

Deutscher Verein des
Gas- und Wasserfaches e.V.



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DVGW Annual Report 2012



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Foreword

There is scarcely another sector subject to such dramatic changes as a result of political requirements as utilities. National and European developments are increasingly posing not only new technical and economic but also legal and organizational challenges for energy and water suppliers. In future energy systems, gas will gain an entirely new significance. The energy transition will also result in new conflicts for the water industry. Old and new players are assuming new roles and established principles are suddenly being called into question.

DVGW also faces this challenging situation. The motivation and objective of our work in a technical and scientific Association is the secure development of our sector, the gas and water industry, in the future. Intensive discussions concerning ground-breaking decisions at the national and increasingly also at the European and international level have a direct impact on the work of our large number of specialist committees.

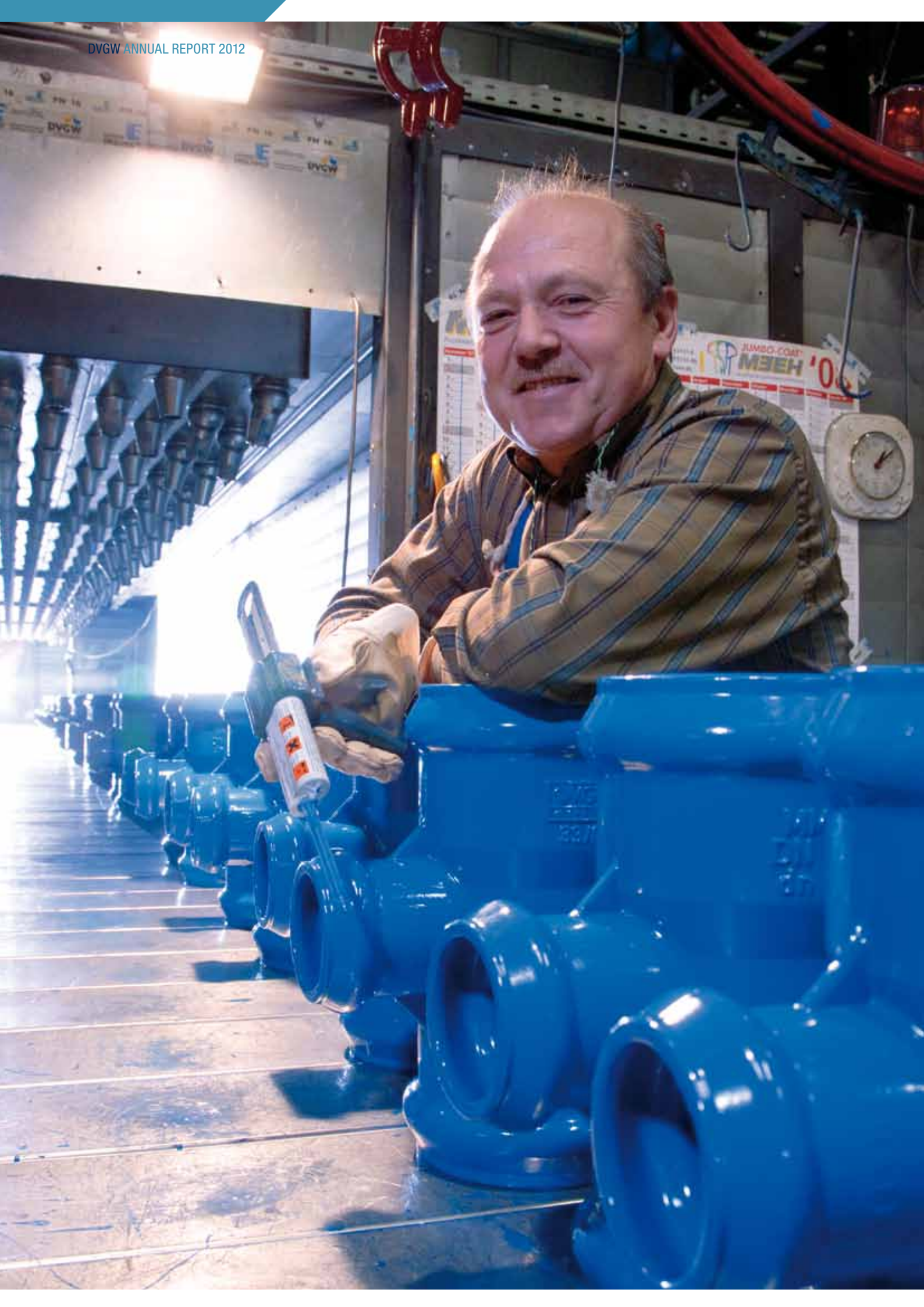
Work in 2012 was dominated by the DVGW gas innovation campaign. The research results obtained have been successfully positioned both with the public and with politicians. Through a campaign launched at precisely the right time, DVGW was instrumental in ensuring that natural gas is now rightly seen as a key component in the energy transition. Nevertheless, the water sector was by no means neglected. The main focus of attention was on quality, hygiene and sustainable resource protection. Guidelines for future work have been set by the newly formulated water research programme.

Last summer, we also launched the project “DVGW 2025” with the objective of formulating recommendations for action in view of present and future challenges faced by the association. All members are called upon to actively contribute their ideas and suggestions. It is planned to take the first decisions at the 2013 General Meeting.

As a technical association with one of the longest traditions in Germany, DVGW has for many years been synonymous with quality, safety, environmental protection and innovation in German gas and water supplies. In all our work, we strive to maintain these values and will continue to do so in the future. This achievement was only possible as a result of the considerable dedication of the volunteers on our technical committees, our extensive network of experts and the confidence placed in the association by the relevant authorities. Sincere thanks are due to everyone concerned for their support.

Through many projects and individual results, DVGW made significant contributions last year, bringing considerable benefits to its members and the entire gas and water industry. This Annual Report gives an overview of our achievements in 2012.

Bonn, May 2013
Dr.-Ing. Walter Thielen



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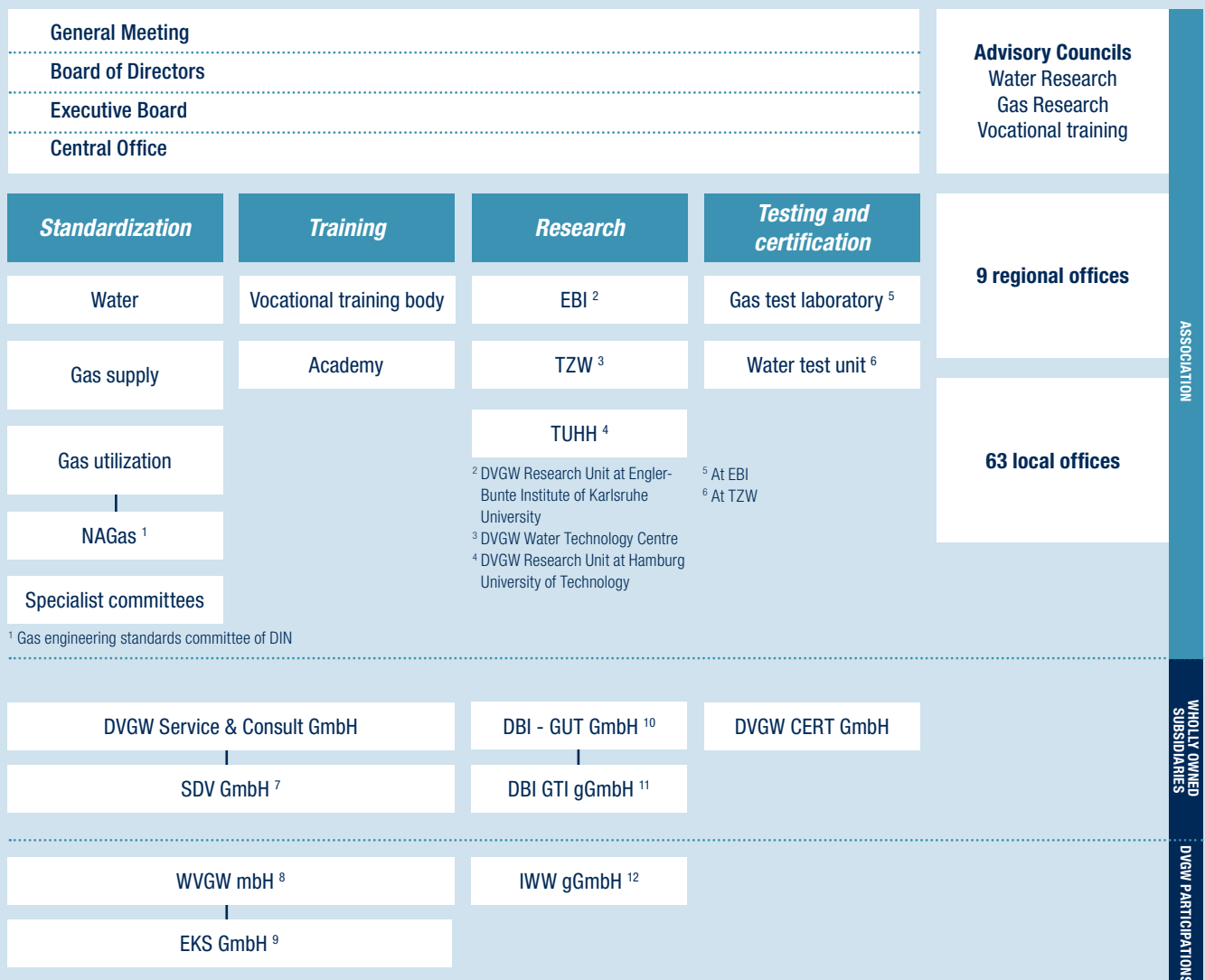
DVGW at a glance

DVGW – efficient and effective

DVGW (Deutscher Verein des Gas- und Wasserfaches e. V. – Technisch-wissenschaftlicher Verein – German Technical and Scientific Association for Gas and Water) has been providing technical and scientific support for the German gas and water industry since 1859. All the activities of DVGW focus on safety, hygiene and environmental protection, taking efficiency and cost-effectiveness into consideration. As

a technical standardization organization, DVGW promotes technological development in its sector. The production, transportation, distribution and use of natural gas and drinking water always call for technical processes and plant. The technical standards of DVGW lay the foundations for technical self-regulation under the responsibility of the German gas and water industry and ensure safe gas and water supplies at the highest international levels.

→ Organization



¹ Gas engineering standards committee of DIN

⁷ Sicherheitstechnischer Dienst der Versorgungswirtschaft GmbH

⁸ Wirtschafts- und Verlagsgesellschaft mbH

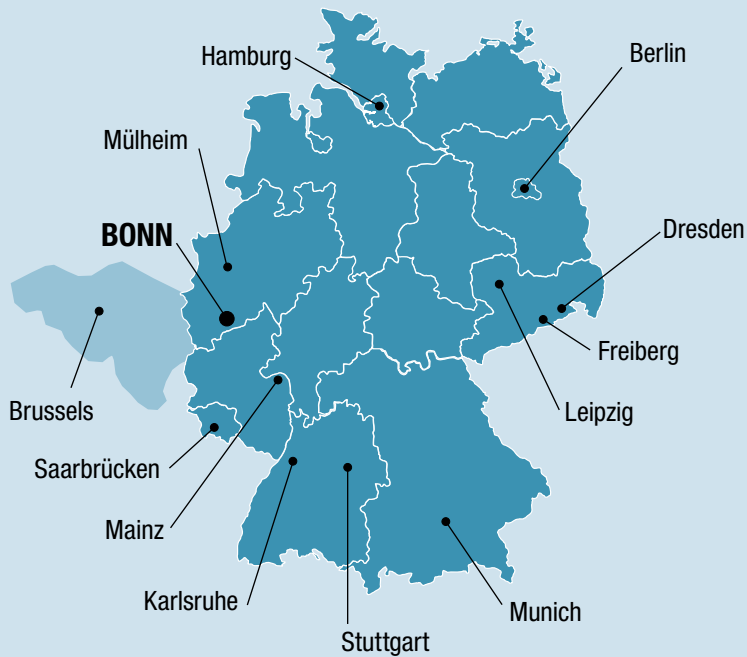
⁹ energie kommunikation services GmbH

¹⁰ DBI Gas und Umwelttechnik GmbH

¹¹ DBI Gastecnologisches Institut gGmbH

¹² Rheinisch-Westfälisches Institut für Wasserforschung gGmbH

→ Locations



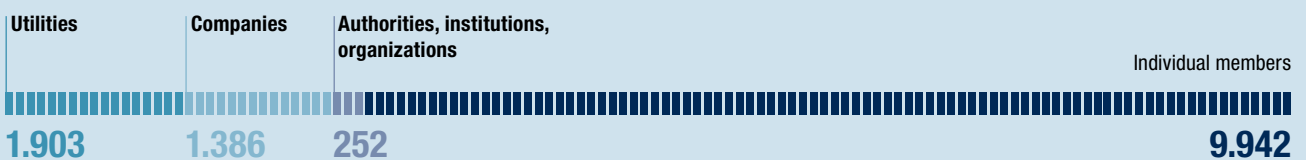
→ International cooperation*

- Albania
- Austria
- Bosnia and Herzegovina
- China
- Croatia
- Czech Republic
- Egypt
- Hungary
- Korea
- Latvia
- Macedonia
- Romania
- Russia
- Serbia
- Slovakia
- Slovenia
- Switzerland
- Vietnam

* cooperation on the basis of agreements



→ Membership as of 31 December 2012



13,483 members (total)

Gas and water – looking to the future

As a technical standardization body and a provider of strong impetus for innovation, DVGW makes work considerably easier for public bodies, gas and water companies, contractors and industry. With well-founded research results, studies, position papers and comments, DVGW fosters technical understanding and supports the development of opinions and effective decision-making. This not-for-profit association is a reliable partner for its members, authorities, government and above all consumers for whom water and gas are essential for their everyday lives.





