How much does France invest in Intangibles?

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Safe and Ethical Cyberspace, digital assets and risks:
How to assess the intangible impacts of a growing phenomenon?

The World Conference on Intellectual Capital for Communities

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France Stratégie

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- **An advisory institution by the French Prime Minister**

- **Three main tasks:**

➢strategic thinking and foresight (*prospective*) on economic, social, technological and environmental issues

➢dialogue between social partners and with civil society actors (*concertation*)

➢evaluation/assessment of public policies

Main underlying question / Structure of the presentation

Does France invest appropriately in intangibles? Would the level or the structure of intangible investment explain the relative (poor) performance of France in terms of international competitiveness?

----> France in an international ranking of intangible investment, based on a personal contribution to a collective work (in progress) undertaken at France Stratégie by Christel Gilles, Haithem Ben Hassine, Rémi Lallement and Marie-Françoise Le Guilly, about the level and structure of investment in France, in a comparative perspective

----> A focus on France in international rankings on IPRs, based on personal investigations and partly on a book recently published: Rémi Lallement (2017), *Intellectual Property and Innovation Protection: New Practices and New Policy Issues*, ISTE / Wiley, London

Two categories of intangibles

- Intangible assets according to national accounts: only partly treated as investment (R&D, mineral exploration, computer software and databases, and entertainment, literary and artistic originals)

- Grouped into three categories since the seminal work of Corrado, Hulten and Sichel (2005):
  - "Computerised information"
  - "Innovative property"
  - "Economic competencies"

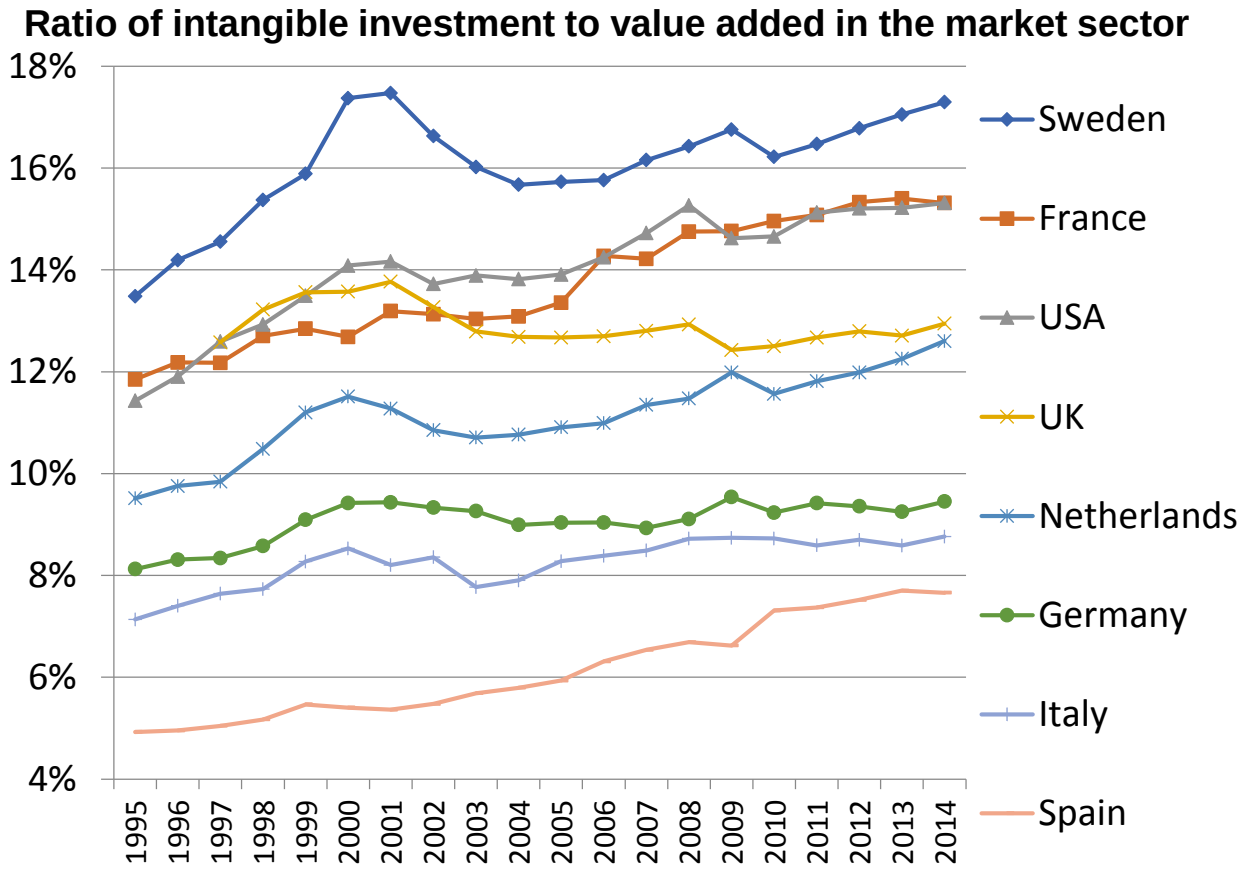
Asset	Included in Nat Accounts?	Capitalization Factor	Depreciation rate
Computerised Information			
Purchased Software	Yes	1	0.315
Own-Account Software	Yes	1	0.315
Databases	Yes	1	0.315
Innovative property			
R&D	Yes	1	0.15
Design	No	0.5	0.2
Mineral Exploration	Yes	1	0.075
Financial Innovation	No	1	0.2
Artistic originals	Yes	asset-specific	asset-specific
Economic Competencies			
Advertising	No	0.6	0.55
Marketing research	No	0.6	0.55
Own-Account Organisational Capital	No	1	0.4
Purchased Organisational Capital	No	0.8	0.4
Training	No	1	0.4

