NGVA Europe

Report of activities 2017-2018

The Natural & bio Gas Vehicle Association (NGVA Europe) promotes the use of natural and renewable gas as a transport fuel.

Founded in 2008, its 133 members from 31 countries include companies and national associations from across the entire gas and vehicle manufacturing chain. It defends their interests to European decision-makers in order to create accurate standards, fair regulations and equal market conditions.

Furthermore, the association relies on active networks among its members to develop studies and roadmaps to support advocacy actions with institutions and stakeholders. It also acts as a reference information hub to provide information about the Natural Gas Vehicle (NGV) market and the development of fuelling infrastructure.

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Foreword from the President and Secretary General

This report of activities is presented to you during a very special year for NGVA Europe: founded in 2008, we have celebrated the 10-year anniversary of the association during our annual General Assembly in Paris, under the slogan 'together for sustainable mobility'. Today, NGVA Europe is an important reality composed year by year with 133 members from 31 countries, thus expressing one voice together in promoting the use of natural gas as transport fuel for the energy transition in Europe.

The event confirmed the importance of the synergies between all available fuel solutions, whereby natural gas is a future key player to achieve sustainable mobility. *g-mobility* stands for gas as a transport fuel that enables clean mobility for personal and freight transport, but also represents a new initiative from the association to better communicate about natural gas to reach a wider audience, targeting younger generations especially.

As the new President of NGVA Europe, I have every confidence in our ability to achieve our ambitions for and with g-mobility in this very important time. We are in an ongoing European discussion regarding clean mobility for our future so as to provide EU citizens with affordable, efficient and clean modes of transport that also contribute to improving the air quality of the cities in which we live, as well as in achieving Europe's climate goals.

Therefore, thanks to the NGVA Europe team and all your contributions, I am confident about our ability at the European level to demonstrate the place and the role of g-mobility in the ongoing energy transition in a proactive and transparent way.

Philippe Van Deven
President of NGVA Europe

We are glad to present the overview of our activities and our vision towards 2030 that will drive the association's future agenda.

The year was dominated by the intense debate surrounding the definition of the future CO_2 emission targets, first for cars & vans, and later on with the presentation of the Third Mobility Package in May, alongside the new regulation proposal for heavy duty vehicles.

Together with our members and partner associations, we have strongly defended the importance of translating technology neutrality into legislation and ensuring consistency among CO_2 regulations. Also, on other important measures, namely the Renewable Energy Directive, the Directive on Alternative Fuels Infrastructure and the Clean Vehicle Directive.

In parallel, the year has also driven the attention being paid to the development of standards and technical procedures, the backbone to guaranteeing the harmonized development of the market across Europe, first considering safety and system interoperability.

Looking to the market development perspective, further progress in innovative gas technologies and the growing role of renewable gas, we developed and presented our vision for 2030, unveiling both the role and contribution natural gas presents for a more sustainable, decarbonised transport system.

A more intensive effort and to better communicating natural gas and in approaching and engaging the wider public still needs to be done. This is based on the decision to launch our 'g-mobility' initiative in 2018, which will be fully developed in a dedicated web forum in the near future.

We hope that you also enjoyed the redesign of NGVA Europe website in March 2018, which aimed to further facilitate the dialogue with both members and the public. From this year on, the website integrates a CNG/LNG mapping system which is now updated daily.

As you will see in the following report, 2018 has been an important year for NGVA Europe, where, in parallel to our 10th year anniversary, we also held the election of our new President and the Members of the Executive Board. Also important to mention is our team in Brussels, which this year has been invested with further strengthening our activities related to policy actions and to communication. To me, every day it is a very exciting and rewarding experience to work in common with a motivated young team to translate our common vision into actions and services for the association.

Andrea Gerini
Secretary General of NGVA Europe

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Who we are

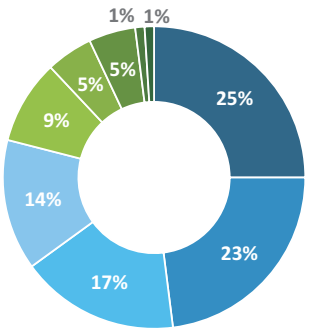
NGVA Europe, the Natural & bio Gas Vehicle Association, is composed of **133 members** from **31 countries**. They include companies and national associations from across the entire gas and vehicle manufacturing chain.

The association defends their interests to European decision-makers in order to create accurate standards, fair regulations and equal market conditions.

Furthermore, the association relies on active networks among its members to develop studies and roadmaps to support advocacy actions with institutions and stakeholders. It also acts as a reference information hub to provide information about the Natural Gas Vehicle (NGV) market and the development of fuelling infrastructure.

133
members

31
countries



MEMBERSHIP COMPOSITION

- Gas companies
- Station infrastructure & components
- Vehicle components
- Associations
- Engineering services
- OEMs
- Fleet operators
- Research institutes
- Others

Our mission

Advocacy

To work with the **EU Institutions and stakeholders** to promote the use of natural and renewable gas as transportation fuel.

Stakeholder Network

To create **networks with interested stakeholders** to develop position papers, studies and reference documents to support advocacy actions.

Industry

To defend **industry interests** to create accurate **standards and procedures** and fair regulations for equal **market conditions**.

NGVs Market Overview

To collect data and facts on the natural gas vehicle market to provide a **broad European statistical database** about infrastructure, gas consumption and vehicle registrations.

03

10 year anniversary

This year, NGVA Europe has celebrated its 10-year anniversary since its founding in 2008. During this decade, the industry has developed significantly and has demonstrated its potential to continue growing further in the future.