Providing impetus for the future-oriented development of the industry

To an ever greater extent, the requirements for sustainable gas and water supplies are shaped by the growing pace of change in industry and society. As a result of political decisions on the energy transition in Germany and regulatory processes in Europe, with the ambitious targets set in terms of climate policy, the entire process chain of the gas industry is undergoing a process of transformation. Demographic change, the general fall in water consumption, new conflicts as a result of the energy transition and growing awareness of energy and cost efficiency are the key issues in the water industry. In 2012, the activities of DVGW focussed on these aspects with the overall objective of safeguarding and developing gas and water supplies for the future.

DVGW innovation campaign II launched

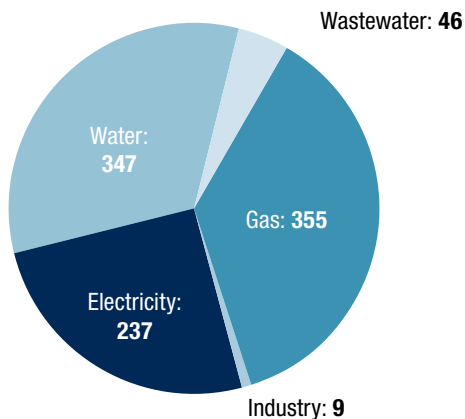
The energy transition in Germany calls for innovative approaches and solutions in interaction between existing and new structures. Highly innovative gas technologies and the existing gas infrastructure will play a key role in the storage of energy from renewable sources and network stabilization. In the framework of its gas technology innovation campaign launched in 2009, DVGW has conducted important research work and laid the technical foundation for the role of gas in an energy system based on renewable energy sources.

By systems analysis activities going beyond the boundaries of individual energy sources, it was possible to firmly position the concept of a convergent energy system based on electricity and gas in the awareness of specialists, the public and politicians. In 2012, the implementation of the second stage of the innovation campaign started. The main areas of work are power to gas, the greening of gas, decentralized cogeneration, a smart gas grid (coupling with the electricity grid) and highly efficient utilization technology. (Further information on the innovation campaign is given in the «Research and Technology» section.)

Benchmarking in the water industry: further development of indicators

Water supply is strongly affected by regional conditions. From the technical point of view, it is evident that structural differences also lead to differences in the technical, human and financial resources required for individual supply processes. In cooperation with other industry associations, DVGW is developing a three-stage indicator system which will assist water suppliers and the industry as a whole to improve their performance capabilities and efficiency, to document services in a transparent way and to communicate with politicians and the public:

**Valid TSM certificates in 2012
(by sector) Total: 994**



- Structural features (e.g. water availability, soil and topographic conditions, economic and settlement structure, water pollution)
- About 20 sector indicators (relevant performance features of the sector with respect to safety, quality, sustainability, customer service and economics)
- About 80 to 100 main indications (for the continuous stocktaking and improvement of performance capabilities and efficiency in water supplies).

Benchmarking is a key tool for technical self-regulation in the German water industry. The industry is called upon to shoulder its responsibilities towards consumers and to ensure that the high performance level achieved in water supplies is also maintained in the future despite the new challenges faced and changing conditions.

IT protection: critical gas and water infrastructure

The German government and industry see the protection of critical infrastructure as a key national task because domestic security is affected more and more strongly by IT security. In January 2012, the Federal Ministry of the Interior drew up a discussion paper concerning requirements for infrastructure operators. DVGW participated in several rounds of discussions for the drafting of this paper.

If it is necessary to develop national IT protection standards for the gas and water industry, these should be developed following tried and tested procedures as part of DVGW's system of standards. In 2013, a workshop with

experts from different associations is to be held on this topic. In addition to general stocktaking, the workshop will mainly be concerned with defining the content to be covered by industry-specific security standards. Apart from the relevant ministries and authorities, experts from utility companies and standardization bodies for gas, water, wastewater, power and district heat are involved in the process.

Technical safety management (TSM) – an effective tool for technical self-regulation

In order to ensure safe gas and power supplies and hygienic water supplies, the organizational structures and personnel qualifications of the companies concerned must meet the appropriate requirements. TSM certificates, which are now available in the areas of gas, water, electric power, wastewater, district heat, LPG and for operators of water bodies or gas plants on industrial sites, provide third parties with documentation that companies comply with technical safety requirements. At year end, about 1000 certificates concerning the successful auditing of technical safety management systems had been issued.

Information on current TSM certificates is available on the websites of DVGW and the participating associations AGFW, DWA, VDE/FNN and DVFG. DVGW Service & Consult GmbH, a wholly-owned subsidiary of DVGW e. V., which organizes TSM audits has also offered consultancy services in preparation for a TSM audit since 2012. This new service has been offered in response to the demand from the companies concerned, expressed in the form of the enquiries received by DVGW and DVGW regional offices as well as at specialist conferences.

Outstanding conferences: wat 2012 and gat 2012

Each year, the gas and water industry conferences (gat and wat) are the leading conferences in their industries. Both conferences were held in autumn 2012, with their dates staggered by one day. During the three days in Dresden, attention focused on key issues in the area of security of supplies and protection of resources. Both events proved themselves to be key drivers of energy and water discussions as a result of their even stronger orientation towards innovative topics relevant to the market in 2012. The growth of about 18 percent in delegate numbers compared with previous years also confirmed that gat and wat are seen as the most important information platform for the German gas and water industry on all technical, strategic and innovation topics.



Fifth DVGW university day focuses on students

At the gas and water conferences, DVGW already held its fifth university day under the motto of “effectively shaping cooperation between industry and universities”. The event was used to present successful university cooperation projects. A special feature was a supplementary university forum for gas and water at the exhibition. Information on innovative courses and ground-breaking results of research work was presented to interested delegates. The university day is supported by a student sponsorship project initiated by DVGW that allows young committed students to learn more about the gas and water industry and its companies and to gain an overview of the latest trends and developments in the energy and water sector at gas and water. In 2012, about 50 students from various universities took part, sponsored by a total of 23 companies.

Parliamentary evening in Berlin

On 20 March 2012, DVGW held a parliamentary evening on the topic of the energy transition. About 80 participants, including members of the German Bundestag and the Berlin assembly, representatives of the Federal Economics, Environment and Construction Ministries as well as a number of associations, institutions and companies came to Deutsche Parlamentarische Gesellschaft in Berlin for an

evening of presentations and discussions. DVGW took the opportunity to present its objectives and tasks in greater detail to energy politicians and ministry officials. In the subsequent discussions, a number of new contacts were established in the political and parliamentary sphere.

Activities in Europe and throughout the world

DVGW is an active participant in the European associations for gas engineering (Marcogaz) and the water industry (EUREAU), helping to shape international specialist discussions and policies. As of 2012, DVGW also provided the chairperson of the EUREAU commission on drinking water. The DVGW office in Brussels gives a further clear signal in favour of Europe. This office ensures that the association is more directly involved in information flow to and from the EU Commission, the European Parliament and the Council of Ministers and can intensify existing contacts and develop new contacts in a targeted way. In addition, the office allows the DVGW to present its opinion to European institutions more effectively. Apart from regular reports from Brussels in DVGW energie | wasser-praxis, the latest information on key issues is also available on the European platform in the members’ section of the DVGW website.

For DVGW, participation in international standardization within CEN (European Committee for Standardization) and ISO (International Organization for Standardization) is becoming even more important. Standardization for more and more topics is being handled at the European level within CEN. In addition, more and more ISO standards are being adopted for use in Europe (by CEN) without any significant modifications. The need for action is therefore not limited to purely technical topics but also covers the field of organizational and management standardization. In order to exert more ef-



fective influence on international and European standardization, the DVGW water department established a strategic working party on “International Standardization” and a technical committee on “Organization and Management”. In the gas sector, the DVGW project working party “Gas Regulatory Framework” deals with these aspects. The objectives are to pool activities with respect to European and international standardization and to continue the development of DVGW strategy with respect to European and international standardization. In global terms, DVGW has been an active member of the IGU (International Gas Union) and the IWA (International Water Association), both on steering committees and on working parties, for many years.

Reinforcement of standards activities in Eastern Europe

Cooperation within Europe and especially with Eastern European countries remains one of the main areas of DVGW activities. Within the framework of the project for the harmonization of technical standards in gas supplies in South-Eastern Europe (coordination committee South Eastern Europe, Bosnia and Herzegovina, Croatia, Serbia, Montenegro and the FYR of Macedonia), the DVGW Codes of Practice for gas have now been thoroughly prepared and adapted to regional requirements. The main focus is now on the updating of technical standards and on regional implementation. The technical safety management (TSM) system of DVGW has also been successively introduced by various companies in Southern, Central and Eastern Europe. In the first quarter of 2012, a joint project of DVGW and the Albanian Ministry of Economics, Trade and Energy (METE) was launched for the active transfer of the DVGW Codes of Practice for gas to Albania. Cooperation with the Slovenian Gas Association GPZ DIZ was strengthened by its resolution to become a member of DVGW on 1 January 2013. Contacts with Latvia in the gas sector are actively reinforced by continuous know-how transfer and DVGW membership. Cooperation with the Russian association of construction contractors the gas industry in Moscow and the Moscow region (MRBA), which

has now become a member of DVGW, should also be mentioned. On the basis of DVGW membership, DVGW is supporting both Serbia and Croatia to develop water industry codes of practice for their countries based on the DVGW mode. In 2012, the first DVGW codes of practice were published in the Serbian language.

DVGW in the Far East

Contacts with CUWA (Chinese Urban Water Association) and the Chinese Gas Association (CGA) were intensified in 2012. DVGW has been supporting CUWA for the development of a TSM system based on DVGW -TSM for five years. In the gas sector, a formal memorandum of understanding with the Korean association KGS (Korean Gas Safety Corporation) was signed with the objective of ensuring an interchange of technical standards and information. There are many parallels between the objectives of DVGW and KGS: technical safety, standardization, research and development and education. In addition, energy law in Korea is similar to that in Germany as it was based on the German Energy Industry Act (EnWG).

DVGW Codes of Practice

DVGW Codes of Practice lay the foundations for high technical, safety and quality standards in the gas and water sectors. The technical standards, developed in a clear and transparent process, represent a generally accepted consensus on technical and organizational solutions for products, services, systems and processes. The Codes of Practice are not an end in themselves but a key tool for ensuring the safe and environmentally compatible use of technology in line with the requirements of legislative bodies, companies and consumers.





DVGW technical standardization work

The work of the DVGW specialist committees lays the foundations for discussions within the industry and for the drafting and updating of Codes of Practice. The DVGW Codes of Practice are continuously developed with the support of all the relevant specialist committees. In all, more than 200 committees are involved. The specialist expertise and practical experience of a large number of independent experts are used to produce documents that are recognized by legislative bodies and the industry and set standards throughout the world.

The gas and water steering committees (SC) are responsible for controlling and monitoring the technical standardization work of DVGW by agreement with the Board of Directors and the Executive Board. Each of the technical committees (TC) deals with a specialist area and implements the program of work agreed with the responsible SC. Project working parties (WP), which are formed on a temporary basis to deal with specific issues, work on projects initiated by the higher-level committees. DVGW employees coordinate the work of the committees and present the activities of the association to specialists in Germany and throughout the world as well as to European and international standardization bodies.

A few key topics dealt with by the five steering committees in 2012 are presented below as examples of their work. Further information on the latest DVGW Codes of Practice is available on the internet at www.dvgw-regelwerk.de.

Gas Supply SC



"Not only gas supplies in the winter of 2011/2012 demonstrate the growing systematic interdependence between power and gas grids in an overall energy system. Gas infrastructure faces a task going far beyond ensuring current gas supplies. Gas infrastructure is a supplementary, flexible element for the transmission, generation and storage of energy in combination with an increasingly volatile power grid. People who want to ensure rapid integration of renewable energy sources and a stable energy industry have no option but to consider gas."

Chairperson of the Gas Supply SC: Dr. Ulrich Wernekinck

Analysis of correlation between security of supplies and gas market

The liberalization of the European gas market has led to significant changes in approaches to security of supplies. Prior to liberalization, integrated energy supply companies were responsible for secure supplies. As a result of the regulatory unbundling of integrated energy supply companies and the intended separation of the major functions of gas supplies, this responsibility is now assumed by market players with a number of independent functions such as energy suppliers and the operators of transmission systems, distribution systems and storage facilities.

The tense delivery situation in February 2012 and the events of March 2013 have underlined an evident correlation between physical network operation and market mechanisms which can result in direct hazards for the operation of gas transmission distribution systems. In December 2012, DVGW commissioned a study with the support of the “Dispatching” Technical Committee to analyse the possible effects of current market mechanisms on the security of physical network operation. The objective is to define the requirements for the sustained improvement of technical security of supplies. In the further course of the study work, measurable, objective indicators are to be defined which will allow a comprehensive analysis of the status of security of supplies in an overall systematic approach.

Regulation in the area of security of supplies is still in its very early stages and further development steps will need to follow to heighten awareness of responsibilities, tasks and the cost of security of supplies and to put these results into practice at the European level.

Documentation of technical safety

All operators of natural gas supply systems covered by the German Energy Industry Act are required by the regulatory authorities of the individual states to report current status data and any events to DVGW on an annual basis. The polling criteria for the surveys conducted by DVGW on the structural data of gas systems, incidents affecting gas systems and rapid information on gas accidents/incidents have changed radically since the publication of DVGW Code of Practice G 410 “Gas system and incident data reporting”.

