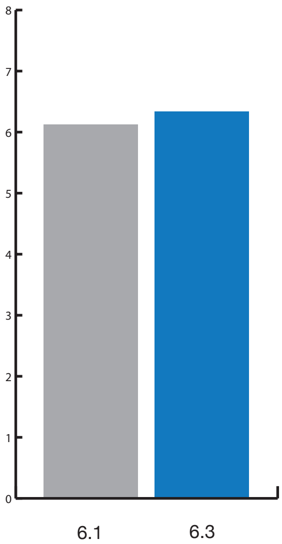
Verantwortung für Generationen
Responsibility for Generations

DBE TEC
DBE TECHNOLOGY GmbH

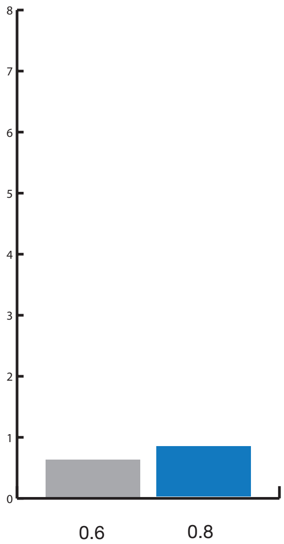
ANNUAL REPORT 2011

IN FIGURES

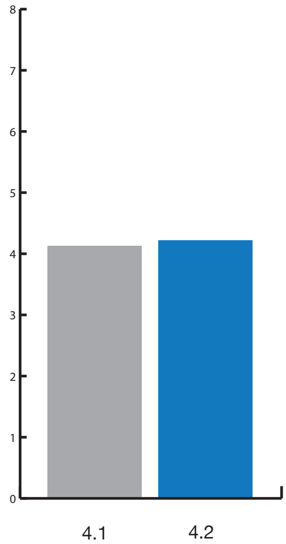
TURNOVER (MILLION EUR)



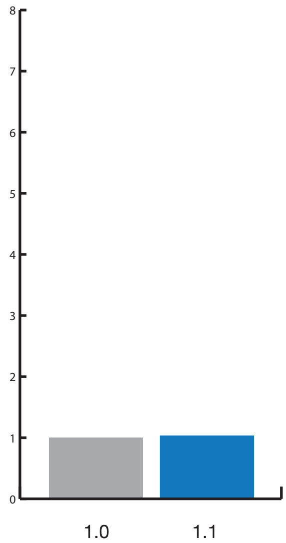
COST OF PURCHASED SERVICES (MILLION EUR)



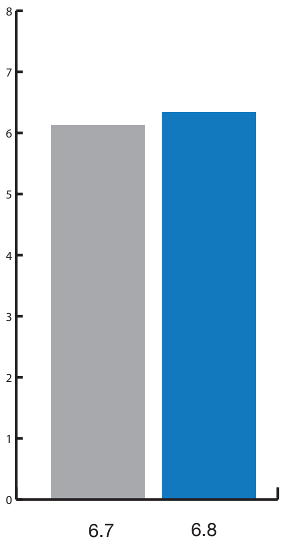
PERSONNEL EXPENSES (MILLION EUR)



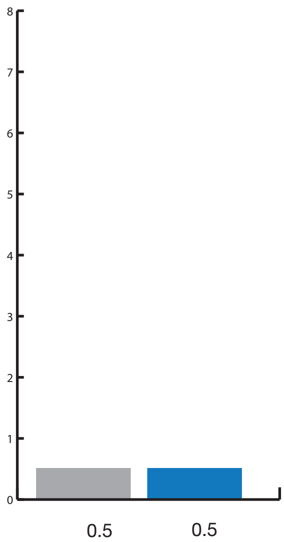
OTHER OPERATING EXPENSES (MILLION EUR)



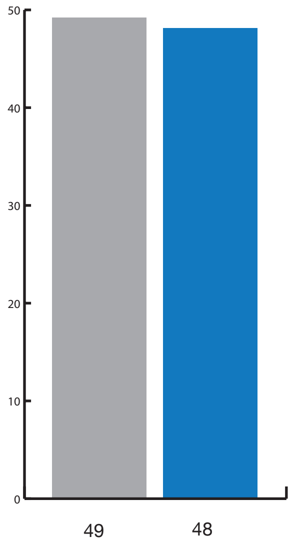
BALANCE SHEET TOTAL (MILLION EUR)



NET INCOME 2010/2011 (MILLION EUR)



EMPLOYEES AS OF DECEMBER 31, 2010/2011



2010 2011

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EXECUTIVE BODIES

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Peine

Technical
Director:

Assessor des Bergfachs
Michael Ripkens,
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Essen

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Rubenow
(as of August 25, 2011)

Dipl.-Ing. Dieter Rittscher
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(until June 30, 2011)

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Hanover
(as of June 29, 2011)

COMPANY PROFILE

Our team

EXPERTISE AND KNOW-HOW

DBE TECHNOLOGY GmbH was established in the year 2000 as a 100 percent subsidiary of Deutsche Gesellschaft zum Bau und Betrieb von Endlagern für Abfallstoffe mbH (DBE) (German Company for the Construction and Operation of Waste Repositories) in order to focus and further develop the scientific and technical know-how of DBE and to make it available to interested parties both nationally and internationally. Since its founding 11 years ago, DBE TECHNOLOGY GmbH has rapidly become a nationally and internationally recognized engineering company in the area of radioactive waste disposal.

Its activities are based on over 30 years of experience gained by its parent company in German nuclear waste repository projects as well as the know-how gained through over 25 years of collaborative effort in similar national and international research projects. The company's main fields of activity today include waste disposal strategies and activities, site characterizations and evaluations, concept, design, safety, and engineering of repositories, and their closure.

In addition to this, DBE TECHNOLOGY GmbH advises and supports public and private energy, waste disposal, and mining companies as well as testing organizations and governmental authorities throughout the world in all questions related to the disposal of radioactive materials, mining, and other related technical fields. Furthermore, the company develops and tests new materials, processes, and machinery for their practical application in repositories.

Based on its comprehensive know-how, the company supports governmental institutions in the development of national waste management strategies and gives recommendations for corresponding financing strategies and pertinent legislation.

As part of its activities in radioactive waste disposal, DBE TECHNOLOGY GmbH carries out planning and supervising activities on behalf of German energy supply companies and research institutions. Support in collecting and documenting waste data and demonstrating that the waste packages meet the technical acceptance criteria of the Konrad repository complete the scope of the company's services.

Members of a Mexican delegation visiting the Gorleben exploration mine

DBE TECHNOLOGY GmbH participates in research projects in underground laboratories for clay and claystone in Mont Terri (Switzerland) and Bure (France), and for granite in Grimsel (Switzerland) and Äspö (Sweden).

Based on the knowledge gained in these projects, the company develops and analyses repository concepts for various host rocks (crystalline rock, clay, lime, and salt) and waste types (high-level, intermediate-level, and low-level radioactive waste). Furthermore, the company reviews repository concepts of other waste management organizations and gives recommendations for optimization measures.

