



3rd IRIMA workshop on INDUSTRIAL RESEARCH AND INNOVATION MONITORING AND ANALYSIS

Internationalisation of Corporate R&D and Innovation: Evidence from the EU Industrial R&D Scoreboard and Survey

**Joint Research Centre – IPTS
Knowledge for Growth Unit**

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Data and Background

Official data (BERD) and EU Industrial R&D Investment Scoreboard: **two main sources for assessing R&D activities in the private sector**

But they are limited with respect to trends in R&D internationalisation:

- **EU R&D Scoreboard:** geographical location where companies execute their R&D investment is unknown
- **BERD:** all R&D carried out in a given territory irrespective of the nationality of the R&D performer, difficulty to measure flows (especially outward data)

⇒ EU Survey on R&D Investment Business Trends

IRIMA Surveys on Industrial R&D Investment Trends

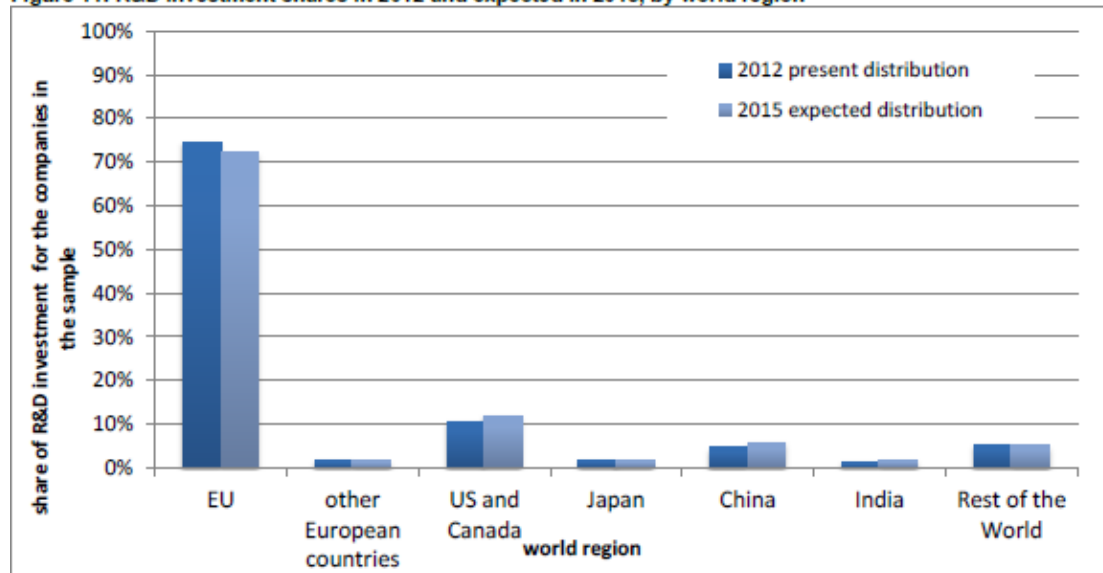
Since 2005, the annual Survey questionnaires collect ex-ante expectations and qualitative statements of the 1000 EU Scoreboard companies.

2013 main results:

- The 172 responding companies invested €62 billion, around **41% of the total R&D investments** by the 1000 EU Scoreboard companies
- R&D investments are expected to **increase by an average of 2.6% annually over 2013-2015**. Due to decreased expectations in the automobiles & parts sector, this is a third lower than in the previous survey.

