PLASTICS RECYCLERS EUROPE

PLASTICS RECYCLING INDUSTRY FIGURES 2023

MAPPING OF INSTALLED CAPACITIES

2023 PLASTIC RECYCLING INDUSTRY FIGURES

850 companies

13.2 million tonnes installed capacity

€9.1 billion turnover

30.000 employees

Disclaimer: data presented in this document was collected by Plastics Recyclers Europe for the year 2023 and is compliant with EU Competition Law rules.

This report showcases the latest trends for the installed input capacities of plastics streams in Europe in 2023.

Decreasing demand levels for recyclates, high production costs, and the increasing flow of imports impacted the EU plastics recycling industry in 2023.

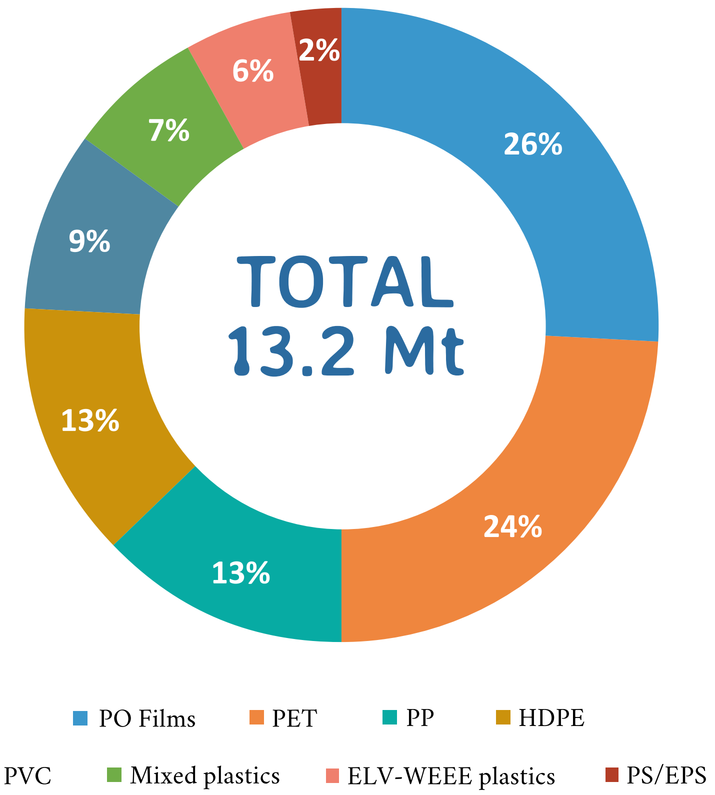
The remarkable efforts performed by the plastics recycling industry during the last few years have been put at risk due to the downgrading market conditions and the decreasing demand levels that the sector is facing. The installed plastics recycling capacity reached 13.2 million tonnes and registered a 6% year-on-year growth rate in 2023. This shows a drastic decrease from the 17% and 10% growth rates registered in 2021 and 2022, respectively.

For the first time, the estimated turnover decreased by 12.5% compared to 2022, reaching an estimated 9.1 billion euros. Moreover, the new investments shrank year-on-year, reaching 0.5 billion euros in 2023, down from 1 billion euros in 2022.

Around 850 companies have been actively recycling plastics in EU27+3 during 2023. This year saw recycling facilities closing down due to challenging market conditions: decreasing demand, high electricity costs, and lack of competitiveness with virgin and non-EU imported material.

Europe's estimated installed chemical recycling capacity accounted for 150 kilo tonnes, with pyrolysis being the dominant technology.

SHARE OF INSTALLED RECYCLING INPUT CAPACITY IN THE EU27+3, PER POLYMER TYPE (%)



PO films reached almost 3.5 million tonnes of installed recycling capacity in 2023, representing around 26% of the total in EU27+3 countries. The second polymer with the most extensive recycling capacity is PET, which went up from 3 to almost 3.2 million tonnes, with an estimated 100 kilo tonnes of PET trays recycling capacity.