DBE TECHNOLOGY GmbH develops safety concepts for the operating and post-operating phases of repositories and plans corresponding safety measures. In addition to this, the company is involved in a preliminary safety analysis of a potential repository for spent fuel elements and high-level waste in the Gorleben salt dome. Within the scope of an R&D project, the company develops a safety case for a repository in clay.

In Germany, the legal requirements for licensing a repository stipulate that the technical feasibility of the equipment and components to be utilized in the repository and of the intended operational processes be demonstrated before a license is granted. DBE TECHNOLOGY GmbH developed the systems and components required for operating a repository in salt which were subsequently tested until ready for final approval.

The secure sealing of subsurface repositories is essential for ensuring the long-term safe isolation of radioactive wastes. In this context, the company develops – both for clients at home and abroad – sealing concepts that are adapted to the site-specific requirements, the radionuclide inventory destined for disposal, and the disposal concept.

EVENING OF ARTS AND SCIENCES

Continuing a tradition established over the past years, DBE TECHNOLOGY GmbH invited business partners, colleagues, and the media to an "Evening of Arts and Sciences" in Peine, which took place on November 9, 2011. Approximately 160 guests from 44 companies and government institutions used the opportunity to exchange ideas in a relaxed and informal atmosphere.

As an invited speaker, Prof. Dr. Hans Mathias Kepplinger of the Institute of Media Studies and Communication at the Johannes Gutenberg University Mainz (JGU) discussed the direct and indirect influence of the media on politics. Light entertainment was provided by "The Ellingtones" jazz band from Hanover.

Evening of Arts and Sciences on November 9, 2011, at DBE's head office in Peine

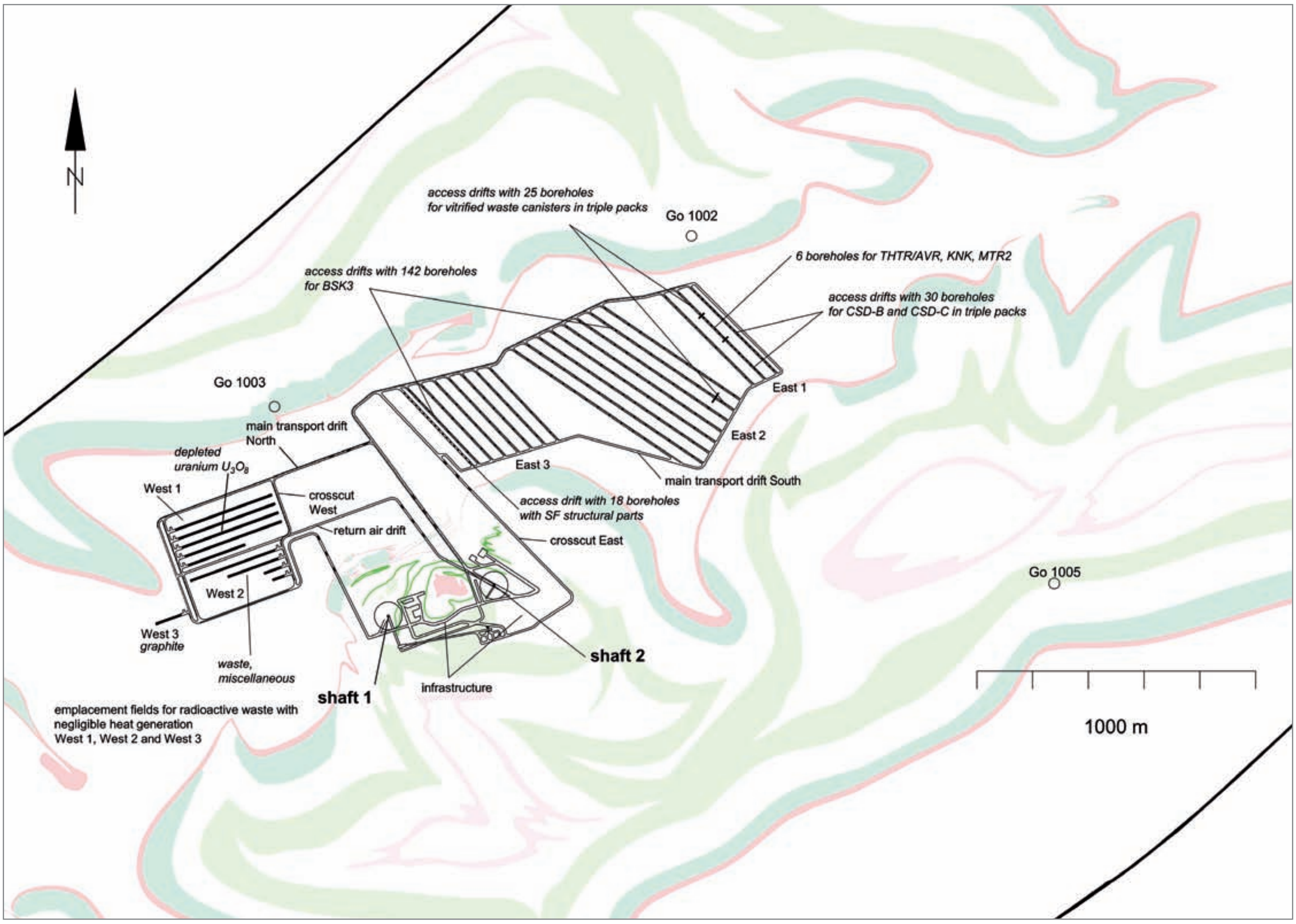
COMPANY PROFILE

PRELIMINARY SAFETY ANALYSIS GORLEBEN (VSG)

One of the main activities in 2011 was the collaboration in the first Preliminary Safety Analysis for a repository for heat-generating waste and spent fuel elements in a salt formation at the Gorleben site.
When the exploration work in Gorleben continued after the Moratorium had expired, the Federal Minister for the Environment commissioned a first safety analysis which was to be based on the safety requirements published by the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) in 2010 and on the data and information gathered in previous investigations. The analysis is to be concluded by the end of 2012 and will be reviewed by international experts.

The main goal of the project "Preliminary Safety Analysis Gorleben" is a clearly documented analysis and assessment of the salt formation focusing on:

- determining if and under what conditions a salt deposit can host a safe repository for heat-generating radioactive waste. Within the scope of this safety assessment, it is necessary to demonstrate the integrity of the geotechnical and geological barriers.
- developing optimized waste container, emplacement, and closure concepts taking into account operational safety requirements
- identifying further investigation and exploration needs



Mine layout for the disposal of radioactive waste in boreholes (E sector) and of waste with negligible heat generation in disposal chambers (W sector) shown against a geological cross section through the Gorleben salt dome at a depth of 870 m

BMU commissioned the Gesellschaft für Anlagen- und Reaktorsicherheit (Company for Plant and Reactor Safety, GRS) with the safety assessment. GRS, in turn, involved six other institutions as subcontractors. DBE TECHNOLOGY GmbH is responsible for several tasks which focus on:

- repository concept, design, and optimization
- analysis and demonstration of the integrity of the geotechnical barriers
- recommendations for further concept optimization

In addition to this, DBE TECHNOLOGY GmbH was involved in the work packages regarding the description and assessment of potential future evolutions of the repository system and in the Steering Committee.

