



Gas in transport – Setting the scene

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GLE President, GIE Board Member

- Gas Infrastructure Europe (GIE) is an **European non-profit lobbying association** representing the sole interest of the infrastructure industry in the natural gas business.
- GIE has **currently 69 members in 25 European countries**.
- GIE is the umbrella organization for its three subdivisions:



Gas Transmission Europe (GTE)



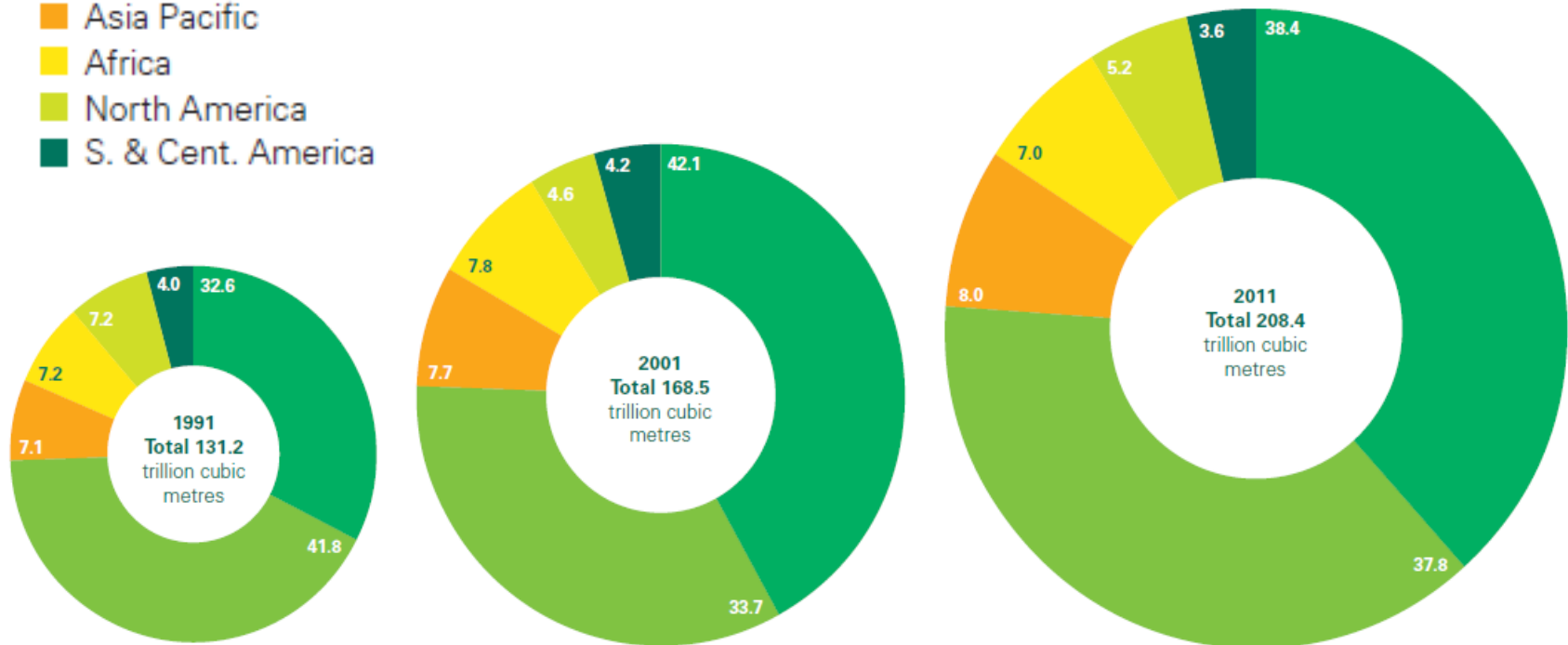
Gas Storage Europe (GSE)



Gas LNG Europe (GLE)

Distribution of proven reserves in 1991, 2001 and 2011 (%)

