

Lectures to students of higher educational institutions of Turkmenistan

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Role of transport sector in European Union's energy and climate plans

Ilze Purina

Key expert in energy sector governance, SECCA

Transport sector

- The global transport sector, which **still heavily relies on fossil fuels**, is responsible for **around 25 % of the world energy consumption** and **one of the main contributors to greenhouse gas and other pollutant emissions**
- In the EU, the transport sector constitutes **33.9 % of total energy consumption** and **25.4 % of total carbon dioxide (CO₂) emissions** ([Eurostat, 2020](#))
- **Road transport** is by far the biggest energy consumer - **27.3 % of total energy consumption**
- **Road transport CO₂ emissions increased** in recent years due to the ever-increasing demand in the use of passenger cars and commercial vehicles

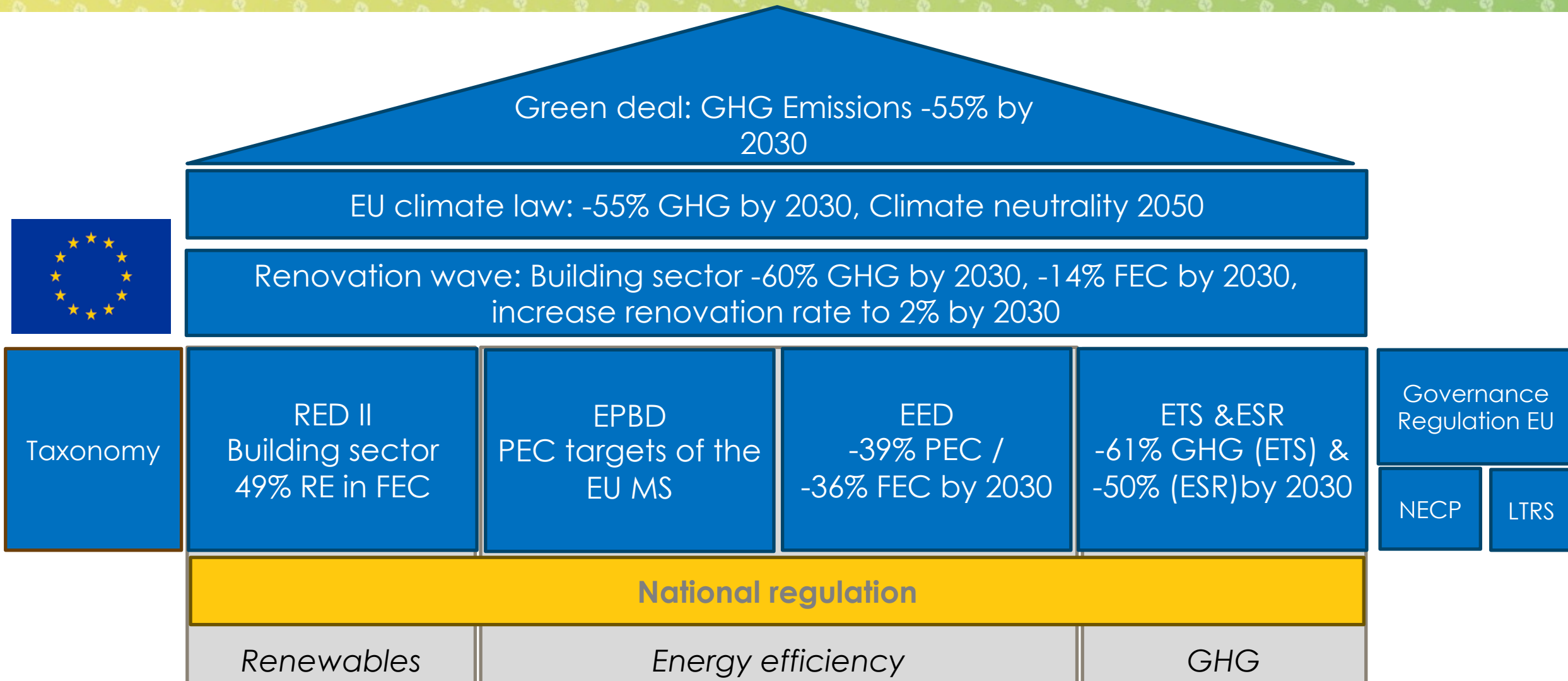


TOWARDS INTEGRATED ENERGY AND CLIMATE PLANNING

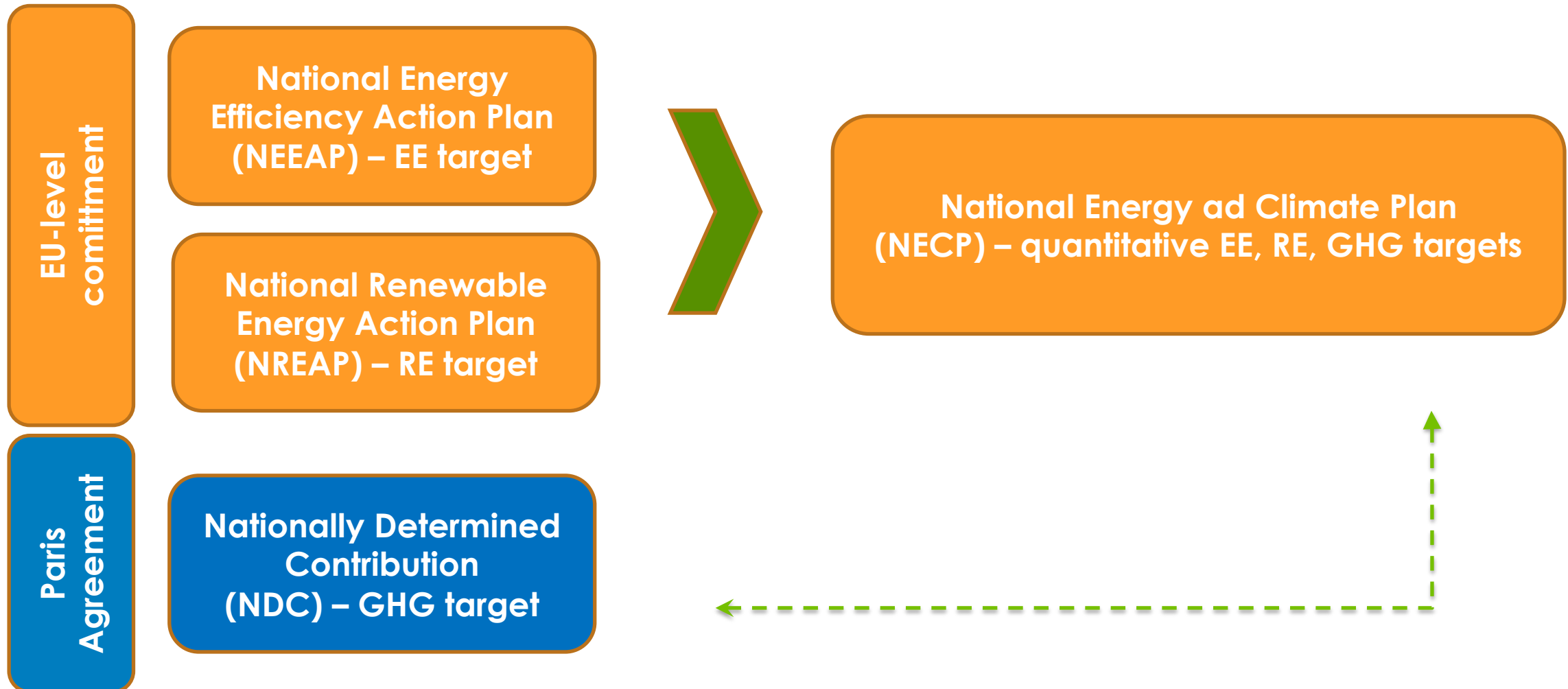


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EU policy framework for integrated Energy and Climate planning



