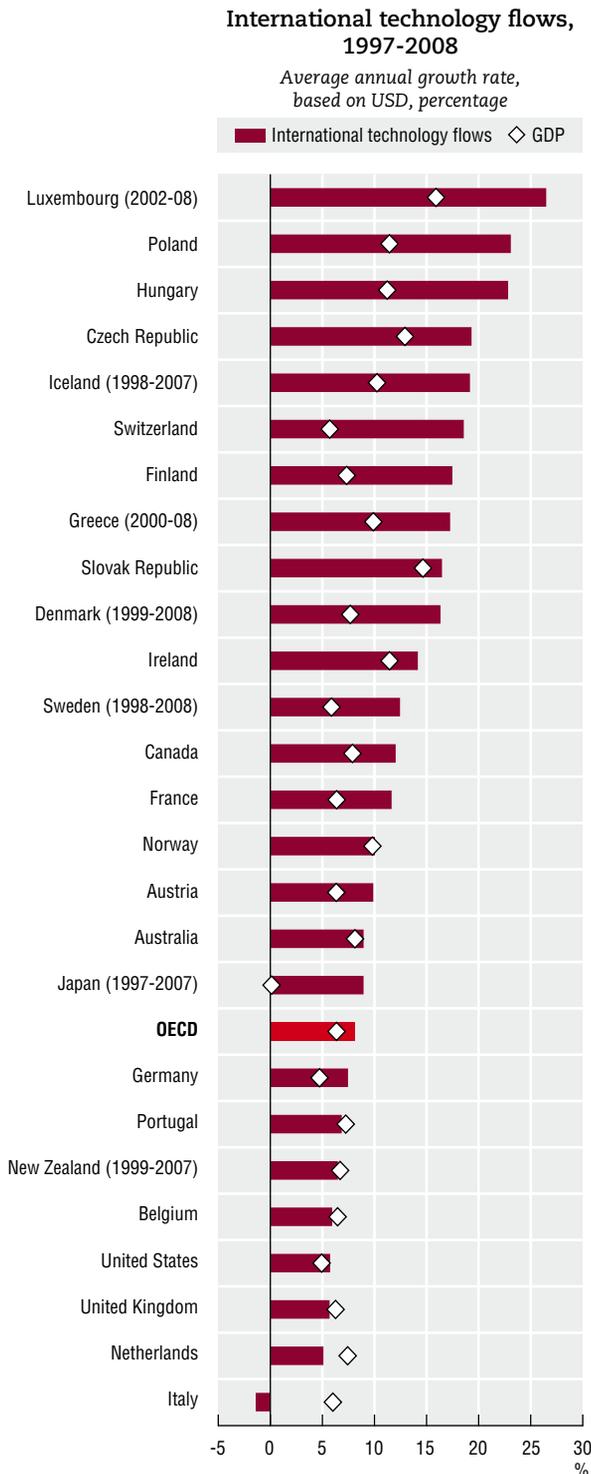


Circulation of knowledge – in particular international circulation of knowledge – has increased over time and is now an important component of technology transfer. Well-designed knowledge networks and markets can reduce transaction costs, enable new knowledge transfers and make existing transfers more efficient.



Source: OECD, Technology Balance of Payments Database, December 2009; and OECD, Trade in Services Database, December 2009.

StatLink <http://dx.doi.org/10.1787/836172515787>

DID YOU KNOW?

One-third of young patenting European firms consider patents important for convincing private investors to provide them with funds.

(Zuniga and Guellec, 2009.)

Technology receipts on patents and licences and payments from R&D services are the main forms of disembodied technology diffusion. The internationalisation of technology flows reflects to some extent cross-border trade in R&D outcomes. Unlike R&D expenditures, these are payments for production-ready technologies. While it is not possible to distinguish between intra- (parents and affiliates) and inter-firms transactions, the rise in international technology flows shows that knowledge is increasingly implemented in a different country from the one in which it was developed.

Results from a pilot study on patent licences show that licensing is widespread among patenting firms. Around one patenting company in five in Europe licenses patents to non-affiliated partners, and more than one in four does so in Japan. The relation between size of firm and probability to license out is U-shaped: small and large firms are more likely to license out their patented inventions. The major barrier to licensing out patents is identifying partners.