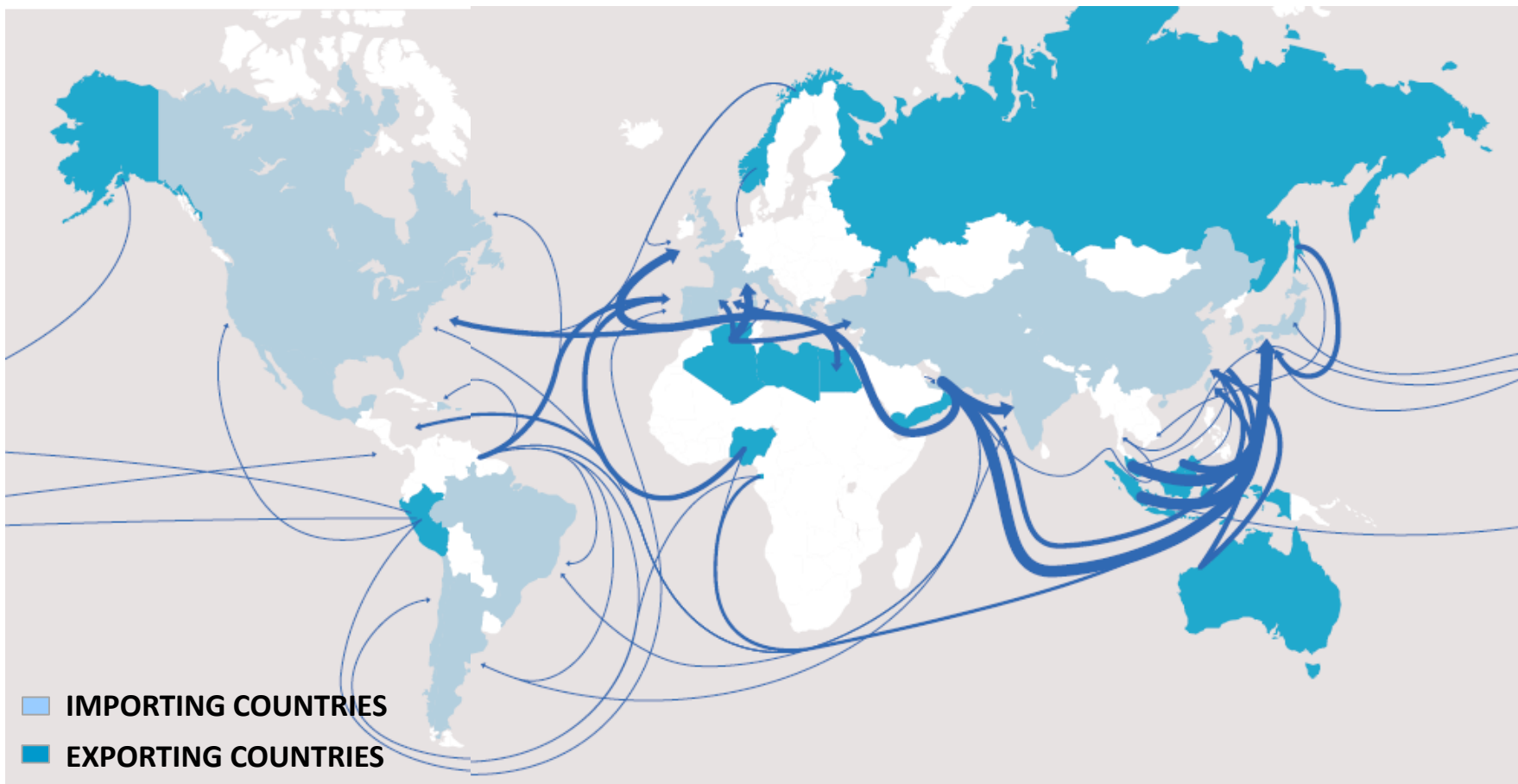
- Middle East
- Europe & Eurasia
- Asia Pacific
- Africa
- North America
- S. & Cent. America