R&D investment shares in 2013 and expected in 2015

Figure 11: R&D investment shares in 2012 and expected in 2015, by world region



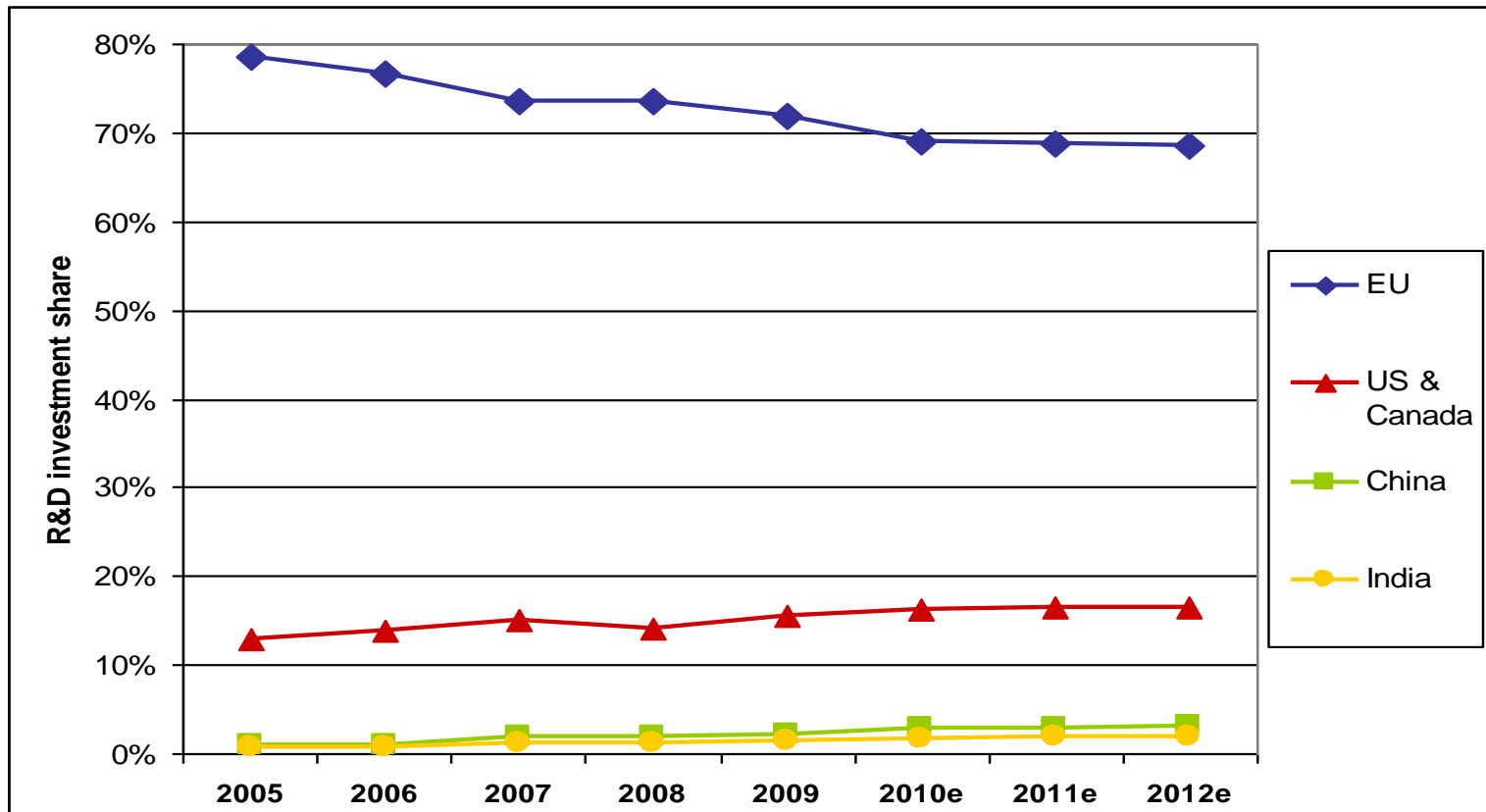
Source: 2013 Survey

Most attractive country for R&D outside the home country

Two thirds of the European companies in the sample state their home country as the most attractive location for R&D. The US, Germany, China and India are as the most attractive locations outside the home country as in previous surveys

R&D globalisation in the Surveys: a concern?