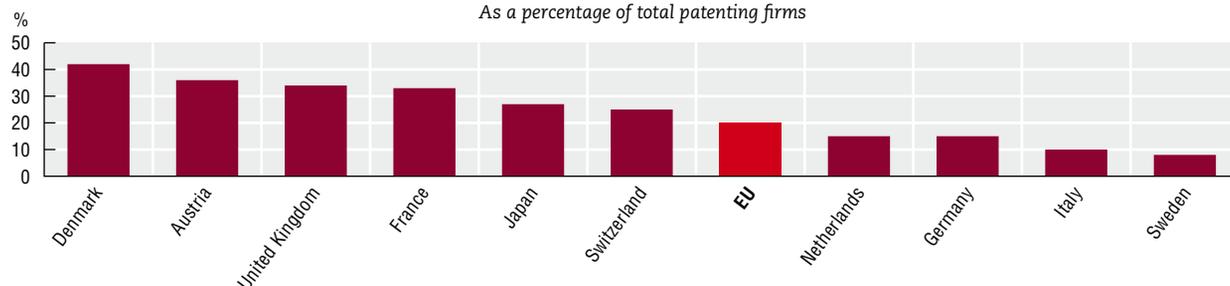
Many countries with a high share of patents invented by foreign businesses either have large multinational firms that perform R&D abroad or are low-tax countries with no track record of innovation activities. In this case, the intellectual property (IP) may be located there as a way to minimise taxes.

Definitions

Technology flows refer to the average of technological payments and receipts. Trade in technology comprises four main categories: transfer of techniques (through patents and licences, disclosure of know-how); transfer (sale, licensing, franchising) of designs, trademarks and patterns; services with a technical content, including technical and engineering studies as well as technical assistance; industrial R&D. Foreign inventions refer to patents none of whose inventors resides in the country in which a resident owns the patent. Patent applications are filed through the Patent Co-operation Treaty (PCT) at international phase.

Patenting firms licensing out at least one patent to non-affiliated companies, 2006

As a percentage of total patenting firms

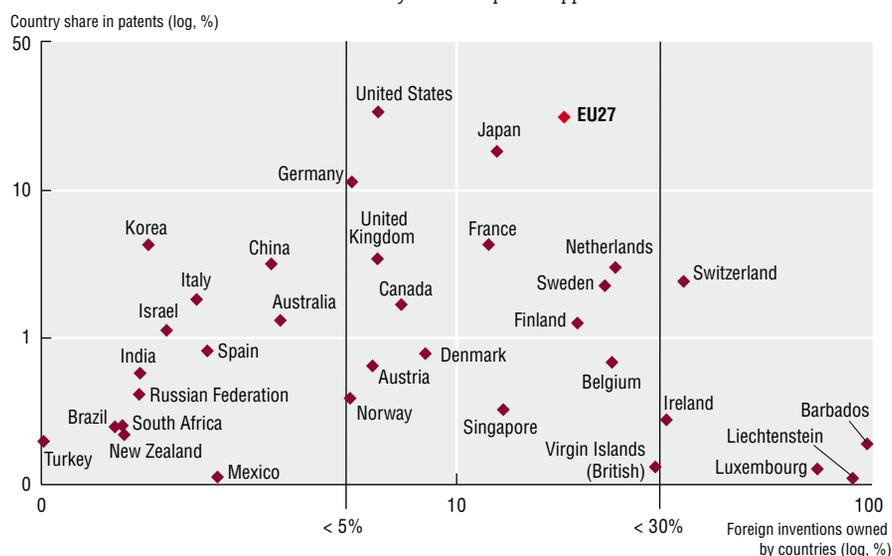


Source: Zuniga, M.P. and D. Guellec (2009), "Who licenses out patents and why? Lessons from a business survey", OECD Science, Technology and Industry Working Papers 2009/5, OECD, Paris.

StatLink <http://dx.doi.org/10.1787/836172515787>

Foreign inventions owned by countries, 2005-07

Relative to country shares in patent applications


How to read this figure

Switzerland filed 2.2% of all patent applications, and 35% of these patent applications have no inventor residing in the country.

Source: OECD, Patent Database, January 2010. See chapter notes.

StatLink <http://dx.doi.org/10.1787/836172515787>

Measurability

Technology receipts and payments reflect a country's ability to sell technology abroad and use of foreign technologies. Most transactions involve operations between parent companies and affiliates. Additional qualitative and quantitative information is needed to analyse a country's deficit or surplus position in a given year correctly. As it is difficult to dissociate its technological from its non-technological content, trade in services may be underestimated if a significant portion does involve financial payments or if payments are not in the form of technology payments.

In 2007 the OECD, the European Patent Office and the University of Tokyo surveyed businesses to investigate licensing out to affiliated and non-affiliated companies, its intensity, evolution, characteristics, motivations and the obstacles encountered by companies that licensed or were willing to do so. Some 600 European firms and 1 600 Japanese firms that were patent holders responded to the survey.

The location of patent ownership may reveal the importance of IP tax shifting in OECD countries and may indirectly reveal attractive tax incentives for IP revenue and tax planning strategies. However, the data currently available do not include revenue generated by patents. This limits the analysis that can be undertaken.