The infrastructure for vehicles running on natural gas has reached more than 3.400 CNG stations and over 150 LNG stations in the EU. The latter set the foundation for a future transportation of goods using clean fuel over long-distances.

At the same time, together with the increase in stations, we have witnessed an uptake of vehicles in the light-duty, as well as the heavy-duty, sectors. Currently, there are more than 1.3 million cars and nearly 30.000 heavy duty vehicles, such as buses, coaches and trucks, driving on European roads.

Apart from our celebration, this year NGVA Europe is also glad to welcome Mr Philippe Van Deven as the new President of the association. After having served NGVA Europe as a Senior Vice-President already for several years, we are excited that Mr Van Deven will now be able to lead the association to new successes and opportunities in the years to come.

We are also very grateful to our former President Mr Gerhard Holtmeier and all the members of the Executive Board for their passion and commitment during the last six years of the association.

Pictured (left to right): Gerhard Holtmeier (former President), Dr Timm Kehler (new Senior Vice-President), Nadège Leclercq (new Secretary of the Board of Directors), Philippe van Deven (new President), Andrea Gerini (Secretary General)

From President to President: Gerhard Holtmeier congratulating Philippe van Deven, Secretary General Andrea Gerini applauding

Senior Vice-President Dr Timm Kehler and Secretary General Andrea Gerini (from left to right) welcoming the guests

The panellists embracing the discussion regarding the historical developments in their countries as well as ongoing trends for the future of NGVs and sustainable transport on natural and renewable gas

Didier Hendrickx and Patrick Mocatta following the speech of Dr Timm Kehler

French Minister of Transport Élisabeth Borne endorsing the efforts of the industry and encouraging the continued efforts in decarbonising Europe's transport sector

Full house: The audience following the contributions of the speakers and the discussions

10 years

NGVA Europe: together for sustainable mobility

2018

2008

04

Our vision

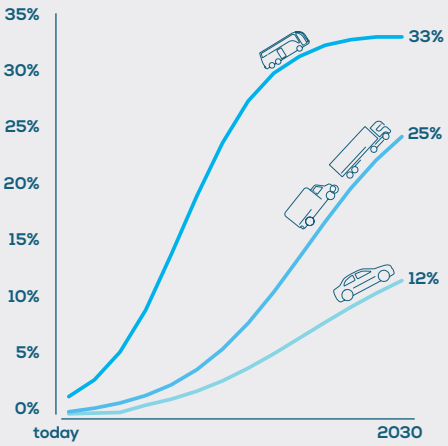
The celebration of our 10-year anniversary not only represents a call to review the past, but also an opportunity to look forward into the future in order to better understand what are the actions that we all need to undertake together in order to continue on the path towards a sustainable future.

This year, in collaboration with the European Biogas Association (EBA), NGVA Europe has released a common document – a roadmap outlining our mutual vision regarding where we see gas in transport development. In this document, the main benefits of g-mobility (the *g* standing for *gas*) were outlined in relation to the utilisation of a circular economy system. Since g-mobility offers clean fuel, clean air and the potential to integrate renewable, carbon-neutral fuel, we believe that the market share of natural gas vehicles will increase between 12% to 33% from today, depending on the vehicle type. Corresponding to this, we expect a rapid uptake of vehicles – from the present 1.3 mln, to 13 mln NGVs in 2030. With this development, the associated infrastructure would also witness an increase in development, alongside the use of both CNG and LNG.

It is important to highlight the role of renewable gas in this rapid development. Certain countries already utilise close to 90% renewable gas in their grid, meaning that their transport is effectively carbon-neutral. Looking towards 2030, however, on a Europe-wide level it would be safe to predict the sustained use of renewable gas, representing at least 30% of all CNG and LNG used.

Therefore, our vision represents not only a development opportunity for g-mobility, but also a way to effectively tackle decarbonisation and air quality challenges in an affordable and sustainable way, one that is already available today.

Market share natural gas vehicles in Europe



Natural gas vehicles fleet development

	today		2030
	1.300.000	x 10	12.600.000
	16.000	x 7	110.000
CNG	9.000	x 21	190.000
LNG	2.500	x 112	280.000

Ever since natural and renewable gas were first used to power vehicles, the industry has strived to advance the portfolio of not only these types of vehicles, the different models and their engines, but also the form in which the fuel they consume comes from – be it natural or renewable gas in a compressed or liquefied state. Hence, this explains the existence of the numerous different names and designations used in the field of gas for transport.

Driven by the need to incorporate all of these aspects into a single umbrella, NGVA Europe has proposed and, consequently registered as a trademark, a new term – g-mobility. It represents all the different vehicles, forms and origins of gas used in transport.

Naturally, this concept represents an opportunity to harness the synergies between all available solutions, whereby g-mobility is a key future player connecting clean personal mobility and freight transport – a way to enable cleaner mobility, low-emissions transport and the efficient use of gas in passenger cars, trucks, public transportation and ships.

"We have registered the g-mobility logo: this will be our leitmotif to promote the use of natural gas such as CNG and LNG, be it natural or renewable, for road as well as maritime transport. g-mobility aims to reach a larger audience, firstly targeting younger generations, contributing to a wider diffusion of the culture of circular economy."

Andrea Gerini, Secretary General

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Policy highlights

CO_2 emissions

In the heart of the European agenda: Decarbonisation

Decarbonisation is at the heart of the transport system agenda; the European Commission proposed the recast of the Regulation on CO_2 emissions produced by standard performance for new passenger cars & light-duty vehicles (November 2017), as well as the new proposal to introduce the first CO_2 emissions target for the heavy-duty sector as well (May 2018).

