



# World LPG Association

Annual Report 2016



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# 2016 in Brief

## Goals

### In 2016 the WLPGA's activities were aimed at:

- Demonstrating the benefits of LPG and informing, educating and influencing a variety of stakeholders.
- Supporting the development of LPG markets.
- Promoting compliance with standards, good business and safety practices.
- Identifying innovation and facilitating knowledge transfer.

### An overview of the main highlights of 2016:

#### Cooking For Life

Cooking For Life is a major WLPGA campaign that aims to convert one billion people from cooking with traditional fuels to cooking with LPG by 2030. Launched in 2012, the campaign continues to advance and produced a major report on opportunities for LPG in humanitarian settings.

#### Communications and Exceptional Energy

The global rollout of the Exceptional Energy brand continues to remain a major initiative for the WLPGA. In 2016, emphasis was very much on an enhanced digital strategy campaign with a focus on a successful social media campaign (#ExceptionalNRG) and the release of new print and video case studies ([www.wlpga.org](http://www.wlpga.org)).

## The Global Technology Network (GLOTEC)

GLOTEC supports industry growth through the promotion of new technologies and innovation. During 2016, GLOTEC produced four important reports, continued the development of Exceptional Energy in Action, expanded the online LPG applications database ([www.lpg-apps.org](http://www.lpg-apps.org)) and continued its work on standards harmonisation.

## The Global Cylinder Network (GCN)

GCN is a network dedicated to sharing expertise and best practices on how to manage and develop cylinder markets worldwide, as well as to promote best safety and maintenance practices. In 2016, GCN produced a key report on managing the life extension of cylinders.

## The Global Autogas Network (GAIN)

GAIN is the only worldwide network that represents Autogas via lobbying and raising awareness. In 2016, GAIN continued its engagement with OEMs and implemented an upgraded communications strategy.

## Women in LPG Global Network (WINLPG)

Launched in 2015, WINLPG aims to support and help empower women in the global LPG industry. In this inaugural year, the focus was to raise awareness of the network within the industry itself and set up an operational network. Highlights included a Knowledge Exchange Workshop in Colombia and the launch of national chapters in South Africa and Nigeria. #WINLPG

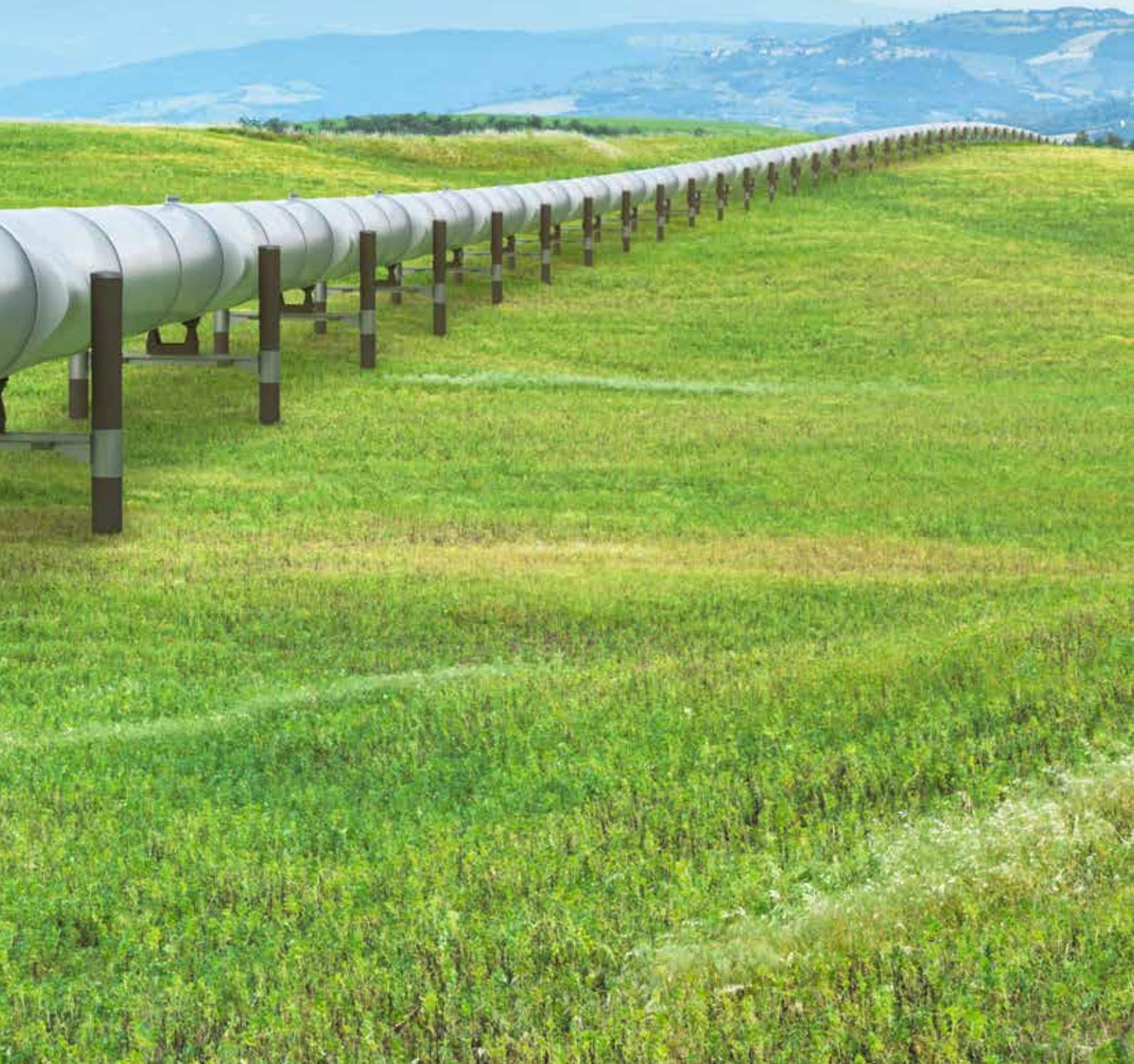
## World LPG Forum

The 29<sup>th</sup> World LPG Forum took place in Florence and was a combined event with the 2016 AEGPL Congress under the theme 'A Bridge to The Future'. The event united around 1,800 participants from 113 countries with some 120 exhibiting companies and provided exceptional networking, learning and business opportunities.

# Production

LPG has two origins: approximately 60% is recovered during the extraction of natural gas and oil, and the remaining 40% is produced during the refining of crude oil. LPG is thus a naturally occurring by-product.

If LPG is not used, it is destroyed through venting or flaring (i.e. the burning off of unwanted gas), wasting the full potential of this exceptional energy source.



## Foreword from the President

### Dear Members and Friends of the World LPG Association,

It is my honour and pleasure in my second year as President of WLPGA to offer this foreword to the 2016 Annual Report.

In 2016, the LPG industry has been characterised by three continuing and strengthening trends – strong production, matched by solid demand and sustained lower international prices. These three developments together impact the industry in significant ways and thus present special challenges to the WLPGA in meeting the expectations of its members and in fulfilling its role as the global voice of the LPG industry. In addition, COP21 agreements and goals on environmental sustainability have enriched our vision for the future of LPG.



To face these challenges WLPGA in 2016 launched a number of programmes and initiatives including finalising a new three year strategic review which sets out the strategy for WLPGA's operating activities in the period from 2017-2019.

The association also kept its core focus on communications and positioning LPG at national, regional and global levels to ensure that the industry is fairly represented and supported. And in both developing and developed countries alike, WLPGA supported the growing use of Autogas, now broadly recognised as the third most widely used transportation fuel in the world.

Through its 'Cooking For Life' campaign, WLPGA continued to work with members in developing countries where recognition of the benefits of LPG is going hand in hand with large numbers of people switching from cooking on biomass to LPG.

Publishing documents is one of the key areas where WLPGA creates significant value added to the industry. In addition to the update of our regular documents on best practices and latest developments in the LPG industry, we also prepared reports on developments in the LPG industry at a regional level. Additionally, we published *Opportunities for LPG Use in Humanitarian Settings*, an area which LPG has great potential to make a difference.

Our network groups and committees continued to work on promotion of new LPG appliances and communicating the innovations of the LPG industry.

It is also notable that membership kept increasing with new countries being added to the ledger thus broadening the association's global footprint and influence. Additionally, 2016 saw the first major WLPGA event held in the Oceania region for over 25 years. The "Exceptional Energy for Australia, New Zealand and the Pacific Islands" Regional Summit on Australia's Gold Coast was highly successful.

WLPGA also continued its core work of collating and presenting industry best practices and standards as well as highlighting emerging new technologies that demonstrate to one and all the flexibility and adaptability that give LPG global recognition as an exceptional energy.

Our annual Forum, which sadly had to be moved from its original venue, was nonetheless a successful showcase of our industry and our global reach and vision. Once again I would like to thank all WLPGA members, friends and the hard working management and staff of the association for rising up to the challenges of 2016 with such infectious enthusiasm and unwavering commitment to making sure that WLPGA and the global industry that it represents continue to prosper and flourish.

Warm regards,

**Yağız Eyüboğlu**, President, WLPGA

# Transport

LPG is transported to storage terminals by large LPG carriers, pipelines or by rail. These storage terminals then act as hubs for local distribution.



## Managing Director's Report

The energy industry is in a significant period of change. Oil prices, and consequently LPG prices, remained low in 2016 during which period LPG production continued to grow. We have seen large deferrals of capital expenditure by oil and gas producers while at the same time there have been record investments in clean energy as governments recognise the impact of energy on climate and health. The challenge and the opportunity for the LPG industry in this period of change is to be recognised as a clean, modern energy that can meet the demands of a growing global population without compromising our environment. The WLPGA welcomes the opportunities that these trends offer and we are redoubling our efforts to ensure that the voice of LPG is heard in energy debates across the world.



At the end of 2016 the LPG industry is very well positioned. We have growing and diversified sources of supply with a strong rise in global LPG production, particularly from the USA. A key development in 2016 was the expansion of the Panama Canal, allowing VLGC's to serve Asia from the USA, providing greater product availability into the growing Asia-Pacific markets. During 2016 LPG consumption increased by 3.7%, compared with just a 1% growth in primary energy demand. This growth has been across all sectors and has been driven by lower prices but also through specific campaigns such as that of the Government of India which has strongly supported and stimulated Indian household LPG consumption growth.