DBE TECHNOLOGY GmbH‘s work focuses mainly on engineering issues. These include the safe isolation of the waste in order to prevent the inflow of solutions and the formation of a continuous pathway from the waste to the biosphere. This requires – on the one hand – an adequate repository design that is adapted to the geologic barrier and – on the other hand – a site-specific closure concept comprising the drift and shaft seals and the salt backfill material.

The corresponding conceptual work forms the basis for the analyses of operational and long-term safety aspects carried out by the project partners.

Testing of an emplacement device for the borehole emplacement of waste packages containing spent fuel elements

MoDeRn

INTERNATIONAL REFERENCE FRAMEWORK FOR MONITORING DEVELOPMENTS FOR SAFE REPOSITORY OPERATION AND STAGED CLOSURE

The successful implementation of a repository programme for radioactive waste relies on both technical aspects, such as a sound safety strategy and scientific and engineering excellence, as well as on societal aspects, such as stakeholder acceptance and confidence. Monitoring is considered key in servicing both ends. It not only underpins the technical safety strategy and quality of the engineering, but can also be an important tool for public communication, contributing to public understanding of and confidence in repository behaviour.

The R&D project **MoDeRn** (**Mo**nitoring **De**velopments for safe **R**epository operation a**n**d staged closure) started in 2009 and is a four-year collaborative project funded under the 7th Framework Programme for Nuclear Research and Training (EURATOM).

The main goal of the project is to establish a reference framework for developing and implementing various monitoring activities for deep geological repositories.

COMPANY PROFILE

Team members of the MoDeRn project

MoDeRn

To achieve this goal, 18 partners representing 12 countries have joined their efforts. The reference framework will be based on the experience and lessons learned from the waste management programmes in these 12 countries and will develop new approaches for stakeholder engagement.

Three main results are expected from the **MoDeRn** project:

- a clear description of monitoring objectives and strategies, taking into account a variety of physical and societal contexts
- an overview of the available monitoring technology
- a summary of the feedback from both expert and stakeholder interactions

A technical workshop involving monitoring research and technology projects in other areas of application was hosted to identify techniques and methods to monitor deep geological repositories. Innovative monitoring approaches specific to repository design requirements are being tested in underground research laboratories. In addition, a case study directed by DBE TECHNOLOGY GmbH was initiated to illustrate the process of mapping objectives and strategies onto the processes and parameters that need to be monitored in the different host rocks.

Brought together, the results will form the basis for the reference framework for repository monitoring. Through describing feasible monitoring activities, highlighting remaining technological obstacles, illustrating the possible uses of monitoring results and suggesting ways to involve stakeholders in the process of identifying monitoring objectives, the project also aims at enhancing confidence in the disposal process.

SUPPORT OF ASSE-GMBH IN THE CLOSURE OF THE ASSE RESEARCH MINE

Until the end of the 1990s, the former potash and rock salt mine Asse was used to research the final disposal of radioactive waste. Within the scope of this work, approximately 126,000 drums containing low- and intermediate-level waste were disposed of at the facility. In 1988, the first brine intrusion from the surrounding rock into the underground facility was observed, which, beginning in the 1990s, resulted in efforts to stabilize the underground openings and to initiate preparations for closing the facility. Since January 1, 2009, the Asse facility has been operated by the newly established Asse-GmbH which subsequently retained DBE TECHNOLOGY GmbH to carry out portions of the planning activities and support functions related to the closure of the Asse facility. In 2011, six specialists of DBE TECHNOLOGY GmbH were transferred to the Asse site on a temporary basis to carry out the commissioned work which is part of the hazard prevention and emergency planning activities.

In this capacity, DBE TECHNOLOGY GmbH planned and completed injection boreholes and concrete injections. The injections are to seal fractures and gaps in the rock which would compromise the effectiveness of the geotechnical seals. The drilling and injection equipment required for the work was procured and approved. Additionally, based on material research studies, new injection materials were developed which meet the requirements of the mining law. Injection work was carried out at different locations in the mine.

Furthermore, DBE TECHNOLOGY GmbH supervised the construction of the sealing systems to ensure that the barrier performance requirements were met.

Material research studies in the laboratory and during construction were carried out to broaden the spectrum of components of sorel concrete and, thus, its field of application.

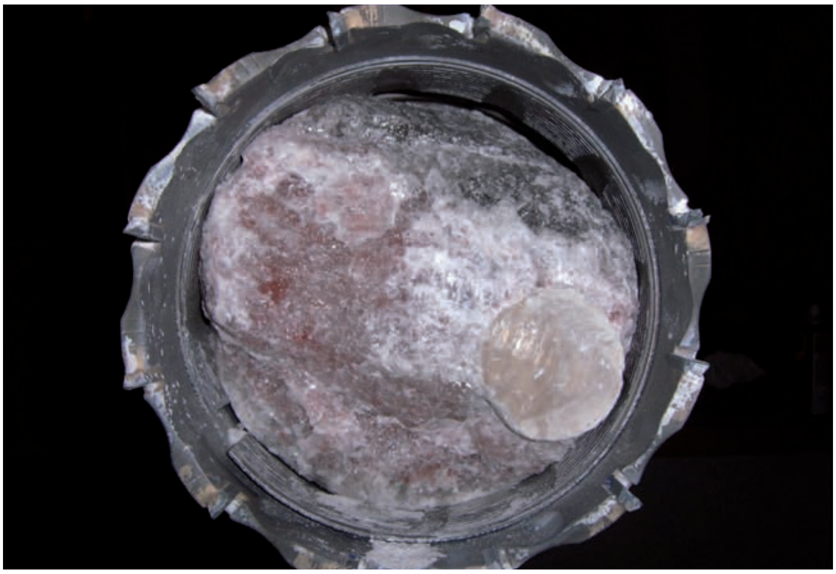
It is planned to use materials rich in magnesium hydroxide to stabilize the geochemical environment and to limit the solubility of radionuclides in the event of a brine intrusion. In preparation of the installation of so-called Mg buffers in the disposal chambers, the functionality of the material to be used and the technical manageability were studied on a semi-industrial scale.

DBE TECHNOLOGY GmbH was project manager in the refurbishment project of the shaft hoist frame of the shaft Asse 2. Tender documents for the acquisition of vehicles, plants, and technical equipment were compiled.

Several alternatives for the extension of the existing power supply system were compared which are to be the basis for further decision making. Design planning has been initiated.

