

Ordinary Members' Meeting 2023



Patentkrug hotel, Oldenburg
Wednesday, 29th March 2023

Technical information to the event



Technical information to the event

Invitation – Documents

- The invitation to today's meeting was sent to you in due time via Member Info 04/2023 on 23 February 2023.
- Hard copies of the handout are available for on-site participants.
- With this Participation Info you have also received the table document for today's meeting.

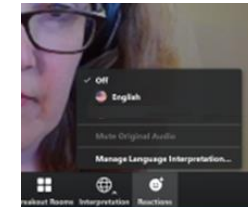
Presentation

- All important points of today's meeting will be accompanied by two PPT presentations, one in German and one in English.
- The presentation will be transmitted by the technology on the screens 1 and 2.
- The respective speaker is shown in the meantime via beamer.

Technical information to the event

Language regulation

- The members' meeting will traditionally be held in German or English, depending on the speeches.
- Participants with on-site presence can use the usual technology for simultaneous translation as before (wireless receiver, headphones, etc.).
- Participants in the Zoom conference have the option of selecting the interpreter function in the lower menu bar. Please select the appropriate language. Our technical department will take care of the coordination.
- Note: The **interpreter function** only works when **using the Zoom app**.



Technical information to the event

Voting

- When voting, e.g. on the adoption of the agenda, if there are any requests for changes, please indicate this by a show of hands.
If there are no requests for changes, the agenda/minutes etc. are deemed to have been adopted.
- **Voting in the hall is done by raising the voting card.**
- **Voting by zoom is possible (the new law in Germany is published).**
- The procedure for the upcoming election of the board will be explained again at a later date.

Technical information to the event

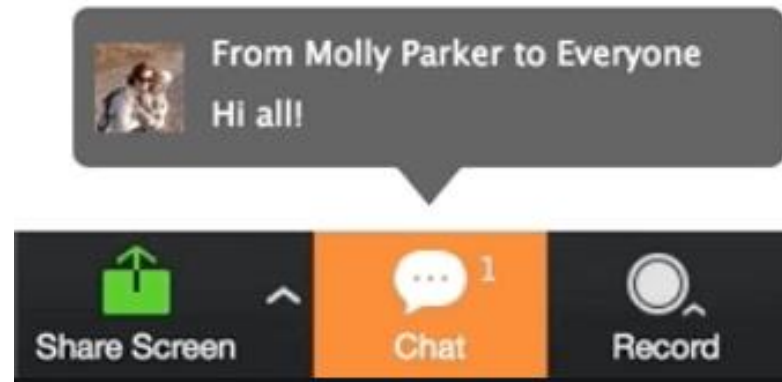
Contributions to discussions

- Contributions to discussions are always welcome! The respective speaker will invite discussion at the end of his/her presentation.
- The discussion will be dealt with in the order in which they are received. Please **state your name and company affiliation when asking questions.**
- Questions may be asked in either German or English.
- There will be a microphone at each seat in the conference room that can be used for discussion contributions.
- Members of the Zoom conference who wish to contribute to the discussion may do so by a show of hands.

Technical information to the event

Technical questions during the Members' Meeting

- The technique can be reached at any time via the chat function directly in the Zoom meeting.



Item 1:

**Welcome,
Determination of the quorum,
Approval of the agenda and minutes of
2022 Members' Meeting**

Quorum of the meeting



Agenda

- 1 Welcome, determination of the quorum, approval of the agenda and minutes of 2022 Members' Meeting**

- 2 Report of the board**
 - 2.1 President's Report

 - 2.2 Reports of the departments (current DCA projects)
 - 2.2.1 Task Group 3 – Technical Guidelines
 - 2.2.2 Task Group 2 – Coating
 - 2.2.3 Task Group 4 – Data Acquisition and Logging
 - 2.2.4 Task Group 5 – Subsoil (DCA/GSTT)
 - 2.2.5 Training and further education

Agenda

2.2.6 Task Group GW 340 (DVGW, Germany)

2.2.7 Sponsorship program

2.2.7.1 General update

2.2.7.2 Presentation J. Rotter (Noise emissions on HDD construction sites)

2.3 Report of the DCA-Representatives
(Italy, Spain, UK, France, Scandinavia)

2.4 Treasurers' Report

2.5 Report of the financial auditors

3 Exoneration of the board

Agenda

4 Business year 2023

4.1 Change of Statutes

4.2 Board election

4.2.1 President

4.2.2 Vice-President (Small Scale Drilling)

4.2.3 Vice-President (Large Scale Drilling)

4.2.4 Vice-President (Associate members)

4.2.5 Treasurer

Agenda

4.2.6 Board Member

4.2.7 Board Member

4.2.8 Board Member

4.3 Resolution of the Members fees

4.4 Task and goals 2023/24

4.5 Budget 2023

5 Election of the financial auditors 2023

6 Miscellaneous

Minutes of the Members' Meeting 2022





Minutes of the Members' Meeting of the DCA on 26 January 2022 in Oldenburg

Hybrid-Meeting

Location: Oldenburg, Hotel Patentkrug
Time: 26 January 2022, 3.00 to 5.50 p.m.

Participants: see list

TOP 1 Welcome, approval of the agenda and minutes of 2021 members' meeting

The DCA executive secretary, Mr Quante, opens the members' meeting and welcomes the board and members to the meeting room and in the Zoom-Meeting. First, some technical information on the Corona-related hybrid event is given. Mr Quante notes that the meeting was convened in accordance with the statutes with the invitation by mail dated 22.12.2021 and that there is a quorum of 52 out of 140 member companies (73 participants). The agenda for today's meeting is presented below. There are no proposals for changes. The agenda is approved unanimously. Subsequently, the minutes of the members' meeting 2021 are presented and also unanimously approved without amendments.

TOP 2 Report of the board TOP 2.1 President's report

Mr Stoelinga welcomes the participants of today's meeting, especially the companies admitted since the last members' meeting in 2021. Mr Stoelinga also reported that in the 2021 business year, a total of six regular and six associate members, i.e. a total of 12 companies, had joined the DCA:

Regular members:

- Krafteam GmbH, Germany
- MK Drilling Services Ltd, UK
- Klenk & Sohn GmbH, Germany
- Michels Corporation, USA
- HDD Sachsen GmbH, Germany
- KHL Kerstholt Horizontalbohrungen und Leitungsbau GmbH, Germany

Associate members:

- Fischer Teamplan Ingenieurbüro GmbH, Germany
- Dantonit A/S, Denmark
- ILF beratende Ingenieure GmbH, Germany
- Geospace Ingenieur- und Planungsgesellschaft mbH, Germany
- HDDP Solutions, France
- Universal HDD Deutschland GmbH, Germany

One regular and one associate member, Eco-Drill England Ltd. and CCI Solutions Inc. from Canada, left the association. The reasons for this were, among other things, a change in the area of activity. As of January 26, 2022, a total of 140 member companies were organized in the association (55 regular and 85 associate members). Of the 140 companies, 64% come



from Germany, 9% from the Netherlands, 5% from Poland and 4% each from the UK, the USA and France. The remaining 10% are from a total of 10 other countries.

Furthermore, Mr. Stoelinga explains that in the past fiscal year a total of seven board meetings were held, two of them in Aachen, partly as a hybrid meeting, as well as in Cologne-Brühl in the course of the board's Christmas party and in Oldenburg. In this context, Mr. Stoelinga thanks his colleagues on the board and the executive secretary, including the office, for their work in the past fiscal year. He then gives a brief overview of the activities carried out in fiscal year 2021. These primarily include:

- Execution of training courses according to GW 329 at the Bohrmeisterschule Celle (period: 11.01.-04.02.2021)
- Execution of the DCA members' meeting in Bad Zwischenahn (Wandelhalle, 14.04.2021), 49 of 130 member companies (75 participants)
- Participation in the Trenchless Engineering Conference in Poland (07.-09.09.2021)
- Participation in the UKSTT Conference in the UK (14.-16.09.2021)
- Realization of the 25th DCA Annual Congress in Bonn/Königswinter (06.10.-08.10.2021)
- Participation in the site manager seminar at Tracto-Technik with 32 participants (20.10.2021)
- Realization of the further education course according to GW 329 in Kassel (09.12.2021)

Mr. Stoelinga continues to report on the courses held at the Bohrmeisterschule Celle in spring 2021. A total of 44 participants were trained in the courses according to GW329 (technical supervisor, site manager and machine operator).

Looking back on the 25th DCA Annual Congress in Bonn/Königswinter last October under the title "From Pipe to Cable", Mr. Stoelinga states that with 165 participants it had the best attendance since the foundation of the DCA. He thanks the sponsors of the congress. These were the member companies:

- Herrenknecht AG und
- Tracto-Technik GmbH & Co. KG.

A special highlight of the event was the lecture by Prof. Dr. Martin Korte from the Technical University of Braunschweig on the topic "Shaping the future - paradoxes of decision-making". Lecture content and style knew how to inspire the participants. The neurobiologist dealt in an entertaining way with phenomena from the subconscious and their influences on decision-making processes.

On the other hand, the congress with this year's title "From Pipe to Cable" thematically took up current challenges of the market, with which the companies in the field of HDD technology are currently dealing mainly in Germany. Under the headings of energy transition and digitization, this relates to the new development and expansion of the cable-based power and communications infrastructure.

This year's event also included two workshops on topics that have always been of interest to the HDD industry. The workshop on subsoil parameters focused on evaluating the HDD-specific geotechnical parameters and terminology used in subsoil appraisals. The aim was to work out the influence of subsoil parameters on factors such as drilling mud, on borehole stability, the rate of advance or the selection and wear of drilling tools. In workshop 2 on drilling mud, the issue of disposal was discussed. It became apparent that the applicable legal frameworks in the participants' countries of origin, although based on the same European directive, are not comparable. The topic was therefore not discussed in depth.



Finding reasonable ways of disposing of drilling mud that accumulates on smaller HDD construction sites in a legally secure and economical manner is still a major problem for the industry. To continue working on solutions here is also a task that the DCA should take on, according to voices from the task group.

Mr. Stoelinga continues that the evaluation of the questionnaires regarding organization, congress contents, simultaneous translation, length of the annual congress and congress documents were in the "good" to "very good" range. Overall, the event and the spouse program in Bonn/Königswinter (Redoute Bad Godesberg) were rated as very successful and especially the exchange of experiences as well as the organization were evaluated very positively. The lectures in general as well as the evening event were also well to very well received. One point of criticism was that the workshops were too tightly scheduled. The topics are therefore to be taken up again, for example, in this year's members' forum. The members will shortly receive a questionnaire via member information to vote on the main topic of the members' forum.

On the sidelines of the congress, a new representative for the DCA could also be won. François Gandard from DCA member OPTIMUM in France agreed to support the DCA as a representative.

We would like to thank all members who were involved in the preparation of the workshops or the lectures!

The next annual congress of the DCA will be held in Stratford-upon-Avon in the UK from 05-08.10.2022. The congress hotel has already been booked and the preparations for the events including the preparation of the program are already underway.

The following activities took place in 2021:

- Finalization of task group 2 "Coating"
- Continuation of the task groups on the subject of "Revision of the Technical Guidelines" (TG3) and data acquisition and logging (TG4) (for explanations, see under Top 2.2)
- Cooperation in the DVGW task group GW 340
- Creation of a new Internet presence with a detailed member area
- Continuation of public relations work
- First talks on the introduction of a European standard for HDD boreholes

Unfortunately, the following events had to be cancelled in fiscal year 2021 due to Corona:

- Members' forum
- Training in the Netherlands (HDD 1 and HDD 2 courses)
- Seminar on mud technology in Celle
- 35th Pipe Forum in Oldenburg
- Anniversary event 25 years DCA in Brussels

TOP 2.2 Reports from the departments (current DCA projects)

Current projects from 2021 are summarized and explained below:

TOP 2.2.1 Task Group 2 – Coating

As already reported, the work in the "Coating" task group under the leadership of board member Marc Schnau has been completed in the meantime. The results have already been



presented to the members at the members' meeting. Unfortunately, the preparation of the German and English versions of the final report has been delayed, so that no final version is yet available. This is to be made up for shortly, at the latest, however, by the beginning of 2022. The final report, which is to be published under the series Technical Information of the DCA No. 6 "Coating Quality", will then be available for downloading as a pdf version in due course in the members' area of the homepage at the appropriate place.

TOP 2.2.2 Task Group 3 - Technical Guidelines

Mr. Schnau reports on the status of the revision of the Technical Guidelines. In task group 3, the working document by Marc Schnau and Jörn Stoeltinga could be reviewed and corrected in the meantime. The adjustments in chapter 10 were transferred to the German version. In the meantime, DCA members raised further points that should still be fitted into the guidelines. These points are still being worked on, so that the completion of the working version for the board has been further delayed. The goal is to have the final draft of the revised version available for member review by the end of June 2022. Further comments from the membership will be welcomed in the course of this. This will be followed by the final implementation, which should be completed in the fall of 2022.

TOP 2.2.3 Task Group 4 – Data Acquisition and Logging

Mr. Stone reports from the task group 4, in which the companies from the following areas are involved:

- | | |
|------------------------------|--|
| • consultants/planners | Landesberger engineering, Veenker Co. |
| • Drilling rig manufacturers | Ditch Witch, Herrenknecht, Tracto, Vermeer |
| • Suppliers | Brownline, Prime Horizontal |
| • HDD drilling companies | Catalana de Perforacions, LMR Drilling GmbH, VSH |

The first meeting of the new Data Acquisition and Logging task group was held on 03/11/2021. Progress during the first meeting of the task group was positive. During the two meetings in November and December 2021, objectives were developed and parameters were established, which were then categorized by relevance and importance, and what data could be practically recovered. Finally, the data was further analyzed to determine which parties would ideally want access to specific data sets. A phased approach to digitization should be determined, ranging from minimal digitization (Level 1) to full digitization (Level 4), and what is included in each level. The next step is to contact companies that can provide recording services and equipment to gain a better understanding of methods for recording, storing data, etc. The group is then scheduled to meet again in March 2022.

The results to date were presented at the board meeting. All DCA members are now encouraged to share their comments, concerns, and the like while the task group is still evaluating data recording and collection. Completion of a final report is expected by the 2022 annual congress.

TOP 2.2.4 Training and further education

Mr. Reinhard reported on the annual congress held in 2021 in Bonn/Königswinter with its eight technical presentations and the two workshops "Subsoil parameters" and "Drilling fluids and cuttings - disposal and recycling". Mention was also made of the site manager seminar on subsoil description for HDD projects, which was held on 20.10.2021 at Tracto-Technik in cooperation with the companies rbv, Moll-prd, AMC, Donié Geo-Consult in Lennestadt. In addition to planning examples for HDD projects, the use of geotechnical parameters for the classification of soil and rock and examples of subsoil reports for HDD projects, the use of



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geotechnical parameters in drilling planning and the use of geotechnical parameters in mud planning were other topics covered.

The last event in 2021 was, as always, the further education course according to DVGW worksheet GW 329, which took place in Kassel on 09.12.2021. Seventy participants met under the technical leadership of Vice President Marc Schnau, who had stepped in for DCA Vice President Marco Reinhard. Five technical lectures were presented. Michael Hentrich, Hentrich Engineering, gave a comprehensive overview of the current status of the DVGW rules and regulations with regard to the revision of GW 302 and, in connection with this, the series of rules and regulations GW 320 - GW 329. The links to the DCA guideline and to VOB DIN 18324 also played a role.

This was followed by Thomas Winkler, LMR Drilling GmbH, with his project presentation "Holland in Not". Here, the participants were given an insight into a highly complex HDD landing project in the Netherlands, which had to overcome a number of challenges during execution.

Florian Gieß from Tracto-Technik GmbH then presented the possibilities of digitizing HDD drilling rigs. In the future, he said, the networking of data from the drilling rig, location, mixing plant, etc. will play an increasingly important role. Already today, all machine data can be read out digitally and cloud-based and it is possible, for example, to control the drilling rig via a mobile operating tablet outside the control cabin.

After the lunch break, the series of lectures was continued by Mr. Schäfer (supervisor of BG Bau) with explanations on the Ordinance on Industrial Safety and Health. Here also there have been some innovations in the recent past, which met with broad interest among the participants.

At the end of the event, Marc Schnau continued Mr. Hentrich's presentation and focused on the respective responsibilities of clients and contractors on the basis of the regulations (DVGW, DCA and VOB DIN 18324). If applied and followed appropriately, many of the different opinions on responsibility and remuneration for additional services that are encountered on a daily basis could be quickly resolved. Often, however, insufficient documentation or breaches of duty before the occurrence of the difficulty (e.g. unauthorized changes to the construction design, exceeding tolerance limits, etc.) are responsible for disputes.

Mr. Reinhard further explained that at the beginning of 2022, this year's training courses for technical supervision, site manager and machine operator (at the Bohrmeisterschule Celle) have already taken place. From 10.01. to 03.02.2022, the GW 329 courses could again be successfully carried out for both training levels A and B.

The courses technical supervision A and B, site manager courses A and B as well as machine operator courses A and B could be held with 51 participants in attendance with strict rules and vaccination and test proofs. The courses have not been fully completed to date. Unfortunately, the training courses at Deltares in the Netherlands had to be cancelled due to Corona like last year.

Mr. Reinhard emphasizes that the DCA itself cannot provide training analogous to the training courses according to GW 329 in English, as it is not a training institution or a contractual partner of such institutions as an association.

As already mentioned, the 35th Oldenburg Pipe Forum also had to be cancelled due to Corona. The mud seminar planned for 08.02.-10.02.2022 at the Bohrmeisterschule Celle for the acquisition of technical knowledge on HDD mud technology, the application of drilling mud on HDD construction sites and the laboratory technical practical course will be expected to be able to take place as planned.



The DCA Members' Forum, scheduled for early March 2022, will be moved to May probably due to Corona. The exact date will be announced shortly.

TOP 2.2.5 Task Group GW 340 (DVGW, Germany)

Board member Jörg Himmerich reports on the status of work in the DVGW task group GW 340, in which DCA is involved. The work in the DVGW task group is concerned with the protection applied in addition to the corrosion protection coating as mechanical protection of steel pipes and fittings - the quality assurance of factory coatings. The requirements specified in the relevant corrosion protection standards must be met. The sheathings regulated here only serve as mechanical protection of a high-quality corrosion protection sheathing and do not replace it.

The white paper for DIN XXXX and GW 340 is expected in 2023. In addition to the test principles, the second part will contain application topics such as repair and handling.

TOP 2.2.6 Sponsorship Program

Mr. Himmerich explained that a large number of colleges and universities in several European countries have been contacted so far as part of the newly launched DCA sponsoring program. The program has also been published in the DCA newsletter as well as on the website.

As the first graduate, the DCA is retroactively sponsoring Johannes Rotter from the Jade University of Applied Sciences in Oldenburg for 2021, who has already written his thesis on the subject of noise emissions at HDD construction sites in draft form. The thesis will still be examined in January by the first examiner Dr. Till-Heinrich Carstens and the second examiner Dipl.-Ing. Ernst-Georg Fengler. A copy of his thesis will be made available to the DCA. For 2022, the association already has another candidate in mind for promotion. Suggestions for topics or candidates can be sent to Mr. Himmerich at any time.

TOP 2.3 Report DCA-Representatives (Italy, Spain, UK, France)

The DCA is now represented by four representatives in Italy, Spain, France and the UK. The task of the representatives is to promote the goals of the association throughout Europe and to increase the level of awareness in the individual European countries. In addition, the focus is also on contact with the member companies and the recruitment of new members.

Italy – Representative Renzo Chirulli, Vermeer

DCA representative Renzo Chirulli gives a brief overview of the market development in the HDD sector in Italy. In the next 5 years, investments in the triple-digit billion range are planned in the infrastructure in Italy. This primarily includes the modernization of networks (approx. 1,300 km of pipelines), the laying of fiber optic cables, and the installation of new wastewater systems and district heating lines.

Due to the high level of investment, demand for the use of HDD technology is expected to increase significantly in 2022 and subsequent years.

Mr. Chirulli reported that he currently has a specific request for membership from the company FESTA, which would like to become a regular member of the DCA. The company has been in the HDD industry since 1991 and works in both small and large diameter drilling. It is a family owned and operated company. Mr. Chirulli further explained that there are also contacts with two other interested companies. He will report further.



