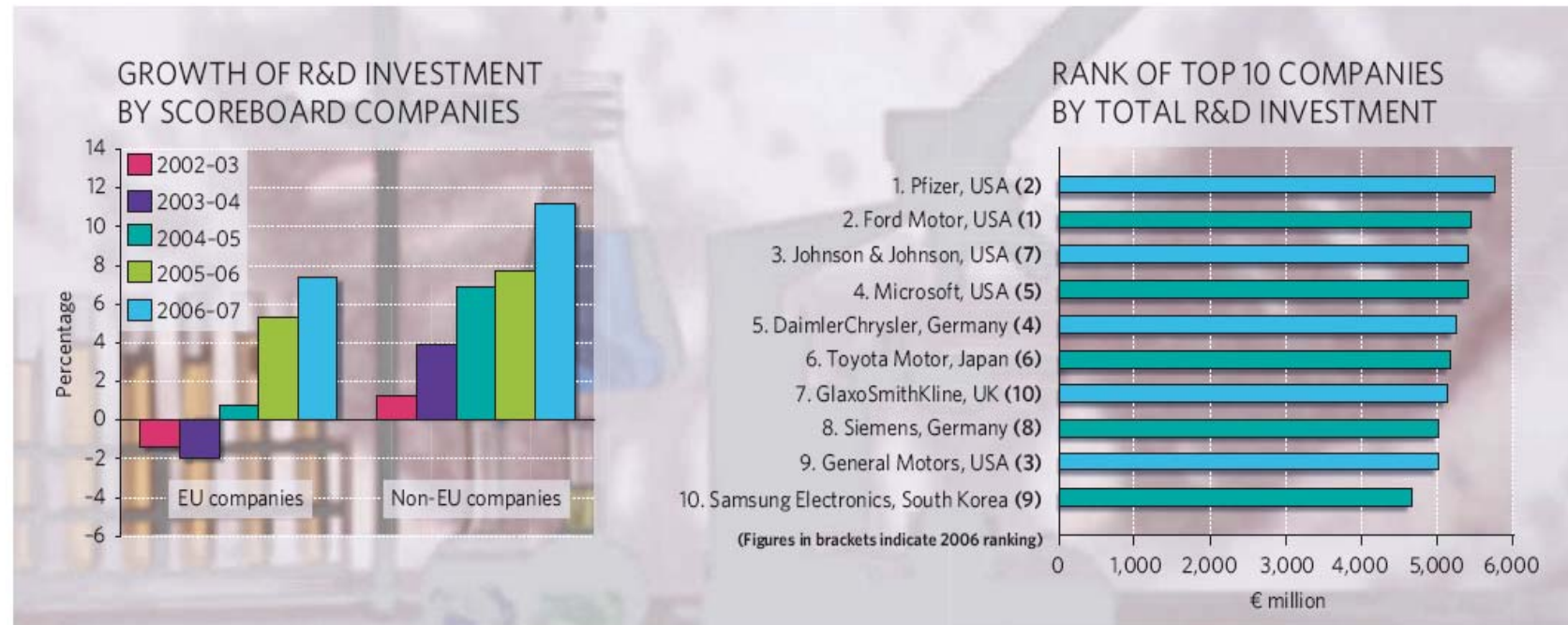
Other Products on Industrial R&D

- **EU Survey on R&D Investment – Business trends**
 - This is a qualitative survey on business trends and factors influencing private R&D investment
 - In 2007 (third year), the 1000 EU companies in the 2006 Scoreboard were approached (response rate 11.8 %).
- **Industrial R&D: Economic and Policy Analysis**
 - Analyses the findings on industrial research investment at firm, sector, country and EU levels. If warranted it draws policy implications.
 - This is complemented by original statistical and econometric work, up to and including economic model simulations of the impact of R&D.
- **Annual Digest on Industrial R&D:**
 - It reviews the literature extensively, including tapping information flows which normally “fly below the radar”.
 - It produces information and insights which feed into the Economic and Policy Analysis Report.