Looking at our activities and results, 2016 was another good year for the WLPGA. In this final year of our current three year strategic plan, we successfully completed the objectives that we set ourselves. Specifically, we have made good progress in developing our relationship with the natural gas industry where we see a great number of synergies and common opportunities. Our Cooking For Life programme produced a major new study on the role of LPG in humanitarian settings while our technical working groups have focused on the LPG as a fuel for power generation and heavy duty engines. Autogas, LPG as a transport fuel, continues to grow and in 2016 WLPGA produced an update to its flagship report on Autogas Incentive Policies. Our membership grew strongly in 2016 – well in excess of our targets, demonstrating clearly the importance and value of the WLPGA to the LPG sector.

In preparation for the coming period, WLPGA has completed a new strategic review for 2017 – 2019 entitled *Growing influence, Increasing impact* in which we set out our planning for the next three years as we respond to the challenges and opportunities of the global energy industry.

The WLPGA is unique. We are the global voice of the LPG industry and we deliver significant value to our members and the LPG sector more broadly. Whatever your businesses; join us, contribute and benefit from the leading global LPG network that is the WLPGA.

**James Rockall**  
CEO and Managing Director, WLPGA

[jrockall@wlpga.org](mailto:jrockall@wlpga.org)  
[@james\\_rockall](https://twitter.com/james_rockall)

# About the Industry

## WE NEED ACTION ON AIR QUALITY...



Some **3 million** deaths a year are linked to exposure to outdoor air pollution.



Nearly **90%** of air-pollution-related deaths occur in low- and middle-income countries.

In 2012, **11.6%** of all global deaths were associated with indoor and outdoor air pollution together.

## LPG OFFERS A SOLUTION. TODAY.



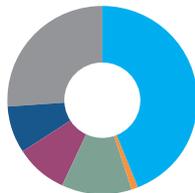
LPG changes lives by offering smoke-free indoor cooking and used as fuel for industry, cooking, heating, transport or any of the 1000s of other applications, it can make a real difference to outdoor air quality.

## LPG IN 2015...

Global LPG production rose by **4%** compared to 2014.



## LPG CONSUMPTION BY SECTOR IN 2015:



- Domestic 44%
- Agriculture 1%
- Industry 12%
- Transport 9%
- Refinery 8%
- Chemical 26%

## TOP 3 PRODUCERS...

U.S. **+9.3%**

China **+9.0%**

Saudi Arabia **+1.6%**



## ... AND CHANGE COMPARED TO 2014...

**↑ 1,214%**  
Ghana's LPG production

**↑ 11%**  
U.S. Autogas demand

**↑ 9%**  
Autogas demand in Turkey

**↑ 19.8%**  
LPG demand in Sri Lanka

**↓ 24.3%**  
LPG demand in U.K.

**↑ 6.2%**  
LPG demand in India

## WHAT DO WE USE LPG FOR?

**68%** of all LPG used in South & Central America is used at home...



**85%** of which, is mainly used for cooking.

**60%** of all LPG used in Agriculture is used in the US and Canada.



**50%** of all LPG used for domestic applications is used in Asia.



# About the WLPGA

## Vision & Mission

The WLPGA is the authoritative voice of the global LPG industry representing the full LPG value chain. The primary aim of the association is to add value to the sector through driving premium demand for LPG, while also promoting compliance to good business and safety practices. It brings together private and public companies involved in one, several or all activities of the industry, it develops long-term partnerships with international organisations and implements projects on local and global scales. The association was established in 1987 and granted Special Consultative Status with the United Nations Economic and Social Council in 1989.

### The World LPG Association Vision

The WLPGA promotes the use of LPG to foster a safer, cleaner, healthier and more prosperous world.

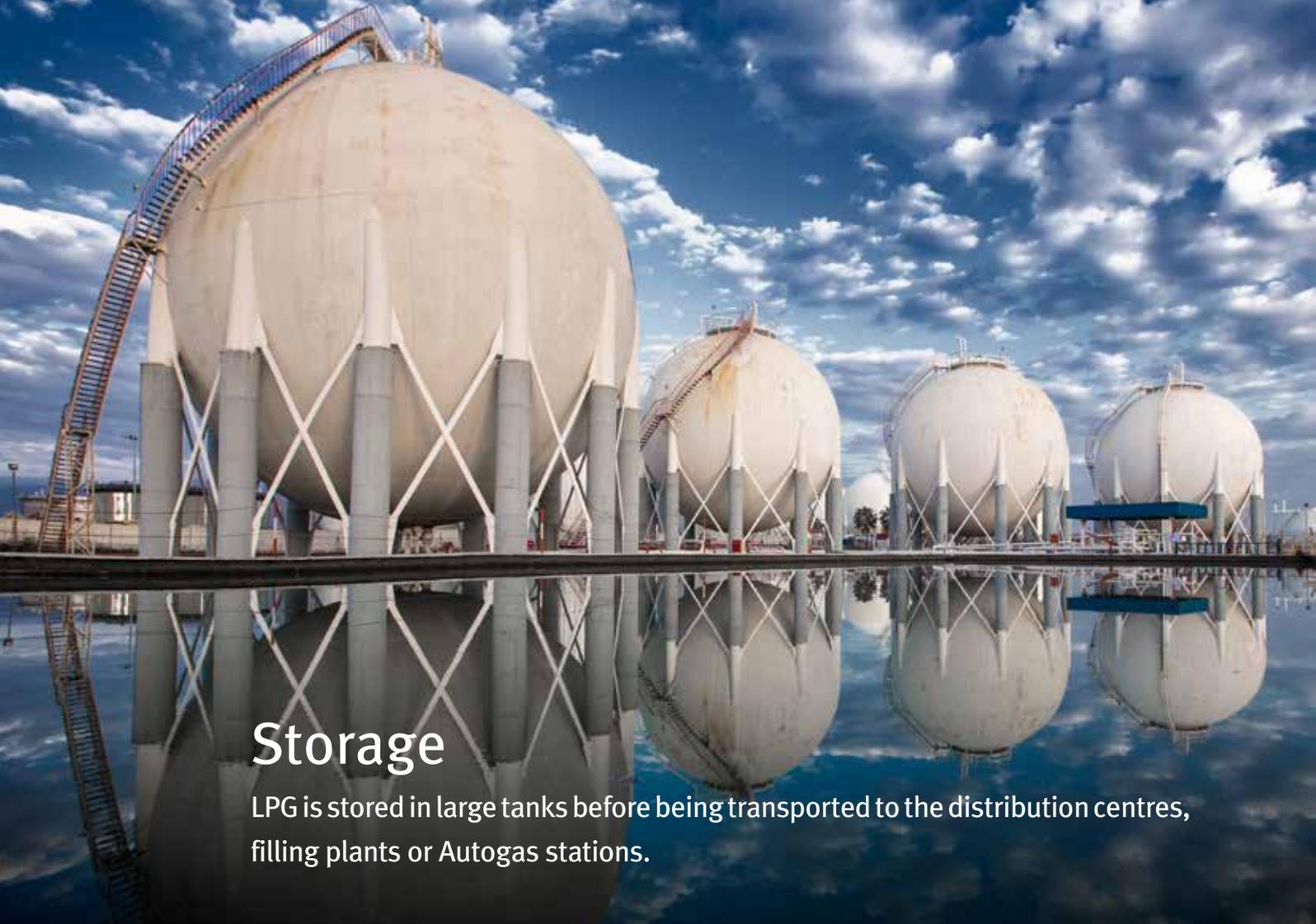
### The World LPG Association Mission

- Demonstrate the benefits of LPG and inform, educate and influence all stakeholders.
- Support the development of LPG markets.
- Promote compliance with standards, good business and safety practices.
- Identify innovation and facilitate knowledge transfer.



“UGI values the WLPGA and its role in effectively communicating the unique benefits of LPG to the environment and to improving people's lives. The WLPGA provides an excellent platform to help shape the future of cleaner energy globally.”

**Roger Perreault**  
President, UGI International



## Storage

LPG is stored in large tanks before being transported to the distribution centres, filling plants or Autogas stations.

## Benefits to Members

The WLPGA is the global voice for the LPG industry, uniting the broad interests of the worldwide LPG industry into one strong independent organisation that spans the world. Because it is the WLPGA members that drive the association, we offer them the best range of benefits:



### NETWORK

The WLPGA is a growing leadership network with some 250 members operating in over 125 countries. The WLPGA network brings together leaders of organisations from the entire LPG value chain including, since 2010, observer members from academic bodies, inter-governmental organisations, NGOs and national governments.

### Access

The WLPGA members have access to the largest LPG industry focused network in the world which gives them an opportunity to present their position to the entire industry. With members strategically located around the world and by organising regular regional and global events, the WLPGA is an effective platform for

members to meet, exchange information and experiences and explore new business opportunities in both mature and developing LPG markets.

### WLPGA Matrix Day

WLPGA has member driven working groups which provide space for discussion, sharing ideas and new technologies for the development of the global



Contact: **Laurence Poret**  
Member Relations Manager  
[lporet@wlpga.org](mailto:lporet@wlpga.org)

LPG businesses. All groups provide the LPG community with a valuable platform to share local experience, innovative solutions and network with members who share specific topics. WLPGA will hold three Matrix Days each year which will enable these groups to hold in-depth discussions.

#### ■ Women in LPG Global Network (WINLPG)

WINLPG was launched in September 2015. The network's mission is to support and help empower women in the worldwide LPG Industry by leadership, coaching, mentoring and promoting role models. WINLPG aims to bring women, and men, together across all business sectors, ages and levels to discuss and support the

development of diversity within the LPG Industry. All members are welcome to join.

#### ■ Annual World LPG Forum

The annual World LPG Forum has become the most important event in the calendar for the LPG industry, attracting hundreds of exhibitors, and thousands of delegates each year. The event, attended every year by top executives of the LPG industry from around the world, gives WLPGA members an excellent opportunity to meet "everyone you need to know" in the LPG sector, and beyond. The WLPGA offers its members preferential treatment during the conference, including the possibility to network at the annual Members' Dinner.



"As 2016 started we had just seen the signing of COP 21 by 177 parties. That made it the largest ever international agreement signed on one day. This means that issues surrounding energy and climate change will, inevitably, be increasingly discussed from a global perspective. It is therefore more important than ever that the LPG sector is strongly represented to key international stakeholder groups. The WLPGA undertakes this role and I am especially encouraged by its enhanced focus on a more outward looking approach for the future. SHV Energy is pleased to support this association and looks forward to working with colleagues to position LPG as a cleaner, lower carbon fuel for every continent."