Spain – Representative Brian Jorgensen, Ditch Witch EMEA

DCA Representative Brian Jorgensen gives an update on the Spain - Portugal area. He reports that Ditch Witch and American Augers have been members of DCA for over 20 years. In the Iberian Peninsula, open cut construction is generally the preferred method in pipeline construction and there are relatively few HDD companies.

In the future, Spain, like other European countries, will focus on gas pipelines, photovoltaics, electric mobility and fiber optic installations. Currently, the peninsula gets its natural gas 42% from Algeria through Almeria. The photovoltaic sector has already grown to 6% of the total energy provided in 2020. The largest of these projects in the entire EU is located in Spain and started in 2021 with 626 MW. In the electric mobility sector, there are already 150,000 charging stations in private homes, on company premises and on public highways, urban and overland, built in the last 5 years.

Mr. Jorgensen reported that the company Catalana de Perforacions has been a member of DCA for years and presented its project the Rio Grande river crossing in the province of Lugo, Galicia, and the Solina dam crossing project in Poland.

Currently, interest in joining the DCA from other Spanish companies mostly fails due to the language barrier. Mr. Jorgensen will prepare a list of potential companies that could be contacted if needed. The new digital version of the DCA brochure and the application form in Spanish may well help to attract new companies, which is in line with the association's goal of making the DCA better known in Europe.

UK – Representative Scott Stone, Michels Corp.

Mr. Stone reports that the UK HDD market continues to boom. He states that he will continue to recommend the DCA to all UK HDD companies. The focus is to continue to develop pan-European standards in HDD and to assist UK members with HDD issues. Six UK drilling companies have already joined the association in the last two years.

In 2021, another UK company, MK Drilling Services Ltd, has joined the DCA. Mr. Stone will use the DCA's new digital brochure to launch another membership recruitment campaign. The response so far to the work of the DCA has been very positive among the new members (DCA guide, technical information, etc.). This was also evident at the DCA Annual Congress in Bonn, where Peter McCormack & Sons LTD gave an interesting presentation on an HDD project. In addition, in 2022 the DCA Annual Congress will be held in the UK.

Mr. Stone is also active on the board of UKSTT. He also represents the interests of DCA there. The annual No-Dig Live event was held Sept. 14-16, 2021, at the East of England Exhibition Centre in Peterborough. This year, the HDD industry was well represented there: O'Connor Utilities and Eco Drill Utilities received two awards for their achievements in HDD projects. Mr. Stone also led a workshop at the event, explaining the benefits of DCA membership.

France – Representative François Gandard, OPTIMUM

François Gandard reports on the HDD market in France. The French HDD market is booming. There are many projects in the HDD sector. Most of the projects are in the field of cable laying. HDD technology is also used frequently in the field of gas transport and the installation of fiber optic cables by its very nature. Public utilities are also active, but more in the field of microtunneling.



In 2021, five French companies were members of DCA. These include:

- HDI
- Gendry
- HDDP Solutions (Denis Pellerin, since 2022)
- Forexi
- OPTIMUM

As a perspective for 2022, there is an inquiry from the HDD drilling company SUBTERRA from the Toulouse area. Mr. Gandard further explains that there are also contacts with other interested companies in France. These include companies such as FTCS, Coquart & Fils, FNO, ENEDIS, RTE, GRT GAZ, TEREGA and EURETEQ. Overall, however, there are comparatively few large drilling companies in France. Most companies operate in the small-scale drilling sector. Again, as in Italy and Spain, there is the language problem. Mr. Gandard will report further.

After the presentation of the reports of the representatives, Mr. Quante explains that in the future the representatives will report on their activities once a year during a board meeting. This had already been done for the first time in the course of the November meeting of the board at the end of 2021. In this context, he emphasized the importance of the representatives' work for the DCA as a European association. In Northern and Eastern Europe, the DCA is not yet represented by official representatives from the membership. If you are interested, please contact the office or the board.

TOP 2.4 Treasurers' Report

The profit and loss account 2021:

The profit and loss account for the fiscal year 2021 presented by Mr. Muhl shows a surplus of about € 17,700.00, which is only marginally below the planned surplus of about € 20,000. There were larger deviations from the planned individual budgets in the income of membership fees and the expenses in the course of the annual congress. Encouraging were the still high sales of technical guidelines. Due to Corona, trade show expenses were very low. The budget for the cancelled members' forum was invested in the implementation of the annual congress.

Balance sheet 2021:

Taking into account the annual surplus, the association's assets can be stated at around € 273,600.00. The open demands to members lie with status of 31.12.2021 with approx. 1,800,00 €. However, the open items were paid in full by the time of the members' meeting. The cash balance as of the reporting date is around € 290,600.00. The credit serves here as reserve for the case of declining numbers of members. In conclusion, the cash position can be classified as very stable.

TOP 2.5 Report of the financial auditors

The cash auditors Mrs. Silke Goldschmidt, WBW GmbH, and Mr. Dan Lingenauber, Tracto-Technik GmbH & Co. KG, report on the cash audit they conducted this morning at the Hotel Patentkrug in Oldenburg. There were no objections for the business year 2021. Only in the surplus calculation a typing error had crept in with the listing of the costs. Here it must be called instead of "special event" "reorganization of the Internet operational readiness level". The cash auditors certify Mr. Muhl a proper cash management and an appropriate use of the funds and thank him for his work.



TOP 3 Exoneration of the board

On behalf of Mr. Lingenauber and the members of the DCA, Mrs. Goldschmidt thanks the board and the executive secretary for their successful work in the past fiscal year and proposes that the actions of the board be ratified. The motion is adopted without any dissenting votes and with three abstentions.

TOP 4 Business year 2022

TOP 4.1 Board election

Mr. Stoelinga explains in advance the procedure for finding potential candidates for the board positions to be filled. The various board positions are elected by the members' meeting for a period of 2 years in accordance with the articles of association. The board only has the right to make proposals. It talks in advance with potential candidates whether they could imagine to become active in the DCA board. If this is affirmed in principle, it must then be clarified whether the company is prepared to release the employee for a certain number of days for the DCA. In addition, since the existence of the association, travel expenses are not borne by the DCA, but by the assigning companies. Not every employer is willing to give his employee to the association free of charge. For the board itself it is important to have a balanced distribution of the different members in the board, in order to be able to represent as far as possible all member companies and nationalities. Suggestions from the membership are always welcome. The election cycle of usually two years is well known in the association. Everyone has the opportunity to get involved. However, the board sees itself as responsible for submitting substantial proposals for the elections. In contrast to other associations in Germany, the DCA does not have a problem with young people.

TOP 4.1.1 Board Member

The election of a member to the board, which is due this year, is conducted by the executive secretary Dietmar Quante. He briefly explains the procedure of the election.

Mr. Quante thanks on behalf of the board the board member Scott Stone for his work so far. Mr. Stone has changed his employer at the end of 2021. The new employer Michels Corp. is a DCA member. The position of assessor must therefore be re-elected in accordance with the articles of association.

The board proposes Mr. Stone for re-election. There are no further proposals from the membership for the office of the board member. Mr. Quante proposes an open election. This is accepted unanimously without any dissenting votes.

Mr. Stone is then confirmed in office with two abstentions. He accepts the election.

TOP 4.2 Tasks and goals 2022/23

Mr Stoelinga announced that the previous objectives of the DCA will continue to be actively pursued in the future. With regard to the 2022/23 financial year, Mr Stoelinga explains the planned activities below:

- Planning and holding of a total of seven board meetings.
- Completion of the task groups "Coating" and "Revision of Technical Guidelines", continuation of task group 4 Data Acquisition and Logging
- New task group on (thermal) grouting of the borehole



- Execution of training courses according to GW 329 at the Bohrmeisterschule in Celle in Jan/Feb. 2022 (training already started on 10.01. and is finished on 03.02.)
- Mud seminar in Celle from 08.02.-10.02.2022
- Accompanying HDD training courses at Deltares. Dates for 2022 are not yet available.
- Support of the No-Dig Berlin (GSTT) from 08.-09.03.2022 with two lectures.
- Planning and realization of the members' forum (bilingual) on 05.05.2022 in Aachen.
- Participation in the 20th Trenchless Engineering Conference in Krakow, Poland from 21-23.06.2022
- Holding of the 26th annual congress in Stratford-upon-Avon (05.-07.10.2022)
- Participation in the Ditch Witch Barcelona Event, 08 April 2022 (for information)
- Attendance of the advanced training event "further education due to worksheet GW 329" in Kassel (07. December 2022)
- Execution of the members' meeting on 08.02.2023 in Oldenburg, Hotel Patentkrug
- Participation in the Oldenburg Pipe Forum with six lectures and the DCA information booth (Drilling Saloon), from 09.-10.02.2023
- Awarding of the DCA sponsorship prize for 2022
- Introduction of further DCA representatives
- Publications/Newsletter
- Membership recruitment in European countries.

The 4th DCA Members' Forum will take place on 05.05.2022 in Aachen. Suggestions for topics are still being sought. As in previous years, the forum is to be held in the presence of the members. The members will receive a questionnaire with the next member information for their opinion. Among others, the proposals "drilling fluids and cuttings, disposal and recycling", "legal aspects - contractual issues" and "use of tools in the borehole" are up for discussion. Further proposals can be submitted.

Mr. Stoelinga further states that planning for the 26th annual congress in October 2022 is already underway. In Stratford-upon-Avon there will be - if Corona allows it - again interesting lectures on current HDD projects (small and large drilling technology), two HDD workshops and as at the last meetings a special social program. For the first time, a special sponsorship program (Gold, Silver, Bronze) will be developed for this congress, which will provide sponsors for three areas such as Communication, Networking and Social Program. The costs for the congress have increased significantly in recent years. The aim of the sponsorship program is therefore to keep the comparatively moderate contributions to the congress, which have been in place for years, stable. The sponsorship is intended to ensure that smaller companies in particular will be able to send their employees to the annual congress in the future as well. Here one must always keep the costs in view. Following his presentation, Mr. Stoelinga was able to welcome two gold sponsors for the annual congress, Michels Corp. and Ditch Witch. Further information will be distributed with the next member info.

The next members' meeting is planned for 08.02.2023, one day before the Oldenburg Pipe Forum, again in the Hotel Patentkrug in Oldenburg.

TOP 4.3 Budget 2022

For fiscal year 2022, assuming that events such as the annual congress can take place, revenues of €288,515.00 and expenses of €274,110.00 are budgeted. The planned surplus amounts to € 14,405.00. Proposals for changes or additions were not formulated. Subsequently, Mr. Muhl makes the motion to approve the presented budget. The motion is approved without abstention.



TOP 5 Election financial auditors 2022

Mr. Quante thanks the cash auditors Mrs. Goldschmidt, WBW GmbH and Mr. Lingenauber, Tracto-Technik for their work. Mrs. Goldschmidt stands for re-election as the first cash auditor. Mrs. Goldschmidt is elected without any dissenting votes and with one abstention. She accepts the election. For the election as 2nd cash auditor Mr. Dan Lingenauber stands for re-election. Mr. Lingenauber is elected without dissenting votes and without abstentions. He accepts the election and is thus 2nd cash auditor. As a substitute cash auditor Mr. Thomas Winkler, LMR Drilling GmbH stands for election. He is elected without dissenting vote and with one abstention. He accepts the election.

TOP 6 Miscellaneous

Mr. Stoelinga raises under miscellaneous a problem with spam mails allegedly sent from his account. He states that neither he nor the DCA office sent these mails. After examination by Mr. Quante, these are harmless fake mails. In case of questions he asks the members to use the office.

In principle, the members are not asked by any board member for financial support. Membership invoices and invoices for sponsoring etc. are sent by the secretariat.

The office is located in the premises of SST Prof.-Dr. Ing. Stoll & Partner Ing. and the server of the DCA is hosted by SST.

Stoelinga continues to promote the event NO-DIG Berlin, for which the DCA has been asked to give lectures. Members are asked to come forward with proposals no later than the middle of next week.

Mr. Stoelinga and Mr. Quante finally thank for the participation in today's event and close the ordinary members' meeting of the DCA at 5.50 pm.

Aachen, 22.03.2022

Minutes:



Dietmar Quante
Executive Secretary



Jorn Stoelinga
President

2. Report of the Board

2.1 President's report





25th anniversary

- Open Grid Europe GmbH
- Dr. Donié Geo-Consult GmbH

20th anniversary

- Step Oiltools GmbH



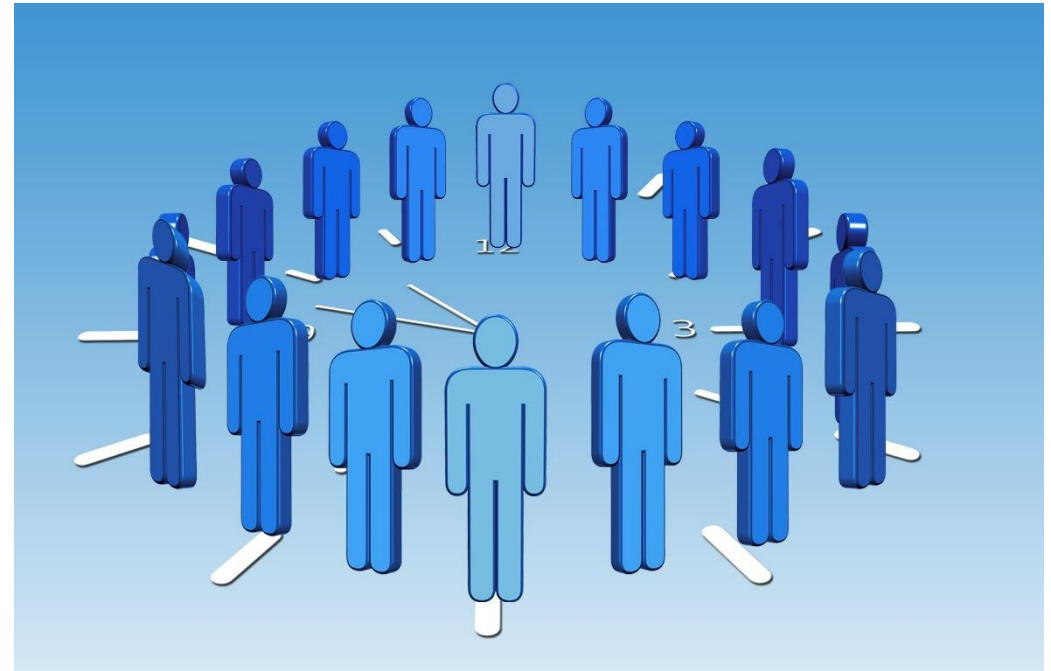
75 Years Unternehmensgruppe Beermann



Congratulations!



Membership development



New Members since the Members' Meeting 2022

Regular Members (9)

- SUBTERRA SAS, France
- FESTA SPA, Italy
- O'Connor Utilities Ltd., UK
- EBC Glasfasertechnik GmbH, Germany
- TELXA GmbH, Germany
- Max Bögl Stiftung & Co. KG, Germany
- Pfaffinger-Beermann PB Drill & Energietechnik GmbH, Germany
- Epping Rohrvortrieb GmbH + Co. KG, Germany
- EHB Horizontalbohrtechnik GmbH, Germany



Associate Members (12)

- NOV (National Oilwell Varco), UK
- Bofram Techniek BV, The Netherlands
- Orsted, UK
- Tramann & Sohn GmbH & Co. KG, Germany
- Blitzconsult, Germany
- Vector Magnetics LLC, USA
- Hypertunnel Ltd., UK
- Drilling Fluids Solutions Germany GmbH
- GHS Separationstechnik GmbH, Germany
- Parker Wellbore, UK
- Amprion GmbH, Germany
- Atanasiu & Skills, Romania

Exits since the Members' Meeting 2022

Regular Members (1)

- Meischen Leitungsbau GmbH

Associate Members (5)

- Normag
- Deme Offshore NL BV
- Reduct Pipeline Mapping Systems
- GWG Grevenbroich
- GP Gerd Paulisch