The scope of these measures is to guarantee that the transport system will be able to reduce greenhouse gas emissions and contribute to the overall effort in decarbonising our economy by the time of 2050. This target is particularly challenging regarding not only the demand for personal mobility, but especially for freight transport as well, as this sector is expected to significantly increase in the future.

Need for an integrated approach leveraging all solutions

For these reasons, an integrated approach leveraging all effective and sustainable solutions is fundamental to formulating and identifying the right pathway towards the progressive achievement of a carbon neutral system.

NGVA Europe is actively engaged in the EU debate to sustain the need to identify how to translate the principle of 'technology neutrality' into concrete legislative acts.

Need for adequate measurements to move forward

We are facing a very deep transformation of the mobility model, moving from a combination of conventional fuels and engines to a more composite system: conventional engines will integrate electrification, while fuels will progressively include more and more energy carriers produced by renewable energy sources, with a wide variety of biogenic and synthetic processes.

From this perspective, the usage of the tailpipe measurement for CO_2 emissions is no longer adequate in representing efficiency levels from future vehicles, nor their real impact from a climate change perspective.

The CO_2 emissions tailpipe measurement has been developed to calculate fuel consumption from vehicles powered by conventional fossil fuels, so the measurement metric would also need to be changed and updated to the boundary conditions of the new system.

WtW methodology and the Carbon Correction Factor as proposed solution

Integrating the tailpipe measurement towards the so-called Well-to-Wheel (WtW) approach would guarantee a fair playing ground for evaluating all the different combinations of fuels and powertrains using the same criteria.

45%

A MIX OF 30% V/V RENEWABLE GAS IN THE NATURAL GAS USED FOR TRANSPORT, AS EXPECTED IN 2030 FROM OUR PROJECTIONS, CAN ENSURE A REDUCTION OF CO_2 EMISSIONS BY 45% ON THE WTW BASIS COMPARED TO CONVENTIONAL FUELS.

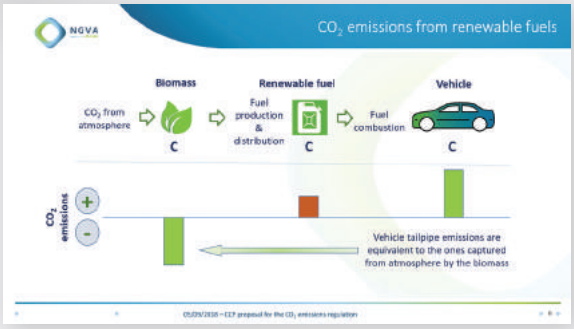
In the medium-to-long term, the extension from the WtW to the so-called 'Cradle to Grave' approach will also include the contribution of GHG emissions from the vehicle manufacturing processes and end-of-life operations.

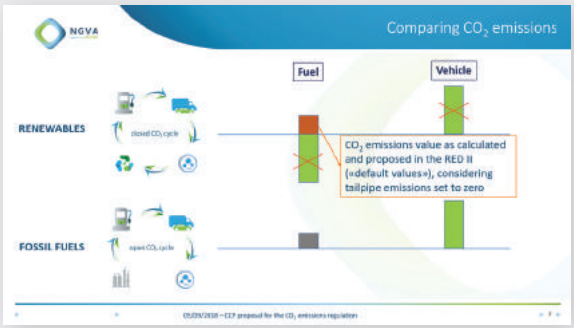
To anticipate the implementation of a full WtW methodology, NGVA Europe proposed a pragmatic solution, named the 'Carbon Correction Factor' (CCF), to at least align the computation of tailpipe CO_2 emissions from renewable fuels with the indications set in the Renewable Energy Directive (RED). This would add the capability to reward the contributions coming from renewable gas to the tailpipe emissions measurement approach, introducing a first element from the Well-to-Tank analysis.

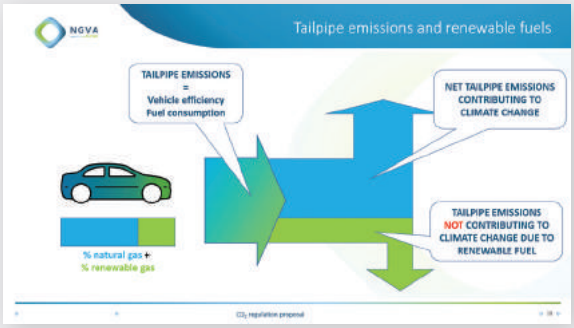
Accelerating the decarbonisation process thanks to gas

This analysis and methodology is critically important as natural gas provides an immediate benefit in terms of CO_2 reduction thanks to its composition, as it is the hydrocarbon fuel with the lowest carbon content. Beyond that, renewable gas, issued from waste biomasses and residue or from other renewable energy sources, is a strong accelerator for the decarbonisation process.

A mix of 30% v/v renewable gas in the natural gas used for transport, as expected in 2030 from our projections, can ensure a reduction of CO_2 emissions by 45% on the WtW basis compared to conventional fuels.







RED II

Setting an overall objective of 32%, the new Renewable Energy Directive introduces a sectorial transport target of 14% by 2030. Specifically, biomethane falls under the sub-target dedicated to advanced biofuels which must be at least equal to 0.2% in 2022, 1% in 2025, increasing up to at least 3.5% with the possibility of being double counted. The new text also foresees multipliers for the use of biofuels such as biomethane used in the maritime sector which will be counted 1.2 times.