**Fulco van Lede**  
CEO, SHV Energy

## INFORMATION

One of the key goals of the WLPGA is to inform and educate all stakeholders about the benefits of LPG. The WLPGA offers its members an opportunity to exchange views on the upstream and downstream parts of the LPG business, by regularly organising interactive meetings and in-country workshops between technical experts, senior members and key stakeholders. The WLPGA is also able to foster extended influence by offering its members a highly credible source of information to enable members in their own lobbying and outreach initiatives.

#### ■ Business Contacts for Members & Member Queries

The WLPGA provides its members with a permanent query service, covering such topics as: fuel specification standards, equipment standards, consulting firms, engineering firms, regulations, safety rules, model taxation policies, new business contacts, new technologies, etc.

#### ■ Member Contact Information

The WLPGA maintains an up-to-date Member Directory with full contact details of all members of the WLPGA. This directory is also available as a Smartphone application for a real time networking capability.



"As an association executive focused on the French LPG industry, the global network offered by the WLPGA to its members is a wonderful place to open the eyes on other ways of thinking "our gas"! Listening, sharing, learning from other through the different events like GLOTEC, GAIN or of course the World Forum is one more opportunity to deliver a better job to my members."

**Joel Pedessac**  
Directeur Général  
Comité Français du Butane et du Propane



“It was a challenge and an honor to take part in the strategic review. Establishing priorities for a global organisation is difficult yet necessary to foster alignment among diverse perspectives to identify opportunities, set mutual goals, and ensure the free flow of knowledge and ideas among members. Given the ever-changing energy climate, it was vital to take a critical look at our strengths and weaknesses and readjust our path so that we are all driving to grow our industry.”

**Grace Willis**

Director of Operations, PERC

#### ■ **Members’ Only Extranet**

The WLPGA provides a members’ only password-protected and customer-oriented web service. This online information system contains data, reports and relevant links, allowing members to access information in a sustainable way.

#### ■ **Exceptional Energy Industry Toolkit**

Exceptional Energy is the brand developed by WLPGA to raise awareness of the exceptional benefits of LPG amongst policymakers, industry and consumers. WLPGA members are encouraged to adopt the brand logo and become part of the Exceptional Energy family. WLPGA members have access to the complete branding toolkit which comprises a comprehensive range of branding graphics and resources.

#### ■ **Cooking For Life Toolkit**

To support the Cooking For Life campaign, members also have unique access to a full campaign toolkit including a suite of advertisements, posters, and fact sheets. Members are encouraged to support the campaign by downloading and using this collateral.

#### ■ **Members’ Only Reports**

The WLPGA publishes reports for exclusive distribution to its members.

#### ■ **Email Reports/Newsletters**

The WLPGA issues regular activity and news reports via email, updating all members on WLPGA actions, achievements, Board and Industry Council meetings, projects, new international developments and external representation. The Voice, Forum Voice and

Autogas Updates newsletters are sent industry-wide and members benefit from dedicated newsletters such as Insider.

#### ■ **Global LPG Statistics**

Members receive one free copy of the WLPGA Statistical Review of Global LPG, the highly referenced annual publication used throughout the industry, providing LPG production and consumption data for more than 100 countries around the globe.

#### ■ **Publications**

Members receive one free copy of all new publications. Publications such as the annual WLPGA Statistical Review of Global LPG and WLPGA Guidelines on Good Business and Safety Practices are the global industry reference points.

## EDUCATION

Investing in knowledge building among members and in educating key stakeholders is an important part of the WLPGA's work.

### ■ Workshops & Training Courses

The WLPGA regularly organises interactive workshops and courses between technical experts, members and key stakeholders to demonstrate the benefits of LPG.

Members are entitled to participate at preferential rates.

### ■ Special Projects for Members

The WLPGA coordinates specific custom-made projects for consortiums of at least three members.



"The relationship between the Association and my company dates back to 1991 when I attended the 3<sup>rd</sup> Forum in Rio de Janeiro. My company became a member of the Association 12 years later when late Mr. Kamikozuru, the founder of the company and president, made a technical presentation on propane-air gas process for town-gas use which was invented by him at the 16<sup>th</sup> Forum held in Santiago, Chile in 2003. I am confident that both the membership of the Association and the participation in the Forum is not only the exceptional sources of valuable information related to LPG in the world but is also a very productive avenue for the globalisation of the company, the demonstration of corporate identity, and the construction of business relationship with the world's propane distributors and stakeholders."

**Mayumi Uezono**  
CEO & Representative  
Koagas Nihon Co.

## INFLUENCE

The WLPGA develops partnerships with influential international bodies which enables it to address major issues with key stakeholders such as policy-makers and key opinion leaders.

### ■ Access to International Institutions

Membership brings members direct access to intergovernmental organisations, only possible through an independent organisation such as the WLPGA. The WLPGA has a Special Consultative Status with the United Nations. It also has partnerships with several major international institutions including, the World Bank, the

Asian Development Bank and the International Energy Agency.

### ■ Global Leadership Position

The WLPGA unites the broad interests of the worldwide LPG industry into one strong independent organisation. The diversity in the WLPGA's members allows an effective broad industry representation, where members benefit from a powerful leadership position.

## CREDIBILITY

Since 1989, the WLPGA has had official Consultative Status with the United Nations Economic and Social Council (UN ECOSOC). It has also developed long standing partnerships with other international bodies and multi-lateral institutions such as various different departments in the United Nations including Sustainable Energy For All, the World Bank and Regional Development Banks, and a number of respected international NGO's such as the Global Alliance For Clean Cookstoves. The geographical spread and diversity of the WLPGA's membership makes the association a representative, trusted and logical partner in international discussions.

## WHO CAN JOIN THE WLPGA?

Any organisation that has an interest in the LPG industry can join. There are various categories of membership available to interested organisations.



"Dorian LPG is really excited to be part of WLPGA and to witness first-hand the important work in education that WLPGA does around LPG and expanding its global footprint. We consider the WLPGA to be a key player in the success of this product for generations to come."

**Alexander Hadjipateras**  
Executive Vice President  
of Business Development  
Dorian LPG (USA) LLC

# Membership 2016

WLPGA has a global membership base of some 250 members operating in more than 125 countries. The following are WLPGA Members during 2016.

## AFRICA

Afriquiagaz, [Morocco](#)  
Afrox, [South Africa](#)  
Caisse de Stabilisation des Prix des Hydrocarbures, [Cameroon](#)  
Engineering Co for Producing Gas Cylinders, [Egypt](#)  
Gas to Health Initiative GTHI, [Nigeria](#)  
Gaz Congo SAS, [Democratic Republic of Congo](#)  
LP Gas Safety Association of Southern Africa (LPGSASA), [South Africa](#)  
Ministry of Petroleum, [Ghana](#)  
Naftal, [Algeria](#)  
Navgas Limited, [Nigeria](#)  
Nigeria LP Gas Association (NLPGA), [Nigeria](#)  
Nigerian National Petroleum Corporation (NNPC), [Nigeria](#)  
Nile Petroleum Company Ltd., [Sudan](#)  
Oando Marketing Plc., [Nigeria](#)  
Petrogas, S.A., [Mozambique](#)  
Petroleum Institute of East Africa (PIEA), [Kenya](#)  
Pilot International, [Uganda](#)  
Reatile Gas Pty Ltd., [South Africa](#)  
Salam Gaz, [Morocco](#)  
SNDP, [Tunisia](#)  
Somas, [Morocco](#)  
Strategic Energy Limited, [Nigeria](#)  
Techno Oil, [Nigeria](#)  
Thomas Aquinas Foundation, [Ghana](#)  
TSL Logistics Limited, [Nigeria](#)  
Ultimate Gas Ltd., [Nigeria](#)  
Vivo Energy, [Morocco](#)

## ASIA

2A Muhendislik San. Tic. A.S., [Turkey](#)  
Al Aman Gas Cylinders Manufacturing L.L.C., [United Arab Emirates](#)  
Altinboga Gas Equipments, [Turkey](#)  
Arhan Grup Talasli Imalat San. Ve Tic. Ltd. Sti. Orgaz, [Turkey](#)  
Astomos Energy Corporation, [Japan](#)  
Aygaz A.S., [Turkey](#)  
Bashundhara LP Gas Limited, [Bangladesh](#)  
Beximco Petroleum LPG, [Bangladesh](#)

Bharat Petroleum Corporation Limited, [India](#)  
Brothers Gas, [United Arab Emirates](#)  
BW LPG, [Singapore](#)  
CIMC Enric Jingmen Hongtu Special Aircraft Manufacturing Co., Ltd., [China](#)  
Clean Air Asia, [Philippines](#)  
Dor Alon Gas Technologies Ltd., [Israel](#)  
E.ON Masdar Integrated Carbon (EMIC), [United Arab Emirates](#)  
E1 Corporation, [South Korea](#)  
Elpiji (M) SDN. BHD, [Malaysia](#)  
Emirates Gas LLC, [United Arab Emirates](#)  
Eneos Globe Corporation, [Japan](#)  
Energy Market Regulatory Authority, [Turkey](#)  
Gasco Saudia Arabia, [Saudi Arabia](#)  
Gazovik, [Russia](#)  
Hangzhou Yuhang Zhangshan Steel Cylinder Co. Ltd, [China](#)  
Hascol Petroleum Limited, [Pakistan](#)  
High Pressure Gas Safety Institute, [Japan](#)  
Hindustan Petroleum Corporation LTD., [India](#)  
Hong Kong & China Gas Co Ltd., [China](#)  
Indian Auto LPG Coalition - IAC, [India](#)  
Indian Oil Corporation Limited, [India](#)  
Ipragaz A.S., [Turkey](#)  
Isla LPG Corporation, [Philippines](#)  
ITO Corporation, [Japan](#)  
Iwatani International Corp., [Japan](#)  
Japan LP Gas Association, [Japan](#)  
Jordan Petroleum Refinery, [Jordan](#)  
Koagas Nihon CO, LTD., [Japan](#)  
Korea Gas Safety Corporation, [South Korea](#)  
Korea LPG Association, [South Korea](#)  
Laugfs Gas Plc., [Sri Lanka](#)  
Litro Gas Lanka Limited, [Sri Lanka](#)  
LP Gas Center, [Japan](#)  
LPG Association (Singapore), [Singapore](#)  
LPG Industry Association Inc., [Philippines](#)  
Maldiv Gas Pvt Ltd., [Maldives](#)  
Mauria Udyog Limited, [India](#)  
Natgaz, [Lebanon](#)  
National Gas Company - SAOG, [Oman](#)

