

Thematic Area “Contribution to the Lisbon Agenda”



Innovation and Industrial Research
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<http://www.jrc.ec.europa.eu/>

To provide EU policy-makers and the business and academic communities,

with robust empirical evidence and analysis

on private-sector R&D and innovation investments and activities,

and on how these contribute to the transition to a new European economy based on knowledge, more resource efficient and more inclusive.

Private-sector R&D and innovation is an area of research with scarce empirical evidence

IRI Action created to contribute to fill this gap. Activities considered part of the European Industrial and Innovation Monitoring System (EIRIMS) established in the context of the 3% R&D investment target of the Lisbon strategy.

IRI is now a reference source of economic intelligence, based on monitoring, data gathering and analysis in the field of private R&I

- 1. *The Scoreboard:*** The “EU Industrial R&D Investment Scoreboard” presents annually, since 2004, information on the top 1000 EU companies* and the top 1000 non-EU companies ranked by their investments in research and development (R&D). The data is drawn from the latest available Companies accounts.
- 2. *The Survey:*** The « EU Survey of Business Trends in R&D » annually collects, since 2006, data from EU companies of the Scoreboard on current and expected changes in business R&D activities. Complemented with new on-going and future sectoral interviews.
- 3. *Working Papers and reports:*** Economic and policy analysis of corporate R&D and innovation are made on the basis of the original data from the Scoreboard and the Survey, combined with data from other sources.

- **Sources of information**

Data from statistical offices (national, Eurostat, OECD, EPO, etc.), annual financial reports, surveys (own survey, access to CIS, and other surveys), experts opinions, published reports and scientific papers, commercial databases (e.g. Compustat)

- **Research Methodology**

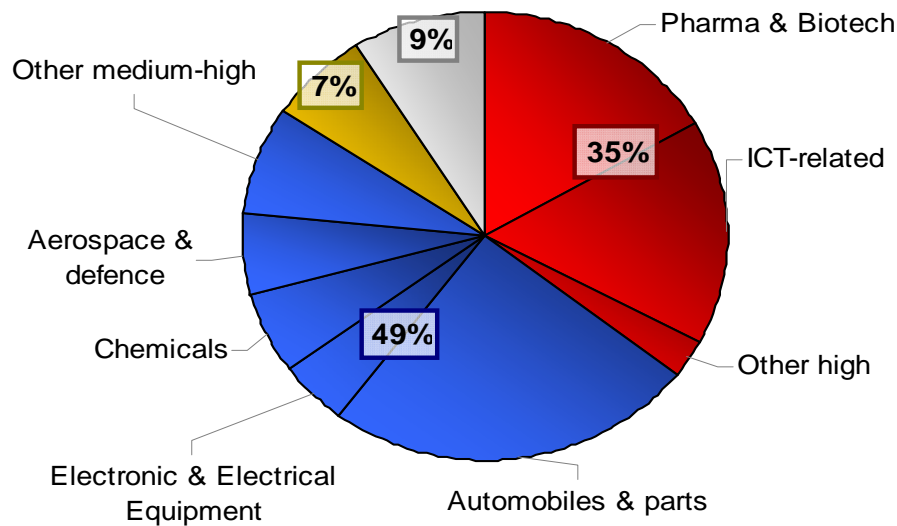
Quantitative and qualitative economic and financial analyses also using econometrics, modelling, matrixes, data panels, expert-panels, and intelligence methods.

Evidence

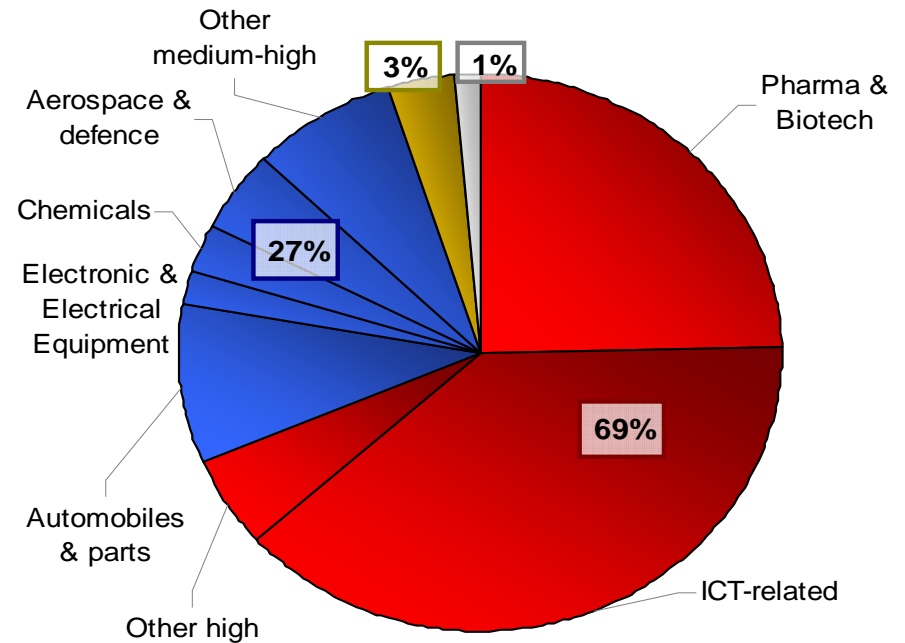
EU industrial R&D Structure

The US has a strong position in high R&D-intensity sectors;
EU in medium and low sectors.

