EU legislation on alternative fuels infrastructure

Electromobility

SOLUTIONSplus 2022 Regional Training Program for
Latin America - Charging Infrastructure

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European Green Deal

Chart — Greenhouse gas emissions from transport in the EU
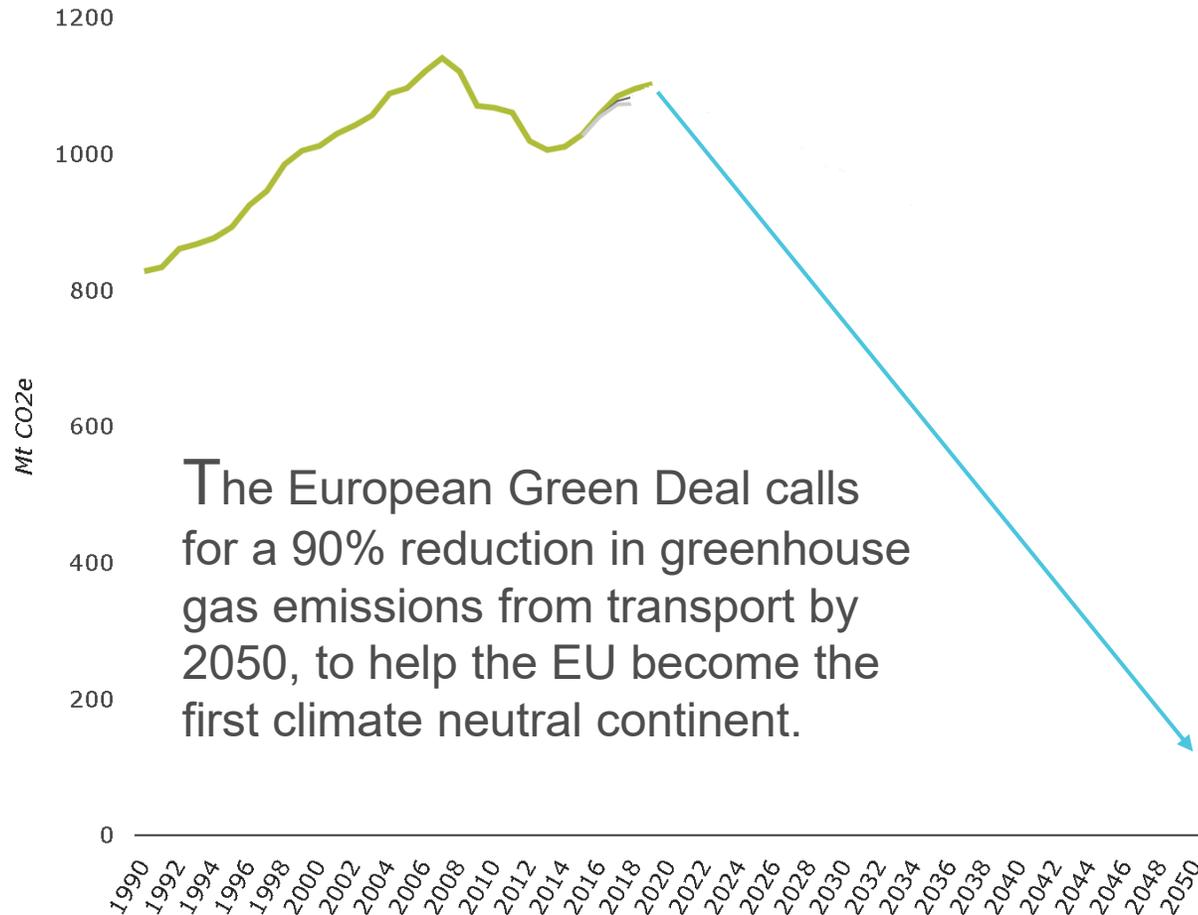
The European Green Deal calls for a 90% reduction in greenhouse gas emissions from transport by 2050, to help the EU become the first climate neutral continent.