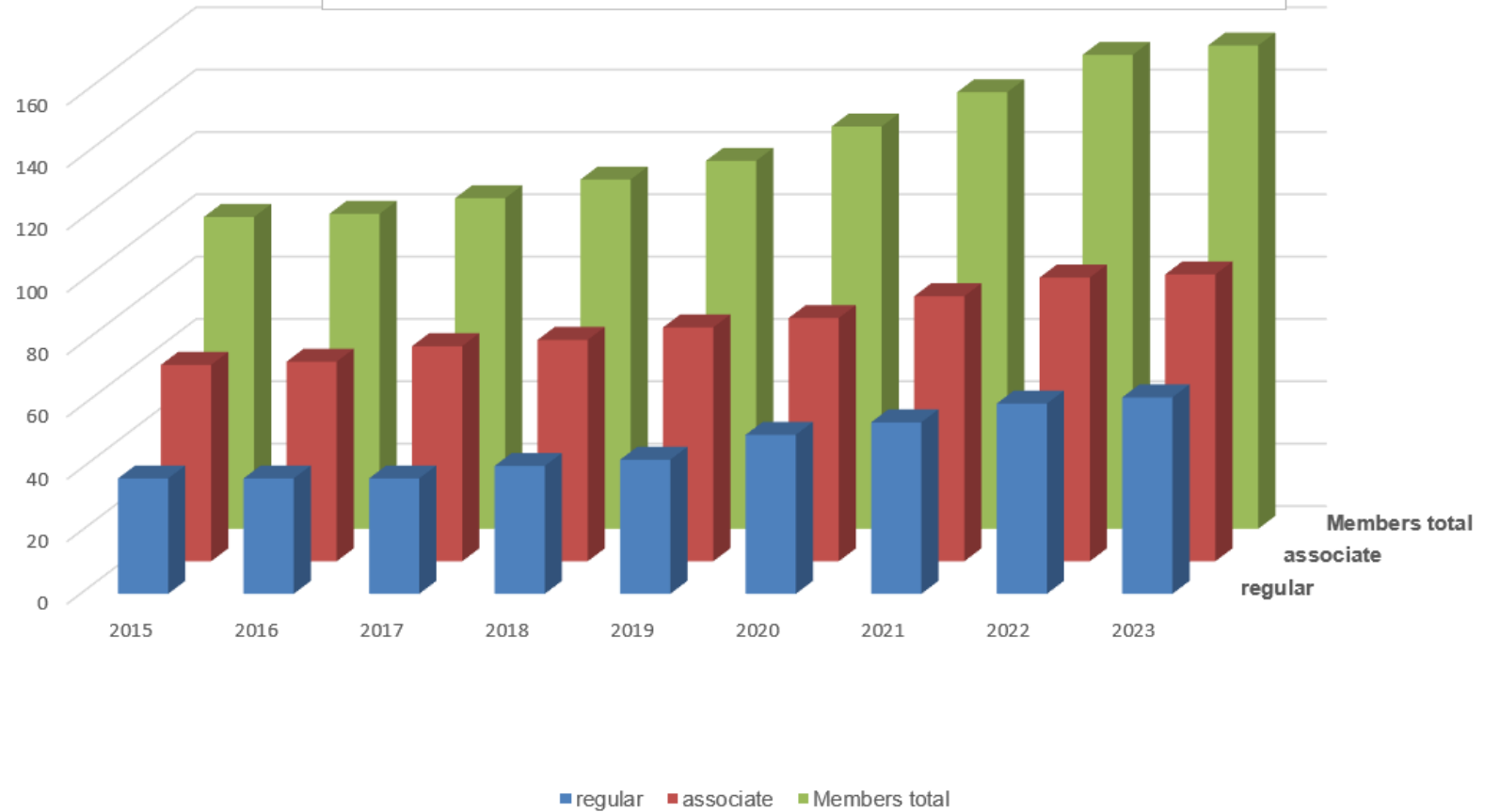


Development of membership figures in the DCA

Mid March 2023

155 Members

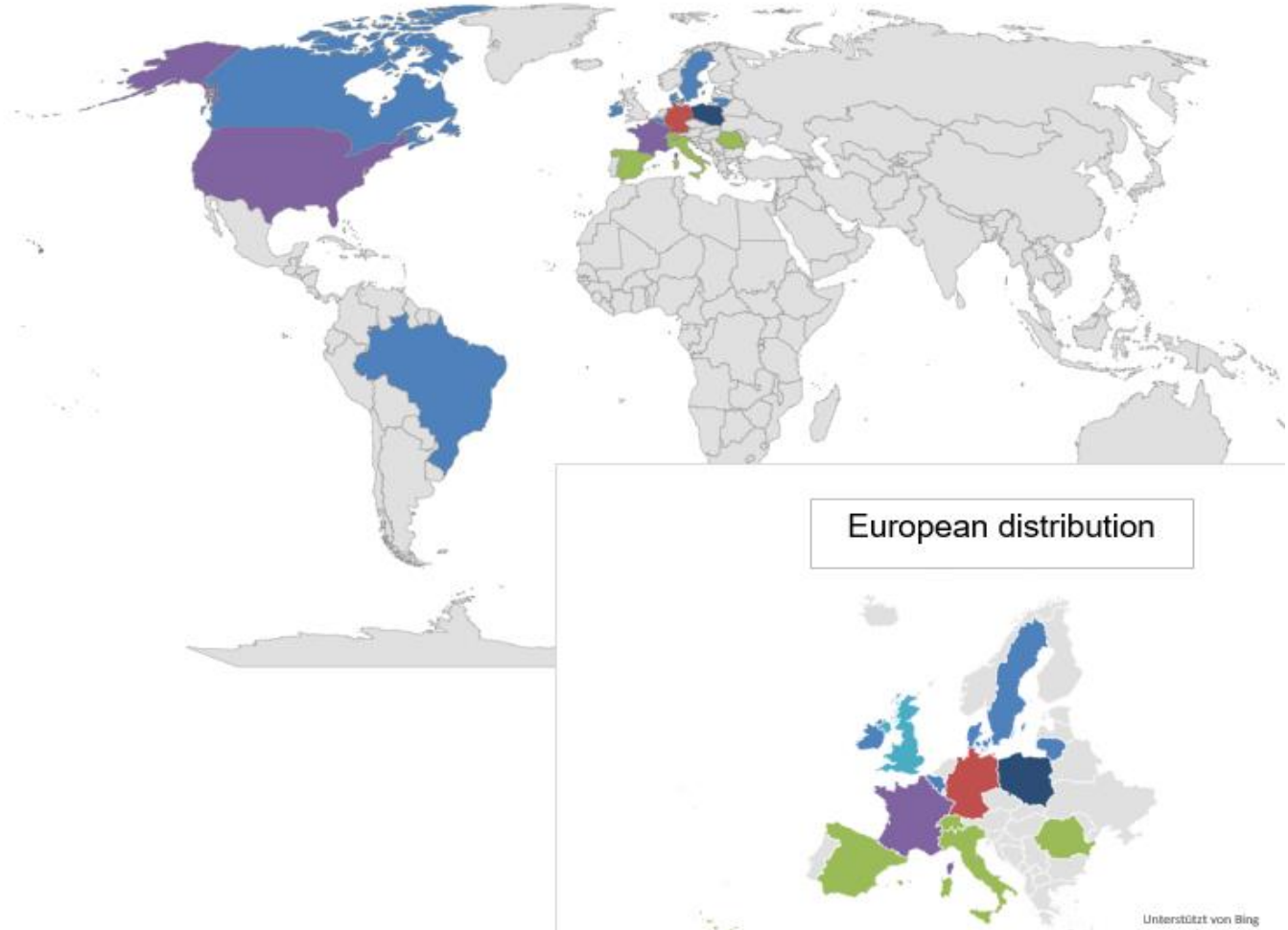
- 63 Regular Members
- 92 Associate Members



Member countries in the DCA (Status March 2023)

Country	Number of members
Germany	96
Netherlands	14
UK	11
Poland	7
France/USA	6

And others....



Activities 2022/2023



Board meetings

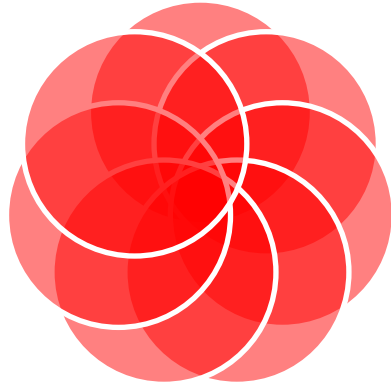
28th March 2023
Patentkrug Hotel,
Oldenburg

19th January 2022
M-Teams Meeting

08th February 2023
DCA-Office Aachen

26th January 2022
Patentkrug Hotel,
Oldenburg

**24th/25th
November**
H+ Hotel Köln
Brühl



02nd March 2022
M-Teams Meeting



21st September 2022
DCA-Office Aachen,
M-Teams Meeting

04th May 2022
Hotel Inside Melia Aachen,
M-Teams Meeting

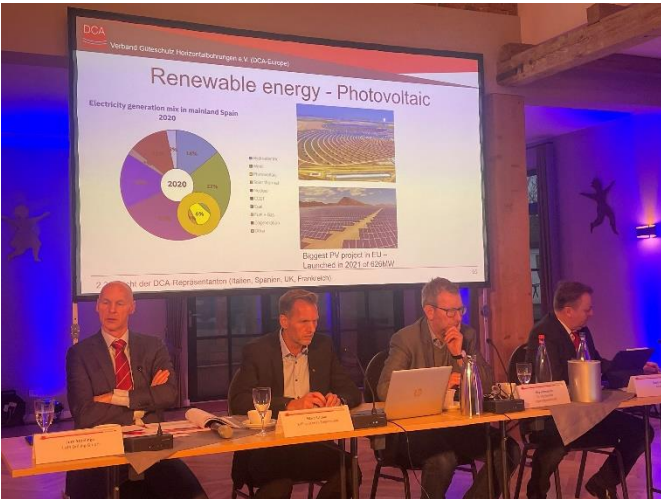
15th June 2022
DCA-Office Aachen,
M-Teams Meeting



Members' Meeting 2022

- As hybrid event in Oldenburg, Patentkrug hotel
- 21 participants on site
- 53 participants (40 companies) via Zoom
- 140 members in the DCA (12 new members, 2 departures)

26th January
2022



Members' Meeting 2022

- Continuation of task groups 2, 3 and 4
- Cooperation in the DVGW task group GW 340
- Sponsorship programme, sponsoring of a thesis retroactively for 2021, candidate for 2022 already in sight
- Reports from the DCA representatives from Italy, Spain, the UK and France
- Current developments in the HDD industry
- Board election

Board member Scott Stone re-elected after change of company

26th Annual Congress Stratford-upon-Avon, UK



- „To drill or not to drill – that’s the question“
- 146 participants
- Second time after 2012 in the UK
- Guest lecture on the topic „Don’t f* up the landing“ from Heinz Leuters, Leuters Consulting
- Energy transition and environmental protection as topics

Annual Congress GOLD Sponsors



Gold-Sponsor



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Annual Congress double SILVER Sponsor

Vermeer®



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Many thanks to all sponsors!!!

*A BIG Thanks
to our Sponsors!*

Topic „To drill or not to drill – that’s the question“



- Guest lecture DON'T F**K UP THE LANDING
Mastering risks when they occur – Making situation-specific decisions
- Topics on the energy transition
- Swarm Robotics in underground construction and the fully electric HDD Jobsite
- Many other interesting HDD projects
- Workshops on the topics „The role of drilling mud in the borehole“ and „Accuracy in HDD-drillings“

Impressions from the congress room...



Workshops

Workshop 1 The role of the drilling mud in the borehole

Workshop 2 Accuracy in HDD drillings



Workshop 1 German

Head

Marc Schnau, Vice-President DCA

Stefan Gottschalk, SIRIUS ES Deutschland GmbH

Ferenc Kriwitzki, Cebo/Baroid IDP

Workshop 1 English

Head

Marco Reinhard, Vice-President DCA

Henning Söker, AMC Europe GmbH

Krzysztof Debicki, Heads Sp. zo.o

François Gandard, OPTIMUM

Workshop 2 German

Head

Ronald Siebel, DCA Board Member

Jorn Stoelinga, DCA-President

Workshop 2 English

Head

Jörg Himmerich, DCA Board Member

Scott Stone, DCA-Board

Participants

Workshop 1:

German Group: 25 persons
English Group: 41 persons



Participants

Workshop 2:

German Group: 28 persons
English Group: 38 persons



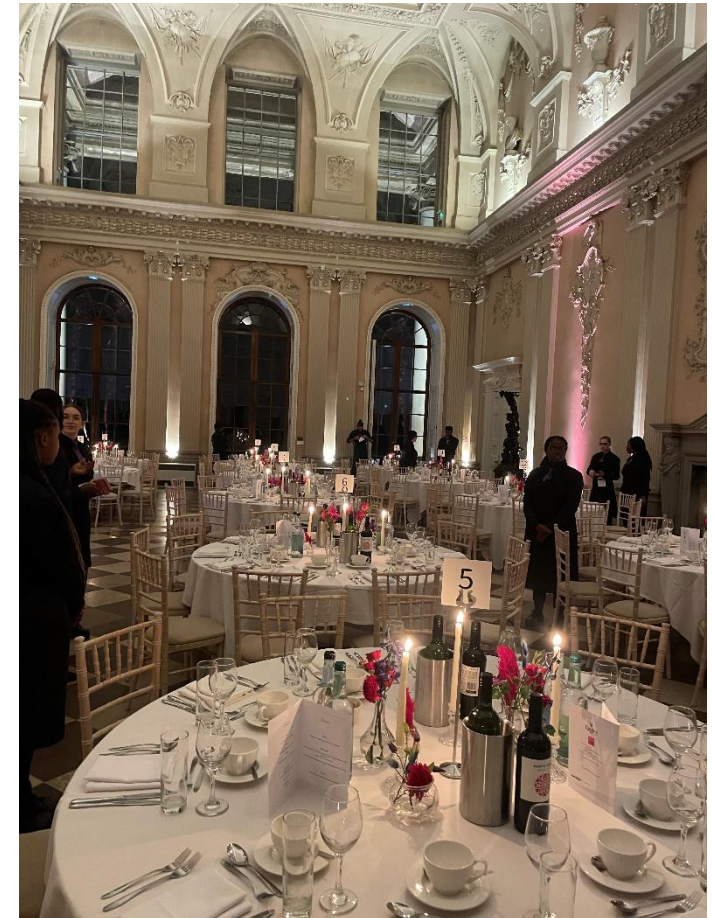
Exhibition



**14 exhibitors
in Stratford!**

Evening event at Ragley Hall, Alcester





Impressions of the evening...

Guest:

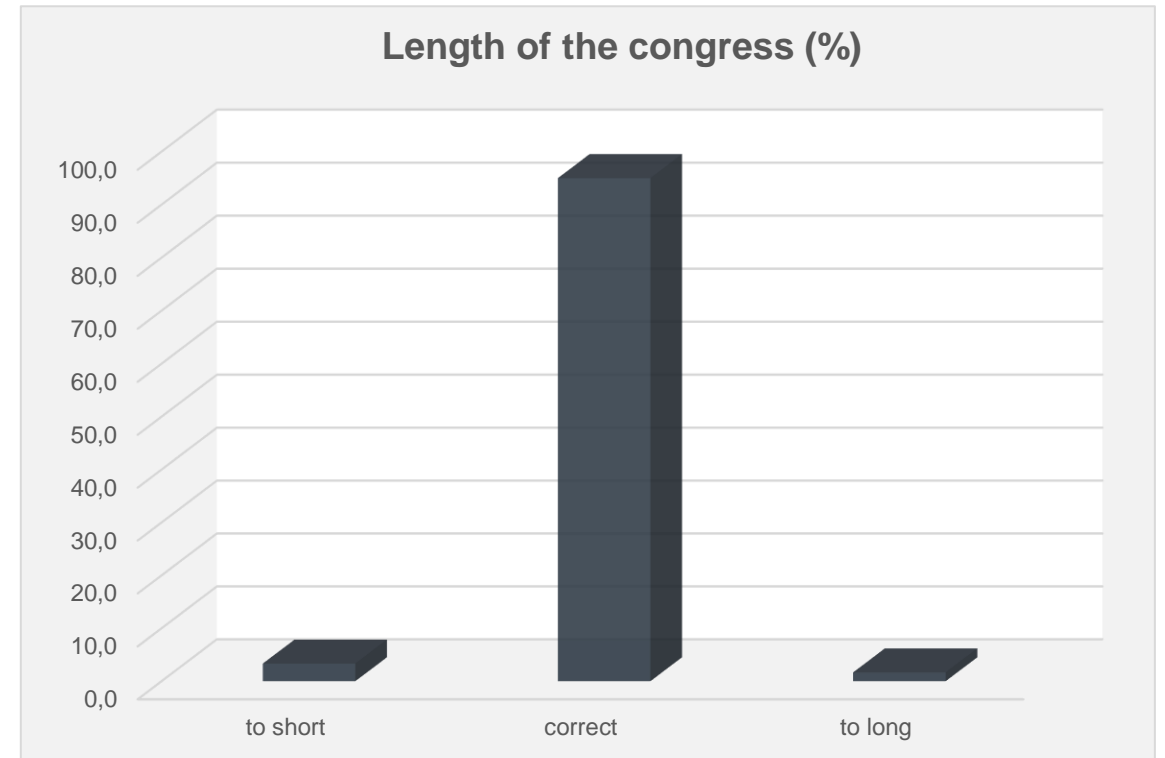
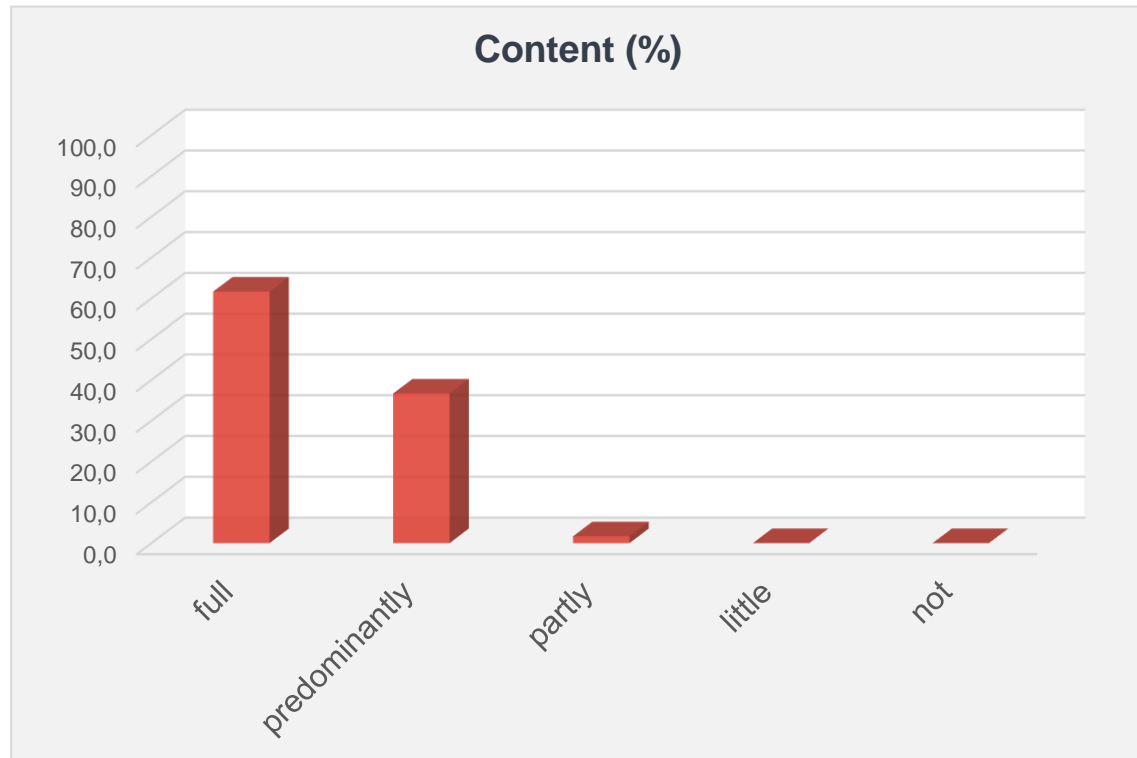
The Blues Brothers from Birmingham,
quick-draw artist George and the musical
duo The DeeVines



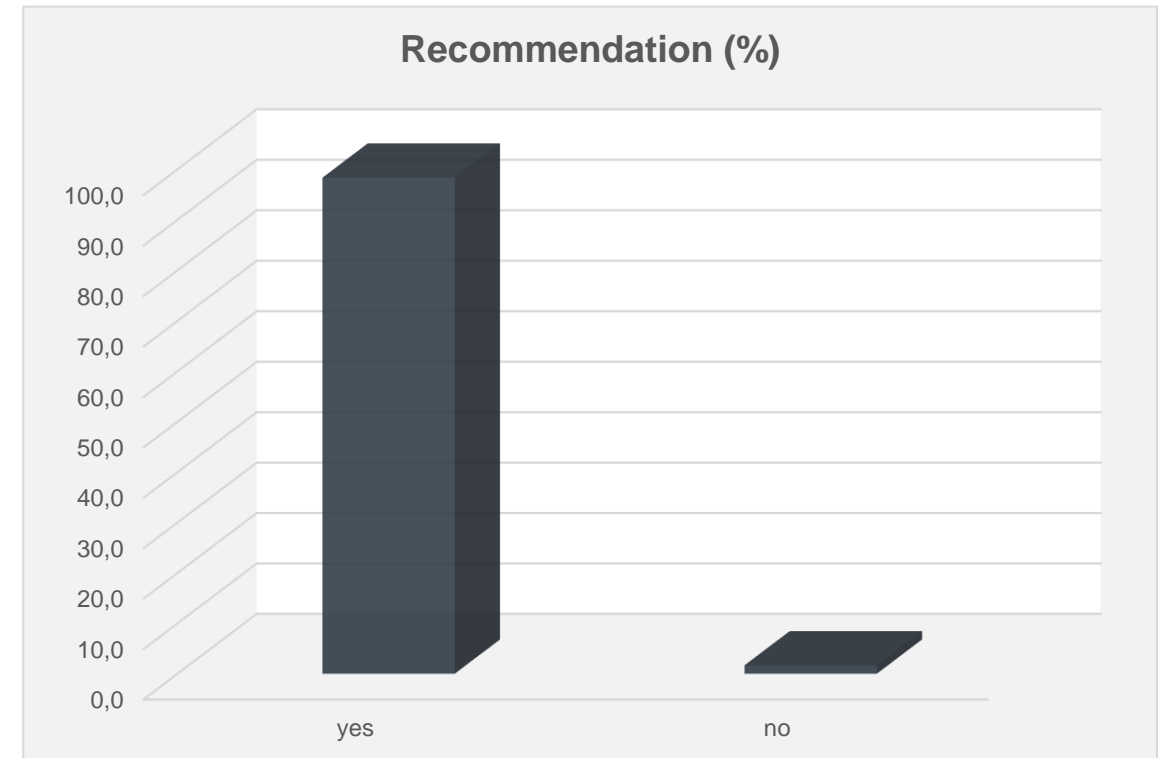
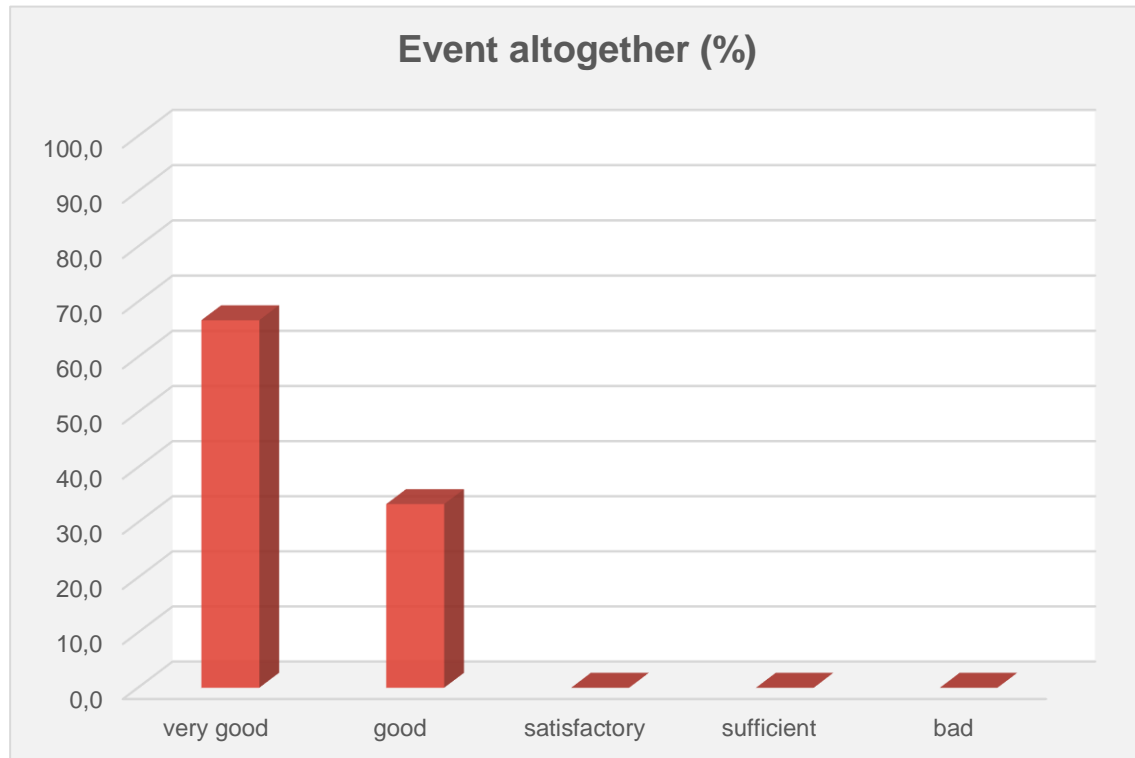
Were you satisfied?