The data collected in the gas sector are made available solely for reporting purposes to the companies concerned and the Federal Economics Ministry, as well as the energy regulatory authorities of the national and state governments in anonymized, aggregated form. A uniform, shared data pool lays the foundation for the regular DVGW incident reports which provide more comprehensive information on safety trends in the gas industry.

DVGW keeps these data confidential. Since March 2012, all structural and incident data can be entered on the Internet at www.strukturdaten-erfassung.de.

Data protection and data security with smart energy

As a key component of smart grids, smart metering systems must meet stringent data protection and security requirements. The objective is to prevent unauthorized access by third parties (cybercrime). The Federal Commissioner for Data Protection and Freedom of Information, Physikalisch-Technische Bundesanstalt and the Federal Network Agency are closely involved in the project for the development of a protection profile. The draft Ordinance Concerning Minimum Technical Requirements for the Use of Smart Metering Systems (Metering Systems Ordinance) of March 2013 is based on the work of the Federal Office for Information Security. In addition to providing technical advice to the Ministry of Economics and the Federal Office for Information Security, DVGW is drawing up a specification for the secure connection of gas meters to metering systems

under the Energy Industry Act. Currently, the gas-specific requirements for large gas meters are being discussed with representatives of the Federal Office for Information Security with a view to ensuring that regulatory requirements in this area are modified.

Hydrogen in gas supply systems

In future, gas networks will face the challenge of providing chemical storage for electric power (power to gas). In addition to a large number of research projects forming part of the innovation campaign, the development of power to gas technologies has also been taken up in the standardization work of DVGW. In the first project of this type, a DVGW Code of Practice concerning plants for injecting hydrogen into natural gas systems is currently in the course of preparation. This document is based on experience from the first pilot projects and on the existing Code of Practice for biogas injection. The objective is to ensure that the pipelines and plants required, which are energy plants under the Energy Industry Act, can be constructed and operated in accordance with DVGW Codes of Practice.

Gross calorific value monitoring

As a result of the liberalization of gas market, the mode of operation of the German natural gas grid has changed. As the direction of flow of the gas can change within a very short space of time, the allocation of gross calorific values is made more difficult. In addition, both biogas produced conventionally by digesters and hydrogen can be injected into the natural gas grid in accordance with Section 3 of the Energy Industry Act. In view of these changes in gas compositions and the changed mode of operation of the network, the DVGW Codes of Practice in the fields of gas metering and invoicing need to be amended. DVGW is currently conducting a number of research projects with a view to updating the Codes of Practice concerned appropriately. The “Energy metering” research and development project is concerned with the effects of hydrogen on energy metering and invoicing. The objective of the “Metrogas” R&D project is to analyse error propagation in the case of cascading networks and multiple averaging of the gross calorific values used for invoicing.

Quality requirements for pipeline and cable civil works in all sections

Uniform Codes of Practice for all sectors are to counteract the risk of quality sacrifices in civil works for pipelines and cables as a result of the growing pressure on costs. Recognition requirements for civil works contractors are being defined and laid down in a Code of Practice by a working party of the technical standardization bodies for the district heat, gas, water and power sectors. Apart from the bodies issuing Codes of Practice (AGFW, DVGW and FNN) as well as Telekom, the working party also includes representatives of the association of pipeline construction contractors, Gütegemeinschaft Leitungstiefbau (quality association for pipeline civil works contractors) and Zentralverband des deutschen Baugewerbes (association of the German construction industry). As a first step, a tabular overview of requirements for civil works contractors in all sectors was prepared. The next stage will be to draft a Code of Practice on the basis of the table.

Dismantling of grey cast iron pipelines

In 2012, DVGW continued to support the project for the refurbishment of grey cast-iron lines launched in 1998 which may be seen as a positive example of technical self-regulation in the gas industry. Against the backdrop of a growing number of gas incidents in the very cold winter of 1996/1997 caused by ruptures in grey cast iron gas lines, BLA, the gas industry committee of the Federal Ministry of Economics and the federal and state governments, had decided that grey cast iron lines presenting a hazard of rupture should gradually be phased out from public gas supplies. The realization of the grey cast-iron rehabilitation programme, which has been supported and managed by a DVGW committee, is a special achievement of the German gas industry which represents a significant improvement in safety levels.

Gas Applications SC



“CHP will play a key role in gas use in energy systems of the future because of its many advantages. Key benefits include the high efficiency of power and heat generation, flexible use and the possibility of exerting a stabilizing effect on the power grid and thus providing network services.”

Chairperson of the Gas Applications SC: Dr.-Ing. Bernhard Klocke

Micro-CHP plants

In addition to the growing use of regenerative energy sources, higher energy efficiency will be an essential prerequisite for the energy transition. Natural gas-fired plants for the com-

binated generation of heat and power (CHP) help reduce CO₂ emissions and therefore make a contribution to climate protection. The decisive advantage of the combined generation of heat and power as opposed to separate generation is the high overall efficiency of the process as both the heat from the process and the power generated can be used. This allows a primary energy saving in excess of ten percent. In addition, micro-CHP plants can be integrated into existing power and gas grids as small power plants.

A number of national (DIN, DKE/DVGW and VDI), European (CEN/CENELEC, COGEN) and international (IEC) institutions are currently focusing on standardization for micro-CHP plants. Micro-CHP plants will also be included in the scope of the EU Gas Appliance and Ecodesign/Labeling Directives.

A holistic approach to biogas

The treatment of biogas to obtain gas of natural gas quality is especially promising. If biogas is processed to produce biomethane, it can be injected into the gas grid and converted into heat, cold, power or fuel at practically any point connected to the gas system. From the outset, DVGW considered the entire process chain from biogas production through to injection.

Discussions focus on the topics of potentials, sustainability in biomass production and gas treatment and conditioning. In standardization work in Germany, DVGW, DWA and Fachverband Biogas are cooperating closely to avoid duplication of effort and the development of competing standards for biogas systems. A cooperation agreement in this area was signed in April 2012. DVGW is continuously updating its Codes of Practice in the area of biogas production and injection into gas grids:

- In 2012, the previous DVGW inspection Code of Practice VP 265-1 concerning biogas treatment and injection plants and the previous DVGW Code of Practice G 415 concerning crude biogas lines were revised. The revised documents are due to appear in 2013 and will be published as DVGW Codes of Practice forming part of the generally accepted rules of technology.
- The revised Code of Practice G 440, published in April 2012, concerning explosion protection, includes an example of a biogas treatment and injection plant.
- The new September 2012 edition of DVGW Code of Practice G 493-1 explicitly includes qualification criteria for planners and producers of biogas injection plants. A training programme in this area has been developed for the DVGW Forum.



- DVGW Code of Practice G 291, March 2013 issue, with technical questions and answers concerning the injection of treated biogas, provides technical aid for the interpretation of legal issues.
- DVGW Code of Practice G 292, October 2012 issue, considers biogas injection from the point of view of dispatching.

As the next step, work is due to start in cooperation with Fachverband Biogas, on a Code of Practice for the construction of biogas production plants (digesters).

Reducing the sulphur content of natural gas

Natural gas faces competition from other energy sources on the heat energy market. In the wake of discussions on reducing the sulphur content of natural gas to 10 mg/kg in line with the 10th Federal Pollution Control Ordinance and DIN 51624, it became necessary to revise Code of Practice G 260. The objective of the draft is to strengthen the position of natural gas as an environmentally compatible source of energy in comparison with other fossil fuels. The draft revised version of the Code of Practice was published at the beginning of 2012. Following intensive discussions within the technical committees, the proposal for total sulphur content is 8 mg/m³ for odorized natural gas (corresponding to the 10 mg/kg stated in DIN 51624) and 6 mg/m³ for non-odorized natural gas.

Support for sulphur-free and low-sulphur odorants

Natural gas is normally odourless. As it would otherwise not be noticed in the case of a leak, odorants are added to natural gas supplied to distribution systems. In some cases, these substances contain sulphur. Various activities have been initiated with a view to reducing the sulphur content of odorants, including the use of sulphur-free or low-sulphur odorants, the keeping of odour statistics and the replacement of the present odour cards by odour tubes which reflect the actual odours of odorants more precisely. A timetable for the transition to sulphur-free or

low-sulphur odorants gives companies wishing to make the changeover an indication of a cost-effective, efficient approach. In connection with these efforts, DVGW Code of Practice G 280-1 «Odorizing», with a recalculation of the minimum odorant quantities required, appeared in July 2012. At the same time, the entirely new inspection Code of Practice 5902 appeared as a successor to VP 902. Under this document, small measurement units for determining the odorant concentration can be certified. Frequently it is not necessary to change the odorant in order to meet the new limits on total odorant content. In many cases, it would be entirely sufficient to optimize odorization. In order to indicate possible approaches, a new working party G-PK «Optimization of odorization» started work in December 2012. Apart from a Code of Practice, the working party is also to develop a training programme.

Natural gas as a motor fuel

When used as a motor fuel, natural gas already causes 25% less carbon dioxide emissions than petrol; there are no nitrogen oxide or particle emissions. In addition, methane produced synthetically from agricultural residues in biogas plants or by hydrogen electrolysis using wind or solar power can be added to natural gas in any mixing ratio.

Like other motor fuels, natural gas is subject to the requirements of the 10th Ordinance issued

Water Industry/ Water Quality/Waterworks SC

under the Federal Pollution Control Act (10. BImSchV). An administrative regulation issued under the Ordinance calls for standardized, comprehensible, transparent procedures for fuel sampling at refuelling stations and practicable analytical procedures for determining the key parameters of fuels. DVGW Code of Practice G 264 contains instructions for representative sampling at natural gas refuelling stations so that the composition of natural gas used as a motor fuel can be officially monitored. However, the current measurement procedures for oils and suspended matter in gas needs to be revised. The results of this revision will be taken into account in the amended version of G 264.

Installation of commercial gas meters

In addition to the Technical Regulations for Gas Installations (DVGW-TRGI), DVGW Code of Practice G 631, revised in 2012, "Installation of commercial gas meters", lays down requirements for the installation and operation of commercial gas meters for bakeries, butchers' shops, restaurants and kitchens, smoking plants, curing plants, drying plants and laundries. The requirements for the main commercial gas applications, previously covered by separate documents, and now stated in a single Code of Practice.



"Biomass production, fracking, CCS and geothermal energy may make sense in terms of energy economics but at a second glance they raise serious issues for water protection. We need to take greater care and be less hasty so that we can ensure that the most important resource for our survival, drinking water, is also effectively protected in connection with the energy transition. It must be the role of DVGW to offer objective methods and information on the risks specific to individual processes and to consider new technologies holistically from the point of view of the energy and water sectors."

Chairperson of the Water Industry/Water Quality/Waterworks SC:

Prof. Dr.-Ing. Frieder Haakh

New energy concepts and water protection

The rapid pace of development in the field of energy generation from renewable sources is having a growing impact on the water sector. It is currently not possible to predict the full impact of these developments on the protection of drinking water resources. Nevertheless, there are certain indications of hazards which call for a proactive response. For the DVGW, the fundamental question arises as to how the risks associated with energy generation from renewable sources can be assessed as controllable and how preventive water protection can be adequately insured.

- ➊ Currently, the cultivation of biogas crops and the use of biogas digester residues are at the centre of attention. Although the cultivation of biogas crops is subject to the fundamental rules for water protection in agriculture in general, biogas plants are often installed in areas with large numbers of farm animals. These areas are already characterized by significant nitrogen surpluses and very high nitrate concentrations in the groundwater. From the point of view of water protection, it is expected that nutrient discharges will increase and that water bodies will be polluted by insecticides, decomposition products and detrimental organic substances. In order to minimize these hazards, the use of digester residue in water protection areas should be limited. In addition, certain raw materials and substrates used in biogas plants would need to be investigated before they are used as digester residue or the spreading of such materials on agricultural areas in water protection areas should be banned. Only digester residues subject to recognized, independent quality assurance and meeting the special requirements of water protection should be used.
- ➋ As regards the use of geothermal energy, the main emphasis is initially on the positive effects of a renewable source of energy. However, especially in the case of near-surface geothermal energy, the hazards posed both by individual plants and by the total number of plants installed must be taken into consideration. There are currently about 265,000 facilities for the use of near-surface geothermal energy in Germany. When drilling wells, it is essential to ensure that hydraulic short-circuits between individual groundwater horizons are durably prevented. Drinking water resources must be protected against the detrimental impact of the heat transfer fluids used.

Water Supply Systems SC

Radioactivity and drinking water

Statutory limits on radioactivity and drinking water (total dose and tritium content) have been stated in the EU Drinking Water Directive since 1998 and the German Drinking Water Ordinance since 2003. However, no regulations concerning the monitoring of the overall dose have been issued. Together with DVGW, the Federal Environment Ministry, the Federal Environment Agency and the German Association of Energy and Water Industries and with the support of representatives of the German states, the Federal Office for Radiation Protection has developed and published guidelines for the investigation and assessment of radioactivity in drinking water. The guidelines provide water companies and authorities with a procedure that provides specific recommendations with respect to the applicable requirements.

In future, these guidelines may serve as a basis for a manual on the implementation of the upcoming “Council Directive laying down requirements for the protection of the health of the general public with regard to radioactive substances in water intended for human consumption”. The content of the Directive has largely been agreed by the EU member states. DVGW is providing intensive support for European developments both at the national and at the European level.

