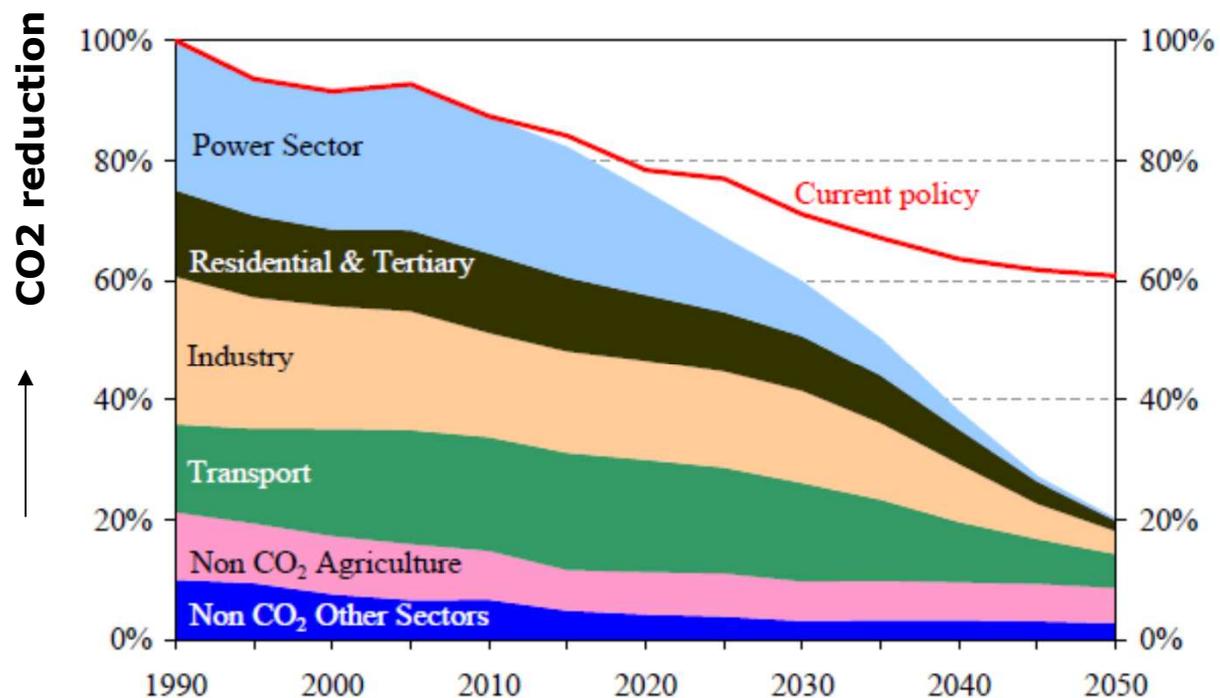




## **LNG in transport – an example of innovation in the application of gas**

2nd Meeting of the UNECE Gas Centre Task Force Group on Gas Market and Regulation, 11.12.2012, Brussels

## Gas demand outlook for Europe?



Potential 'dark age' for gas in Europe, unless:

- gas will be competitive
- gas can be positioned through innovation as a key solution to decarbonise the energy mix and support the use of renewable energy