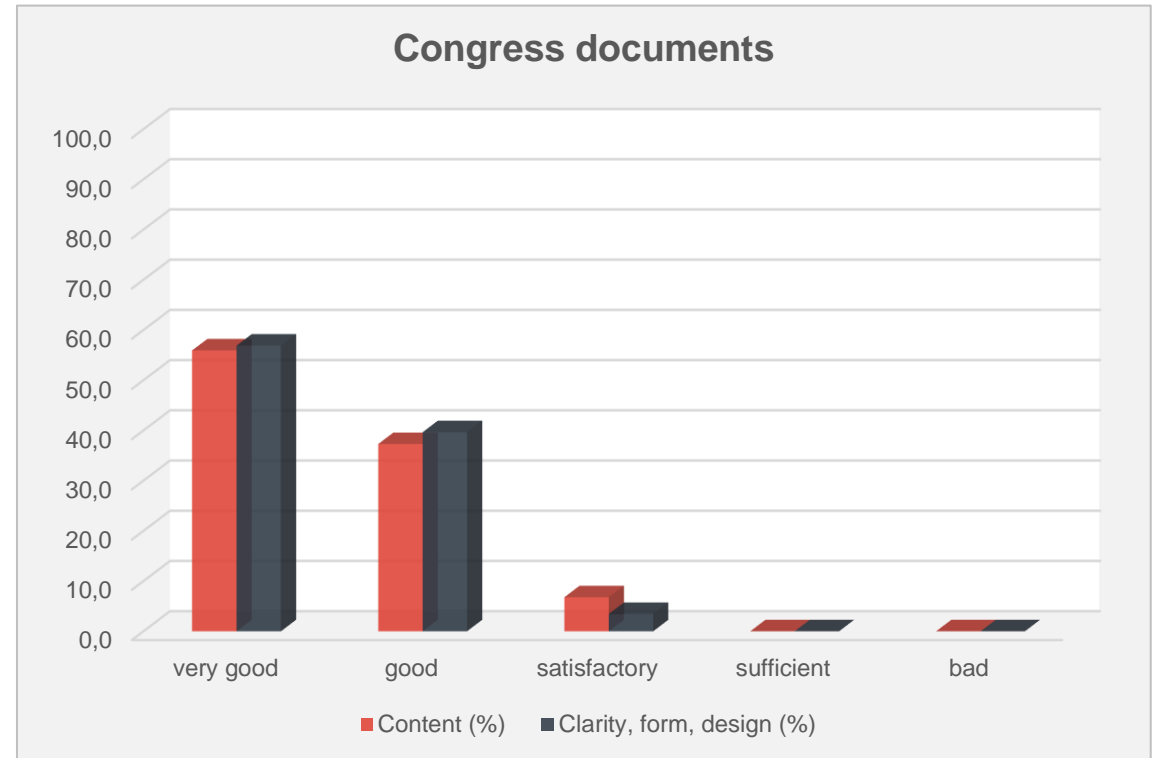
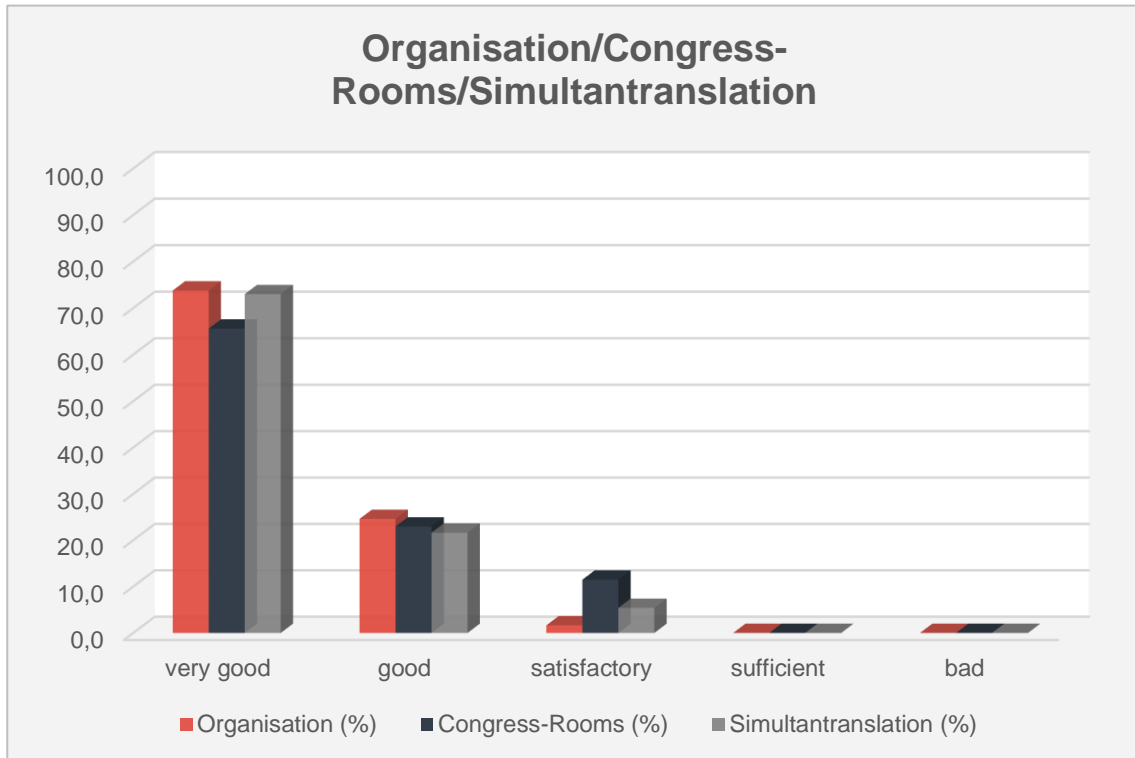
Results of the questionnaire (62 filled in formulars)



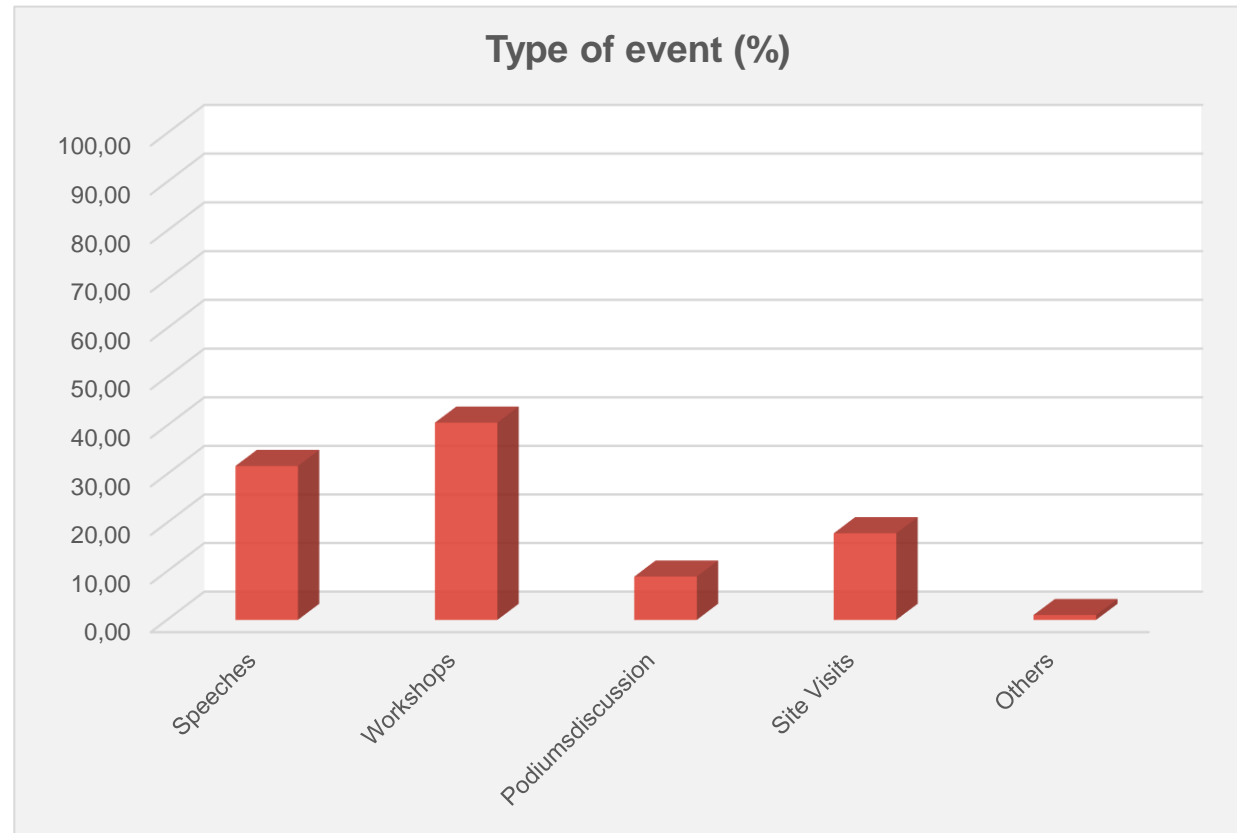
Results of the questionnaire



Results of the questionnaire

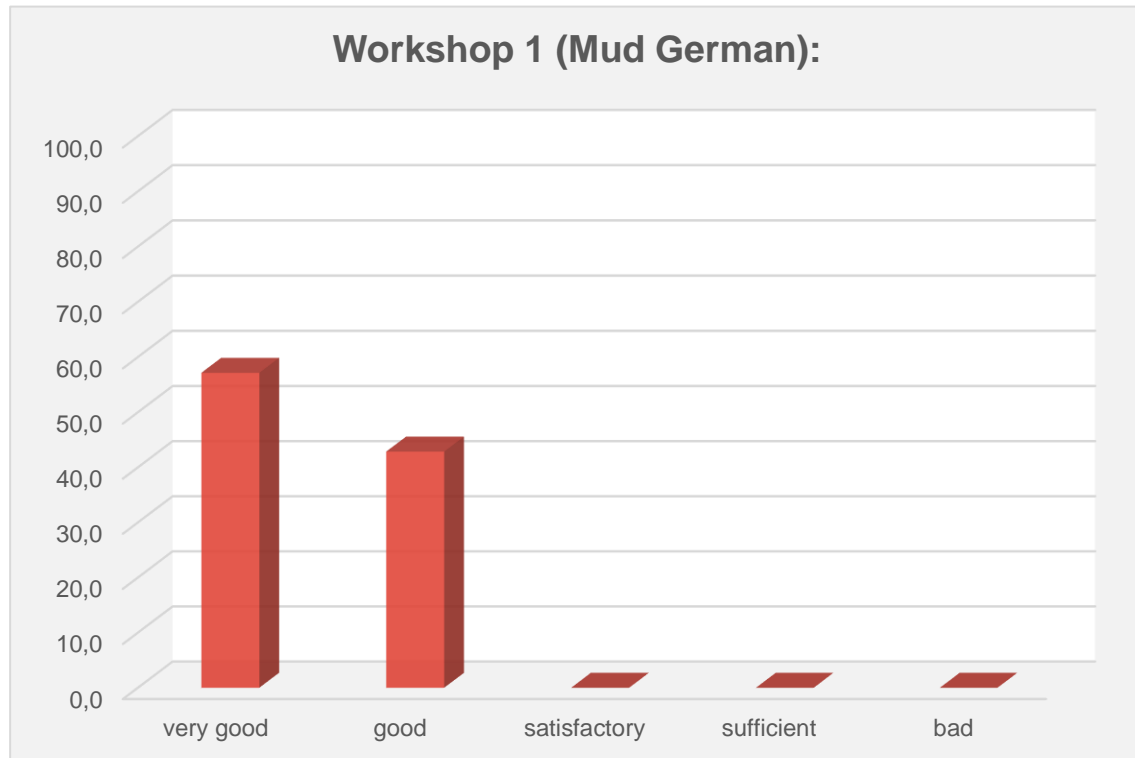


Results of the questionnaire

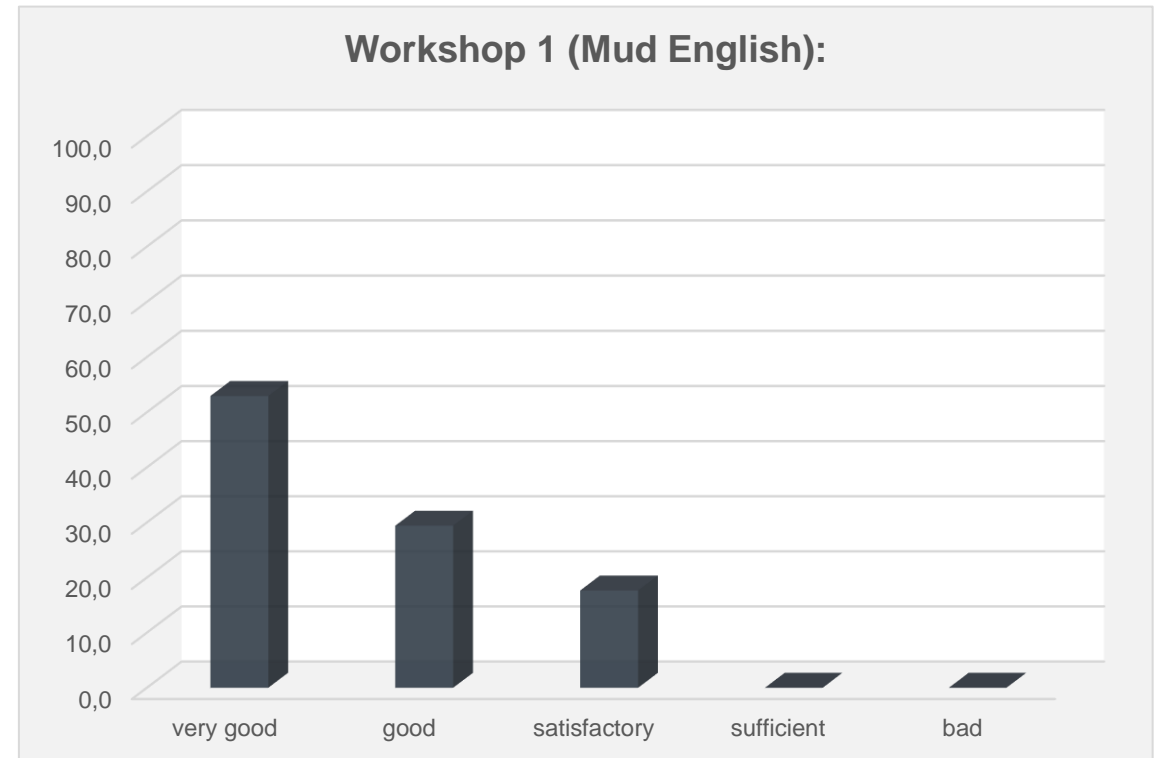


Results of the questionnaire

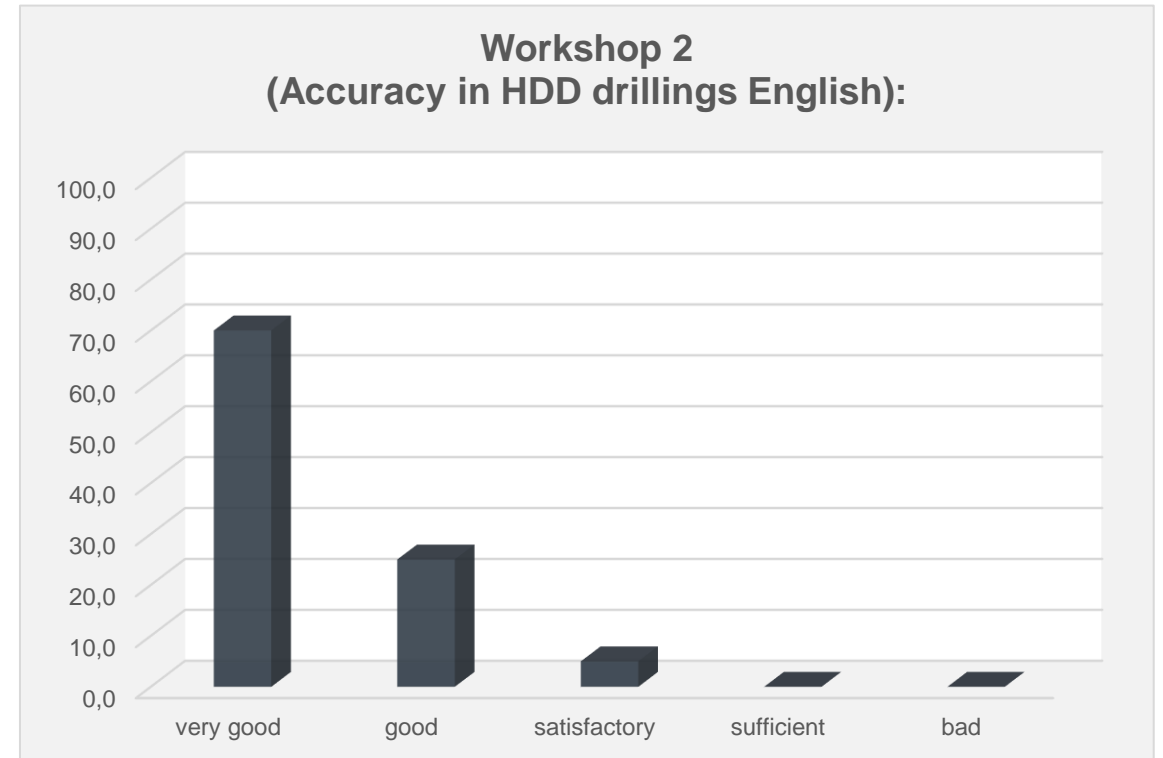
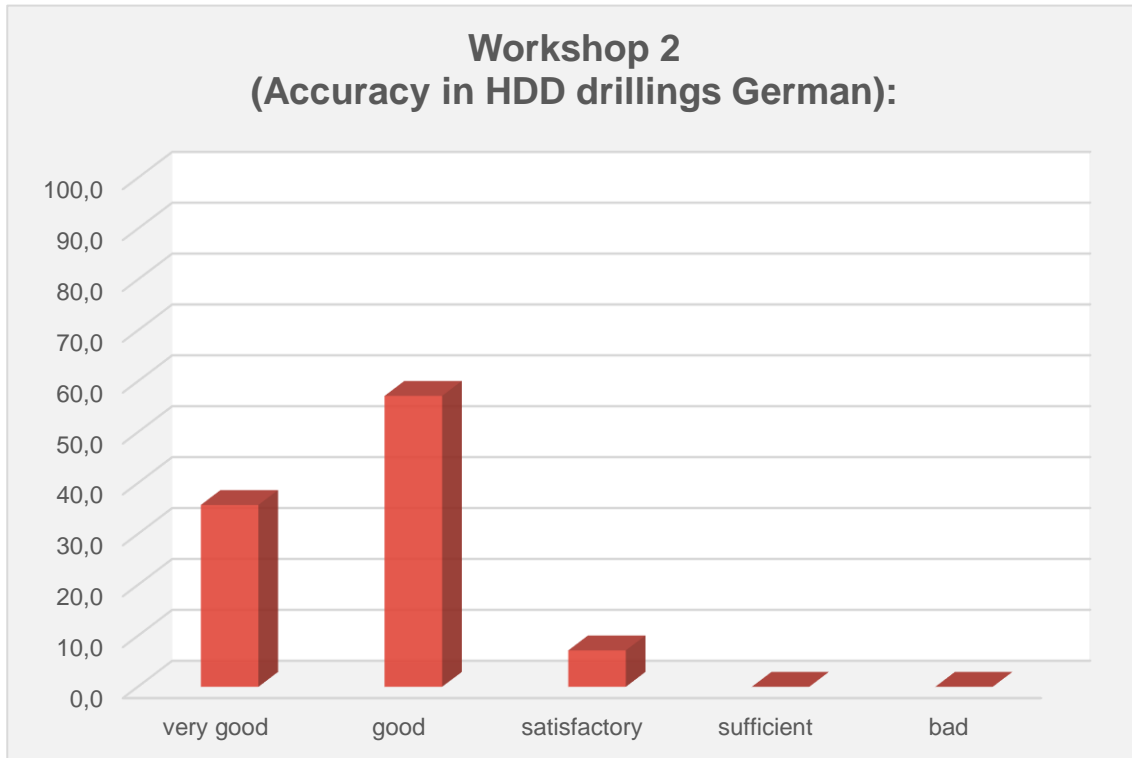
Workshop 1 (Mud German):



Workshop 1 (Mud English):



Results of the questionnaire



Results of the questionnaire



Networking / Exchange of experiences



Workshops



Music at Gala dinner too loud

THE PAST TENSE OF
WILLIAM SHAKESPEARE
WOULD BE
WOULDIWAS
SHOOKSPEARED!