To be accounted for as such, advanced biofuels must ensure a minimum of 65% GHG emission savings. In addition, the total share of first-generation biofuels consumed per Member State can never be higher than 7% of the gross final energy consumption used in road and rail transport. A proposal is expected by February 2019 to specify which kind of crops will fall under the definition of first generation biofuels, especially considering the ILUC (indirect land use change) impact.

Once the revision will be published, the EU Member States will have to begin translating the general targets into specific domestic policies, measures and actions. NGVA Europe will continue following the next developments closely in partnership with the biofuels sector through the European Alternative and Renewable Transport Fuels (ART Fuels) Forum. Thanks to this platform, industry, academia and institutions have partnered together to enhance and strengthen the understanding of the needs of the ART Fuels sector in view of improving policy understanding and its implementation at the European-level, along with appreciation for market uptake issues.

STARTING FROM 2021, ADVANCED BIOFUELS MUST ENSURE A MINIMUM OF

65%

GHG EMISSION SAVINGS

Clean Vehicles Directive (CVD)

In November 2017, the European Commission proposed a revision of Directive 2009/33/EC on the promotion of clean and energy-efficient road transport vehicles (the Clean Vehicles Directive). This proposed Directive aims to promote clean mobility solutions in public procurement tenders and thereby raise the demand for, and the further deployment of, clean vehicles.

The Commission's proposal simplifies the current procurement procedure by setting minimum targets to be met by 2025 and 2030, and for the first time introduces sustainability requirements into EU public procurement law through, for example, the reduction of CO_2 and air pollutants emitted by publicly procured vehicles. It also establishes a common definition of a clean vehicle for light-duty (cars and vans) and heavy-duty vehicles (buses and trucks).

A broader definition should be adopted in accordance with the Directive on Alternative Fuels Infrastructure (DAFI). It is fundamental to classify all alternatively-fuelled vehicles as currently defined under the DAFI as clean – those are electric, hydrogen, biofuels, synthetic and paraffinic fuels, natural gas (CNG), and liquefied petroleum gas (LPG).

By cooperating with the EU institutions, the commitment of NGVA Europe is to making it clearly understood that clean vehicles, can also contribute to better performance in regards to air-based pollutants when compared to those powered by conventional fuels in those urban areas most strongly affected by air quality issues, and where publicly-procured vehicles are intended to run. At the same time, this would reduce the CO_2 impact thanks to a growing blending of renewables. The new CVD is expected to be finalized beginning-2019.

CLEAN BUS DEPLOYMENT INITIATIVE

In May 2017, the European Commission (DG MOVE) launched an initiative aiming to support the development of clean buses for cities on a large scale. A group of experts among the stakeholders has been tasked with preparing a common document on technologies & trends, their operational impact, integration into city infrastructure, and the procurement of clean buses.

NGVA Europe was part of the working group on technologies & trends. The technical advantages and disadvantages of all alternative fuels and powertrains, including CNG and Bio-CNG, were drafted and summarised.

The Directive on the Deployment of Alternative Fuels Infrastructure (DAFI)

At the end of 2017, the national policy frameworks for the implementation of the deployment of the Alternative Fuels Infrastructure, 2014/94/EU (DAFI) were presented by all EU Member States, excluding Slovenia, Romania and Greece. The national policy frameworks define each Member State's policies for the achievement of the infrastructure targets for 2025 and 2030 set by the DAFI.

For CNG this target represents having at least one CNG station every 150 km by 2020 with a maximum of 600 CNG vehicles per station, while for LNG it represents having one LNG station every 400 km. Further support of infrastructure development is necessary and needed to facilitate a significant penetration of NGVs into what are considered conventional fuels. Infrastructure is further needed for the increased uptake of renewable gas. Below displays the situations for CNG & LNG infrastructure deployment. Overall, NGVA Europe has witnessed a positive trend in CNG & LNG fuelling stations development while the targets set for NGV deployment are necessary.

FUEL PRICE COMPARISON

In May 2018, the European Commission adopted an Implementing Regulation on Fuel Price Comparison, under Article 7 of Regulation 2014/94/EU, which establishes a common methodology to facilitate the comparison of prices of the different fuels in a common unit (euro/national currency), taking into account the energy content of the fuel and the energy efficiency of the vehicle.

Current Situation

CNG	DIESEL	PETROL
€ 1,05/Kg	€ 1,42/L	€ 1,48/L

Additional Fuel Price Information EC Decision

VEHICLE EFFICIENCY €/100 KM

CNG	DIESEL	PETROL
€ 3,57/100 Km	€ 5,54/100 Km	€ 7,40/100 Km

Fuel labelling

From October 2018, fuel station operators and vehicle manufacturers in the EU are obliged by the Directive on the Deployment of Alternative Fuels Infrastructure, 2014/94/EU, to provide information regarding the fuel types available at the fuel station and in the vehicle. These new labels and communications must inform customers regarding the suitability of a certain fuel for use in their vehicle. For gaseous fuels, the diamond shape has been retained. More information can be found on www.fuel-identifiers.eu

Energy Taxation Directive

Council Directive 2003/96/EC sets minimum levels of taxation for energy products and electricity used as motor fuel or heating fuel and electricity. It defines what exemptions and reductions to the Member States' standard rates are allowed and under which conditions. The objective is to ensure that the internal market operates smoothly and avoid double taxation or major distortions of trade and competition between energy sources, consumers and suppliers. In the public consultation open during part of 2018, NGVA Europe made sure that the same conditions for natural and renewable gas of the Directive currently in force will be maintained while a more general principle of balanced reductions and exemptions system among types of energy must be guaranteed. By recognizing the essential role of taxation in the promotion of green energy, new, upcoming technologies like Power-to-gas need to be included according to their specific energy features.