EU (€122.3bn)

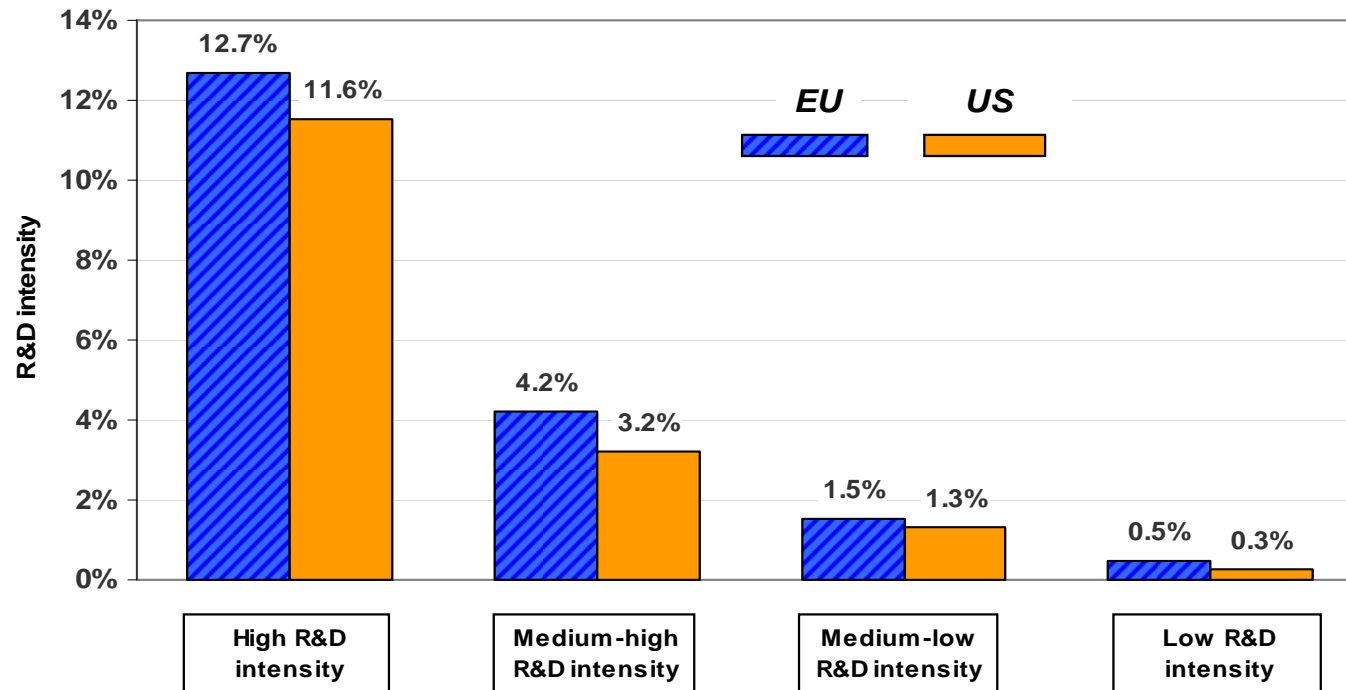


US (€159.2bn)