Asse mine, 775 m level: study using a column to test the penetration behaviour of injection media in salt backfill

Asse mine, 800 m level, cross-cut to blind shaft 2: overcored injection borehole, grouted



COMPANY PROFILE

TECHNICAL PLANNING AND PREPARATION OF A PRELIMINARY SAFETY ANALYSIS FOR A BULGARIAN REPOSITORY

October 25, 2011: Signing of the contract in Sofia by José Emeterio Gutierrez, president of Westinghouse, Borries Raapke, Managing Director of DBE TECHNOLOGY GmbH, and Traycho Traykov, Minister of Economy, Energy and Tourism, Bulgaria (from right to left)

In the summer of 2010, the Bulgarian State Enterprise for Radioactive Waste (SERAW) announced a European tender for the design development of a national near-surface repository for short-lived low- and intermediate-level radioactive waste in Bulgaria and the associated preliminary safety analysis. In the bidding process, the consortium of Westinghouse Electric Spain SAU (project leader), DBE TECHNOLOGY GmbH, and ENRESA (Spain) prevailed. The contract was signed in Sofia on October 25, 2011, in the presence of the Bulgarian Minister of Economy, Energy and Tourism in Sofia.

SERAW intends to establish a near-surface repository for short-lived low- and intermediate-level radioactive wastes near the Kozloduy nuclear power plant. In addition to decommissioning waste associated with the NPP, operational wastes from the NPP, the Bulgarian research reactor, hospitals, and the industry will be disposed of at the facility.

The project includes the development of all necessary documents for the licensing process. The consortium will further provide support services to SERAW during the licensing process. The project duration is 36 months with a financial value of EUR 8.1 million.

DBE TECHNOLOGY GmbH's share of the project is valued at EUR 2.15 million. The work comprises the technical design and engineering for the waste reception and handling facilities as well as the waste disposal areas, facility security, assessment of the anticipated workload for the construction and financial requirements. It also comprises planning services for the organization and execution of the construction works and final disposal operations as well as an evaluation of environmental impacts and monitoring needs. Furthermore, operational and long-term safety assessments will be carried out. During the second phase of the project, i.e. during the licensing process, the consortium will provide technical support services to SERAW.

IMPROVEMENT OF THE INFRASTRUCTURE FOR RADIOACTIVE WASTE MANAGEMENT IN THE CHERNOBYL EXCLUSION ZONE

For several years, one of the main focuses of DBE TECHNOLOGY GmbH's international activities has been the participation in radioactive waste management projects in Ukraine.
As a result of a Europe-wide tender, a consortium consisting of DBE TECHNOLOGY GmbH and ANDRA (France) was awarded the contract for the first phase of the project "Improvement of the infrastructure for radioactive waste management in the Chernobyl Exclusion Zone".

The project focuses on an extension and upgrading of the surface radioactive waste disposal facility Buryakovka. It was constructed in 1987, immediately after the Chernobyl accident, and is located only a few kilometres away from the nuclear reactor. At present, it is operated in almost the same way as when it was constructed. It accepts low- and intermediate-level waste, particularly contaminated soil and waste from demolition work. By now, its capacity of approx. 700,000 m³ has almost been exhausted and is to be expanded by 120,000 m³.

Within the scope of the first project phase, the safety of the repository in its present and its upgraded state is to be assessed, waste acceptance criteria are to be defined and corresponding concepts for waste characterization and waste entry control are to be developed. Furthermore, technical specifications for work to be performed in the second project phase, which includes the extension of the repository, are to be developed. This includes recommendations for improving the repository safety based on aspects identified in the safety assessment. A prerequisite for the successful completion of the project is a close and excellent cooperation with the beneficiary organization, the end users, and the national regulatory authority.

State of one of the disposal trenches of the Buryakovka repository (Ukraine) in January 2011 at the beginning of the work. DBE TECHNOLOGY GmbH is responsible for the improvement of the infrastructure for radioactive waste management in the Chernobyl Exclusion Zone.

COMPANY PROFILE

STATUS QUO OF THE STORAGE OF SPENT FUEL ELEMENTS FROM DECOMMISSIONED/DISMANTLED RESEARCH REACTORS IN GERMANY AND STRATEGY FOR THEIR FUTURE STORAGE/MANAGEMENT (R&D PROJECT LABRADOR)

According to current agreements, spent fuel elements from German prototype and research reactors are reprocessed in the USA or other countries or transported back to their countries of origin.

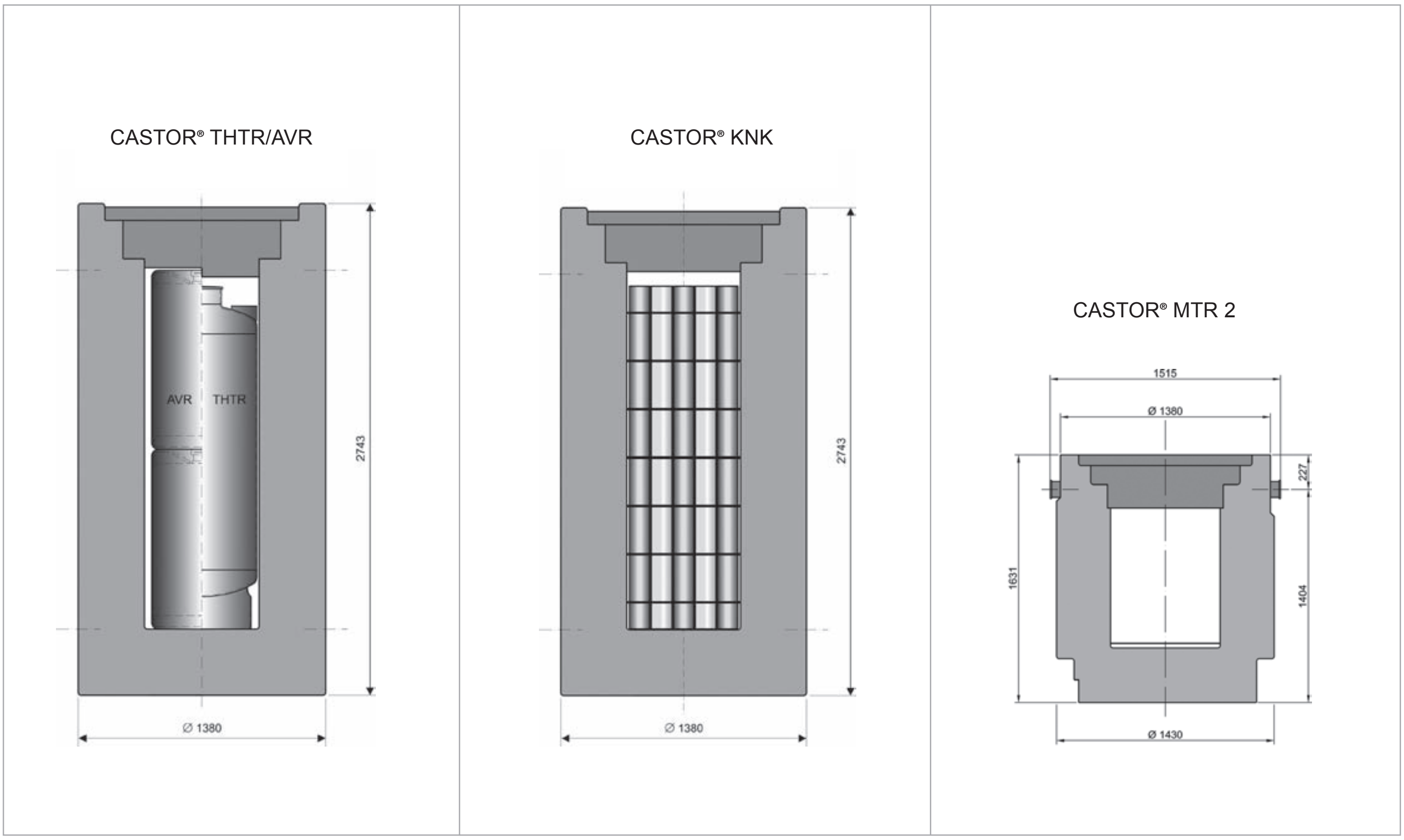
Alternatively, they are stored in interim storage facilities in Germany for up to 40 years. Currently, there is no strategy for their management after this period ends.

