



# Decarbonising Transport

**Magda Kopczynska**  
**Director Innovative and Sustainable Mobility**  
DG Mobility and Transport  
European Commission

**International Klimaaktiv Mobil**  
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# Climate change & transport

*Climate change is a huge challenge and transport needs to be part of the solution to tackle it, not part of the problem.*

*Emission reduction in transport is particularly challenging:*

- responsible for 32% of final energy consumption
- responsible for 24% of total greenhouse gas emissions
- relying on oil for 94% of its energy needs

*At the same time: transport = key economic sector and enabler of other sectors; crucial for competitiveness*

# Decarbonisation of transport - overview

- *Background: Energy Union action plan*
- *All transport modes*
- *Linked to initiative on Effort Sharing Decision*
- *Background and reference point: 2030 Climate & Energy targets agreed by European Council*
  - binding EU target at least 40% domestic reduction in GHG emissions by 2030 compared to 1990
  - binding EU target least 27% share of renewable energy consumed in the EU in 2030.
  - indicative EU target at least 27% for improving energy efficiency in 2030
- *Communication and analytical support document*
- *Planned timing: 20 July 2016*

# Decarbonisation of Transport – approach (i)

- *Mix of policy instruments / integrated and systematic approach for lasting and sustainable decarbonisation of the transport sector*
- *Objectives (Energy Union and beyond):*
  - *reducing emissions, decreasing oil import dependency, increasing the competitiveness of the European economy, reducing environmental pollution (and congestion)*

## Decarbonisation of Transport – approach (ii)

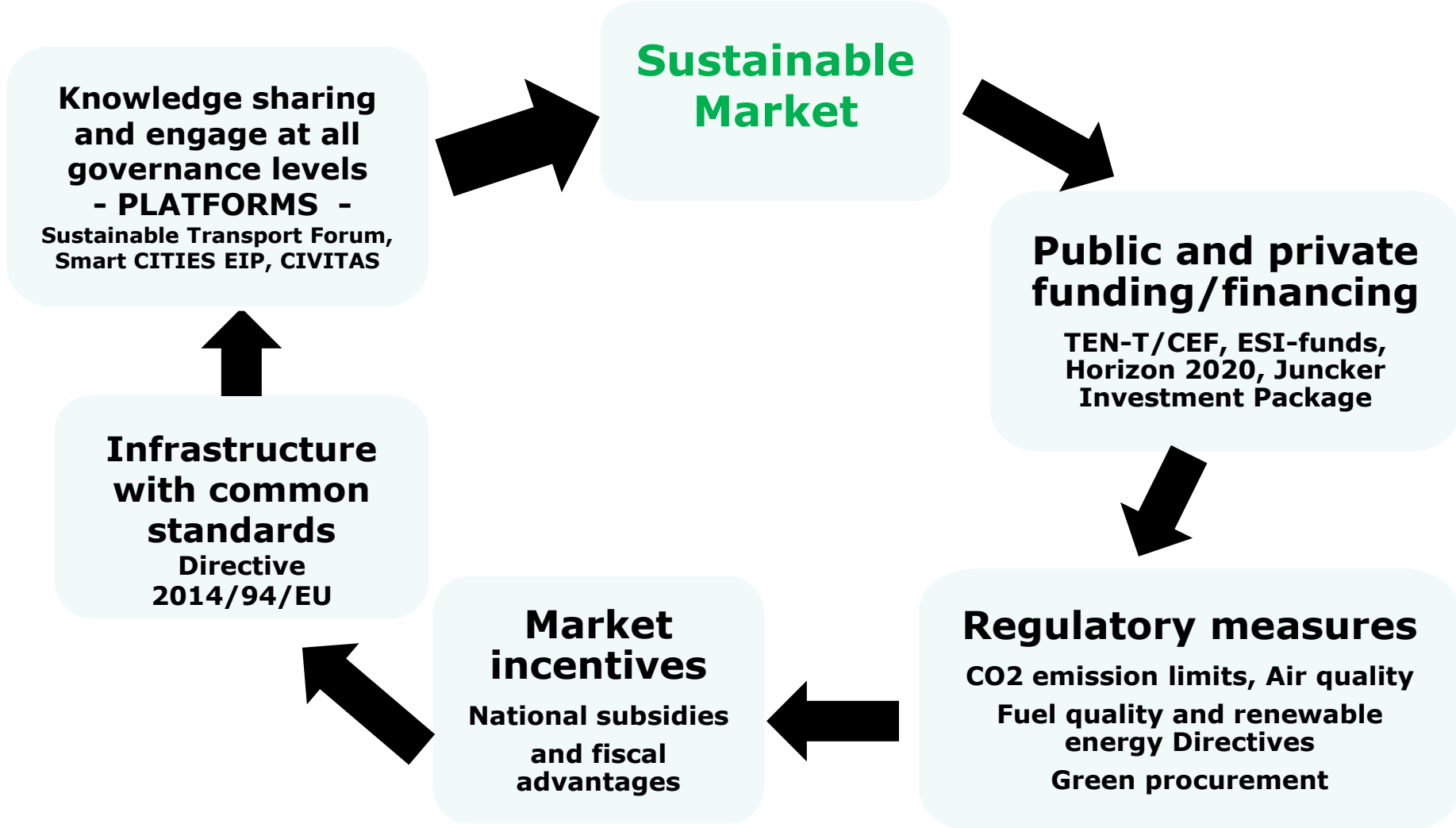
*Promoting and supporting a combination of*

- (i) low carbon energy use in transport (including deployment of electric vehicles, advanced biofuels and other alternative, sustainable fuels),*
- (ii) increased energy/vehicle efficiency and*
- (iii) intelligently managing transport demand.*

*Cross-cutting issues*

- (i) Research, urban, finance ...*
- (ii) ICAO, IMO*

## Work on all fronts..... a mix of measures



## Decarbonisation of Transport – issues (i)

### *Opportunity for innovation and technology leadership:*

- cleaner, alternative fuels and electrification, connected and automated transport, tailored mobility services and door-to-door logistics
- Behavioural changes, sharing economy ...

### *Research & innovation:*

- exploiting synergies with other sectors - smart electricity grids, renewables production, battery technology, big data, and the internet of things
- HORIZON 2020; STRIA

## Decarbonisation of Transport – issues (ii)

### *Co-benefits:*

- Technology transfers; multimodal integration through ITS; improved air quality ...

### *Planning security for manufacturers*

- Deployment of refuelling infrastructure, effective public procurement, progressively tighter CO<sub>2</sub> standards

### *Internalisation of external costs & road initiatives*

- Non-discriminatory road charging schemes based on the polluter-pays and user-pays principles & possibly modulation according to CO<sub>2</sub> emissions





## - 20% CO<sub>2</sub> emissions from transport by 2030

- Global solutions to reduce emissions (IMO, ICAO)
- Polluter pays principle
- Modal shift

## DECARBONISATION



## deployment of connected vehicles on European roads by 2019



- Intelligent Transport Systems (ERTMS, SESAR, VTMS, RIS)
- Collaborative Economy
- Drones

## DIGITALISATION



## INNOVATION



## GLOBAL LEADERSHIP

## INVESTMENT



- Innovative financing mechanisms (EFSI)
- Infrastructure investment (CEF)
- Strategic Research and Innovation

**CEF €24 bn for 2014-2020**



## PEOPLE

- Safety and Security
- Passenger Rights
- Jobs

**Halving road deaths by 2020**



# Thank you for your attention