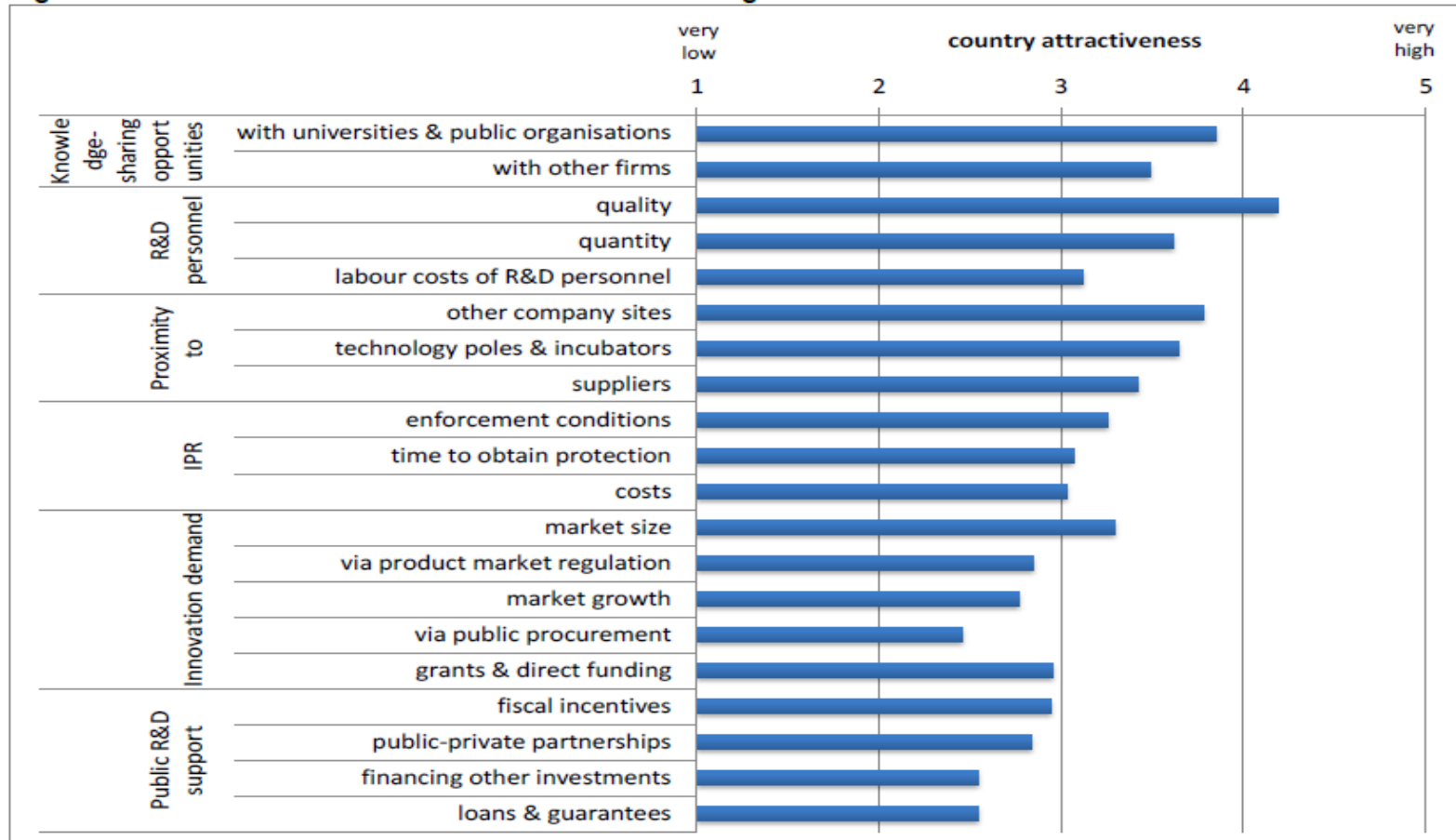
Longer term trends show companies' participation in growth opportunities outside the EU, but not erosion of the R&D base



Source: 2009 Survey

Attractiveness for R&D investment

Figure 15: Attractiveness of the two countries with the highest volume of R&D activities



Note: The factors are grouped by the average relevance of the major items in the survey. The figure refers to 140 out of the 172 companies in the sample.