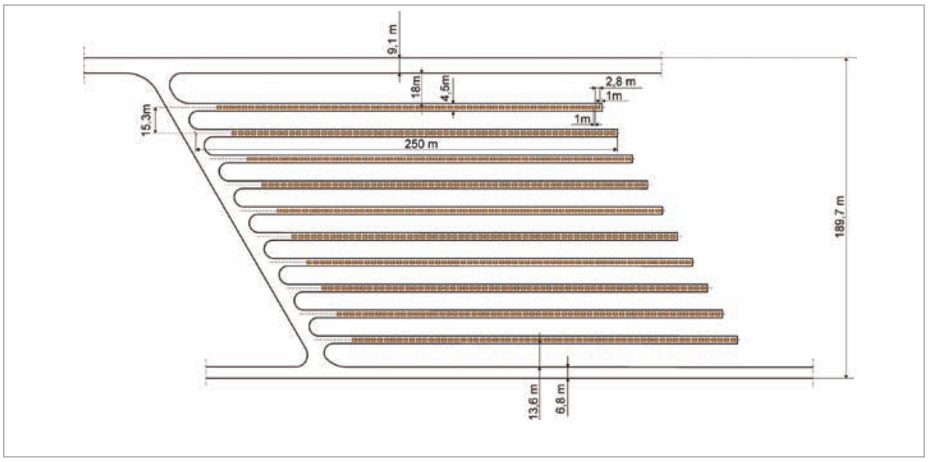
Major differences between spent fuel elements from German prototype and research reactors and spent fuel elements from German nuclear power plants (pressurized water and boiling water reactors) lie in the structures and geometries of the fuel elements/fuel rods as well as in their materials, amounts of initial enrichment, and burnup of the spent fuels.

CASTOR® casks, which are currently used for interim storage, are considered to be used for the final disposal of fuel elements from research reactors. Alternatively, the cask concepts for the disposal of spent fuel elements from nuclear power plants could be adapted.

Within the scope of the R&D project LABRADOR and on behalf of Karlsruher Institute of Technology (KIT), Project Management Agency Karlsruhe, Water Technology and Waste Management (PTKA-WTE), DBE TECHNOLOGY GmbH specified the spent fuels of prototype and research reactors which have to be disposed of in Germany. The spent fuel elements and rods were described and characterized. In addition to this, the existing final disposal concepts for spent fuel elements from nuclear power plants in salt and in clay were

CASTOR® THTR/AVR, CASTOR® KNK und CASTOR® MTR 2 (left to right)





Geometric layout of an emplacement field for CASTOR® THTR/AVR, CASTOR® KNK, and CASTOR® MTR 2 in rock salt

modified in such a way that they can integrate the spent fuels from prototype and research reactors. An emplacement field for CASTOR® casks in salt, for instance, was designed in such a way that it can integrate all CASTOR® casks in a horizontal or vertical position.

DEVELOPMENT OF ACCEPTANCE CRITERIA
FOR RADIOACTIVE WASTE – FUNDAMENTALS AND APPLICATION

Waste acceptance criteria are a key element for structuring the entire cycle of waste management processes in such a way that the nuclear waste arising in nuclear energy utilization, in medical applications, in research, and in industrial applications can be disposed of safely. For this reason, the definition and specification of waste acceptance criteria is directly connected with the safety analyses for a final repository. In this context, the requirements resulting from the choice of emplacement concept as well as those necessary to ensure operational and long-term safety need to be taken into account.

In Germany, preliminary waste acceptance criteria for the final repository Konrad for radioactive waste with negligible heat generation were developed and published already in the early 1990s although the repository will not begin operations before 2019. Based on the plan approval decision, which was granted in 2002, the waste acceptance requirements were adapted. The waste acceptance criteria for Konrad stipulate, for example, that the waste containers be delivered in a depressurized state. In addition to limits for local dose rates and surface contamination of the waste packages, they contain requirements for the waste and its packaging (containers) as well as activity limits and mass limits for non-radioactive contaminants.

The early publication of the waste acceptance criteria was to give waste producers and service providers the opportunity to characterise, condition, package, and document the waste in such a way that it meets the requirements for final disposal.

Over the past years, DBE TECHNOLOGY GmbH, who also provides waste documentation services to German waste producers, could successfully apply the practical experience gained in the derivation and implementation of the requirements stipulated in the waste acceptance criteria to a number of waste management projects abroad, e.g. in Ukraine, Russia, the Czech Republic, Slovakia, and Bulgaria. The particular know-how in this specialized field is not only used to train employees and business partners but also forms the basis for the organization of international workshops and training courses for other interested parties.

Final repository Mochovce, Slovakia

COMPANY PROFILE

2ND US-GERMAN WORKSHOP ON SALT REPOSITORY RESEARCH

The 2nd US-German Workshop on Salt Repository Research, Design, and Operation was held in Peine on November 9/10, 2011. The workshop had been organized by DBE TECHNOLOGY GmbH as well as the Project Management Agency Karlsruhe, Water Technology and Waste Management (PTKA-WTE, on behalf of the German Federal Ministry of Economics and Technology), and Sandia National Laboratories (USA).

Now that the Yucca Mountain project for the final disposal of high-level radioactive waste in tuff formations has been discontinued, investigations to identify other suitable host rocks and sites are to be carried out in the USA. In the USA, salt formations have been used for the final disposal of defence-related transuranic radioactive waste in the Waste Isolation Pilot Plant (WIPP, New Mexico) since 1999. Due to the positive experience gained at this site, studies have been initiated to analyse if other salt formations can be used for the final disposal of radioactive waste. In Germany, repository research in salt formations has been carried out for more than 40 years.

