



# 8th Environment Action Programme

Employment in the environmental goods  
and services sector

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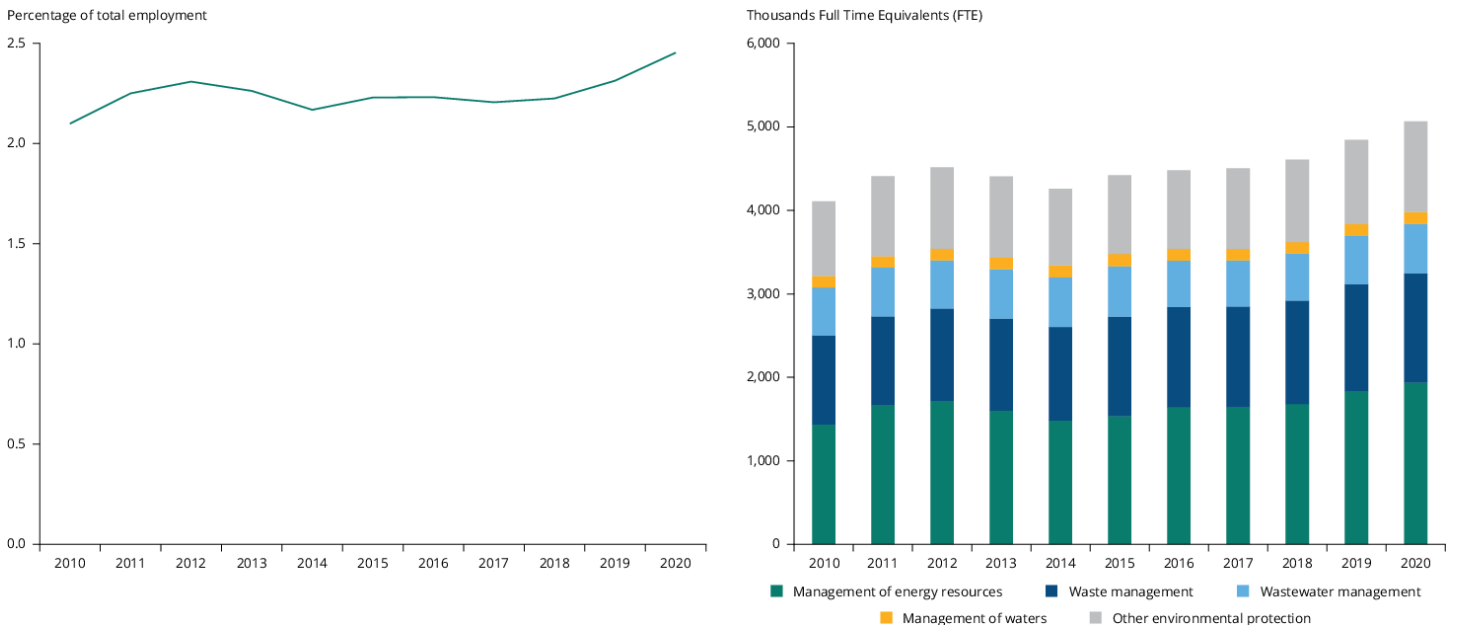
# Employment in the environmental goods and services sector

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Employment in the EU's environmental goods and services sector grew at a faster rate than the EU's overall rate of employment in the last decade. It increased from 2.1% of total employment in 2010 to 2.5% in 2020, with the number of full-time equivalent employees in this sector reaching 5.1 million. This was mainly the result of the creation of jobs related to renewable energy, energy efficiency and waste management. The EU aims to accelerate the green transition of its economy and also become carbon neutral by 2050. This is expected to boost job creation in the EU's green economy in the coming years and therefore further increase the share of green employment in the EU economy as a whole.

## Figure 1. Employment in the EU's environmental goods and services sector by domain, 2010-2020



Source: Eurostat.



The European Green Deal <sup>[1]</sup> and the Eighth Environment Action Programme (8th EAP) <sup>[2]</sup> aim to accelerate the green transition of the EU's economy. The EU's environmental goods and services

sector, also known as the environmental or green economy, produces goods and provides services that are used for environmental protection and resource management activities.

Employment in the EU's green economy as a share of employment in the EU's whole economy increased by 0.4 percentage points (or 956,000 full-time equivalents (FTEs)) from 2010 to 2020. This represents an increase of 23%, compared with an increase of only 5% in employment in the EU's economy as a whole in the same period. This shows that pursuing environmental objectives has the potential to create jobs in the EU.