Water Framework Directive – revision of the list of priority substances

The Environmental Quality Standards Directive issued under the Water Framework Directive currently contains a list of 33 priority substances. The member states are under an obligation to monitor these priority substances in surface water bodies and to take action to limit the discharge, emission and loss of these substances to the aquatic environment. The objective is to progressively reduce pollution from priority substances and eliminate or phase out emissions, discharges and losses of priority hazardous substances.

In January 2012, a proposal was made for a directive to add 15 substances (plant protection substances, biocides, industrial chemicals, pharmaceutical active ingredients and dioxin) to the existing list. However, in some cases, the limits proposed are very low or extremely low and are often below the analytical limit of detection. This means that it would be scarcely possible or even impossible to monitor compliance with the planned environmental quality standards. DVGW commented on this proposal in a submission of 22 June 2012. Deliberations are to continue in 2013.



“The fundamental objective of the water industry is to ensure hygienic, sustainable and economical supplies of drinking water. This is one of the reasons why the DVGW Codes of Practice call for a condition-based maintenance strategy for supply networks. Well-founded, statistically tested information on network condition is essential. Since 1996, the damage statistics have provided invaluable information for utilities in this area. Even better participation by the companies concerned will make the statistics more representative and credible, especially towards the public.”

Chairperson of the Water Supply Systems SC:

Dipl.-Ing. Dietmar Bückemeyer

A holistic approach: asset management in water supplies

Considerable amounts of capital are tied up for very long periods of time in plants and networks, the “assets”. The planning objectives for water supply systems are normally based on a planned service life of 50 years or even 100 years or more. In comparison to other utilities or sectors of industry, these requirements are unique and pose considerable challenges for system planning. Asset management is concerned with the optimized deployment of capital, which is tied up in water works and water distribution systems in the case of water companies. This calls for a clear focus on strategic and organizational management tasks, life-cycle management and risk management.

Although the term “asset management” may be relatively new, it has already been practised in the German-speaking region for many decades. Technical and organizational matters are covered by the DVGW Codes of Practice. These include maintenance strategies and the implementation of such strategies. For several years now, ISO has also been concerned with asset management in several respects. Water supplies are mainly affected by two ISO projects:

- ☉ Firstly, aspects relevant to all utility sectors are being dealt with by ISO technical project committee ISO/PC 251. These will be covered by the future ISO standards series 55000, 55001 and 55002. A management system standard will lay down requirements which are mainly to be used for certification. The items covered will include corporate objectives, methods for achieving and monitoring these objectives and also the topics with which object-specific technical requirements are concerned. The special requirements for water supply systems resulting from their long service lives and the special task of water supply will need to be taken into consideration the standards. It is expected that CEN and DIN standards will be adopted as DIN EN ISO standards.
- ☉ Secondly, ISO/TC 225 is working on additional topics specific to drinking water and wastewater systems. The results of this work will have a significant impact on CEN and DIN standardization activities.

This development will therefore also affect the DVGW Codes of Practice and Technical Safety Management (TSM) system. In the interests of German water supplies, DVGW is committed to ensuring that the future ISO standards correspond as closely as possible to the DVGW Codes of Practice.

DVGW Water Damage Statistics

Since 1997, DVGW has collected information on damage to water supply lines, service pipes and valves and the causes of such damage from water companies. Data collection has been governed by Code of Practice W 402 since 2010. In the statistical evaluations for 2006 to 2009 published at the end of 2012, the data collected by DVGW are combined with additional information with a view to making evaluations for the various federal states. On this basis, it is not only possible to draw better conclusions concerning possible causes; the evaluations also represent added value in connection with DVGW damage statistics which benefits each individual company.

To summarize, the data reported show that average damage rates throughout Germany are at a low to moderately low level but that there are considerable differences between the various German states. The positive trend shown by previous damage statistics is continued. In the case of modern materials, it can be assumed that there are no differences in material quality. However, well-founded statements on this point can only be made if companies take up the opportunity to report separate damage statistics for each material generation in the future and the age distribution of the materials used is therefore known. Since March 2012, it has been possible to report all system and damage data via the Internet on www.strukturdatenerfassung.de.

Water storage: new standardization concept

The range of materials, coating and lining systems for the construction or refurbishment of drinking water storage facilities is very wide. The system must meet both design and hygiene requirements. To date, the DVGW Codes of Practice have been concerned mainly with cement-bonded material systems. Alternative lining coating consists systems have not been taken into consideration. The newly conceived DVGW Code of Practice series W 300 for drinking water tanks (design/construction, maintenance, repair, materials) is currently faced with the task of meeting these complex requirements and providing technical support for users with respect to all material systems.

As a major new focus, the DVGW W 300 Code of Practice series will be concerned with hygiene and technical requirements as well as the limits of application of the material systems. In overall terms, these Codes of Practice will make it considerably easier for users to select an appropriate material system.

Water Use SC



“The individual committees working under the auspices of the Water Use SC are focusing more and more strongly on a holistic approach. Nowadays, it is no longer sufficient to issue Codes of Practice. DVGW must ensure that the knowledge embodied in Codes of Practice is transferred both within Germany and within Europe, especially to consumers. In this context, the amended Drinking Water Ordinance, particularly the amended Section 17, poses challenges that we will need to master and communicate over the next few years.”

Chairperson of the Water Use SC:
Dipl.-Ing. Wolfgang Wollgam

New TRWI 2012

It took 23 years before the two new series of standards EN 806 and DIN 1988 “Codes of practice for drinking water installations” were finally published. The last of the five parts forming the European “Codes of practice for drinking water installations”, DIN EN 806-5 “Operation and maintenance” was published last year, attracting considerable attention among specialists. In May 2012, the last two parts of the new DIN 1988, also consisting of five parts, were published. This fact is significant because the appearance of these two parts completes the national implementation of the EN 806 series



and the previous standard series DIN 1988 has been updated. DVGW played an instrumental role in the preparation of these two Codes of Practice. One of the main changes in the standards concerns more stringent hygiene requirements and therefore also more stringent obligations on operators. In order to make the application of the European and national standards for drinking water installations clearer and more user-friendly, DVGW has published an online commentary to the standards. This also includes the necessary connections to applicable national regulations such as the Drinking Water Ordinance and the Ordinance Concerning General Conditions for Water Supplies. At the same time as the completion of standardization work, in the spring of 2012, DVGW launched a nationwide compact training programme targeting engineers and installation contractors, which is also linked to the online commentary.

Amended Drinking Water Ordinance: more stringent provisions on drinking water hygiene

For the first time, the amended Drinking Water Ordinance, which came into force on 14 December 2012, requires at least compliance with the generally accepted rules of technology in the design, construction and operation of water supply facilities. Detailed information on the individual changes to the Drinking Water Ordinance is given on the DVGW website. In the re-worded Section 17 of the Ordinance, the Federal Environment Agency is assigned the executive task of defining a basis for assessing the hygiene properties of materials in contact with drinking water. The assessment basis will include test specifications with test parameters, criteria and methodological requirements. In addition, the assessment basis may include positive lists of permitted substances and materials.

DVGW is faced with the task of incorporating these requirements into DVGW Codes of Practice. In addition, DVGW welcomes the requirements stated in the Drinking Water Ordinance concerning the operation of drinking water installations, especially with respect to improved protection against Legionella. In connection with the codes of practice, DVGW offers a number of supporting measures for different target groups:

- Specialist seminars and events concerning the issue of Legionella
- DVGW information on drinking water installations (TWIN), especially for consumers
- Information for tenants on the topic of Legionella testing together with housing and tenants' associations
- Internet presentations, e.g. FAQs on Legionella at www.dvgw.de and participation in the consumers' platform www.wasserberater.de.

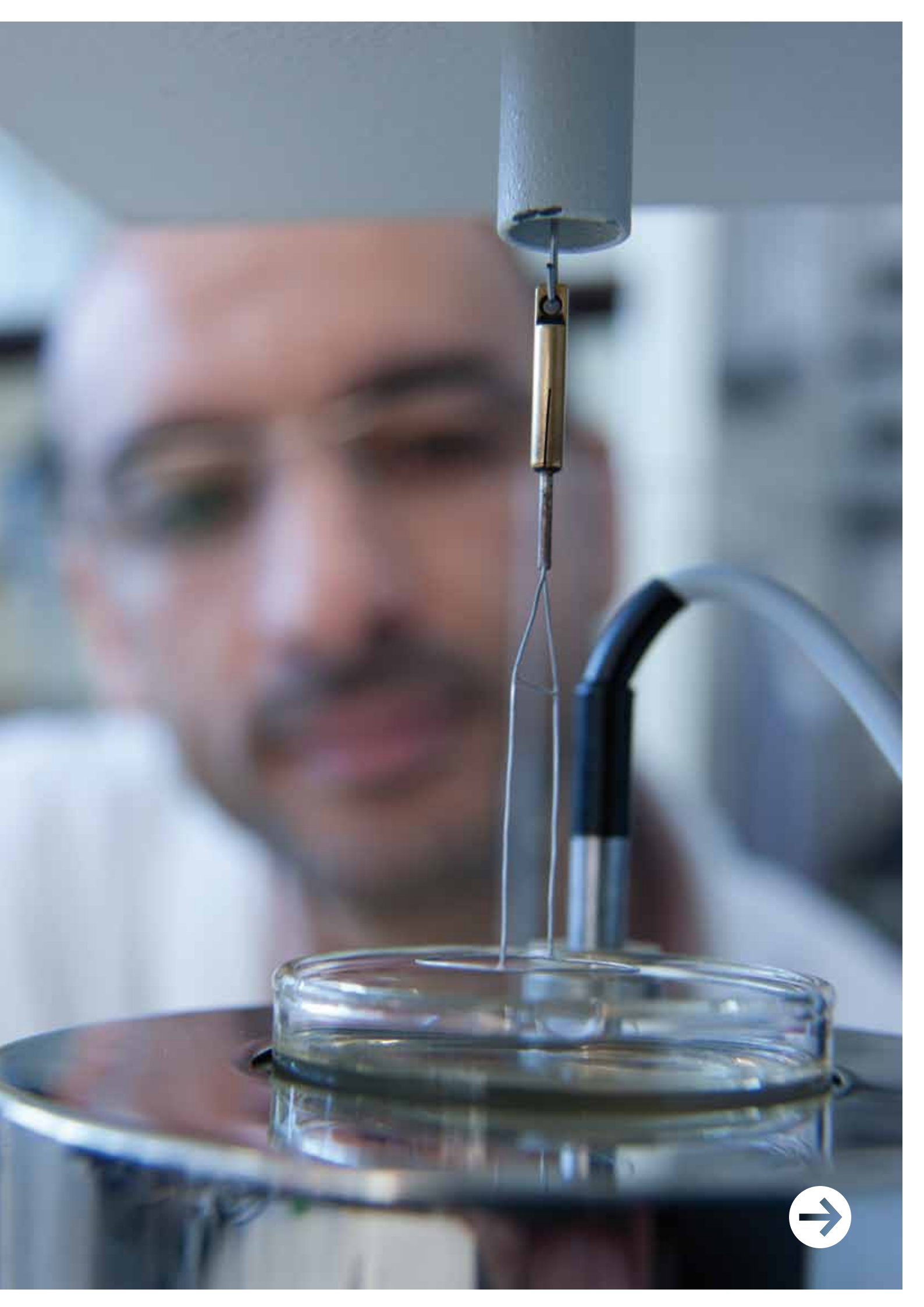
wasserberater.de

The changes in Codes of Practice for drinking water installations have posed considerably more stringent requirements for the operators of such installations. Unfortunately, very few consumers are aware of their duties as operators under the Drinking Water Ordinance and the generally accepted rules of technology. The joint information platform, www.wasserberater.de, launched by DVGW and SHK (the Association of plumbers and installation contractors) in North Rhine-Westphalia aims to remedy this situation.

Using an interactive model of a house, consumers can identify deficiencies in their drinking water installations and ensure that the installations are operated correctly. The platform contributes to prolonging the service lives of drinking water installations and ensuring that the drinking water available at the tap is not affected by hygiene problems.

Research and technology

More than ever before, innovations are the key to success for companies, organizations and entire industries. By supporting research and development work in the gas and water industry, DVGW plays its part in ensuring that Germany continues to have safe, reliable and environmentally compatible supplies of energy and water in the future. Safety, hygiene and environmental protection for the benefit of consumers are the top priorities of DVGW research programs and institutes.





Successful networking

In 2012, major projects were once again brought to a successful conclusion as a result of cooperation between DVGW and its own and external research institutes. Projects covered the entire supply chain in the gas and water sectors, from production through distribution to domestic installations on the water side and from systems analysis through to utilization technology on the gas side.

Links between DVGW research activities and European partners were further strengthened. Membership and active involvement in the work of GERG, the European Gas Research Group, and WSSTP, the European Water Supply and Sanitation Technology Platform, laid the structural foundations for these activities. As a result, DVGW is in a position to make strategic contributions to EU framework research programmes. DVGW is also intensifying international research cooperation with a view to benefiting from synergy effects. Here, the association cooperates with IGU (International Gas Union).



"DVGW's current water research programme is based on companies' specialist requirements and also highlights the opportunities for holistic water research, which is becoming especially important against the backdrop of climate and demographic change."

**Chairperson of Water Research Advisory Council:
Dr.-Ing. Georg Grunwald**

Water research programme successfully launched

With its new water research programme, launched in 2012, DVGW has laid the foundations for innovation and sustainability in the water sector in the medium term. It had become necessary to reorient water research as a result of changing conditions in many areas of water supply and in order to take into consideration new developments, especially in the fields of renewable energy sources, trace substances and cost-effective network management. The main focus of attention has been on more intensive networking of research bodies at the national and international level as well as on a commitment to practically relevant research as an essential prerequisite for standardization.