Source: Corrado C., Haskel J., Jona-Lasinio C., Iommi M. (2016), *Intangible investment in the EU and US before and since the Great Recession and its contribution to productivity growth*, EIB Working Papers 2016 / 08 http://www.eib.org/attachments/efs/economics_working_paper_2016_08_en.pdf

A ranking of 8 countries for intangibles in the market sector

Considering intangibles in the broad definition of Corrado *et al.*, (2016) and for the market sector as a whole (total industries excluding real estate activities, public administration, education, health, households): **a relatively high level in France**

- lower than in Sweden
- similar as that of the USA
- higher than in UK, NL, Germany, Italy and Spain.



Source : calculations by France Stratégie based on data presented par Corrado *et al*. (2016) and revised in 2017.

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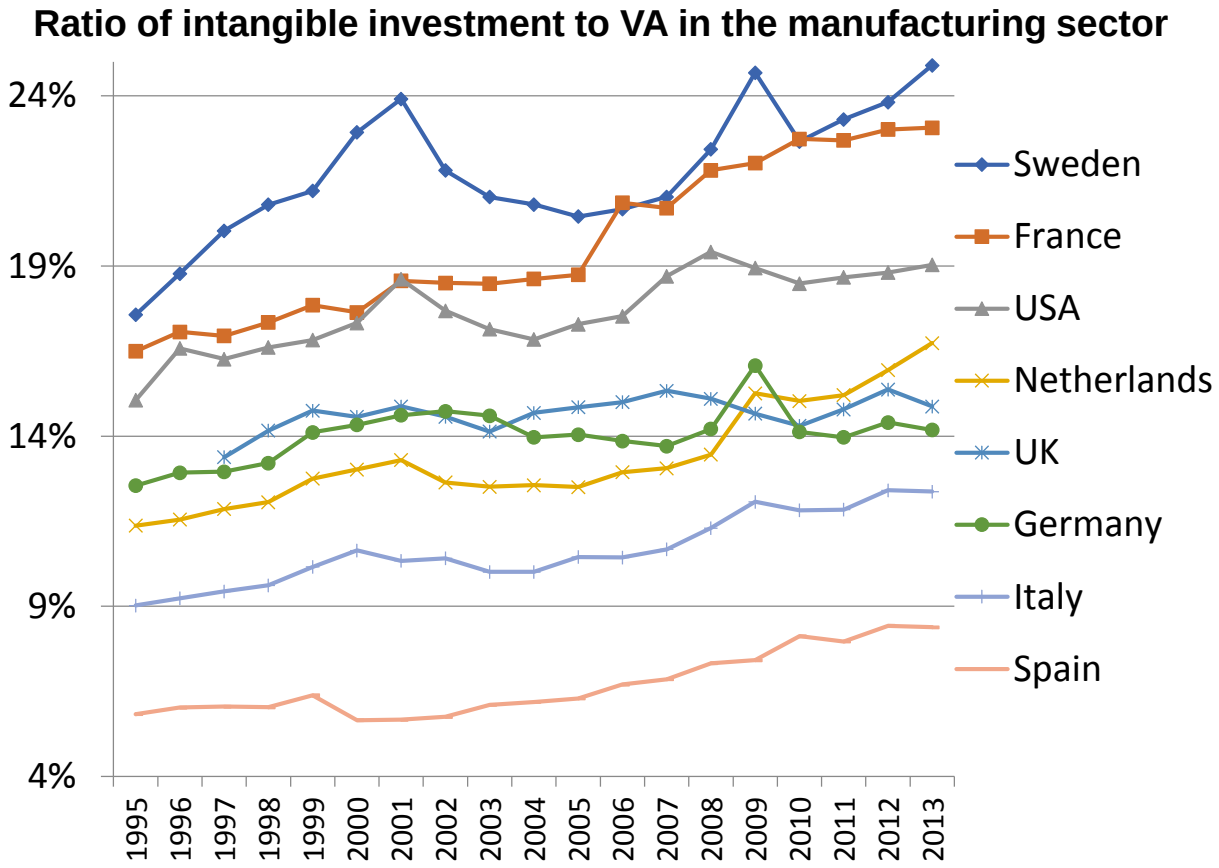
A country ranking for intangibles in the manufacturing sector

Considering intangibles in the broad definition of Corrado *et al.*, (2016) but **in the manufacturing sector** only: **a similar ranking** for these countries

- France almost on the top (with Sweden)
- ahead of the USA
- largely ahead of the UK, NL, Germany, Italy and Spain.