Events and Education courses 2022



GW 329
courses

Bohrmeister-
schule Celle



Members'
Meeting

Oldenburg,
Patentkrug Hotel



No Dig Berlin

GSTT



Member Forum
Aachen

Events – Ausbildungskurse - Seminare 2022



Trenchless
Engineering
Conference

Krakow,
Poland



26th
Annual
Congress
Stratford-
upon-Avon
UK



Training
courses in the
Netherlands
at Deltares



Further
education due to
GW 329,
Kassel

Events – postponed



35th
Oldenburg
Pipe Forum

Postponed to
30/31st March 2023

No Dig Berlin – GSTT

- In combination with the Pipeline Technology Conference (PTC) at the ESTREL Congress Centre, Berlin
- Presentation by board member Scott Stone on “the selection of tools for an HDD well depending on the respective ground information”

08th/09th March
2022



19. Ditch Witch Customer Day – Barcelona

- European Headquarter of Ditch Witch, Barcelona
- Cooperation with American Augers, Subsite, Hammerhead and Trencor
- Despite Corona 250 participants, DCA participate with a stand
- Eye-Catcher „Estimate the Marsh Funnel time for 1 liter of drilling fluid”



08th April 2022



20th Trenchless Engineering Conference

- Tomaszowice near Krakow, Poland
- Conference, exhibition, technology show
- Greatest No Dig event in Poland and Eastern-Europe
- Vice-President Marco Reinhard and treasurer Jürgen Muhl on site, presentation of the DCA and exciting project from the small scale drilling technology
- Various DCA members nominated for awards. GGT Solutions S.A. wins in one category.

21st -23rd June 2022



L-Team Baumaschinen Sommer-Event 2022

- Glauburg-Stockheim, germany, new company site
- Ca. 500 participants during exhibition
- DCA participate with an info stand
- Networking with companies of south of germany
- New Member: GHS Separationstechnik GmbH

23rd -26rd June 2022



Further activities in 2022

- ☑ Continuation of task group 2 - Coating
- ☑ Continuation of task group 3 – Revision of the Technical Guidelines
- ☑ Continuation of task group 4 – Data acquisition and Logging
- ☑ Task group DVGW GW 340 (DCA cooperation)
- ☑ Public relations
- ☑ Investigation and orientation towards a possible European standard for HDD

2. Report of the board

2.2 Reports of the departments (current DCA projects)



2.2.1 Task Group 3

Technical Guidelines



-
- = Massenbilanz Feststoffaustrag im Verhältnis zum Bohrlochvolumen
- Gelstärken [dPa]
- Filtrationsverlust [cm³]

Projektspezifisch müssen folgende Spülungsdaten dokumentiert werden:-

- Viskosität [mPa*s]
- Volumenbilanz
- Sandgehalt nach Recycling [%]
- Feststoffgehalt aus Spüldichte-Rückfluss [%]
- Massenbilanz Feststoffaustrag im Verhältnis zum Bohrlochvolumen
- Ggf. Salzgehalt vom Anmischwasser

9.1.4 Vermessungsprotokolle

Die Ortungs- und Vermessungsdaten sind entweder im Bohrprotokoll oder in einem separaten Protokoll zu dokumentieren. Moderne Walk-Over-Systeme und Wireline-Systeme generieren ein eigenständiges Vermessungsprotokoll.

Wird die Vermessung mit einem Wirelineverfahren ausgeführt, ist ein separates Vermessungsprotokoll zu führen. Ein Vermessungsprotokoll muss folgende Angaben enthalten, sind zu protokollieren:

- Ort, Datum, Projekt
- = Eingesetztes System, verantwortliche Person (Mitarbeiter Bohrunternehmen, Fremdfirma)

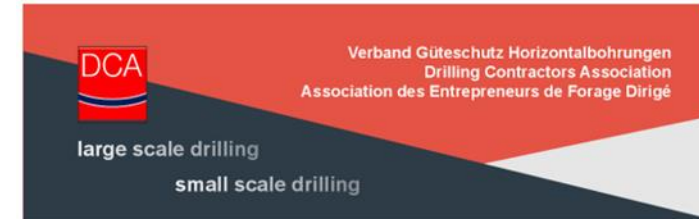
2.2.2 Task Group 2

Coating



Task Group 2

„Pipe casing and coating in HDD“



Pipe casing and coating in HDD

1st edition - March 2023
DCA Technical Information No. 6



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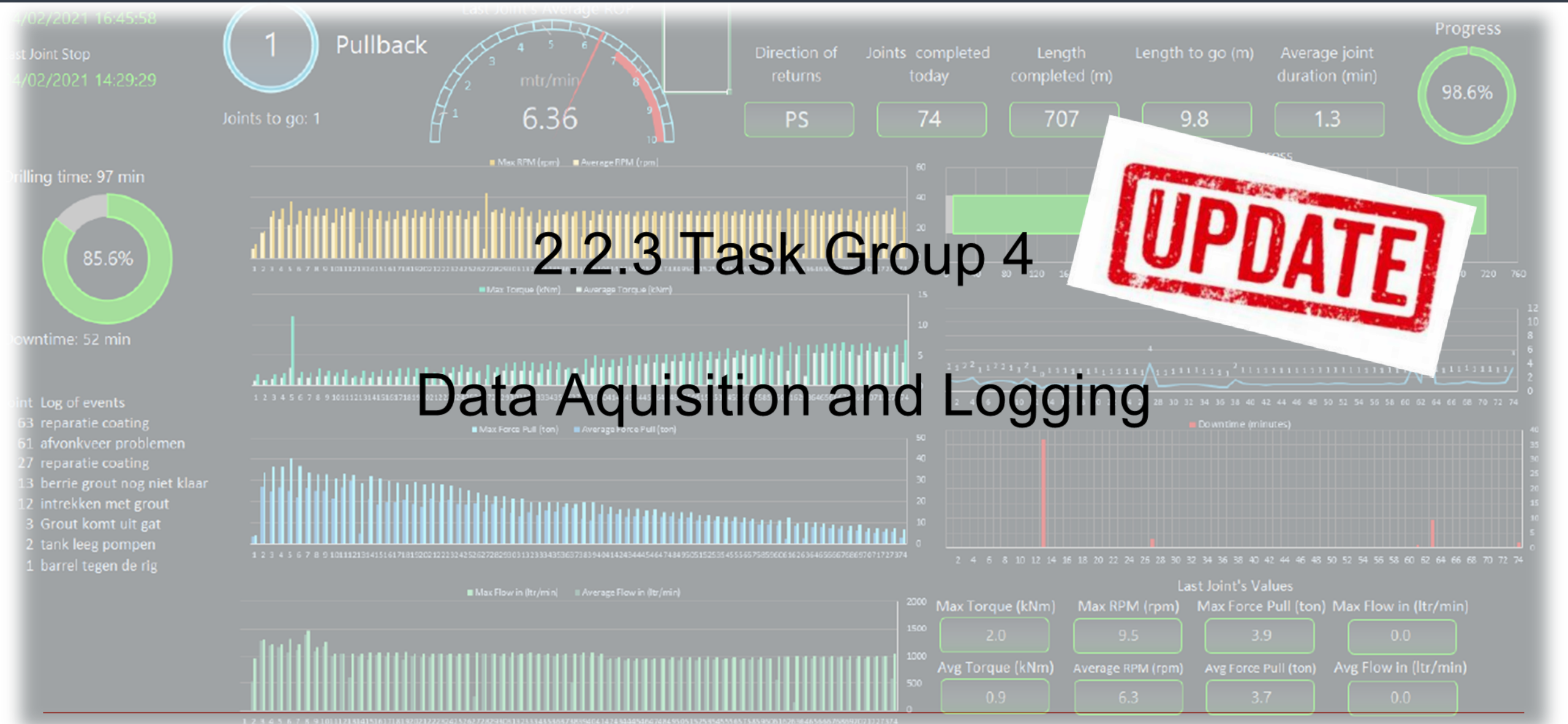
- Brochure „DCA Technical Information No. 6“
 - Risk assessment as Excel spreadsheet
- for DCA-Members for free download on the DCA homepage in the member area

Risk Assessment Matrix

Risk assessment		Risk potential			
		4 (very critical)	3 (critical)	2 (controllable)	1 (minor)
Probability	100% (substantial)	4,00	3,00	2,00	1,00
	75% (high)	3,00	2,25	1,50	0,75
	50% (medium)	2,00	1,50	1,00	0,50
	25% (low)	1,00	0,75	0,50	0,25
	0% (inexistent)	0,00	0,00	0,00	0,00

Abreviation	
HDD	HDD Contractor
PC	Pipeline Contractor
ENG	Client Engineer
CL	Client

1		2	3	4	5	6	7	8
Risk Potentials		Risk potential	Before mitigation		Mitigation measures to reduce risk factor	After mitigation		Responsible parties (descending order)
			Probab- ility	Existent risk [2 x 3]		Probab- ility	Existent risk [2 x 6]	
Geology								
	Abrasiveness	3	0%	0	Sufficient and informative soil report to get good knowledge of presence and location of critical formations, adjusting the drilling trajectory to minimize drilling in these formations	0%	0	CL/ENG
	Weathering degree / fragmentation / fissuring	4	25%	1		0%	0	CL/ENG
	Big stones / blocks	3	50%	1,5		25%	0,75	CL/ENG
	Sharpness of the fracture planes / breaklines	4	50%	2		50%	2	CL/ENG
	Voids	3	25%	0,75		0%	0	CL/ENG
	Gravels	3	0%	0		0%	0	CL/ENG
Material selection								
	Selection of factory coating	3	25%	0,75	Careful study of the geotechnical report to decide on the materials	0%	0	CL/ENG - HDD
	Selection of field joint coating system	3	50%	1,5		25%	0,75	CL/ENG - PC - HDD
	Selection of steel pipe diameter	1	0%	0	Aligning the planned diameter with the operational condition	0%	0	CL/ENG
	Selection of steel pipe wall thickness	1	25%	0,25	Check if wall thickness could be reduced by using higher steel grade	25%	0,25	ENG/CL
Quality of factory coatings								
	Storage of coated pipes	2	50%	1	Check qualification of the manufacturer, specify and check storage conditions	25%	0,5	CL
	Transport of coated pipes	2	50%	1	Selection of qualified carrier, specify and check transport conditions	25%	0,5	CL



Background

Different information could be useful to various parties / stakeholders

- Drilling Rig Manufactures
- Drilling Contractors (internal evaluation)
- Clients
- Consultants
- Tooling and Component Suppliers
- Third Party Experts
- Insurers

Background

- Participants in the task group include
 - Contractors
 - Drilling Rig Manufactures
 - Engineers
 - Drilling services providers
 - (Steering systems / Data Recording Companies)

Initial Meetings have defined different elements of information which ideally should be provided at different stages of data recovery.

Background

Stages of Digitisation for HDD Operations

Stage 0	Manual Recording of drilling data (if required) (steering tool digital data only)
Stage 1	Recovery of Push Pull / Rotational Torque / RPM via digital interface /retro fit
Stage 2	Recovery of above + additional drilling parameters
Stage 3	Full intergration of all drilling parameters + mud + steering

Elements to be considered for Inclusion / Logged	Frequency per stage and unit of measurement	Stage 0	Stage 1	Stage 2	Stage 3	Insurance	Client	Contractor	Manufacturer	Delivery of digital data
BHA	Description of downhole tooling	x	x	x	x	x	x	x	x	
Activity (Cutter size and Diameter)	Pilot hole, Reaming, Wiper run, Pull Back	x	x	x	x	x	x	x		
Comments on drilling process	Text, indicating ground conditions experienced by driller (recorded at actual drilling location i.e joint number)	x	x	x	x	x	x	x		
Drilled Length	Joints drilled x rod length, giving position minimum	x	x	x	x	x	x	x		
Pull Force	Stage 0 recorded one time per rod if constant and include for any peaks during each rod. All other stages would be recorded depending on telematic system used and frequency of update. DCA currently recommend an update frequency of ** seconds.	x	x	x	x	x	x	x		x
Rotational Torque	Stage 0 recorded one time per rod if constant and include for any peaks during each rod. All other stages would be recorded depending on telematic system used and frequency of update. DCA currently recommend an update frequency of ** seconds.	x	x	x	x	x	x	x		x
Rotary Rpm	Stage 0 recorded one time per rod if constant and include for any peaks during each rod. All other stages would be recorded depending on telematic system used and frequency of update. DCA currently recommend an update frequency of ** seconds.	x	x	x	x	x	x	x		x

- Stages of Digitization
- Elements to be included
- Frequency (Refresh rate)

- Currently 43 Elements have been identified
 - 15 Elements Stage 0*
 - 8 Elements Stage 1
 - 15 Elements Stage 2
 - 5 Elements Stage 3

* Some elements are recording project parameters.

4 Stages of Data Recovery

Stage 0

- Manual Recording of drilling data (if required) (steering tool digital data only)

- Stage 1

- Recovery of Essential Push Pull / Rotational Torque / RPM via digital interface /retro fit

- Stage 2

- Recovery of above + additional drilling parameters

- Stage 3

- Full integration of all drilling parameters including drilling parameters and pilot hole position

Stage 0

- Possibly the only digital drilling data at this stage could be the pilot position tracking
- Providing data may not even be a contractual requirement
- Minimal if any form of data recording especially on smaller scale drilling operations
- Visible information could be drilling rig pressure requiring conversion

Stage 1

- This would include recovery of primary drilling parameters
 - Push
 - Pull
 - Rotational Torque
 - RPM
 - Pump Volume / Pressure
- Via digital interface on the rig or retro fitted option.

Stage 2

- Down time
- Actual drilling Speed
- Connection Time (wireline)
- Predefined limit alerts
 - Outside drilling tolerance (pilot drilling)
 - Within acceptable pull back limits (pull back)
 - Downhole pressure (pilot operation)
- Rig Carriage Speed & Position
- Direct readout of Pull force on Product line (if required)
- Integration of survey system (synchronised)

Stage 3

- Integration of different systems and self regulating
 - Regulating and automatically adding water bentonite as needed
 - Drilling fluid automatically checked and adjusted as required based on returning flow from the borehole
 - Fluid tanks monitored / conditioned and fluid transferred as needed

Next Steps

- Establish contact with;
 - Drilling Rig Manufactures
 - Establish Outputs and frequency of data from current Machines
 - Telematic software currently offered
 - Associated Equipment Manufactures and Providers
 - Outputs available from different systems
 - Advise on how recorded data can be stored including viewing both live and post project

To Conclude

- The recording of digital data is already and will continue to be a major factor of HDD installations moving forward.



- We are still at the stage where you can have an input and support for the task group and would welcome additional DCA members to join.

”Data is like garbage. You'd better know what you are going to do with it before you collect it.”

- Mark Twain

2.2.4 Task Group 5 Subsoil



A red, distressed-style stamp with the word 'UPDATE' in bold, uppercase letters, enclosed in a rectangular border.

2.2.5 Training and further education

Training and further education at the DCA

According to the statutes of the DCA, the purpose of the association is to

„to keep the technical standards for horizontal directional drilling, to promote and to develop, especially by

...

3. Promotion of further education and training

... ”



DCA-Members' Forum HDD-Technology 2022



2020



2022

05.05.2022

DCA-Members' Forum HDD-Technology since 2018

- ▶ **Members Forum HDD-Technic 2023 - "Accuracy in HDD-drillings" – Announcement**
- ▶ **Members' Forum HDD-Technique 2022 – "Use of drilling tools in the borehole"**
- ▶ **Members' Forum HDD Technology 2021 - "Subsoil Investigation"**
- ▶ **Members' Forum HDD Technology 2020 - "New Trenchless Techniques linked to HDD Technology".**
- ▶ **Members' Forum HDD Technology 2019 - "Requirements for small-scale drilling technology"**
- ▶ **Members' Forum HDD Technology 2018 - "HDD Trouble Shooting"**



TRACTO

Webinar Subsoil

April 2022

Subsoil for HDD Loose Rock Drilling and Drilling Technology 2023

März 2023

Subsoil for HDD Rock Drilling 2023

März 2023

HDD training event in accordance to DVGW GW 329 in Kassel, especially for technical supervisors



07.12.2022



HDD training event in accordance to DVGW GW 329 in Kassel, especially for technical supervisors

07.12.2022



- 114 Participants
- Technical direction Marco Reinhard
- Three specialist lectures + Training in construction contract law



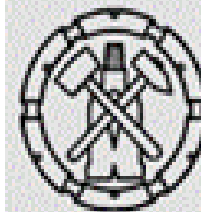
Training courses according to DVGW GW 329 for specialist companies

Training courses for

- Skilled supervisor (HDD Specialist)
- Site manager
- Machine operator (Driller)

für Horizontal Directional Drilling

09.01. – 02.02.
2023



BOHRMEISTERSCHULE CELLE
Staatlich anerkannte Fachschule
für Bohr-, Förder- und Rohrleitungstechnik

Training courses 2023 according to DVGW GW 329

Courses skilled supervisor A and B, site manager A and B as well as courses machine operator A and B courses in face-to-face classes

09.01. – 02.02.
2023



BOHRMEISTERSCHULE CELLE
Staatlich anerkannte Fachschule
für Bohr-, Förder- und Rohrleitungstechnik

Participants 2023

Skilled Supervisor A	12
Skilled Supervisor A+B	5
Skilled Supervisor B	1
Site manager A	6
Site manager A+B	9
Site manager B	2
Machine operator A	25
Machine operator A+B	8
Machine operator B	2
Total	70



Further education seminar



BOHRMEISTERSCHULE CELLE
Staatlich anerkannte Fachschule
für Bohr-, Förder- und Rohrleitungstechnik

07.02.-
09.02.2023

Specialist for mud technology for HDD construction measures

- Expertise in HDD mud technology
- Application of drilling mud on HDD construction sites
- Laboratory practical course



Training in the Netherlands at Deltares Academy in Delft

16.01.-
20.01.2023

HDD 1 <40t -17 participants

23.01.-
27.01.2023

HDD2 >40t -15 participants

25.05.2023

Day Course HDD





35th Oldenburg Pipe Forum 2023



30.03.-
31.03.2023



A red, rectangular stamp with a distressed, ink-like texture. The word 'UPDATE' is written in bold, white, uppercase letters within the stamp's border. The stamp is tilted slightly clockwise.

