



IGU WGC 2006, Expert Forum

Global activities and strategies for better efficiency in the 'methane for vehicles' business

Moderated by Peter Boisen
Chairman of ENGVA



Poster presentations:

- **CNG Developments – an Indian Experience - Purwaha, A.K**
- **Using Natural Gas for NGV in Ukraine: Prospects and Problems - Vladimir Kozak**
- **Introduction of LNG as a Fuel for Vehicles in the Netherlands - Verbeek, H.A.**
- **Sustainable Logistics Through Methane Gas Vehicles in Commercial Operations - Swahn, M.**
- **ANG storage as a technological solution for the “Chicken-and-Egg” problem of NGV refueling infrastructure development - Ginzburg, Y.V**



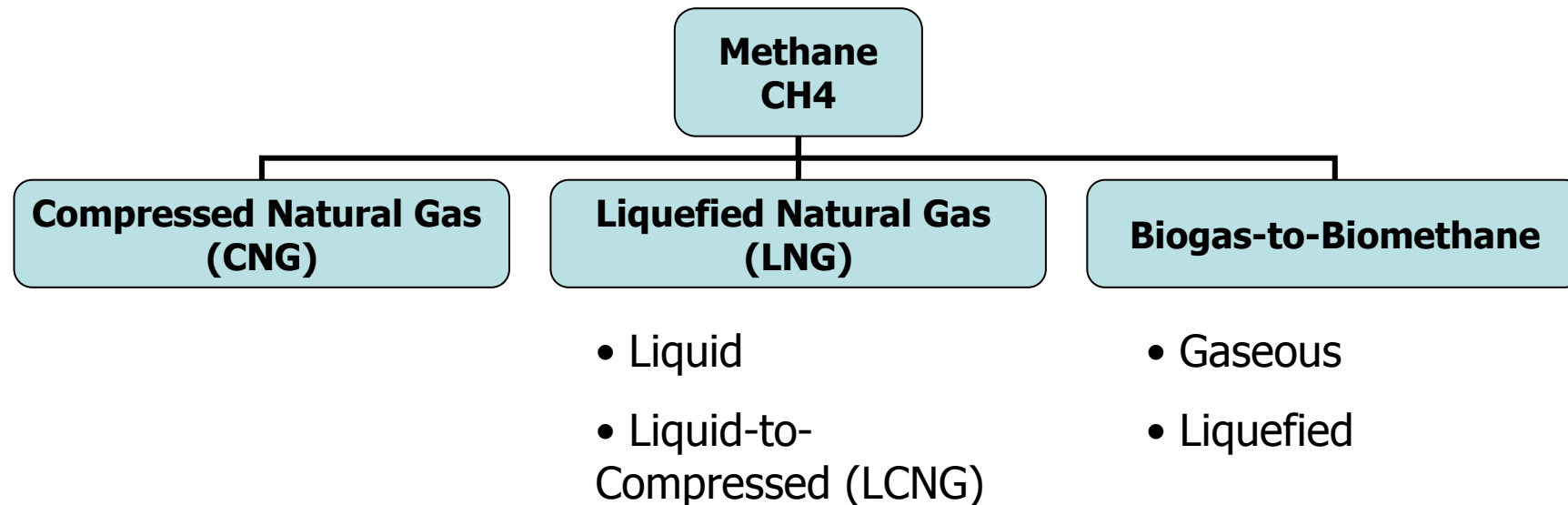
Round table participants:

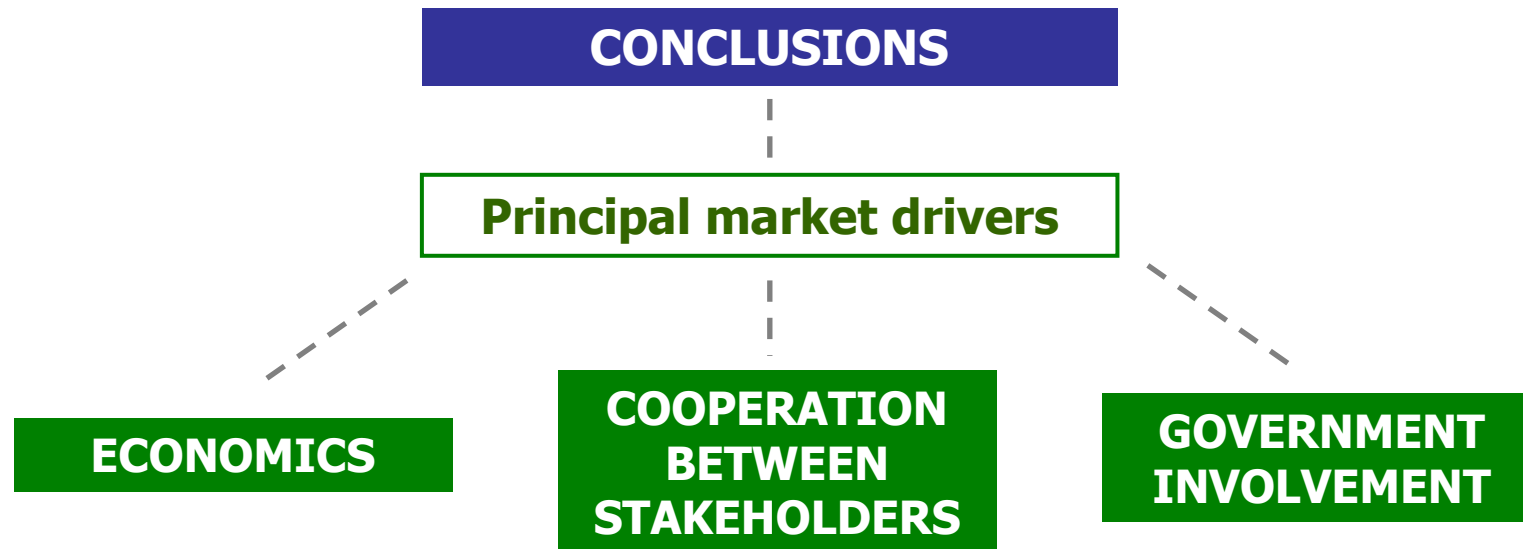
- **Dr. Juan Carlos Fracchia: President - IANGV**
- **Davor Matic: Chairman of WOC 5, S.G. 5.3**
- **R. Fernandes: Vice president - ALGNV**
- **Jeffrey Seisler: Executive director - ENGVA**
- **Dr. Garth Harris: Secretary General – IANGV,
Secretary General – ANGVA**
- **Eugene Pronin: NGV Division Head - Gazprom,
President - NGVRUS**



Before starting the round table discussions, a brief summary of views gathered from various participants

Methane is a Diverse & Flexible Fuel for the Transport Sector





- **Principal market drivers:**

- **Economics:** Price differential between natural gas and petroleum fuels (petrol and diesel) appears to be the single most important NGV market driver
- **Cooperation between the stakeholders:** seems to strongly influence the more rapid adoption rate of NGVs
- **Government involvement:** through a variety of policies (*long term consistent policy*) is a common requirement for NGV commercial growth, acceptance and sustainability



CONCLUSIONS

- **Actions necessary for sustainable market growth:**
 - **Internationalization (globalization):** (harmonization of standards, overcoming barriers for linking national fuel infrastructure networks, national harmonization of vehicle, fuelling station and related standards) is one ultimate goal of NGV market development but it occurs in phases
 - **Vehicle technology** quality to equal performance and cost of petroleum fuelled vehicles (LDVs & HDVs). For developed economy countries factory-built vehicles lead the market. In emerging and developing economy countries retrofit vehicles lead the market
 - **Maximizing vehicle performance and range** remains an issue while the market and fuelling infrastructure develops



RECOMMENDATIONS

SUPPORT!

HARMONIZATION

Support worldwide harmonization efforts for regulations, codes and standards for NGVs (retrofit and OEM)

- **ISO standards and UN regulations...**
 - Fuel connectors and filling
 - Vehicle type approval
 - Regular vehicle inspections
 - Fuel measurement units and accuracy

SUPPORT!

REGIONALIZATION → INTERNATIONALIZATION

Strategic approach to regionalization → internationalisation of fuelling infrastructure strategy (and vehicle homologation):

- **Grouping (Strategic Alliances)** of national NGV Associations to form and promote regional NGV Associations (and International Association for NGVs) to achieve critical mass and worldwide standardization
- **Interlinking - "Blue Corridor" concept** (Europe, Russia & C.I.S., Latin America)



RECOMMENDATIONS

PROMOTE!

HARMONIZATION

- Promote adoption of highest level international standards and regulations for retrofits, in particular
- Promote at national and regional levels the adoption of international regulations, codes and standards

LOBBY!