BUSINESS

Mixed scores for European research

A survey shows positive trends for private-sector research and development in the European Union. But as **Andrea Chipman** reports, there's more to the data than meets the eye.



Impacts of Industrial R&D work

- **More differentiated view on EU's challenges in Industrial R&D:**
 - The low R&D intensity in the EU reflects its industrial structure.
 - Challenges are in the number of companies in R&D intensive sectors, their size and their potential for growth.
 - Monitoring and analysis of industrial R&D needs to investigate obstacles to the single market and differences in business environments mitigating the impact of R&D on future growth and prosperity.
- **Better understanding of drivers for internationalisation of industrial R&D**
 - Almost half of the companies considered their home country as the preferred R&D investment location.
 - Availability of researchers and access to specialised R&D knowledge are main drivers for locational decisions.

KfG Unit Foresight activities

- Foresight enhancement
 - Foresight knowledge generation & transfer (e.g., FORLEARN)
 - Foresight knowledge base consolidation (FTA Conferences)
- Support to foresight actors
 - Esp. in new EU Member States, Candidate Countries (e.g., WBC-INCO.NET, Training on Foresight)
- Foresight application
 - Innovation in the EU Service Economy: Implications for Skills and Knowledge
 - European Manufacturing Visions 2015-2020

FORLEARN Project (2005-2008)

- Part of the “Foresight Knowledge Sharing Platform” initiated by DG Research
- Objectives
 - Consolidation and improvement of accessibility to Foresight knowledge and know-how
 - Promotion of Foresight throughout Europe
 - Advancement of Foresight knowledge
- Means
 - Codification and dissemination of Foresight knowledge
 - Direct support to people embarking into Foresight
 - Mutual learning between relevant actors

FOR-LEARN online Foresight Guide: <http://forlearn.jrc.ec.europa.eu/>



The FOR-LEARN Online Foresight Guide

Online Foresight Guide

[Home](#)

[Why do Foresight?](#)

[Designing an exercise](#)

[Running an exercise](#)

[Follow-up](#)

[Foresight examples](#)

[Mutual learning](#)

[An A to Z of Foresight](#)

[About FORLEARN](#)

Future oriented thinking is vital for any forward planning or policy activity to be able to meet future challenges proactively. Foresight enhances such thinking by gathering anticipatory intelligence from a wide range of knowledge sources in a systematic way and linking it to today's decision making.

"Ignoranti, quem portum petat, nullus suus ventus est"
(If one does not know to which port one is sailing, no wind is favourable)
SENECA



Note

This guide is a living tool that is being continuously updated on the basis of feedback from Foresight experts and other users. You may, therefore, notice some changes each time you visit. [More about this site and how to make best use of it...](#)

More information:

- There is also a demo of the guide you can access [here](#).



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3rd International Seville Conference on Future-Oriented Technology Analysis: 16-17 Oct. 2008

The 3rd International Seville Conference on
Future-Oriented Technology Analysis (FTA)

Impacts and implications for
policy and decision making



FTA
Future oriented
Technology
Analysis

Institute for Prospective Technological Studies
Seville, Spain

16th - 17th October 2008



Impacts of FORESIGHT work

- The On-line Foresight Guide has become a reference tool in the field. It has been widely employed to provide tailored support to new EU Member States, Candidate and Potential Candidate Countries.
- The Guide has been used within trainings targeted at policy and decision makers organised by major institutions in the field, such as: UNIDO – United Nations Industrial Development Organization; APEC – Asia-Pacific Economic Cooperation
- Results of FTA seminar published as special issues of peer reviewed journal *‘Technological Forecasting and Social Change’* and *‘Technology Analysis & Strategic Management’*

**Further information on the DG JRC's KfG
Unit and its results are available at:
<http://www.jrc.es/>**