2.2.6 Task Group GW340 (DVGW, Germany)



DIN 30340 – Part 1

- The yellow print / draft has been available since 12/2022.

Dezember 2022

Titel de:

Ummantelungen zum mechanischen Schutz von Stahlrohren
und -formstücken mit Korrosionsschutzumhüllung – Teil 1: Gütesicherung
Werksummantelungen

DIN-30340-1

Titel en:

Coatings for mechanical protection of buried or submerged pipelines –
Part 1: Quality assurance for factory-made coatings

Titel fr:

Revêtements pour la protection mécanique des pipelines enterrés ou
immergés - Partie 1: Assurance de la qualité des revêtements fabriqués en
usine

Objections

The task group is currently processing the objections and comments.



DIN 30340 – Part 1 – Content

- 1 Anwendungsbereich
- 2 Normative Verweisungen
- 3 Begriffe
- 4 Ummantelungen
 - 4.1 Allgemeines
 - 4.2 Faserzementmörtelummantelungen
 - 4.2.1 Vorbereitung der Oberfläche
 - 4.2.2 Herstellen des Faserzementmörtels
 - 4.2.3 Aufbringen der FZM-Schicht
 - 4.2.4 Ausgangsstoffe
 - 4.2.5 Frischmörtel und erhärtete Mörtelproben
 - 4.2.6 FZM in Kontakt mit Böden und Grundwasser
 - 4.3 Glasfaserverstärkte Kunststoffummantelungen (GFK)

DIN 30340 – Teil 1 – Inhalt (ff)

- 4.3.1 Vorbereitung der Oberfläche
- 4.3.2 Herstellen der glasfaserverstärkten Kunststoffummantelung
- 4.3.3 Ausgangsstoffe
- 4.4 Thermoplastische Kunststoffummantelungen (PP und PA-U)
 - 4.4.1 Vorbereitung der Oberfläche
 - 4.4.2 Herstellung der thermoplastischen mechanischen Schutzummantelung
 - 4.4.3 Ausgangsstoffe
- 5 Anforderungen an die fertigen Ummantelungen
 - 5.1 Allgemeines
 - 5.2 FZM
 - 5.3 GfK
 - 5.4 Thermoplastische Kunststoffummantelungen
- 6 Kennzeichnung
- 7 Prüfbescheinigungen
- 8 Prüfberichte

DIN 30340 – Part 2

Work on content well advanced.

DIN-30340-2

Titel-de: □

Ummantelungen zum mechanischen Schutz von Stahlrohren und -
formstücken mit Korrosionsschutzumhüllung – Teil 2: Gütesicherung
Nachummantelungen und Reparaturmaterialien □

Titel-en: □

Englischer Titel □

Titel-fr: □

Französischer Titel □

□

2.2.7 Sponsorship program



2.2.7.1 General update

- We have supported two students so far:
 - Johannes Rotter
 - Adam Lisowski
- Johannes Rotter
 - The work is completed and will be presented later.
- Adam Lisowski
 - Participation in the annual congress in UK
 - Requesting data on HDD projects from members

Adam Lisowski

- Title: " Accuracy of Horizontal Directional Drilling"
- Participation in the annual congress in UK
- Requesting data on HDD projects from members
- Completion of work: 06/2023 or 07/2023
- Data was provided by DCA members.

2.2.7.2 Presentation J. Rotter

Noise emissions on HDD construction sites

Investigations to reduce noise emissions on HDD construction sites

Bachelor of Engineering

Erstprüfer/in:

Dr. techn. Till-Heinrich Carstens

Jade Hochschule in Oldenburg

Fachbereich Bauwesen Geoinformation Gesundheitstechnologie, Abteilung Bauwesen

Zweitprüfer/in:

Dipl.-Ing. Ernst-Georg Fengler

LMR Drilling GmbH

Geschäftsführer

supported by



JADEHOCHSCHULE

Wilhelmshaven Oldenburg Elsfleth

bachelor thesis

Topic:	Noise emissions on HDD construction sites
University:	Jade University of Applied Sciences Oldenburg
First examiner:	Dr. techn. Till-Heinrich Carstens
Second examiner:	Dipl.-Ing. Ernst-Georg Fengler
submission:	Dezember 2021
Colloquium:	Januar 2022

Structure

Problem

Risks and dealing with noise emissions

Legal requirements

Sound generation and propagation

Noise emissions and reduction

Perspective noise protection measures

Conclusion

Problem

- Growing energy demand
 - More complex sections
 - More machines
 - Higher noise pollution
 - Increasing risks for those involved
 - Legislator sets limit values for noise levels
 - Noise protection measures required

Risk of noise emissions

- Physiological impairment
- Mental stress / noise stress
- impairment of performance
- Long-term health consequences

Legal requirements

- Distinction between emission and immission location
- General Administrative Regulation for Protection against Construction Noise (AVV Baulärm)
 - Construction site environment
 - Time correction is deducted from maximum level deflection
 - Night time: 8 pm – 7 am

Sound generation

- Structure-borne noise
 - Shocks, rolling noise, friction, magnetic fields
- Airborne sound
 - Turbulence, shocks, pulsations
- Liquid noise
 - Turbulence, shocks, pulsations, cavitation

Sound propagation

- Point and line sources spread out differently
- On HDD construction sites, mainly point source
 - Generators, pumps, separation plants, ...
- Sounds consist of several tones with different frequencies

Sound propagation

- High-frequency tones can be attenuated better than low-frequency tones
- Maximum attenuation due to distance between source and receiver
 - Geometric attenuation: By doubling the distance, the sound level decreases by 6 dB (frequency-independent; applies to point sources)
 - Air damping: conversion of sound vibrations into thermal energy (high-frequency tones: greater attenuation)
- Influencing factors: weather, wind, ground effect, natural sound screens, ...

Sound Propagation – Geometric Attenuation

A doubling of the distance reduces the sound level by 6 dB:

$$L_{EP1} = 76 \text{ dB}$$

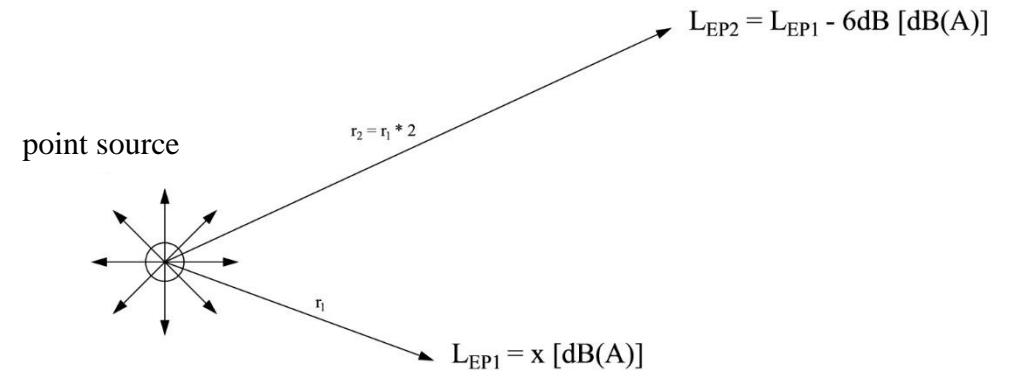
$$r_1 = 10 \text{ m}$$

$$r_2 = r_1 * 2 = 20 \text{ m}$$

$$L_{EP2} = L_{EP1} - 20 * \lg \frac{r_2}{r_1}$$

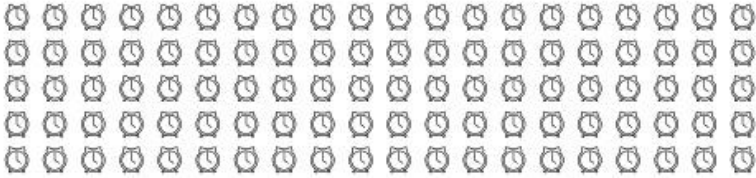




$$L_{EP2} = 76 \text{ dB} - 20 * \lg \frac{20}{10}$$

$$L_{EP2} = 70 \text{ dB} = 76 \text{ dB} - 6 \text{ dB}$$



Sound propagation – Resulting sound level

Resulting sound level from several equal noise sources:

number of <u>equal</u> sound sources		sound level decrease
	100 x	+ 20 dB
	10 x	+ 10 dB
	4 x	+ 6 dB
	2 x	+ 3 dB
	1x	± 0 dB

Sound propagation – Resulting sound level

Resulting sound level from multiple, unequal noise sources:

$$L = 10 \lg \sum_i 10^{0,1L_i}$$

$$L = 10 * \lg (10^{7,1} + 10^{9,2} + 10^{9,8})$$

$$L = 98,98 \text{ dB}$$

$$\underline{L = 99 \text{ dB}}$$

Drilling rig: 71 dB(A)

Mixing tank: 92 dB(A)

High pressure pump: 98 dB(A)

Noise emissions – measures

- Constructive measures (active)
- Reduction through sound screens (passive)
- Further measures

High frequencies are attenuated more effectively, which is why information on the effectiveness of a noise protection measure can only be provided to a limited extent

Constructive measures

- Direct intervention at the noise source
- (Decisive) emission-triggering source & type of sound generation must be identified

Constructive measures

Most common causes and solutions:

- Suction of air → use of silencers
- Emission of exhaust gases → use of silencers
- rattling attachments → elastic connections; clamps;
Rubber seals
- Unfavorable motor mount → optimized, elastic bearing
- booming housing → increase the weight of the sheets, anti-drone mats,
sound-absorbing material
- Defects in machine parts → continuous maintenance

Constructive measures

Silencer



sound absorbing material

Rubber seal

Reduction through sound screens

- Encapsulation of the construction site from the construction site environment or enclosing individual machines and systems
 - Obstacle between emission and immission location
- decisive emission source and environment of the construction site determine the height and design of the sound screen
- Effectiveness of natural obstacles is increased by cladding with absorbent material
- Natural sound screens:
 - Rows of houses, groups of trees, hedges, walls, earth elevations and subsidences

Reduction through sound screens

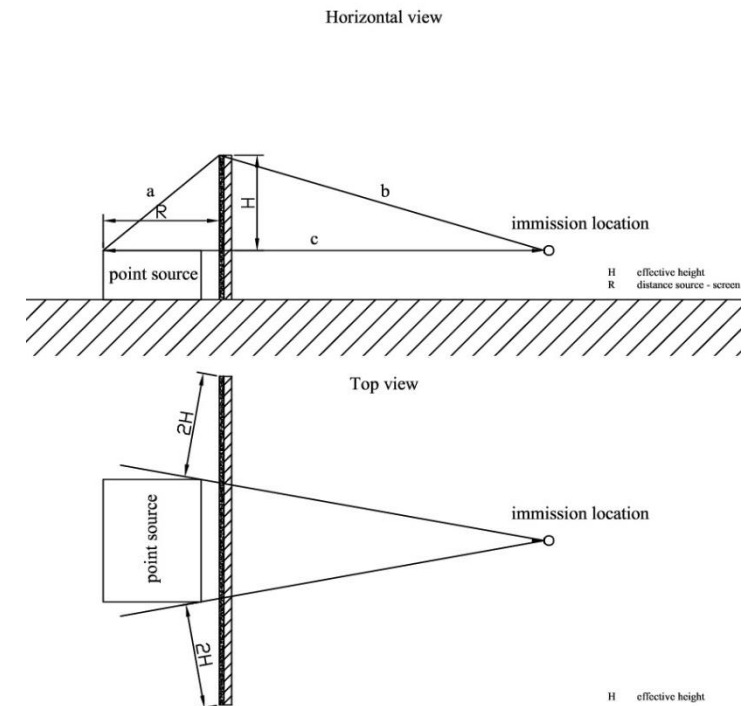
- Sound walls
- soundproofing mats
- Walls made of overseas containers
- Encapsulation
 - Directly connected to machine
- Enclosures
 - Fixed temporary structures not connected to the machinery

Ventilation can be impaired!



Reduction through sound screens

- Gaps and openings reduce sound attenuation
 - Making openings with silencers
- Spec. Weight of the sound screens min. 10 - 20 kg/m² for sufficient attenuation
 - Too low weight causes natural vibrations
 - For noises from 1000 Hz, 8 kg/m² (1mm steel) is sufficient.
 - Doubling of material thickness results in sound level reduction of 6 dB
- Width of sound screens:
 - Minimum width of the sound source + twice the screen height H on each side
 - Reduce shielding by up to 5 dB with only single screen height H

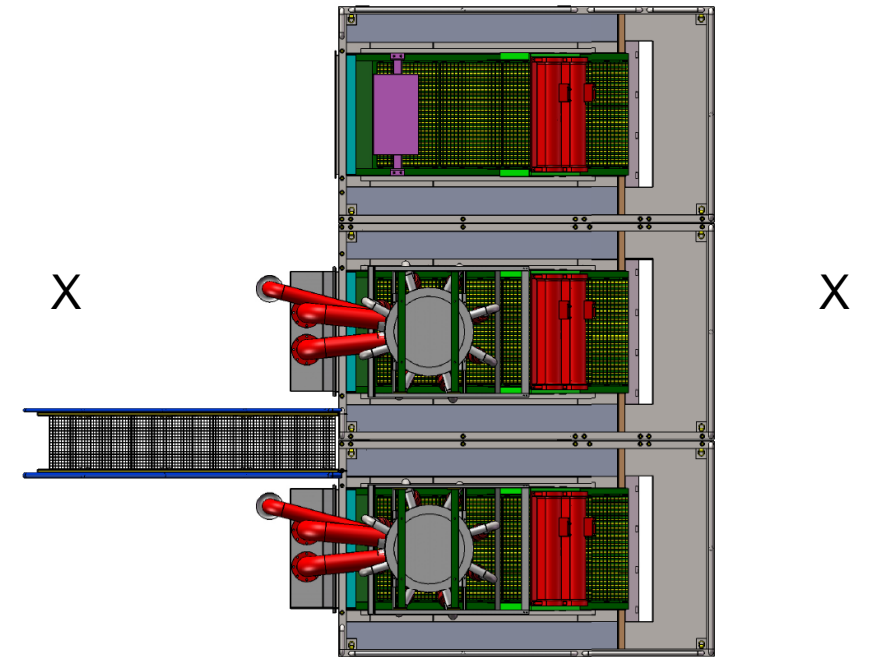


Further measures

- Targeted positioning of the construction site equipment
 - Maximize distance between emission sites and office and social containers
 - Place storage and workshop containers between emission locations and office and social containers that are required anyway
 - Local impact only
- Change of drive systems
 - Electric drives emit significantly less noise than combustion engines
 - Cost-intensive measure
- Intelligent power generation
 - Power generator combined with energy storage
 - Power generation runs when energy demand is high, energy is required when storage is low

Prospective noise protection measures

- Noise measurement at recycling unit
 - Locating the Authoritative Sound Source
 - Presumption: Screen attachments
- Structure of the measurement:
 - Screen attachments weighed down by sandbags
 - Three measuring instruments measure under full load
 - Various temporary improvements tried



X = sound level meter

Prospective noise protection measures

- recycling unit:
 - Tank for flushing separated from cuttings
 - Screen attachments with vibration motors
 - Centrifugal pumps for transfer of flushing to cyclones and screen attachments
- Construction of recycling plants always according to the same principle, therefore transferable to other units



Prospective noise protection measures

Vibration motors cause the entire system to vibrate

- Loose parts hit each other
- Discharge chutes and push-in railings particularly hard hit

Temporary fixing of the railings resulted in sound level reduction of 6 – 10 dB

- Elastic connection reduces vibrations / sound generation



Prospective noise protection measures

discharge chutes

- Only loosely connected to the system (chain connection)
 - Rigid connection reduces "rattling" of discharge chutes
- Made of thin sheet metal, prone to roar
 - Anti-drone mats on the bottom increase specific gravity and decrease droning



Prospective noise protection measures

centrifugal pumps

- Located in the lower part of the complex
- No encapsulation of the pumps
- Were identified as the decisive sound source during the measurement



Prospective noise protection measures

centrifugal pumps

- Encapsulation seems to be the best solution for noise reduction
- Screen printing plates are provisionally placed in front of pumps
- Despite only having a provisional solution with gaps, the noise level could be reduced by 3 – 4 dB



Prospective noise protection measures

Solution for centrifugal pumps:

- Encapsulation with fixed soundproofing elements or loose, thick truck tarpaulins, rubber mats or special soundproofing mats
 - The emission level of the centrifugal pumps can be reduced by an estimated 15 – 20 dB by encapsulation
- Loose connection allows for easier maintenance and repairs
- Openings for outgoing pipelines must be closed completely and tightly



Prospective noise protection measures

- The main source of noise is shifted to the upper area of the system
- Shielding of the noise emissions by housing makes the most sense for the upper plant area
 - Solid housing very robust
 - Enclosure made of soundproofing mats, lower transport costs



Conclusion

- Noise harms people in a number of ways
- Constant innovations in noise protection protect those involved on construction sites
- Frequency composition has a strong impact on the effectiveness of noise abatement measures
 - High-frequency sounds can be shielded better than low-frequency ones
- Constructive measures offer the greatest benefit for active noise protection

Outlook – Sponsorship program 2023

- Do you have a topic for the sponsorship program?
- Do you know a student who is eligible for the sponsorship program?
- Students or universities are welcome to contact me:

<https://dca-europe.org/sponsorshipbdd>

joerg.himmerich@veenkermbh.de

2. Report of the board

2.3 Report of the DCA-Representatives (Italy, Spain, UK, France, Scandinavia)



DCA-Representative Italy

Renzo Chirulli, Vermeer

Report: March 2023



Current regular members, Italy

- Anese Spa



- Festa Spa





Italia NO·DIG LIVE 2023

**MAY 24-26
2023**

second edition
**EUROPEAN
NO·DIG 2023**
Conference ITALY
25 may - Segrate (MI)

★ The Scientific Committee will assign the "Milco Anese" Prize to projects most innovative in the field of trenchless technology. ★

Around 30 HDD Italian companies (*mostly in the small-scale drills*) are expected to attend the event. It will be an undebatable opportunity for promoting the membership to DCA.



