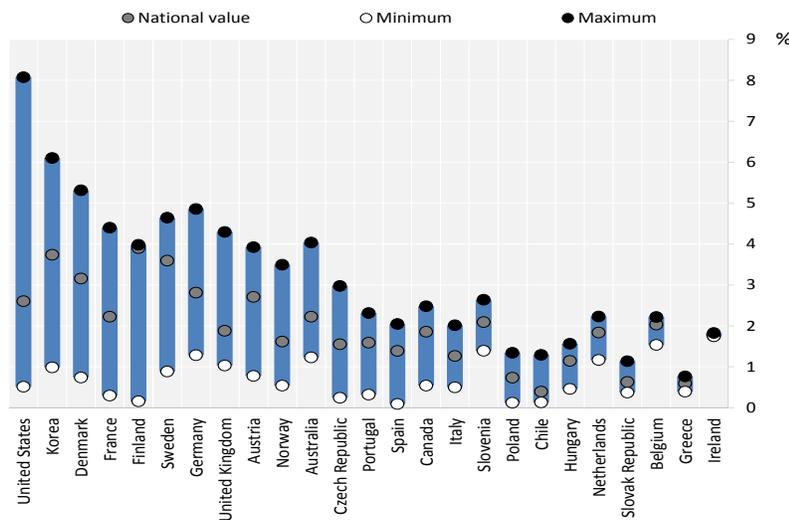


Economies need innovation to grow and to accumulate knowledge that generates spill-overs and diversifies the economy. The latter is particularly important to make economies more resilient against economic crises. A good measurement for the degree with which regions foster innovation is to look at their R&D intensity (expenditure for Research and Development as a % of GDP). In 2010, R&D intensity was, on average, 2% in the OECD area, ranging from 4% in Finland to less than 0.5% in Chile. Within countries differences in R&D intensity were larger than among countries in almost one-third of the countries. The United States, Korea, Denmark and France show the largest regional disparities in R&D intensity across TL2 regions.

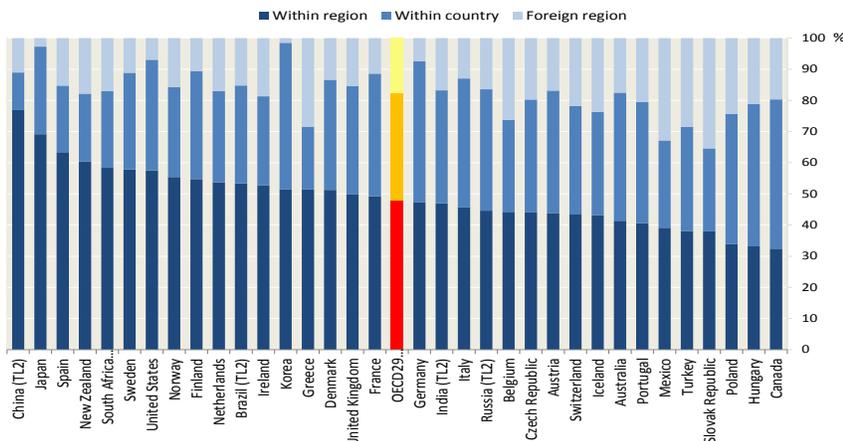
Range of TL2 regional R&D intensity, 2010



Source: OECD Regions at a Glance 2013

Patents are a good proxy of innovation efforts, though patenting activity is strongly associated with sectoral patterns. Patent applications are concentrated in few countries and in few regions: United States, Japan and Germany produce 60% of the total patents. Regions can collaborate on innovation through co-patenting: 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.

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



Source: OECD Regions at a Glance 2013

### Links:

- [OECD Regions at a Glance 2013](#)
- [OECD Regional Statistics and Indicators](#)
- [Regions at a Glance interactive](#)

### Definitions

**R&D intensity** is defined as the ratio between R&D expenditure and GDP.

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 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 on the patent document are registered two or more inventors, the patent is classified as a **co-patent**.