

marcogaz

TECHNICAL ASSOCIATION OF THE EUROPEAN NATURAL GAS INDUSTRY

Annual Report 2006



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Message from the President

Dear Members,

The organization of the European Gas Industry has been substantially modified by the liberalisation process, giving rise to many new actors and many organisations representing them. Furthermore the opening of the European Union to 27 countries increased even more the number of actors in the Gas Industry.

Europe needs a reliable gas supply, since about 60% of the consumed gas comes from outside, and this must be transported and distributed to the final users in a safe and sustainable way. This implies a common technical background and the production of rules and standards.

During the last year MARCOGAZ was deeply involved in this process; in fact it was active in following the evolution of the European Directives, giving advice to the EU Commission, preparing technical papers and supporting CEN in the standardization process. MARCOGAZ was also involved in the technical programme of the European Forum Gas 2006 and in the preparation of the Mandate on Gas Quality, once more confirming its role of Technical Association representing the European Natural Gas Industry and a reference for the EU Authorities.

In the future MARCOGAZ will continue to stress its role of Technical Association, also co-operating with other gas organisations and increasing its representativeness in the enlarged Europe (at 2006 end MARCOGAZ represents 16 countries).

This annual report 2006 shows the activities of MARCOGAZ and the work planned for the near future to satisfy the increasing needs of the Natural Gas Industry business.



Dr.Eng. Luigi SCOPESI
President of MARCOGAZ



Introduction

Created in 1968, for technical harmonisation purposes, MARCOGAZ has developed over the years an efficient reputation with the official bodies in the European Union and other influential partners.

MARCOGAZ chief mission is to serve its members as the European window for any technical issue regarding natural gas.

As the representative organisation of the European Natural Gas Industry, it aims at monitoring and taking influence when needed on European technical regulation, standardisation and certification with respect to safety and integrity of gas systems and equipment, and rational use of energy.

Promotion of modern and efficient gas utilisation is also part of MARCOGAZ activities.

Environment, Health and Safety issues related to natural gas systems and utilisation are especially of great importance for MARCOGAZ.

MARCOGAZ is collecting and analysing incident data regarding gas distribution and internal installations.

MARCOGAZ also gathers many technical data regarding gas infrastructure.

Mission and tasks of MARCOGAZ

Chief mission

To serve its members as the European window on technical legislation and standardisation and to promote technical conditions required for the market success of natural gas

Main tasks




- ❖ To promote **safety, reliability, cost effectiveness** and **environmental quality** of natural gas systems and appliances
- ❖ To identify, monitor and take action on **technical legislation** at EU level
- ❖ To promote with the EU institutions **fair European legislation** reflecting the industry's high safety record and respecting subsidiarity
- ❖ To actively monitor **standardisation activities** related to natural gas conducted by CEN, ISO, OIML and others
- ❖ To identify **appropriate levels of competence** for a safe and effective operation of gas systems
- ❖ To study any **technical subject of interest** for its members
- ❖ To promote **co-operation with other associations** representing the Gas Industry and the manufacturers
- ❖ To encourage the use of **modern and efficient gas appliances**

Achievement of the mentioned aims is sought by means of:



- defining views and common positions on issues of shared interest and representing these to international bodies, in particular to the European Authorities, the European Committee for Standardization (CEN) and the International Organisation for Standardization (ISO);
- promoting and monitoring European standardisation and related certification in selected areas;
- identifying the need for any new standards on topics of interest to the gas sector and associated research;
- promoting technical co-operation among the Gas Industry members;
- promoting and organising co-operation with related industries' associations, including other pipelines operating industries and manufacturers of equipment and appliances used for gas supply and for gas utilisation and with consumers' organisations.

The activities of MARCOGAZ are listed in this report, implicitly highlighting the major objective for MARCOGAZ members to achieve an effective industry presence and response towards public and official queries and regulatory initiatives facing the gas sector at the European level and often following through to the national level. Industry co-operation within MARCOGAZ will ensure timely information, consultation and response, while offering a platform for authoritative and consistent industry representation making most effective use of industry resources in terms of experts, knowledge and finance required.


MARCOGAZ co-ordinates with EUROGAS (European Union of the Natural Gas Industry), GERG (European Gas Research Group), and GIE (Gas Infrastructure Europe) through selected joint programmes.

EUROGAS	The European Union of the Natural Gas Industry	
GERG	The European Gas Research Group	
GIE	Gas Infrastructure Europe	

MARCOGAZ is affiliated to IGU (International Gas Union) and is an Associated Member of EASEE-gas (European Association for the Streamlining of Energy Exchange)










IGU	International Gas Union	
EASEE-gas	European Association for the Streamlining of Energy Exchange-gas	

Since 2006 MARCOGAZ is co-operating with the United Nations Economic Commission for Europe (UNECE) in the field of sustainable energy and safety regulation.

UNECE	United Nations Economic Commission for Europe	
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MARCOGAZ also co-operates with other major Gas Industry or consumer organisations such as:

AEGPL	European LPG Association	
AFECOR	European Control Manufacturer's Association	
ANEC	European Association for the Co-ordination of Consumer Representation in Standardisation	
CECED	European Committee of Domestic Equipment Manufacturers	
CEFACD	European Cooker and Space Heater Manufacturers Association	
CEFIC	European Chemical Industry Council	
CONCAWE	Oil Industry European Association for Environment, Health and Safety in Refining and Distribution	
EFMA	European Fertilizer Manufacturers Association	
EHI	Association of the European Heating Industry	
EIGA	European Industrial Gases Association	
ENGVA	European Natural Gas Vehicle Association	
EURELECTRIC	Union of the Electricity Industry	

EURO AIR	European Association of Air Heater Manufacturers	
EUROHEAT&POWER	The International Association for District Heating, District Cooling and Combined Heat and Power	
FACOGAZ	Chambre Syndicale des Fabricants de Compteurs à Gaz	
FAREGAZ	Union of European Manufacturers of Gas Pressure Controllers	
GCI-UICP	International Union of the Associations of Heating Ventilating and Air Conditioning Contractors	
INTERGAS MARKETING	International Natural Gas Organization for Supporting Marketing	
IPLOCA	International Pipe Line and Offshore Contractors Association	
OGP	Oil and Gas Producers Association	
PE100+	Industry Organisation of Polyethylene (PE) Manufacturers	
TEPPFA	The European Plastics Pipe and Fitting Association	

It consults and co-operates with other industry and business organisations involved in the issues at hand.

Membership in MARCOGAZ

Membership is open to National Gas Associations and natural gas infrastructure operators in European countries interested in co-operation towards shared safety and quality objectives and standards, on any technical issue regarding the gas infrastructure systems, utilisation and protection of the environment.

For each country concerned, one membership represents all relevant national gas companies or organisations involved.

Each country membership is requested to pay to MARCOGAZ an annual fee, which can possibly be split between individual companies or associations part of the membership.

At the conclusion of 2006, the membership extends over sixteen countries

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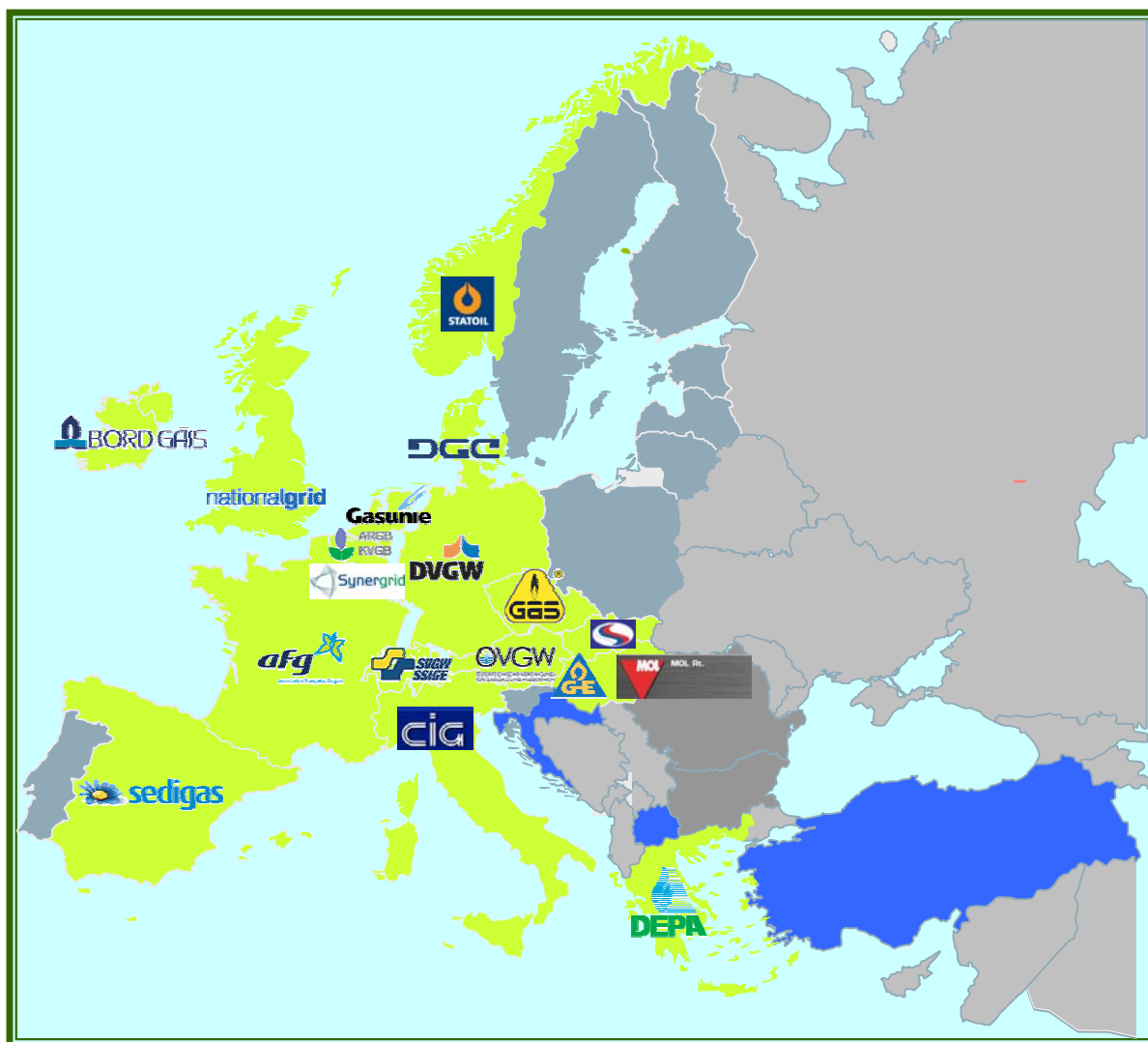
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MARCOGAZ membership map referred to December 2006