How we work

BRUSSELS REPRESENTATIVES NETWORK

NGVA Europe's political activities are performed in close cooperation with the Brussels Representatives Network (BRN). The BRN includes members and close partners which are active in Brussels. Thanks to regular meetings, we ensure coordinated actions while exchanging a constant flow of information regarding the latest policy developments. The information sharing ensured by the group contributes to the effectiveness of the undertaken actions and the consistency of messages, for example those aimed towards the European institutions.

06

Technical developments

How we work

ZERO VENTING TARGET POLICY GROUP

Looking more specifically to the transport sector, NGVA Europe created a working group for a NGVA Europe Zero venting target with the objectives of:

- **Collecting information on state-of-the-art technology, issues and solutions for reducing methane emissions for vehicles and CNG & LNG stations**
- **Prepare documents on a zero venting target policy for the industry**

Standards and developments

Standardisation CNG/LNG

In April 2018, two European standards for CNG & LNG fuelling stations were published by CEN TC 326 to increase interoperability in the EU for CNG & LNG vehicles. The standards are the EN ISO 16923:2018 for CNG stations and the EN ISO 16924:2018 for LNG stations. Both standards have a European foreword displaying the EU's representative standards and Directives. An EU delegated act has been published to ensure the interoperability of CNG & LNG vehicles by ensuring standardised: fuelling connectors and receptacles, filling pressures, fuel quality and fuel labelling. Drafts have been prepared for CNG home fuelling appliances and operations on CNG vehicles throughout their lifetime.

NGVA Europe is also active on the supervisory board for research led by GERG, funded by Horizon 2020, on removing the technical barriers to uses of biomethane in the gas network. This research has focused on the impact of siloxanes engines and boilers, the impact of sulphurs on catalysts, oxygen's impact on underground storage, and the health impact of contaminants found in biomethane. The reports will be published under CEN TC 408: natural gas and biomethane for use in transport and biomethane for injection in the natural gas grid.

UNECE R110 – Regulation for CNG & LNG vehicles and components

Changes in regulation R110 in the UNECE for CNG & LNG vehicles are to be expected. To monitor and participate in the discussion, NGVA Europe has been active in multiple task forces and meetings for the upcoming UNECE, and is working close together with NGV global and stakeholders.

Methane emissions

Natural gas operations account for 5% of the total methane emissions in the atmosphere at the European level. Because of the contribution from methane as greenhouse gas, emissions from natural and renewable gas production, transmission, distribution and also its use as transport fuel need to be researched and mitigated. For this reason, numerous initiatives are already in place, such as the voluntary Oil & Gas Climate Initiative (OGCI), which addresses the entire oil and gas chain and has invested more than 1 billion Dollars to diminish the carbon footprint from the sector. Additionally, through the LNG protocol, recently joined by NGVA Europe (see chapter 7), members collaborate to develop the methodologies and procedures to reduce methane leakage into the atmosphere.

HORIZON 2020

Horizon 2020 is the largest EU research and innovation programme ever with nearly €80 billion of funding available over a 7-year period (2014 to 2020). Within Horizon 2020, several projects are focused on the further innovation of NGVs, from a more efficient heavy-duty LNG engine with more range, direct injection and hybridization for CNG passenger vehicles or research and innovation on the optimised use of renewable gas in vehicles.

EU funding

LNG Blue Corridors

After five years, the LNG Blue Corridors project has been finalised. Thanks to EU support, 12 LNG stations have been built and, 140 LNG trucks have driven over 31.6 million kilometres, consuming 14.5 million kg LNG and performing 112 thousand fillings.

The final conference was held at the European Commission on 20 April 2018. Project coordinators from the project presented the final results in the morning while in the afternoon presentations were given on different LNG fuelling station developments including Bio-LNG production and LNG use in maritime applications.

In Europe there were only 50 LNG stations when the project was launched, but now there are 155 LNG stations. The LNG Blue Corridors project has been the perfect example of a grassroots project. The figures below demonstrate the evolution in the distances travelled during the project. It is clear that with more powerful engines, more range, and more LNG stations, LNG trucks are now travelling throughout the whole of Europe.

TEN-T Days - Ljubljana

NGVA Europe attended with its members the TEN-T Days – Connecting Europe – event in Ljubljana this year. The event, organised by the EU Commission, aimed to foster discussions around future solutions for smart, sustainable and safe mobility within the framework of the Trans-European transport network, addressing the development of the EU infrastructure needed to sustain future models of mobility.

Natural gas mobility, particularly through renewable gas, was showcased at the outdoor expo area by the complete CNG/LNG fleet and through several CEF projects that had been presented during the event; NGVA Europe presented all of the CEF projects that were related to CNG & LNG fuelling station developments with members.

