



Removing barriers to the use of Natural gas as a transportation fuel

**UN ECE - Group of Experts on Gas
(Task Force D)**

21 January 2015 - Geneva

Background & Deliverables

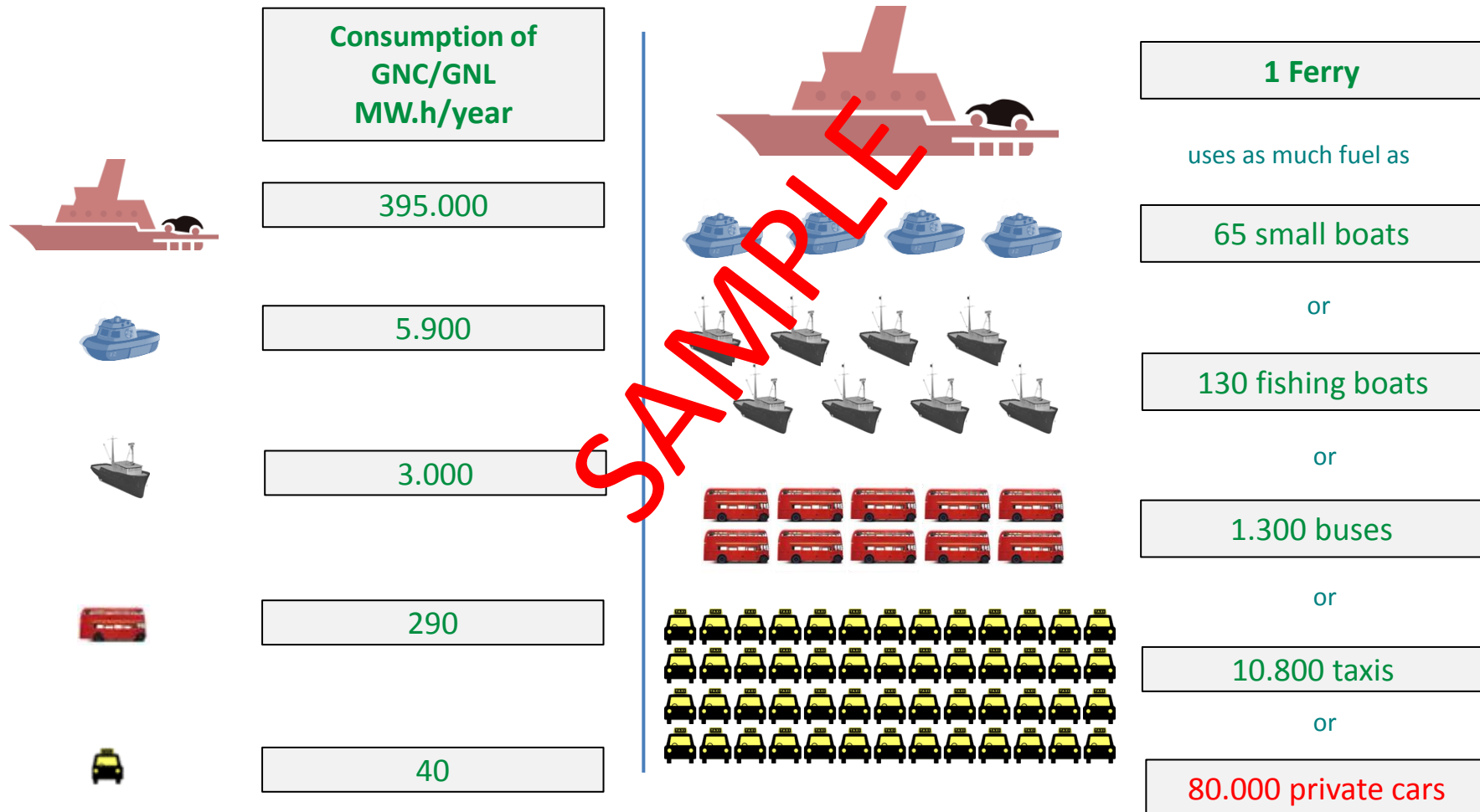
Background

- **Natural gas and bio-methane represent the easiest, most practical, and most realistic way to reduce pollution coming from transportation.**

Deliverables

- **A useful summarized guideline document aimed at decision makers in national authorities and Industry stakeholders contributing to the increased use of LNG and CNG in Transports**
- **Recommendations on Removing Barriers to the Use of Natural Gas as a Transportation Fuel.**