Organisation

MARCOGAZ was registered on 23rd May 2005 as an International Association under Belgian law on non profit International Association and Foundations (laws 27th June 1921 and 2nd May 2002).

Its headquarters are located in Brussels. Copy of the official statutes can be obtained upon request to MARCOGAZ General Secretariat.

The **General Assembly** of MARCOGAZ consists of national delegations representing the various Gas Industry companies and bodies sharing in the membership.

The **Executive Board**, meeting normally 3 times a year, defines, adopts and controls strategies. It gives guidance to the two Standing Committees Gas Utilisation and Infrastructure, and, jointly with EUROGAS, to the Joint Group Environment Health and Safety.

Industry **executives** and **high level experts** are members of the two Standing Committees and the Joint Group, in charge of their respective fields of activity.

WGs are set up when required to deal with specific subjects.

The **General Secretariat**, representing MARCOGAZ with all relevant external official and industry partners and servicing the activities of MARCOGAZ internal bodies, consists of one full time executive (the Secretary General), one full time Technical Adviser with secretarial assistance.

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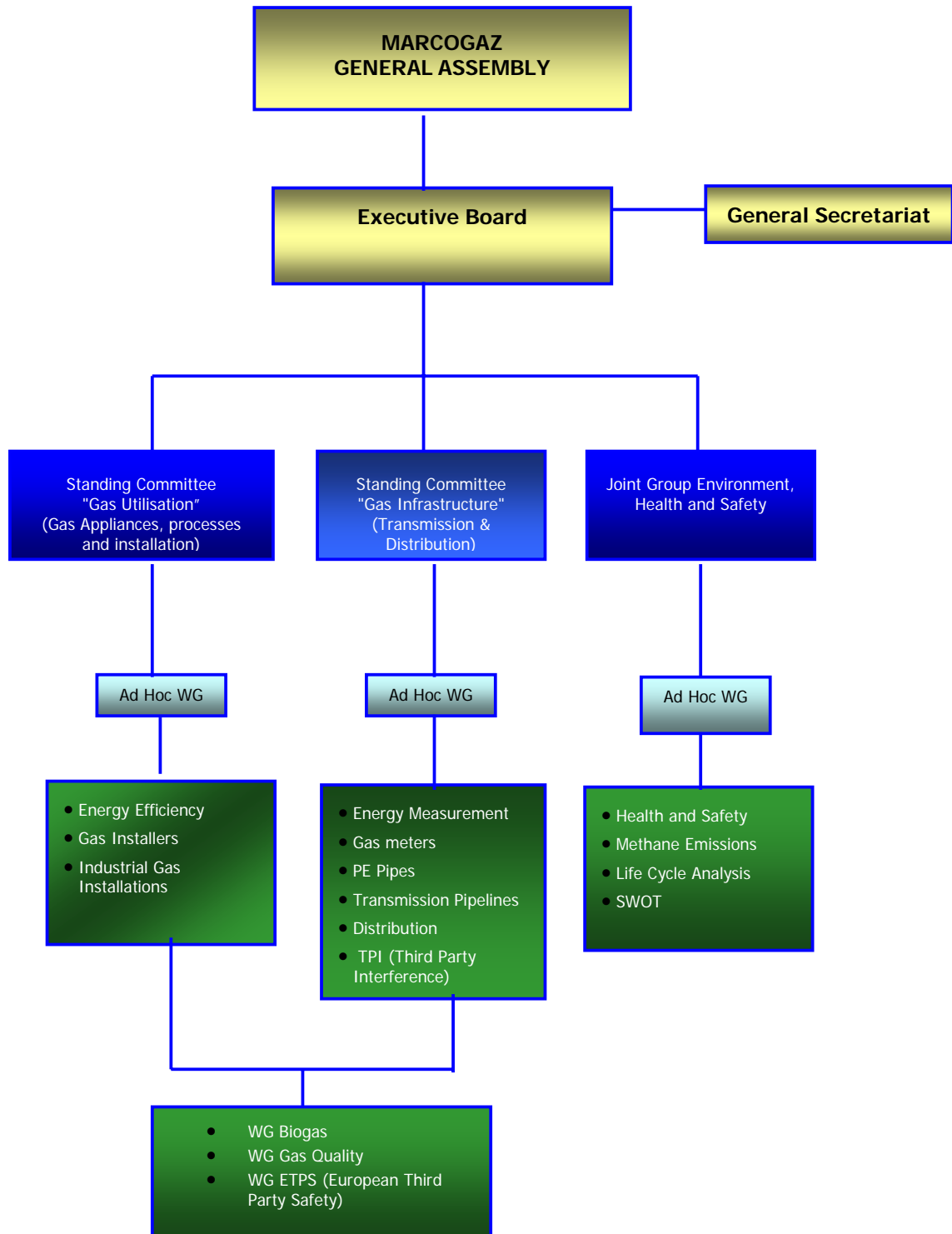
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Internal Organisation Chart

Status at 1st December 2006



MARCOGAZ Website

MARCOGAZ has its own homepage on the Internet at <http://www.marcogaz.org> which offers general information on the Association and its organisation and activities as well as access to major reports and publications. It gives information on:

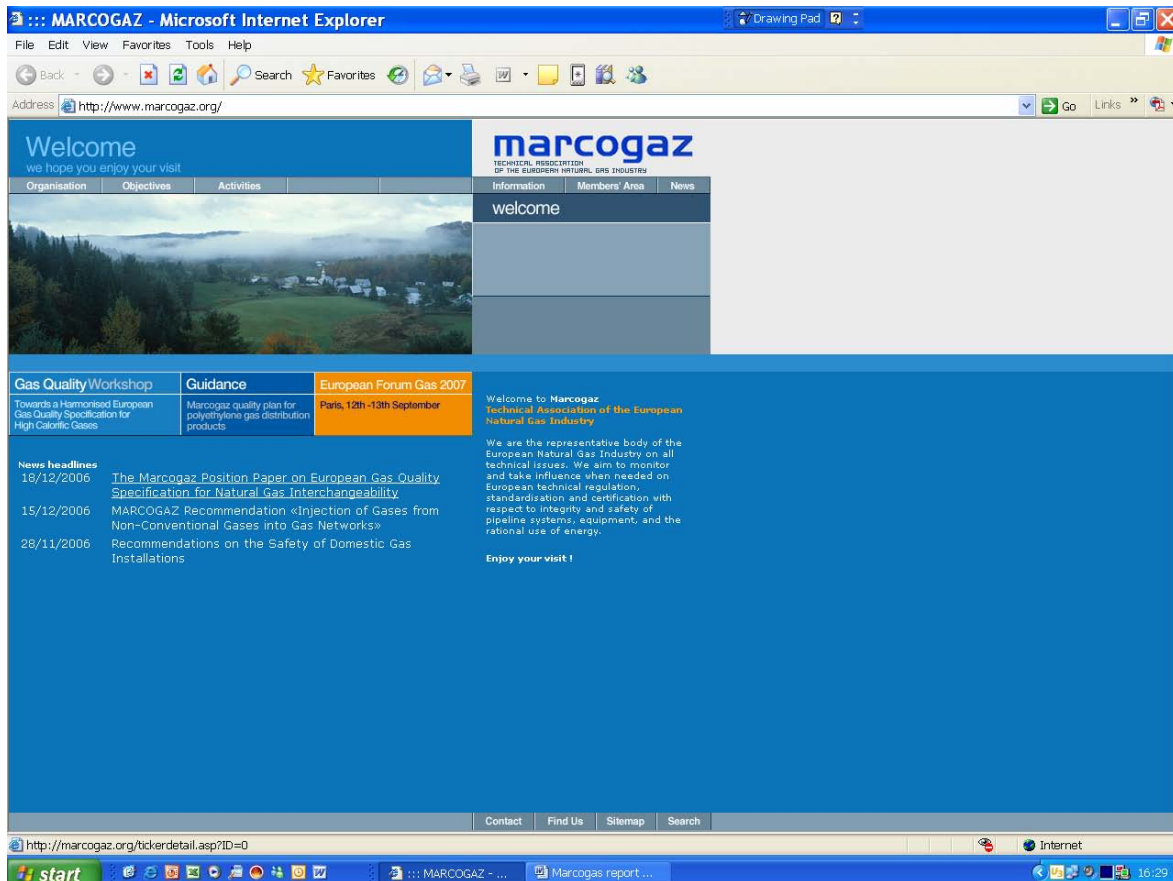
- ❖ MARCOGAZ organisation
- ❖ Objectives
- ❖ Activities
- ❖ News related to the gas world

Decision has been taken in 2006 to entirely renew MARCOGAZ website with separate sections for the Public and the Members.