Source: BP Statistical Review 2012



The world has ample proved reserves of natural gas to meet expected future demand growth



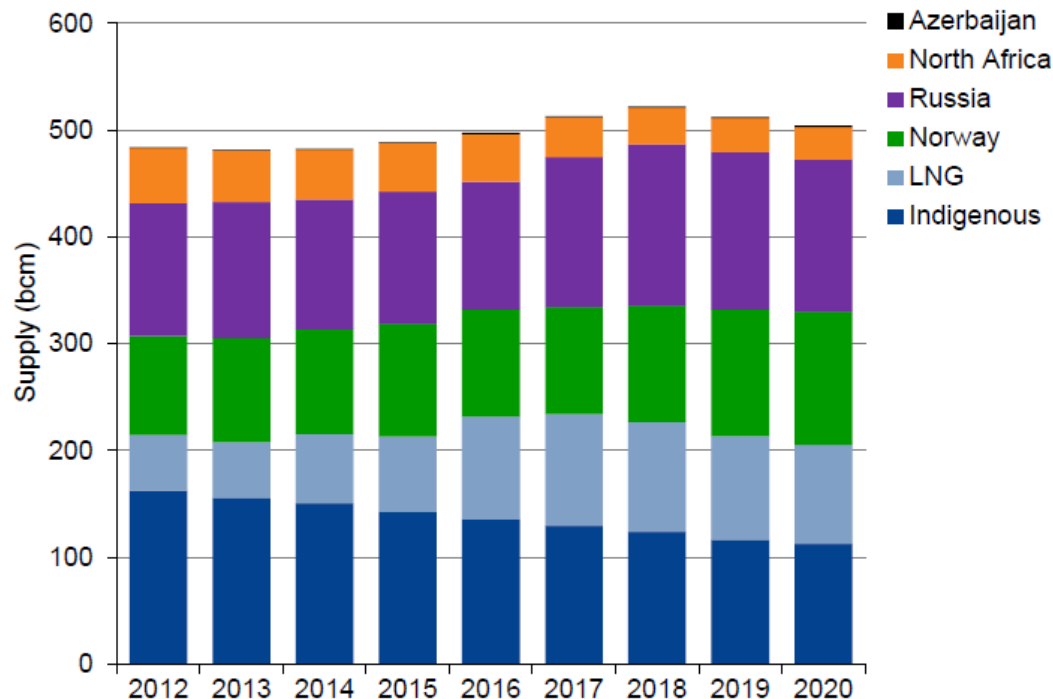
SOURCE: GIIGNL



LNG makes worldwide gas reserves potentially accessible for Europe

Europe is increasingly reliant on import volumes

- Indigenous production in EU will decline
- LNG and pipeline imports will replace decline in indigenous production

