



# Irreversible shift to zero-emission mobility

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# Index

- Transport and the Green Deal
- Fit for 55
  - New Light Duty Vehicles Standards
  - Alternative Fuels Infrastructure Regulation
- Strong market uptake of EVs
- Circularity for Road Transport
- Batteries Regulation

# Transport and the Green Deal

## Striving to be the first climate-neutral continent

Key **GD** Targets<sup>1</sup>:

- **Climate Neutral Continent** by 2050
- **55% less GHG emissions by 2030**, compared by 1990 levels

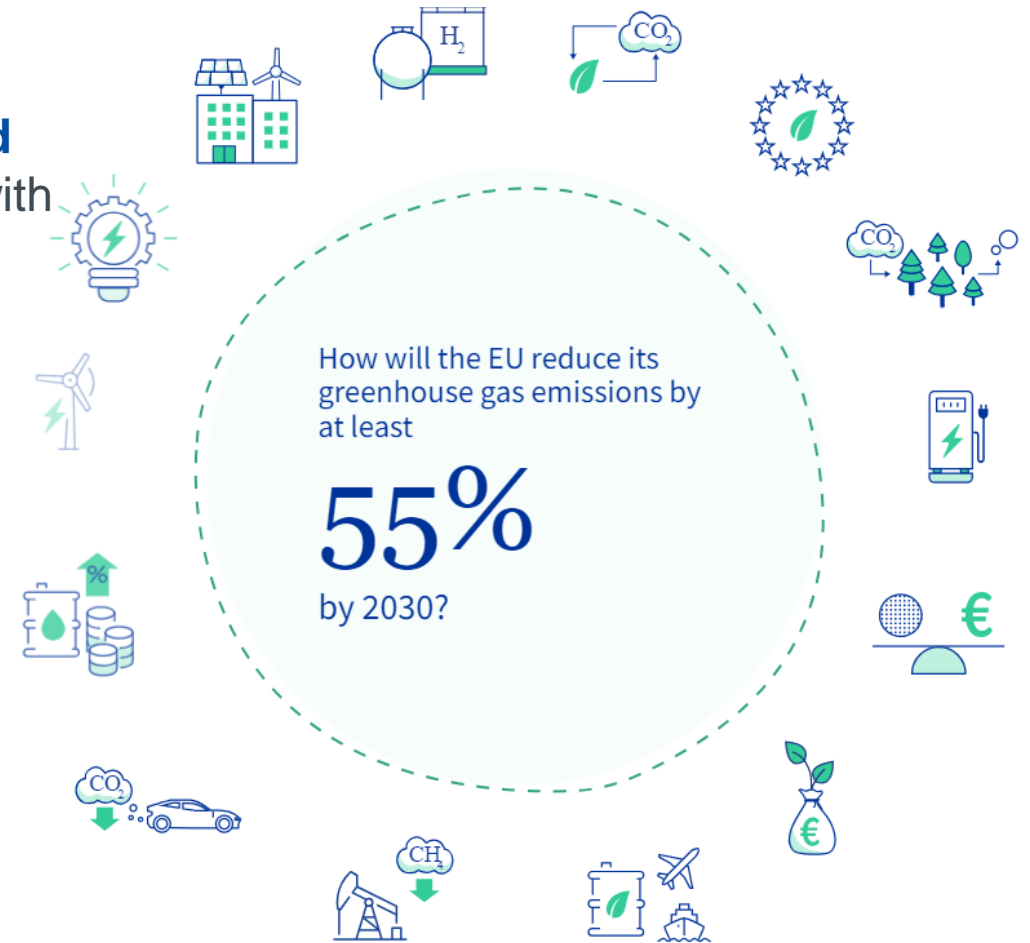
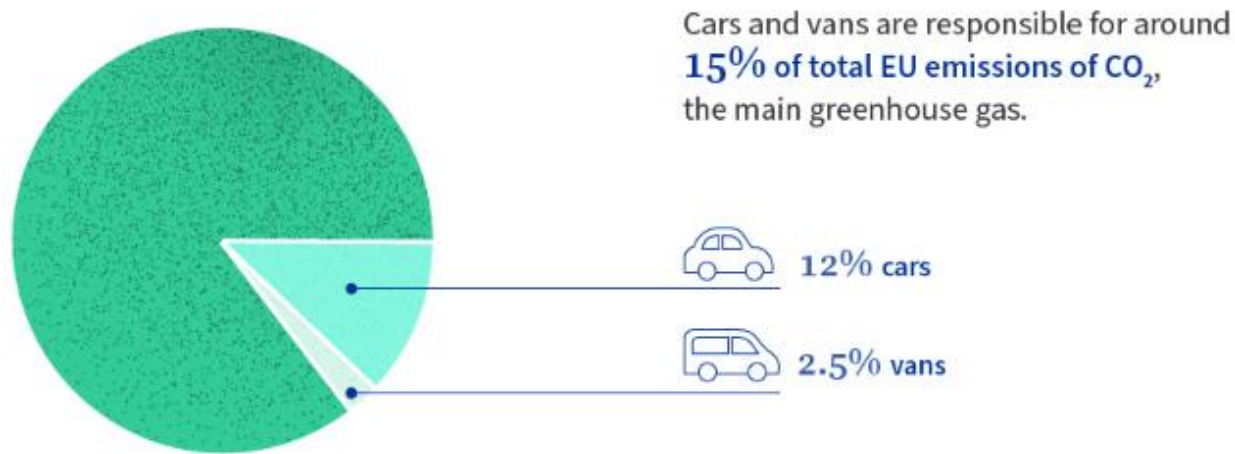
The **transport industry** contributes with around **5% to EU GDP**, employees more than **10 million people** in Europe and represents around **25% of the EU's total GHG** emissions<sup>2</sup>.