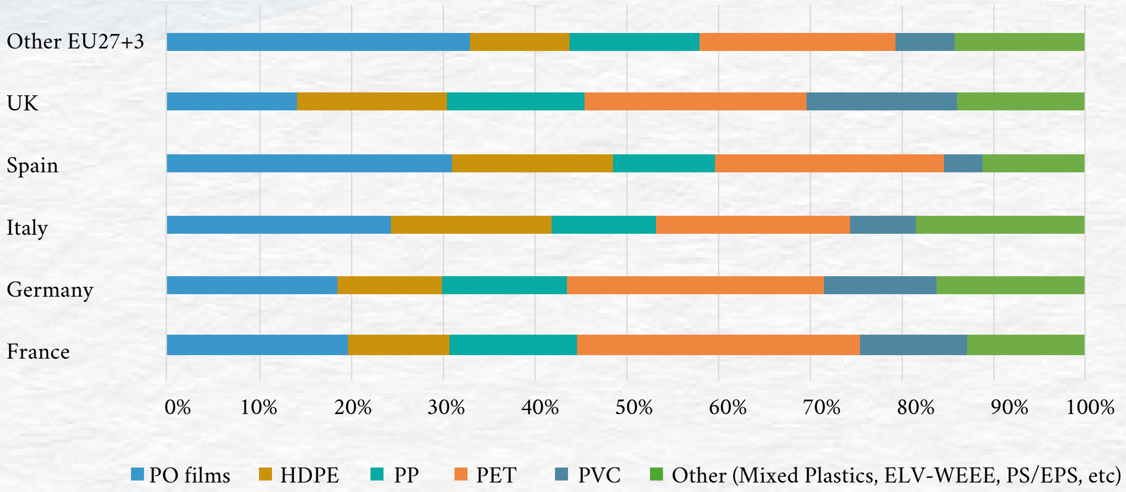
Rigid PP and HDPE recycling capacity in 2023 remained stable, accounting for more than 26% of the recycling infrastructure in Europe, with a similar split between both polymers. The introduction of the food contact and contact-sensitive PPWR targets shall boost the investment in new technologies to make these polymers optimal for new food contact applications.

The installed capacity to recycle PVC is estimated to be over 1.1 million tonnes, with rigid PVC accounting for around 70% of the total, and flexible PVC for the rest. Within the mixed plastics group, chemical recycling now accounts for around 15% of the total capacity and mechanical recycling for the remaining 85%.

ELV-WEEE plastics registered a 15% growth rate during 2023, pushed by the proposal of introducing the new recycling content targets in the upcoming years and the heightened interest from the sectors that work with these polymers. Within this segment, one-third of the recycling infrastructure is devoted to end-of-life vehicles (ELV), mainly bumpers, whereas the remaining two-thirds refer to WEEE. Among WEEE, the most treated categories in the recycling plants are Small Domestic Appliances (SDA) and Cooling Freezing Appliances (CFA), followed by IT equipment, lighting equipment, and other specific categories.

Concerning PS, the installed capacity is estimated to be over 100 kilo tonnes, with most of the input material originating from plastic packaging, especially dairy packaging such as yoghurts and cups.

TOTAL INSTALLED RECYCLING INPUT CAPACITY IN THE EU27+3, PER POLYMER AND COUNTRY (%)



At the country level, Germany holds the highest installed plastics recycling capacity in the continent, estimated to be between 2 and 2.5 million tonnes, followed by Spain with around 2 million tonnes, and Italy, the United Kingdom, and France between 1 and 1.5 million tonnes each. These are followed closely by Poland and the Netherlands, with capacities ranging between 0.75 and 1 million tonnes, and Belgium, closing the top 8 with around 0.5 million tonnes.

In absolute terms, Spain has the highest installed recycling capacity for PO films, partly thanks to its agriculture sector, which absorbs a relatively significant share of all input material and is followed by Germany and Poland. When it comes to HDPE, Spain, Germany, and Italy concentrate half of the total recycling capacity in Europe, whereas for PP, Germany, Benelux, and Spain do so.

Concerning PET, Germany, Spain, Italy, the United Kingdom, and France devoted between 20% and 30% of their recycling capacity to this polymer. 2023 also saw an increase in the extrusion capacity devoted to producing pellets that will become new bottles and trays. Germany has Europe's highest installed capacity to recycle PVC, followed by the United Kingdom, Benelux, and France.

In another market segment, France, the United Kingdom, and Germany have more than 100 kilo tonnes each to recycle ELV-WEEE plastics. Spain and Italy, among other countries, are undergoing expansions of their current capacities compared to the previous year. Lastly, Spain and Germany remained the leading countries with the most extensive recycling infrastructure devoted to PS and EPS segments in 2023.