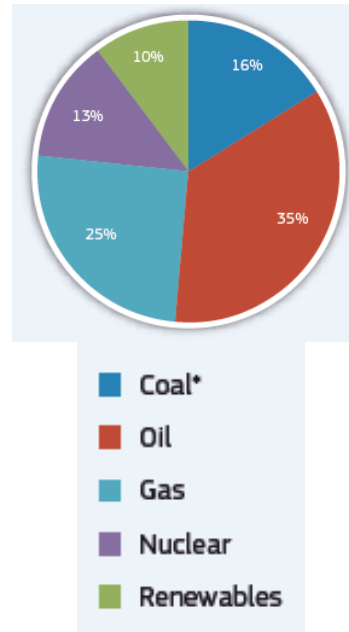


Source: POYRY

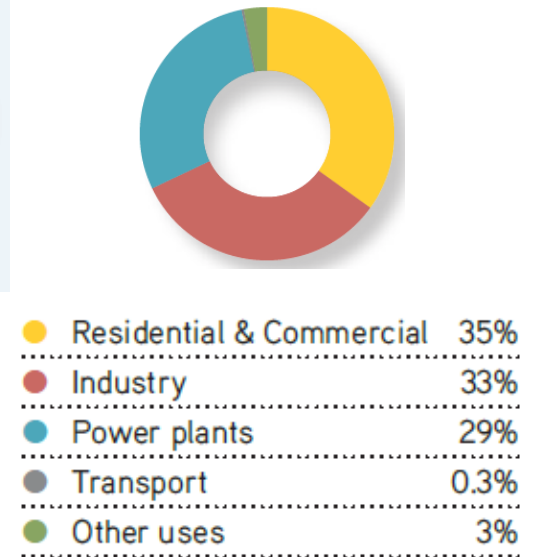
Gas demand in the EU

- EU gas demand decreased by more than 12% between 2010 and 2012, to 466 bcm/a
- The share of gas in the energy mix increased by 5% from 2005 to 2010, to a total of 25%
- Transport represented only 0.3% of total gas sales in 2011, but volumes increased by 4% that year
- In 2011, one quarter of the EU's net imports was delivered as LNG

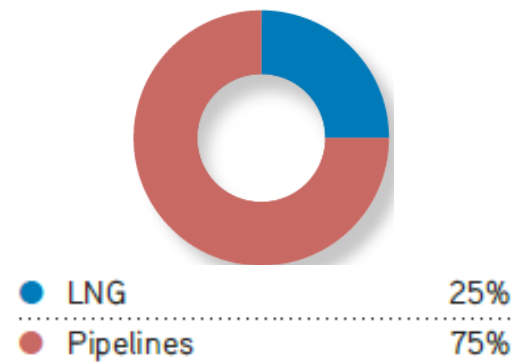
Energy mix 2010



Natural gas sales by sector 2011



Imports by type of transport 2011



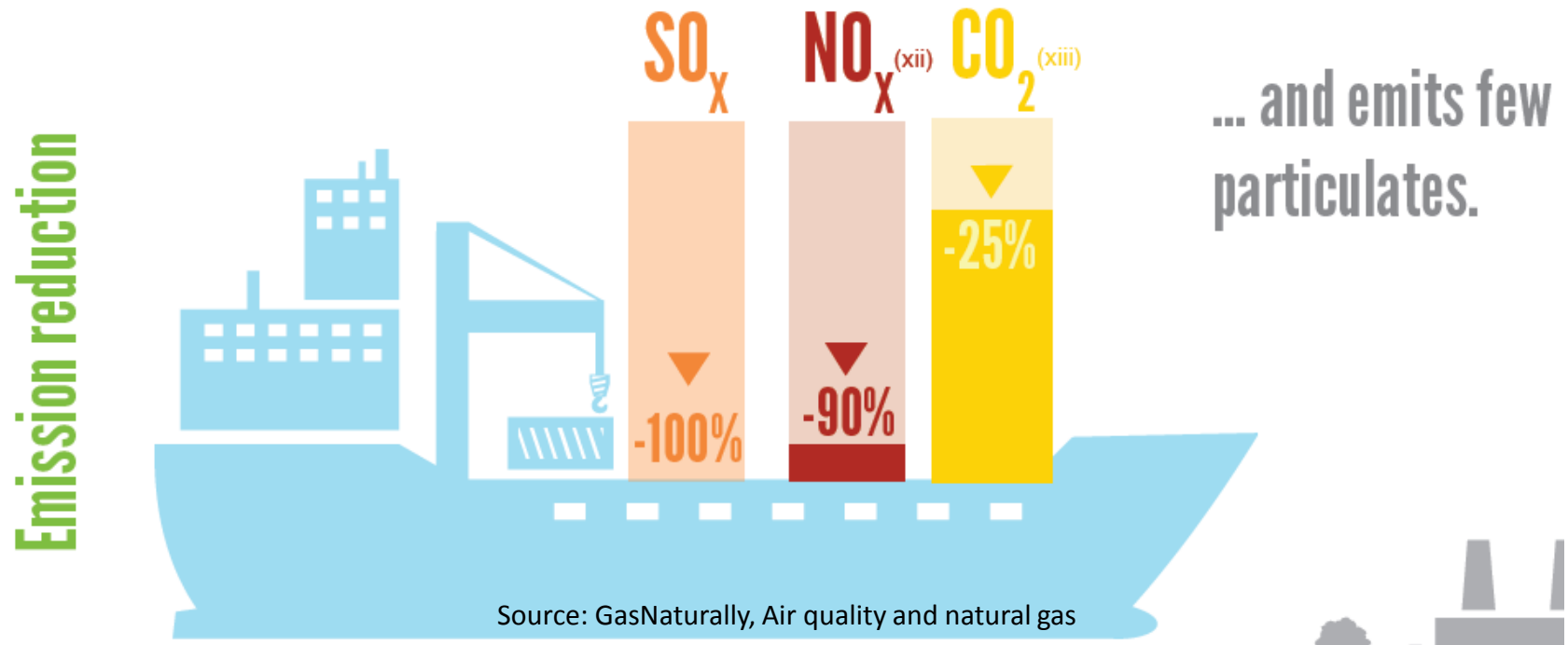
Sources: EU energy in figures, Statistical Pocketbook 2012
+ Eurogas Statistical Report 2012