New Cosmos Electric Co., Ltd., [Japan](#)  
NewOcean Energy Holdings Limited, [Hong Kong SAR China](#)  
Oil and Gas Regulatory Authority, [Pakistan](#)  
Oil Industry Safety Directorate, [India](#)  
Omera Petroleum Limited, [Bangladesh](#)  
Pazgas, [Israel](#)  
Pertamina, [Indonesia](#)  
Petredec Services (Asia) Ptd Ltd., [Singapore](#)  
Petrofed - Petroleum Federation of India, [India](#)  
Petronas, [Malaysia](#)  
Plantation Human Development Trust, [Sri Lanka](#)  
Rawafd International Co., [Saudi Arabia](#)  
Rinnai Corporation, [Japan](#)  
Sahamitr Pressure Container PLC, [Thailand](#)  
Saisan CO LTD, [Japan](#)  
Saudi Mas Trading, [Saudi Arabia](#)  
SCG (Thailand) Co Ltd., [Thailand](#)  
Self Employed Women's Association (SEWA), [India](#)  
Shell Hong Kong, [Hong Kong SAR China](#)  
Showa Shell Sekiyu K.K., [Japan](#)  
SK Gas, [South Korea](#)  
SSGC LPG (Pvt.) Limited, [Pakistan](#)  
Sunrise LP Gas & Energy (Taiwan) Group, [China](#)  
Taiwan Research Institute, [China](#)  
Tianlong, [China](#)  
The Green Flame Gas Co., [Kuwait](#)  
Turkish LP Gas Association, [Turkey](#)  
Unigaz International, [Lebanon](#)  
Yanmar Energy System Co. Ltd., [Japan](#)

## OCEANIA

Compac Industries Ltd., [New Zealand](#)  
D J Batchen, [Australia](#)  
Elgas Ltd, [Australia](#)  
LPG Association of New Zealand, [New Zealand](#)  
Origin Energy, [Australia](#)  
Secretariat of the Pacific Community (SPC), [Fiji](#)

Wesfarmers Kleenheat Gas Pty Ltd.,  
Australia

## EUROPE

Aburi Composites, United Kingdom  
AEGPL, Belgium  
Amerigas, Poland  
Amtrol-Alfa Metalomecanica, S.A.,  
Portugal  
Antargaz, France  
AOGPL - Asociación Espanola  
de Operadores de Gases Licuados  
del Petróleo, Spain  
Argus Media Limited, United Kingdom  
Assogasliquidi Federchimica, Italy  
Athelia Solutions, Spain  
AvantiGas Ltd, United Kingdom  
Calor, United Kingdom  
Carbon Clear, United Kingdom  
Cavagna Group, Italy  
CFBP - Comité Francais du Butane  
et du Propane, France  
Clesse Industries, France  
Coral Gas S.A., Greece  
DCC Energy LPG, United Kingdom  
Digal Gas, Portugal  
DVFG, Germany  
Elaflex, Germany  
Elpigaz SP. Z.O.O., Poland  
Finngas GmbH, Germany  
Flaga GmbH, Austria  
Flussiggas-Anlagen GmbH, Germany  
Friedrich Scharr KG, Germany  
Gascan, S.A., Portugal  
Gavedra, Portugal  
General Electric, United Kingdom  
Geogas Trading SA, Switzerland  
Geres, France  
Gilbarco Veeder-Root, United Kingdom  
Gok Regler - Und Armaturen GmbH  
& Co. KG, Germany  
Green Gear Global, United Kingdom  
Hedon Household Energy Network,  
United Kingdom  
Hexagon Ragasco A.S., Norway  
ICEB, France  
IDtek Track and Trace SA, Switzerland  
Integrated Gas Technologies, Denmark  
International Chamber of Commerce,  
France

International DME Association,  
United Kingdom  
International Fertilizer Industry  
Association (IFA), France  
International Gas Union, Norway  
ISA - Intelligent Sensing Anywhere,  
Portugal  
Kosan Crisplant, Denmark  
Liquigas, Italy  
LoW8, Netherlands  
MOL Group, Hungary  
Omal SPA, Italy  
Orlen Gaz, Poland  
Oryx Energies, Switzerland  
POGP, Poland  
Practical Action, United Kingdom  
Premier Fosters Australia PTY Ltd.,  
United Kingdom  
Primagaz, France  
Prins Autogassystemen B.V.,  
Netherlands  
Puma Energy, Switzerland  
REEEP, Austria  
Repsol, Spain  
Rochester Gauges International,  
Belgium  
Rubis Energie, France  
Sensile Technologies SA, Switzerland  
SHV Energy, Netherlands  
Sibur International, Austria  
Siraga S.A, France  
The Partnering Initiative,  
United Kingdom  
Total, France  
Trimex Consulting S.L., Spain  
Tyczka Trading & Supply GmbH & Co.  
KG, Germany  
UKLPG, United Kingdom  
Veroniki Holdings, Italy  
Vopak, Netherlands  
World Alliance for Decentralized  
Energy (WADE), United Kingdom  
X-Tech R&P, Switzerland

## NORTH & SOUTH AMERICA

Abastible S.A., Chile  
AGREMGAS, Colombia  
AIGLP Asociación Iberoamericana  
de Gas Licuado de Petróleo, Brazil  
Blackmer, United States  
Blossman Gas Inc, United States

Blue Star Gas, United States  
Camara Uruguaya de Gas Licuado,  
Uruguay  
Canadian Propane Association, Canada  
Central Gas Ventures, Inc.,  
United States  
Charbroil, LLC, United States  
Corken Inc., United States  
Dorian LPG, United States  
Empresas Lipigas S.A., Chile  
Energy Transportation Group Inc.,  
United States  
Ferrellgas, United States  
Fisher LP Gas Equipment, United States  
Gas Gombel S.A., Colombia  
Gas Uno de Puebla, Mexico  
Gasco GLP S.A., Chile  
Gasnova, Colombia  
Global Alliance For Clean Cookstoves,  
United States  
Global LPG Partnership, United States  
IHS, United States  
Lehr Incorporated, United States  
Liquigas Distribuidora, Brazil  
Manchester Tank & Equipment,  
United States  
Marshall Excelsior Co., United States  
National Propane Gas Association  
(NPGA), United States  
Paraco Gas Corp., United States  
PERC - Propane Education & Research  
Council, United States  
Persistent Energy Partners LLC,  
United States  
Poten & Partners Inc., United States  
Red Seal, United States  
RegO Products, United States  
Sindigas, Brazil  
Switch SA, Haiti  
Trinity Industries de Mexico, Mexico  
Trovan, United States  
UGI Corporation, United States  
Ultragaz, Brazil  
Unidad de Planificación Minero  
Energetica, Colombia  
Winrock International, United States  
Worthington Cylinder Corporation,  
United States



## Filling & Local Distribution

At filling plants, LPG is bottled in cylinders of all sizes or stored before being transported in smaller trucks.

# WLPGA Activity 2016

## Communications and Exceptional Energy



### Global LPG Community Communications

External communications are a critical area of WLPGA activities, ultimately influencing all the work and outreach of the association.

WLPGA produces a suite of communications for the global LPG community. This includes the flagship monthly newsletter, The Voice, an extensive library of case studies both print and video, and awareness campaigns targeting specific and relevant activities. WLPGA also works closely with international press, with the goal of ensuring that WLPGA is recognised

as the go-to and credible source for all industry information.

The WLPGA corporate website is [www.wlpga.org](http://www.wlpga.org) that aims to be the main portal for all information, statistics and news concerning LPG. The website is home to all WLPGA's freely available reports, case studies and good industry practices studies and all industry stakeholders are welcome to access this library of essential reading.

### Dedicated Member Communications

WLPGA members benefit from special focus communications

such as the Insider newsletter, in addition to having access to a dedicated portal on the WLPGA website, which houses a wealth of information available to the WLPGA member community.

**Exceptional Energy**

WLPGA has developed the Exceptional Energy brand to unite the industry under one single powerful master brand. This enables our fragmented industry to speak with one voice as we work to raise awareness of the exceptional benefits of LPG.

Exceptional Energy is the master brand under which all WLPGA's campaigns and events sit. Cooking For Life, Exceptional Energy in Action and regional events all work under this brand, ensuring all WLPGA communications to have a consistent message. Members are encouraged to get

creative and weave the brand into their own communications initiatives.

**Highlights for 2016**

This year's highlights included a focus on social media and follow up on a consolidated digital marketing strategy. The social media strategy centred around Twitter giving access to global media and other key stakeholder groups with also activity on LinkedIn, YouTube and Facebook where Exceptional Energy has a presence. New case studies, both print and video, were added to the Exceptional Energy case study library and these are all freely available on the WLPGA website. Members who have a success story to share with the LPG world are welcome to submit their articles to the Communications Team, who will be happy to spread the word amongst the global LPG community.



Superboy is the face of the Exceptional Energy brand.



The Exceptional Energy logo is available in several languages and we encourage members to adopt the brand.

**Social Media**

Get connected - follow us on our various social media channels:



Twitter:  
[@ExceptionalNRG](https://twitter.com/ExceptionalNRG)



Facebook:  
[Exceptional Energy](https://www.facebook.com/ExceptionalEnergy)



Youtube:  
[www.youtube.com/user/WorldLPGas](https://www.youtube.com/user/WorldLPGas)



Contact: **Alison Abbott**  
Communications Director  
[aabbott@wlpga.org](mailto:aabbott@wlpga.org)  
[@AlisonAbbott6](https://twitter.com/AlisonAbbott6)  
[@ExceptionalNRG](https://twitter.com/ExceptionalNRG)

## Cooking For Life

Through its groundbreaking initiative Cooking For Life, WLPGA has created a platform for the LPG industry to focus on the benefits of switching to LPG from cooking with what are referred to as 'traditional fuels', wood, charcoal and other forms of biomass.