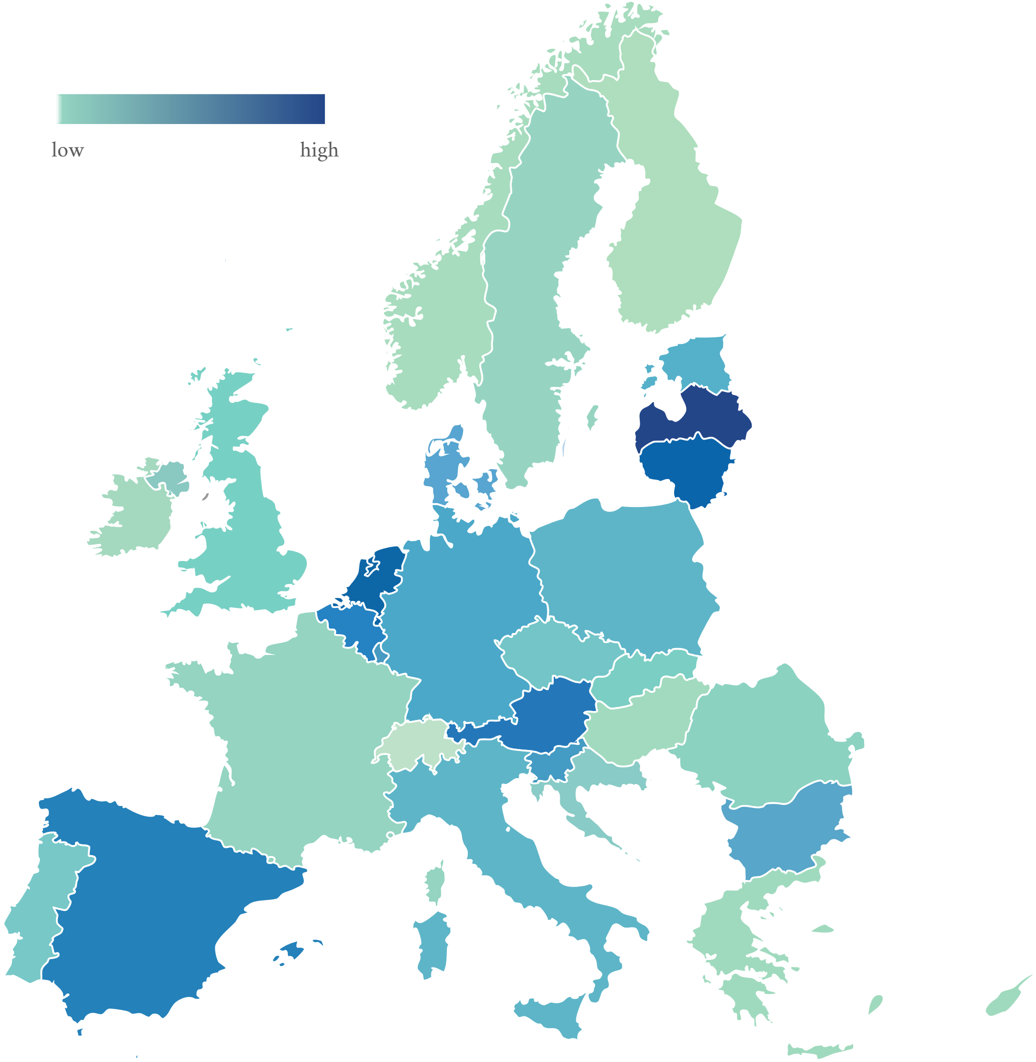
RECYCLING CAPACITY PER INHABITANT IN THE EU27+3

The disparities among European countries when it comes to plastics recycling infrastructure and collection and sorting systems are vital challenges that must be urgently addressed at the European level. The lack of concrete actions and the unfavourable market situation experienced in 2023 will put some countries at risk of missing the different targets set by the PPWR.

Around 850 recycling companies were performing recycling activities during 2023, with Spain, Germany, Italy, and Poland having more than 100 facilities each. Half of these 850 companies have a recycling capacity of less than 10 kilo tonnes, making it harder for them to navigate the current market challenges of increasing production costs and rising imports.

The Netherlands and Germany have the largest recycling facilities in capacity size, meaning that their processing facilities are larger on average compared to the rest of European countries.

The countries with the highest installed recycling capacity per inhabitant are Latvia, Lithuania, and the Netherlands. These are followed by Austria, Spain, and Belgium.



Sources: Eurostat, Office for National Statistics (UK) and Plastics Recyclers Europe (PRE)

EVOLUTION OF INSTALLED PLASTICS RECYCLING INPUT CAPACITY IN THE EU27+3

Given the current market situation, the growth rate of the plastics recycling industry is slowing down reaching 6% in 2023, and it could be further exacerbated in the coming years if current conditions continue. The flooding of imported material with claims of recycled content is putting at risk the survival of the European recycling facilities that cannot compete with lower prices and are obliged to function at reduced operational rates. Additionally, the exports of plastic waste reversed the downward trend in 2023 and increased by 18% with respect to 2022[1].

Implementing stricter and harmonised regulations geared at creating a level playing field for all players is the first pillar to building a solid recovery and future path for this industry.

1. Eurostat, EU trade since 1 988 by HS2-4-6 and CN8 [DS-045409]

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