Contributing to a low-carbon economy

- Natural gas is the **cleanest fossil fuel**. Substituting gas for more carbon rich fuels can substantially **reduce CO2 emissions** on the short term and contribute to the EU's long term decarbonisation policy objectives.
- Gas infrastructure operators share the EU policy objectives to reduce harmful emissions and continuously pursue **technologically advanced solutions** to achieve them with the highest safety and efficiency.
- One such solution is the development of LNG and CNG (infrastructure) for **maritime and road transport**.



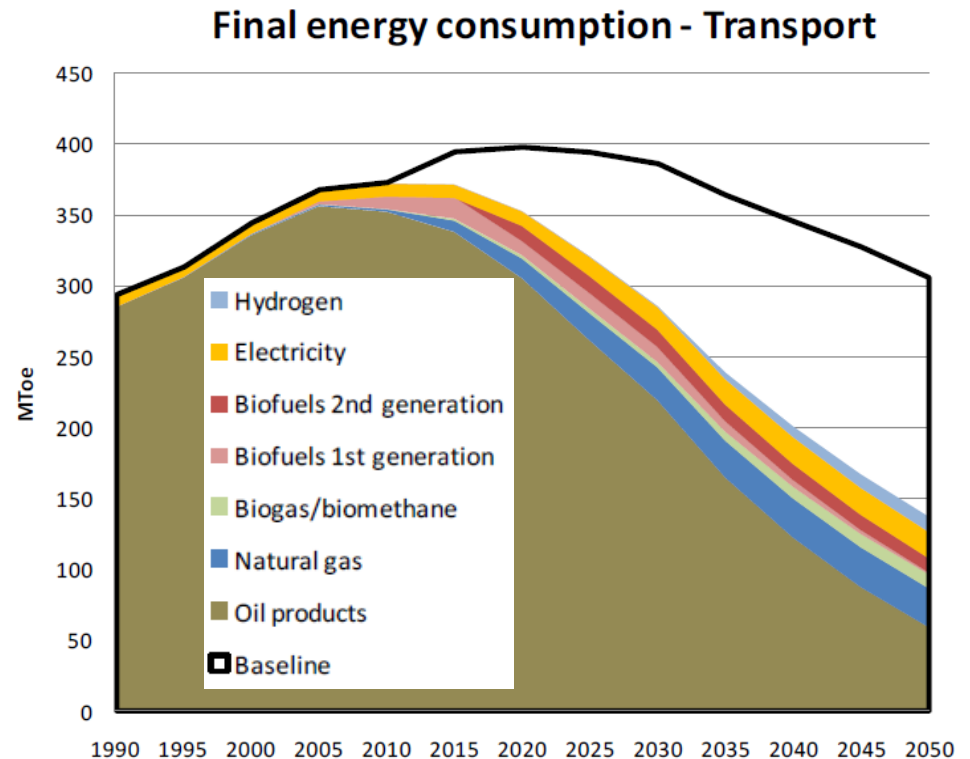
Liquified natural gas (LNG) is the alternative shipping fuel, reducing emissions by up to :



