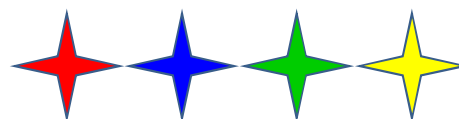


Working Committee 5 Study Group 5.3 Natural Gas for Vehicles 2015-2018



Key takeaways

- 8 representatives from 7 countries
- 58 members on distribution list, of which 22 active and 36 „listening“ or unconfirmed



Working programme useful for own country

Challenge existing data

Will help grow NGV in my country

More involvement of national NGV associations would be useful → use IGU as „tribune“ and participate more actively

Overview about innovations and new technology + optimization of stations

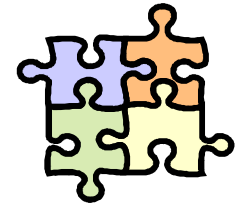
More PR required, make NGV known

Lot of ideas for marketing of NGV and how to improve customer satisfaction

Sharing, networking, data, facts about safety and how to tackle safety issues

Nomination of Vice Chairman

- Leadership of WOC 5.3 Study Group during 2015-2018 together with Chairman



Sergei Colin – congratulations!

WOC 5.3 working programme

Brainstorming

Scope

- 💡 LNG, CNG, LCNG, bio-methane with other alternative fuels as watchpoints (LPG, e-mobility, hydrogen, fuel cells → what can we learn from them?)
- 💡 NGV, Bunkering = core / Trains, Planes = strategic

Proposal:

WOC 5.3 = Working Committee on Natural Gas for Transport (G4T)

Target audiences in our function as IGU WOC 5.3 on G4T:

- We ourselves → take best practice back to our companies
- G4T multipliers at national/regional levels
 - NGV associations / maritime associations
 - lobbying organizations / globally acting associations, e.g. UNECE
 - Other NGOs interested in promoting environmental programmes at regional/national levels

WOC 5.3 working programme

Summary of programme items

Item #	Activity	Deliverable	Responsible study group member
	Commercial	Rotating presentations during each WOC 5.3 meeting (1 per session)	Lead: Aunchana
	Develop best practice approach to TCO – micro view (for individual clients)	TCO calculation tool (e.g. XLS)	
	Understand what are good markets for second/third-hand cycle	Report about 2 nd /3 rd hand target markets, flows of vehicles, prices etc.	
	Share infos on availability and standard configurations of CNG/LNG-filling station technology + associated economics	Create catalogue on station configurations, techn. parameters and prices	

WOC 5.3 working programme

Summary of programme items

Item #	Activity	Deliverable	Responsible study group member
	Market	Rotating presentations during each WOC 5.3 meeting (1 per session)	Lead: Sergey
	Summarize and share info on G4T development at global level	Summary of available NGV statistics OR selection of THE reliable source → engage with NGV associations who collect these data anyway (GVR, NGVA E., ANGVA etc.)	
	Address safety concerns + develop arguments why CNG/LNG is safe + share best practice how valid safety concerns are dealt with	<u>Special target audience: end consumers + politicians, communication through local/regional multipliers</u> Case studies / one pager with 10 key arguments	
	Understand demand growth strategies and drivers and share internationally	<u>Special target audience: Gas Industry + gov. authorities</u> Case studies	
	Share know-how on marketing strategies and tools and how to „bring G4T to the customer“	<u>Target audience: Gas companies + automotive industry</u> Case studies	

WOC 5.3 working programme

Summary of programme items

Item #	Activity	Deliverable	Responsible study group member
	Technical	Rotating presentations during each WOC 5.3 meeting (1 per session)	Lead: Vladislav
	Understand technical standards development at int'l level (stations, NGVs, on-shore/off-shore bunkering procedures, onboard equipment, inspection periods) + share experience	Report on which standards are available and how far aligned they are /what has to be done to align them	
	CNG/LNG + hybrid concepts	Report / Info collection	
	Provide true view on emissions associated with CNG/LNG technology (NOx, PM, methane slip, WTW-emissions)	Engagement with NGVA Europe/Eurogas/Marcogas/ internationals research organizations etc. to be addressed as argumentation with environmental organizations	
	Understand and share know-how about new technical development (higher horsepowers, automony, ANG, cylinder technology, new applications etc.)	Report (to IGU members for usage in daily business)	

WOC 5.3 working programme

Summary of programme items

Item #	Activity	Deliverable	Responsible study group member
	Political	Rotating presentations during each WOC 5.3 meeting (1 per session)	Lead: Jeremie
	Develop TCO – macro view for political level (including indirect benefits to health system, employment, environment etc.)	If possible: calculation tool, may also be report	
	Understand regional policy developments potentially impacting or impeding G4T development + interfere where internationally applicable	Case studies depending on incident, support/engage personally with NGV associations to discuss how things are done in other parts of the world	
	Create recommendations for securing gas demand providing long-term benefits to both investors in infrastructure and end users → policy measures, economies of scales, sustainability of NG solutions	Case studies / checklist « to tick off »	

WOC 5.3 working programme

Summary of programme items

Item #	Activity	Deliverable	Responsible study group member
	Engagement	Members overview	Lead: David
	Use your network to tell other NGV-/gas related people in neighboring countries how exciting IGU work is and they could be the one making a difference to the further development of NGV world-wide	Talk to people, get them interested in IGU work, “spread the word” and forward their contact details to Sergey and David	

Don't sit and wait – spread the word
about gas for transport!

What can IGU do for partners

- ♦ Access to international sharing of know-how and experience from geographies not usually in scope of our thinking
- ♦ Transfer of experience from mature to immature G4T markets
- ♦ Networking regarding offerings, products, data etc.
- ♦ IGU as credible organization can open doors / use your mandate as IGU representative
- ♦ Use IGU representative status to communicate and provide more credibility to lobbying and engagement
- ♦ Promotion of G4T-related initiatives through IGU communication channels
- ♦ Discounts for participation in events organized/sponsored by IGU?