European Green Deal

Sustainable and Smart Mobility Strategy

Fit-For-55 package

European Commission

SUSTAINABLE & SMART MOBILITY STRATEGY

Objective 1 — Sustainable Mobility
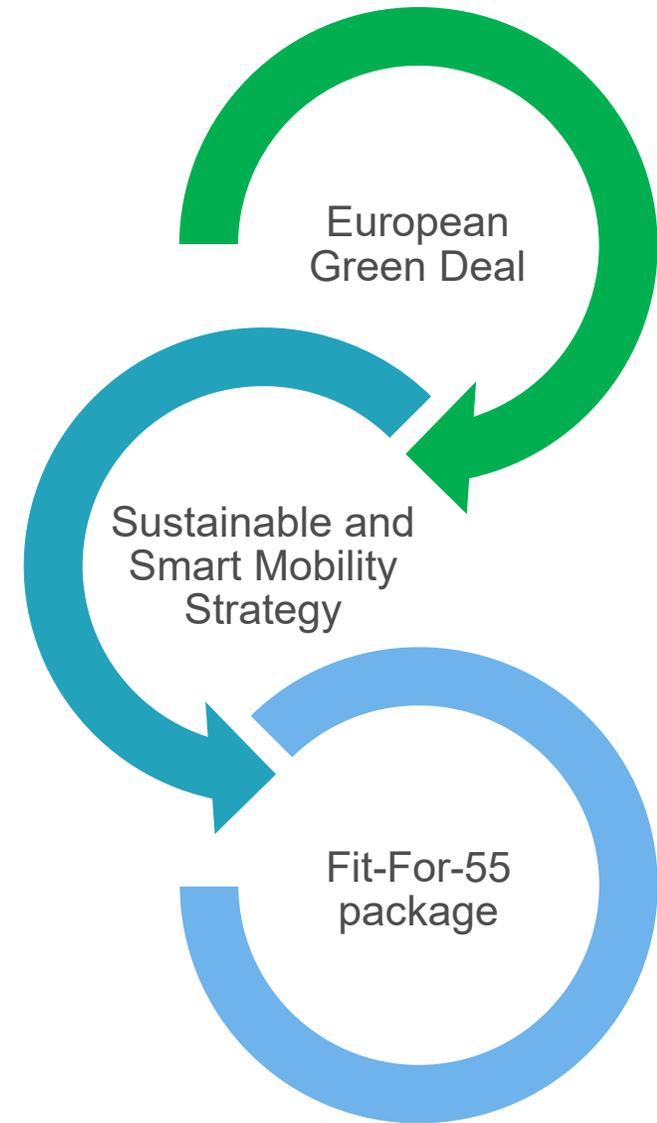
AN IRREVERSIBLE SHIFT TO ZERO-EMISSION MOBILITY

- 90 % reduction in transport emissions;
- All transport modes are made more sustainable;
- Sustainable alternatives are available;
- Right incentives are in place for sustainable choic

Objective 2 — Smart Mobility

ACHIEVING SEAMLESS, SAFE AND EFFICIENT CONNECTIVITY

- Seamless **multimodal** transport based on digital solutions;
- Unleash full potential of **data**;
- Develop and deploy **connected**, cooperative, and automated mobility services;
- Paperless freight transport in favour of fast, digital procedures.

Objective 3 — Resilient Mobility

A MORE RESILIENT SINGLE EUROPEAN TRANSPORT AREA: FOR INCLUSIVE CONNECTIVITY

- Reinforced Single Market:
  - more investment in infrastructure and fleets;
  - deepening and enforcing internal market;
  - making our system crisis proof.
- Fair and just mobility (that is affordable and accessible);
- Enhanced safety and security.

European Commission

The Strategy

"Our vision for the future of European transport and mobility"

Key Elements

- ✓ Three objectives: making the European transport system more *sustainable*, *smart* and *resilient*

- ✓ 10 flagship areas with key milestones

- ✓ Action plan with a list of concrete policy actions

- ✓ Communication + comprehensive Staff Working Document

European Commission

Milestones – 2030/35

By 2030

- **Min. 30 million zero-emission cars** and **80 000 zero-emission lorries** in operation.
- At least **3 million recharging points**.
- **Min. 100 climate neutral cities.**
- **Scheduled collective travel under 500 km** should be **carbon-neutral** within the EU.
- **Doubled high-speed rail** traffic, rail freight traffic increases by 50%.
- Transport by **inland waterways** & **short sea shipping** increases by 25%
- **Rail & waterborne-based intermodal** will **be able to compete** on equal footing with road-only transport in the EU.
- **Paperless freight** transport.
- **Automated mobility** deployed at a large scale.
- Integrated electronic **ticketing.**
- Operational **multimodal Trans-European Transport Network** equipped for sustainable and smart transport with high speed connectivity (**core** network)
- Zero-emission **ocean-going vessels ready for market.**

By 2035

- **Large zero-emission aircraft** ready for market

European Commission

Milestones – 2050

By 2050

- **Nearly all cars, vans, buses** as well as **new heavy-duty vehicles** will be **zero-emission.**

- **Doubled rail freight** traffic, **tripled high-speed rail** traffic.

