



# **Future Sustainable energy supply through innovative partnerships – biomethane and CNG as an example**

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**Stockholm Region EU office  
Brussels**

## Future Sustainable energy supply through innovative partnerships – bio-methane and CNG as an example

- The main facts on Transport
- The 2030 Energy and Climate Policy Framework and the main actions to be implemented concerning transport
- The role of natural gas and bio-methane to decarbonise the transport and the market development of natural gas and bio-methane vehicles and infrastructures
- The Directive on "Alternative Fuels infrastructure"
- The Connecting Europe Facility Programme, TEN-T

## The facts

### Transport:

- Uses more than 30% of the EU primary energy
- Produced about 24% of EU CO<sub>2</sub> emissions in 2012
- Is mainly supplied from oil 94% (such dependence on oil can cause a problem of security of supply in the mid and long-term)
- Has become substantially more efficient in recent years

## The 2030 Energy and Climate Policy Framework

- A binding target to reduce EU domestic greenhouse gas emissions by at least 40% below the 1990 level by 2030 (Overall GHG emissions decreased by 18% in 2012 and are expected to decrease by 24% in 2020; however GHG from transport increased by 21% in 2012). No target for transport but by 2030 we hope to bring transport emissions down by 20% compared to 2008, acting on a more balanced use of all transport modes and the introduction of new technologies for energy saving and for the use of alternative fuels.
- A binding target to increase the share of renewable energy to at least 27% of the EU's energy consumption by 2030 (15% in 2013, 5.4% in transport)
- An indicative target to increase the energy efficiency by at least 27% by 2030 (between 2000 and 2012 energy efficiency improvements about 13% for transport, 15% for industry and 19% for households)
- New governance framework based on national plans for competitive, secure and sustainable energy as well as a set of key indicators to assess progress over time

## The Energy Union Package. The Communication on “A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate”.

- Renewable Energy Package: including a new Renewable Energy Directive for 2030 (2016)
- A legislative proposal on bioenergy sustainability (2016)
- A Communication on decarbonising the transport sector (2016)
- Review of Directive on the Promotion of Clean and Energy Efficient Road Transport Vehicles (2017)
- Review of Regulations setting CO<sub>2</sub> emission performance standards to establish post-2020 targets for cars and vans (2016-2017)
  - **Current legislation: fleet average CO<sub>2</sub> emissions for new passenger cars: 95g/km by 2021, phased in from 2020; for new vans: 175 g CO<sub>2</sub>/km by 2017 and 147g/Km by 2020**
- Establishing a monitoring and reporting system for heavy duty vehicles (trucks and buses) with a view to improving purchaser information

## The role of natural gas and bio-methane

The Clean Power for Transport package establishes that **natural gas and bio-methane are part of the EU mix of alternative fuels required to substitute oil** as energy supply to transport in the long term. Both offer a large potential to contribute to the diversification of transport fuels

Natural gas offers important environmental benefits in terms of reduction of CO<sub>2</sub> and pollutant emissions, in particular when it is blended with bio-methane

CNG and 100% bio-methane vehicles are based on a mature technology, using conventional internal combustion engines. A reasonable choice of vehicles has been developed in recent years

## Market development of CNG and bio-methane vehicles and infrastructures

- *CNG Current situation :*

There are one million and two hundred vehicles running on CNG representing 0.7% of the EU vehicle fleet. The industry aims to have 5% of the fleet by 2020. 3000 refuelling stations and several hundreds of LNG trucks

In 2013 bio-methane was produced in **14 European countries** and in over **230 upgrading plants** with a total capacity of 0,8 billion m<sup>3</sup>/year

Grid injection is in practice in **11 EU Member States** (AT, CH, DE, DK, FI, FR, LX, NL, NO, SE, UK)

In Europe there are **over 300 CBG100 and LBG100 stations** offering **100 % renewable methane**

**Vehicles are fuelled with bio-methane** (either pure or in blend with natural gas) in **12 European countries** (AT, CH, DE, DK, FI, FR, HU, IS, IT, NL, SE, UK)

## The Directive on alternative fuel infrastructures

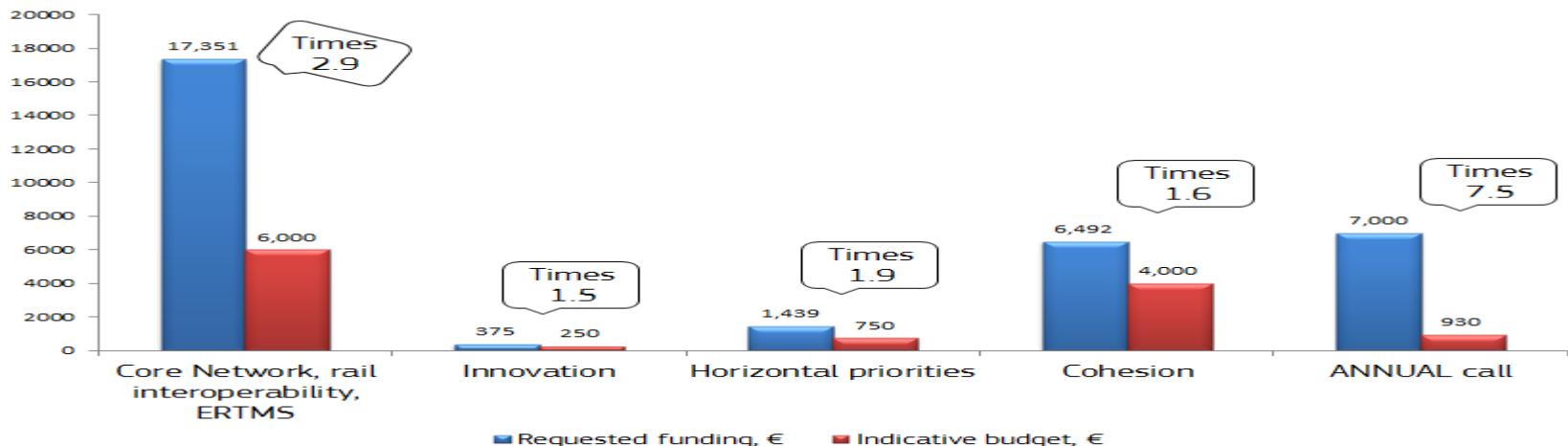
CNG in urban/suburban and other densely populated areas	Appropriate number of points	by end 2020
CNG along the TEN-T core network	Appropriate number of points	by end 2025
LNG at maritime ports	Ports of the TEN-T core network	by end 2025
LNG at inland ports	Ports of the TEN-T core network	by end 2030
LNG for heavy-duty vehicles	Appropriate number of points along the TEN-T core network	by end 2025
CNG refuelling points for motor vehicles	compatible with ISO/DIS/16923	by end 2016
LNG and L-CNG refuelling points for motor vehicles	compatible with ISO/DIS/ 16924	by end 2016
CNG and LNG connectors and receptacles	compatible UNECE Regulation 110	by end 2016



## Connecting Europe Facility (CEF)

The 2014 CEF transport calls attracted over 700 project proposals and as result €13.1 billion were allocated to support a total of 276 projects aiming to upgrading infrastructure and removing existing bottlenecks whilst also promoting intelligent transport solutions and alternative fuels. In the 2014 call some priorities were massively over-subscribed

Two new calls are likely to be published very shortly. One of the calls will only be addressed for projects in Member States eligible for the Cohesion Fund (up to 85% of eligible cost).



**Thank you for your attention!**

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