



- **Clean Power for Transport:  
State of play and possible  
financing of the relevant  
infrastructure**

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## Main problems to fix (Policy Drivers)



### 1) Energy supply at risk

Oil accounts for 94% of transport fuels, causing an enormous EU import bill of up to one billion Euros a day.



### 2) GHG emissions reduction necessary

According to the White Paper on Transport 2011, the sector has to reduce 60 % of its CO2 emissions by 2050 (benchmark 1990).



### 3) Air quality and congested infrastructure

New and clean forms of mobility need to be established.

### 4) Competitiveness of EU industry

Growth and jobs can be created by restoring world leadership of the EU transport industry.



European  
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# Sustainable transport & energy efficiency in Europe: a priority for urban areas

*72% of the EU's citizens live in towns and cities.*

*85% of the EU's GDP is generated in cities.*

*Some 40% of Europe's CO<sub>2</sub> emissions from road transport and*

*70% of other pollutants are due to urban traffic.*





European  
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# Cities benefit strongly from EU clean transport policies

- Reduction of overall GHG
- Reduction of local pollution
- Improvement of quality of life
- Possibly reduction of congestion



## Alternative Fuels for all transport modes

	<i>Road</i>							<i>Air</i>	<i>Rail</i>	<i>Water</i>		
	<i>Buses</i>		<i>Passenger Cars</i>			<i>Heavy Goods Vehicles</i>				<i>Inland</i>	<i>Short sea</i>	<i>Maritime</i>
<b>Range</b>	<i>Urban</i>	<i>Short</i>	<i>Medium</i>	<i>Long</i>	<i>Short</i>	<i>Medium</i>	<i>Long</i>					
<b>Natural gas</b>						LNG	LNG			LNG	LNG	LNG
<b>Electricity</b>												
<b>Biofuels</b>												
<b>Hydrogen</b>												



# Clean Power for Transport Package: Commission Proposal of 24 January 2013

- **Communication “A European alternative fuels strategy”**
- **Staff Working Document on Actions towards a comprehensive framework on LNG for shipping**

*Focusing on the "missing link" - infrastructure and standards:*

- **A proposal for a Directive on the deployment of alternative fuels infrastructure**



# A legislative proposal for infrastructure build-up, with common standards

- **Obligation of means**  
National Policy Frameworks & EC assessment and recommendations
  - **Obligation of results**  
minimum infrastructure
- => Targets to be set by Member States (MS) in National Policy Frameworks (NPF)**
- **A network approach/creation of economies of scale**
  - **Unlocking private investment = a pro-business initiative**
  - **Flexibility = Full freedom given to MS for implementation**
  - **EU support** offered



## Informal agreement by the co-legislators at the last trilogue

- An appropriate number of **recharging points for EVs accessible to the public** to be set in NPF per MS will rolled out by 2020 and along the TEN-T network by 2025.
- An appropriate number of **Hydrogen refuelling points** in MS opting for this fuel will be put in place by 2025.
- **LNG refuelling points for waterborne vessels** are to be set up at maritime and inland ports designated in the NPF by 2025 and 2030 respectively to allow circulation along the TEN-T Network.
- **LNG refuelling points for road transport heavy duty vehicles** will be installed along the TEN-T Core Network by 2025 to allow EU wide circulation if market demand exists (indicative distance of 400km).
- An appropriate number of **CNG refuelling points** will be deployed in urban areas designated in NPF by 2020 and along the TEN-T network by 2025 (indicative distance of 150km).





## Common EU standards

- Recharging stations for EVs, hydrogen, CNG, and LNG refuelling for road transport vehicles, as well as LNG refuelling facilities for waterborne vessels will be **interoperable EU-wide**
- Important: **Common connectors for Europe will be adopted!**
- **Type 2/ Type 2 Combo** are the only **interoperable connectors** for normal and high power charging stations
  - Compatible with national safety requirements (shutters)
  - Type 2/Type 2 Combo as an EU standard for AC/DC charging to be used to connect the vehicle to all kinds of private and public charging, ensuring EU-wide interoperability
- **Early movers** will be able to use existing charging stations
- Contributes to the negotiations with third countries to achieve common/compatible standards