**GD** targets for the transport sector include:

- **55%** reduction of CO<sub>2</sub> emissions from cars by 2030
- **50%** reduction of CO<sub>2</sub> emissions from vans by 2030
- **0** emissions CO<sub>2</sub> from cars by 2035
- **90% reduction** in transport-related GHG emissions by 2050

# Fit for 55

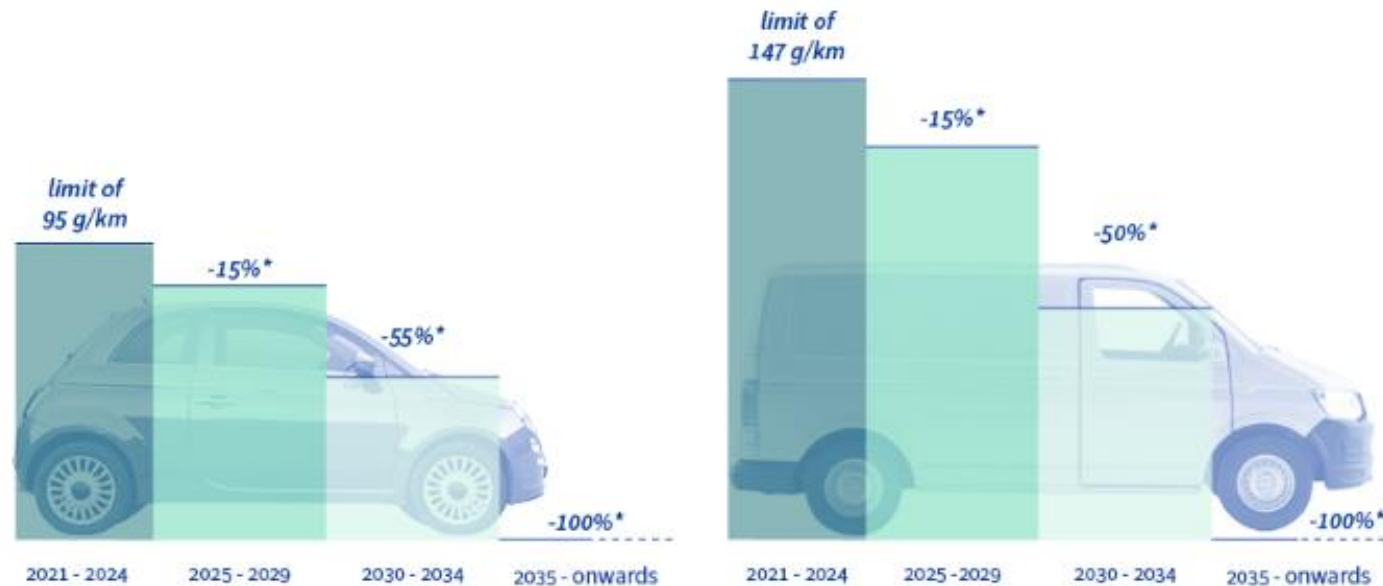
The [Fit for 55](#) package is a **set of proposals to revise and update EU legislation** and to put in place new initiatives with the aim of ensuring that EU policies are into line with the climate goals agreed by the Council and the European Parliament<sup>3,4</sup>.