Candidate members, Italy

Three regular candidate members

Large scale drilling contractors

Max 1070 kN

Max 1470 kN

Max 3900 kN

One associated candidate member

Large EPC contractor

> 13.5 k employes

DCA-Representative Spain, Portugal

Brian Jorgensen, Ditch Witch

Report: March 2023

Market overview



DITCH WITCH® | AMERICAN AUGERS® | SUBSITE® | HAMMERHEAD® | TRENCOR®





Ditch Witch®



- FTTH update
- Electric grid projects
- Renewable energy projects
- Gas- Hydrogen projects

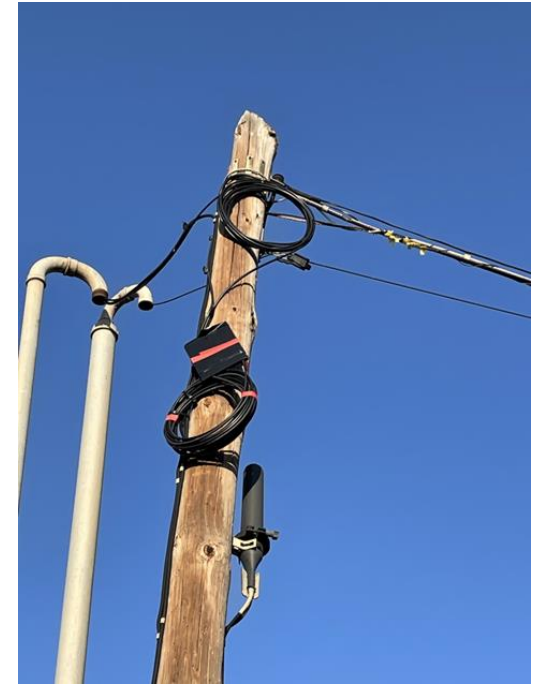
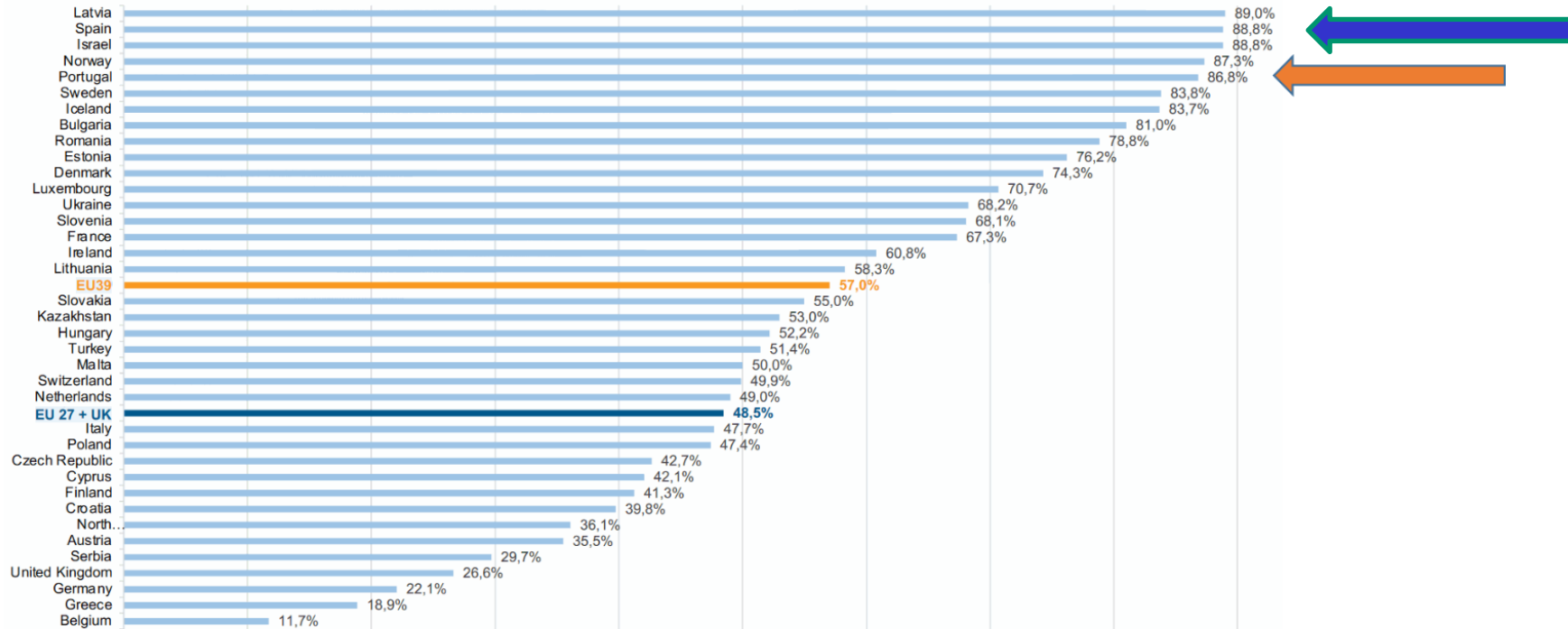


Communication - FTTH

European leaderboards - EU39

EU39 : 3 out of 5 countries now have more than 50% of total homes with fibre!

FTTH/B coverage* as of September 2021 (* Homes passed / Households)



Telefonica wants achieve 100% penetration by 2025 and lead the implementation of 5G



Communication – FTTH – 5G



All the provincial capitals and autonomous cities, 100% of the cities with more than 50,000 inhabitants and 98% of those with more than 20,000 inhabitants, as well as small towns in all the autonomous communities already have 5G, (Telefonica).



Electric grid - projects

INELFE projects

This project will increase the exchange capacity from 2,800 to 5,000 MW. Work to be realized 2021 - 2026

Un doble enlace submarino

1 LA CONEXIÓN CON LA RED ELÉCTRICA ESPAÑOLA

La interconexión estará conectada a la subestación de Gatika, situada al noreste de Bilbao, a 10 km de la costa vasca. Para ello, se prevé la instalación de cables subterráneos entre la futura estación de conversión de Gatika, que se construirá al lado de la actual subestación de Gatika, y hasta un punto en la zona Urbietu-Lemoniz, en donde se realizará la unión tierra-mar.

De acuerdo al procedimiento español se presentará una Evaluación de Impacto Ambiental que incluirá el diagnóstico territorial y ambiental, las diferentes alternativas para la estación, la ubicación y las características del proyecto seleccionado (alternativa de menor impacto), además de un análisis de los impactos y propuestas en cuanto a las medidas preventivas y correctivas, así como un plan de vigilancia medioambiental.

Para más información, véase <https://www.inelife.eu/es/zona-de-prensa>

2 CRUCE DEL GOLFO DE BIZKAIA

Desde la costa vasca española hasta la costa francesa del Médoc, los enlaces serán principalmente submarinos con una longitud de aproximada de 300 km, excepto un corto tramo subterráneo necesario para evitar el cañón submarino de Capbreton.

La elección del trazado y la colocación del cable en el fondo marino minimizarán el impacto sobre los usos marítimos y especialmente en la pesca.

4 ESTACIONES CONVERSORAS

El enlace interconectará dos sistemas de corriente alterna a través de una línea submarina en corriente continua. En cada extremo del enlace, las estaciones convertidoras transformarán la corriente continua en alterna para conectarse con las redes de transporte de España y Francia.

Estaciones convertidoras

Las estaciones convertidoras ocupan una extensión aproximada de 5 ha y miden aproximadamente 20 m de altura.

El cable submarino

Tendido submarino

En cada zanja se colocará en el lecho marino con la ayuda de un buque cablero. Por regla general, los cables se enterrarán como medida de protección excepto si el suelo es demasiado duro, en ese caso se recubrirán.

Enterrado Recubierto

El cable subterráneo

Zanja

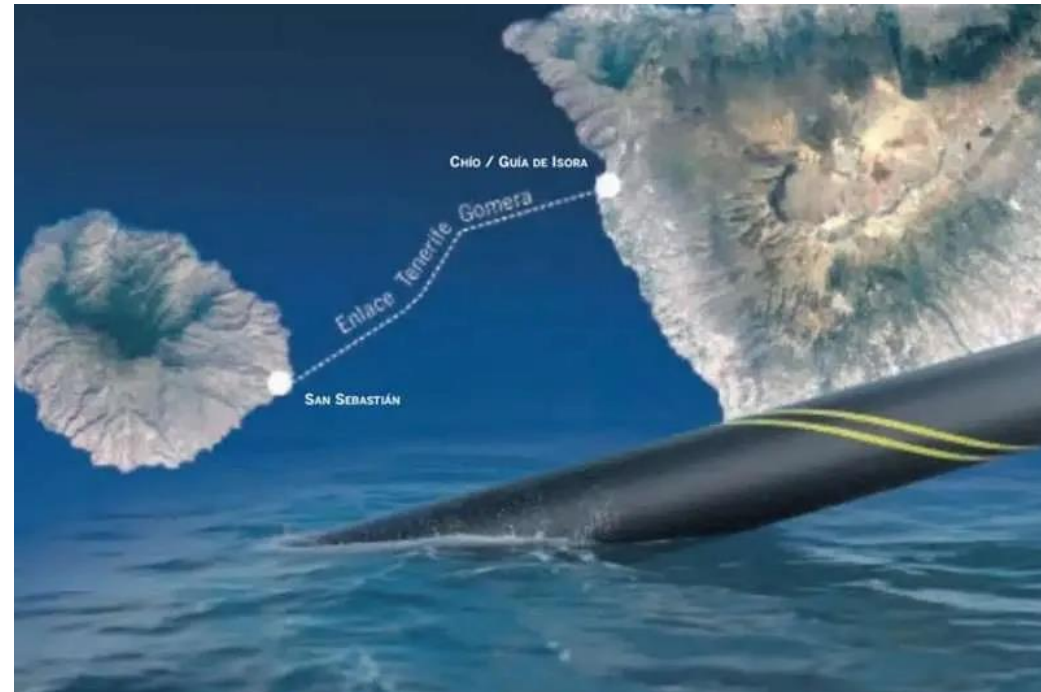
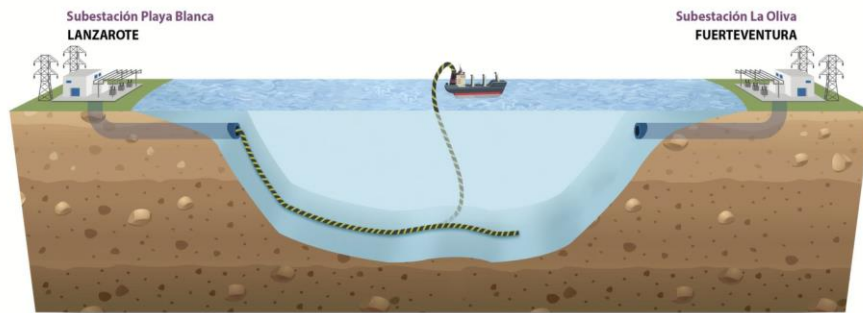
En cada zanja se colocará un par de cables, con una distancia mínima de 1 m entre ambas zanjas. Una vez finalizados los trabajos, estas quedarán ocultas mediante un recubrimiento.

Empalmes

Los cables subterráneos se instalarán por tramos de aproximadamente 1 km, uniéndose en cámaras de empalme. Para conectar los cables submarinos con los subterráneos se utiliza un dispositivo similar aunque ligeramente más grande. Estos dispositivos estarán situados lejos de la orilla y finalmente se cubrirán al no requerir de un acceso permanente, quedando totalmente ocultos.



Canary Islands turning towards green electricity Will be 100% fossil free by 2040.



A 40 km long cable (36 km on seabed) will connect La Gomera with Tenerife.



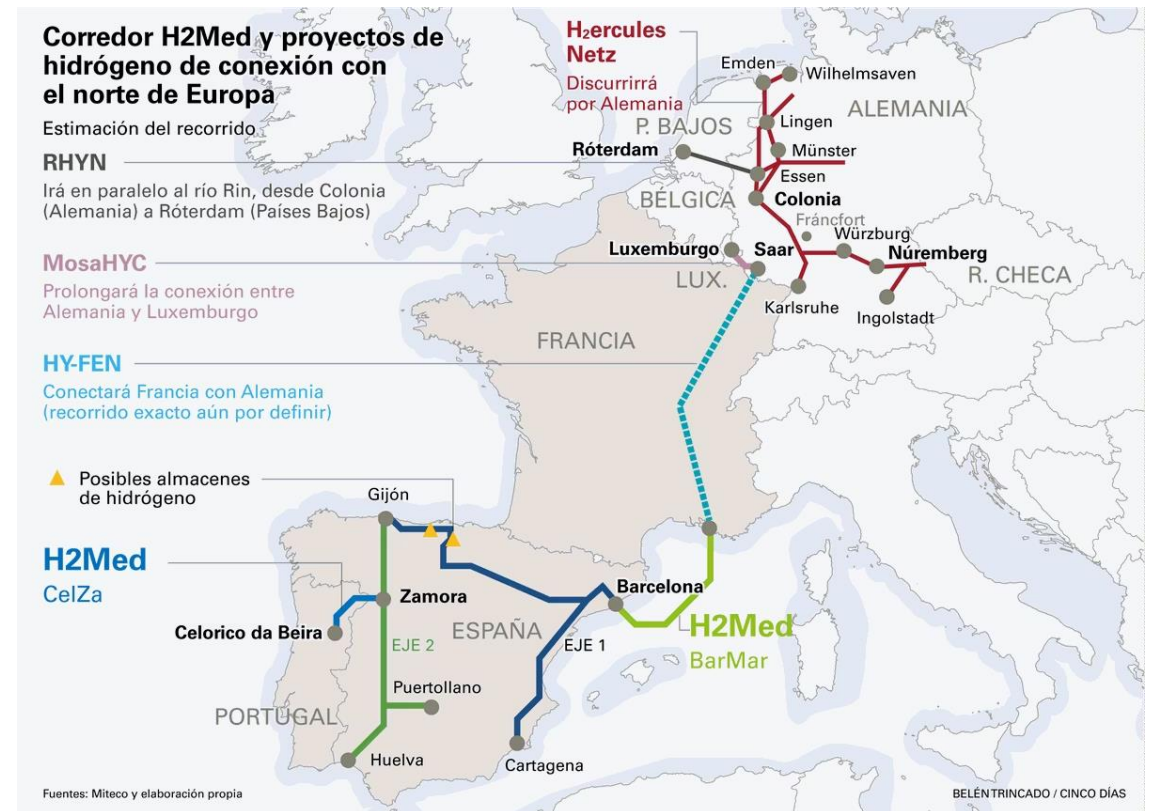
Renewable projects

- Francisco Pizarro' project in Extremadura, the largest photovoltaic plant in Europe
- The plant has an installed capacity of **590** megawatts.
- Will generate enough clean energy to supply more than **334,000 homes** –
- Will prevent the emission of **150,000 tonnes of CO2** into the atmosphere per year.



NG- and Hydrogen gas pipes

- EU Target: 40 gigawatts (GW) of electrolyser capacity in the EU to generate green hydrogen by 2030.
- Spain aims to install 4GW, whereas Portugal expects to contribute to the EU goal with 2-2.5GW.
- To be operational by 2030





DCA-Representative UK

Scott Stone, Michels Corp.

Report: March 2023

Overview



Current Status

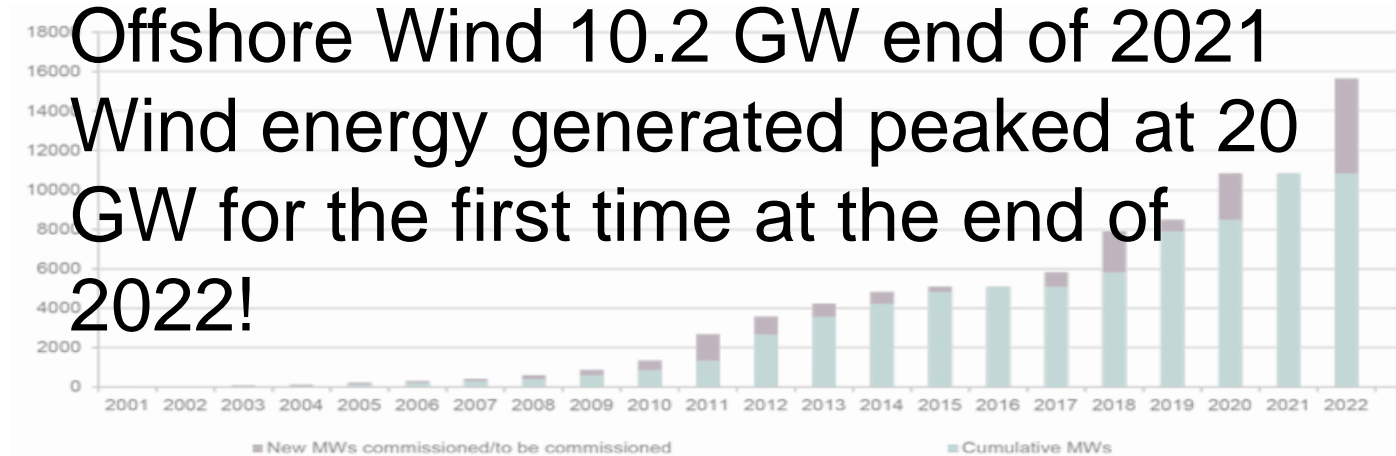
- **HDD Market is buoyant and continues to grow**
 - Relative to both Large- & Small-Scale Drilling Contractors
- **Particular areas requiring HDD services are :-**
 - Upcoming Offshore Wind Projects
 - Large scale HDDs Landfalls and Outfalls
 - Upgrading of onshore networks
 - Small / Medium / Large Scale Rigs Needed
 - One off Special projects
 - Anglian Water - Strategic Pipeline Alliance
 - SLP – Southampton London Pipeline 90km New Fuel Pipeline
 - HS2 – Relocation of services for new Rail Network
- **Brexit – Continues to be challenging**
 - Solutions are being found to personnel movement
 - Equipment movement is possible cross boarder
 - Rules and regulations continue to be a challenge

Current Status



UK Offshore Wind

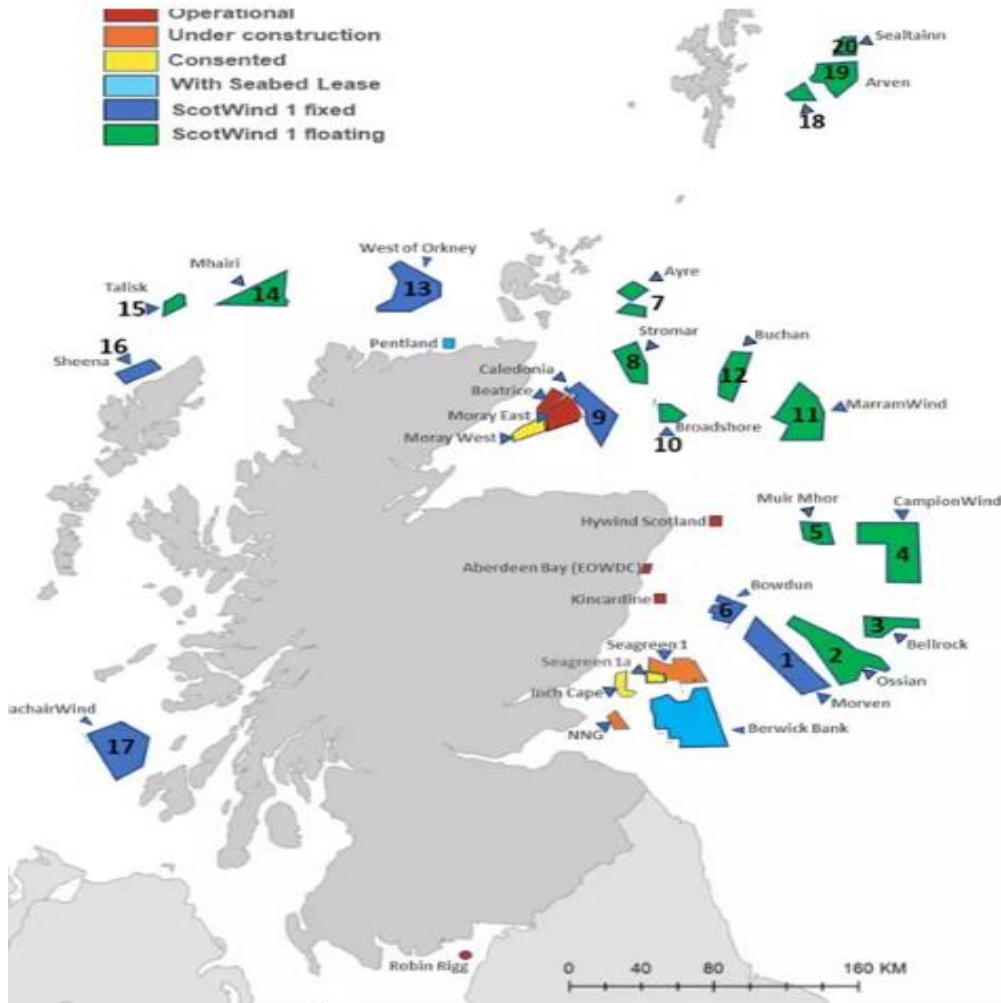
- Worldwide leaders at the forefront of offshore wind development
- Developing Floating offshore wind
- UK's electricity usage 62 GW
- Offshore Wind 10.2 GW end of 2021
- Wind energy generated peaked at 20 GW for the first time at the end of 2022!



