

### Regional patterns of co-patenting

The percentage of regional patent applications with co-inventors from another region, whether or not they belong to the same country, is an indicator of co-operation activity in innovation between the two regions.

More than 70% of patents in OECD countries are applied for by two or more inventors. The share of co-patenting on the total Patent Co-operation Treaty (PCT) applications can be high for patenting leader countries (such as Japan and the United States), small economies (such as Iceland and Estonia) and emerging economies (India) (Figure 2.51).

The propensity to co-patent with co-inventors from the same TL3 region (average 49%) is higher than with co-inventor(s) from other regions in the same country (average 34%) and from foreign regions (average 17%). Japan, Spain and New Zealand show the highest propensity to co-patent within the same region. Korea, Japan, the United States and Germany co-patent internally and show the lowest propensity to co-patent outside national

#### Definition

A patent is an exclusive right granted for an invention, which is a product or a process with industrial applicability that provides, in general, a new way of doing something or offers a new technical solution to a problem (“inventive step”). A patent provides protection for the invention to the owner of the patent. The protection is granted for a limited period, generally 20 years.

Data refer to overall patent applications to Patent Co-operation Treaty (PCT) applications.

Patent documents report the inventors (where the invention takes place), as well as the applicants (owners), along with their addresses and country of residence. Patent counts are based on the inventor’s region of residence and fractional counts. If two or more inventors are registered on the patent document, the patent is classified as a co-patent.

The number of foreign co-inventors is defined as the number of co-inventors that reside/work in a TL region outside national borders.

borders. By contrast, the Slovak Republic, Mexico, Greece and Turkey – which have a low level of patenting activities – seem more oriented toward international co-operation than national (Figure 2.52).

Among the 40 regions with the highest number of patent applications, different patterns of collaboration emerge. Top patenting regions such as the Flemish region (Belgium), Ontario (Canada), East of England (United Kingdom), and Western Netherlands display a high share of collaborations and are relatively more connected with other foreign hubs. The top ranking regions in Asian countries show a lower propensity to collaborate in patenting in general and with foreign regions, exceptions being Shanghai and Beijing. States in the United States show a relatively low share of international collaboration but with an increase in their share compared to 1995-97 values (Figure 2.53).

#### Source

OECD (2013), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en>.

See Annex B for data source and country-related metadata.

#### Reference years and territorial level

2008-10 average.

TL3 regions, TL2 regions for Brazil, China, India and South Africa.

#### Further information

OECD (2009), *Patent Statistics Manual*, OECD Publishing, <http://dx.doi.org/10.1787/9789264056442-en>.

Interactive graphs and maps: <http://rag.oecd.org>.

#### Figure notes

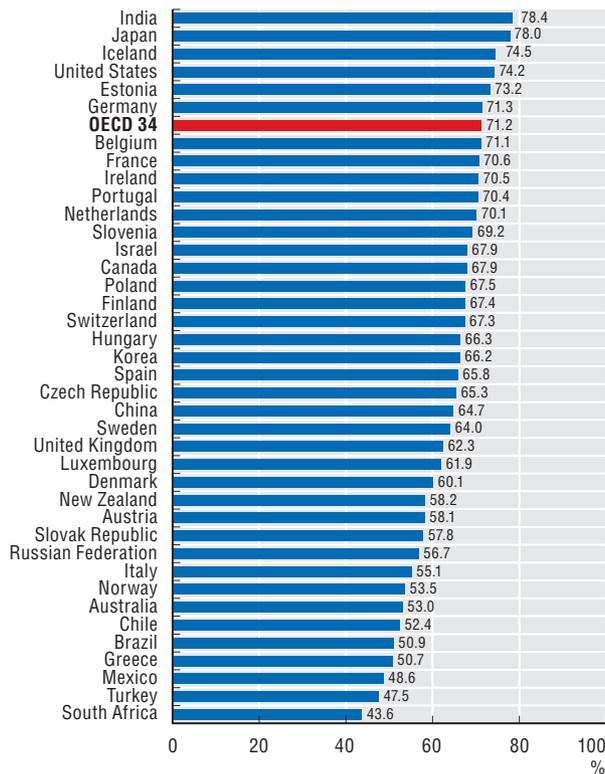
2.53: TL2 regions; 2008-10 average increase or decrease compared to 1995-97 average. The X Y axes are centred to the median among regions.

Information on data for Israel:  
<http://dx.doi.org/10.1787/888932315602>.