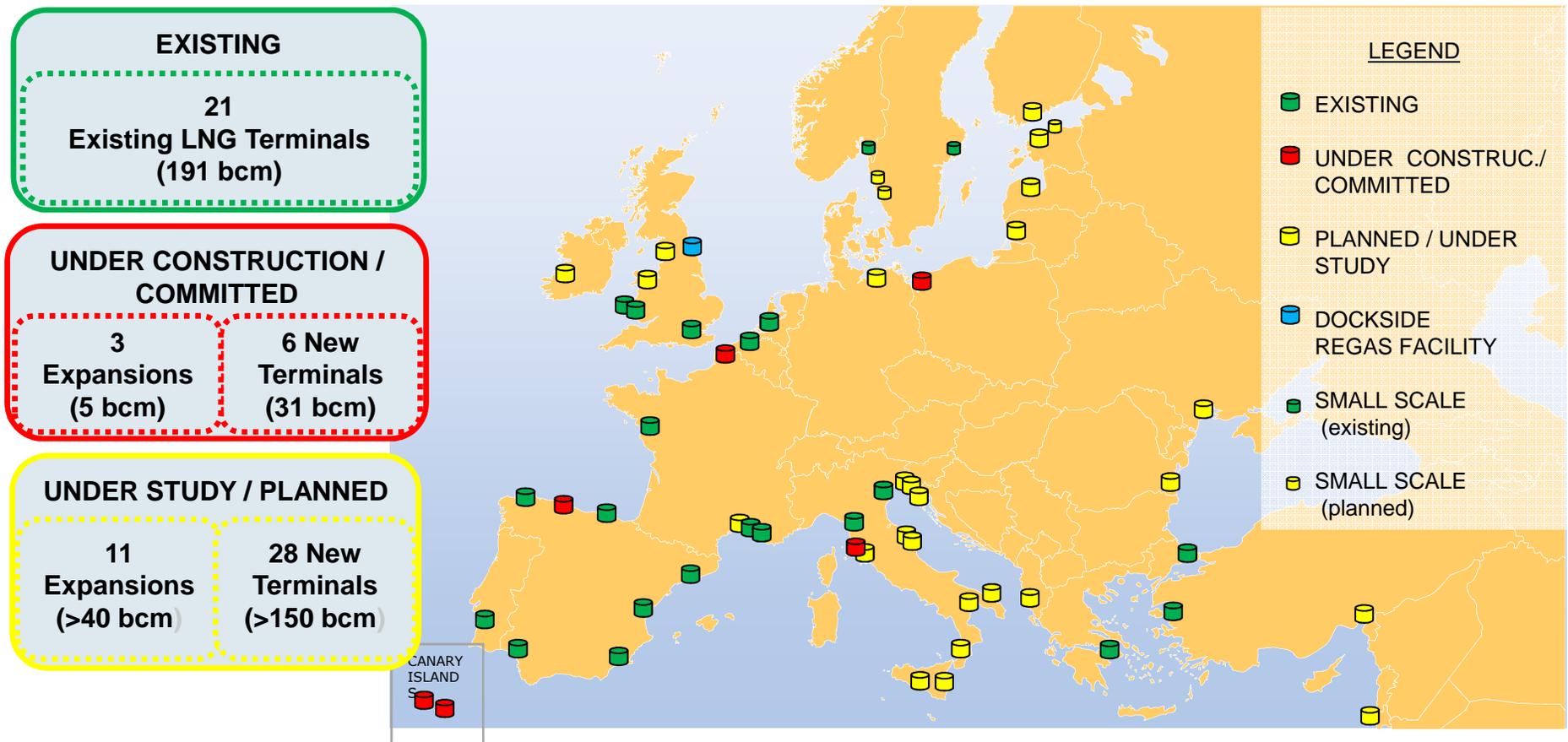
## Innovation: LNG as a fuel for heavy transport

- From 1 January 2015 limits on sulphur content will be decreased from 1.0 % to 0.1 %, in the Baltic Sea, the North Sea, and the English Channel.
- Environmental performance of LNG is superior compared to other bunker fuels: less SO<sub>x</sub>, NO<sub>x</sub>, CO<sub>2</sub> and particle emissions.
- EU fuel import bills can theoretically be cut in half by replacing all diesel used by the EU trucks by LNG
- LNG retail network will require 1 LNG station per 50 km, which is 1300 units for 65 000 km EU motorways (1% of the total numbers EU refilling stations)
- Taxation policy influences on economics, positive signals from certain member states (Belgium, France, Germany – favourable taxation to LNG use)

## Environmental and economical aspects

- Greening the transport sector by replacing conventional liquid fuels is notoriously difficult
- Replacing these fuels by gas seems to offer great potential from both an environmental and economical perspective
- Modalities:
  - Passenger vehicles within city limits: Electricity
  - Passenger vehicles longer distance: CNG
  - Buses, mid-medium size trucks short haul: CNG
  - Heavy trucks: LNG
  - Shipping: LNG
  - Rail: Elec/LNG
- Initially based mainly on fossil gas, but increasingly carbon-light

# LNG terminals in Europe – fuel source availability grows



SOURCE: GLE Map

Detailed information on LNG Projects available at: [http://www.gie.eu/maps\\_data/index.asp](http://www.gie.eu/maps_data/index.asp)

## Getting on the agenda

- Small Scale LNG is also rapidly rising on the agenda of policy makers and businesses
- Many tangible examples around
- LNG is becoming more competitive compared to conventional bunker fuels
- Potential demand as a bunker fuel is substantial and requires further infrastructure development



## LNG fuel stations in the EU

- Public LNG fuel stations for trucks increased from 6 to 18 stations within the past 4 years
- 9 stations are under construction and will open before the end of 2012

	Country	No. stations existing	No. stations under construction
	Italy	6	---
	Portugal	---	2
	Spain	7	5
	Sweden	3	---
	The Netherlands	2	2
	<b>Total</b>	<b>18</b>	<b>9</b>

Source: NGVA

## In summary

1. The use of LNG as a fuel offers an excellent opportunity for improving the environmental footprint. It will be key in meeting strict environmental requirements for the transport sector.
2. Securing these opportunities will require a regulatory framework that recognizes these benefits.
3. An adequate Small Scale LNG infrastructure will improve security of supply and market functioning of the EU.
4. The availability of LNG infrastructure for small-scale LNG applications is rapidly increasing.



**Innovations such as these are critical for the long-term perspective of natural gas as a key component of the energy mix**

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