# Fit for 55 - New LDV standards

In [March 2023](#), the council adopted a regulation, revising the 2019 one, and setting stricter CO<sub>2</sub> emission performance standards for **new cars and vans**<sup>5</sup>:

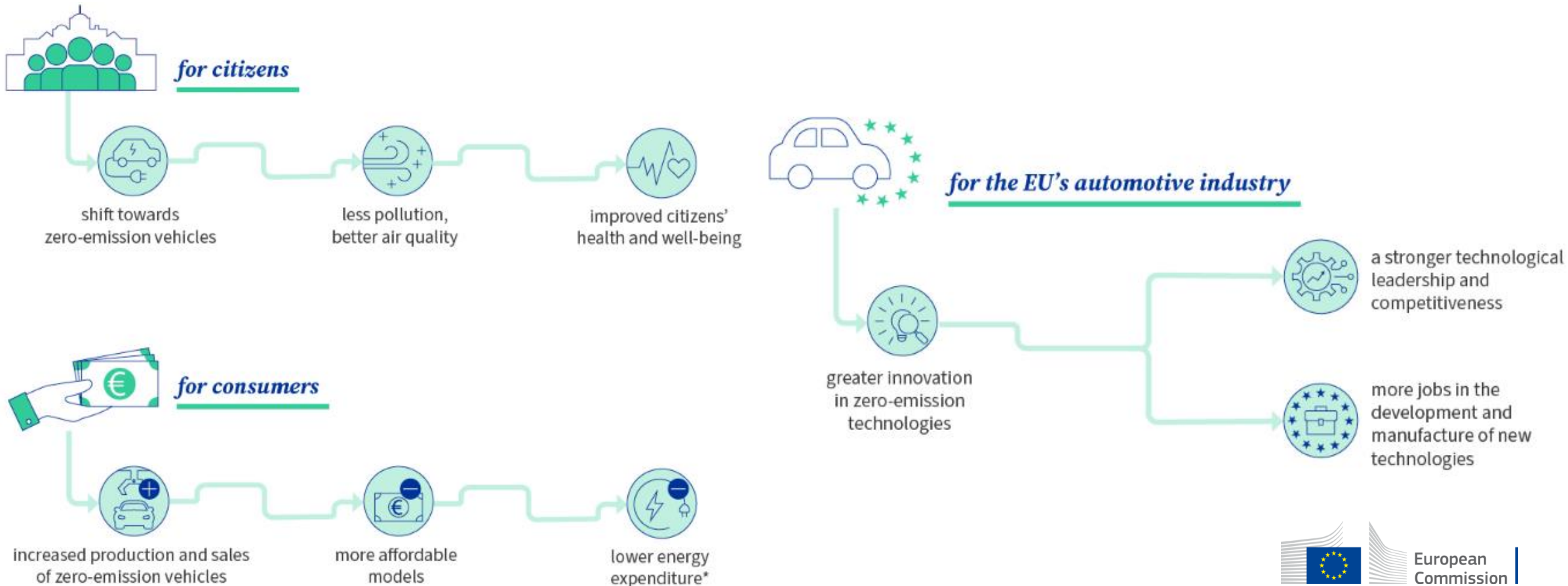
- **55%** CO<sub>2</sub> emission reductions for new cars and **50%** for new vans **from 2030 to 2034** compared to **2021** levels
- **100%** CO<sub>2</sub> emission reductions for both new cars and vans **from 2035**



\*compared to the 2021 targets

# Fit for 55 - New LDV standards

The new legislation is expected to bring benefits to citizens, consumers, and the EU's automotive industry<sup>5</sup>



# FIT for 55 - Alternative Fuels Infrastructure Regulation (AFIR)

In [March 2023](#), the council adopted the Alternative Fuel Infrastructure Regulation<sup>6</sup>, revising the 2014 AFID<sup>7</sup>, setting up concrete targets towards the deployment of recharging points and alternative fuel refueling points, with good enough coverage. The new regulation requires Member States to:

- Ensure a total power output of at least **1.3 kW for each battery electric car** or van and **0.8 kW for each plug-in hybrid** registered in their territory is provided through publicly accessible recharging stations.
- Ensure **fast-charging stations** (400kW by 2026, 600kW by 2028) **at least every 60 km** along the **core corridors** of the Trans-European Transport Network (**TEN-T**) **by 2025** and to the **comprehensive TEN-T by 2030**<sup>6</sup>
- Heavy duty vehicles also included in the regulations:
  - At least **2 recharging points in each safe and secure parking** area (every 120km) by end of **2027** and **4 by 2030** with **1400kW to 2800 kW** power output depending on the road
  - Recharging stations in **urban areas**

# Strong market uptake of EVs

Globally, more than **26 million** electric cars were on the road in 2022, up **60% relative to 2021** and more than 5 times the 2018 number. According to the [Global EV Outlook Report](#) of 2023<sup>8</sup>. In the [STEPS](#) (Stated Policies Scenario):