The "Sustainable Water Management" research project of the Federal Ministry of Education and Research offers a possibility of strengthening the interdisciplinary research and innovation profile of DVGW at the national level. Research activities concentrate mainly on water quality topics as well as the protection of untreated water.

Other research topics include the improvement of network management, operational efficiency including energy efficiency and the adaptation of supply structures to changing conditions.



"The natural gas pipeline system and underground storage facilities offer adequate capacity for storing hydrogen and synthetic methane produced by electrolysis using renewable energy sources as required. Major industrial companies have also recognized the tremendous potential offered by this storage technology and are investing in demonstration plants."

**Chairperson of Gas Research Advisory Council:
Dr.-Ing. Jürgen Lenz**

The energy transition as an innovation driver for gas

The process of energy transition has now reached a reorientation phase, there are increasing calls for a systematic approach and the economic analysis of the measures taken to ensure the success of the energy transition and the achievement of climate protection objectives. In this discussion, gas as a source of energy has taken on a new role. In addition to its previous strength on the heat energy market, the versatility of gas is demonstrated by flexible use, storage and control possibilities for power from renewable sources, the possibility of production from renewable raw materials via biogas and other climate-neutral gases and use in the mobility sector. In its gas technology campaign launched in 2009, DVGW is investigating high-efficiency options for the use of gas as a fuel taking into consideration the gas infrastructure available in Germany.

Information on the more than 30 research projects and the final reports of the various projects are available on the Internet on a separate website concerning the innovation campaign, www.dvgw-innovation.de. One key topic is the production and storage of hydrogen or methane produced using excess power generated from renewable sources and

the injection of these gases into the existing gas system (power to gas) and the associated possibility of using the energy stored in this form as electricity, heat from renewable sources or a motor fuel (gas to power). Within its gas technology innovation campaign, DVGW has established a new research cluster (power to gas) in order to adopt a proactive approach to the growing need for research in the field of storage technologies.

Some of the research projects completed in 2012 within the innovation campaign and the normal research and development programme of DVGW are outlined below.

Gas in an integrated system

In Germany, buildings account for about 40% of final energy consumption and about one third of carbon dioxide emissions. The potential for energy and CO₂ saving is enormous. Under the energy concept of the German government, such savings are to be achieved mainly by improvements in energy efficiency, especially with respect to the skins of buildings. Within the innovation campaign, the research bodies of DVGW, in cooperation with Jülich Research Centre, have carried out an analysis and developed a projection concerning the structure of domestic energy supplies paying particular attention to natural gas as an energy source.

The results show that significant cost benefits in domestic energy supplies can be achieved with the same levels of energy efficiency and CO₂ emission reductions compared with the requirements of the German government's energy concept through the growing use of micro-CHP plants in private households and the increased utilization of biogas.



Smart gas grids

Gas systems in Germany provide the ideal infrastructure for the transportation of biogas and for supporting the power grid through the absorption of volatile quantities of electricity generated by wind power and photovoltaic systems. Some of the smart elements involved could be used in the short term to absorb large quantities of excess energy throughout Germany. Economic and energy efficiency benefits may arise if the distribution of roles in the energy industry is adapted accordingly and acceptable business models are approved. The linking of energy networks is technically feasible via the intelligent combination of smart elements with the gas system. This is the result of two smart gas grid project studies completed by renowned research institutes within the DVGW gas technology campaign.

Smart elements were defined for the three areas of network operation, energy storage and load management. In future, these elements are to be used for the effective integration of energy from renewable sources into the gas network. The tool SmartBench was developed for assessing the appropriateness of smart elements for the task in hand. The tool allows an objective comparison of different solutions on the basis of various assessment criteria.

Networking of decentralized CHP plants

Fluctuations in power generation from renewable sources result in demand peaks and valleys on the power grid. Economically viable, efficient solutions must be developed to compensate for these fluctuations with a view to ensuring secure supplies. One highly promising approach is the networking of decentralized CHP plants to form virtual power

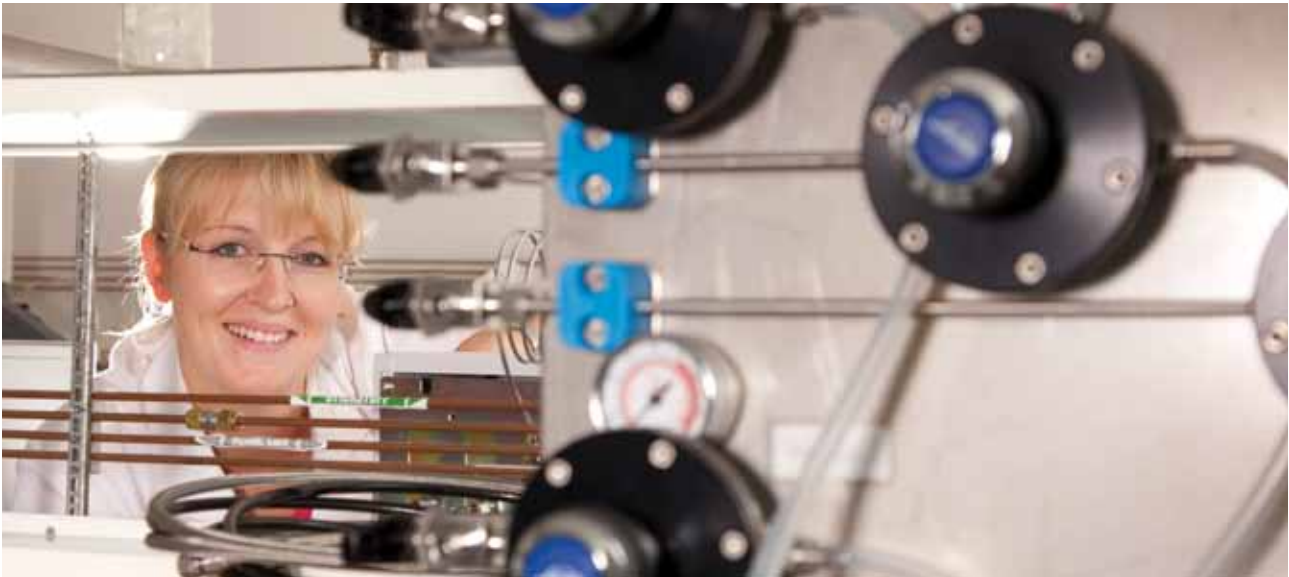
plants, which can then be controlled in line with demand. Apart from achieving climate protection objectives, the more intensive use of innovative CHP plants in combination with smart grid solutions leads to a convergence between heat energy and power grids.

Comprehensive laboratory tests and long-term practical trials of innovative technologies together with supporting simulations have now been completed at the Gas-Wärme-Institut (GWI) within the DVGW innovation campaign. The results include concepts and recommendations for the efficient use of these technologies in practice. Both user behaviour and the various energy standards for buildings will play a key role.

Water research at reservoirs intensified

In some regions of Germany, reservoirs are the backbone of drinking water supplies. Since the beginning of the 1990s, there has been a tendency towards greater discharges of humins to surface water bodies. One indicator is higher concentrations of dissolved organic carbon (DOC). High humin concentrations may have a significant detrimental impact on water quality. Although the technology currently available means that even severely polluted water can be processed to meet the applicable quality requirements, the cost of water treatment must be borne by consumers.

In a project started at the DVGW Water Technology Centre at the end of 2012, the objective is to develop a method for determining the work required for and the cost of treating water with high humin concentrations. Optimization possibilities and the additions to or modification of treatment systems required as a function of high DOC concentrations



in crude water are being investigated. The objective is to ensure that the results are transferable to other reservoir water treatment plants.

Identification of antibiotic resistance by molecular biological means

The widespread use of antibiotics in medicine and veterinary medicine, livestock rearing facilities and in plant protection has led to the spread of antibiotic resistances which give cause for concern as they make the treatment of infectious diseases more difficult. In order to assess the contribution of the aquatic environment to the proliferation of antibiotic resistance genes, data from the Rhine and Danube were compared with samples from the Brisbane River within a German-Australian cooperation project. The data indicate a connection between the occurrence of specific resistance genes and prescription and treatment practices with respect to the antibiotics concerned.

In general terms, this comparative study shows that antibiotic resistance genes have a wide distribution and that the aquatic ecosystem must be seen as a reservoir for these genes. DVGW is now investigating the possibility of eliminating antibiotic resistance genes in the course of water treatment.

Energy recovery at waterworks

For some time now, turbines have been used for energy recovery in drinking water supply. To date, the use of this equipment has mainly been limited to downpipes in water distribution networks. Within the framework of a project

supported by DVGW at Stuttgart University, possibilities of energy recovery at other points in drinking water supply systems are being investigated with a view to making a further contribution to efficient energy utilization.

DVGW awards for outstanding theses

Each year, DVGW offers prizes of 5,000 euros each to young scientists in the gas and water sectors. The awards are made for outstanding diploma, bachelor's and master's theses on relevant subjects. In 2012, prizes were once again presented to outstanding young scientists. Further information on award conditions and deadlines for the DVGW awards is available on the Internet at www.dvgw.de.

Testing, inspection and certification

Under its articles of association, DVGW maintains a testing, inspection and certification system in order to ensure that the high standards achieved in safety, hygiene and quality in the German gas and water industry are maintained in the long term through the independent assessment of products, services, systems and specialist qualifications of companies and individuals.





Ensuring quality standards

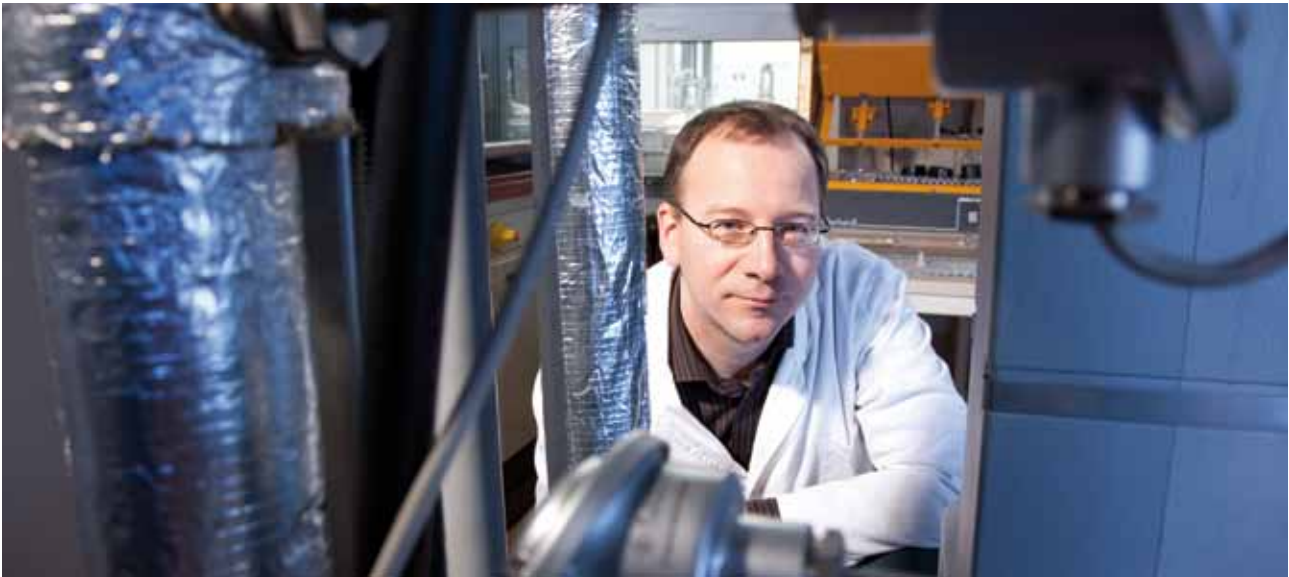
Certification is one of the stages in conformity assessment. It involves the assessment of products, services and systems as well as the specialist qualifications of companies and individuals by third parties independent of the companies concerned whose only obligation is to make an objective assessment. The objective is to ensure compliance with the requirements of laws and regulations as well as the generally accepted rules of technology.

Through certification on the basis of the DVGW Codes of Practice as well as other generally accepted technical standards and inspection specifications, product manufacturers, specialist contractors, utilities and individual experts can demonstrate to authorities, customers and market partners that they have complied with the applicable requirements.

Both nationally and at the European level, certification procedures have now become extremely important. Frequently, they are mandatory. All national certification procedures are now accredited by Deutsche Akkreditierungsstelle (DAKKS), a company commissioned by this purpose by the German government. For European CE marking procedures, the DVGW certification body is registered with the European Commission as a Notified Body under various EU Directives.

As the DVGW certification body, DVGW CERT GmbH is the accredited certification body for the industry. In some regulations, the certification mark of this body carries with it the presumption that the products concerned are in accordance with the legal requirements. An overview of the activities of DVGW CERT GmbH is available at www.dvgw-cert.de.

Just as the DVGW Codes of Practice are subject to continual development as a result of new knowledge and innovations – for example as a result of research and development, the testing, inspection and certification documents are also subject to continual change. New quality requirements are stated, for example as regards the efficient utilization of energy for the purpose of protecting natural resources, or the utilization of new technologies and procedures. Some aspects arising in this context are presented below; they have been selected among the many adaptations which have been made.