The programme aims to facilitate the transition of one billion people from cooking with traditional fuels to cleaner-burning LPG by 2030 by convening governments, public health officials, the energy industry and global NGOs to expand global access to LPG and bring this modern alternative to people who need it most.

2016 was a busy year for Cooking For Life. Under the capable leadership of Chairman Mr B. Ashok who is also the Chairman of Indian Oil Corporation, the initiative continued to focus on its 2014 – 2016 project plan goal of 'Building The Evidence Case' on the benefits of switching from cooking with biomass and other traditional fuels to LPG.

The programme aims to facilitate the transition of one billion people from cooking with traditional fuels to cleaner-burning LPG by 2030 by convening governments, public health officials, the energy industry and global NGOs to expand global access to LPG and bring this modern alternative to people who need it most.

First, the initiative created a mapping of the ten countries where Cooking For Life stakeholders have the strongest interests and activities. This will be used in the future to focus in-country interventions together with WLPGA members, national governments and development agencies that contribute to achieving the initiative's goals by 2030.

Second, Cooking For Life working together with the UN High Commission of Refugees (UNHCR) and the SAFE Working Group (a consortium of humanitarian agencies and NGOs whose mission is to facilitate a more effective response to the energy needs of crisis affected populations), put together a document entitled *Opportunities for using LPG in Humanitarian Settings*. This study seeks to provide a comprehensive toolbox of information, data and

compelling arguments in support of using LPG as the fuel of choice in humanitarian situations. The document is extremely timely as there are now over 65 million people, approximately the population of the United Kingdom, forcibly displaced from their homes, most of whom rely on solid fuel for cooking, creating serious social, health and environmental issues.

Cooking For Life also continued to be very active in establishing cooperation with organisations as varied as Bloomberg Philanthropies, the International Energy Agency (IEA), as well as various departments of the United Nations. By representing the industry and forging long term partnerships with a variety of key stakeholders, Cooking For Life advanced in its mission of converting one billion people from cooking with biomass and other dirty and dangerous fuels to LPG by 2030.



Contact: **Michael Kelly**  
Deputy Managing Director  
[mkelly@wlpga.org](mailto:mkelly@wlpga.org)  
[#cooking4life](https://twitter.com/cooking4life)

## The Global Cylinder Network (GCN)



The GCN is the focal point for all issues regarding cylinder markets within the WLPGA. Established in 2011 to focus on sharing experience, expertise and best practices on how to manage and develop cylinder based markets, in 2016, under the leadership of GCN Chairman Mr Blaise Edja from Oryx Energies, a pan-African company based in Switzerland, the GCN continued to do important work in a key area of the LPG industry.

In 2016 the GCN completed work on a document entitled *Report on Managing the Life Extension of an LPG Cylinder*, which was conceived as a follow up to the retesting and requalification of LPG Cylinders report produced in 2015. This document is designed to highlight the opportunities to improve the management of LPG cylinders, extend their useful lives and reduce the cost of managing these assets without compromising safety of operations.

GCN will continue to focus on diffusing innovation and expertise in order to enable WLPGA members in developing countries and beyond to learn from each other and increase the effectiveness of their national communications and advocacy strategies in order to promote the safe, sustainable use of LPG in cylinders.

“Distribution of LPG in cylinders is essential to make this clean and exceptional energy available for an increasing numbers of consumers worldwide. Through our membership of the WLPGA and our lightweight and durable cylinders, our vision is to keep supporting the industry’s constant focus on the use of portable LPG as a safe and user friendly experience enhancing a modern lifestyle. Being an active member of the WLPGA through the years has had significant business impact for us and we remain committed to share our experience of bringing effortless confidence to the use of LPG through the association. We encourage other industry stakeholders to do the same.”

**Frédéric Gausson**  
Vice President Sales and Marketing  
Hexagon Ragasco AS



Contact: **Michael Kelly**  
Deputy Managing Director  
[mkelly@wlpga.org](mailto:mkelly@wlpga.org)  
[#cooking4life](https://twitter.com/cooking4life)



## Transport

LPG as transport fuel, or Autogas, is the most common alternative fuel on the roads today, powering over 25 million vehicles. It makes a significant contribution to the protection of the environment, helping to reduce air pollution and global warming.

## The Global Autogas Industry Network (GAIN)

By joining forces under the GAIN, WLPGA members interested in the development of LPG for road transport, strive to promote Autogas around the world. Representatives from Autogas major markets share their knowledge and experience to support advocacy activities, develop contacts with automotive manufacturers and communicate on the benefits of Autogas to a wider group of stakeholders.

### Three GAIN meetings held in 2016

GAIN, WLPGA's network group that focuses on Autogas, held three meetings in 2016, to discuss various issues in line with the strategic objectives set out by Cameron Ure (Elgas, Australia), GAIN Chairman. Each meeting had a specific focus:

- **Paris, France:** focus on the engagement with car manufacturers, with an exchange of points of view with a representative from Renault-Dacia;

- **Gold Coast, Australia:** focus on the strengthening of the global message on Autogas vehicle emissions, with a discussion on the results of various Real Driving Emission tests undertaken in different regions;

- **Florence, Italy:** focus on the engagement with automotive equipment manufacturers, with a discussion with Kit Makers on trends and perspectives in the LPG equipment sector.





"Autogas is providing the community lower emissions and the consumer lower costs. Our challenge is to ensure that the value proposition is attractive to create new demand, while ensuring the customer experience with Autogas is a positive one. If we continue to work together as an industry (fuel, equipment and technology suppliers) to engage and share our experiences we can deliver innovative solutions to the customer."

**Cameron Ure**  
General Manager, Sales (Autogas - LNG)  
Elgas Ltd

### Successful OEM engagement

In the course of 2016, WLPGA organised discussions and bilateral meetings with the following companies and organisations:

- Renault-Dacia, France
- Renault Samsung, Korea
- Fiat Chrysler, Italy
- Opel (GM), Germany
- Association des Constructeurs Européens d'Automobiles (ACEA), EU

These meetings were useful to establish initial contacts, understand car manufacturers' motivations and concerns when it comes to Autogas and lay the foundation for a closer cooperation in the future.

WLPGA supported the LP Gas Center of Japan and the UKLPG to establish a dialogue with Toyota, to explore opportunities to import Toyota LPG hybrid taxis to UK cities as a replacement for highly polluting diesel Black Cabs.

### Implementing the new communication strategy

WLPGA continued the overhaul of the Autogas communications strategy started at the end of 2015. Its objective is to connect with and influence policy makers as well as a wider group of stakeholders. The [www.auto-gas.net](http://www.auto-gas.net) website, articulated around five key messages (clean, available, convenient, growing, safe), enhancing its role as the global hub for information on Autogas. Several videos, case-studies, news items, publications were developed and published on this website in the course of 2016.

New content also came in to strengthen the website:

- The 2016 update of the Autogas Incentive Policies report, which now includes 15 countries
- Two new videos showcasing Autogas in Korea
- A series of news items

The bi-monthly newsletter, Autogas Today, which covers worldwide Autogas stories, was progressively improved and disseminated to a larger audience.

### Spreading the word on Autogas at global conferences

WLPGA used international conferences as an opportunity to convey positive messages on Autogas not only to the LPG industry but also to other audiences such as NGOs and governments across different regions. Presentations on Autogas were delivered at a number of conferences in the course of 2016, including:

- Alternative Fuels Conference and World Fair, Bologna, May 2016
- World Clean Air and Better Air Quality 2016 conference (IUAPPA and CAA), Busan, August 2016



Contact: **Cécile Nourigat**  
Autogas Manager  
[cnourigat@wlpga.org](mailto:cnourigat@wlpga.org)  
[@cecilioos](https://twitter.com/cecilioos)

## Identification & Stimulation of Innovation

### The Global Technology Network (GLOTEC)

## In search of the new technologies that will guide future opportunities

GLOTEC supports industry growth through the promotion of new technologies and innovation. During 2016, GLOTEC produced two new reports, one on Power Generation with LPG and one on Heavy Duty LPG Engines, and also updated two other reports addressing Gas Heat Pumps (GHPs) and Combined Heat and Power generation (mCHP). Exceptional Energy in Action, the online LPG applications database, continued to be expanded and two new promotional videos were produced.

In 2016, the GLOTEC network continued with its wide variety of activities, discussions, debates and workshop sessions during the meetings addressing key subjects and particularly those related to promising LPG applications and sectors. The regionalisation of GLOTEC was also a key subject of discussion this year, aiming to better capture the varying needs between the regions. New topics were introduced as standard items in the agendas, like the updates on European activities of global interest and similar plans for other regions are being considered for the future. More focus was also put on presentations in the GLOTEC meetings from external consultants to bring in expertise from outside membership, on subjects including distributed energy overview, ISO standardisation, carbon and fuel savings from lighter LPG cylinders. The large participation in the GLOTEC sessions (more than 65 delegates attending the last meeting) reflects the increased interest in the topics addressed.

#### Power Generation from LPG

GLOTEC produced a report *Power Generation from LPG*, dedicated to the various technologies of power production by using LPG as a fuel. It covers all existing technologies with their particular characteristics, lists the main manufacturers on a variety of generation capacities and provides a status update of the global market. Finally, it focuses on barriers that need to be addressed and provides a roadmap with prospects and recommendations for the future, to capture this very promising market based on LPG fuelling technology.

#### LPG Heavy Duty Engines

A second GLOTEC document released in 2016 was *LPG Heavy Duty Engines*. The LPG industry has recognised that the market of heavy duty engines is offering a significant potential for the use of LPG as a fuel, alongside its other Autogas uses in light duty vehicles. There has been limited awareness thus far on the multiple uses of LPG in this sector and also



"GLOTEC is instrumental in leading the worldwide LPG industry in the evaluation of existing technology, and to discuss what technology is needed to be relevant decades into the future. The future of the LPG industry depends on innovation and continuous improvements in the fuel, the applications, and the presentation to the users – and GLOTEC is where these discussions happen. Our efforts in 2016 to work on a global scale for standards development and technology development will yield benefits to both users and manufacturers."