Participants of the US-German Workshop

Based on the results of the first US-German Workshop, which was held in the USA in 2010, the objectives of the second workshop were to intensify the cooperation between Germany and the USA in the field of repository research in salt formations, to coordinate a potential research programme which meets mutual interests, and to increase the collective efforts for its implementation.

During the workshop, the current status of repository research in salt formations in Germany and the USA was outlined. In five sessions, safety analyses, sealing concepts for repositories in salt, strategies for the backfilling of mine openings, deformation and healing behaviour of rock salt, and natural analogues for the final disposal in salt were presented and discussed.

DBE TECHNOLOGY GmbH presented sealing concepts for repositories in salt and research results regarding the backfilling of mine openings.

GERMAN-RUSSIAN WORKSHOP ON RADIOACTIVE WASTE DISPOSAL

Within the scope of the German-Russian scientific and technical cooperation in radioactive waste disposal, a joint workshop was held in St. Petersburg on April 14/15, 2011. For 10 years, DBE TECHNOLOGY GmbH – on behalf of the Federal Ministry of Economics and Technology (BMWi) – has been responsible for the technical coordination of this collaboration. The presentations and the subsequent discussion focused on the disposal of low- and intermediate-level radioactive waste on the one hand and issues regarding the disposal in clay formations on the other hand.

Approximately 50 Russian and German scientists of the leading research organizations of both countries participated in the workshop which was held under the aegis of BMWi and the State Atomic Energy Corporation ROSATOM. The workshop was organized by the St. Petersburg branch of the educational institute of ROSATOM and DBE TECHNOLOGY GmbH. Representatives of DBE TECHNOLOGY GmbH gave an overview of the acceptance criteria pertinent to the final disposal of radioactive waste with negligible heat generation in Germany, reported on their experience from projects on near-surface disposal in Slovakia and the Czech Republic, and presented the results of R&D projects on the development of repository concepts in clay formations and the characterization of these formations.

Especially in view of the repository for low- and intermediate-level waste which is planned in clay formations in the Leningrad region, the presentations were followed with interest.

As a result of the discussion, the participants proposed joint projects which were integrated into the bilateral work programme during the regular meeting of experts from ROSATOM and BMWi in Munich in July 2011.

Audience during the German-Russian Workshop in St. Petersburg on April 14/15, 2011

PRACTICAL ASPECTS OF REPOSITORY ENGINEERING IN SEDIMENTARY ENVIRONMENTS

Following similar events in 2007 and 2009, DBE TECHNOLOGY GmbH – in cooperation with the International Atomic Energy Agency (IAEA) and ITC School (School of Underground Waste Storage and Disposal) – organized an international training course which took place from November 7 to 11, 2011, and focused on “Practical Aspects of Repository Engineering for Disposal of Spent Fuel/HLW in Sedimentary Environments”.

Participants of the ITC training course

The training course is a component of the IAEA Network Programme with the objective to preserve the knowledge and technologies developed in countries with mature programmes and to transfer this expertise to countries just starting to develop their radioactive waste management activities.

At the five-day training course in Peine, 16 speakers (including eight from DBE TECHNOLOGY GmbH) presented information on the state of the art in science and technology in the field of final disposal of radioactive waste. 25 participants from 15 countries, delegated from national authorities for radioactive waste management, attended the training course.

The event started with a session on the US disposal programme for waste in salt formations which was followed by a session on various aspects of repository engineering: repository design, site selection, safety concepts, operational procedures, repository operation and closure, and operational safety.

The presentations were supplemented with visits to the exploration mine and the pilot conditioning plant in Gorleben and to a storage facility in Peine for specialized equipment specifically designed and tested for the underground transport and the handling of disposal casks at the Konrad repository.

MANAGEMENT REPORT FOR THE FINANCIAL YEAR 2011

BUSINESS DEVELOPMENT AND SITUATION IN THE FINANCIAL YEAR

The Company continued its successful development in the current financial year. Turnover amounted to € 6.3 million, and net income for the year amounted to € 0.5 million. As of December 31, 2011, the Company had orders in hand of approximately € 16.6 million. Due to the extremely specialist nature of the Company's activities, the macro-economic situation does not have a major impact on the development of business and order intake.

The Company continues to focus on providing services for domestic and foreign clients. These services comprise in particular national and international research and development projects for the final disposal of radioactive waste. Particularly mention has to be made of the international projects which deal with various aspects of the final disposal of radioactive waste in different host rocks (clay, Belgium, as well as magmatic host rock, Russia).

The Company is also the leading partner in international consortia which carry out safety analyses regarding the renovation and extension of the final disposal site at Buryakovka (Ukraine) and carry out work for improving the radioactive waste classification system in Ukraine.

In the year under review, also as a partner of an international consortium, the Company was awarded a contract for the design development of the final disposal facility in Kozloduy (Bulgaria) for low-level and intermediate-level radioactive waste.

For Asse-GmbH, the Company provided services related to several major tasks which are part of the emergency planning activities.

The preparation of the "Preliminary Safety Analysis Gorleben", a project commissioned by the Federal Ministry for the Environment (BMU), is of major importance. Together with five other institutions, the Company is developing a logical and documented suitability forecast for the site in Gorleben.

The Company is responsible for the following subjects: Repository concept, design, and optimization, analysis and demonstration of the integrity of the geotechnical barriers as well as recommendations for further concept optimization.

The requirements of environmentally responsible action are taken account of by DBE TECHNOLOGY GmbH's activities, which specifically focus on environmental impact.

Management of the Company continues to be performed by the managing directors of the sole shareholder, Deutsche Gesellschaft zum Bau und Betrieb von Endlagern für Abfall-stoffe mbH (DBE).

RESULTS OF OPERATIONS, NET ASSETS, AND FINANCIAL POSITION

RESULTS OF OPERATIONS

Compared with the previous year, the total output comprising turnover and changes in inventories of DBE TECHNOLOGY GmbH has increased by € 0.3 million to € 6.5 million.

The other operating income has increased by € 0.2 million compared with the previous year as a result of one-off effects resulting from the reversal of provisions.

Personnel expenses have increased by € 0.1 million to € 4.2 million. This is mainly due to higher staff compensation.

The other operating expenses have increased by € 0.1 million to € 1.1 million compared with the previous year.

Net interest income has changed only slightly compared with the previous year and, in addition to interest income from investments, comprises interest elements from the valuation of other provisions as well as other interest expenses.

Because the increase in operating income is compensated by the higher operating expenses and because net interest income is virtually unchanged compared with the previous year, the profit on ordinary operations has also not changed significantly, and still amounts to € 0.7 million.

As was the case in the previous year, the tax expense is € 0.2 million, comprising taxes on income as well as income from deferred taxes, which are attributable to differences between the figures for other provisions stated in the commercial and tax balance sheets as of December 31, 2011.

NET ASSETS AND FINANCIAL POSITION

The balance sheet total has increased slightly by € 0.1 million compared with the previous year and is now stated as € 6.8 million.