Evolution of energy policy planning process in EU



National Energy and Climate Plan

NECP for 2021 – 2030
with the outlook to 2050



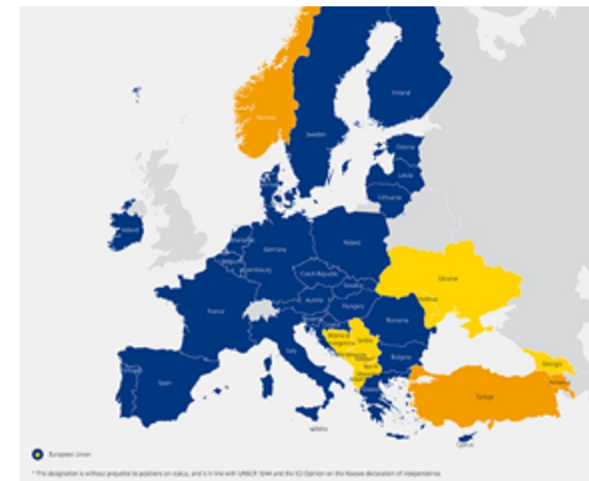
Five (5) dimensions:

- **Energy Security**
- **Energy Efficiency** as a primary fuel
- **Decarbonization** and **Renewable Energy** development
- **Market integration**
 - Cross-border connections
 - Harmonized Market rules
 - Addressing **energy poverty** and vulnerable customers
- **Research and Innovation** for new technologies

This approach requires **close coordination across all ministries**

Dimension 1: Energy security

- **Medium- to long-term objectives** and **standards** relating to **security of supply**, including with regard to diversification of energy sources and supply countries, infrastructure, storage, demand response, readiness to cope with constrained or interrupted supply of an energy source, and the deployment of alternative domestic sources
- The objectives should include **regional cooperation** and the policy measures to achieve these objectives should be **regionally coordinated**



Dimension 2: Energy market

- **Policies and plans** related to **infrastructure development for connectivity** with other **EU Member States** and **Energy Community Contracting Parties** (*The Energy Community is an international organisation consisting of the EU, represented by the European Commission, Albania, Bosnia and Herzegovina, Georgia, the Republic of North Macedonia and Kosovo*. Moldova, Montenegro, Serbia, and Ukraine are known as the contracting parties*)
- **Policies and objectives** related to **market integration**, deployment of flexibility in the power sector, roll-out of smart technologies, and smart grids

Dimension 3: Energy efficiency

- **Existing and planned policies and measures** related to achieving the future **energy efficiency targets in the EU**
- **Special attention** to measures and plans **to** reduce energy consumption in the **building sector** (i.e. building renovation, and investment programmes)
- **Development and quantification of a trajectory** towards 2030 including planned energy savings and final consumption
- The trajectory should specify the national contribution towards the EU energy efficiency targets

Dimension 4: Decarbonisation of the economy

- **Policies and measures** related to the **reduction of GHG emissions** in all key emitting sectors to meet 2030 targets:
 - in the EU (e.g. renewable energy targets), and
 - Nationally Determined Contributions (NDCs) under the Paris Agreement
- These should also contain an outlook towards becoming a low-carbon economy in 2050, including **the trajectory for the share of renewables**, projected electricity demand, relevant electricity producing technologies
- National policies and measures planned to support the **decarbonisation of transport**

Dimension 5: Research, innovation and competitiveness

- **Policies and measures** for accelerating the energy sector transformation, including funding programmes for R&D and subsidy schemes



Content of NECP

Narrative part

Current situation - overview of the national energy system and policy context of the national plan across the five dimensions