Adding renewable sources of gas to natural gas can even increase the attractiveness

Reducing reliance on oil

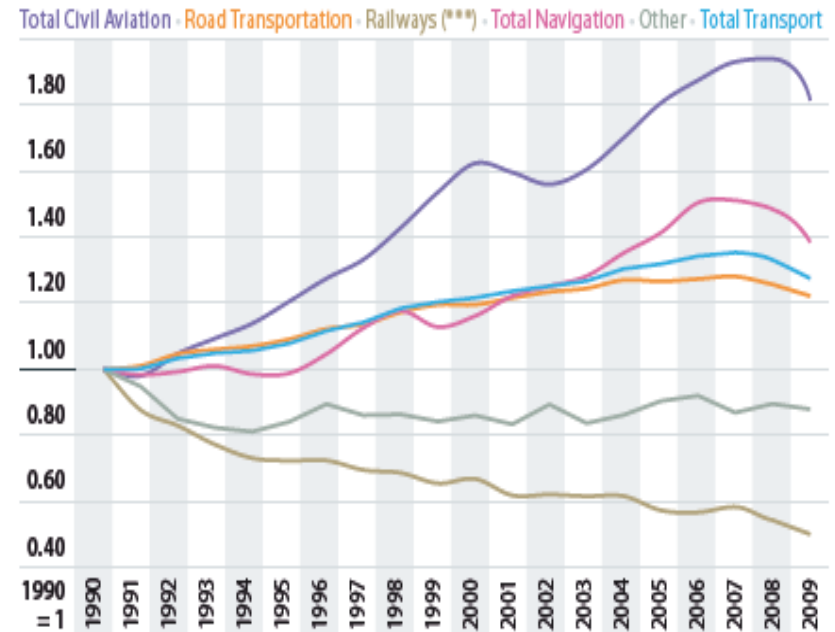
- Natural gas volumes in transport are currently modest (1 bcm/a)
- In 2030, natural gas is expected to reach a market share of 5% for passenger transport and 13% for freight
- It is expected to increase between 2030 and 2050, reaching 13% and 33% respectively for passenger and freight transport and representing a volume of 33 bcm/a in 2050



Transport sector is responsible for 30% of overall energy related CO2 emissions

- Since 1990, transport is the only sector that has significantly increased (25%) greenhouse gas emissions
- To achieve cost benefits and meet CO2 emission reductions natural gas can play an important role in the transition to a low carbon economy.

Development of EU-27 GHG emissions from transport by mode



Sources: EU transport in figures, Statistical Pocketbook 2012, Eurogas Roadmap 2050 (October 2011)



Clean Power for Transport Package

- LNG refuelling stations to be installed in all 139 maritime and inland ports on the Trans European Core Network by 2020 and 2025 respectively.
- By 2020, LNG refuelling stations to be installed every 400 km along the roads of the Trans European Core Network.
- Publically accessible CNG refuelling points with common standards to be available EU-wide with maximum distances of 150 Km by 2020.
- Member States invited to develop national (tax) incentives for alternative fuels



Boost of gas as fuel in transport to be expected

GIE is proud to support



Gas Naturally

GN is a campaign to showcase the essential role of natural gas in the forthcoming energy revolution. The mitigation of climate change has become one of the most important issues for the gas industry.

**Thank you
for your kind attention.**

GIE - Gas Infrastructure Europe
www.gie.eu