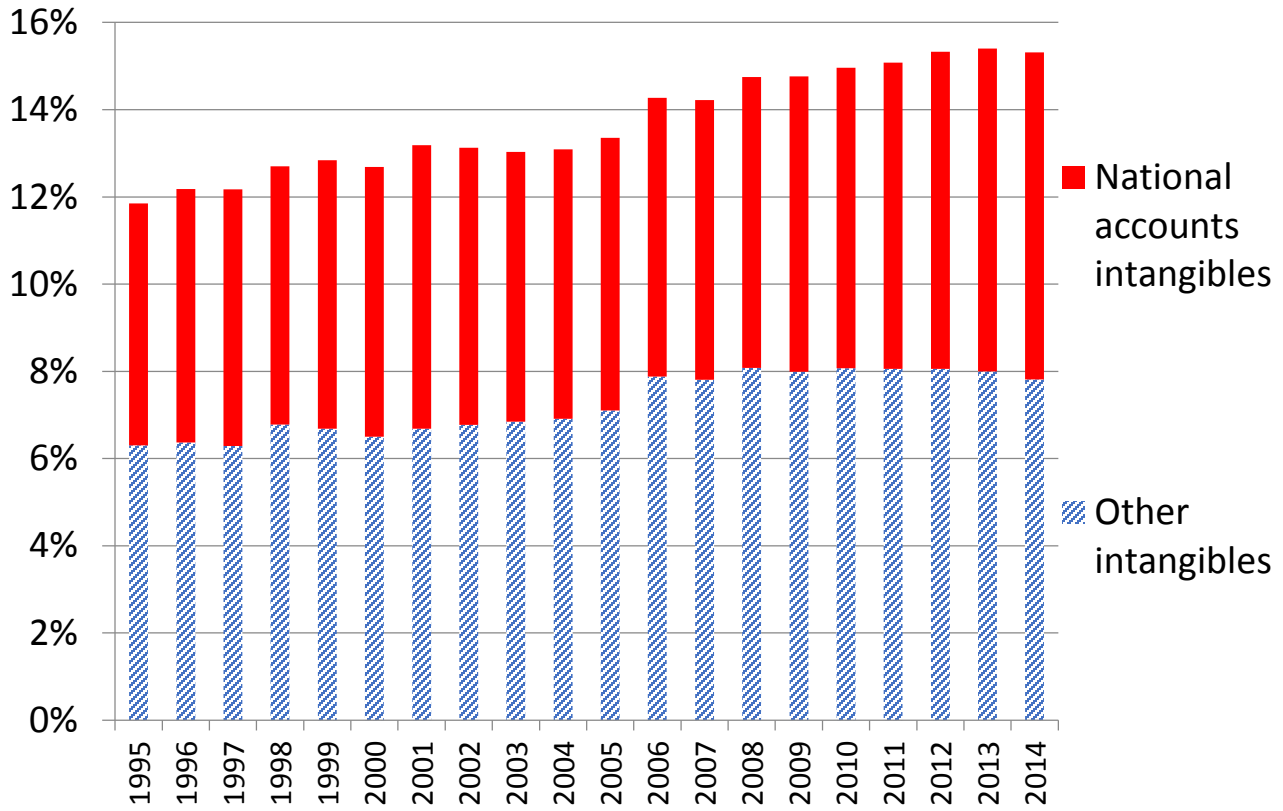
Source : calculations by France Stratégie based on data presented par Corrado *et al*. (2016) and revised in 2017.

The increasing importance of intangible investment

The ratio of intangible investment to VA in the market sector tends to grow:

- from 11,8% in 1995 to 15,3% in 2014.
- The relative shares of national accounts intangibles and other intangibles are similar.

Ratio of intangible investment to VA in the market sector 1995-2014



Source : calculations by France Stratégie based on data presented par Corrado *et al*. (2016) and revised in 2017.