LNG STATIONS 2017

155

LNG VEHICLES REGISTRATION

1.642

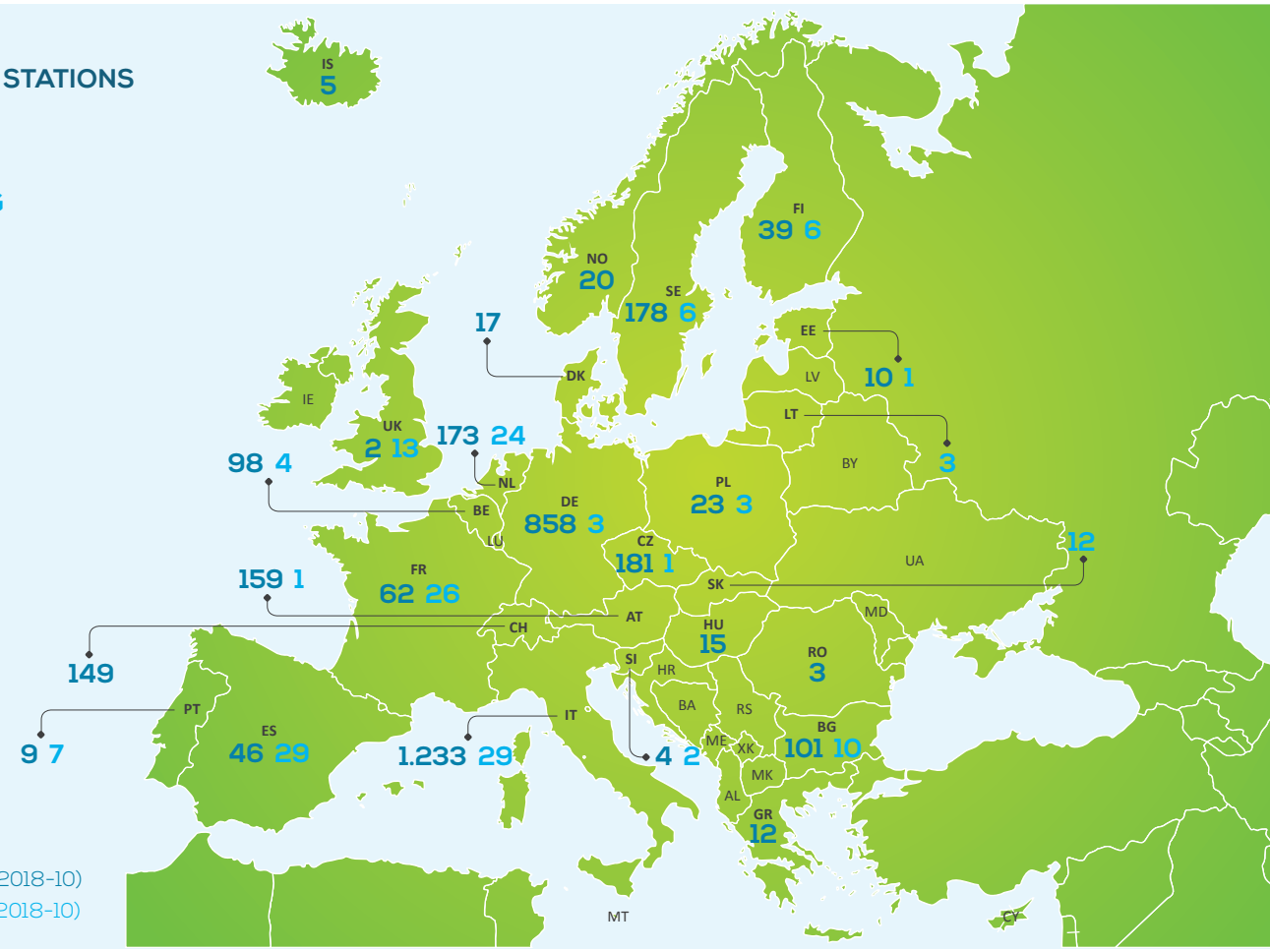
Market developments

Infrastructure development

In 2018, as NGVA Europe, we refer to EAFO and ACEA data for registrations and fleet size for NGV vehicles. In 2017, a total of 51.000 passenger vehicles (PCV) and over 8.100 light commercial vehicles (LCV) were registered. Furthermore, 159 new CNG buses and 482 CNG trucks were registered. Very positive numbers have been seen for LNG trucks with 1.642 registrations. CNG stations saw a steady growth to over 3.400 stations until the end of 2018 and a significant growth from 100 to 155 LNG stations until the end of 2018.

CNG & LNG STATIONS IN EUROPE

CNG	LNG
3.238	155



CNG STATIONS 2017

3.412

CNG VEHICLES REGISTRATION

60.000

NATURAL GAS VEHICLES & STATIONS IN EUROPE (EU+EFTA) 2017

	CNG PCV	CNG LCV
AUSTRIA	180	100
BELGIUM	2.502	613
BULGARIA	n/a	n/a
CZECH REPUBLIC	2.890	457
DENMARK	47	n/a
ESTONIA	40	1
FINLAND	433	10
FRANCE	540	n/a
GERMANY	3.723	591
GREECE	335	n/a
HUNGARY	7	n/a
IRELAND	n/a	n/a
ITALY	32.740	3.827
LATVIA	8	n/a
LITHUANIA	n/a	n/a

	CNG PCV	CNG LCV
NETHERLANDS	1.128	155
POLAND	10	n/a
PORTUGAL	7	4
ROMANIA	n/a	n/a
SLOVAKIA	123	n/a
SLOVENIA	47	24
SPAIN	1.229	n/a
SWEDEN	3.926	2.367
UNITED KINGDOM	n/a	n/a
ICELAND	340	17
SWITZERLAND	760	n/a
NORWAY	40	n/a
EU	**49.915**	**8.149**
EU EFTA	**51.055**	**8.166**