- The total EV fleet (excluding 2/3-wheelers) grows from **~30M in 2022** to **240M in 2030**
- The total EVs sales reaches **20% by 2025** and **30% by 2030**

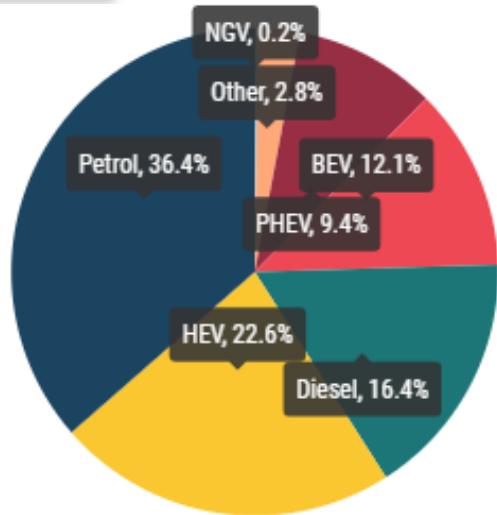
In 2022, **electric car** registrations (BEV and PHEV) made up **21%-23%** in the share of total new car registrations in the EU, according to preliminary data<sup>2,9,10</sup>, vs. 11% in 2020 and 18% in 2021 (BEVs increased from **9.1% to 12.1%** market share from 2021 to 2022). For **electric vans**, the uptake increased from 2.1% of total new registrations in 2020, to **3.1% in 2021**.

- To meet the **2030 target of 55% emissions reduction** for cars and **50% reduction for vans**, the electric LDV sales share in the European Union increases from around ~20% in 2022 to almost **65% in 2030**<sup>8</sup>.