Interoperability of OMS meters certified

Smart meters are needed for electricity, gas, water and heat in order to reduce energy consumption and to integrate renewable energy sources. Smart meters lay the foundation for smart grids, i.e. grids that can optimize consumption and ensure that regenerative energy sources are effectively integrated. To date, the meter fleets of European utilities are not suitable for this purpose; meters from different manufacturers are not compatible with each other and do not supply the data and links with energy suppliers and consumers that are needed for smart grids. For this reason, associations and companies have joined forces to form the OMS Group and to develop the OMS specification under European standard EN 13757-x together.

For metering point operators, OMS (open metering system) meters are a future-oriented investment. Interoperability between meters of all suppliers and smart metering open up new prospects. In future, products with such interoperability may be certified and marked with the OMS mark. Certification is granted by DVGW CERT GmbH on the basis of the OMS compliance test developed by the OMS Group. The tool used for demonstrating interoperability has been available since mid-2012. The software tool can be ordered at www.oms-group.org and already used during product development.

Corrosion protection experts

Metal structures in an electrically conductive environment such as the soil or water may be affected by corrosion. Cathodic protection is an effective method widely used for preventing corrosion for example on gas and water pipelines. This method durably reduces the potential on the structure, making the metal structure which is protected almost immune to corrosion.

Especially in the field of the construction and operation of gas pipelines for working pressures above 16 bar, corrosion protection experts are required. In 2012, the "External Corrosion" Technical Committee defined qualification requirements for experts in passive and cathodic protection and presented the results for discussion by specialists. The Code of Practice, which also covers requirements for corrosion protection experts under other DVGW Codes of Practice, appeared in the spring of 2013.



Multilayer composite pipes and gas installations

Technical testing and inspection specifications for multilayer composite pipes and connectors for use in indoor gas installations were developed at the end of 2012. Multilayer composite pipes (plastic/aluminium/plastic) used in gas lines must meet explosion protection requirements. Compared with conventional metal gas pipelines, this non-metallic pipeline material does not meet fire safety requirements as a result of its material properties (primary fire protection) for the gas pipeline which is not high-temperature-resistant described in the inspection and test specification, additional secondary safety systems are needed to meet the applicable explosion protection requirements. The need for safe interaction with these secondary systems also poses specific requirements for multilayer composite pipes and connectors.

Fire behaviour and pipeline sizing are system parameters. For this reason, the connectors and multilayer composite pipes forming part of different systems are not interchangeable. In order to ensure that this is the case, pipes and connectors are only tested and certified together as a system.

Dispute between Frabo and DVGW – consequences

For unrestricted access to the Single European Market, the market and competition provisions of community law provide for two legal mechanisms, either the harmonization of product requirements under harmonization directives in accordance with Article 95, ECT or, in the non-harmonized sector, the mutual recognition of national product requirements as equivalent in accordance with Article 28 ECT (now Article 34 TFEU).

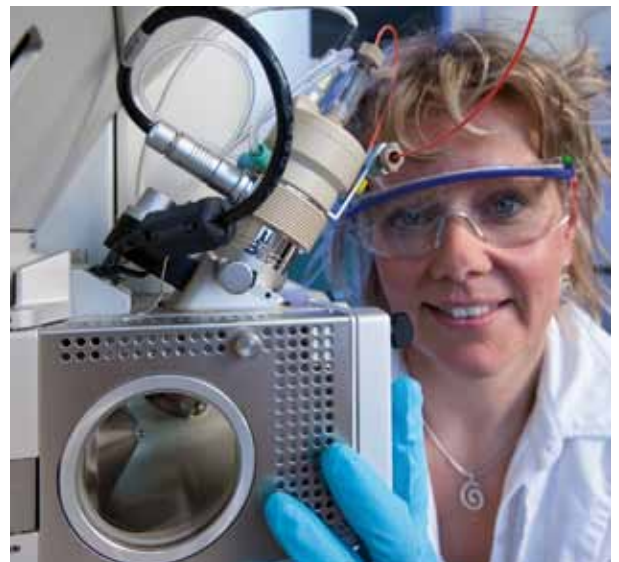
To date, the area of public drinking water supply is non-harmonized. In this sector, the principle of mutual recognition applies, taking into account the minimum requirements stated in the European Drinking Water Directive. Hygiene requirements for the protection of drinking water going beyond these minimum requirements may only be imposed if they are justified by essential needs.

In a legal dispute between an Italian manufacturer of compression fittings for gas and water systems and DVGW, the outcome of which will also have consequences for other private standardization bodies, Düsseldorf Higher Regional Court had submitted a reference for a preliminary ruling to the European Court of Justice. This reference concerned the question of whether the principle of mutual recognition under Article 28 ECT also applied to the standardization and certification activities of private bodies such as DVGW if products certified by DVGW are considered to be in conformity with national law and the sale of products which are not certified is therefore rendered more difficult. By its judgement of 12 July 2012, the European Court of Justice found that private standardization and certifica-



tion activities with a collective effect were equivalent to measures by individual states which could actually or potentially restrict the free traffic of goods within the EU. In the Ordinance Concerning General Conditions for Drinking Water Supply issued by the Federal Ministry of Economics, an assumption of conformity with law was assigned to the DVGW certification mark. Under its wording, the judgement of the European Court of Justice has no direct impact on the standardization and certification activities of DVGW or other comparable organizations except where, on the basis of laws or ordinances, an assumption of conformity with the law is assigned to such activities.

It will now be a matter for Düsseldorf Higher Regional Court to decide whether the justification stated by DVGW for more stringent requirements for the protection of drinking water compared with the European Drinking Water Directive can be accepted. The justifications which the member states and private standardization and certification bodies considered equivalent to the member states can claim under Article 30 ECT (now Article 36 TFEU) especially include requirements with respect to the protection of public health. Until a final, enforceable judgement has been rendered, certificates for compression fittings for gas and drinking water systems will only be granted if they meet the requirements stated in the DVGW Codes of Practice in full.



Professional development and communications

In 2012, some 28,000 people took part in the DVGW vocational and advanced training programme. As a result of changes in the gas and water supply sectors, employees require increasingly broad-based knowledge in their fields. DVGW is therefore stepping up its commitment to provide companies with intensive support. In 2012, the specialists and managers taking part once again assessed the 1500 or so information events, seminars and specialist conventions as up-to-date, practically oriented and very well organized.





Ensuring qualifications in the gas and water sector

Over the past few years, gas and water companies have adapted their structures in response to new market conditions. The resulting changes in the requirements faced by managers and staff call for qualified, structured training at all levels. DVGW therefore adapts its programme of events and professional training continually to reflect the changing requirements of the industry and supports companies by offering many courses in modular form. The DVGW training programme takes account of all relevant developments and innovations in technology and standards and ensures that the latest changes are covered competently in its courses.

The new programme of events “DVGW energie | wasser-direkt” offered by DVGW Service & Consult GmbH offers an effective supplement to DVGW training in areas not related to Codes of Practice.

New master’s course for engineers in network technology and network operation

The new part-time master’s course for engineers in gas, water and power network technology and operation started at universities in Wolfenbüttel, Esslingen/Stuttgart and Trier in the winter semester of 2012/13. Building on the certificate course for network engineers developed in cooperation with the associations DVGW and VDE, the two associations, well-known energy and water companies and the universities mentioned above developed a joint course of studies which was accredited in December 2011 and therefore sets national standards for the energy and water industries. Through their working parties, DVGW and FNN as part of VDE worked intensively on the content of the course. The master’s course will train network engineers to deal with power, gas and water networks as integrated systems instead of individual grids. They will therefore be qualified to assume specialist and management roles within their companies and will be ideally well-suited for appointment as technical managers in accordance with Codes of

Practice G 1000, S 1000 and W 1000. For admission to the course, candidates need to hold a degree in engineering or a comparable degree in the power or gas/water sector and to have two years of experience in the energy or water industry. Participants holding a certificate in network engineering can join the course directly in the third semester.

The response to the start of the master’s course has been positive. In the winter semester of 2012/2013, a total of 40 engineers embarked on the course at the three universities or started to add the necessary modules to their certificate courses.

Service initiative for network operators and companies certified under GW 301

German supply networks are a key component in safe and reliable gas and water supplies and represent a significant proportion of the fixed assets of network operators. For this reason, the certification of pipeline construction contractors in accordance with DVGW Code of Practice GW 301 has been widely accepted by gas and water companies, network operators and pipeline construction contractors themselves for many years. When applying for a new certificate or the extension of a certificate under GW 301 (or GW 302), companies need to demonstrate that they have appropriately qualified personnel. Suitable courses have already been offered for many



years with considerable success by institutes recognized by DVGW. As part of its service initiative for network operators and companies with GW 301 certificates, DVGW's vocational training body has redefined its cooperation with selected institutes. Partner centres featuring quality and special performance capabilities now ensure that the entire training range of DVGW in the field of pipeline systems is presented in a highly practical, regionally accessible way. In 2012, an Internet-based "credit card" confirming that a company holds all the necessary personnel qualifications for GW 301 certification was introduced as an additional service.

Training concerning TRWI

Work on the national and European standards for drinking water installations (TRWI 2012) continued for many years and developed historically. At the beginning of 2012, the most important parts of DIN 1988 which were still outstanding and updated DVGW Codes of Practice on hygiene aspects were issued. In this context, DVGW developed a range of training courses on TRWI 2012. The courses, which are standardized throughout Germany, started in March 2012. These courses are supported by an online commentary providing comprehensive, practical explanations on all the relevant requirements and placing users in the fortunate position to find the right answer to technical questions in an effective way at any time. This new combined offering is part of the consistent, targeted response by DVGW to calls from industry to make technical standards more comprehensible.

"Driving licence" for biogas plant operators

Operators of biogas plants are responsible for safety and accident prevention. The aspects which need to be taken

into consideration include gas engineering, electrical and pressure issues, fire protection and explosion proofing, occupational health and safety as well as escape route management. A new specialist course targets operators of biogas plants with biogas pipelines or downstream biogas treatment and injection plants, providing them with a certificate of competence, and is structured in a modular way. The modular structure allows operators either to complete the minimum requirements of DVGW Code of Practice G 1030 by attending blocks 1 and 2 or to achieve the status of a technically responsible person by completing block 3. The course, launched jointly with Fachverband Biogas e.V in Bavaria in 2012 is to be offered throughout Germany in 2013.

Training in Technical Regulations for LPG

In connection with the issue of the new Technical Regulations for LPG in the spring of 2012, one-day training events were held in cooperation with Deutscher Verband für Flüssiggas e.V. (DVFG). About 4000 trainees from 2800 plumbing and heating specialists took part in the training and obtained information on technical innovations and legal conditions for the design, construction, maintenance, modification and testing of plants operated with LPG. There are also a number of relevant areas in the natural gas supply field, including:

- ➊ Biogas conditioning plants (see DVGW 1030A)
- ➋ Local LPG distribution systems/LPG systems at industrial plants
- ➌ Mini-CHP plants



Training for industrial gas customers

Safety is also the top priority in the operation and maintenance of industrial natural gas systems and equipment such as furnaces and generators. Under the Energy Industry Act, energy systems of this type must be constructed, operated and maintained in accordance with the «generally accepted rules of technology». This requirement is considered to have been met if DVGW Codes of Practice are applied. With a view to supporting the large number of commercial and industrial gas customers in the performance of their organizational duties, DVGW has developed special training modules, which it offers at regional centres, for the technical personnel of industrial gas customers and for employees of service providers. Demand for this training continued to grow in 2012.

DVGW Academy increasingly popular

In 2010, the DVGW Academy was successful, with 160 seminars and about 1,500 participants. The Academy systematically develops skills in the areas of organization/law, business administration, employee management, customer orientation and secretarial/assistance services.

All the courses offered are specially tailored to meet the requirements of the gas and water sectors and are increasingly provided in-house for customers. In 2012, the areas with the highest demand were employee management, customer orientation and business administration. The personnel development courses introduced in 2010 were once again very well received by companies in 2012. On the basis of experience over the past few years, the Academy increasingly offers consultancy services (e.g. for job descriptions, job assessments and performance-related remuneration).

Central and regional – the DVGW offering

Apart from centrally organized courses, the many events organized at the regional and local level play a key role in the DVGW information and training system. The local groups mainly offer brief information events on topical themes which are dealt with in more detail by the professional training events available. The regional groups concentrate on specialist information with a regional focus. All in all, more than 12,000 participants attended over 400 events organized at the regional or local level in 2012.



Media for members and other specialists

Specialist information is provided by the classical print media or electronic media as appropriate, depending on the target group and topic in each case.

DVGW internet presentation expanded

Up-to-date specialist information, broken down by topics and services, is available via the comprehensive DVGW information portal. The main emphasis is on DVGW activities and services, which are continually expanded. Topics can be presented in a compact form on a micro-site comparable to a newspaper supplement tailored to meet the needs of specific target groups. In 2012, this approach was used for damage and accident statistics: www.strukturdatenerfassung.de.

DVGW Codes of Practice successful online

DVGW- Regelwerk Plus, the online version of the DVGW Codes of Practice, offers unrestricted access to Codes of Practice via the Internet as well as a number of other benefits such as access to DVGW bulletins, training schedules, research reports, contact partners and a direct link to specialist information on the DVGW website. In 2012, more than 1000 users had already opted for DVGW-Regelwerk Plus. The online version is also available in modular form (e.g. gas or water Codes of Practice or special selections for plumbers, health authorities or small water companies).