- Transport by **inland waterways & short sea shipping** increases by **50%.**

- **External costs** of transport within the EU will be **covered by the transport users.**

- **Death toll** for all modes of transport in the EU close to **zero.**

- Operational **multimodal Trans-European Transport Network** equipped for sustainable and smart transport with high speed connectivity (**comprehensive** network)

European Commission

Road transport – Key elements

- Revision of the Alternative Fuels Infrastructure Directive. [*focus of this presentation*]

- Revision of the CO_2 standards for cars and vans & review of CO_2 standards for heavy-duty vehicles.

- More stringent air pollutant emissions standards for combustion engine vehicles: Euro 7

- New regulation on batteries.

- Improved emissions testing in roadworthiness checks.

- Revision of rules on weights and dimensions of heavy-duty vehicles.

- Adoption of legislation for approval of connected & automated vehicles.

- Revision of the Directive on cross-border enforcement of traffic rules.

- External costs of transport within the EU to be covered by transport users.

- Road Safety: Vision Zero by 2050

European Commission

Context AFIR

- Commission assessment (March 2021): current planning in Member States is insufficient to support required vehicle uptake.

- Lack of coherence of roll-out, interoperability and full user information and services can become an obstacle to the vehicle uptake, and to overall competiveness.

- Revised EU policy framework necessary to ensure that sufficient, fully interoperable and user friendly infrastructure is available to support the required uptake of zero- and low-emission vehicles in the EU.

- As a result, new proposal for a complete overhaul of the current policy framework: **AFIR**

  ✓ Change from a Directive to a Regulation.

  ✓ Change from Member States setting targets to EU mandatory minimum targets.

  ✓ Strengthening of interoperability, data and user service requirements.

  ✓ Strengthening of reporting and monitoring.

European Commission

AFIR - Mandatory targets

- Electricity Recharging LDV (Art 3)
  - Fleet based target, expressed in power installed (kW) per registered electric vehicle.
  - Distance based target, along TEN-T core and comprehensive network (maximum distance and power)

- Electricity Recharging HDV (Art 4)
  - Distance based target along TEN-T core and comprehensive network (maximum distance and power)
  - Safe and secure parkings target, (overnight recharging)
  - Urban nodes target, (in particular for urban delivery)

- Hydrogen Refuelling, HDV / LDV (Art 6)
  - Distance based target, along TEN-T core and comprehensive network (maximum distance and capacity)
  - Urban nodes, (in particular for urban delivery)

- LNG, limited until 2025 (Art 8)

AFIR - Interoperability

Interoperability aspects (Arts. 5 / 7 / 17 /18 / 19):

- Price transparency and user information
  - Addressed to charge point operators (ad hoc) and mobility service providers (contract based payment)
  - Non-discrimination requirements.
- Payments
  - Bank card payment available at all recharging points (> 50 kW also through NFC/terminal)
  - E-roaming is defined and acknowledged in the EU.
- Smart charging and digital connection
  - All normal charging points shall be capable of smart charging.
  - All charging points shall be digitally-connected.
- Data Provisions
  - Availability of a series of data points.
  - [In the future] accessibility of data through a common EU data access point.

European Commission

AFIR - Standards
Commission Implementing Decision on a Standardisation request

Content of the new standardisation request

New European standards supporting an interoperable infrastructure for **electricity supply** for road transport

New European standards to be completed supporting an interoperable **communication in the electric vehicle charging ecosystem**

New European standards supporting an interoperable infrastructure for **hydrogen** supply for road transport

New European standards supporting an interoperable infrastructure for **electricity supply** for maritime transport and inland navigation

New European standards supporting a harmonize an interoperable infrastructure for vessels for **hydrogen, methanol and ammonia bunkering**

Road transport

Waterborne transport

Available at:
https://ec.europa.eu/growth/tools-databases/mandates/index.cfm?fuseaction=search.detail&id=606

European Commission

AFIR - Standards
Commission Implementing Decision on a Standardisation request

Current type and plug name	Region			
	Japon	China	America	Europe
AC				
Plug name	Type 1 - J1772	GB/T	Type 1 - J1772	Type 2
DC				
Plug name	CHAdeMO	GB/T	CCS - Type 1	CCS - Type 2