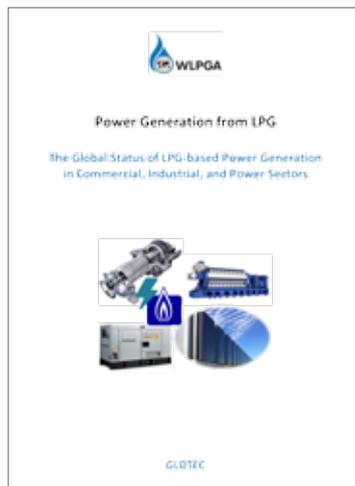
**Tucker Perkins**

Chief Business Development Officer, Propane Education & Research Council, USA



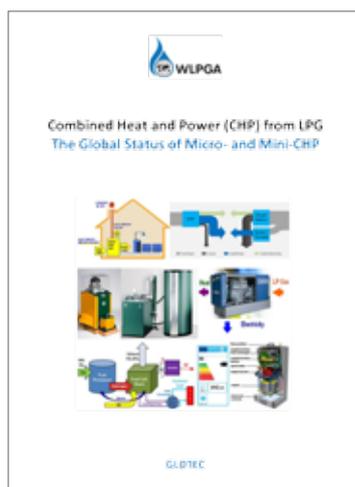
“GLOTEC played an important role in the ISO standardisation of the Autogas filling connector and Japan has much appreciated this. Japan almost always applies ISO standards and UN Model Regulations to the national regulations, and it had serious concerns on the initial proposals. Without GLOTEC, we would not have been able to tell effectively our situation at the ISO working group. Standards make the business practices globally common and assure safety of the practices from the technical point of view. Further, standards contribute to making the global trade free. We appreciated that the issue of the Autogas receptacle was included in the activities of GLOTEC, allowing us also to communicate with our colleagues in other countries who are responsible in ISO standardisation.”

**Makoto Arahata**



limited coordinated engagement of the various stakeholders, engine manufacturers, vehicle and equipment manufacturers and LPG distributors etc. This document aims to provide a complete picture of the sector by listing the various engine technologies, main manufacturers of engines and applications, vehicles and other numerous applications and equipment that can use LPG fuelled engines, and a status update of the global market. It also includes a roadmap with prospects and recommendations for the future, to address the barriers inhibiting growth and capture this high volume market.

and the main active manufacturers. It includes a status update of the global market and it focuses on growth barriers that need to be addressed. Finally, it incorporates a roadmap with prospects and recommendations for the future to best capture the opportunities for LPG related to this modern and promising technology.



### **Combined Heat and Power (CHP) from LPG - The Global Status of Micro - and Mini-CHP**

This is an update of an existing GLOTEC report. Technology and market status have advanced, and this 2016 version brings the document up to date. This is a report dedicated to the technologies for producing Heat and Power combined in single combined units fuelled by LPG. All existing technologies are listed with their particular characteristics

### **LPG Heat Pumps for Heating, Cooling and Hot Water Production**

This is a further update of an existing GLOTEC report. Technology and market status have advanced, and this 2016 version brings the document to date. It provides a complete overview of LPG Heat Pumps describing available technologies and listing the main manufacturers. It presents also the status of the market in the various regions, with the related positive and negative aspects and particularly the barriers that hinder development. A roadmap with the prospects and future of these technologies is also included, as well as recommendations to help to create the right environment for further development and overcome the existing barriers.



"2016 was yet another busy year for the GLOTEC network. The publications that we have seen were of a very high quality and were all on subjects that the GLOTEC group defined as top priorities. Our meetings attracted high quality speakers and a high degree of interactivity, something that has become a feature of our meetings in recent years. As we move to a new way of discussing and managing issues via our Matrix structure, I believe that all of the participants in GLOTEC over the years should take some pride in its legacy. We have created documents that have been used all over the world to support regional and national campaigns and they will continue to be used for years to come. We have had some meetings with great input from the members and we have not shied away from openly discussing the difficult issues. I believe that the legacy of GLOTEC has been to establish a sharing, open culture which will create a great foundation for the work that the Matrix structure can build on as we move on to the next phase in our network development."

**Andrew Ford**

GLOTEC Chairman and Group Public Affairs Manager, SHV Energy

### Exceptional Energy in Action (EEIA) – The Online LPG Applications Directory

EEIA, continues to be developed with more applications and supporting materials, to maintain its position at the very top of any google search on LPG applications. The #LPGapps Twitter feed saw an increase of its followers by 95% in one year, whereas the EEIA website saw its visitors increasing by 53%, demonstrating the strong interest of the industry in the LPG applications sector. Two new promotional videos were created in 2016 co-sponsored by Hexagon Ragasco and Cavagna/Greengear and more are planned for the future.

### Standards Harmonisation - ISO

ISO standardisation becomes increasingly important and, as a consequence, GLOTEC's involvement within the ISO standardisation work saw a steep rise in 2016. The activities on ISO TC58 (gas cylinders) were closely monitored, including through WLPGA participation in the meetings. An additional focus this year was on the subject of the standardisation of the Autogas filling connector through

ISO TC22 SC41, a key enabler as acknowledged by OEMs and the LPG industry for the growth of Autogas markets.

The GLOTEC team continued to pursue all the other activities such as LPG for marine applications, LPG fuel quality, etc. and has further established possible future priorities with other prime focus areas such as SNG, Bio-LPG, hybrids, fuel cells etc. Exceptional Energy in Action will continue to be a prime activity with focus on additional commercialisation and sponsoring plans.

Visit Exceptional Energy in Action at [www.lpg-apps.org](http://www.lpg-apps.org) and follow its news on Twitter at [@LPGapps](https://twitter.com/LPGapps)



Contact: **Nikos Xydas**  
Technical Director  
[nxydas@wlpga.org](mailto:nxydas@wlpga.org)  
[@NikosXydas](https://twitter.com/NikosXydas)  
[@LPGapps](https://twitter.com/LPGapps)

# Changing the Face of the LPG Industry: Women in LPG Global Network (WINLPG)

## A new global network for the World LPG Association

WLPGA identified that there was a clear opportunity for the global LPG industry to take medium and long term actions that can address the issue of attracting, retaining and developing women in the LPG industry. As the authoritative voice for the global LPG industry, WLPGA is uniquely positioned to develop and implement these actions.



"As WINLPG Chair I'm honoured to lead this important network. We have come a long way since our launch just one year ago, it has been very rewarding to meet and exchange with so many inspirational women in our industry from all corners of the globe. We have a powerful message to share and we look forward to taking WINLPG to the next level in the coming years."

**Nikki Brown**  
WINLPG Chair

Managing Director, Cavagna Group U.K. Ltd.

WLPGA launched Women in LPG Global Network (WINLPG) in September 2015. The network's mission is to support and help empower women in the worldwide LPG Industry by leadership, coaching, mentoring and promoting role models.

WINLPG aims to bring women, and men, together across all business sectors, ages and levels to discuss and support the development of diversity within the LPG Industry.

### What are the Goals of WINLPG?

WINLPG has three pillars of objective. First of all to support and retain women already in the industry through a network in which women can further their professional development and access colleagues and mentors, secondly, to promote role models and case studies via media and at industry events and thirdly, in the more long term, to work with universities to educate and attract women, and young talent, to the industry.

WINLPG has a long term goal of increasing the number of women in middle management to 40% and at Board level to 30% by 2030.

The network is managed by Alison Abbott, Communications Director, WLPGA and the current network Chair Nikki Brown, Director, Cavagna Group UK Ltd.

### What has WINLPG achieved in its first year?

The priority for this first year has been to raise awareness of the network and encourage members to become engaged.

WINLPG also held a very successful Knowledge Exchange Workshop in Bogota, Colombia in March during the Latin American LPG Association's annual conference. The half day workshop brought together female leaders of the Latin American industry who were given a unique opportunity to network, discuss and learn about leadership skills, challenges and exchange their own stories.

Two national chapters have been launched in South Africa and Nigeria. The development of national chapters will enable the network to expand on a much wider scale by engaging with women who may not normally be able to attend other meetings; there may also be specific regional



Launch of South Africa WINLPG national chapter in October 2016. Photo courtesy of Robyn Davie.



“As the global voice of the LPG industry, WLPGA and its initiative Women in LPG (WINLPG) offers the perfect platform to promote gender diversity throughout our industry. A cause I support wholeheartedly.”

**Nathalie Venis**  
Head of Downstream & Storage  
Petredec (Mauritius) Ltd



“I am really excited to be involved in the WINLPG initiative as it is becoming more and more important to address the gender imbalance within the industry, not just for moral reasons but ultimately for business reasons. I believe the WINLPG initiative can make a substantial difference by working with the industry to support and retain women in the workplace. I look forward to supporting the team to achieve these objectives as the initiative grows.”

**Lucy Cook**  
Communications Manager, UKLPG

issues that need to be addressed. Further national chapters will be launched in 2017.

WINLPG is also producing a suite of role model profiles, examples of successful women in the industry, and the first of these role model profiles can be downloaded from the WLPGA website.

WINLPG has gained an enormous amount of momentum with overwhelming support from the industry. The goal now is to maintain – and increase – this momentum.

We welcome anyone who is involved in the LPG industry, both men and women.

Follow us on Twitter at [#WINLPG](https://twitter.com/WINLPG).



Contact: **Alison Abbott**  
Communications Director  
[aabbott@wlpga.org](mailto:aabbott@wlpga.org)  
[@AlisonAbbott6](https://twitter.com/AlisonAbbott)  
[@Exceptional NRG](https://www.linkedin.com/company/exceptional-nrg)

**Meet the Role Models**  
The WINLPG Role Models suite introduces successful women in the LPG industry and gives an insight into their career path, their challenges and their advice to fellow WINLPG members.

**Hannah Ohi**  
Executive Vice Chairman  
Techno Oil Limited  
Singapore, Singapore

**Nancy Coop**  
Business Development Executive  
Fortipipe  
USA

**“In a global industry full of smart, talented, skilled businesswomen, how do you get them to move into leadership roles? WINLPG can bring awareness, training, and change to an industry whose future depends on diversity. We must do this in this generation!”**



## Local Delivery

In many countries, LPG cylinders are stored by local distributors where they can be picked up or who handle the 'last mile' delivery.

## Good Industry Practices

The WLPGA has published *Guidelines on Good Safety Practices* and *Guidelines on Good Business Practices*, relating to the LPG Industry and being used as benchmarks for the industry for nearly ten years.

In addition to the Guidelines, the WLPGA produces one guide every year that focuses on more specific parts of the business. The guide produced in 2016 is the Guide to LPG use in Water Borne Vessels. It addresses the use of LPG in applications ranging from small pleasure craft to potentially very large gas carriers (VLGC's).