Source: European Commission JRC-IPTS (2013)

Attractiveness of EU Countries



European Commission

Table 2: Top three and lowest attractiveness factor for EU countries with at least five statements

country (number of statements)	average rating	most attractive	second most attractive	third most attractive	least attractive
Finland (8)	3,35	quality of R&D personnel	knowledge-sharing opportunities with universities & public organisations	quantity of R&D personnel	innovation demand via product market regulation
Germany (46)	3,29	quality of R&D personnel	knowledge-sharing opportunities with universities & public organisations	proximity to other company sites	public R&D support via fiscal incentives
France (25)	3,22	public R&D support via fiscal incentives	quality of R&D personnel	quantity of R&D personnel	innovation demand via market growth
United Kingdom (13)	3,15	knowledge-sharing opportunities with universities & public organisations	quality of R&D personnel	proximity to other company sites	innovation demand via product market regulation
Sweden (12)	3,14	quality of R&D personnel	proximity to technology poles & incubators	knowledge-sharing opportunities with universities & public organisations	public R&D support via fiscal incentives
Austria (6)	3,14	knowledge-sharing opportunities with universities & public organisations	quality of R&D personnel	proximity to technology poles & incubators	innovation demand via market size
Spain (9)	3,12	public R&D support via fiscal incentives	quality of R&D personnel	proximity to suppliers	public R&D support via financing other (non-R&D) investments
Denmark (8)	3,09	quality of R&D personnel	proximity to technology poles & incubators	knowledge-sharing opportunities with universities & public organisations	innovation demand via market size
Belgium (7)	3,06	quality of R&D personnel	IPR enforcement conditions	knowledge-sharing opportunities with universities & public organisations	innovation demand via public procurement
Italy (12)	3,00	quality of R&D personnel	quantity of R&D personnel	knowledge-sharing opportunities with universities & public organisations	financing other (non-R&D) investments and innovation demand via product market regulation
Poland (6)	2,79	labour costs of R&D personnel	quality of R&D personnel	quantity of R&D personnel	innovation demand via public procurement

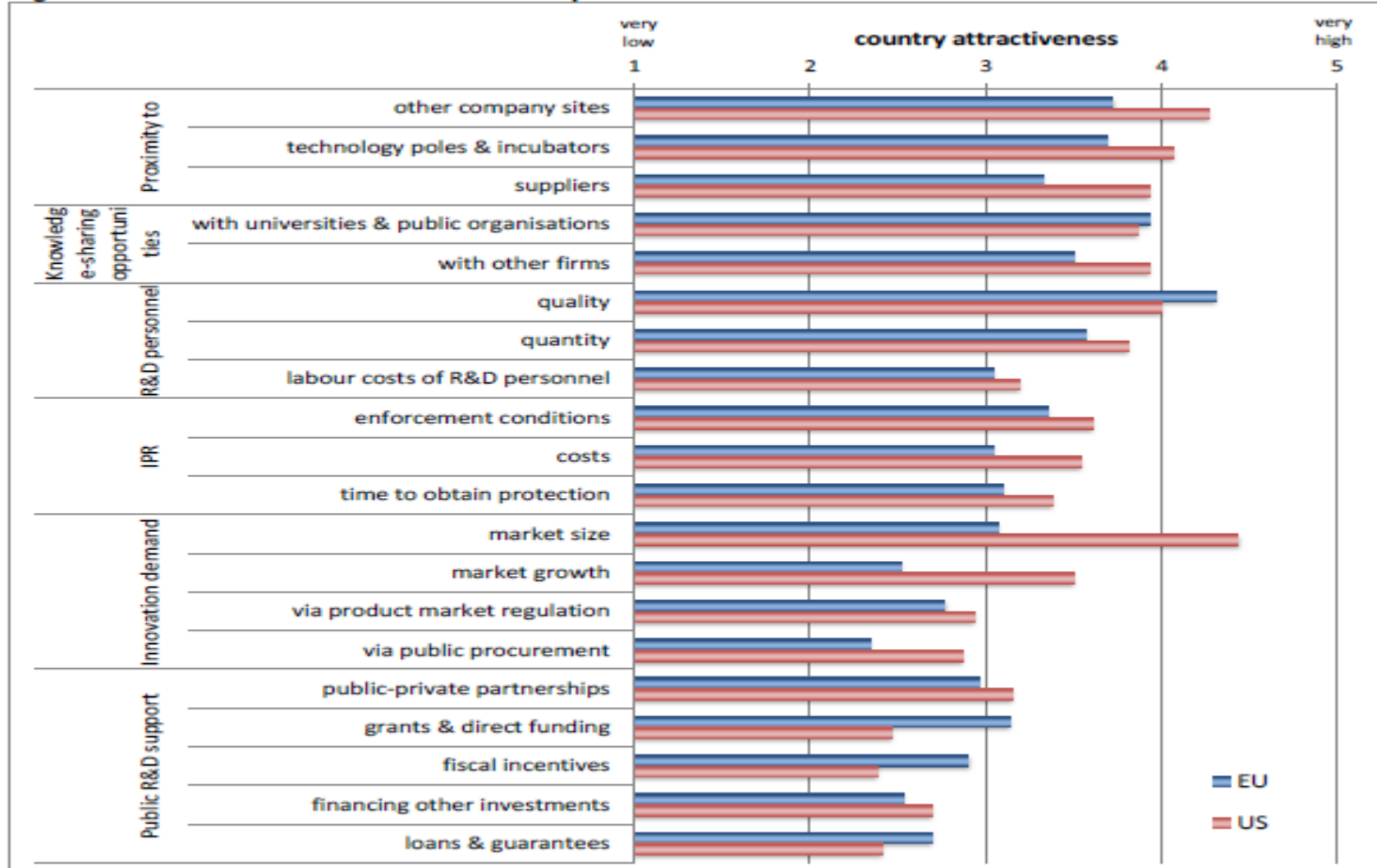
Source: European Commission JRC-IPTS (2013)