For the Members the sites offer the possibility to have access to more internal information such as:

- ❖ Minutes from all meetings;
- ❖ Presentations;
- ❖ Reports;
- ❖ Legislation;
- ❖ Meeting agenda.

Most of the documents are downloadable from the site (for members only)



General Assembly

The General Assembly held its 2006 annual session on 12th May 2006 in Torino.

On this occasion, review of the activities of the Standing Committees and Joint Group Environment Health and Safety was carried out, new business plans were approved and liaison with other bodies examined. External organisations were invited to present their activities (EUROGAS, IGU, GIE, and GERG).

Executive Board

Attendances

After 3 years of MARCOGAZ presidency of Prof. Klaus Homann (RWE Transportnetz Gas, D) the General Assembly decided to appoint Luigi Scopesi (CIG, I) as new MARCOGAZ President. Luigi Scopesi has a very long experience in MARCOGAZ and other national, European and international organizations. He was Chairman of the Joint Group Environment Health and Safety for many years and he is currently Vice President of CIG, the Italian Gas Committee.

Prof. Homann gave an outstanding contribution to the Gas Industry through MARCOGAZ which reached a higher European status and recognition during his 3 year presidency (2003-2006).

The Board thanked Prof. Homann for the precious assistance provided to the association in so challenging times for the Gas Industry.

Gérard de Hemptinne (Fluxys, B) was elected Vice President in Torino.

In the past year, the following changes occurred:

- ❖ Sven Gundersen (Statoil) replaced Karl Sjoen (Statoil) for Norway
- ❖ Eric Dam (Gasunie) replaced Frits Haak (Gasunie) for The Netherlands
- ❖ Zoltan Zana (MOL Natural Gas Transmission PLC) joined the Board

Meetings

The Board had three meetings in 2006

- 14th March – Brussels (B)
- 11th May – Torino (I)
- 19th October – Brussels (B)

The main Board issues and decisions regarding MARCOGAZ activities are mentioned in the appropriate sections of the report.

Relationship with other Organisations

International Gas Union (IGU)

In 2004, MARCOGAZ and IGU signed an Agreement about MARCOGAZ becoming affiliated to IGU.

MARCOGAZ has therefore the possibility to attend IGU Council and Co-ordination Committee meetings and to send and receive position papers and documents on issues of relevance for its activities.

Exchange of information and diffusion to IGU of MARCOGAZ positions and reports is especially active with IGU WOC3 (Transmission), WOC4 (Distribution) and WOC5 (Utilisation).

The MARCOGAZ General Secretary attended the 23rd edition of the World Gas Conference in Amsterdam.

MARCOGAZ Secretariat also attended the following IGU events in 2006:

- ✚ On 26th January the IEA/IGU/CIEP high level conference on Regulation of Natural Gas Market in Paris
- ✚ On 6th-7th September in Essen the WOC 3 meeting
- ✚ On 19th-22nd September 2006 in London the WOC 4 meeting
- ✚ On 18th October 2006, a proposal for co-operation between MARCOGAZ and IGU was presented to the IGU Council (copy of the presentation is available from MARCOGAZ website) during the IGU Council in Lima (Peru)

Gas Infrastructure Europe (GIE)

General

Since the beginning of the 90's, MARCOGAZ has identified, monitored and taken actions related to the safety of natural gas infrastructure, including high pressure transmission pipelines with the objective to promote safety, reliability, cost effectiveness and environmental advantages of natural gas systems.

MARCOGAZ has been very active in monitoring the development of European Regulation concerning major hazards (for example the SEVESO II Directive where MARCOGAZ action led to the exclusion of pipelines from the scope) and was especially involved in the elaboration of the full set of functional standards which are now the technical standards of reference for gas transmission and distribution in Europe. More recently, MARCOGAZ participated in a study on Pipeline Safety in a DG TREN Group of Experts.

GTE, Gas Transmission Europe, is representing the European TSOs and covering the transmission activities within GIE, Gas Infrastructure Europe, the European Association of the gas infrastructure operators (transmission, storage and LNG terminals). GIE is committed to the development of an efficient internal market for natural gas in Europe.

The GTE Plenary unanimously decided to set up the GTE Safety, Security and Environment WG (SSE WG) in April 2005. The SSE WG will elaborate the GTE positions on safety and notably consider the managerial aspects.

In order to exchange, co-operate and avoid overlap between the two organisations, GTE and MARCOGAZ have signed an agreement on 6th June 2005, to:

- open MARCOGAZ WG Transmission Pipelines and WG Third Party Interference to GIE representatives.
- open the recently created GIE Safety, Security & Environment WG to MARCOGAZ representatives.

The co-operation was fully operative in 2006.

Energy Security Platform

MARCOGAZ is a founding member of the Energy Security Platform which was set up to exchange views, identify common issues, and co-ordinate the contacts with the European Authority on Security questions.

CEFIC, ETSO, EUROGAS, EURELECTRIC, EUROPIA, GIE, MARCOGAZ, OGP and UCTE are also members of the Energy Security Platform.

This platform was in charge to follow the development at EU level of the new European Programme of Critical Infrastructure Protection.

In 2006 the Security Platform met to follow the issue of critical infrastructure from an energy perspective. The group met also representatives of the EU to monitor the developments from the EU Commission and possibly to react expressing the view of the energy Industry.

GIE Safety, Security & Environment WG

MARCOGAZ actively participated in the work of this WG which main aim is to follow the new security policy of the EU Commission focused on the protection of the critical infrastructure in Europe.

In November 2005 the EU Commission DG JFS (Directorate General for Justice, Freedom and Security) launched a public consultation on the Green Paper on the European Programme for the Critical Infrastructure Protection, asking different stakeholders and industry representatives to answer and express their views. The sectors involved in this consultation varied from the transport sector, telecommunication, and logistics to the Energy sector. A common MARCOGAZ/GIE answer was provided to the EU Commission on this particularly sensitive issue.

During the year 2006 the WG met several times to monitor and possibly participate in the developments of the security issue at EU Commission level.

In particular the group actively participated in the workshops organised by the EU Commission to define critical infrastructure expressing the view of the Gas Industry on this subject.

In December 2006 the EU Commission released a Communication and a draft Directive dealing with the protection of critical infrastructure on which the group decided to prepare a common position.

Activity related to EASEE-gas

The European Association for the Streamlining of Energy Exchange was set up in 2002 to prepare Common Business Practices to develop the physical transfer and the trading of gas in Europe.

A MARCOGAZ Representative took an active part in the Advisory Panel which advises EASEE-gas on future developments and discussions regarding the Association strategy.

A possible evolution of the role and mission of EASEE-gas was discussed in 2006.

General Secretariat

Daniel Hec, Secretary General since 2004, was confirmed for an additional 2 year mandate starting on 1st January 2006.

Alessandro Cigni joined the MARCOGAZ General Secretariat in July 2005 for a 3 year period.

Executive Board Members at 31 December 2006

L. Scopesi, President	CIG	Italy
G. de Hemptinne, Vice-President	Fluxys S.A.	Belgium
M. Florette	Gaz de France	France
R. Chvatal	Wien Energie Gasnetz	Austria
P.I. Hinstrup	Danish Gas Technology Centre	Denmark
K. Homann	RWE Transportnetz Gas	Germany
Z. Zana	MOL Natural Gas Transmission Plc	Hungary
M. Kebrdle	Czech Gas Association	Czech Republic
L. Nolan	Bord Gais Eireann	Ireland
E. Dam	N.V. Nederlandse Gasunie	The Netherlands
S. Gundersen	Statoil	Norway
K. Kmet	Slovak Gas and Oil Association	Slovak Republic
J. Pons	Sedigas	Spain
W. Girsberger	SVGW	Switzerland
V. Gourioti	Depa	Greece
D. Salisbury	National Grid	United Kingdom

Developments in 2006

The three main fields of MARCOGAZ activity are in the hands of the three following corresponding main groups:

- Standing Committee Gas Utilisation
- Standing Committee Gas Infrastructure
- Joint Group Environment, Health and Safety.

The latter is a Joint Group of MARCOGAZ and EUROGAS.