European Commission

INTERNATIONAL

THE EU AS THE WORLD'S CONNECTIVITY HUB

- Ensuring undistorted international competition & a level playing field
- Deepening of transport relations
- Supporting the EU enlargement process
- Promoting global climate action

European Commission

EAFO (European Alternative Fuels Observatory)

European Commission's key reference portal for alternative fuels, infrastructure and vehicles in Europe

Provide openly accessible data at the highest of quality, in an easily accessible way on Alternative Fuels in Europe to Public Authorities, Consumers and any other interested actor.
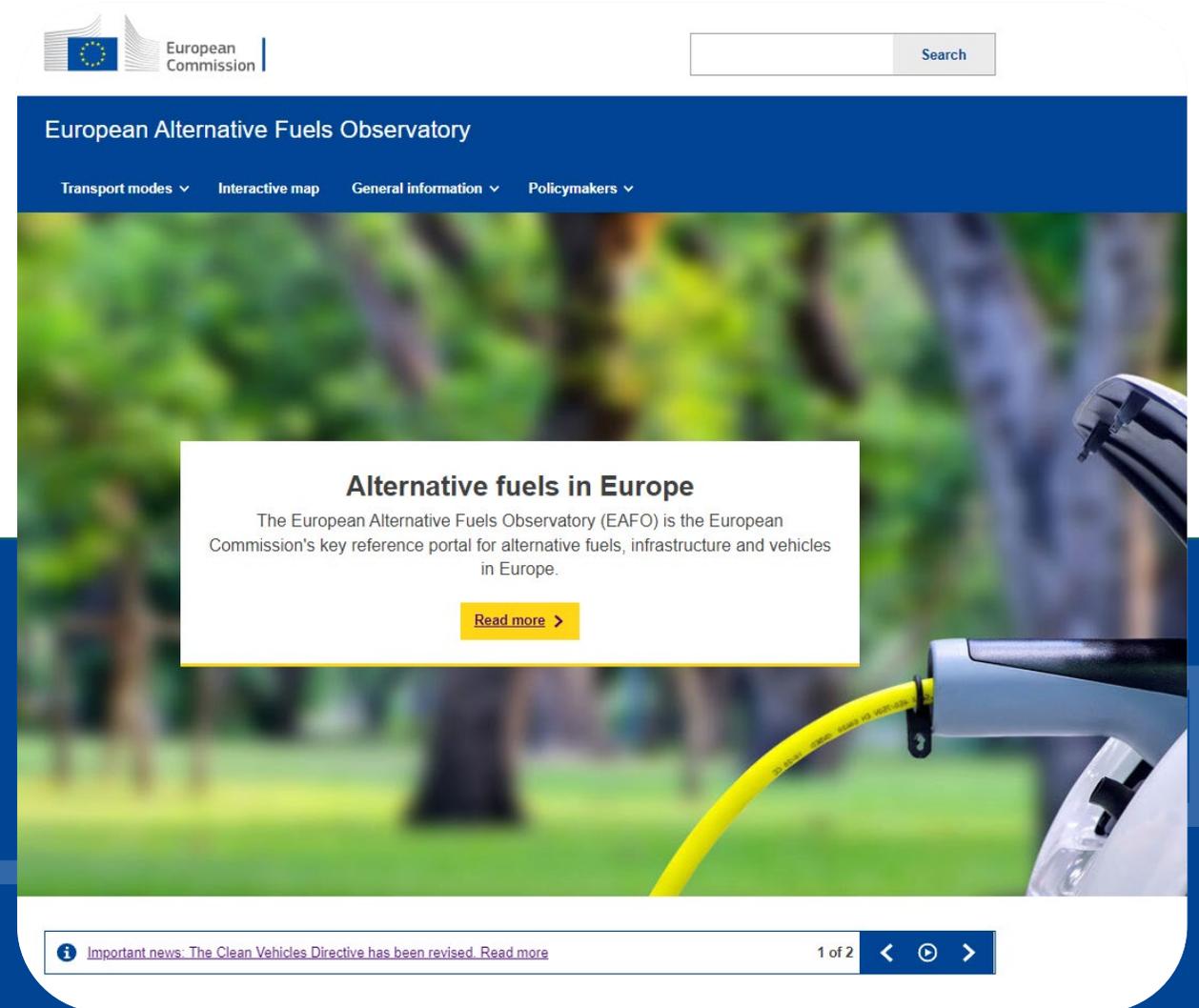
Thank you

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