## 2. REGIONS AS DRIVERS OF NATIONAL COMPETITIVENESS

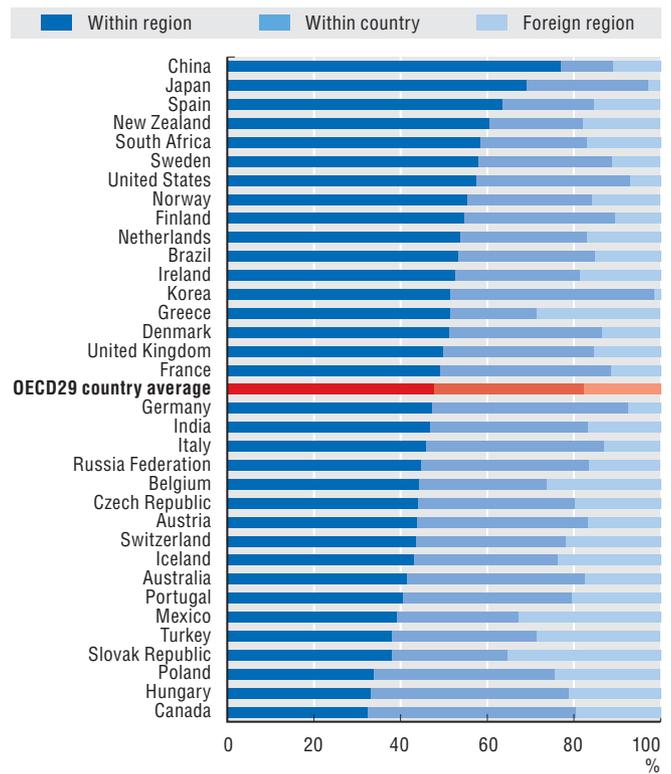
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**2.51. Patent applications with co-inventors as a % of patents, average 2008-10**



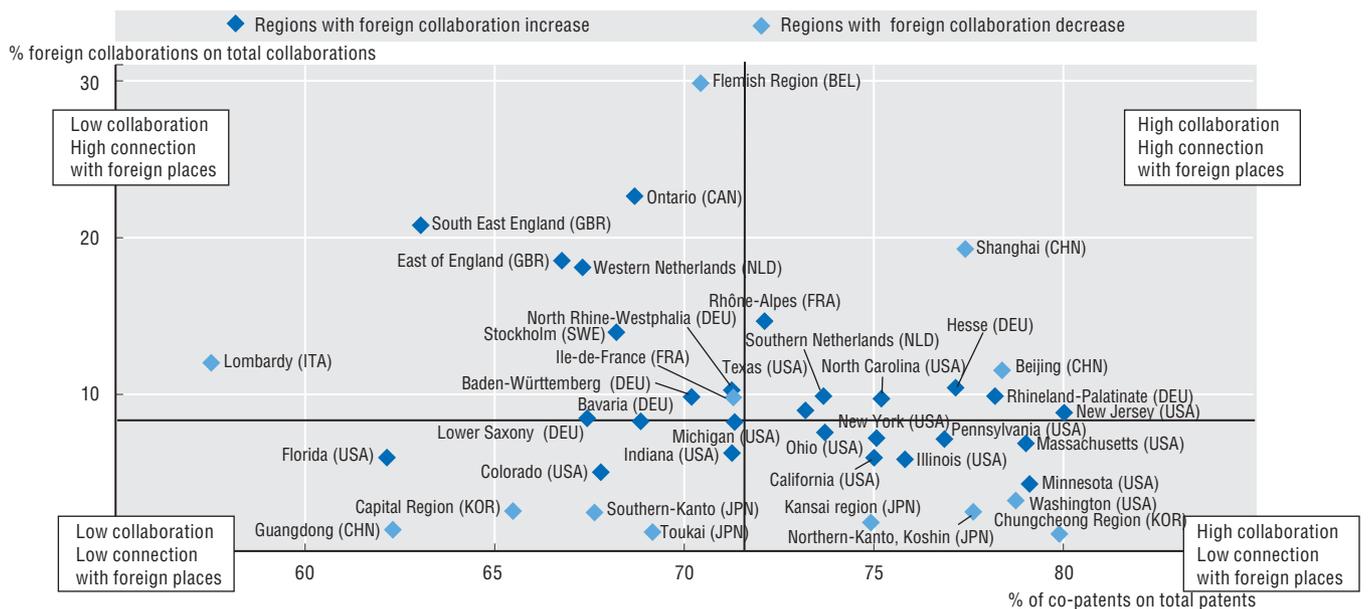
StatLink <http://dx.doi.org/10.1787/888932913893>

**2.52. Share of co-patents by location of partners, TL3 regions, average 2008-10**

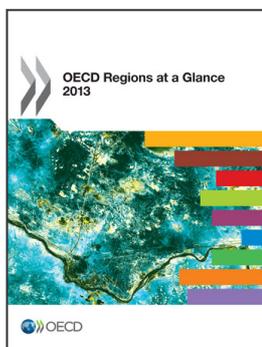


StatLink <http://dx.doi.org/10.1787/888932913912>

**2.53. Per cent of co-patents (X axis) and foreign collaborations (Y axis) in the top 40 regions with the highest patent applications, 2008-10 and compared to their values in 1995-97**



StatLink <http://dx.doi.org/10.1787/888932913931>



**From:**  
**OECD Regions at a Glance 2013**

**Access the complete publication at:**  
[https://doi.org/10.1787/reg\\_glance-2013-en](https://doi.org/10.1787/reg_glance-2013-en)

**Please cite this chapter as:**

OECD (2013), "Regional patterns of co-patenting", in *OECD Regions at a Glance 2013*, OECD Publishing, Paris.

DOI: [https://doi.org/10.1787/reg\\_glance-2013-25-en](https://doi.org/10.1787/reg_glance-2013-25-en)

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