Within their respective scopes, the three groups have the following tasks:

- to develop **industry policies and positions** regarding safety and integrity of gas networks, rational use of energy and protection of the environment
- to monitor **new developments** at National, European and International levels and to **advise future requirements** with technical legislation, specifications and standards, quality issues and certification
- to promote the use of **modern methodologies and technologies** giving advantage to natural gas
- to monitor the **standardisation** activities conducted by CEN, ISO,...
- to initiate **enquiries, studies** and to issue **Industry statements** regarding any technical issue interesting its members
- to develop and support **Gas Industry contacts** and communications with external partners such as the EU Commission, the other Industry Associations, International Organisations like IGU or UNECE
- to promote **safety, reliability, cost effectiveness, sustainability** and **environmental advantages** of natural gas systems and appliances
- to study any **technical subject of interest** for its members

Specific scopes and activities in 2006 are reported in the following sections.

Members of the Standing Committees, the Joint Group Environment Health & Safety and the WGs, at 1st December 2006, are listed in the appropriate Annex.

Summary

In the field of gas infrastructure, the main actions carried out were related to pipeline safety and standardisation issues. After the Ghislenghien accident it was decided to start up a dedicated WG focused on third party interference which delivered a position paper regarding this important question. This position paper was approved at the beginning of 2006 and it is now the basis of several communications

Because of its long standing involvement in gas pipeline safety, MARCOGAZ was invited to be part of the elaboration of the UNECE "Safety Guidelines/Good Practices for Pipelines" which were endorsed in September 2006.

MARCOGAZ also played an important role in the DG TREN Group of Experts on Oil and Gas Pipeline Safety which produced a report advising the EU Commission on possible measures to improve safety.

Energy efficiency is becoming a key aspect of European Energy policy like shown in the Action Plan released by the EU DG TREN in Autumn 2006, and many regulatory initiatives took place in the last two years: national implementation of the Energy Performance of Buildings Directive (2002/91/EC); adoption of a framework Directive on Eco-design of End-Use Equipment of Energy using Products (2005/32/EC); revision of the Labelling Directive (92/75/EC) in place; revision of the Boilers Efficiency Directive (92/42/EEC) and promotion of Energy Services Directive (2006/32/EC).

MARCOGAZ activities in gas utilisation are therefore closely related to energy efficiency. A longstanding good relationship with the EU Commission should help MARCOGAZ to promote its ideas and views.

Gas Quality was also a subject of high interest in 2006, with MARCOGAZ advising EASEE-gas and the Madrid Forum on the influence of gas characteristics variations on end-user gas appliances. On this subject MARCOGAZ was involved in the preparation of the questionnaire on Interoperability launched in 2006 by the EU Commission, and closely participated in the elaboration of the EU Commission mandate to CEN on Gas Quality harmonisation (Mandate M400).

In the standardisation field, MARCOGAZ co-operated with CEN especially with Technical Committee CEN/TC234 in charge of functional standardisation for the gas chain. Proposals for new work item (e.g. biogas injection) and requests for revision of existing standards were made, according to MARCOGAZ proactive safety philosophy.

Over the past years, the EUROGAS/MARCOGAZ Joint Group Environment, Health and Safety was especially active, producing many valuable results:

- Questions and Answers on methane emissions, Guidelines for choosing emission factors, Methodology for estimation of methane emissions in the Gas Industry
- Health and Safety report
- Launch of a Life Cycle Analysis of the gas chain study extended to the utilisation field
- A SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis of the gas activity.

MARCOGAZ continues to closely collaborate with other Associations: common activity with EUROGAS on environmental issues; participation in the EASEE-gas Advisory Panel; discussions with GIE concerning security issues and support to IGU Committees. MARCOGAZ also attended the Madrid Forum and participated in the UNECE activities related to natural gas.

In 2005, the European Third Party Safety Organisation (ETPS) in charge of collecting and analysing data related to incidents occurred on distribution systems and internal installation, officially joined MARCOGAZ. First results of this important activity were in 2006 the agreement on a new form to collect incidents, and the preparation of the 2004 and 2005 incident statistics.

More detailed information on the main issues in MARCOGAZ three areas of activity are given below.

Standing Committee Gas Utilisation



Scope of activity: *gas appliances, in-house installation, ducting systems and related equipment, industrial installations*

The overall objective is the promotion of appropriate technical conditions for the development of efficient modern gas technologies.

Particular consideration is given to:

- the establishment of a technical regulatory environment favourable to gas appliances and without discrimination against natural gas in competition with other fossil fuels and electricity;
- promote standards for high performance and consumer attractive and innovative products;
- safeguard appropriate safety and reliability through a high “quality” CE marking and conformity assessment procedures specific to gas;
- secure adequate and safe installation of gas equipment under changing market conditions;
- study and evaluate the impact of gas composition variations on end-use appliances;
- develop partnership with manufacturers trade associations, installers and consumers organisations;
- support R & D in the field concerned;
- support qualification/education schemes for gas installers;
- develop the use of Natural Gas for Vehicles.

The Standing Committee, chaired by T. Jannemann (DVGW, D) had two meetings in 2006:

- 27nd - 28rd April – Birmingham (UK)
- 5th - 6th October – Bonn (D)

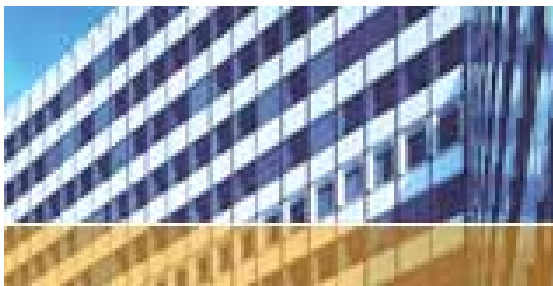
The main issues of interest were:

Eco-design of End-Use Equipment of Energy Using Products (EuP)

Due to political pressure, the implementation of the Eco-Design of End-Use Equipment of Energy using Products (EuP) Directive 2005/32/EC is now a top priority for the EU Commission (DG TREN). A first list of products groups to be addressed has been established. Boilers, combi-boilers and water heaters are amongst the first product families on the list. Preparatory studies were carried out in 2006 by Consultants in order to prepare a Working Plan to be issued in 2007. A Consultation Forum and a Regulatory Committee will be in place soon. Transposition of Directive 2005/32/EC by Member States should be effective by July 2007.

The correct measurements of efficiency and emissions being a fundamental matter, MARCOGAZ supports the initiative to create a quality label "LAB-TQ" for testing houses fulfilling specific requirements ensuring accuracy and reproducibility.

Energy Performance of Buildings (EPB)

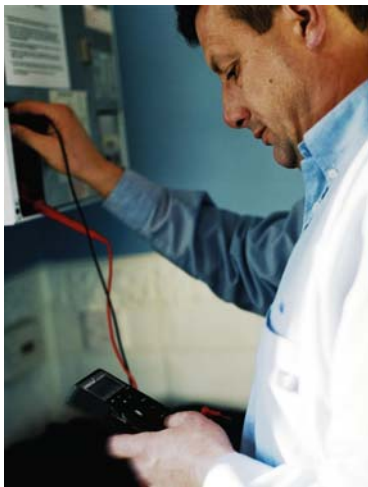


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SCGU has continued its benchmarking of the implementation of Directive 2002/91/EC Energy Performance of Buildings by means of presentations by the members and by participating in the EPBD Platform.

An important issue for the Gas Industry will be the amendment of EPBD planned for 2009 with the introduction of requirements to demonstrate new technologies or the installation of passive heating technologies, this last point being a threat to traditional gas installations especially in domestic/commercial sectors.

Qualification of Gas Installers



Liberalisation of the services market in Europe imposes a need to reduce potential barriers to trade, including that of installers. Seeking to establish the development of mutually recognised standards covering installation, inspection and maintenance of internal gas installations presents the Industry with the challenge of establishing an integrated approach when assessing the competency gas operatives and companies engaged in the sector.

MARCOGAZ with representatives of the European Federation of Installers GCI-UICP, has finalised a Position Paper on Safety of Gas Installations and is now working on the development of a Qualification and Competency Framework.

Consideration is being given to existing arrangements on competence requirements for movement between Member States and the needs of the Designated Authority in Host States. The planned work is considering national competency requirements, a European

Qualifications matrix for gas operatives, the importance of language skills and the assessment strategies that may be utilised.

Influence from the Service Directive (2006/123/EC) and Qualification Directive (2005/36/EC) on this work is also considered.

Gas Quality: an example of MARCOGAZ technical involvement

The origin

In October 2001 MARCOGAZ Standing Committee Gas Utilisation created the WG Gas Quality with the objective of studying the "Impact of gas composition on safety and performances of gas appliances". This launching of the WG was very timely indeed as the topic of gas quality gained momentum within Europe. At the Madrid Forum held in the fall of 2001, GTE presented a proposal for the harmonisation of gas quality parameters and announced that EASEE-gas would soon start working on this topic. The EASEE-gas "Gas Quality Harmonisation WG (GQHWG)" held its first of 32 meetings in January 2003. At that date, MARCOGAZ was already able to present a general statement on the impact of gas quality on appliances mentioning the Gas Appliance Directive as a landmark in its way forward. Actually, its first reflections on the topic were publicised during the Advantica conference on gas quality held in Loughborough on November 2002.

MARCOGAZ WG Gas Quality becomes the reference for residential applications

When discussing with EASEE-gas, the WG recognised very early that while infrastructure operators were heavily involved in the harmonisation process, the end-users, in particular the domestic ones, were absent. With the lack of involvement of manufacturers of appliances in the harmonisation process, the activity of the MARCOGAZ WG focused on the possible harmonisation of parameters that are of importance for those end-users' needs, i.e. parameters that are needed to ensure a safe and efficient combustion of the natural gas by those millions of appliances that can be found in EU.