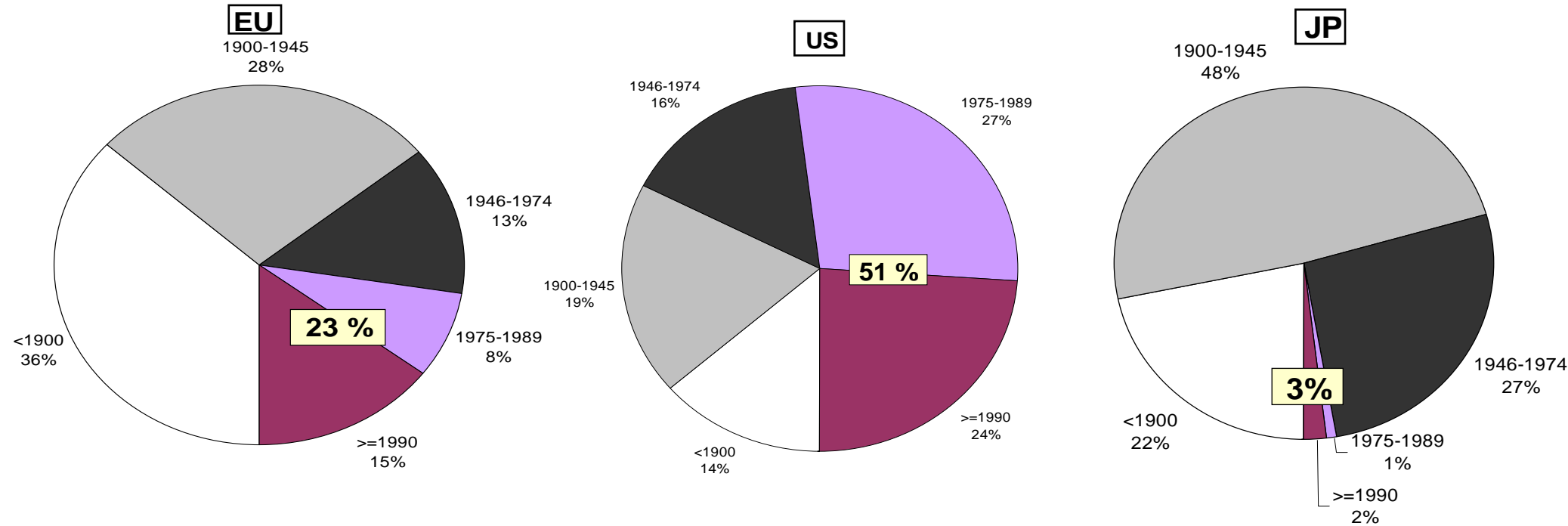


■ High ■ Medium-High ■ Medium-Low ■ Low

R&D intensities by group of sectors



Source: *The 2009 EU Industrial R&D Investment Scoreboard*
European Commission, JRC/DG RTD.



Sources: The 2008 EU Industrial R&D Investment Scoreboard, EC, JRC/DG RTD & companies' publicly available information

The share of young R&D firms (< 35 yrs) is lower in the EU than in the US (23% vs 51%) but is higher than in JP: 3%

R&D and productivity

R&D stock has a positive and significant impact on productivity

- R&D raises productivity much more in high-tech sectors than in low-tech ones
- Productivity growth in low-tech firms is more dependent on investment in physical capital (embodied technological change).

Ortega Argilés, R., M. Piva, L.Potters, M. Vivarelli

Is Corporate R&D Investment in HighTech Sectors More Effective?

IPTS WORKING PAPER on CORPORATE R&D AND INNOVATION No. 09/2009. Publication forthcoming
in *Contemporary Economic Policy*

- Profitability of R&D investment appears to be higher than profitability of investment in physical capital for high R&D companies
- Profitability of investment in physical capital is higher than profitability of R&D for low R&D companies
- Increasing evidence of positive impact of R&D on market capitalisation

- Policy message that low R&D in the EU is not due to under-investment by big companies is now clearly understood. Evidence reflected in the new Europe 2020 strategy and the up-coming Innovation Union initiative.
- IRI products have so far served as input to Commission outlets (e.g. Key Figures; SET plan; NewCronos and Science, technology and innovation in Europe; European Software Strategy) from DGRTD, ESTAT, INFSO
- For DGENTR activities of the IRI team have served in the past as input to Corporate Spin-offs and ERIMS...
- Potential relevance for BEPA, ECFIN, ENTR, ESTAT, REGIO, INFSO, with which we are willing to kick-off or expand collaboration in the future

- Increasing interest in and direct exchanges on R&D Scoreboard information with enterprises and national organisations
- Presentations to Member States gathered in CREST, EUREKA, etc.
- Stable media coverage of each issue of the R&D Scoreboard in over 100 press articles
- IRI website hits ~50 000 per month, with peaks 4 to 5 times as high in Oct/Nov
- Scientific recognition (references, journal articles, Nature, CONCORD, ...) on the rise

- + Analyse corporate R&D and innovation in a broader context (competitiveness / EU2020 strategy)**
- + Bridge the micro- to macro- economic analysis (also enhancing analysis of social returns / EU2020 strategy)**
- + Prepare to use internal modelling capabilities**
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- + Involve more / have higher impact to practitioners**
- + Diversify the customers' portfolio**

- Expand the scope of analysis: broad concept of innovation (technological and non-technological)
- Impact of non-technol. determinants on firms performance, *intangible assets*
- Impact of corporate R&I on satisfying societal needs
- Impact of corporate R&I on employment and 'firm dynamics' (e.g. size, age of firms, R&D Innovation and economic performance)
- Trade, R&D/Innovation and competitiveness
- Market barriers to the dynamics of EU innovative firms
- Role of enabling technologies in sector/firm innovation



Thank you!



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