On the assets' side of the balance sheet, inventories have increased in total by € 0.3 million, due to an increase in projects in progress (+ € 0.2 million) and in advance payments (+ € 0.1 million). The projects in progress are measured with the directly attributable costs of production in accordance with the lower valuation threshold under Commercial Law.

Compared with the previous year, the receivables and other assets have declined slightly by € 0.1 million and now amount to € 0.6 million. They mainly comprise claims arising from the ongoing billing procedure for research and development contracts and other orders as well as advance tax payments.

Compared with the previous year reference date, the item "cash in hand and bank balances" has declined by € 0.1 million to € 3.1 million, although it continues to reflect the good liquidity position of the Company.

On the liabilities' side of the balance sheet, equity is virtually unchanged compared with the previous year and is still stated as € 1.7 million.

The provisions have declined by € 0.2 million to € 0.7 million mainly as a result of unutilized provisioning for revenue risks attributable to billings of services.

Liabilities have increased by € 0.3 million to € 4.5 million compared with the previous year. The largest individual item (€ 4.0 million) is the advance payments which have been received, which are attributable to advances for contracts which have not yet been completed and for which a final invoice has not yet been issued.

The equity ratio of the Company (24.6 %) is virtually unchanged compared with the previous year. As of the reference date, equity financed fixed assets as well as 52.5 % of inventories (previous year: 59.6 %).

The Company was solvent at all times in the past financial year and has remained so at all times since.

HUMAN RESOURCES AND SOCIAL REPORT

As of December 31, 2011, the Company employed 48 persons. Support for processing the tasks of the Company is provided by employees of DBE under the terms of an agency and service agreement which has been concluded with DBE. This primarily involves the provision of commercial services.

The Company is integrated into the occupational safety concept and compliance organization of DBE.

RESEARCH AND DEVELOPMENT

A main focus of operations continues to be on research and development contracts. This ensures that, in conjunction with DBE, the competence for planning, constructing, operating, and closing final disposal sites for radioactive waste based on the state of the art in science and technology is maintained and further developed. In the reporting period, the Company was involved in eleven national and international research and development projects.

MANAGEMENT REPORT FOR THE FINANCIAL YEAR 2011

RISK MANAGEMENT

Reporting and risk management are carried out in line with the systems existing at DBE. Risks arising from order processing are controlled on a timely basis by way of checks carried out in the course of the order.

The Company has adequate insurance cover for risks that normally need to be covered. This is achieved primarily by way of contractual inclusion in the insurance cover of DBE. There are no risks threatening the Company's status as a going concern. There have been no special events after the reporting date.

FORECAST REPORT

The order volume of € 16.6 million as of December 31, 2011, continues to be at a high level. Capacity utilization of the Company is ensured until well beyond the year 2012. The activities of the Company continue to focus on expanding and enhancing the core competence of the DBE / DBE TECHNOLOGY GmbH group in order to be able to offer competent services to national and international clients.

With constant orders in hand, it is expected that earnings will continue to be positive and constant in 2012 and also in the medium term.

NOTES TO THE FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR 2011

GENERAL INFORMATION

The Company is a small corporation in terms of Section 267 (1) HGB. The annual financial statements of DBE TECHNOLOGY GmbH are prepared voluntarily in accordance with the regulations applicable for large corporations.

In order to improve the overall clarity of presentation, individual items in the balance sheet and income statement have been combined and are shown separately in the notes to the financial statements.

The type of expenditure format was used for the preparation of the income statement.

The accounting and valuation methods are unchanged compared with the previous year.

ACCOUNTING AND VALUATION METHODS

The figures shown in the balance sheet for intangible assets and tangible assets are based on costs of purchase.
The intangible assets – exclusively software – are subject to linear depreciation over a period of three to five years while the tangible assets are depreciated linearly in accordance with their expected useful lives. Minor value assets, with costs of purchase and costs of production of more than € 150 and up to € 1,000, are combined in an annual collective item and are depreciated uniformly over a period of five years.

Projects in progress are measured with their directly attributable costs of production in accordance with the minimum valuation threshold under commercial law.

Advance payments are recognized with their nominal values.

In the case of receivables, identifiable individual risks are recognized by way of allowances. The other assets are recognized with their nominal value.

Provisions are shown as a figure equivalent to the settlement amount required according to reasonable commercial prudence.

Provisions with a term of more than one year are discounted at the average market interest rate prevailing in the past seven financial years corresponding to their remaining term.

The provisions for revenue risks attributable to billings within the other provisions have been discounted with the average market rate of 4.37 % as of December 31, 2011, which was published by Deutsche Bundesbank (German Federal Bank). Average terms of five years have been used as the basis for calculating the provisions.

The other provisions have been recognized for all identifiable risks and contingent liabilities.

Liabilities are reported at their settlement amounts.

Deferred taxes are created in relation to the differences between the amounts shown in the commercial accounts and the tax accounts if such differences will probably be reversed in subsequent years. Deferred tax assets and deferred tax liabilities are shown without being netted.

The Company has exercised the capitalization option of Section 274 (1) Clause 2 HGB, and reports deferred tax assets.

Deferred taxes are calculated on the basis of an effective tax rate of 30.0 % (15.82 % for corporation tax including solidarity surcharge and 14.18 % for trade tax) which will probably be applicable at the point at which the differences are reversed. The trade tax rate is based on the trade tax assessment rate of 405 %.

NOTES TO THE FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR 2011

NOTES TO THE BALANCE SHEET

ASSETS

1. Fixed assets

Movements in fixed assets are shown in the Annex to the Notes.

2. Receivables and other assets

The other assets mainly comprise reimbursement claims against the Finanzamt (tax office) concerning corporation tax and VAT paid in advance.

All receivables are due within one year.

3. Deferred tax assets

The deferred tax assets, which are shown separately in the balance sheet without being netted, are attributable to the following temporary differences.

	December 31, 2011 Difference between commercial and tax balance sheets	**December 31, 2011 Deferred tax assets**
Balance sheet item	**T€**	**T€**
Other Provisions	329	99

As of the balance sheet date, the deferred taxes stated on the balance sheet amount to € 0.1 million.

EQUITY AND LIABILITIES

4. Subscribed capital

The subscribed capital remains unchanged at € 0.5 million. It is fully paid up and held to 100 % by Deutsche Gesellschaft zum Bau und Betrieb von Endlagern für Abfallstoffe mit beschränkter Haftung (DBE), Peine.

5. Capital reserves

Capital reserves originate from other contributions made by the shareholder in previous years.

6. Retained earnings

The retained earnings are unchanged at € 0.5 million and include contributions made in previous years from net income (€ 0.4 million) as well as an amount of € 0.1 million attributable to the BilMoG changeover as of January 1, 2010.

The net income of the previous year of € 0.5 million was distributed to the sole shareholder.

7. Other provisions

Other provisions amounted to € 0.7 million as of the balance sheet date. They comprise revenue risks attributable to billings for research and development contracts (€ 0.4 million), vacation obligations (€ 0.1 million) as well as other obligations (€ 0.2 million).