Source: 2013 Survey

Attractiveness of EU Countries vs the US



Figure 17: Attractiveness of EU countries compared to the US for 37 cases



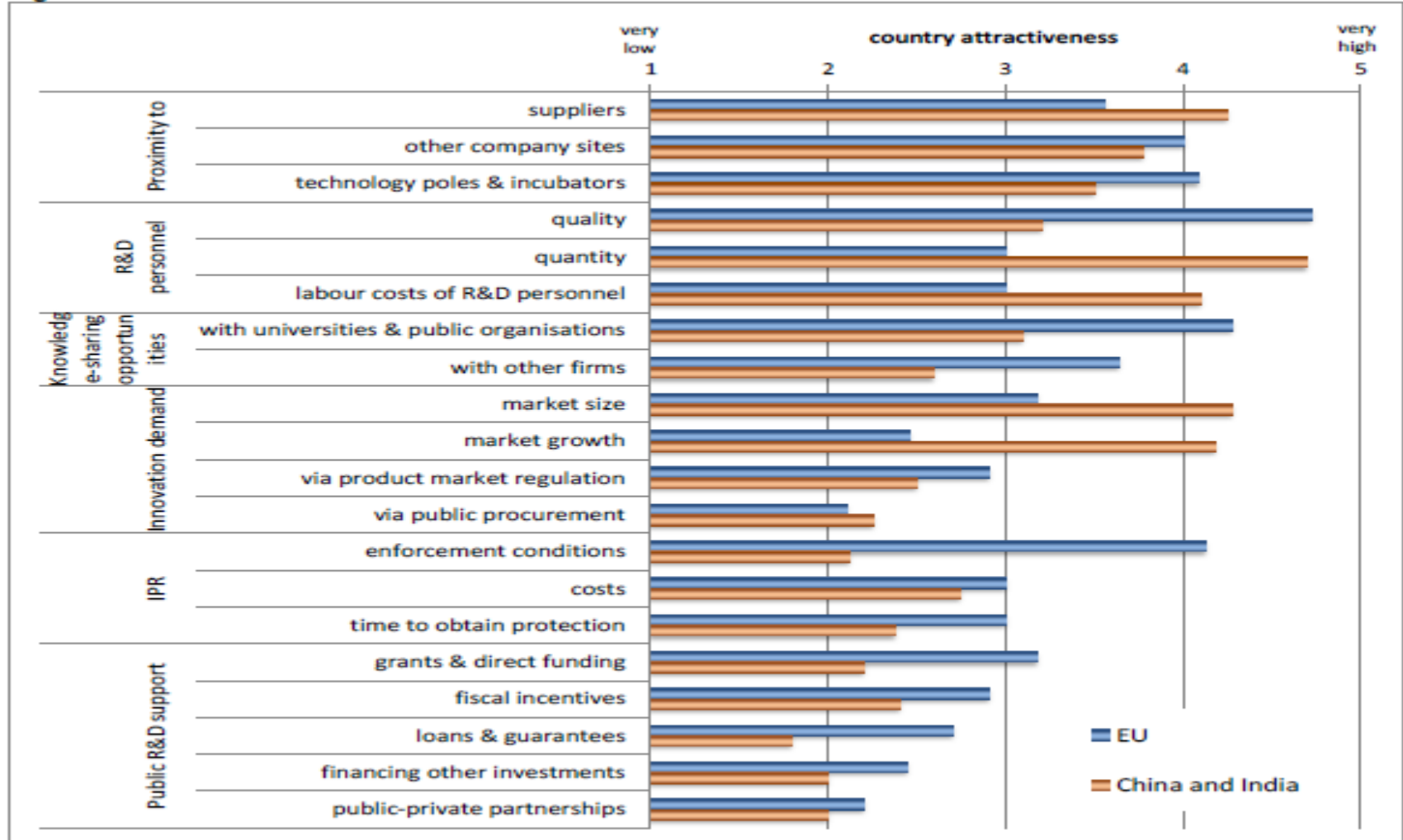
Note: The figure refers to 37 out of the 172 companies in the sample.
 Source: European Commission JRC-IPTS (2013)