## 1) Funding for transport-related projects

- Most important source: the **Cohesion and Structural Funds** (ERDF, ESF, Cohesion Fund)
- Continue over 2014-2020 under the name ESI-Funds (European Structural and Investment Funds)
- The European Commission and the Member States develop national operational programmes to ensure the most efficient use of the resources



## 2) Funding for urban transport projects

- **TEN-T funds (Trans-European Transport Network)**
  - Focus on developing the urban nodes of the network
  - Includes financing of recharging and refuelling stations for alternative fuels
- **EIB (European Investment Bank) loans and other financial products**
  - For example the new Project Bond initiative
- **INTERREG programmes**, for regional sustainable development projects
- **URBACT programme**, for exchange and learning projects on sustainable urban development



## Connecting Europe Facility (CEF) funds for TEN-T projects (Trans-European Transport Network)

- Objective 2: New technologies and innovation in all transport modes
  - Actions to support the deployment of alternative fuels infrastructure
  - Actions to promote the market introduction of solutions for vehicles powered by clean fuels
  
- Objective 3: actions implementing transport infrastructure in nodes of the core TEN-T network, including urban nodes
  - Actions to support the deployment of alternative fuels infrastructure
  - Actions to promote the market introduction of solutions for vehicles powered by clean fuels



## For more information:

- ESI Funds: [http://ec.europa.eu/regional\\_policy](http://ec.europa.eu/regional_policy)
  - View the eligible zones in your country
  - Get the contact details of the managing authority in your country
- TEN-T funds: <http://inea.ec.europa.eu/en/ten-t/ten-t.htm>
  - Find out about the priority projects in your country
  - Access the latest calls for proposals
- EIB: <http://www.eib.org/index.htm>
- INTERREG: <http://www.interreg4c.eu/programme/>
- URBACT: <http://urbact.eu/>



### 3) Funding for research and innovation

- The 2014-2020 programme is called Horizon 2020 and includes:
  1. Call on Urban Mobility
  2. Call on innovative infrastructure
  3. Green Vehicles Initiative
  4. Smart Cities and Communities –transport, energy and ICT
- The calls for the 2014/2015 Work Programme were published on 11 Dec 2013

	<b>Budget (€ Mio) 2014</b>	<b>Budget (€ Mio)* 2015</b>
<b>Call 'Green Vehicles'</b>	<b>129</b>	<b>30</b>
	<b>Budget (€ Mio) 2014</b>	<b>Budget (€ Mio)* 2015</b>
<b>Call 'Mobility for Growth'</b>	<b>374,5</b>	<b>184</b>
<b>1. Aviation</b>	70	36
<b>2. Rail</b>	52	-
<b>3. Road</b>	66	23
<b>4. Waterborne</b>	56	18
<b>5. Urban</b>	<b>40</b>	<b>66,5</b>
<b>6. Logistics</b>	32	18
<b>7. ITS</b>	31	-
<b>8. Infrastructure</b>	<b>19</b>	<b>17,5</b>
<b>9. Socio-economic and behavioural research</b>	8,5	5

*\* provisional*



## Call Green Vehicles

### TOPICS:

- Next generation of competitive lithium ion batteries to meet customer expectations
- Optimized and systematic energy management in electric vehicles
- Future natural gas powertrains and components for cars and vans
- Hybrid light and heavy duty vehicles
- Electric two-wheelers and new ultra-light vehicle concepts
- Powertrain control for heavy-duty vehicles with optimised emissions
- Future alternative fuel powertrains and components for heavy duty vehicles
- Electric vehicles' enhanced performance and integration into the transport system and the grid