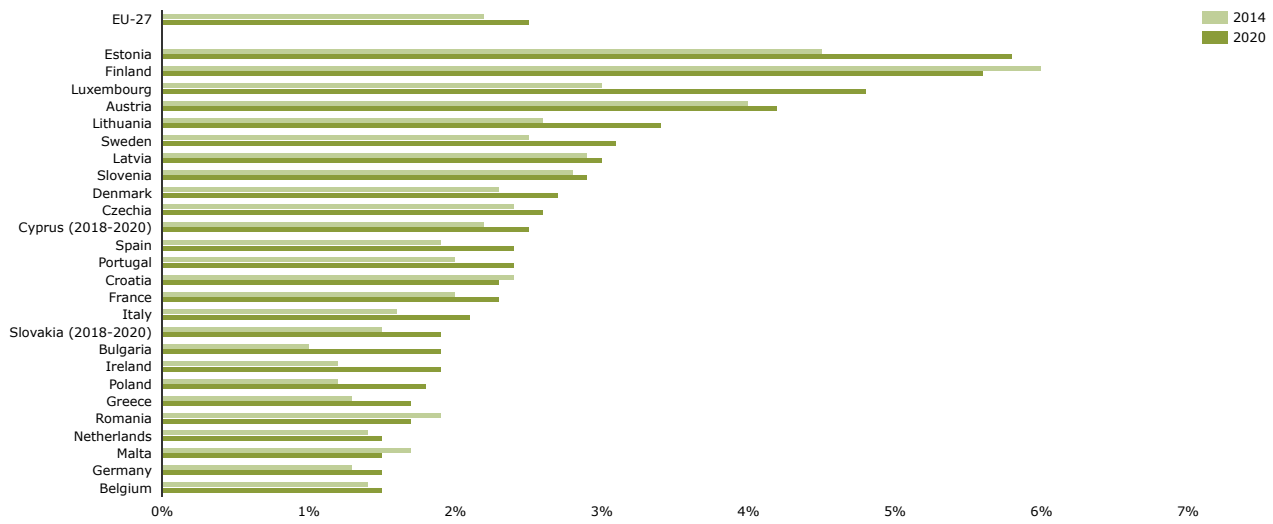
By 2020, the environmental goods and services sector employed 5.1 million people (in FTEs) in the EU, accounting for about 2.5% of total EU employment. The increase in green employment between 2010 and 2020 was driven largely by an increase of 503,000 FTEs in the number of jobs related to the management of energy resources <sup>[3]</sup>, for instance jobs related to:

- producing renewable energy
- manufacturing equipment needed to generate renewable energy, such as wind turbines and photovoltaic cells
- manufacturing energy-efficient equipment
- research and development (R&D) activities
- installation, consultancy and management services.

The second largest contributor to the increase in green employment was waste management, with the number of jobs in this domain increasing by 238,000 FTEs over the period. Employment in the wastewater management domain declined, however, while the numbers of jobs remained more or less stable in the environmental protection domain and slightly increased in the management of waters domain.

Steps taken to support the green transition will create more green employment in the EU by 2030, mainly through applying circular economy principles <sup>[4]</sup> and moving towards a low-carbon economy <sup>[5][6][7]</sup>. It is therefore expected that, through policies, measures and investments, green employment will account for a higher share of total employment in the EU by 2030.

## **Figure 2. Employment in the environmental goods and services sector by EU Member States, 2014 and 2020**



Source: Eurostat.

## Data used in the graph

<b>Countries</b>	<b>2014</b>	<b>2020</b>
EU-27	2.2	2.5
Estonia	4.5	5.8
Finland	6	5.6
Luxembourg	3	4.8
Austria	4	4.2
Lithuania	2.6	3.4
Sweden	2.5	3.1
Latvia	2.9	3
Slovenia	2.8	2.9
Denmark	2.3	2.7
Czechia	2.4	2.6
Cyprus (2018-2020)	2.2	2.5
Spain	1.9	2.4
Portugal	2	2.4
Croatia	2.4	2.3
France	2	2.3
Italy	1.6	2.1
Slovakia (2018-2020)	1.5	1.9
Bulgaria	1	1.9
Ireland	1.2	1.9
Poland	1.2	1.8
Greece	1.3	1.7
Romania	1.9	1.7

Countries	2014	2020
Netherlands	1.4	1.5
Malta	1.7	1.5
Germany	1.3	1.5
Belgium	1.4	1.5



Shares of green employment in total employment increased in all EU Member States between 2014 and 2020 except in Finland and Romania, where shares dropped by 3% and 15%, respectively. The largest increases in percentage terms were reported for Bulgaria (98%), Luxembourg (87%) and Ireland (79%).

The domains that account for most employment in the environmental economy differ between EU Member States. For example, employment in resource management activities (i.e. management of energy and of water resources) made up more than half of total environmental employment in Estonia, Finland, Luxembourg and Sweden in 2020. In contrast, employment in environmental protection activities (e.g. waste and wastewater management activities) accounted for most environmental employment in Belgium and Croatia (78% in both countries) and in Malta (73%) <sup>[8]</sup>.

Shares of green employment in total employment were highest in Estonia and Finland, with green jobs making up more than 5% of all jobs in these countries in 2020, although the share in Finland had dropped slightly since 2014. Moreover, a share of just below 5% was reported for Luxembourg. The lowest shares, of less of 1.5%, were reported for the Netherlands, Malta, Germany and Belgium.