The possibility of ordering individual Codes of Practice and paying for them online, then downloading them immediately as PDF files is used mainly by non-members of DVGW.

praxis – a high-profile specialist journal

“DVGW energie|wasser-praxis”, published by wvgv Wirtschaft- und Verlagsgesellschaft Gas und Wasser as a specialist journal and the association magazine, is now the leading specialist journal in the sector, with a circulation of about 15,000 copies. In addition to the 11 normal issues published each year, special issues are also published on individual topics such as “asset management” or “blue facts” (in English) for IFAT or WASSER BERLIN INTERNATIONAL. Key information from each issue is also published during the editing phase on the members’ section of the DVGW website.

“greenfacts” the dedicated magazine for the energy transition

DVGW has published the new magazine greenfacts since the summer of 2012. This magazine appears four times per year as a supplement to DVGW energie|wasser-praxis. Specific examples, well founded background reports and thoroughly researched facts make greenfacts a key source of information for the energy industry and anyone interested in topics concerning the energy transition.

The association

Introduction

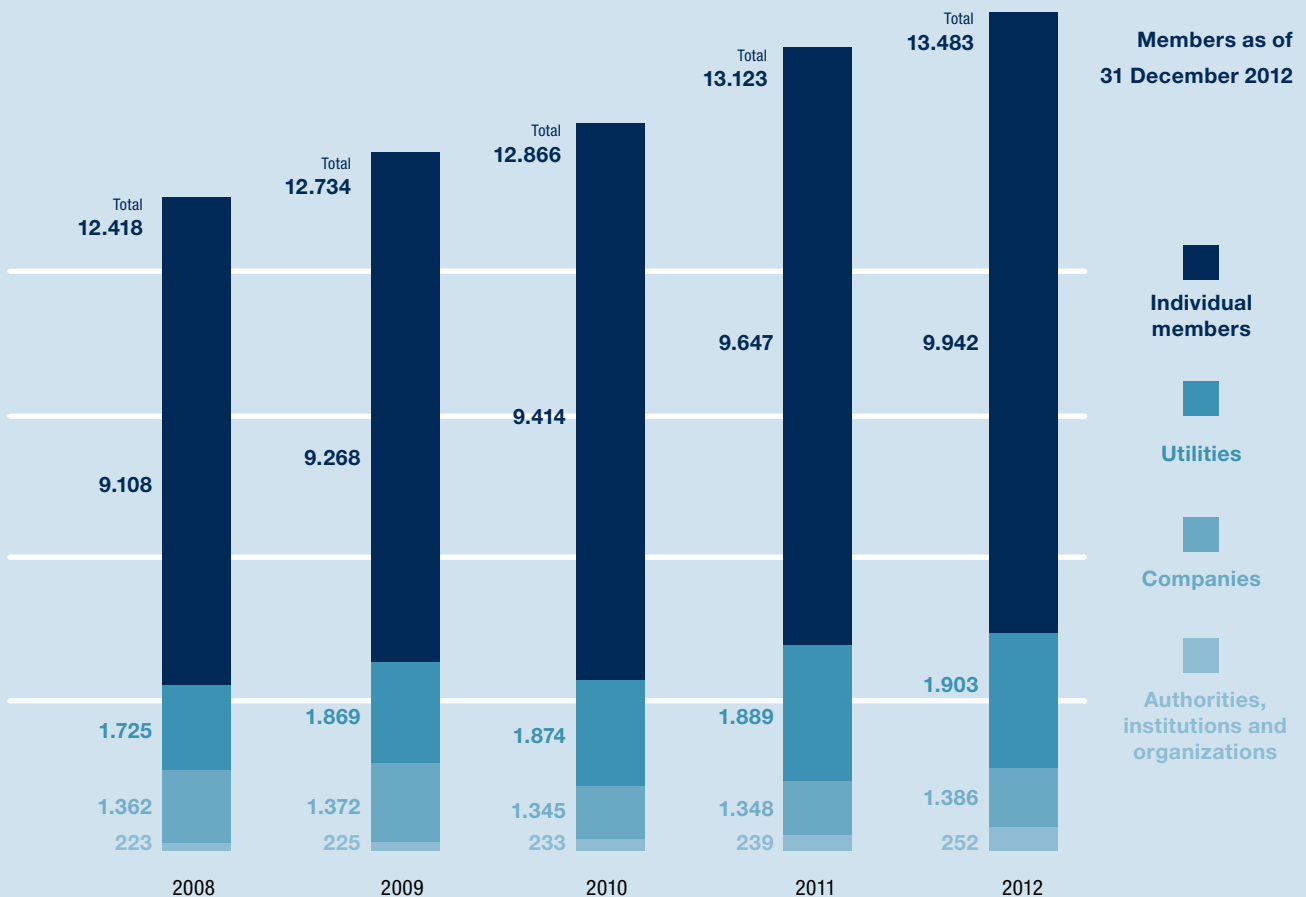
For more than 150 years, DVGW has been setting safety and quality standards for the gas and water industries. The association is committed to the successful technical self-regulation of the gas and water sectors. German laws define general protection and safety objectives, while more detailed requirements are developed by DVGW experts. The Central Office, the regional and local offices, certification and testing bodies, research and training institutes and specialist committees of DVGW all work together closely and maintain intensive dialogue within the indus-

try. Close contacts with ministries, authorities and other associations are also essential as a basis for decisions on the future-oriented further development of the German and European gas and water industries. Members can directly influence developments in their industry via the General Meeting, the various bodies of the association and active participation in the DVGW specialist committees. The networked, decentralized structure of DVGW ensures a rapid, comprehensive flow of specialist information.

Membership

DVGW members come from all areas of the gas and water industry interested in the association's work, including gas and water companies, industry, higher education and research authorities and the relevant institutions. In addition,

the almost 10,000 individual members are key multipliers within their companies. In 2012, the positive trend in membership continued.



Board of Directors/Executive Board

The bodies of the association include the Executive Board. The DVGW Executive Board consists of about 40 members elected at the General Meeting for a period of office of two years. The Executive Board Members are prominent representatives of the water and gas industry from gas and water companies, industry, the authorities, higher education and the trades. The Executive Board determines the guidelines for the association's activities and elects a President and three Vice Presidents to act as the Board of Directors for one year, Responsibility for the day-to-day business of the association is delegated to the Central Office.

Board of Directors

President

Dr.-Ing. Karl Roth

Technischer Geschäftsführer Stadtwerke Karlsruhe GmbH, Karlsruhe

Vice-President, Gas

Dr.-Ing. Jürgen Lenz

DVGW Deutscher Verein des Gas- und Wasserfaches e.V., Bonn

Vice-President, Water

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Technischer Vorstand Berliner Wasserbetriebe AöR (BWB), Berlin

Vice-President

Dipl.-Ing. Michael Riechel

Mitglied des Vorstandes Thüga Aktiengesellschaft, München

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Geschäftsführer Stadtwerke Halle GmbH, Halle/Saale
Past-Präsident des DVGW

Prof. E.h. (RUS) Bernd H. Schwank

Schwank GmbH, Köln
Präsident der figawa

Executive Board

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Geschäftsführer Hessenwasser GmbH & Co. KG, Groß-Gerau

Dipl.-Ing. Ulf Altmann

Geschäftsführer (Sprecher) NBB Netzgesellschaft Berlin-Brandenburg mbH & Co. KG, Berlin

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Geschäftsführer Hamburger Wasserwerke GmbH, Hamburg

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Hans-Joachim Collier

OTWA Ostthüringer Wasser und Abwasser GmbH, Gera

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Vice-President, Water of DVGW

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Landeswasserversorgung, Stuttgart

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Vorstand NEW AG, Mönchengladbach

Dipl.-Ing. Andreas Hennig

Geschäftsführer eins energie in sachsen GmbH & Co. KG,
Chemnitz

Prof. Dr.-Ing. Klaus Homann

Vorsitzender des Aufsichtsrats Thyssengas GmbH, Dortmund
Präsident des DIN

Dr.-Ing. Bernhard Hörsgen

Prof. Dr.-Ing. Matthias Krause

Geschäftsführer Stadtwerke Halle GmbH, Halle/Saale
Former President of DVGW

Dr.-Ing. Jürgen Lenz

DVGW Deutscher Verein des Gas- und Wasserfaches e.V.,
Bonn
Vice President, Gas of DVGW

Dipl.-Volksw. Gudrun Lohr-Kapfer

Präsidentin RBV Rohrleitungsbauverband e.V., Köln

Dr.-Ing. Joachim Meier

Geschäftsführer WVV Wasser- und Energieversorgung
Kreis St. Wendel GmbH, St. Wendel

Dr.-Ing. Peter Missal

Geschäftsführer e-rp GmbH, Alzey

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Alleinvertreter des Vorstands SWT-AÖR, Trier

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GmbH, Frankfurt

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Dipl.-Ing. Harald Noske

Technischer Vorstand Stadtwerke Hannover AG,
Hannover

Dr.-Ing. Peter Rebohle

Geschäftsführer Zweckverband Fernwasser Südsachsen,
Chemnitz

Dipl.-Ing. Michael Riechel

Mitglied des Vorstands Thüga Aktiengesellschaft,
München
Vice-President of DVGW

Dr.-Ing. Karl Roth

Technischer Geschäftsführer Stadtwerke Karlsruhe GmbH,
Karlsruhe
President of DVGW

Dipl.-Ing. Siegmund Rothe

Dipl.-Bau-Ing. (TH) Klaus Rubach

Geschäftsführer STWB Stadtwerke Bamberg GmbH, Bamberg

Prof. E.h. (RUS) Bernd H. Schwank

Schwank GmbH, Köln
Präsident der figawa

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Geschäftsführer Grünbeck Wasseraufbereitung GmbH,
Höchstädt

Dr.-Ing. Dipl.-Wirtsch.-Ing. Stephan Tenge

Mitglied des Vorstands E.ON Avacon AG, Helmstedt

Dr.-Ing. Markus Ulmer

Stadtwerke Karlsruhe GmbH, Karlsruhe

Dipl.-Ing. (TU) Heinz Watzka

Open Grid Europe GmbH, Essen

Dr.-Ing. Ulrich Wernekinck

Technische Geschäftsführung RWE Metering GmbH, Mül-
heim a.d. Ruhr

Dipl.-Ing. Wolfgang Wollgam

WAB Wasser- und Abwasser Beratungsbüro, Kolkwitz

Dipl.-Ing. (FH) Friedrich Zapf

Werkleiter Zweckverband zur Wasserversorgung der
Reckenberg-Gruppe, Gunzenhausen

Guests of the Executive Board

Dr.-Ing. Rolf Albus

Geschäftsführender Vorstand
GWI Gas- und Wärme-Institut e. V., Essen

Prof. Dr.-Ing. Henning Bockhorn

KIT – Karlsruher Institut für Technologie
Engler-Bunte-Institut, Karlsruhe

Dr. Andreas Cerbe

Vorstand RheinEnergie AG, Köln

Dipl.-Wirtsch.-Ing. Gotthard Graß

Hauptgeschäftsführer Bundesvereinigung der Firmen
im Gas- und Wasserfach e. V. – figawa, Köln

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Sprecher der Geschäftsführung terranets bw GmbH, Stuttgart

Prof. Dr. Harald Horn

DVGW-Forschungsstelle am Engler-Bunte-Institut des KIT –
Karlsruher Institut für Technologie, Karlsruhe

Dr. rer. nat. Josef Klinger

Geschäftsführer DVGW – Technologiezentrum Wasser
(TZW), Karlsruhe

Dr.-Ing. Bernhard Klocke

Geschäftsführer KGE – Kommunale Gasspeichergesellschaft Epe mbH & Co. KG, Gronau

Prof. Dr.-Ing. Thomas Kolb

DVGW-Forschungsstelle am Engler-Bunte-Institut des KIT –
Karlsruher Institut für Technologie, Karlsruhe

Dr.-Ing. Hartmut Krause

Geschäftsführer DBI Gas- und Umwelttechnik GmbH,
Leipzig

Dr.-Ing. Ralf Levacher

Geschäftsführer Stadtwerke Saarlouis GmbH, Saarlouis

Dr. rer. nat. Gerald Linke

Leiter Kompetenz Center Gastechnik E.ON NEW Build &
Technoloy GmbH, Essen

Dr. Ludwig Möhring

Präsident ASUE – Arbeitsgemeinschaft für sparsamen und
umweltfreundlichen Energieverbrauch e.V., Berlin

Dipl.-Ing. (FH) Peter Podzimski

Geschäftsführer Wasserversorgung Riesa/Großenhain
GmbH, Riesa

Bauass. Dipl.-Ing Otto Schaaf

Stadtentwässerungsbetriebe Köln AöR, Köln
Präsident der DWA

Dipl.-Ing. Jörg Scheibe

Geschäftsführer Südsachsen Netz GmbH, Chemnitz

Dr.-Ing. Anke Tuschek

Mitglied der Geschäftsführung BDEW Bundesverband der
Energie- und Wasserwirtschaft e. V., Berlin

Dipl.-Volksw. Martin Weyand

Hauptgeschäftsführer Wasser/Abwasser BDEW Bundesverband der Energie- und Wasserwirtschaft e. V., Berlin

Dipl.-Kfm. Ewald Woste

Präsident BDEW Bundesverband der Energie- und
Wasserwirtschaft e. V., Berlin

Advisory Councils

Gas Research

Chair: Dr.-Ing. Jürgen Lenz

Water Research

Chair: Dr.-Ing. Georg Grunwald

Education

Chair: Dr.-Ing. Karl Roth

Steering Committee of DVGW-CERT GmbH (CERT Advisory Council)

Chair: Dr.-Ing. Gerhard Schmitz

Central Office

DVGW Deutscher Verein des Gas- und Wasserfaches e. V. – Technisch-wissenschaftlicher Verein

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Gas Supply Dipl.-Ing. Alfred Klees

Gas Utilization Dipl.-Ing. Dieter Vass-Wolff

Water Dipl.-Geol. Berthold Niehues

Vocational Training and Communication Dipl.-Ing. Reinhold Krumnack

Research and Subsidiary Management Dipl.-Ing. Dipl.-Wirts.-Ing. Frank Gröschl

Finance/Organization Dipl.-Betriebsw. Michael Radzuweit

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akademie@dvgw.de

You will find a full organizational chart at www.dvgw.de

Regional Offices

DVGW has nine regional offices distributed throughout Germany. The tasks of these offices are in line with the fields of activity of DVGW, but also include topical regional issues. In organizing events, support for members and certification work, nearness to the members ensures that individual contacts are available and support is provided as and when it is required at the same time as generating new impetus for the association's work. The activities of the regional offices are rounded off by regular contacts with the ministries and authorities of Germany's federal states, including discussions with parliamentary representatives. One of the main focuses is on cooperation on the DVGW Technical Safety Management (TSM) system.