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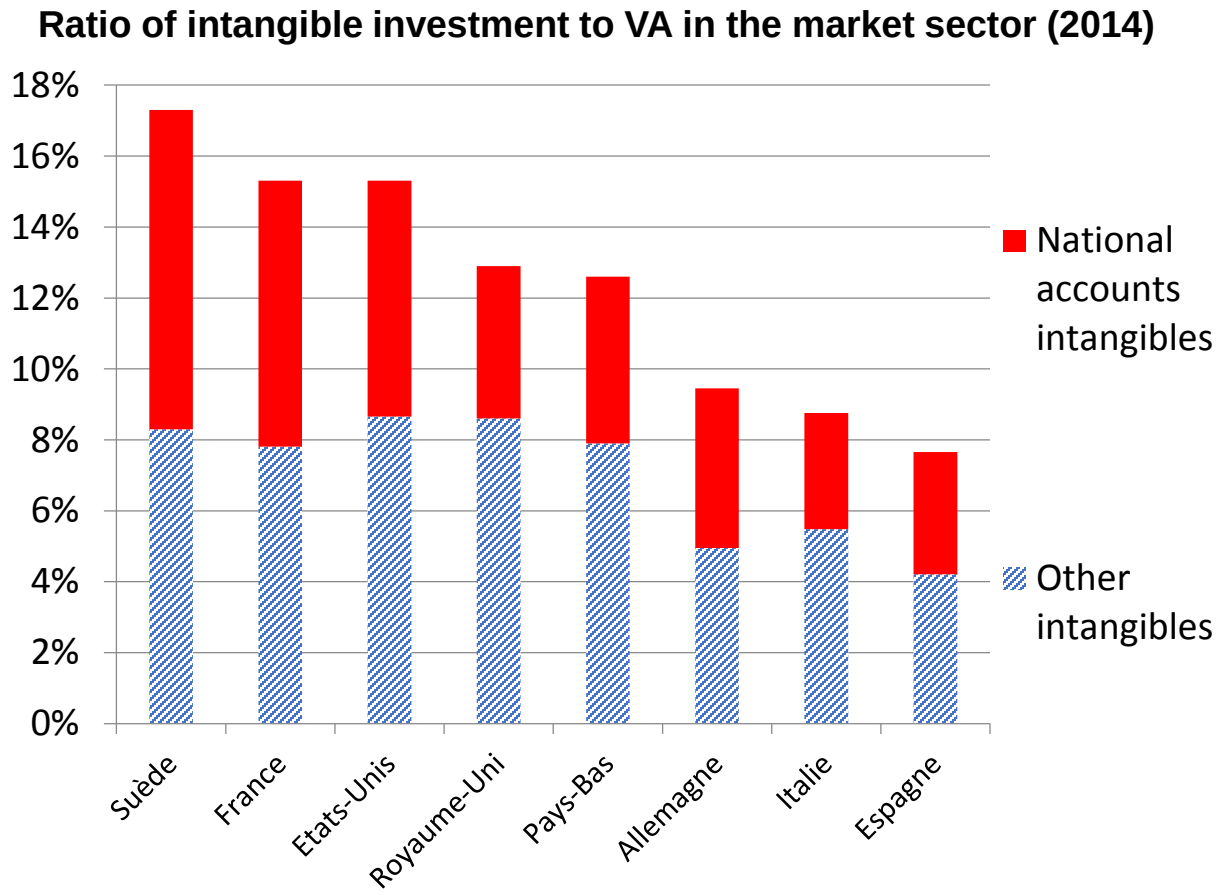
National accounts intangibles vs. other intangibles: different relative shares according to the country considered