Attractiveness of EU Countries vs China and India



European

Figure 18: Attractiveness of EU countries vs. China and India for 11 cases

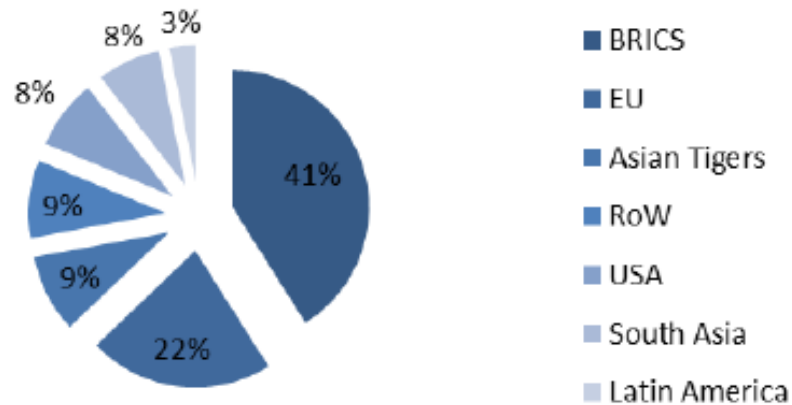


Note: The figure refers to 11 out of the 172 companies in the sample.
 Source: European Commission JRC-IPTS (2013)

Source: 2013 Survey

IRI research results using FDI data: internationalisation

R&D inflows (% of projects)



The EU attracted 22% of FDI projects on R&D from the non-EU companies

Whereas the US received a share of 8%

Six of ten of the countries with the highest number of international R&D projects are European

FDI R&D projects are concentrated in IT hardware, automobiles & parts and pharma & biotech

Policy relevant conclusions

Companies tend to keep a strong focus on their home base, R&D globalisation should be seen as opportunity rather than threat.

Europe seems to be an attractive location for R&D investments.

A strong knowledge base (e.g. quantity and quality of R&D personnel, knowledge sharing opportunities) is a key location driver for companies' R&D investments in Europe: completing the ERA is a key policy measure in this respect.

Thank you very much!

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