

Indicator (definition)	Number of patent applications to the European Patent Office (EPO) per million inhabitants
Eurostat Unit	Education, science and culture statistics
Other Commission DGs	DG RTD
European Statistical System Working Group (WG)	WG on Science, Technology and Innovation (STI) statistics
Date	December 2010

1. Overall assessment of accuracy and comparability (Description of quality grades under the following link: http://circa.europa.eu/Public/irc/dsis/structind/library?l=/general_information/quality_profiles/annex_enpdf/EN_1.0_&a=d)

A
 B
 C
 Indicator to be Developed

Short summary explanation: Data is collected from reliable sources applying high standards with regard to the methodology and ensuring a high degree of comparability.

2. Objective and relevance of the indicator:

The indicator shows applications filed directly under the European Patent Convention or to applications filed under the Patent Co-operation Treaty and designed to the EPO (euro-PCT). The patent applications reflect a country's inventive activity. They also show the country's capacity to exploit and translate it into potential economic output.

The Lisbon European Council (2000) noted that it is necessary to prepare the transition to a knowledge-based economy and society by better policies for the information society and R&D, as well as by stepping up the process of structural reform for competitiveness and innovation and by completing the internal market.

The Lisbon European Council (2000) noted that research activities at national and Union level must be better integrated and coordinated to make them as efficient and innovative as possible, and to ensure that Europe offers attractive prospects to its best brains. The instruments under the Treaty and all other appropriate means, including voluntary arrangements, must be fully exploited to achieve this objective in a flexible, decentralised and non-bureaucratic manner. At the same time, innovation and ideas must be adequately rewarded within the new knowledge-based economy, particularly through patent protection.

The relaunched Lisbon strategy (2005) reinforced the idea of the need of a European patent system.

To date, a consultation is in process in order to set the objectives for the European Union until 2020. In this consultation, patent protection system is also in the discussion board

Restriction of the indicator's relevance and other characteristics which may lead to restrictions in using it in monitoring and reporting

For patent applications to the EPO, all direct applications (EPO-direct) are taken into account, but among the PCT applications (applications following the procedure laid down by the *Patent Cooperation Treaty* – PCT) made to the EPO only those that have entered into the regional phase are counted. PCT patent applications in the international phase designating the EPO are no longer included in the calculation of patent applications to the EPO.

Not all inventions are patented and not all patents have the same value.

The value distribution of patents is skewed as many patents have no industrial application.

Inventions that are protected by other means or inventions, whose value does not warrant the costs of patenting, are not patented.

The propensity to patent differs across countries and industries.

Changes in patent law and regulations result in lower comparability over time.

The inventor's place of residence stated in an application can differ from the country where the invention actually took place (especially in the case of small or poor countries).

Use of the filing or granting date does not reflect a country's innovative performance at that particular moment of time, sometimes the lag from the actual invention time can be many years.

3. Data availability:

(t_1 : earliest reference year available; t_2 : latest reference year available in December 2010)

	Member States	Candidate and Acceding Countries	US and Japan	EEA-EFTA
t ₁	1990: BE, BG, DK, DE, IE, EL, ES, IT, LU, HU, NL, AT, PL, PT, SI, FI, SE, UK 1991: CZ, FR, CY, RO 1993: LV, MT 1994: EE, SK 1995: LT	1990: IS, TR 1992: HR	1990: JP, US	1990: LI, NO, CH
t ₂	2007: All Member States	2007: IS, HR, TR	2005: JP, US	2006: LI, NO, CH

Comments (including information on time series): for the year 2007 the values are estimations. Data not available for CY (1995-1997), LV (1994-1996), MT (1994-1996).

4. Overall accuracy

High



As the data are compiled on the basis of complete micro-data provided by the EPO, there is no sampling or estimations involved and the data accuracy is high.

From autumn 2005 onwards, Eurostat uses only the EPO Worldwide Statistical Database (PATSTAT) for the data production (PATSTAT is a unique raw data source for the EPO and United States Patent and Trademark Office (USPTO) data provided by the EPO). Patent applications are counted according to the year in which they were filed at the EPO (Data refer to patents applied for during the entire calendar year (priority year) and are broken down according to the International Patent Classification (IPC). They are also broken down according to the inventor's place of residence, using fractional counting if multiple inventors or IPC classes are provided to avoid double counting.

The data on inhabitants refer to the population on the 1st of January each year, and the data source is the Eurostat population statistics.

Restricted



(sources, errors, methodology, etc.)

5. Comparability across countries

High



The European Patent Office follows the harmonised procedure established by the European Patent Convention when putting together the patent raw data within the EPO Worldwide Statistical Database (PATSTAT) (which is a unique patent raw data source for patent statistics). As all the data produced originate from PATSTAT and is processed using the same criteria, comparability of the data across countries is ensured.

Related to the quality of the EU population statistics, the comparability of the data is ensured by application of the same methodology across countries.

Restricted



6. Comparability over time

High



From autumn 2005 onwards, all the patent data produced are based on the EPO Worldwide Statistical Database (PATSTAT). All the data is processed using the same process and the same criteria.

Following changes in the production of patent statistics at Eurostat in 2007, data shown on the Eurostat webpage are no longer fully comparable with data previously disseminated. However, data for the period 1990-2005 have been revised to incorporate all new developments in the methodology and to harmonise some aspects that were not fully harmonised.

From 2007 onwards Eurostat's production of EPO and USPTO data has been based almost exclusively on the EPO Worldwide Statistical Patent Database. The worldwide statistical patent database, also known as "PATSTAT", was developed by the EPO in 2005, using their collection and knowledge of patent data.

Comparability over time is ensured using one unique administrative data source providing data on the basis of identical administrative procedures.

Related to the quality of the EU population statistics, the comparability over time is ensured by application of the same methodology over time.

Restricted



7. Development perspective for improving the quality of this indicator (including as far as possible an indication of the burden on Member States and respondents.)

8. Contribution to the coherence of the set/potential to qualify for an integrated policy analysis

Relevant European legislation

Green Paper of 24 June 1997 on the Community patent and the patent system in Europe [COM (97) 314 final - not published in the Official Journal].

Commission Communication of 5 February 1999: Promoting innovation through patents - The follow-up to the Green Paper on the Community patent and the patent system in Europe [COM (1999) 42 final - not published in the Official Journal].

Proposal of 23 December 2003 for a Council Decision conferring jurisdiction on the Court of Justice in disputes relating to the Community patent [COM (2003) 827 final - not published in the Official Journal].

Proposal of 2 December 2003 for a Council Decision establishing the Community Patent Court and concerning appeals before the Court of First Instance [COM (2003) 828 final - not published in the Official Journal].