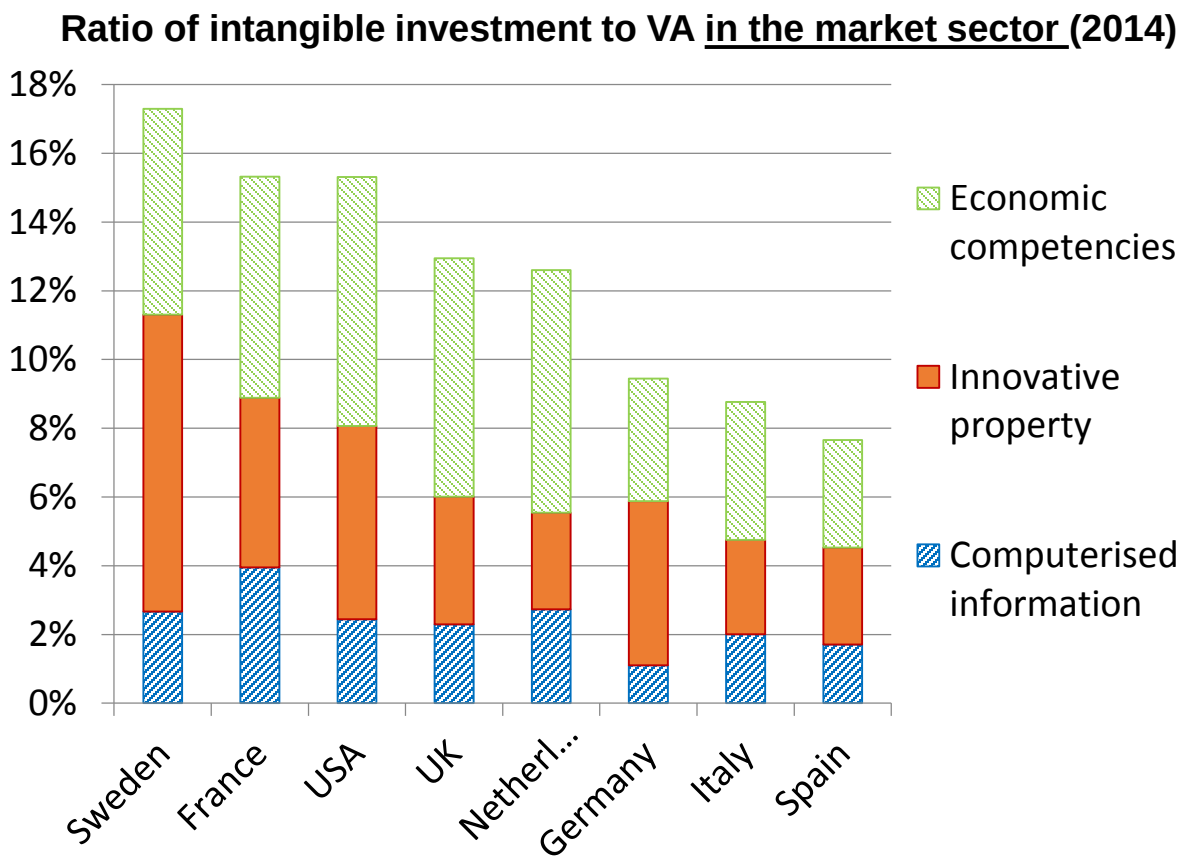
- The relative share of national accounts intangibles and other intangibles are also **similar in Sweden and in Germany**.
- The relative share of **other intangibles** is **twice** that of **national accounts intangibles in the UK and in the Netherlands**.



Source : calculations by France Stratégie based on data presented par Corrado *et al.* (2016) and revised in 2017.

Three categories of intangibles: different relative shares according to the country considered

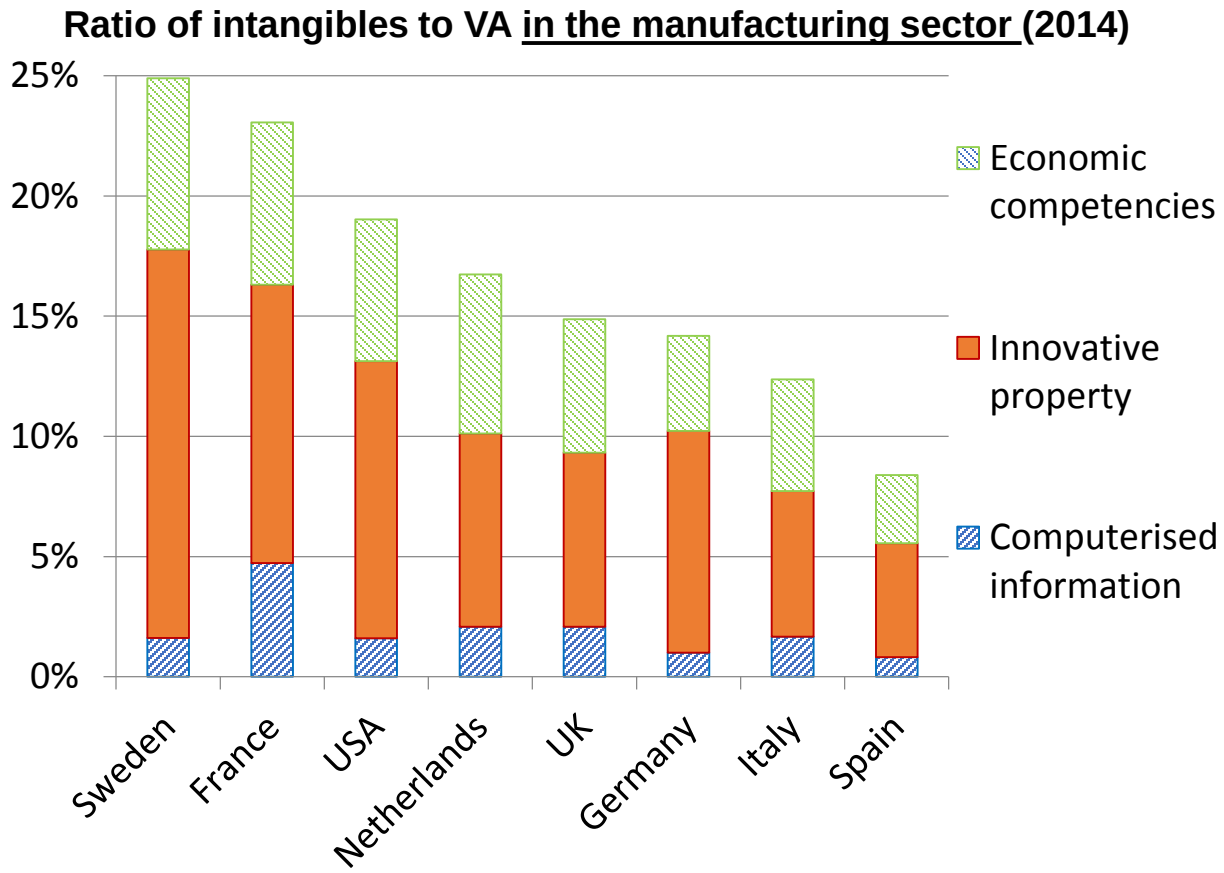
- **Computerised information**: France (behind the US) as the country where its relative share is highest
- **Innovative property** (R&D, design…): a similar share in France and Germany (lower than that of Sweden).
- **Economic competences** (advertising, marketing, training…): the leading countries are the US, the NL, ahead of France and Sweden.