Source: EAFO and ACEA 2018

07

Working together

GasNaturally

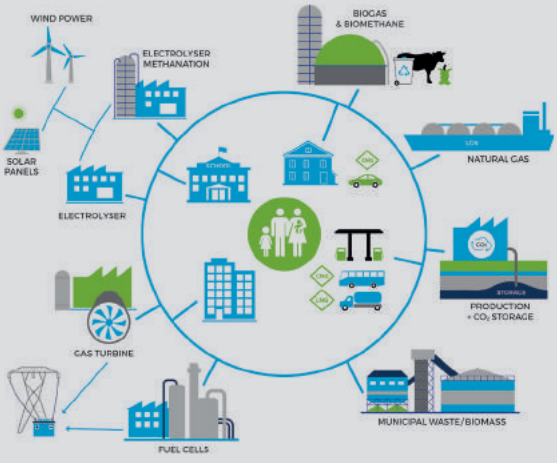
These associations together represent the entire European gas value chain – from exploration and production to transmission, from distribution to transportation.

GasNaturally provides a unique framework wherein the transport sector can find the right role to play: starting from natural gas as a primary energy source and moving on to its fuel 'dimension', the role of gas infrastructure becomes fundamental for both CNG and LNG applications.

GasNaturally published a manifesto at the end of October 2018 (https://www.gasnaturally.eu/mediaroom/180/39/Press-Release-Gas-industry-Manifesto-lays-down-contribution-to-EU-climate-efforts). Among the core messages of the document is the importance to ensure flexibility of the gas infrastructure for increased uptake of renewable gases and to storing vast amounts of energy. This is an additional demonstration concerning the benefits of the already-existing gas network as the backbone of the future EU energy system.

NGVA Europe is part of GasNaturally – a platform of six associations promoting the role of gas among EU stakeholders.

eurogas
GERG groupe européen de recherches gazières the european gas research group
gie Gas Infrastructure Europe
International Association of Oil & Gas Producers
marcogaz
NGVA Europe



LNG protocol/Maritime sector

Looking not only to the strategic role of LNG for long haulage road transport, but also to the future role of LNG in the maritime sector, NGVA Europe was invited to join the 'LNG Protocol' in February 2018. The objective of this Protocol is to establish guidelines for co-ordinating the activities of, and the exchange of information concerning LNG among, the Protocol Members.

Under the coordination of GIIGNL, Members of the Protocol are Eurogas, GLE, IGU, Marcogaz, SeaLng, Sigtto, Sgmf. These members cover a wide and varied set of interests in the LNG domain. This year's exchanges have identified several common topics where joint efforts and synergies have been beneficial. Themes related to gas quality, properties, procedures to control and minimize methane emissions, evaluation at the Well-to-X level in addition to LCA (Life Cycle Analysis) are on the agenda of all organisations. Moreover, opportunities within the Horizon 2020 framework programme to support R&D projects have also been analysed together, with an eye on different actions devoted to the maritime sector.

How we work

NATIONAL CORNER COMMITTEE

This relatively new initiative aims to collect information on a regular basis from EU countries regarding available incentives, projections for vehicle and infrastructure development, and implementation of different Directives, with a main focus on the National Policy Frameworks outlined in the DAFI (Directive of Alternative Fuels Infrastructure) by the different Member States.

The committee meets once per quarter to discuss these important developments, with a summary of the main highlights along with the completed database provided to all members of NGVA Europe.

Main collaborations

NGVA Europe is collaborating with several important partners on a daily basis. These relationships with other organisations are important pillars that provide the association with the opportunity to exchange information and participate in a variety of working groups, all relevant to the future development of gas in transport.

ACEA European Automobile Manufacturers Association
ARTFuels
BUSINESSEUROPE
CEER Council of European Energy Regulators
Concawe
CREG
eafo European Alternative Fuels Observatory
EBA European Biogas Association
EFOA The European Fuel Oxygenates Association
ePURE european renewable ethanol
ERTRAC
eucar
eurogas Fuelling the future
FuelsEurope REFINING PRODUCTS FOR OUR EVERYDAY LIFE
gie
IRU
Joint Research Centre JRC
Liquid Gas Europe

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Events and activities

From participating and presenting at conferences with hundreds of people or in-house workshops, to events at the European Parliament, the NGVA Europe Team ensured representation of its members' interests accross a wide range of events in Brussels and beyond.

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About us

Executive Committee

The Board of Directors currently consists of 33 members and meets at least three times per year to define the priorities, strategy and annual budget of NGVA Europe, which is then submitted to the General Assembly for approval. An overview of their associated companies can be found at the backpage of this report.

The Board of Directors elects an Executive Committee consisting of the President, the Senior Vice-President, the Secretary and three Vice-Presidents, as well as the Financial and the Election Committees.

Philippe Van Deven
General Director

ENGIE

Timm Kehler
General Manager

Zukunft ERDGAS

Nadège Leclercq
Director, Market Development

Westport Fuel Systems

José Luis Pérez Souto
Product Development &
Engineering Innovation Truck & Bus.
Alternative fuels

IVECO

Lennart Pilskog
Vice-President
of NGV GLOBAL

VOLVO

Emil Glimaker
Air Liquide Advanced Business
Managing Director
for the Nordic countries

