



Dataset digital and green technologies

(Readme – green_technologies.csv)

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Legal notice

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1. Overview

This dataset contains patent-based indicators of green technological innovation in Europe. It is constructed using patent applications filed at the European Patent Office (EPO) and classified according to the Cooperative Patent Classification (CPC) system.

The dataset is developed within the SkiLMeet project (Deliverable D2.5: 'Report on Advances in Digital and Green Technologies').

Green technologies are identified using the CPC Y02 classification, which tags patents related to climate change mitigation and adaptation technologies (e.g., renewable energy, low-emission transport, energy efficiency, waste management).

The data allow tracking:

- The number of patents in each CPC technological field
- The number of green patents
- The degree of “greenness” within each technological class

2. Unit of Observation

CPC4–Country–Year

Each observation corresponds to a 4-digit CPC technology class (cpc4), a country of inventor residence, and a calendar year.

3. Time Coverage

1985–2014

4. Data Source

- European Patent Office (EPO)
- PATSTAT database
- CPC classification system
- Green identification via CPC Y02 tagging scheme

The Y02 classification complements standard CPC codes and identifies patents aimed at mitigating or adapting to climate change.

5. Variables

cpc4

4-digit CPC technology class (e.g., H01L, F03D, F24S).

year

Calendar year of patent application (stored as character in raw file).

country

Two-letter ISO country code of the inventor.

country3c

Three-letter ISO country code of the inventor.

country_name

Full country name.

tot

Total number of patent applications in the given CPC4 class, country, and year.

green

Number of patent applications within the same CPC4–country–year that are classified as green (tagged with CPC Y02).

greenness

Greenness indicator defined as the share of green patents over total patents within a CPC4 class and year, expressed in percentage terms.

Dataset can be accessed here:

https://skilmeet.eu/wp-content/uploads/2026/04/SkiLMeeT_D2.4-Dataset-digital-and-green-technologies.csv



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