Source : calculations by France Stratégie based on data presented par Corrado *et al*. (2016) and revised in 2017.

Three categories of intangibles: different relative shares according to the country considered (continued)

- **Computerised inf.**: the salient fact is again and by far the prominent share in the case of France: almost 5% in the manufacturing sector
- **Innovative property** (R&D, design…): France at the second rank, after Sweden and on par with the USA
- **Economic competences** (advertising, marketing, training…): France at the second rank, after Sweden and slightly ahead of the NL.



Source : calculations by France Stratégie based on data presented par Corrado *et al*. (2016) and revised in 2017.

A paradox and a puzzle…

A surprising result by international standards: France as a country with:

- **disappointing performance in terms of international competitiveness**, as measured by the classical indicators of foreign trade (persisting trade deficit, etc.)
- **a high level of intangible** (as well as tangible) **investment**
- **a high level** of intangible investment **in each of the 3 categories of intangibles**

-----> Probably partly a statistical artifact: measurement problem concerning “Computerised information” (software and databases).

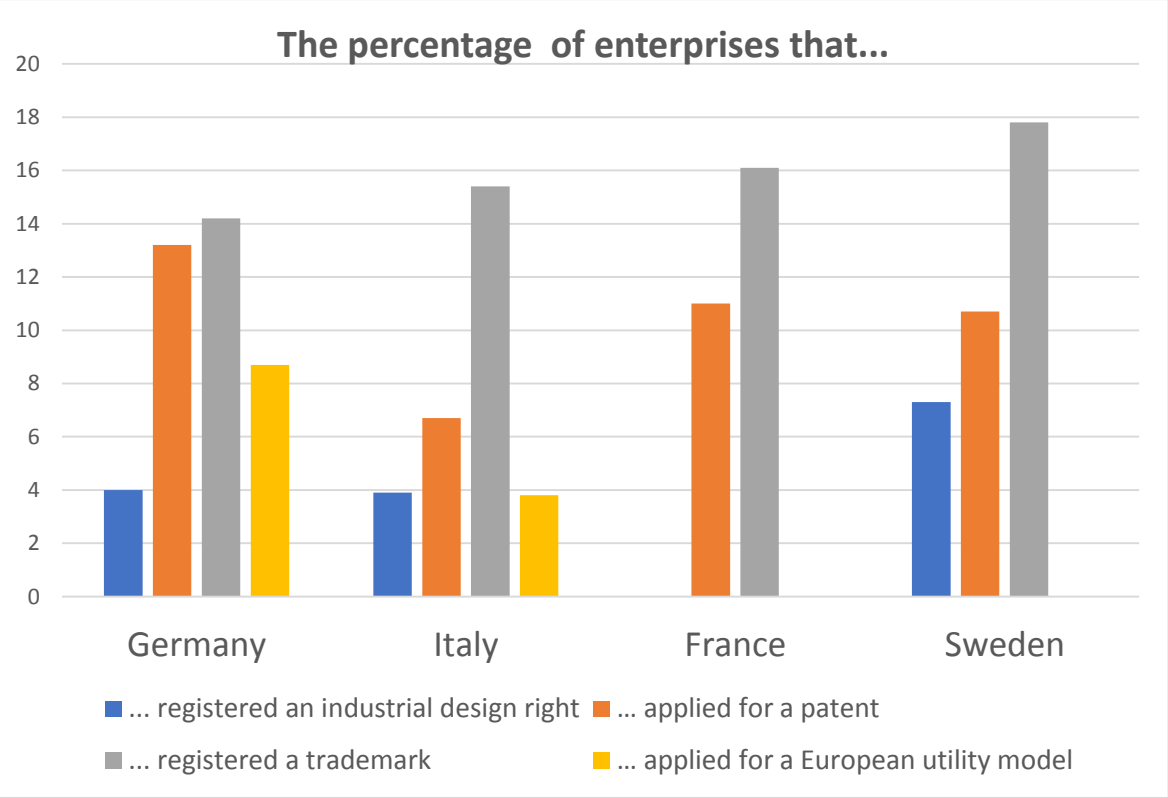
-----> Also a management problem (ability to combine efficiently these different assets)?