Several years ago, the WLPGA started running Good Industry Practice (GIP) workshops in countries where there was a need identified

to address business practices. The objective of these GIP workshops is to identify areas of risk and initiate an action plan to improve things.

In August the WLPGA held two good industry practice workshops in the Philippines and Taiwan.

The Manila workshop took the form of a discussion with the LPG Association regarding illegal practices and how the WLPGA could assist with government intervention on a Gas Safety Bill.

In Taipei over 70 delegates attended the workshop, which was streamed in English and Mandarin. Participants included government officials from the National Fire Agency, the Taiwan Research Institute, local LPG distributors and international guests.



Delegates reviewed current practices in Taiwan and were presented with some of the global technological initiatives that are available to modernise the industry. They also discussed the importance of managing the LPG cylinder from cradle-to-grave in order to preserve one of the most important assets of the business.

A GIP workshop planned for Bangladesh in 2016 has been moved and will now be held in February 2017.

## The Hazardous and Noxious Substances Convention (HNS)

The WLPGA attended meetings in London at the headquarters of the International Maritime Organisation (IMO) during April and October as an observer to the discussions on the HNS Convention, which will have a major impact on the global LPG industry when ratified.

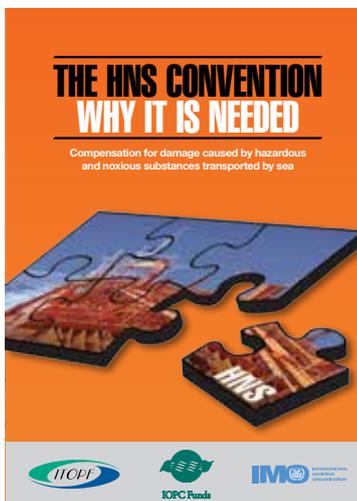


Participation at the meetings not only protects the interests of the global LPG industry, it also demonstrates the strong link between the WLPGA and the IMO as part of the WLPGA's external communications programme with other global organisations.



WLPGA Director David Tyler, Yuki Ihaha and Osamu Uehira, Secretary General of the Japan LP-Gas Association, participated in formal and informal meetings during the year. The WLPGA has retained its observer status to these meetings in 2015 for a further three years.

Over sixty countries were represented at the meetings. The WLPGA was one of several international Non-Government Organisations (NGO) that attended the meetings. Other observer organisations included the International Chamber of Shipping (ICS), the International Group of P&I Associations, the International Spill Control Organisation (ISCO), the International Tanker Owners Pollution Federation (ITOPF) and the European Commission (EU).



During the October meetings, the WLPGA intervened to encourage member states to quickly ratify the 2010 HNS Convention.

A brochure explaining the benefits of the International Convention on Liability and compensation for Damage in Connection with the Carriage of Hazardous and Noxious substances by Sea, 2010

(2010 HNS Convention) was published during the year. The leaflet encourages states to take the next steps to implement and accede to the Convention. The development of the brochure is the first in a series of tools to be developed to assist government administrations in their internal promotion of the Convention and aims to highlight the risk of HNS incidents and make ratification of the Convention a priority.

LPG is classified as one of the Hazardous and Noxious Substances covered by the 2010 HNS Convention.

- The transport of LPG by sea is a global trade (1,250 LPG ships in 2014 - source: Clarksons)
- Incidents do happen involving LPG ships
- Potential consequences of LPG shipping incidents can be significant and costly
- A comprehensive international compensation regime is missing
- The HNS Convention will fill that gap
- The HNS Convention is based on a long standing and successful oil pollution regime

A Q&A addressing the HNS Convention is available on the WLPGA website at:

[www.wlpga.org/mediaroom/hns-convention-brochure](http://www.wlpga.org/mediaroom/hns-convention-brochure)

To read more about the Convention visit: [www.imo.org](http://www.imo.org) and [www.hnsconvention.org](http://www.hnsconvention.org)



## Use

There are more than 1,000 applications of LPG. Hundreds of millions of people currently use LPG and depend on it for thousands of applications, in commercial business, industry, transportation, farming, power generation, cooking, heating and for recreational purposes.

## Training



Knowledge transfer is one of the four key mission goals of the WLPGA and its importance has been reaffirmed by members during this years' strategic review for the period 2017-2019.

Global LPG demand continues to grow at around 3-4% a year which brought 10mMT of new product into the market in 2015. This new volume brings tens of thousands of new personnel into the LPG distribution channel that operate ships, terminals, filling

plants, trucks etc., as well as new consumers.

Many of these people are new to the LPG industry and need to be fully aware of the issues involved with moving LPG through the distribution channel in a safe and sustainable manner. That involves training and, with some of the large international companies deciding to withdraw from the downstream LPG business, that has put a greater focus on the industry to ensure that the long tradition of operating in a safe and sustainable manner continues.

In 2016 the WLPGA ran four training programmes in Dubai, (January), Indonesia (February), Myanmar (May) and Tanzania (July).

Delegates from over twenty countries attended these training sessions which covered topics including the application of NFPA 54 & 58 codes, LPG cylinders and cylinder management, bulk LPG, developing LPG markets and the safe storage, handling and distribution of LPG.

## Global Technology Conference (GTC) and the WLPGA Innovation Awards

Each year, representatives from the industry are invited to submit abstracts showcasing some of their most innovative technology. Submissions include topics from the whole downstream distribution chain to consumer.

This year submissions and presentations included topics such as the development of new LPG powered agricultural tractors, a portable revolutionary fuel cell running on LPG to charge mobile phones, cameras, tablets etc, GreenOdor a new sulphur free odorant, a new hand tool for measuring odorant in LPG, diesel-LPG fuel conversion technology of heavy duty vehicles, power generation with LPG as bridge power, a new coupling for easy filling of underground consumer tanks, and even a completely new LPG multi-business distribution model, and these were not all.

All the papers presented had been selected by the GTC steering committee based on a list of agreed criteria that included degree of technical innovation, safety improvement potential, operational efficiency, commercial, marketing potential etc.

Significant changes were implemented in 2016 regarding the selection of the WLPGA award winner and runner-up. In order to bridge the significant time gap between the presentations and the selection of the award winners (one year), the selection of the award winners of the GTC 2016 Florence presentations, took place in Florence itself. As a consequence, Florence saw this

years presentations of awards to the winners from both Singapore 2015 and Florence 2016.

Furthermore, this year's process took into account the evaluations of both the GTC steering committee as usual, but also those of the audience.

Other changes seen this year were the provision of facilities next to the stage for demonstration of innovation samples after the presentations and also a strengthening of the communication and promotional activities through interviews of the presenters and case studies. A complete review of the GTC visual identity also took place in 2016 with creation of a new logo and production of promotional flyers.

The GTC Innovation Award winners in Florence:

### Singapore 2015 presentations

- Winner: M-TriGen, "LPG Powered Micro Combined Cooling Heating and Power Systems (MCCHP)"
- Runner-up: PERC, "LPG Direct Injection Engine Research"

### Florence 2016 presentations

- Winner: Aygaz, "Diesel-LPG Dual Fuel Conversion of Heavy Duty Vehicles"

### ■ Runner-ups:

GE, "Bridge Power with LPG"

PERC, "Steps to grow gallons, developing, testing and evaluating LPG-powered agriculture tractors"



Top, 2016 winners, AYGAZ (left to right): Elif Atak, Can Tikiroglu, Ercüment Polat, Ali Kizilkaya

Bottom (left to right): Nikos Xydas, 2015 winner - Jeff Stewart on behalf of M-TriGen, James Rockall, 2015 runner-up - Tucker Perkins, 2016 runner-up - Cinch Munson, PERC



Contact: **Nikos Xydas**  
Technical Director  
[nxydas@wlpga.org](mailto:nxydas@wlpga.org)  
[@NikosXydas](https://twitter.com/NikosXydas)  
[@LPGapps](https://twitter.com/LPGapps)



## Publications

WLPGA produces a variety of publications, from industry reports freely available on the WLPGA website to dedicated network papers available to members only. In 2016 WLPGA released the following publications.



### Autogas Incentive Policies

*Autogas Incentive Policies* explains why and how governments encourage switching to Autogas. The report is based on an in-depth survey of the world's largest Autogas markets and is updated annually.

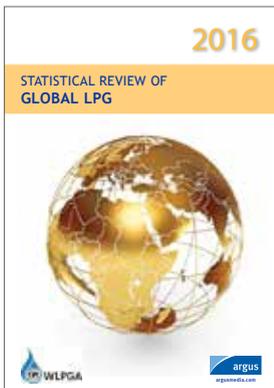


### GCN Reports

The GCN produced a report entitled *Managing the Life Extension of LPG Cylinders* as a follow up to the 2015 *Cylinder Testing and Requalification of Cylinders* report.

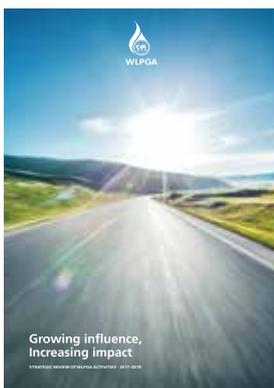
### Exceptional Energy Case Studies

Five new printed case studies were produced in 2016 covering subjects such as the LPG market in Oman, the GiveltUp campaign in India, LPG for electrical power generation in the US Virgin Islands, how LPG is used in mobile catering businesses and a plantation houses development in Sri Lanka.



### Statistical Review of Global LPG 2016

Argus Media published the *Statistical Review of Global LPG 2016* in October, the fourth year they have been responsible for this flagship document. *The Statistical Review of Global LPG* is a major element of the WLPGA membership proposition as it is made available free of charge to members. Non-members may purchase a copy directly from Argus Media. This year Argus Media produced a world LPG trade flow map showing major LPG trade flows, details of LPG import terminals and highlights from the *Global Statistical Review*. This is also free to members.



### Strategic Review of WLPGA Activities 2017-2019

The WLPGA produced a *Strategic Review 2017-2019* which outlines the association's key goals and activities for the coming three year period.