The study was intensely pursued during 2003 with the publication of the First Position Paper in February. It basically stated that GAD compliant appliances should be the basis for harmonisation and that the parameters needed would include the Wobbe index. It also recognised that older appliances would probably have to be dealt with nationally to allow for the distribution of "harmonised" gas.

The Second Position Paper basically puts figures on the Wobbe index range and proposed as second parameter: the relative density. The idea behind this parameter was to cover sooting propensity. As this faulty behaviour occurs because of a high content of heavy hydrocarbons in the gas, combining relative density with Wobbe index was seen as an effective way to prevent it. Thus August 2003 saw the publication for the first time, an illustration of the ambition of MARCOGAZ proposal: to open the range of gases in EU and thus improve the safety of supply of the continent (see Figure 1). This proposal has since gained general acceptance and indeed, the figure became famous and widely reused. MARCOGAZ is now welcomed and recognised as an important interlocutor in the Madrid Forum process as far as gas quality is concerned.

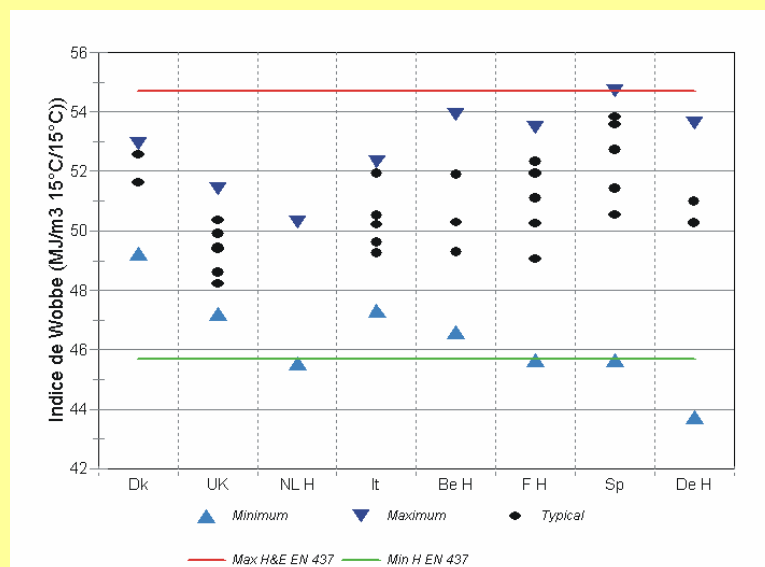


Figure 1: National Wobbe ranges with current (red) and proposed (green) interoperability range.

Uncertainties

The proposal was made with a number of caveats. It assumed that all appliances behave in the same way when submitted to changing gas quality, insofar as essential safety requirements are concerned wherever they are manufactured, sold and installed. Moreover it assumed that maintenance would not change that behaviour. These assumptions had to be confronted with the real world and a lot of time has been devoted to try and verify them. At the same time, EASEE-gas GQHWG challenged the proposal made by MARCOGAZ. Some producers wanted to lower the minimum Wobbe index to allow for their production to be within the range. Testing launched in different countries to assess the acceptable Wobbe range that could be fed to appliances on the national markets shown conflicting results. In some cases GAD compliant appliances after some time in the field may be unsafe with pure methane while in other cases the MARCOGAZ proposal could be exceeded without any trouble. Based on such results the range proposed could either be stretched or reduced depending on which one is taken into account.

To try and get a clear view of these uncertainties MARCOGAZ organised a workshop on 13th December 2005 in Saint Denis, near Paris. This workshop was very successful in terms of attendance; however it did not give any clear answers to the issues. Thus the Third Position Paper published in December 2006 presented all the key issues that have to be addressed prior to implementing any harmonised Wobbe range at a European level and some suggestions as the way forward.

From MARCOGAZ to CEN

The roadmap suggested in the Third Position Paper calls for a level of funding clearly out of reach of an organisation such as MARCOGAZ. However, the need to solve the issues identified in this paper led the European Commission to submit a mandate to CEN with two objectives. The first is to pursue the work of our WG with the means to achieve answers that could possibly lead to a harmonised range of combustion parameters within EU. The second would be to implement these parameters and the work done by EASEE-gas in a CEN gas quality standard. One of the last MARCOGAZ inputs in this standardisation process is to suggest an organisation to execute the mandate in an efficient way.

Thus after four years dedicated on this topic, MARCOGAZ and its WG Gas Quality can feel that a good deal has been achieved as *"a problem correctly defined is already half solved"*

Industrial Gas Installations

It is of importance, both commercially and socially, that for the industrial consumption, gas should be perceived as a safe product. Today, industrial gas installations are submitted to a very complex net of sometimes conflicting EU regulations. For the owner/user of an industrial installation it is almost impossible to know perfectly how to comply with all those Directives and underlying standards.

A high priority objective of MARCOGAZ is to create transparency in the European regulation framework in order to help the owner/user keeping his installation safe and in compliance with the regulations. Special topics to handle are the effects of the Pressure Equipment Directive, the ATEX (explosive atmospheres) Directive and the Machinery Directive, all related to the safety of the installation, the appliances and the labour areas.

Another important topic is gas quality. In the near future at cross-border points the Wobbe band will change including a rise of the upper limit. Knowledge about the effects on safety, combustion quality and efficiency of the industrial appliances as well as the safety of the gas pipework will be exchanged..

The first task was to overview the European and National Legislation (Directives/Regulations) and the technical guidance document affecting industrial installations.

The scope of the WG is covering the pipework installation starting at the point of delivery and all the appliances outside of the scope of the Gas Appliance Directive, without any limitation of the Maximum Operational Pressure.

Key issues for 2007

In the near future, MARCOGAZ SCGU will continue to be very active with different aspects of European energy policy, particularly in the field of energy efficiency.

MARCOGAZ will ensure that the specific measures implementing the Eco-Design Requirements for Energy Using products Directive will not be discriminating against other energies for gas boilers and water heaters. Labelling of products will be completely revised. Therefore SCGU through its WG Energy Efficiency will propose appropriate labelling requirements based on sound testing procedures.

Looking forward and considering the main pillars of the European Energy Policy (energy savings, more renewables, climate change), MARCOGAZ has decided new actions to promote the development and use of modern and efficient gas appliances (micro-cogeneration, fuel cells,...) and to follow the evolution of the hydrogen project.

Standing Committee Gas Infrastructure



Scope of activity: gas pipeline networks, associated plant and related equipment

Particular consideration is given to:

- promoting the understanding that gas infrastructure systems are adequately regulated by existing safety and prevention laws throughout the Community thus meeting the aims of EU precautionary principle and the objectives of the EU internal energy market policy;
- ensuring that the EU Authorities take into account the industry's very high safety record, achieved by a process of continuous improvements in application of the Pipeline Integrity Management System (PIMS);
- the inherent need for gas to be available in a safe and secure system of supply that will meet without interruption the requirements of customers as they arise;
- the availability required of components and equipment, which comply with the specific Gas Industry safety requirements to construct safe and reliable gas supply systems specified in the CEN/TC234 functional standards.

The Standing Committee, chaired by J-P. Beringuier (Gaz de France, F), had two meetings in 2006:

- 5th April – Scheveningen (NL)

- 12th October – Milano (I)

The major issues are the monitoring of EU initiatives, and more specially a possible EU pipeline safety instrument, but also the review of technical issues to be examined in the movement towards liberalisation in Europe.

Guide on Performance Indicators

WG Transmission Pipelines was especially active in the field of pipelines safety and integrity. One of the most relevant outcomes produced in the last year is the revision of the guideline for the definition of Performance Indicators for Safety Management Systems (SMS).

The purpose of this Guide is to establish a general methodology to support the operator in defining the Performance Indicators to measure the effectiveness of the technical policies adopted and thus the achievement of the safety targets defined in the SMS, tailored to each Company's needs.

The safety measures can be evaluated by the definition and calculation of appropriate performance indicators: the operator shall define the set of these indicators fit for the purposes according to the architecture of the adopted SMS.

Now the guideline is finalised and approved by MARCOGAZ for further use as a guideline by EU transmission system operators.

Since the European Group for Incident Statistics (EGIG), which is in charge of collecting data on gas leakages and find the corresponding causes, does not cover the fixed installations, the group decided to extend the scope of the work to installations such as, compressor or pressure reducing stations with the final objective to put the accent on safety performance.

Pipeline Safety



The Common Group of Experts created in June 2003 to advise the EU Commission on a strategy to deal with accidents in the transport sector, decided to set up five specific WGs, one which deals with oil and gas pipelines. The Gas Industry through MARCOGAZ was represented by three experts in this group.

The main decision taken was to prepare a report listing the safety legislation and standards concerning transmission gas pipelines, identifying the main threats and proposing appropriate recommendations. For the

Gas Industry, this document highlights the fact that third party damage is the main safety issue. Discussions also turned around the creation of an “independent European investigation body”. Due to the very few number of incidents concerning gas pipelines, MARCOGAZ is not in favour of such an initiative in the Gas Industry. Gas Industry safety records show very few accidents or incidents suggesting an emphasis mainly on prevention.

The document was finalised in September 2006 and will be further made public.