An intermediate rank in Europe for the propensity to use intellectual property rights (IPRs)

At the micro-level, an intermediate rank for innovative enterprises in France, according to the data from the 9th Community innovation survey (CIS9).
As compared to similar firms in Germany:

- a lower propensity to file a patent
- but a higher propensity to register a trademark

The propensity of innovative enterprises to apply for a patent or a utility model, or to register a trademark or an industrial design right (2014)



Source : Eurostat data from the Community innovation survey (CIS9).

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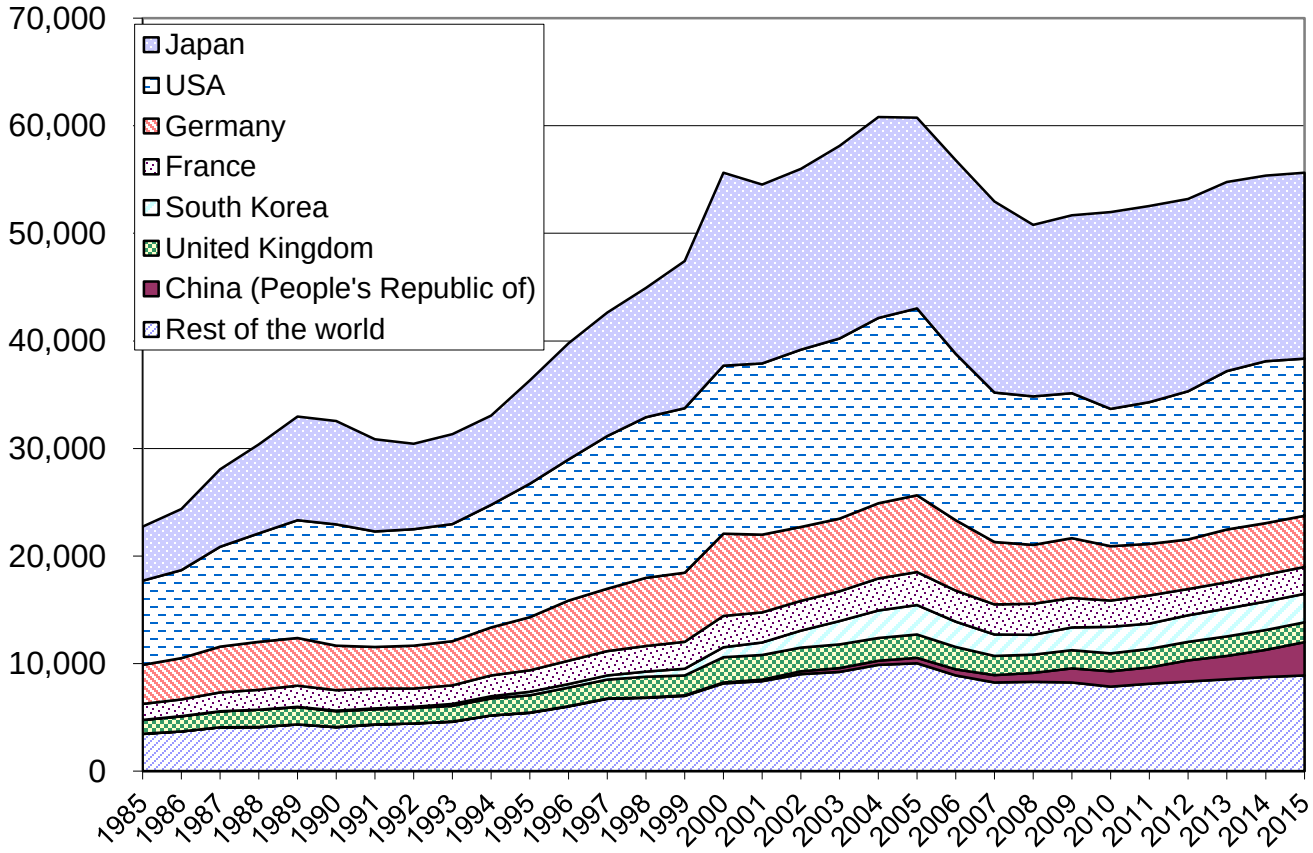
France in international rankings in terms of patent filings