New passenger cars by fuel type in the EU

% SHARE

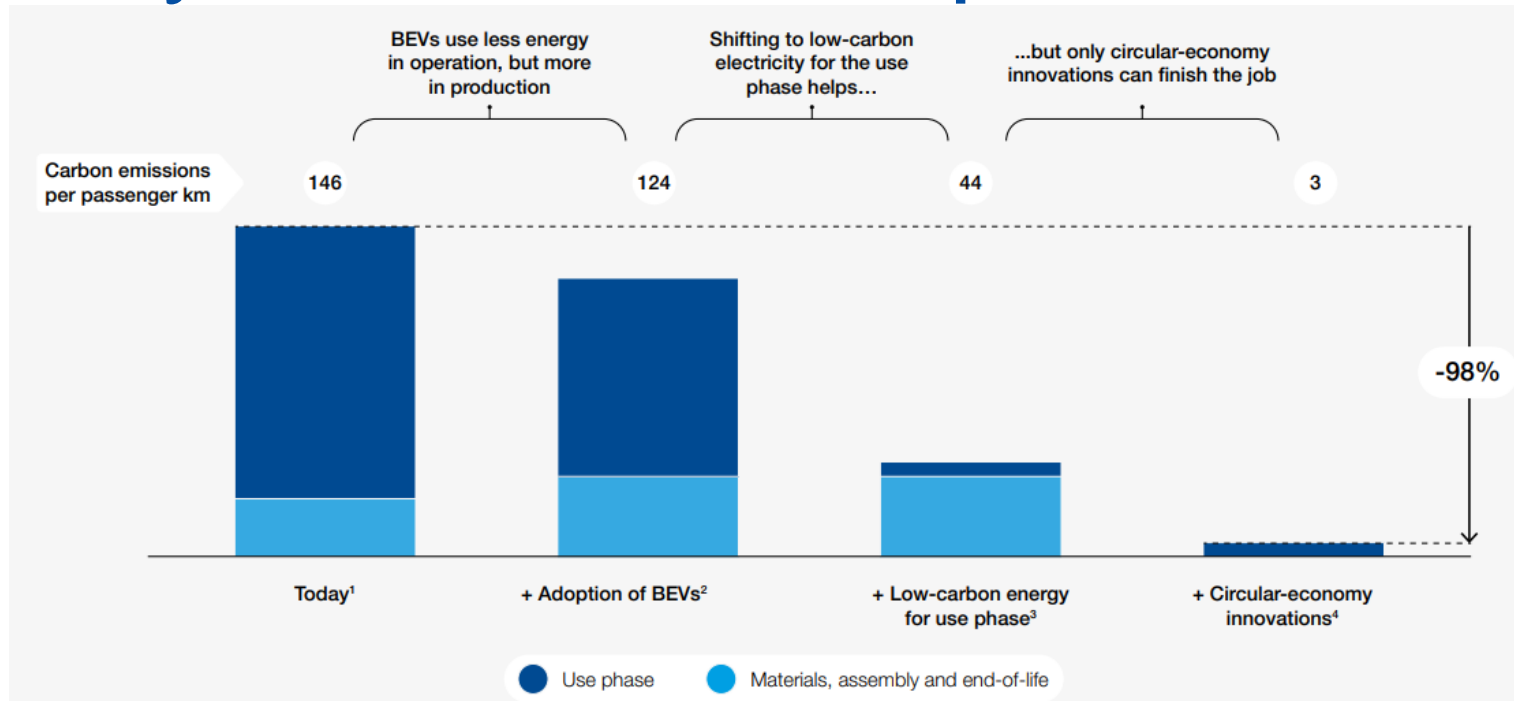
2022 ▾



■ Petrol ■ Diesel ■ Battery electric (BEV) ■ Plug-in hybrid (PHEV) ■ Hybrid electric (HEV)  
■ Natural gas (NGV) ■ Other



# Circularity for Road Transport

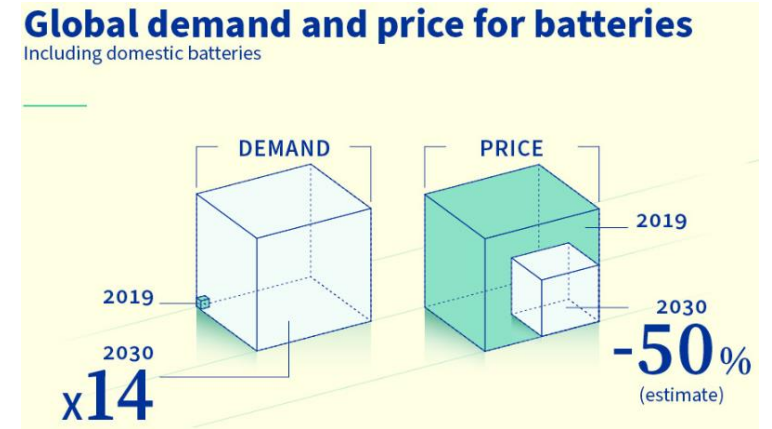


[Circular Economy Action Plan \(2020\)](#) – The circular material use rate (CMUR) increased from 8.3% in 2004 to 11.7% in 2021 and shall double to 23.4% in 2030<sup>13</sup>.

The **End-of-Life Vehicles (ELV)** Directive has been introduced in 2000 with the goal of prevent and limit waste from end-of-life vehicles and their components and to improve the environmental performance of all economic operators involved in the life-cycle of **passenger cars and light vans**. A revision of the directive has been published on [13 July 2023](#) and will now extend to other vehicle categories as well.

# Batteries Regulation

In July 2023, the council adopted the **new regulation on batteries and waste batteries**<sup>17,18</sup>, which aims to create a **circular economy** for the batteries sector by targeting **all stages of the life cycle of batteries**, from design to waste treatment, and sets targets such as:



- Mandatory minimum levels of recycled content for industrial, SLI batteries and EV batteries (which will have to hold a recycled content documentation):
  - 16% for cobalt,
  - 85% for lead,
  - 6% for lithium,
  - 6% for nickel.
- Lithium **recovery from waste batteries** of **50% by the end of 2027** and **80% by the end of 2031**

## Production of batteries in the EU<sup>18</sup>:

- 2019: EU invests €60 billion in European battery production and electric cars
- 2025: Local producers could cover the EU's demand
- 2030: EU produces next generation battery technologies
- 2050: The EU sets a global sustainable standard in a fast-growing market

# WP 2023/2024 – Horizon Europe

## Next calls – Cluster 5

Next closely related topics on the [Work Plan for 2023/2024](#):

- **HORIZON-CL5-2024-D5-01-02**: Integration and testing of next generation post-800V electric powertrains.
- **HORIZON-CL5-2024-D5-01-03**: Advanced battery system integration for next generation vehicles.
- **HORIZON-CL5-2024-D5-01-05**: Advanced digital development tools to accelerate the development of software defined vehicles that enable zero-emission mobility (2ZERO Partnership).
- **HORIZON-CL5-2024-D5-01-06**: New designs, shapes, functionalities of Light Commercial Vehicles.

# Next Events!



Horizon Europe Info Day - Cluster 5 (17/10/2023)



RTR Conference 2024 (5-7/2/2024)



TRA 2024 (15-18/04/2024)



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PEOPLE  
LIKE YOU**

# Horizon Europe Evaluation Experts

Interested?

Contact CINEA or register on the  
[portal](#)

# References

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# Thank you

More info

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