FordonsGas

Air Liquide
creative oxygen

Staff

Andrea Gerini
Secretary General

Martina Conton
EU Policy Manager

Erik Postma
Technical and Regulatory Affairs Manager

Kaloyan Tsilev
EU Affairs Manager

Robin Hörrmann
Communication & Events Officer

Isabella Picerno
Management Assistant

Jelila Laouiti
Management Assistant

Flavio Mariani
Technical Advisor

Members

AFGNV (France) - **AGA Gas** (Sweden) - **Agility Fuel Solutions Norway** (Norway) - **Altfuels Communications Group** (Italy) - **Applus + IDIADA** (Spain) - **APVGN** (Portugal) - **Association of Alternative Fuels and Infrastructure** (Lithuania) - **Assogasmetano** (Italy) - **Associazione MetanoAuto** (Italy) - **Audi AG** (Germany) - **Avtometan** (Bulgaria) - **Axegaz** (France) - **Bauer Compressors** (Germany) - **Bohlen & Doyen** (Germany) - **Bonett Gas Investment** (Czech Republic) - **Bosch** (Germany) - **Brugg** (Germany) - **Chart Ferox** (Czech Republic) - **CIB – Consorzio Italiano Biogas** (Italy) - **Clean Energy Compression** (Canada) - **CNG Fuels** (UK) - **Croatian Chamber of Economy** (Croatia) - **Cryonorm Systems B.V** (The Netherlands) - **Cummins Ltd** (UK) - **Czech Gas Association** (Czech Republic) - **Daimler** (Germany) **B.o.D. Member** - **Danish Gas Center** (Denmark) - **Dats 24** (Belgium) - **NGVA Romania** (Romania) - **DEPA** (Greece) - **DNV GL** (The Netherlands) - **Dourogas** (Portugal) - **Drive Systems** (Belgium) - **DVGW** (Germany) - **E.ON Gas Mobil** (Germany) - **E.ON Gas Sverige** (Sweden) - **EMPA** (Switzerland) - **Enagas** (Spain) - **Energy Institute Hrvoje Požar** (Croatia) - **ENI** (Italy) - **Enos LNG** (Slovenia) - **Faber Industrie** (Italy) - **FCA Italy** (Italy) - **Federmetano** (Italy) - **FGW** (Austria) - **Finnish Biogas Association** (Finland) - **Fluxys Belgium** (Belgium) - **FordonsGas Sverige** (Sweden) - **Galp Power** (Portugal) - **Gas.be (Belgium)** - **Gas Network Ireland** (Ireland) - **GasCom Equipment** (Germany) - **Gasfin** (Luxembourg) - **GasLiner** (Latvia) - **Gasmobil** (Swizerland) - **Gasnam** (Spain) - **Gasrec** (UK) - **Gasum** (Finland) - **Gazprom** (Russian Federation) - **Gibgas** (Germany) - **GNVert/Engie** (France) - **GRDF** (France) - **GRTgaz** (France) - **Ham Criogénica** (Spain) - **Hexagon Xperion** (Norway) - **Hezelburcht** (The Netherlands) - **IAV** (Germany) - **Idro Meccanica** (Italy) - **Ingenieurbüro van Schoonhoven** (Germany) - **IVECO/CNH Industrial** (Italy) - **JP Srbijagas** (Serbia) - **Landi Renzo** (Italy) - **Linde** (Germany) - **LNG & CNG Association of Turkey** (Turkey) - **Luxfer Gas Cylinders** (UK) - **Lyse Neo** (Norway) - **Mabanaft** (Germany) - **Magna Steyr Fuel Systems** (Austria) - **Maritime LNG Plattform** (Germany) - **Mattheuws Eric Transport** (Belgium) - **Metan** (Iceland) - **Metatron** (Italy) - **MGKKE** (Hungary) - **National Grid Grain LNG** (UK) - **National LNG Platform/Deltalinq** (The Netherlands) - **Energi Fyn Energihandel** (Denmark) - **Naturelgaz** (Turkey) - **Naturgy** (Spain) - **NGV Italy** (Italy) - **NGV Network** (UK) - **Noordtec** (Germany) - **Norsk Gassforum** (Norway) - **Officine Meccaniche Ruzza** (Italy) - **OrangeGas** (The Netherlands) - **Parker Hannifin** (UK) - **PitPoint** (Netherlands) - **Polish LNG Platform** (Poland) - **PRF** (Portugal) - **Prima LNG** (Belgium) - **Pro Danube** (Austria) - **Providiris** (France) - **PTEC** (Germany) - **RAG Rohöl-Aufsuchungs Aktiengesellschaft** (Austria) - **RegO** (Germany) - **Renault** (France) - **Rolande LNG** (Netherlands) - **Safe** (Italy) - **Sauer Compressors** (Germany) - **Scania** (Sweden) - **Schwelm Anlagentechnik** (Germany) - **Shell** (The Netherlands) - **Snam** (Italy) - **Bioway** (Slovakia) - **Statebourne Cryogenics** (UK) - **Swagelok Company** (USA) - **Swiss Gas and Water Association** (Switzerland) - **Taleco** (UK) - **Teksergaz** (Turkey) - **The Swedish Gas Association** (Sweden) - **Total** (France) - **Transport & Travel Research** (UK) - **Transportes Monfort** (Spain) - **TÜV Saarland Automobil** (Germany) - **Uniper** (Germany) - **Vandotec** (Belgium) - **Vanzetti Engineering** (Italy) - **Ventrex Automotive** (Austria) - **Vitkovice Milmet** (Poland) - **Volkswagen** (Germany) - **Volvo** (Sweden) - **Vos Logistics** (The Netherlands) - **VTI** (Germany) - **WEH GmbH Gas Technology** (Germany) - **Westport Fuel Systems** (France) - **Worthington Industries** (Poland) - **Zukunft ERDGAS** (Germany)

BoD members
New members
BoD members + new members

Zukunft ERDGAS

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