Third Party Interference

At the beginning of 2006 the Position Paper on Third Party Interference was completed and approved.

The Position Paper prepared aims at describing the current situation of gas networks in Europe and the proactive behaviour of the Gas Industry by means of the revision of standards, implementation of Pipeline Integrity Management Systems (PIMS), research projects for the development of new technologies and identification of key issues concerning third party interference for improving safety. The document gives also recommendations to pipeline operators and stakeholders.

The paper is now the basis for communication towards external parties. It was presented by MARCOGAZ in Berlin in April 2006 during the 4th European Forum Gas Conference.

Energy Measurement

The WG "Energy Measurement" after having examined various issues (benchmark on energy determination, reconstruction of gas calorific value , ...) decided to carry out a "Guidance Note on energy determination"

This Guidance Note expresses through MARCOGAZ the position of the Gas Industry for the use of best practices on energy determination. It should also consist in presenting pragmatic solutions taking into account the existing or future regulations, standards or recommendations.

The scope of the Guidance Note covers both transmission and distribution activities from the border stations to final domestic customers, since transmission operators are directly concerned with the future OIML (International Organisation for Legal Metrology) Recommendations for "measuring systems for gaseous fuels" and since the distribution operators have currently to meet new requirements from the Authorities

The key messages that can be used from this Guidance Note are the following:

- consider the right time periods versus the information and measurement systems
- consider the whole measurement system including the gas calorific value determination method and the right accuracy class according OIML principles and depending on the level of metered volumes and economic aspects:
 - ✚ class A (1% MPE in energy) seems to be satisfactory for large metering systems (interconnections)
 - ✚ class B and C (2 and 3 % MPE in energy respectively) seems to be satisfactory for city gates and for large and middle industry
 - ✚ a class D should be introduced for distribution.

PE Pipes Systems

During 2006 the MARCOGAZ members who approved the document «Guidance concerning a quality plan for PE pipes, fittings and valves for use in natural gas supply systems» started implementation of the scheme in their respective Countries.

The MARCOGAZ scheme is used (or will be implemented in 2007) in Austria, Belgium, Denmark, France, Germany and Spain, for the benefits of both gas companies and manufacturers.

The WG also focused on standardisation with the possible revision of two major standards for PE pipes systems gas operators:

- ✚ the EN 12007 standard which specifies basic principles for gas supply systems, and focus on safety on their construction and use,
- ✚ the system standard EN 1555, PE piping systems for the supply of gaseous fuels.

The objective of the WG is to define a common position.

WG Distribution



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The progressive opening of the gas market is likely to force the Gas Industry to deal with many new issues, especially those related to National Regulators. A European benchmarking study of Regulators' requests (both technical and economic) is an interesting way to anticipate and develop a common position for the European Gas Industry.

During 2006 the corresponding distribution WG met four times and built a detailed questionnaire that was sent to many European gas associations. It is expected that by the beginning of 2007 a harmonized list of distribution quality indicators should be issued.

Biogas



The increased use of renewable energies is a major objective in European energy policy and Directive 2003/55/EC explicitly asks for non discriminatory access to gas networks for non conventional gases. In addition, the importance of renewable energies has been once again reinforced, with the Energy Package issued by the EU Commission on 10th January 2007.

In this perspective, MARCOGAZ has prepared a Recommendation indicating technical requirements for a safe injection of non conventional gases (biogas, biomass...) in gas networks to be used by gas system operators and biogas producers. The final version of this specification was approved and released in October 2006 with the aim of forming a basis for a future European standard on this issue. Now the specification is downloadable on the MARCOGAZ website for all the interested parties.

MARCOGAZ closely co-operated with GERG which prepared European R&D projects on biogas.

ETPS (European WG on Third Party Safety)

ETPS was created 10 years ago to collect and analyse incidents/accidents occurred on gas distribution networks and internal installations (similar to EGIG for transmission networks).

In the year 2004 ETPS WG decided to join MARCOGAZ.

In 2006 the Chairmanship/Secretariat moved from Spain (SEDIGAS) to Germany (DVGW), the main change had been to agree on a more simple collecting data form that nevertheless contained all relevant key-elements.

It was indeed acknowledged that most members were struggling with a complex and excessively detailed form, resulting in different interpretations and presumably erroneous figures.

Moreover an amended version of the document "Agreement", including Appendix 1 on definitions, had been subject to a dedicated Task Force which issued a final version. It was then unanimously adopted, providing an appropriate basis for the works of the ETPS group.

A satisfactory participation of MARCOGAZ members had also been noted that should be enlarged in 2007 according to the wish of the MARCOGAZ Board for an even better and representative European picture of the statistics.

Key issues for 2007

Considering the importance for the Society to have a safe and reliable infrastructure and considering the high level of expertise of MARCOGAZ in the field of gas infrastructure, MARCOGAZ will continue to promote the principle of the self-regulation on safety.

In this perspective MARCOGAZ participation in the standardization work is considered essential not only with the aim of creating new standards if necessary but revising and updating existing ones.

MARCOGAZ is also strongly supporting the collection of sound technical and safety statistics which can prove to the stakeholders the very good impact of the Gas Industry activities on safety and environment.

Joint Group Environment, Health and Safety



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Scope of activity: *covers the collection of industry data and preparation of views relating to environmental studies and policy proposals by the European Union and other International Bodies, which may affect Gas Industry interests and operations of gas supply and utilisation.*

Particular attention is given to:

- promoting natural gas as the cleanest fossil fuel; as part of the solution to air pollution and to meeting the climate change objectives;
- ensuring that natural gas is not discriminated against in environmental policies;
- providing EUROGAZ and MARCOGAZ with policy, technical and practical operational advice on environmental issues;
- collecting different environmental statistics including health and safety indicators.

Chaired by Luigi Scopesi (CIG, I), and from October 2006, by Hartmut Heidinger (OMV, A), the Joint Group met three times in 2006:

- 14th March – Brussels (B)
- 28th – 29th June – Stavanger (N)
- 10th October – Brussels (B)

EUROGAS, the European Association of Gas Suppliers, and MARCOGAZ co-operate on environmental issues relevant to the gas chain. Within the Joint Group the emphasis of the work is on technical questions. Policy and commercial issues from the perspective of gas suppliers are the responsibility of EUROGAS Supply and Markets Development Committee (SMDC)

Methane Emissions

In 2003 was developed a reference Methodology for estimating methane emissions in the different parts of the Gas Chain, which all the members were asked to adopt for their reporting procedures.

In the period 2004-2005 were prepared:

- ✚ a Questions/Answers Sheet on the methane issue to possibly serve external communications on environmental issues related to methane emissions
- ✚ Guidelines for choosing appropriate values for ranges of emission factors for the application of the Methodology for estimating methane emissions

In 2006, was initiated a new phase of the WG activity, required by the Joint Group, to examine and collect case studies on practices and technologies put in place by the European Gas Industry to mitigate methane emissions

This complete set of documents is very timely since the concern of the policy makers is now growing in the field of emission of greenhouse gases and the possibility of including other greenhouse gases than CO₂ in the Emissions Trading Scheme.

Health and Safety

A study was made on occupational health and safety in the European Natural Gas Industry by the WG on Health and Safety of the MARCOGAZ/EUROGAS Joint Group.

The objectives of this study were to gather general information related to occupational health and safety to analyse the results and to draw conclusions and make recommendations (Figure 2)

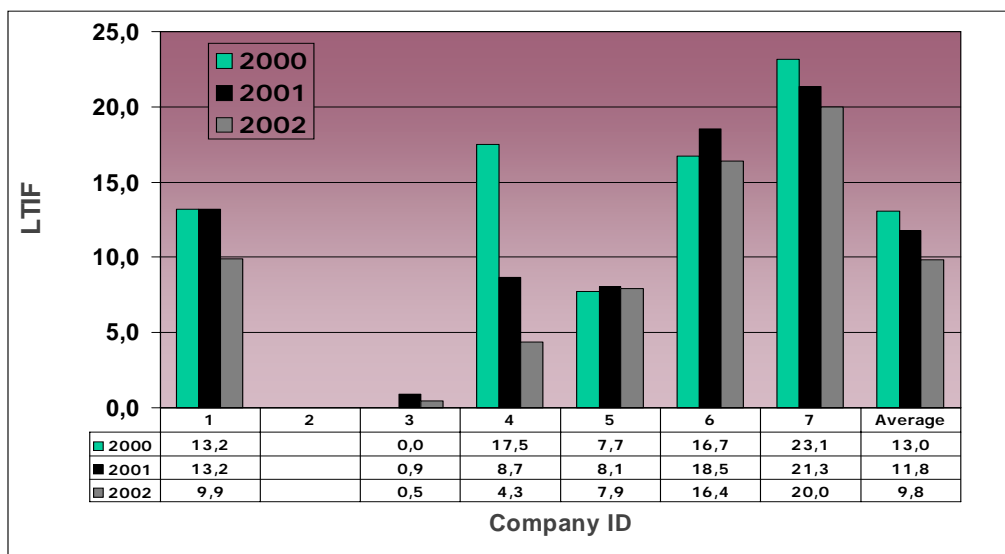


Figure 2: incident frequency rate 2000-2002

1

The group started with an inventory of all the H&S activities done by the members and decided to focus on the following subjects: statistical data and risk inventory.