- **"Triadic" patents** as indicator for international comparisons

----> to avoid domestic bias

- ➢ In 2015, 84% of triadic patents correspond to innovations made in seven countries
- ➢ A ranking dominated by Japan and the US
- ➢ Germany and France at the 3rd and 6th position resp., with respective global shares of around 8,5% and 4,5% (≈ their respective global shares in terms of domestic R&D spending
- ➢ China and South Korea at the 4th and 5th rank
- **Filings along the PCT route** (WIPO data) : a similar ranking (but with China and Germany at the 3rd and 4th rank respectively)

Number of triadic patent families (1985-2015)



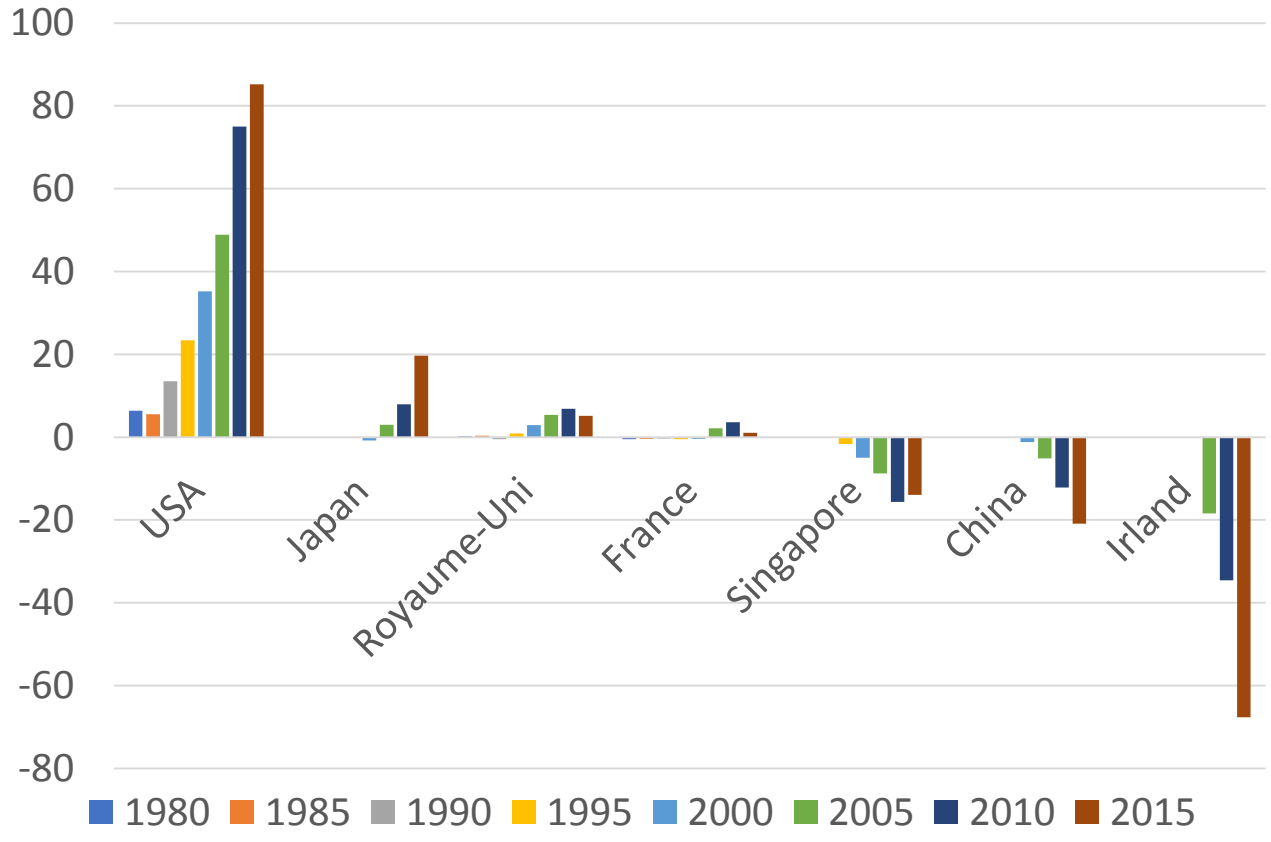
Source: revised version from Lallement (2017), based on OECD data.

IPRs as a source of net income or cost at the national level

- Apart from the USA, Japan, and some European countries that reap increasing rewards, most other countries are racking up deficits in these terms.
- For some deficit countries like China, a technology catching up process that requires a large net import of PI for the needs of their industries.

➢ For other deficit countries (Ireland or Singapore), role of very appealing tax systems ("patent box" systems ----> tax optimization practices involving transfer prices, given that the overwhelming majority of these payments consists of intragroup transactions within transnational firms).

Balance between IP income and payments (in billions of $ at current prices)



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