Baseline, trends and policy developments in Central and Eastern Europe

EU Policy framework and progress

Month, YYYY
Accession status

- **Western Balkans**
  - Albania, North Macedonia – pending start of membership negotiations
  - Serbia and Montenegro – candidate countries since 2012
  - Bosnia and Herzegovina – acceding country
  - Green Agenda for the Western Balkans

- **Eastern Partnership**
  - Moldova, Ukraine, Armenia – Association Agreement with EU, 2014
  - Armenia – Comprehensive and Enhanced Partnership Agreement (CEPA)
  - Azerbaijan – Partnership and Cooperation Agreement
Baseline and trends
EU fuel efficiency trends (1)

- Average fuel consumption in the EU (2019): 6l./100 km. down from 7l / 100 km (2005)

- Decline 2010-2016, by almost 22 g CO2/km, average emissions from new passenger cars increased in 2017-2019 to 122.3 g CO2/km. It is below the 2015-2019 target of 130 g CO2/km but well above the 2020-2024 target of 95 g CO2/km.

- SUV share on EU market: from a 7% (2005) to 36% (2019);

- The average weight and power of light-duty vehicles has been increasing in recent years,

- Diesel sales shares: dropped from 56% of LDV sales (2015) to 40% (2019).

- In 2017 gap between real-world driving fuel consumption and tested NEDC fuel economy values – 39%.
EU fuel efficiency trends (2)

Increasing vehicle weight and power have eroded up to 40% of improvements in fuel economy

Decomposition of fuel consumption trends, 2010-2019

- **United States**: 9.5 km/L in 2010, 8.5 km/L in 2019
- **China**: 8.7 km/L in 2010, 7.2 km/L in 2019
- **Europe**: 6.6 km/L in 2010, 6.0 km/L in 2019
- **India**: 6.5 km/L in 2010, 5.7 km/L in 2019

Legend:
- Green: Technical improvements
- Blue: Powertrain changes
- Red: Vehicle attributes changes

Source: GreenEdge, Sustainability consulting
• Manufacturers are now heavily investing into battery-electric vehicles;
• Market take-up is already growing, particularly for cars, vans and buses used in cities, while lorries and coaches are emerging
• Manufacturers are also investing into hydrogen fuel-cell vehicles, particularly for use in commercial fleets, buses and heavy duty transport.
• Recharge and refuel” is a European flagship under the Recovery and Resilience Facility - by 2025, the aim is to build half of the 1 000 hydrogen stations and one million out of 3 million public recharging points needed by 2030
EU policy framework
EU policies (1)

- Car labelling Directive (1999/94/EC);
- CO2 emission standards: for 2015-19 were set at 130 g CO2/km for passenger cars, emissions standards for 2020-2024 were set at 95 g CO₂/km (Regulation (EU) 443/2009)
- Worldwide Harmonized Light-Duty Vehicle Test Cycle and
- Worldwide Harmonized Light-Duty Vehicle Test Procedure in 2017
EU policies - Fit for 55 Initiative (2)


- Justification:
  - Alignment with Paris Agreement, EU Green Deal ambitions
  - EU climate neutrality objective (EU Climate Law) - reduction target net emissions to at least 55% in 2030 compared to 1990;

- Objectives:
  - contribute to achieving climate neutrality;
  - deliver benefits to consumers and citizens through the large-scale deployment of zero-emission vehicles;
  - stimulate innovation in the sector of zero - emission technologies, industrial leadership and competitiveness.

- New CO2 emissions targets (pending discussions and adoption at the European Parliament):
  - 55% reduction in emissions of light passenger cars in 2030 compared to 2021; 50% - light commercial vehicles
  - a 2035 target that effectively requires all new light-duty vehicles to have zero tailpipe CO2 emissions
• 2021 onwards, new vehicles must be sold with an on-board fuel consumption meter,
• 2022 onwards, manufactures must report annual average fuel consumption
• EC shall publish a list indicating for each manufacturer, its specific emissions target and its average specific emissions of CO2 for the preceding calendar year.
• Incentives rewarding sales shares of zero- and low-emissions vehicles exceeding a specified benchmark.
• The EC to monitor and assess the real-world representativeness of the CO2 emissions and fuel or energy consumption values determined pursuant to Regulation (EC) No 715/2007: to prevent the gap growing
Smart Mobility Strategy and Action Plan (COM(2020) 789 final)

• Targets
  • By 2030 – at least 30 million Zero-emission vehicles (battery electric vehicles, fuel cell vehicles, hydrogen-powered vehicles, plug-in hybrids;
  • By 2050 - nearly all cars, vans, buses as well as new heavy-duty vehicles will be zero-emission;

• Actions (Flagship 1: Boosting uptake of zero-emission vehicles, renewable & low-carbon fuels and related infrastructure)
  • Revision of the Weights and Dimensions Directive
  • Improve emissions testing in roadworthiness checks - legislative framework should be adjusted to ensure the lifetime compliance of vehicles with emission and safety standards.
  • Develop coherent rules for environmental, energy and safety performance of tyres - high-performing tyres should be promoted
  • Revision of the Alternative Fuels Infrastructure Directive
  • Explore the benefits of retrofitting and renewal schemes in various transport modes
Clean Vehicle Directive (2009/33/EC)

• Obliges contracting authorities to take into account lifetime energy and environmental impacts, including, when purchasing road transport vehicles

• What
  • energy consumption;
  • CO2 emissions;
  • emissions of NOx, NMHC and particulate matter:
Directive 2014/94/EU on alternative fuels infrastructure

• EU fleet-wide targets should be complemented by the deployment of charging and refueling infrastructure as provided for in Directive 2014/94/EC

• More binding targets on the roll-out of infrastructure;

• Further measures to ensure full interoperability of infrastructure and infrastructure use services for all alternatively fuelled vehicles;

• Adequate information for consumers to end the current lack of transparency on pricing
GFEI in Central and Eastern Europe
## Projects, progress and policies: Western Balkans

<table>
<thead>
<tr>
<th>Country</th>
<th>Period</th>
<th>Objectives and policies</th>
</tr>
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<tbody>
<tr>
<td>North Macedonia</td>
<td>2015-2019</td>
<td>Complete baseline</td>
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<td><strong>Policy:</strong> draft auto fuel economy policy proposal; proposed reform of taxes for LDV imports; fuel economy label amendment and enforcement; proposal for a subsidy programme for clean vehicles</td>
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<tr>
<td>Montenegro</td>
<td>2015-2018</td>
<td>Complete baseline; CBA for CO$_2$ Tax using Croatia and Slovenia models</td>
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<td><strong>Policy:</strong> draft auto fuel economy policy proposal, fuel economy label adopted (+labelling rulebook)</td>
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## Projects, progress and policies: Eastern Partnership

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<tr>
<td>Ukraine</td>
<td>2016-2020</td>
<td>Complete baseline, national working group, fuel economy label, consumer online database</td>
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<td><strong>Policy:</strong> VAT exemption for EV’s 2018, renewed to end 2022</td>
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<tr>
<td>Moldova</td>
<td>2017-2018</td>
<td>Complete auto fuel economy baseline, zero-emission vehicle incentives study,</td>
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<td><strong>Policy:</strong> Transpose EC Directive 98/70/CE as amended by 2009/30/EC, approved decision reducing sulphur to 10 ppm</td>
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Way ahead

• Complete the approximation of EU policies
• Design a portfolio of policies to reduce emissions throughout the vehicle life cycle (GFEI)
• Strengthen enforcement
• Carry out project to change consumer behaviour (including on urban level)