The output of the data was used for comparison. In general, based on the data of a 3 year period, the number of accidents with lost time showed a slight tendency to decrease. The group established that the available data should be improved.

The output of the risk inventory was a list of identified risks and a ranking system for the European Gas Industry

The group recognises the need for more accurate and consistent data to improve the analysis in the future. It also recommends investigating the health and safety of contractors, the training of employees and contractors, collecting data on the additional risks and on indirect causes of accidents and incidents.

Also a special effort was made to contractor safety. The group made an overview of the actual problems with contractor on H&S and an inventory was made of all the best practices to solve these problems. It is the intention of the group to distribute these best practices amongst all MARCOGAZ members. The target is to prepare the report on Contractor Safety by the end of 2007.

Life Cycle Analysis Study

In 2004, the Joint Group set up a WG to develop a Life Cycle Analysis (LCA) for gas consumed in Europe. One of the reasons to make such study was the lack of a European LCA for the European Gas Industry. The main aim of this work is to define a LCA for the whole gas chain, from the production to the distribution in a first step, trying to highlight the environmental advantages related to the use of natural gas, especially compared with the use of the other fossil fuels such as oil and coal. Part of this work was completed by the end of 2005 and became part of the IGU LCA study that was presented in the IGU World Gas Conference in June 2006.

At the moment the WG has finalised the draft LCA from production to distribution.

In addition, in order to have a more complete study, it was decided to enlarge the scope of the study to the utilisation phase including electricity production with cogeneration, heating with condensing boilers and NGV. This decision was taken to highlight the high efficiency and environmental advantages of the natural gas final utilisation.

The whole LCA, including the utilisation extension, should be finalised and completed in 2008.

Work in relation to European Committee for Standardisation (CEN) and the International Standardisation Organisation (ISO)

European Standardisation work is of the foremost interest for MARCOGAZ, which has a liaison status with CEN and many technical Committees involved in harmonization of gas systems and products (CEN/TC 234 "Gas Supply", CEN/TC235 "Gas pressure regulators and associated safety shut-off devices for use in gas transmission and distribution", CEN/TC236 "Non industrial manually operated shut-off valves for gas and particular combinations valves-other products", CEN/TC237 "Gas Meters", CEN/TC238 "Test Gases", CEN/TC109 "Central Heating Boilers", CEN/TC181 "LPG", ISO/TC193 "Natural Gas".

Positions of the European Gas Industry relative to CEN or ISO activities are co-ordinated and expressed by MARCOGAZ.

Sector Forum Gas

MARCOGAZ which was involved in the creation of Sector Forum Gas, was active in 2006 in both Sector Forum Gas Infrastructure and Utilisation by attending both Plenary meetings and some working groups meetings.

Following an action from MARCOGAZ, the adoption of the Guidance Document concerning the situation of pressure regulating devices installed in service lines, allows CEN/TC 235 to withdraw the standardisation activity of such products from its work programme.

In the field of gas utilisation, MARCOGAZ endorsed the role of representing the end users in the discussions regarding harmonisation of gas quality, which led to Mandate M 400.

CEN/TC 234 "Gas Supply"

MARCOGAZ strongly supports the activities of the CEN/TC 234 which plays a key role in the pro-active self-regulation attitude of the European Gas Industry, by providing to all actors of the gas chain high level quality technical standards, this being of particular importance when discussing safety regulations at European or National levels.

In 2006, MARCOGAZ participated in both the CEN/TC 234 Plenary meeting on 23rd May and the Convenors meeting on 14th December, asking for revision of existing standards after 5 years of existence and proposing new work items of high interest for the Industry.

As it was done before for EN 1594, MARCOGAZ advocated for the revision of the EN 12007 series regarding distribution to take into account the technological evolutions and the experience of implementing the existing standards in the different CEN Countries.

Proposals to include issues such as injection of biogas in gas grids or gas quality harmonisation were made successfully at EU level.

In order to be ready to answer quickly on any technical issue to be harmonised at EU level, MARCOGAZ promoted the presence of CEN/TC 234 in places where technical aspects are discussed, e.g. the Madrid Forum or EASEE-gas.

CEN/CENELEC Sector Forum Management

Following the preparatory work of the CEN/CENELEC JWG on energy management where it as active, MARCOGAZ participated in the kick off meeting of the CEN/CENELEC Sector Forum Energy Management on 24th November 2006.

This new entity will have an advisory role and will provide guidance to introduce energy management in the standardisation work. The group should be able to consider and make recommendations on issues affecting energy management of great importance for the Gas Industry such as:

- tools for energy performance in buildings
- air conditioning
- alternative fuels
- energy systems for tomorrow
- green certificates
- CO₂ capture and storage
- requirements for energy services companies
- white certificates

Membership at 1st December 2006 of Standing Committees, Joint Group Environment, Health & Safety and WGs

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R.C. Ford (Advantica, UK)
V. Gouriotti (DEPA, GR)
K. Grass (Thüga, D)
K. Haring (Tiroler Ferngas, A)
R. Hermskens (Gasunie, NL)

N. Jackson (National Grid, UK)
D. Jagodzinski (DVGW, D)
M. Kerul-Kmec (SPP a.s. Bratislava, SK)
W. Laps (Eandis, B)
M. Last (Thüga, D)
J. Meehan (National Grid, UK)
L. Nolan (Bord Gais Eireann, IRL)
N. Pericacho (Enagas, E)
J. Puertas Agudo (Gas Natural SDG, E)
D. Salisbury (National Grid, UK)
H. Schülken (DVGW, D)
A. Schwanzer (Austrian Association Gas & Water, A)
J. Soto Rey (Gas Natural, E)
P. Stefl (Czech Gas Association, CZ)
U. Wetzel (BGW, D)
S. Williams (Bord Gais Eireann, IRL)

WG Energy Measurement

G-H. Joffre (Gaz de France, F) - *Chairman*
S. Ambroz (Vyhodoceska Plynarenska, CZ)
C.M. Andersen (Energinet, DK)
J-L. Beccat (Gaz de France, F)
J. Dehaeseleer (Electrabel, B)
D. Lander (National Grid, UK)

M. Marin (Fluxys, B)
T. Straub (SVGW, CH)
M. Uhrig (E.ON-Ruhrigas, D)
B. Viglietti (Snam Rete Gas, I)
F. Vulovic (Gaz de France, F)

WG Gas Meters

J. Dehaeseleer (Electrabel, B) - *Chairman*
J. Beccat (Gaz de France, F)
V.M. Cannizzo (Snam Rete Gas, I)
F.A. de Jong (Gasunie, NL)
U. de Castro (Italgas, I)
A. Erdal (Statoil, N)
P. Grosshennig (Bayerngas, D)
K. Haring (Tigas, A)
F.A. Heimlich (RWE Westfalen, D)

C. Le Flohic (Gaz de France, F)
L. Maina (Italgas, I)
M. Marin (Fluxys, B)
L. Nolan (Bord Gais Eireann, IRL)
J. Senave (Facogaz, B)
J. Sibley (Advantica Technologies Ltd, UK)
P. Stefl (Czech Gas Association., CZ)
T. Straub (SVGW, CH)
M. Uhrig (E.ON-Ruhrigas, D)

WG PE Pipes

F. Berthier (Gaz de France, F) - *Chairman*
G. Carens (Belgian Gas Association, B)
B. Clausen (Hovedstadsregionens Naturgas, DK)
J. Grafeneder (EVN AG, A)
D. Grahl (RWE Gas, D)
I. Kas (ARGB, B)

T. Neumann (RWE Gas, D)
D. Robinson (National Grid, UK)
P. Stefl (Czech Gas Association., CZ)
J. Solis Marzal (Gas Natural SDG, E)
M. Wolters (Gastec, NL)

WG Transmission Pipelines

L. Pronk (Gasunie, NL) - *Chairman*
A. Cappanera (Snam Rete Gas, I)
S.U. Dalsager (Dong Energy, DK)
D. Deberdt (Fluxys, B)
A. Erdal (Statoil, N)
M. Fuchs (OMV, A)
J. Grönner (RWE Energy AG, D)
K. Haring (Tigas, A)
M. Harzenmoser (Swissgas, CH)
L. Hearne (Bord Gais Eireann, IRL)
A. Hilgenstock (E.ON- Ruhrgas, D)
K. Homann (RWE Transportnetz Gas, D)

N. Jackson (National Grid, UK)
D. Jagodzinski (DVGW, D)
M. Kerul Kmec (SPP a.s. Bratislava, SK)
I. Komouros (RWE Transgas, CZ)
F. Laurens (GRTGas, F)
G. Linke (E.ON-Ruhrgas, D)
N. Pericacho (Enagas, E)
M. Poitou (GIE, B)
T. Straub (SVGW, CH)
J. Zanting (Gasunie, NL)
Z. Zana (MOL, H)
D. van den Brand (Gasunie, NL)

WG Third Party Interference

J-P. Beringuier (Gaz de France, F) - *Chairman*
S. Akel (Gaz de France, F)
R. Bolt (Gasunie, NL)
C. Chiodaroli (Snam Rete Gas, I)
D. Deberdt (Fluxys, B)
J. Fentz (Naturgas Midt/Nord, DK)
M. Fuchs (OMV, A)
D. Jagodzinski (DVGW, D)
J. Zanting (Gasunie, NL)