Baden-Württemberg
Vorsitzender: **Dr.-Ing. Karl Roth**
Geschäftsführer: **Dipl.-Ing. (FH) Thomas Anders**

Bayern
Vorsitzender: **Dipl.-Bau-Ing. Klaus Rubach**
Geschäftsführer: **Dipl.-Ing. (FH) Jörn-Helge Möller**

Berlin/Brandenburg
Vorsitzender: **Ulf Altmann**
Geschäftsführer: **Dipl.-Geol. Ralf Wittmann**

Hessen
Vorsitzender: **Dr. Kurt Hunsänger**
Geschäftsführer: **Dipl.-Ing. (FH) Heinz Flick**

Nord (Schleswig-Holstein, Hamburg, Mecklenburg-Vorpommern, Niedersachsen, Bremen)
Vorsitzender: **Dipl.-Ing. (TU) Heiko Fastje**
Geschäftsführer: **Dr.-Ing. Torsten Birkholz**

Nordrhein-Westfalen
Vorsitzender: **Dipl.-Ing. Dietmar Bückemeyer**
Geschäftsführer: **Dipl.-Ing. (FH) Heinz Esser**

Mitteldeutschland (Sachsen, Sachsen-Anhalt, Thüringen)
Vorsitzender Wasser: **Dipl.-Ing. (FH) Peter Podzimski**
Vorsitzender Gas: **Dipl.-Ing. Jörg Scheibe**
Geschäftsführer: **Dipl.-Ing. Reinhard Rauh**

Rheinland-Pfalz
Vorsitzender: **Dr.-Ing. Peter Missal**
Geschäftsführer: **Dipl.-Ing. (FH) Heinz Flick**

Saarland
Vorsitzender: **Dr.-Ing. Ralf Levacher**
Geschäftsführer: **Dipl.-Ing. (FH) Stefan Neuschwander**

Local Offices

The 63 DVGW/DELIWA local offices provide the infrastructure required for information transfer ranging from regional contacts to work on Codes of Practice. As a multiplier for the DVGW, the local offices pass on specialist knowledge and foster a mutual interchange of information. This means that all the individual members find out rapidly and reliably about what is happening in the industry. This local strategy is the key to success in information distribution. Outstanding regional contacts and considerable voluntary commitment lay a firm foundation for the attractive range of activities offered by the local offices. The main focuses of work with members include information events, specialist training, excursions and local exchanges of experience. The over 350 events organized by the local offices each year mean that the individual members keep abreast of the latest developments in their industry. The DVGW/DELIWA local offices are assigned to the regional offices for organizational purposes. Their work is coordinated by six regional coordination groups:

Chairpersons of the Coordination Groups

Dr.-Ing. Markus Ulmer

Chairperson of the Southern Coordination Group
Stadtwerke Karlsruhe GmbH
Daxlander Straße 72
76185 Karlsruhe

Dipl.-Ing. Hans-Jürgen Pütz

Chairperson of the Northern Coordination Group
Energieversorgung Hildesheim
Römerring 1
31137 Hildesheim

Dipl.-Ing. Ralf Möllensiepen

Chairperson of the North Rhine-Westphalia Coordination Group
Stadtwerke Duisburg Netzgesellschaft mbH
Bungertstraße 27
47053 Duisburg

Dipl.-Ing. Thomas Braun

Chairperson of the South-Western Coordination Group
Stadtwerke Sulzbach/Saar GmbH
Sulzbachtalstraße 20
66280 Sulzbach/Saar

Hans-Joachim Collier

Chairperson of the Eastern Coordination Group
OTWA Ostthüringer Wasser und Abwasser GmbH Gera
Gaswerkstraße 10
07546 Gera

Ing. Rainer Werber

Chairperson of the Berlin/Brandenburg Coordination Group
Dahme-Nuthe-Wasser- und Abwasserbetriebs-
gesellschaft mbH
Köpenicker Str. 25
15711 Königs-Wusterhausen

Further information on the individual local offices is available at www.dvgw-bezirksgruppen.de (in German only).

Honours

Honorary DVGW membership and the DVGW ring of honour are presented to outstanding specialists and other persons who have demonstrated special dedication to the association at the General Meeting, which is held every two years. The next General Meeting is due to be held in Nuremberg on 30 September 2013.

Since 2003, the DVGW badge of honour has been presented in recognition of outstanding commitment to the work of DVGW. In 2012, the following persons were honoured:

DVGW badge of honour

Dipl.-Ing. August Kuhl, Hilden
Dr.-Ing. Axel Spieß, Brühl
Dipl.-Ing. (FH) Peter Podzimski, Stauchitz
Dipl.-Ing. Siegmund Rothe, Briesen
Dipl.-Ing. (FH) Tino Reinhard, Duisburg
Uwe Gerstenhauer, Büßleben
Dr. rer. nat. Frank Heimlich, Essen
Dipl.-Ing. (FH) Norbert Wiedemann, Herrnhut
Dr.-Ing. Thomas Wahl, Berthelsdorf

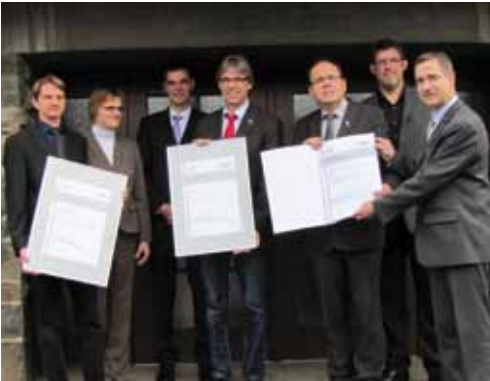
Deceased Members

DVGW mourns the death of the following members in 2012:

Hans-Joachim Bauer, Darmstadt
Dipl.-Ing Albert Baur, Gerlingen
Bernhard Benkovits, Regensburg
Dipl.-Ing. Klaus Berkenkamp, Waldsolms
Ing. Dietrich Bienek, Frankfurt/Oder
Gustav Bräuer, Edewecht
Stefan Brenner, Teningen
Dipl.-Ing. Otto Breton, Starnberg
Dipl.-Ing. (FH) Otto Burkhardt, Dahn
Dipl.-Ing. Volkmar Denecke, Potsdam
Dr.-Ing. Klaus Deppardt, Gehrden
Hans Eggert, Walkenried
Dipl.-Ing. Gerhard Emmrich, Bad Dübau
Jens Enemark, Kiel
J. Foerster, Guntersblum
Christian Fuß, Krefeld
Dipl.-Ing. Günther Groth, Neumünster
Dipl.-Ing. Herbert Gutsche, Berlin
Prof. Dr.-Ing. Karl-Heinz Jacobitz, Darmstadt
Werner Kieser, Lohfelden
Andreas Kirmse, Callenberg
Friedrich Köhring, Mechernich
Dipl.-Ing. Wilhelm Kröfges, Köln
Gerhard Kunz, Bocholt
Rudolf Kunz, Uetersen
Burkhard Mehn, Dockendorf

Horst Meier, Eppelheim
Erwin Mihm, Fulda
Herbert Müller, Fürth
Dipl.-Ing. Jürgen Pirschel, Berlin
Dipl.-Kfm. Rainer Prigge, Marxen am Berge
Dipl.-Ing. Klaus Proske, Rostock
Dipl.-Geol. Heinz Richter, Neubrandenburg
Dr. Joachim Bernd Rombach, Karlsruhe
Jürgen Rückborn, Neu Wulmstorf
Dr.-Ing. Lothar Saitenmacher, Dresden
Jörg Scheele, Witten
Dipl.-Ing. Reinhard Schwaab, Nidderau
Paul Settele, Aichach
Dipl.-Ing. Peter Skuras, Berlin
Dipl.-Ing. Gerd Stein, Homburg
Dipl.-Ing. Hans Stockleben, Northeim
Dipl.-Ing. Walter Thies, Springe
Dr.-Ing. Friedrich Tillmann, Hattingen
Ing. Alfred Tottleben, Berlin
Holger Vieroth, Bremen
Dipl.-Ing. Alfred Volk, Velbert
Karl-Heinz Wehrmann, Mönchengladbach
Erich Weidt, Hamburg
Bernhard Woyk, Andernach

Awards and activities



➊ GELSENWASSER subsidiary AWS successfully completed its TSM audit.



➋ DVGW partner centres, in this case in Bad Zwischenahn, form a national network of practically oriented training centres featuring high quality and special performance capabilities.



➌ Presentation of technical safety management certificates to E.ON edis AG in Potsdam. .



➍ On 7 March 2012, the appointment certificate in accordance with GW 329 was presented to the recognized training Institute BAU-ABC Rostrup in Bad Zwischenahn.



➎ The two young engineers who received the DVGW award for outstanding theses in the water sector at wat – Sebastian Cichowalas (left) and Jonathan Schmidt.



➏ Five high-performance partner centres – the photo shows representatives of ABZ Bau Hamburg – support the work of DVGW's training institution in Northern Germany.



➐ TSM certificates for Stadtwerke Wertheim and Marktgemeinde Kruzwertheim.



➑ At gat/wat in Dresden, representatives of Wasserversorgung der Stadtwerke Mühldorf, Erdgasversorgung Erding GmbH and Kommunale Energienetz Inn-Salzach received their TSM certificates on behalf of all the gas and water operating departments of Energienetze Bayern and Energie Südbayern.



➒ Successful participants in the block course for network and water system master craftsmen, 2011 – 2012.

➓ Presentation of the technical safety management certificate to Nord Stream AG at gat/wat 2012 in Dresden.

Awards and activities



Members of the Academy working party look back on 10 successful years.



Visit to the Saint-Gobain-PAM pipe production plant during an excursion of the Alb-Bodensee local group.



35 members of the Allgäu local group on an "energy transition" excursion.



Study trip of the Blies local group to the Sipplingen Berg waterworks.



Members of the Executive Committee of the Saarland regional group meet MEP Jo Leinen in Brussels.



Delegates at the meeting of the EUREAU-1 commission in Bonn on 23 February 2012.



Energieversorgung Hildesheim receives its technical safety management certificate from DVGW.



IGU committee PGC E "Marketing" at a meeting in Amsterdam.

Awards and activities



Participants in the platform discussion at the fifth DVGW university day during gat 2012 and wat 2012 in Dresden.



DVGW participants in the ceremony celebrating the 200th anniversary of gas light on the European continent in front of the Lampadius monument in Freiberg inaugurated on this occasion.



Presentation of the DVGW gas thesis prize by DVGW Vice-President Gas Dr. Jürgen Lenz to Jakob Brendli, Jan Schymassek, Michael Buller and Theodor Langner (from left to right).



DVGW Vice-President Gas Dr. Jürgen Lenz (left) presented the badge of honour to Dr. rer.nat. Frank Heimlich and Dr.-Ing. Thomas Wahl (from left to right) at gat 2012.
Dr. Georg Grunwald (centre), DVGW Vice-President Water, presented the badge of honour to Dr.-Ing. Axel Spieß, Dipl.-Ing. (FH) Norbert Wiedemann, Dipl.-Ing. (FH) Tino Reinhard, Dipl.-Ing. (FH) Peter Podzimski, Dipl.-Ing. Siegmur Rothe and Uwe Gerstenhauer (from left to right).



Midday snack during the Frontinus study tour following the traces of the Romans through the South of France.



N-ENERGIE of Nuremberg received further certificates for its technical safety management system.



Control and contact centre personnel from Stadtwerke Osnabrück completed the first modules of their supplementary training as specialists in control and contact centre work.

wat 2012 + gat 2012 in Dresden



● DVGW President Prof. Dr. Matthias Krause opened gat 2012.



● The delegates at wat 2012 were welcomed by DVGW Vice-President Dr.-Ing. Georg Grunwald.



● The DVGW exhibition stand offered specialist information and an opportunity for a personal exchange of views in a pleasant atmosphere.



● Team spirit was called for in pipe tapping for the installation of a tee on a "hot" pipeline.



● At the victory ceremony, Reinhold Krumnack, Head of Vocational Training at DVGW, congratulated the winners of the DVGW pipe tapping competition.



● The evening event offered a relaxed atmosphere with some delicious food and high-quality entertainment.



● DVGW Vice-President Dr.-Ing. Georg Grunwald and Wulf Abke (bdew) informing media representatives at the wat press conference; in the chair: Daniel Wosnitzka, DVGW.



● The two conference newspapers gat-direkt and wat-direkt included up-to-date reports on the conference.



● A new registration system ensured that there were no queues at the entrance.



● Participants in the gat platform discussion on "Actively shaping the energy transition".



● Participants in the sponsorship program for students initiated by DVGW at the gat/wat exhibition stand.