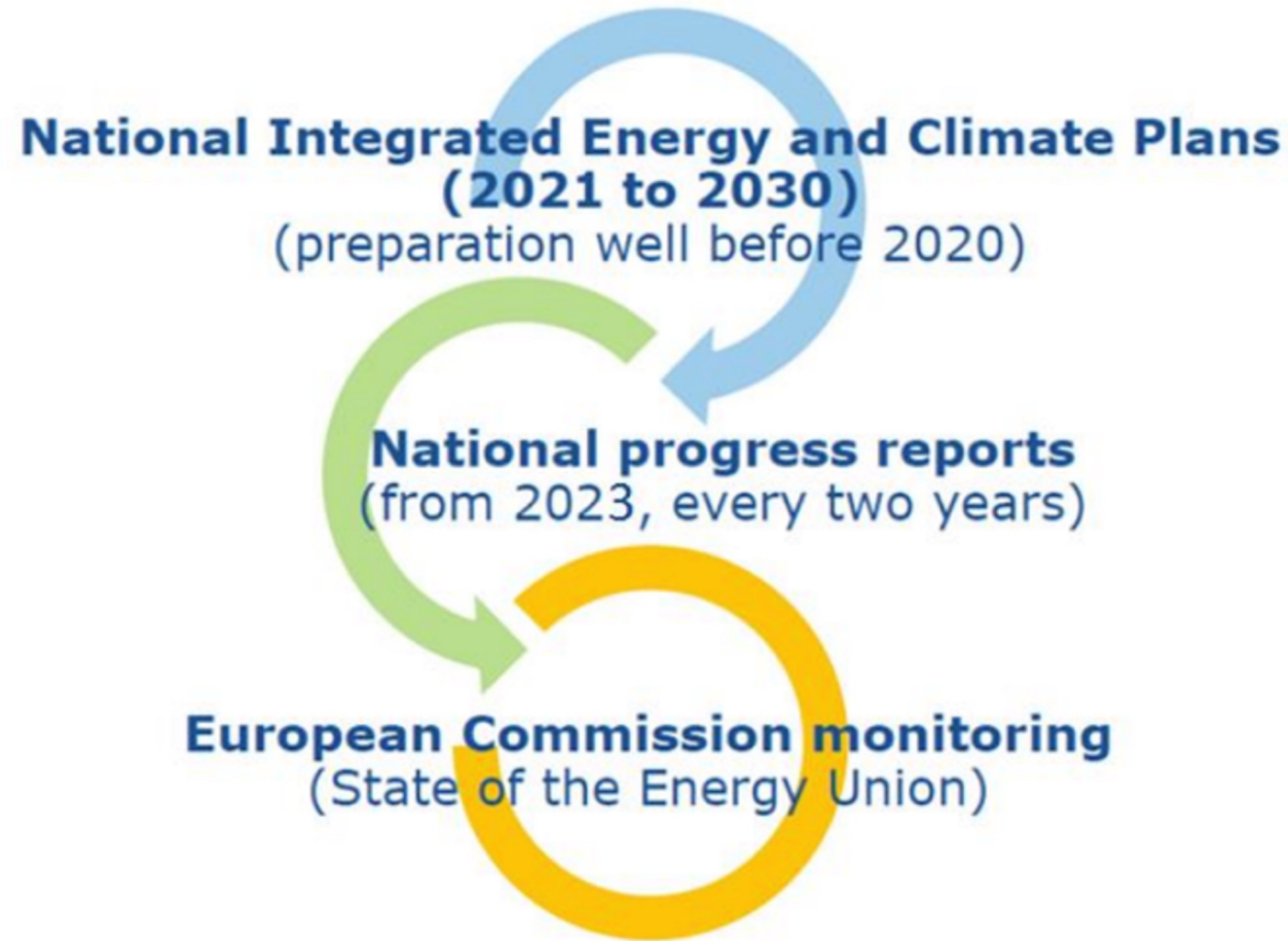
Objectives, policies and measures for the five dimensions

Analytical basis

Integrated projections and indicators - **a separate section on projections as an analytical basis of the plan**, including reference and policy scenarios assessing the relevant impacts of the policies and measures proposed



Continuous monitoring of implementation progress and results





EE IN TRANSPORT

How to tackle energy efficiency in transport?