**Submission deadline is 28 August 2014!**





## CIVITAS 2020 (Urban)

- **2014 TOPICS:**

- Transforming the use of conventionally fuelled vehicles (MG5.1 - 2 stages)
  - Comparing policies, measures and tools for influencing the *use of conventionally fuelled vehicles*, for example through regulatory measures, alternative mobility services or behavioural change
  - Exploring policies and measures to promote the *uptake of alternatively fuelled vehicles*, for example deployment of alternative fuel infrastructure or upgrading electric public transport
- Reducing impacts and costs of freight and service trips (MG5.2 - 2 stages)
  - Improving basic knowledge on freight distribution and service trips
  - Assessing and comparing innovative policies for better use of infrastructure and vehicles, and for consolidation and distribution centres in urban areas
- Tackling urban road congestion (MG5.3 - 2 stages)
  - Analysing measures and tools to understand and secure long term reduction on urban road congestion
  - Exploring how public transport can grow with limited extra costs
  - Assessing how the role of walking and (safe) cycling in the urban modal split can be increased



## CIVITAS 2020 (Urban)

- **2015 TOPICS (not yet open):**
- Strengthening the knowledge and capacities of local authorities (MG5.4 - 2 stages)
  - Promoting take up of SUMP through information exchange within large networked groups
  - Capacity building among local stakeholders on planning, implementation and financing
- Demonstrating and testing innovative solutions for cleaner and better urban transport and mobility (MG5.5 Innovation Actions - 2 stages; CSA – 1 stage)
  - City-led consortia composed of four to five cities, led by at least two 'leading cities'
  - Set of complementary and reinforcing mobility solutions – subset of CIVITAS measure categories
  - Impact and process evaluation using common framework on basis of clear baseline
  - Wide range of activities can be covered (incl. take up, research, support to local policy and planning)
  - Support Action to facilitate cooperation and evaluation for this topic, and across CIVITAS 2020



## For more information:

- Horizon 2020 programme:  
<http://ec.europa.eu/research/horizon2020>
- Horizon2020 call Mobility for Growth:  
[http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-mg-2014\\_twostages.html](http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-mg-2014_twostages.html)
- Horizon 2020 participant portal:  
<http://ec.europa.eu/research/participants/portal/desktop/en/home.html>
  - View the rules for participation
  - find potential partners
- CIVITAS website (Activity Fund): <http://www.civitas.eu>
- Smart Cities and Communities website:  
<http://ec.europa.eu/eip/smartcities/>



## Smart cities funding is part of the Energy work programme 2014-15:

Calls	2014 (M€)	2015 (M€)
Energy Efficiency	97,5	98
Smart Cities and Communities	92	108
Competitive Low-Carbon Energy	359	372
SMEs and Fast Track to Innovation	34	37
<i>Part B – other actions</i>	77	63

**2014 call deadline is 7 May 2014!**



# What do we target in urban mobility with smart city lighthouses?

- through the **integration of energy/ fuelling infrastructure** with vehicle fleets powered by **alternative energy carriers** for public and private transport, including logistics and freight-distribution.
- Implications on **energy management**,
- and in the case of **electromobility**, the impact on the electricity grid, of the deployment of high numbers of vehicles and/or the alternative fuel blends performance must be assessed.

## Where should I go?

### Comparison Smart cities vs H2020 transport challenge

Smart Cities (Lighthouse projects)	Urban mobility topics/CIVITAS
Integration of 3 sectors: energy, transport and ICT	Innovation from in integration of tools, measures and technologies in <u>transport</u>
1 area: integration of transport into Smart Cities by alternative fuels	Focus on main urban challenges in the Transport White Paper
Medium scale projects, but part of large scale initiatives	Medium scale projects (total value several 10's of Million EUR)
Targets (larger) cities with existing, mature Smart City plans	Targets <u>all cities</u> , also those with new/developing Urban Mobility plans
Large scale demonstration to encourage market uptake and roll-out of tested solutions	Focus on testing and demonstrating innovative solutions and their packaging and impact assessment



## **Link with the European Innovation Partnership in Smart cities and communities:**

- Horizon2020 call implements some EIP recommendations
- EIP's actions could deploy FP7 and Horizon2020 project results

*But*, EIP looks much broader (actions beyond H2020 remit):

- Citizen focus, Integrated Planning, Knowledge sharing
- Financing, business models and procurement
- Policy and regulation

**EIP uses call for 'commitments': no funding**

*but* Visibility, Engagement, Learning, Partnering

Deadline for submission 15 June 2014



**Thank you for your attention!**

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