8. Liabilities

All advance payments received comprise contractually agreed advance payments from clients.

The liabilities payable to affiliated companies are entirely attributable to the sole shareholder and result from current operations.

Other liabilities mainly comprise obligations from taxes (€ 0.2 million) as well as social security obligations (T€ 1).

All liabilities are unsecured and are due within one year.

NOTES TO THE FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR 2011

CONTINGENCIES

As of the balance sheet date, contingent liabilities totalling T€ 32 (previous year T€ 32) existed from a master guarantee agreement for providing a contract performance guarantee. Based on past experience, claims arising from contingencies are highly unlikely.

NOTES TO THE INCOME STATEMENT

9. Turnover

	2011 T€	2010 T€
Project assistance and engineering services for industrial companies	5,089	5,125
Revenues from billing domestic research and development contracts	1,165	951
Revenues from international contracts	50	39
	6,304	**6,115**

All revenues from project assistance and engineering services for industrial companies were generated exclusively in Germany.

10. Other operating income

The other operating income mainly comprises income from the reversal of provisions which were no longer needed (€ 0.2 million; previous year T€ 39) as well as costs charged on to other parties as part of operations and also income from a contribution refund of the Bergbau-Berufsgenossenschaft (employers' liability insurance association for the mining industry) for the year 2010 (T€ 45; previous year T€ 36).

11. Costs of purchased services

The costs of purchased services comprise third party costs for project assistance activities.

12. Personnel expenses

	2011 T€	2010 T€
Salaries	3,376	3,303
Social security and pension benefit costs (thereof for pensions)	821 (3)	773 (3)
	4,197	**4,076**

13. Other operating expenses

This item mainly comprises costs of services in connection with the agency and service agreement with the parent company, rents and travel expenses as well as general administrative expenses.

14. Net interest income

Net interest income is broken down as follows:

	2011 T€	2010 T€
Other interest and similar income	35	20
Income from the discounting of other provisions	14	40
Interest and similar expenses	7	14
Interest expense from the compounding of other provisions	-	1
	42	**45**

Other interest and similar income result from the short-term investment of liquid assets.

15. Taxes on income

The taxes on income comprise corporation tax (including solidarity surcharge) (€ 0.1 million; previous year € 0.1 million) and trade tax (€ 0.1 million; previous year € 0.1 million).

Income from deferred taxes (T€ 8) is the result of different amounts stated in the commercial and tax balance sheets as of December 31, 2011.

NOTES TO THE FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR 2011

OTHER DISCLOSURES

Annual average number of employees

On average, the Company employed 48 persons during the year (previous year 46).

Compensation

The separately listed members of the Advisory Board and Management did not receive any compensation for their activities.

Auditor's fees

The total auditor's fees charged for the financial year are shown in the consolidated financial statements of DBE.

Amounts subject to a payment restriction in accordance with Section 268 (8) Clause 2 HGB

The following are subject to a payment restriction as of the closing date:

Deferred tax assets	T€ 99
Less other deferred tax liabilities	T€ 0
Total amount subject to payment restriction	T€ 99

APPROPRIATION OF NET INCOME

Subject to the approval of the sole shareholder, the total net income of the year amounting to € 0.5 million shall be distributed.

GROUP AFFILIATION

DBE TECHNOLOGY GmbH, Peine, is under the uniform management of DBE. In its capacity as parent company, the latter prepares consolidated financial statements for the smallest and largest group of companies in which the annual financial statements of the Company are included. The consolidated financial statements are submitted to the operator of the electronic Federal Gazette and are published in the electronic Federal Gazette.

AUDITOR'S REPORT

The auditor, PricewaterhouseCoopers, Aktiengesellschaft Wirtschaftsprüfungsgesellschaft, Hanover, provided the annual financial statements of the Company as of December 31, 2011, with an unqualified auditor's report dated May 25, 2012.

BALANCE SHEET AS OF DECEMBER 31, 2011

Assets	Note	Dec. 31, 2011 (T€)	Dec. 31, 2010 (T€)
A. Fixed assets	(1)		
I. Intangible assets		30	31
II. Tangible assets		104	58
		134	**89**
B. Current assets			
I. Inventories			
1. Projects in progress		2,823	2,630
2. Advance payments		131	28
		2,954	2,658
II. Receivables and other assets	(2)		
1. Trade accounts receivable		522	658
2. Other assets		53	42
		575	700
III. Cash in hand, bank balances		3,061	3,185
		6,590	**6,543**
C. Deferred charges and prepaid expenses		**11**	**9**
D. Deferred tax assets	(3)	**99**	**91**
		6,834	**6,732**

EQUITY AND LIABILITIES	Note	Dec. 31, 2011 (T€)	Dec. 31, 2010 (T€)
A. Equity			
I. Subscribed capital	(4)	511	511
II. Capital reserves	(5)	179	179
III. Retained earnings	(6)	519	519
IV. Net income for the year		475	463
		1,684	**1,672**
B. Provisions			
1. Tax provisions		0	30
2. Other provisions	(7)	663	826
		663	**856**
C. Liabilities	**(8)**		
1. Advance payments received		3,961	3,673
2. Trade accounts payable		218	64
3. Liabilities payable to affiliated companies		137	8
4. Other liabilities		171	459
		4,487	**4,204**
		6,834	**6,732**

INCOME STATEMENT FOR THE PERIOD FROM JANUARY 1 UNTIL DECEMBER 31, 2011

	Note	2011 (T€)	2010 (T€)
1. Turnover	(9)	6,304	6,115
2. Changes in inventories		193	83
3. Other operating income	(10)	338	133
		6,835	**6,331**
4. Costs of purchased services	(11)	826	611
5. Personnel expenses	(12)	4,197	4,076
6. Depreciation		46	46
7. Other operating expenses	(13)	1,119	986
		6,188	**5,719**
		647	612
8. Net interest income	(14)	42	45
9. Results from ordinary operations		**689**	**657**
10. Taxes on income	(15)	208	182
11. Other taxes		6	12
		214	**194**
12. Net income for the year		**475**	**463**

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FIXED ASSET MOVEMENT SCHEDULE, FINANCIAL YEAR 2011

	At cost				Impairments				Book values	
	As of Jan. 1, 2011	Additions	Disposals	As of Dec. 31, 2011	Accumulated depriciation Jan. 1, 2011	Additions	Disposals	Accumulated depriciation Dec. 31, 2011	As of Dec. 31, 2011	As of Dec. 31, 2010
	T€	**T€**	**T€**	**T€**	**T€**	**T€**	**T€**	**T€**	**T€**	**T€**
Intangible assets - Concessions, trademarks, patents, licenses, and similar rights	115	20	0	135	84	21	0	105	30	31
Tangible assets - Other equipment, operational and office equipment	183	71	3	251	125	25	3	147	104	58
Total fixed assets	**298**	**91**	**3**	**386**	**209**	**46**	**3**	**252**	**134**	**89**

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