- As embedded in the EU's Energy Efficiency First principle, the A-S-I approach **prioritizes demand-side policies** instead of the traditional supply-side ones that tend to focus on the provision of additional road infrastructure
- The approach is based on 3 pillars ranked by order of prioritization:
 - (A) **avoid** more/ or reduce the need for travel through transport-oriented and compact urban planning to better manage transport demand
 - (S) **shift** to cleaner and more efficient modes of transport (nonmotorized and mass public transport, sustainable individual or shared solutions)
 - (I) **improve** transport efficiency thanks to vehicle or fuel technologies, while optimizing the operational efficiency of public transport through traffic flow management or economic measures

EU policy and regulatory framework for transport sector

- Many policies, voluntary commitments, strategies, and regulations are in place consisting of actions at local, regional, national, and EU levels to promote efficient and clean transport
- These include:
 - EU regulations on vehicle emissions standards
 - Transport White Paper
 - Clean Vehicles Directive
 - Sustainable and Smart Mobility Strategy
 - European Strategy for Low-Emission Mobility
 - Directives on EE and RE
- A fundamental principle behind these policies is to curb energy consumption and carbon emissions through technological improvements, the setup of stringent vehicle requirements and the transition to more sustainable and cleaner modes of transport

EU Clean Vehicles Directive (1)

- The revised **Clean Vehicles Directive** promotes **clean mobility solutions in public procurement tenders**, providing a solid boost to the demand and further deployment of low- and zero-emission vehicles
- The new Directive:
 - defines "clean vehicles"
 - sets national targets for their public procurement
- It **applies to different means of public procurement**, including purchase, lease, rent and relevant services contracts
- Adopted by the European Parliament & Council in June 2019, the Directive needs to be transposed into national law by 2 August 2021

EU Clean Vehicles Directive (2)

- The Directive applies to cars, vans, trucks and buses (excluding coaches), when they are procured through:
 - **Purchase, lease, rent or hire-purchase contracts** under obligations by EU public procurement rules
 - **Public service contracts** for the provision of passenger road transport services
 - **Services contracts** for public road transport services, special-purpose road passenger-transport services, non-scheduled passenger transport, refuse collection services, mail and parcel transport and delivery
- The Directive apply to contracts whose awarding procedure starts after 2 August 2021 (the end date for transposition)

EU Clean Vehicles Directive (3)

- The revised Directive defines a "clean vehicle" as follows:
 - Clean light-duty vehicle: any car or van meeting the following emission thresholds:
 - ✓ until 31 December 2025: no more than 50g/km CO₂ and up to 80% of applicable real driving emission (RDE) limits for NOx and PN
 - ✓ from 1 January 2026: only zero-emission vehicles
 - Clean heavy-duty vehicle: any truck or bus using one of the following alternative fuels: hydrogen, battery electric (including plug-in hybrids), natural gas (both CNG and LNG, including biomethane), liquid biofuels, synthetic and paraffinic fuels, LPG
- The Directive also sets a separate definition for "zero-emission heavy-duty vehicles", as a sub-category of clean heavy-duty vehicles

National targets for procuring clean vehicles

- The national targets are defined as a minimum percentage of clean vehicles in the aggregate public procurement across a Member State.
- Member States have full flexibility in how they distribute the effort across different contracting authorities and contracting entities
- A Member State has to meet at least half of the procurement target for clean buses in each period through the procurement of zero-emission buses:
 - 1st period - from 2 August 2021 to 31 December 2025
 - 2nd period - from 1 January 2026 to 31 December 2030

Monitoring / reporting & Review

- When contracting authorities or contracting entities procure vehicles through purchase, lease, or hire-purchase contracts within the scope of the Directive, all these vehicles count for the purpose of the national minimum target
- Monitoring and reporting will happen primarily through the **Tender Electronic Database (TED)** to reduce administrative burdens
- The Directive foresees a **review in 2027**; this should be used to set new targets for the time period post 2030, and to consider possible further expansion of the scope (e.g. to two- and three-wheeled vehicles). If no new targets are set, the targets set for 2026-2030 will continue to apply in the following)

More information on SECCA website

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