## ▼ Supporting information

### Definition

The indicator ‘Employment in the environmental goods and service sector’ monitors employment in the EU’s environmental (or green) economy. The indicator builds on Eurostat statistics on employment and growth in the EU’s environmental economy, as they are defined in the European environmental goods and service sector (EGSS) accounts. ‘The environmental economy encompasses activities and products that serve either of two purposes: “environmental protection” – that is, preventing, reducing and eliminating pollution or any other degradation of the environment, or “resource management” – that is, preserving natural resources and safeguarding them against depletion’ <sup>[8]</sup>.

For further information, see [Eurostat \(2016\)](#).

## Methodology

This indicator is directly based on data published by Eurostat, and the underpinning methodology can be found in Eurostat <sup>[8]</sup>. EU-level data are based on Eurostat estimates. A detailed discussion of statistics on the environmental goods and services sector can be found in [Eurostat \(2016\)](#).

## Policy/environmental relevance

This indicator is a headline indicator for monitoring progress towards meeting targets of the 8th EAP. It contributes mainly to monitoring progress in relation to aspects of Article 2.1, which requires that, 'by 2050 at the latest, people live well, within the planetary boundaries in a well-being economy where nothing is wasted, growth is regenerative, climate neutrality in the Union has been achieved and inequalities have been significantly reduced. A healthy environment underpins the well-being of all people and is an environment in which biodiversity is conserved, ecosystems thrive, and nature is protected and restored, leading to increased resilience to climate change, weather- and climate-related disasters and other environmental risks. The Union sets the pace for ensuring the prosperity of present and future generations globally, guided by intergenerational responsibility' <sup>[2]</sup>. The European Commission communication on the 8th EAP monitoring framework specifies that this indicator should monitor the 'increase of the shares... of green employment in the whole economy' <sup>[9]</sup>.

## Accuracy and uncertainties

## Data sources and providers

- [Employment in the environmental goods and services sector \[ENV\\_AC\\_EGSS1\\_\\_custom\\_3494147\]](#), Statistical Office of the European Union (Eurostat)
- [Employment by A\\*10 industry breakdowns \[NAMA\\_10\\_A10\\_E\\_\\_custom\\_4173709\]](#), Statistical Office of the European Union (Eurostat)

## ▼ Metadata

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### DPSIR

Response

### Topics

# Sustainability solutions

## Tags

# green economy # 8th EAP # environmental goods # environmental economy  
# SUS0002 # Employment

## Temporal coverage

2010-2020

## Geographic coverage

Austria	Belgium
Bulgaria	Croatia
Cyprus	Czechia
Denmark	Estonia
Finland	France
Germany	Greece
Hungary	Ireland
Italy	Latvia
Lithuania	Luxembourg
Malta	Netherlands
Poland	Portugal
Romania	Slovakia
Slovenia	Spain
Sweden	

## Typology

Descriptive indicator (Type A - What is happening to the environment and to humans?)

## UN SDGs

Sustainable cities and communities

## Unit of measure

Employment in the environmental goods and services sector is measured in thousands of full-time equivalents (total hours worked divided by the average annual hours worked in a full-time job) and as a share (%) of total employment.

## Frequency of dissemination

Once a year

## Contact

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## ▼ References and footnotes

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1. EC, 2019, Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions 'The European Green Deal', COM (2019) 640 final of 11 December 2019.  
[↵](#)
2. EU, 2022, Decision (EU) 2022/591 of the European Parliament and of the Council of 6 April 2022 on a general Union environment action programme to 2030, OJ L 114, 12.4.2022, p. 22-36.  
[a](#) [b](#)
3. Eurostat, 2016, *Environmental goods and services sector accounts handbook: 2016 edition*, Publications Office of the European Union, Luxembourg.  
[↵](#)
4. A study estimates that applying circular economy principles across the EU economy has the potential to create around 700,000 new jobs by 2030 (see footnote No. 5)  
[↵](#)
5. EC, 2020, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions 'A new circular economy action plan for a cleaner and more competitive Europe', COM(2020) 98 final of 11 March 2020.  
[↵](#)
6. EC, 2020, Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions 'A new industrial strategy for Europe', COM(2020) 102 final of 10 March 2020.  
[↵](#)
7. IRENA and ILO, 2022, *Renewable energy and jobs: annual review 2022*, International Renewable Energy Agency and International Labour Organization.  
[↵](#)
8. Eurostat, 2023, 'Environmental economy – statistics on employment and growth', *Eurostat Statistics Explained* ([https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Environmental\\_economy\\_%E2%80%93\\_statistics\\_on\\_employment\\_and\\_growth](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Environmental_economy_%E2%80%93_statistics_on_employment_and_growth)) accessed March 7, 2023.  
[a](#) [b](#) [c](#)
9. EC, 2022, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on the monitoring framework for the 8th Environment Action Programme: measuring progress towards the attainment of the programme's 2030 and 2050 priority objectives, COM (2022) 357 final of 26 July 2022.