M. Kerul-Kmec (SPP a.s. Bratislava, SK)
M. Kornlijnslijper (Gasunie, NL)
G. Linke (E.ON-Ruhrgas, D)
N. Pericacho (Enagas, E)
M. Poitou (GIE, B)
P. Roovers (Fluxys, B)
A. Roveilli (Snam Rete Gas, I)
D. Willett (National Grid, UK)

WG ETPS

D. Jagodzinski (DVGW, D) - *Chairman*
D. Bendle (British Gas, UK)
G. Bollore (AFG, F)
F. Castorina (CIG, I)
F. Dupin (DVGW, D)
L.B. Pedersen (HNG, DK)

W. Girsberger (SVGW, CH)
H.J. Roebbers (KIWA, NL)
J. Soto Rey (SEDIGAS, E)
M. Stefanovic (SPP a.s. Bratislava, SK)
T. Straub (SVGW, CH)
B. Thomas (KVGW, B)

Joint Group Environment, Health and Safety

H. Heidinger (OMV, A) - *Chairman*
S. Basiu (EUROGAS, B)
K. Bjurling (Swedish Gas Association, SE)
H. Casterman (Gaz de France, F)
S.U. Dalsager (Dong Energy, DK)
P. De Jong (National Grid, UK)
F. Dupin (DVGW, D)
V. Gouriotti (DEPA, GR)
D. Gullentops (Synergrid, B)
J.K. Jensen (Danish Gas Technology Centre, DK)
P. Karinen (Gasum, FI)
M. Kebrdle (Czech Gas Association, CZ)
T. Kleppe (Statoil, N)
R. Kopny (Slovensky Plynarensky Priemysel, SK)

J. Vorgang (E.ON-Ruhrgas, D)
G. Laroche (Gaz de France, F)
M.A. Loudon (EUROGAS/MARCOGAZ Secretariat, B)
O. Matile (ASIG, CH)
M. Mondino (Italgas, I)
L. Nolan (Bord Gais Eireann, IRL)
B. Postmus (Gasunie, NL)
J. Puertas Agudo (Gas Natural, E)
A. Riva (Snam Rete Gas, I)
M. Rottner (Transgas, CZ)
M. Schäufele (Federal Association of the German Gas and Water Industries, D)
T. Veenstra (Gasunie, NL)

WG Health and Safety

T. Veenstra (Gasunie, NL) - *Chairman*
D. Gullentops (Synergrid, B)
F. Meyer (E.On-Ruhrgas AG, D)
M. Mondino (Italgas, I)
A. Marlovits (OMV Gas, A)

A. Riva (Snam Rete Gas, I)
G. Scatena (Snam Rete Gas, I)
M. Seifert (SVGW, CH)
J. Speltinckx (Fluxys, B)
A. Wedgwood (National Grid, UK)

WG Methane Emissions

A. Riva (Snam Rete Gas, I) - *Chairman*
D. Bradshaw (National Grid, UK)
M. Fuchs (OMV, A)
M. Girard (Italgas, I)
D. Gullentops (Synergrid, B)
P. Hogawoning (Gasunie, NL)
I. Przydrozny (Gaz de France, F)

M. Mondino (Italgas, I)
L. Occhio (Snam Rete Gas, I)
J. Vorgang (E.On-Ruhrgas, D)
G. Scatena (Snam Rete Gas, I)
M. Seifert (SVGW, CH)
J. Speltinckx (Fluxys, B)
A. Wedgwood (National Grid, UK)

WG SWOT

D. Gullentops (Synergrid, B) - *Chairman*
K. Bjurling (Swedish Gas Association, SE)
H. Casterman (Gaz de France, F)
P. De Jong (National Grid, UK)
J. Fernandez Docio (Gas Natural, E)

H. Heidinger (OMV, A)
J.K. Jensen (Danish Gas Technology Centre, DK)
M. Mondino (Italgas, I)
A. Riva (Snam Rete Gas, I)
T. Veenstra (Gasunie, NL)
J. Vorgang (E.On-Ruhrgas, D)

WG LCA

M. Papadoupolo (Gaz de France, F) - *Chairwoman*
G. Laroche (Gaz de France, F)
D. Gullentops (Synergrid, B)

S. Serina (Snam Rete Gas, I)
T. Veenstra (Gasunie, NL)
J. Vorgang (E.On-Ruhrgas, D)

Internal Meetings

General Assembly

1. Torino 12/05/06

WG Energy efficiency:

1. Frankfurt 12/01/06
2. Brussels 18/09/06

Executive Board

1. Brussels 02/03/06
2. Torino 11/05/06
3. Brussels 10/10/06

WG Gas Quality:

1. Brussels 03/02/06
2. Brussels 20/04/06
3. Hinckley 14/09/06

SC Gas Infrastructure

1. Scheveningen 05/04/06
2. Milano 12/10/06

WG Gas Installers:

1. Manchester 23/03/06
2. Brussels 03/10/06

WG Distribution

1. Brussels 22/02/06
2. Brussels 30/05/06
3. Paris 06/09/06
4. Wien 18/12/06

WG Industrial Gas Installations

1. Brussels 18/05/06
2. Brussels 08/11/06

WG Energy measurement:

1. Brussels 25/01/06
2. Brussels 17/05/06

WG Biogas:

1. Brussels 07/02/06
2. Brussels 19/04/06
3. Hinckley 15/09/06

WG PE pipes:

1. Brussels 26/01/06
2. Brussels 16/11/06

JG ENV H&S

1. Brussels 14/03/06
2. Stavanger 27-28/06/06
3. Brussels 19/10/06

WG ETPS

1. Brussels 31/05/06

WG Health & Safety

1. Milano 17/02/06
2. Warwick 16/05/06
3. Brussels 19/09/06

WG Transmission Pipelines

1. Brussels 09/02/06
2. Warwick 01/06/06
3. Brussels 19/09/06

WG Methane Emissions

1. Milano 12/10/06

SC Gas Utilisation

1. Edinburgh 27-28/04/06
2. Bonn 5-6/10/06

WG LCA

1. Brussels 21/02/06
2. Paris 07/07/06
3. Brussels 20/09/06

Statistics (16 MARCOGAZ members)

<i>Main figures for the European gas Market year 2005 (16 Members)</i>	
Number of connected customers to gas networks [number]	93.614.775
Gas sales [TWH/y]	4.874
Transmission network length [Km]	214.652
Distribution network length [Km]	1.444.400
Transmission compression plants[number]	150
Transmission network reducing stations[number]	9.276
City gate reducing stations[number]	23.457
LNG Terminals[number]	11
LNG Storage installed [m3 LNG]	2.410.000
Total underground storage capacity [Gm3]	59
NGV Vehicles	464.920

Table 1: general figures for the European gas activity year 2005

	Commercial Data		Pipeline Length			Service pipes
	Gas Customers	Gas Sales [TWh/y]	Transmission [Km]	Distribution [Km]	Total [Km]	
Austria	1.328.710	100,00	2.661	31.994	34.655	N.A.
Belgium	2.727.560	173,50	3.868	57.477	61.345	N.A.
Czech Republic	2.800.621	98,90	3.647	68.933	72.580	1.448.351
Denmark	309.240	46,19	3.389	16.000	19.389	N.A.
France	11.498.800	525,00	36.490	187.600	224.090	6.890.786
Germany	15.444.840	813,40	75.000	310.600	385.600	8.844.709
Greece	61.652	29,89	971	3.620	4.591	52.331
Hungary	3.364.044	145,38	5.270	65.005	70.275	N.A.
Ireland	533.650	44,93	2.002	9.316	11.318	533.650
Italy	19.511.600	909,50	32.012	194.400	226.412	11.350.000
The Netherlands	7.090.065	458,70	11.600	121.527	133.127	N.A.
Norway	N.A.	3,10	N.A.	N.A.	0	N.A.
Slovak Rep.	1.441.737	60,69	8.574	24.262	32.836	646.691
Spain	5.661.088	298,90	8.384	41.991	50.375	692.883
Switzerland	436.000	36,00	2.190	16.638	18.828	280.000
United Kingdom	21.405.168	1.130,30	18.594	295.037	313.631	21.000.000
Total (16 members)	93.614.775	4.874	214.652	1.444.400	1.659.052	51.739.401

Table 2: European countries gas sales&customers – pipelines length + number of service pipes

	LNG			Storages			Cross Border Points
	LNG Terminals	Storage [mc LNG]		Compression Stations	Underground storages [Gmc]	N° Underground Storages	
Austria	0	0		6	3	4	7
Belgium	1	240.000		4	1	1	18
Czech Republic	0	0		6	3	8	2
Denmark	0	0		0	1	2	2
France	2	510.000		39	10	15	6
Germany	0	0		26	19	44	17
Greece	1	130.000		0	0	0	2
Hungary	0	0		5	3	5	3
Ireland	0	0		3	1	1	2
Italy	1	90.000		10	7	10	8
The Netherlands	1	75.000		9	2	3	10
Norway	0	0		N.A.	0	0	N.A.
Slovak Rep.	0	0		4	2	2	5
Spain	4	1.165.000		11	2	2	5
Switzerland	0	0		1	0	0	17
United Kingdom	1	200.000		25	4	10	3
Total (16 members)	11	2.410.000		150	59	107	107

Table 3: European countries LNG facilities – Underground storages – Cross border points