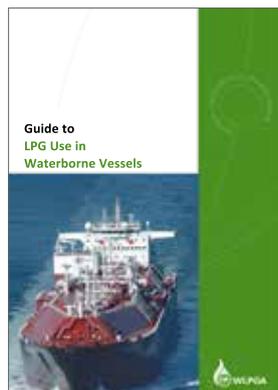
### Cooking For Life Studies

The report *Opportunities for LPG Use in Humanitarian Settings* addresses one of the most challenging situations that the world is facing today. The issue of displaced populations, caused by civil unrest and natural disasters. It has been written with the support from the Office of the United Nations High Commissioner for Refugees (UNHCR), also known as the UN Refugee Agency.



### Exceptional Energy Video Case Studies

WLPGA has produced several new video case studies that are all available on the YouTube Channel and the WLPGA website. These video case studies cover LPG applications, Autogas in South Korea and a comprehensive study of the Smokeless Villages project in India.



### Good Industry Practices Guidelines

Every year the WLPGA publishes a new Guide focusing on a specific area of the LPG business and in 2016 the subject was the use of LPG in waterborne vessels. This Guide focuses on some of the key design issues, as well as presenting some opportunities for using LPG in ships and boats.

### WLPGA Newsletters

WLPGA produces regular newsletters ranging from the monthly global communication *The Voice*, to newsletters addressing specific sectors of the industry such as *Autogas Updates* and *The Forum Voice*. There is also a regular communication exclusively for members with updates on WLPGA activities entitled *Insider*.



### GLOTEC Reports

The GLOTEC network has produced four studies in 2016 including reports covering Power Generation from LPG, Heavy Duty LPG Engines and updated versions of the Combined Heat and Power (CHP) and the Gas Heat Pumps reports.



# The 29<sup>th</sup> World LPG Forum & 2016 European Congress



## Florence Forum & Congress stats:

Around **1,800** participants from **113** countries, with **120** exhibiting companies

The WLPGA and AEGPL hosted the 29<sup>th</sup> World LPG Forum and 2016 European Congress from 15<sup>th</sup> November – 17<sup>th</sup> November 2016 at the Firenze Fiera Congress and Exhibition Centre in Florence, Italy. This event marks the third combined event with the European LPG Association and the second time that the Forum takes place in Italy (1998, Rome).

2016 was a particular year for the World LPG Forum as this year's event took place in Florence, Italy, after the decision to relocate the event from Istanbul and to postpone the original World LPG Forum and AEGPL Congress was taken by both associations. The event in Florence was greatly supported by the Italian industry. However, the effort and support received from the Turkish industry should not be ignored.

The major strengths of the event are the series of unparalleled networking opportunities, high quality sessions and side events,

and of course, a major global exhibition. This year's theme "A Bridge to the Future" was reflected in the sessions and the focus of discussions was on global opportunities for LPG.

The VIP opening with the participation of Giovanni Bettarini, Deputy Mayor of Florence, Dottore Cosimo Ferri, Undersecretary of State and Ministry of Justice and Ricardo Nencini Vice-Minister of Transport and Infrastructure showed the support from the Italian authorities to the LPG industry.

There were many highlights of this two-day event in Florence, but most notably the main roundtable titled 'The Role of LPG in the Energy Future.' Chaired by BBC Journalist Roger Harrabin, the session was opened by acknowledging the challenges the world faces in terms of trying to meet the energy needs of the future while underscoring the role that LPG must play. Various topics were discussed at this roundtable

ranging from air pollution in households and urban areas, to the fact that LPG and Natural Gas are complimentary fuels and crucial in bringing a clean burning energy source to end users all over the world. The 2016 World Energy Outlook was launched at the same time as this session took place.

Several other key themes at the event were the 'Future Market Outlook,' focusing on the fact that LPG is a supply driven market with many challenges, and 'HSE leadership,' demonstrating that good HSE performance equally demonstrates good business performance.

Other highlights of the week were the social events that offered excellent networking opportunities to all participants and the Gala dinner at the Palazzo Vecchio stood in this perspective out of the ordinary.

A special mention for the event sponsors who contributed to this exceptional event.

The 30<sup>th</sup> World LPG Forum will take place in Marrakech, Morocco from 3<sup>rd</sup>-5<sup>th</sup> October 2017.



Contact: **Esther Assous**  
Events Director  
[eassous@wlpga.org](mailto:eassous@wlpga.org)  
[@WorldLPGForum](https://twitter.com/WorldLPGForum)



“One year after organising the COP22, it is with a great pleasure that Morocco is hosting the 30<sup>th</sup> World LPG Forum, the most influential event of LPG executives in the world.

This Forum will focus on LPG business dynamics that determine the future path of the industry and shape tomorrow's energy landscape.

This event will translate ideas into the global marketplace, enact momentum for innovations, collaborations, opportunities, and facilitate a roadmap towards sustainable development.”

**Rachid Idrissi**  
Directeur Général Pôle Gaz, Afriquiagaz



Photos clockwise from top left: Exhibition | Welcome Reception | Sessions | Exhibition | Gala Dinner



“It was a special opportunity for our Association to host again, after Genoa in 2014, the major World and European event of the LPG sector. It was fantastic to have such an important happening in one of the most charming Italian cities.

Sharing good practices and knowledge is key for continuous growth of the industry and the Florence event was one of the best places to do so.”

**Francesco Franchi**  
President, Assogasliquidi

# WLPGA Oceania Regional Summit:

## LPG: Exceptional Energy for Australia, New Zealand & the Pacific Islands



The WLPGA Oceania Regional Summit entitled *LPG: Exceptional Energy for Australia, New Zealand & the Pacific Islands* was held on 18<sup>th</sup> May in Surfer's Paradise on Australia's Gold Coast and it was an exuberant success. It attracted over 250 participants from nearly 30 different countries including delegates who travelled from as far away as Brazil to participate. The Summit was opened by the

Honourable Matthew Canavan, Minister for Northern Australia, who stressed the importance of LPG in the energy mix of Australia and the Region. The Summit was divided into three tracks: one focusing on Autogas, one on new applications and one on the fast growing markets of the Pacific Islands, which was standing room only.



"I've been very impressed with WLPGA Regional Summits which provide an exceptional opportunity to thoroughly inspect specific markets and also to bring experience from geographies that are facing similar challenges or that have developed successful business models. We at Indian Oil Corporation are delighted to invite the global industry to New Delhi next year for the WLPGA 2017 Asia LPG Summit in February which will focus on the groundbreaking changes taking place in the Indian LPG market which we feel will reverberate throughout the global industry. I am very much looking forward to welcoming WLPGA and my colleagues and friends from all over the world to India."

**B. Ashok**  
Chairman, Indian Oil Corporation

"Being a member of the WLPGA has been extremely valuable for Origin Energy. The recent Australia Pacific regional summit brought together industry, Government and regulators sharing advances in LPG and opportunities to promote the use of LPG throughout the region. It was the most well attended industry event we have had in the Australia Pacific region and highlighted the importance of LPG as a source of energy as we move to a carbon constrained world."

**Andrew Bills**  
General Manager LPG & HSE, Origin Energy



# WLPGA Organisation

## Board of Directors

The WLPGA team is supported and assisted by the Board of Directors and the Industry Council. This ensures that members are fully represented in the activities and strategies of the association whilst also ensuring that the WLPGA can truly speak as a unified and coherent voice of the industry.

The WLPGA Board is composed of a President, a First Vice-President, a Treasurer, three Vice-Presidents and up to five other Board members. The current Board was elected at the Annual General Assembly of 14<sup>th</sup> November in Florence. The Board composition is representative of the business activities and geographic diversity of members.

The Board meets three times a year to agree the budget and approve the accounts for ratification by the General Assembly.

The Board has an overall governance role for the association as defined under French law.



**President | YAĞIZ EYÜBOĞLU**

President, Energy Group Koç Holding  
(Turkey)



**First Vice-President | PEDRO JORGE**

Managing Director, Ultragas  
(Brazil)



**Vice-President & Treasurer | HENRY CUBBON**

Managing Director, DCC Energy LPG  
(United Kingdom)



**Vice-President | DAVIDE CAVAGNA**

CEO, Cavagna Group  
(Italy)



**Vice-President | B. ASHOK**

Chairman, Indian Oil Corporation Ltd  
(India)



**Board Member | DAVID RODRIGUEZ**

Director, MS/OMM/GPL, Total  
(France)



**Board Member | JAE HOON LEE**

COO/Global Business Division, SK Gas  
(South Korea)



**Board Member | OSAMU MASUDA**

President, LPG Center  
(Japan)



**Board Member | BLAISE EDJA**

Global LPG Business, General Manager,  
Oryx Energies (Switzerland)



**Board Member | ROGER PERREAULT**

President, UGI Corporation  
(USA)



**Board Member | FULCO VAN LEDE**

CEO, SHV Energy  
(The Netherlands)

## Industry Council

The Industry Council was inaugurated in 1996 and is composed of leading companies in the LPG business. The Industry Council directs the Association's actions by identifying issues, developing strategies, and formulating projects. The Council also makes recommendations to the WLPGA Board of Directors.

Actions launched by the Industry Council aim at enhancing the positive image of LPG worldwide and promoting LPG use to satisfy the growing need for an all-purpose, efficient and environmentally friendly fuel. Whether focused on specific market segments or the LPG industry in general, the Industry Council's actions are designed to increase the worldwide use of LPG.

In 2016, the Industry Council welcomed two new members while four others left, giving a total of 28 leading Industry Council members.



## The WLPGA Team



From left to right:

**Cécile Nourigat**  
Autogas Manager

**Alison Abbott**  
Communications Director

**Michael Kelly**  
Director Market Development  
and Deputy Managing Director

**James Rockall**  
CEO and Managing Director

**Esther Assous**  
Events Director

**Camille Pieron**  
Communications Coordinator

**Nikos Xydas**  
Technical Director

**Laurence Poret**  
Office Manager  
and Member Relations Manager



During 2016 the WLPGA team has been ably supported by our exceptional interns (left to right):

Mattie Khoory, Nana Busumtwi and Ashley Boykin



# 30<sup>th</sup> WORLD LPG FORUM

3<sup>rd</sup>-5<sup>th</sup> OCTOBER 2017

# MARRAKECH

Fuelling New Markets



Conference & Exhibition  
Palais des Congrès de Marrakech





**WLPGA**

**WLPGA**

182, avenue Charles de Gaulle  
92200 Neuilly-sur-Seine, France  
Tel: +33 1 78 99 13 30

[association@wlpga.org](mailto:association@wlpga.org)

[www.wlpga.org](http://www.wlpga.org)



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