CONSISTENCY

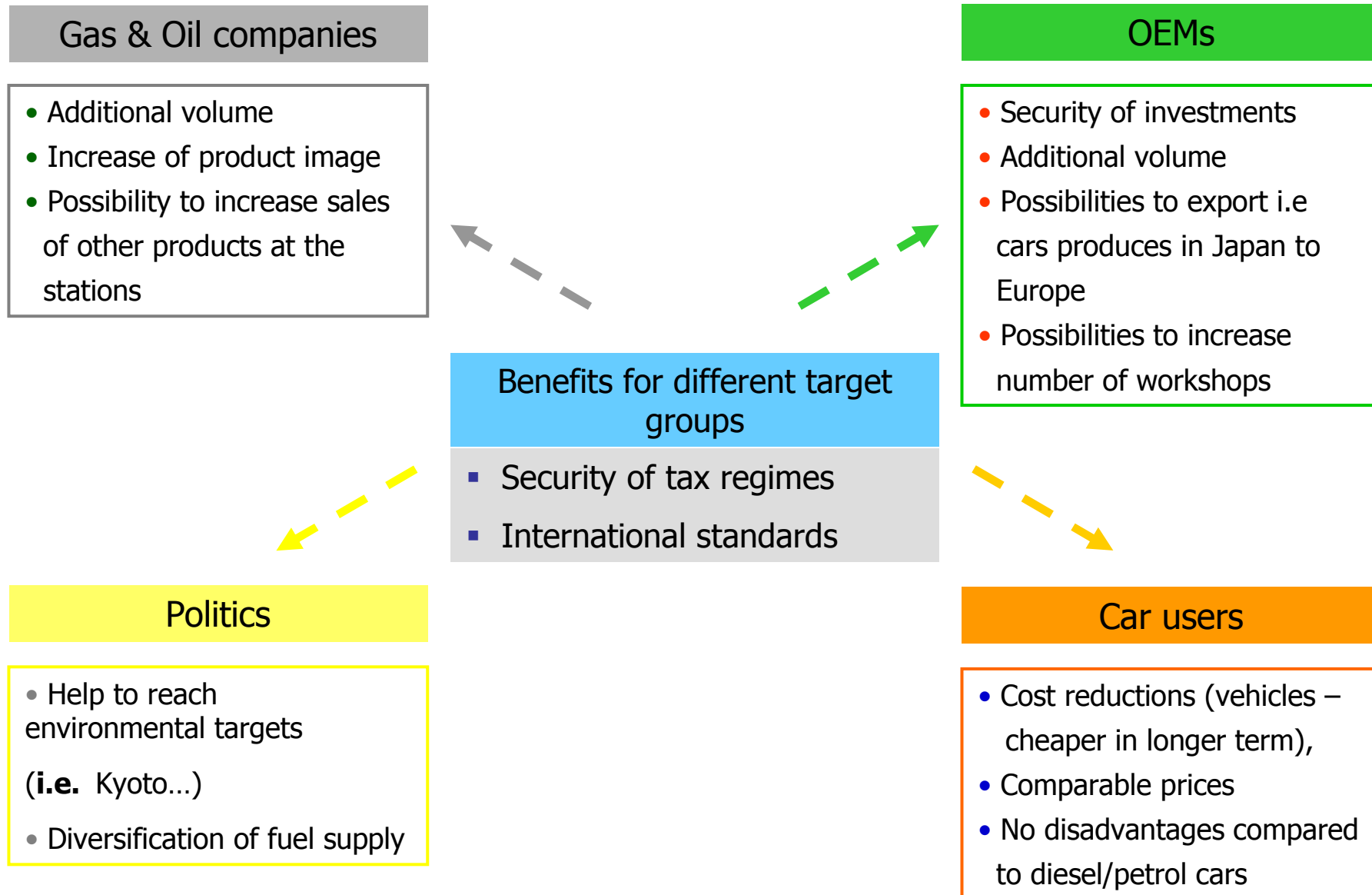
Lobby for consistency in long term policies

- Consistent fiscal and policy instruments
- Consistent financing schemes
- Consistent non technical measures (exemptions from cordon pricing etc.)
- Mandates

SEEK!

SYNERGY

Stakeholders' involvement and synergy between them and develop a process to engage and involve all stakeholders





What to do in the short term?

- Consistent policies
- International standards

Gas industry

NGV Associations

IGU

Lobby !!!

Lobby !!!

Lobby !!!



**From what you have heard in the conclusions -
are these consistent with your experiences
regarding success factors across regional
markets?**



What is your opinion about globalization (in a positive manner) of the worldwide market growth for NGVs?



To what degree is the harmonization of standards, technologies and best practices possible - and/or desirable?



Most people do not know that you can run your vehicles on natural gas. The image of NGVs is confused with the LPG image. NGVs are considered unsafe, etc.

What does the industry need to do to combat negative image connotations, and to raise the awareness of NGVs more broadly?



How can we enforce quality control of converted natural gas vehicles?



What is the key NGV market driver in your region, and what is the most important issue - e.g. total cost of vehicle use, or environmental advantages?



In 30 seconds – your own key message?



All is well that ends well...