Fuel Consumption of Different vehicles. Equivalences



Some Existing barriers



Assessing Barriers to NGV Development

Gas Expert Group Task Force D concept	BARRIER 'AREAS'						
SUBJECT OF BARRIERS↓	POLITICAL (LEGISLATIVE)	STANDARDS & REGS	TECHNOLOGY RELATED	MARKETING & COMMUNICATIONS	COST & ECONOMICS	SAFETY	OTHER
VEHICLES							
Road vehicles							
Off road vehicles (i.e. construction)							
Marine (Inland)							
Marine (sea-faring)							
Rail (diesel)							
Rail (electric)							
(Air?)							
FUELLING							
Full public access							
Private Fleet (no public access)							
Private Fleet (w/public access)							
Home (residential) fuelling							
Fuel transport (Mother-Daughter)							
Portable fuelling systems							
Bunkering (Marine only)							
Railway fuelling (rail only)							

Contributing parties



LEVELS OF NGV-MARINE-RAIL ASSOCIATIONS

(Natural gas 'interconnections' are needed)

NGV Associations

Marine Associations

Railway Associations

International Bodies

IANGV –
NGV Global

IMO(Internat. Maritime
Org.), IAPH(Internat. Ass. of
Ports and Harbors)

UIC (International Union of
Railway)

Regional Bodies

NGVA Europe, ANGVA
(Asia), ARPEL (Latin
America), ...

Society for Gas as Marine Fuel
(SGMF)
ESPO(Euro Sea Port Org),
AAPA(American Ass. of Port
Authorities)

ERA(EU Railway Agency),
AAR(Ass. of American
Railroads), AROA(Asian
Railway Operators Ass.), ...

National Associations

NGVAmerica, NGVItaly,
NGVRus, AFGNV, GASNAM
CNGVA, ...

Italian Sea Ports Ass, UK
Major Ports Group, French
Ports, Hellenic Port
Associations, ...

National Safety Authorities
(often linked with
Government)

Specialty Organisations

EuroBiogas Association,
Compressed Gas
Association (US), ...

ECSC(European Community
Shipowners Ass.),
CRPM(Conference of
Maritime Regions of EU),...

CER(Community of
European Railway and
Infrastructure),
UNIFE(Ass.of European
Railway Industries), ...

Private Sector Participants

Expert stakeholders & Industries

SAMPLE

Way of Working

- **Use the knowledge of the participants, their network and studies that have already been developed**
- **Clear allocation of tasks**
- **Avoid double work**

Timeline



- **First working meeting, March, Brussels?**
- **First status report: June 3, at WGC in Paris**
- **Working group report: October**
- **First report: early 2016, Geneva**

**SOME
BACK UP
SLIDES**

Activities, for all vehicle modes

Define internal structure & responsibilities

Identify target groups & establish communications

Recruit contributing volunteers

Classify barriers

Propose Final report (Recommendations) format

Prepare & spread questionnaire

Develop work plan

Prepare presentation at WGC'2015 NGV Workshop

3.2. Structure, Work Package



- **D.1 Production, transport, distribution and retailing.**
- **D.2 Vehicles, cars, vans, busses and trucks, CNG specifics.**
- **D.3 Vehicles, ship, barges, air and railway, LNG specifics.**
- **D.4 Standards: Gas, vehicles, distribution, filling and others.**
- **D.5 Legislation, regulations and support/subsidies.**
- **D.6 Consumer/ customer/ commercial perspective.**
- **D.7 Conclusions, summary and reporting**

Description of the task. Background

- Natural gas and bio-methane represent the easiest, most practical, and most realistic way to reduce pollution coming from road transportation.
- Methane/hydrogen blends represent a huge potential for the transport sector, and represent an ideal bridge to more sustainable mobility using the existing natural gas/bio-methane distribution infrastructure.
- Natural gas —with its environmental, economic and availability advantages— will remain the only alternative to oil and diesel in the short and medium terms, and is the only primary fuel that is fully technically and economically applicable in any mode of transportation: on-road vehicles, scooters, heavy duty vehicles, ships, aircrafts, locomotives, and so forth.
- Using natural gas as a transportation fuel is a critical area for natural gas demand growth, with specific relevant benefits such as improving environmental impacts (CO₂, SO₂, and NO_x).
- **This activity would explore removing barriers to the use of natural gas as a transportation fuel in the ECE region.**

Priorities

From the description of the work to be done, we propose to point out and prioritize the relevant aspects, to focus our attention and work:

1. Natural gas is fully technically and economically applicable to any mode of transportation: on-road vehicles, scooters, heavy duty vehicles, ships, aircrafts, locomotives, etc. THE WHOLE MOBILITY HAS TO BE CONSIDERED
2. The use of natural gas as a transportation fuel is critical for natural gas demand growth, with specific relevant benefits in the environmental side (CO₂, SO₂ and NO_x).
3. Natural gas is the only alternative to oil and diesel in the short and medium term
4. Methane and bio-methane to be considered together
5. Methane/hydrogen blends are seen as a next step taking advantage of the existing natural gas/bio-methane infrastructure.