The future

- The UK government has set a target to achieve 40 GW of offshore wind capacity by 2030, up from the current capacity of 10.4 GW
 - UK's net-zero emissions target by 2050.
- 

Scotland's Plans for the future



SITE	DEVELOPER	CAPACITY
1	BP and EnBW	2907MW
2	SSE Renewables, CIP and Marubeni	2610MW
3	Renantis and BlueFloat Energy	1200MW
4	ScottishPower Renewables and Shell	2000MW
5	Vattenfall and Fred Olsen Renewables	798MW
6	Thistle Wind Partners	1008MW
7	Thistle Wind Partners	1008MW
8	Renantis, Orsted, BlueFloat Energy	1000MW
9	Ocean Winds	1000MW
10	Renantis and BlueFloat Energy	500MW
11	ScottishPower Renewables and Shell	3000MW
12	Floating Energy Alliance	960MW
13	RIDG, Corio Generation and TotalEnergies	2000MW
14	Northland Power	1500MW
15	Magnora ASA and Technip UK	495MW
16	Northland Power	840MW
17	ScottishPower Renewables	2000MW
18	Ocean Winds	500MW
19	Mainstream RP/Ocean Wind	1800MW
20	ESB Asset Development	500MW

SITE	DEVELOPER	CAPACITY
Robin Rigg	RWE Renewables	174MW
Hywind Scotland	Equinor	30MW
Aberdeen Bay	Vattenfall	93MW
Beatrice	SSE/Red Rock Power	588MW
Kincardine FOW	Cobra/Pilot Offshore	48MW
Moray East	Ocean Winds	950MW
NNG	EDF Renewables and ESB	448MW
Seagreen 1	SSE Renewables and TotalEnergies	1140MW
Seagreen 1a	SSE Renewables and TotalEnergies	420MW
Inch Cape	Red Rock Power	1080MW
Moray West	Ocean Winds	850MW
Berwick Bank	SSE Renewables	4150MW
Pentland FOW	Copenhagen Infrastructure Partners	100MW

To Summarise

- The HDD Market remains buoyant and continues to grow
- Growth of offshore wind to continue
- Increased infrastructure requirements onshore
- Working in Europe and European Companies working in the UK is starting to becoming more manageable

DCA-Representative France

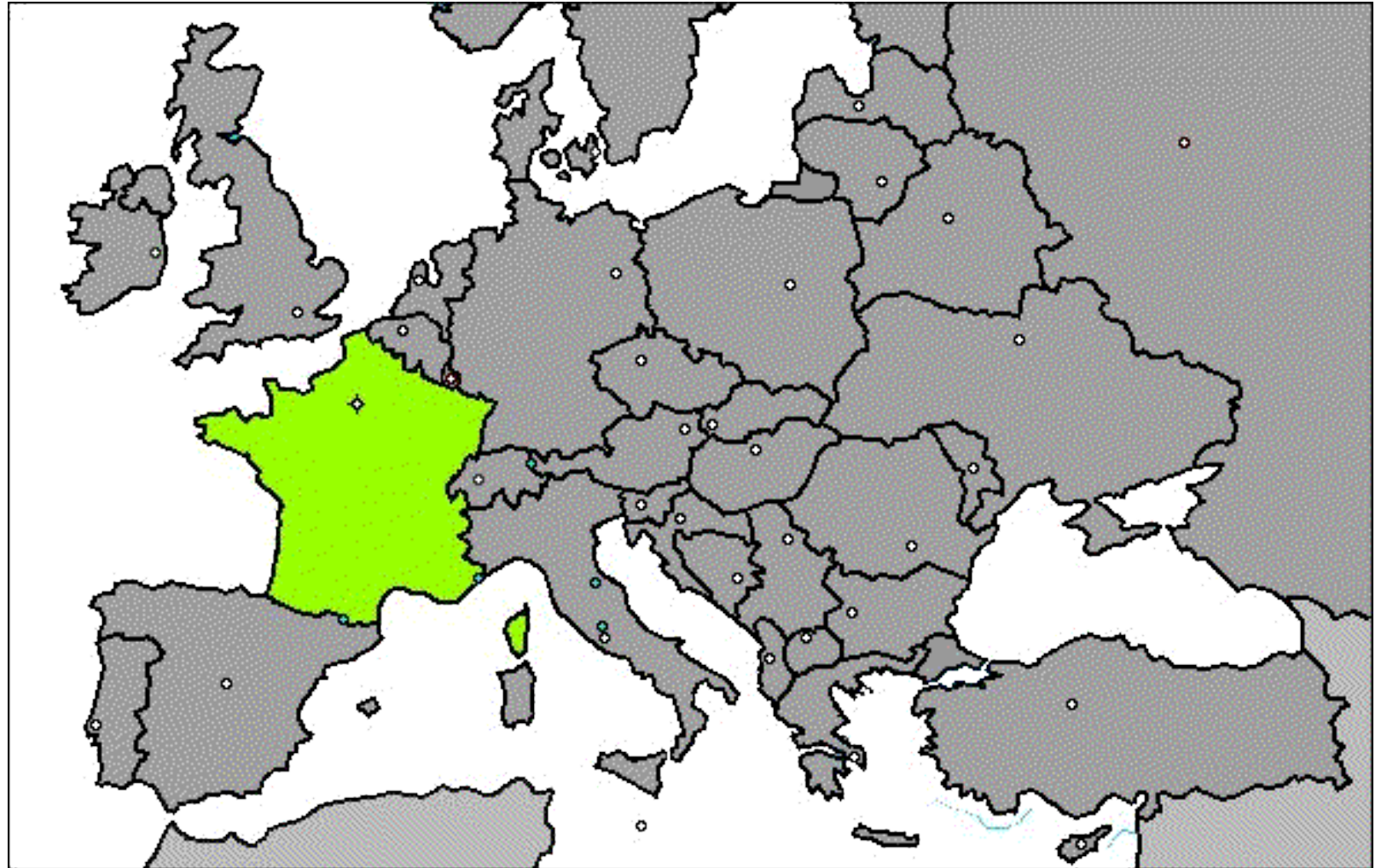
François Gandard, OPTIMUM

Report: March 2023

Overview



France



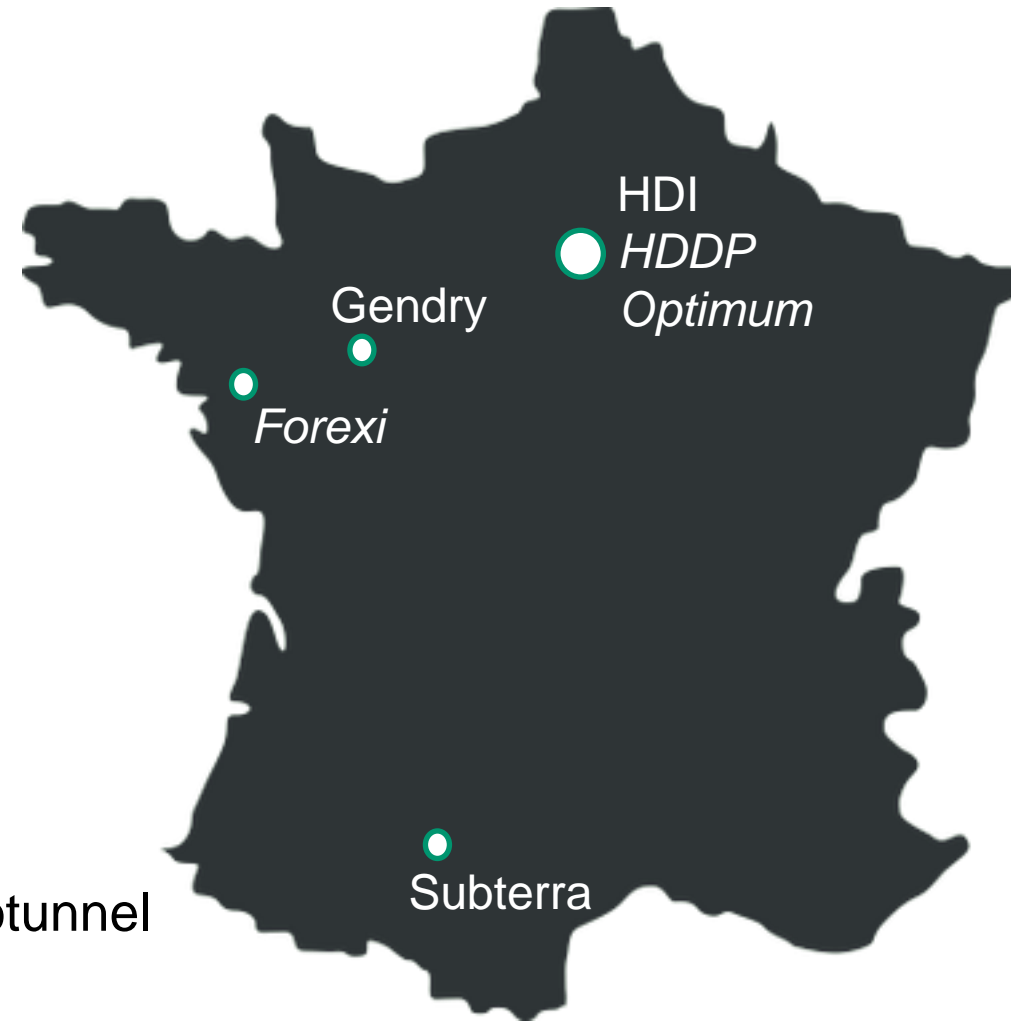
Situation 2022

3 Associates Members :

- **HDDP Solutions**, Denis PELLERIN
- **FOREXI**, trenchless engineering
- **OPTIMUM**, trenchless engineering

3 Regular Members :

- **HDI**, maxi rigs
- **GENDRY**, mainly small scale HDD
- **SUBTERRA**, Rehabilitation, HDD & Microtunnel



OPTIMUM

Perspectives 2023

Approached in 2022:

- **Coquart:** Join DCA last week,
- **Huré:** could potentially be interested,
- **FNO:** could potentially be interested,
- **BIR:** could potentially be interested,
- **For Drill:** could potentially be interested,

Convince major Owners to join :

- **RTE:** will join this year (see next slide),
- **TEREGA:** will probably re-join this year, intention to attend the annual congress,
- **GRT GAZ:** could potentially be interested,
- **ENEDIS:** will be contacted this year.

Other associate members :

- **CPMAT:** could potentially be interested,
- **EURETEQ:** maybe

Partnership with FSTT on Technical Guideline to be finalized



OPTIMUM

Adhesion 2023



- Responsible for the Transport of electricity in France,
- One of the biggest owner in France, that must bury all its overhead power lines, except those in very mountainous areas,
- A lot of HDDs bought every year, all over the country : estimated 100+ HDDs per year for the next 3 years,
- A new unit specialized in trenchless crossings has been created in Paris : they will advise local agencies and will be the ones to attend to DCA congress and events.
- Yann DELANNE is at the head of this department and decided to join following to our intervention last autumn.

The logo for OPTIMUM consists of a solid blue square with the word 'OPTIMUM' written in white, uppercase letters in the center.

OPTIMUM



Adhesion 2023

- Company employing 50 people, mainly in HDD business, based in the North of France
- Company running 9 rigs, from 3 to 110 tons,
- Turn over around 10 – 12 M€,
- Working mainly in France, but also in the French territories overseas,
- François COQUART is at the head of the company.



OPTIMUM



French HDD market

The French HDD market should keep on booming in 2023 :

- ✓ Cable laying is the main part :
 - RTE for transport (they have a lot of Datacenters to connect) and connections to the offshore wind farms + inter countries (Spain, Ireland),
 - ENEDIS for distribution,
- ✓ Gas transport is also active with hydrogen and decarbonation projects :
 - GRT Gaz in France throughout the country, except for the southwest
 - TEREKA in the southwest area,
 - GrDF for distribution,
- ✓ Telecommunication for installing fiber to home (almost done in France),
- ✓ Public utilities are also active, but more for microtunneling



SYNFODI
SYNDICAT FORAGE DIRIGÉ

Ensemble, traçons l'avenir du forage dirigé.

Union of French directional drilling companies created in 2022.

They negotiate with main Owners to obtain a renegotiation of the sales price of framework contracts (ENEDIS / GRDF)

Perspective are favourable for HDD in the Country

DCA-Representative Scandinavia

Benny Jensen, Dantonit A/S

Report: March 2023

Overview





Representative -
Work in
Scandinavia
2022/2023



DANTONIT

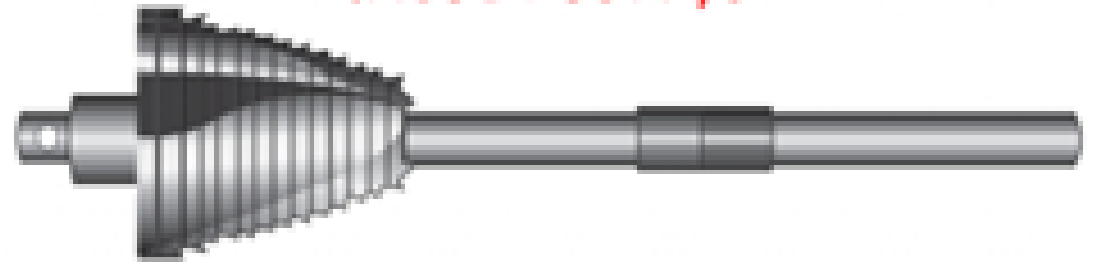


LONICO



ØSTERGAARD

JACOB POST A/S



STYRET UNDERBORING



Danboring EST. 1981

MUNCK

GRUPPEN



DANTONIT



Meetings in March 2023.



ZACHO-LIND
Entreprenørfirma



GC Entreprise
NO DIG • KLOAK • VAND • KABLER

Malmö, Sweden, March 2023.



DANTONIT



Meetings planned in May



STRIB-MIDDELFART
ENTREPRENØRFORRETNING A/S

Bække Entreprenørforretning ApS



UNDERBORING +



DANTONIT



DANTONIT



Kontrolordning for styret
boring og gennempresning

OPTAGELSESBEVIS

Entreprenørfirma: Entreprenør Jacob Post ApS

Kontaktperson: Niels Erik Karstoft

er optaget med metoden

**STYRBAR BORING TIL
OPGRAVNINGSFRI ETABLERING AF LEDNINGER**

System: Styret underboring

Bilag: Deklaration af 1. august 2016

Reference nr.: 01.14.2017-1 Udstedt: 12.01.2018 Gældende til: 31.12.2018

Kontroludvalget for styret boring og gennempresning


Kjeld Emil Olsen
Formand for Kontrolordning for
styret boring og gennempresning


Klaus Ising Hansen
Direktør for
Byggeriets Kvalitetskontrol A/S



February 2023



Kontrolordningernes Sekretariat
c/o DI Dansk Byggeri

H. C. Andersens Boulevard 18
1553 København V



**KONTROLORDNING FOR STYRET
BORING OG GENNEMPRESNING**

DANTONIT

THANK FOR YOUR ATTENTION

Benny Jensen

DANTONIT

2. Report of the Board

2.4 Treasurers' Report



Annual Accounts 2022



1.	<u>Revenues</u>	acc. to Plan	actual Figures
1.1	Dues Members	200.410,00 €	211.868,25 €
1.2	Revenues from members meeting (Sponsors)	10.000,00 €	16.000,00 €
1.3	Revenues from reimbursements (annual congress)	70.000,00 €	66.892,02 €
1.4	Technical Guidelines (Sale)	8.000,00 €	9.085,02 €
1.5	Other revenues	100,00 €	0,00 €
1.6	Interests	5,00 €	55,55 €
		<u>288.515,00 €</u>	<u>303.900,84 €</u>

2. Expenses	acc. to Plan	actual Figures
2.1 Personal and Administration	71.400,00 €	79.914,45 €
2.2 Travelling Cost (Executive Secretary)	25.000,00 €	30.902,21 €
2.3 Members Meeting, Board meetings	12.000,00 €	8.469,15 €
2.4 Annual Congress	95.000,00 €	116.583,19 €
2.5 Simultantranslation Members Meeting	9.500,00 €	8.431,77 €
2.6 Membership Advertisement	6.000,00 €	5.902,40 €
2.7 Exhibitions	8.000,00 €	14.364,75 €
2.8 Insurance, Dues	210,00 €	205,18 €
2.9 Postage	1.500,00 €	1.295,39 €
2.10 Office Material, Office Services	6.000,00 €	5.696,37 €
2.11 Tax/Legal Consultant	4.000,00 €	2.983,95 €
2.12 Incidentals Bank	2.500,00 €	2.783,34 €
2.13 Depreciations/ Lost recievables	5.000,00 €	1.050,00 €
2.14 Informationmaterial	5.000,00 €	6.284,10 €
2.15 Sponsorship Program	5.000,00 €	2.500,00 €
2.16 Public Relations	10.000,00 €	13.610,63 €
2.17 Special Events - 25 years DCA Brussels	- €	- €
2.18 Print Technical Guidelines	5.000,00 €	1.944,46 €
2.19 Members' Forum	3.000,00 €	7.535,10 €
	<u>274.110,00 €</u>	<u>310.456,44 €</u>
3. Surplus		
Profit/Loss	<u>14.405,00 €</u>	<u>-6.555,60 €</u>

Financial Statement 2022



Financial Statement
as of December 31st 2022

Activa	EUR	Passiva	EUR
A.		A. Equity Capital	
I. Office Equipment	2,00	I. Ballance carried forward	273.525,42
II. Fixed assets	6,00	II. Annual Loss/Surplus	-6.555,60
			266.969,82
B. Current assets		B. Provisions	
I. Recievables and other assets		Other provisions	1.400,00
Receivables against members	12.211,14		
		C. Liabilities	
II. Cash on hands and banks	271.831,24	resulting from services and suppliers	15.680,56
	284.050,38		284.050,38

SURPLUS CALCULATION				
for the period January 1st - december 31th, 2022				
	1.1. - 31.12.2022		1.1. - 31.12.2021	
	EUR	%	EUR	%
Revenues				
Dues regular Members	95.550,00	31,40	96.600,00	34,00
Dues associate Members	106.089,00	34,90	93.800,83	33,00
Requested Dues	10.229,25	3,40	1.557,50	0,50
Revenues from members' meeting (Sponsors)	0,00	0,00	5.000,00	1,80
Revenues Annual Congress (Sponsors)	16.000,00	5,30	0,00	0,00
Revenues Annual Congress	66.892,02	22,00	77.193,00	27,10
Technical Guidelines (Sale)	9.085,02	3,00	10.196,02	3,60
Other revenues	0,00	0,00	103,65	0,00
Interests	55,55	0,00	2,16	0,00
Sum Revenues	303.900,84	100,00	284.453,16	100,00
Expenses				
Personal and Administration	79.914,45	26,30	64.260,00	22,60
Travelling Cost (Executive Secretary)	30.902,21	10,20	20.157,64	7,10
Members Meeting, Board meetings	8.469,15	2,80	15.425,15	5,40
Annual Congress	116.583,19	38,40	103.815,71	36,50
Simultantranslation Members Meeting	8.431,77	2,80	8.368,64	2,90
Membership Advertisement	5.902,40	1,90	6.568,80	2,30
Exhibitions	14.364,75	4,70	3.627,12	1,30
Insurance	205,18	0,10	205,18	0,10
Postage	1.295,39	0,40	1.296,40	0,50
Office Material, Office Services	5.696,37	1,90	5.889,19	2,10
Tax/Legal Consultant	2.983,95	1,00	3.067,63	1,10
Incidentals Bank	2.783,34	0,90	1.302,85	0,50
Depreciations/ Lost receivables	1.050,00	0,30	3.264,65	1,10
Informationmaterial	6.284,10	2,10	4.880,89	1,70
Sponsorship Program	2.500,00	0,80	2.500,00	0,90
Public Relations	13.610,63	4,50	10.526,12	3,70
Print Technical Guidelines	1.944,46	0,60	2.591,00	0,90
Homepage new version	0,00	0,00	9.000,00	3,20
Members Forum	7.535,10	2,50	0,00	0,00
Sum Expenses	310.456,44	102,20	266.746,97	93,90
Annual Loss/Surplus	-6.555,60	-2,20	17.706,19	6,10

2. Report of the Board

2.5 Report of the financial auditors

Silke Goldschmidt (WBW GmbH)

Dan Lingenauber (Tracto-Technik GmbH & Co. KG)



3. Exoneration of the Board



4. Business year 2023



4.1 Change of Statutes



Articles of Association (Unofficial translation)

Last Resolution of the members' meeting of 13rd February 2019

Last revision registered on 24th January 2020 VR 1860, District Court Mönchengladbach

Proposals for changes

New passage

The **DCA members' meeting** may decide on the following changes in the current statutes
§9 No. 2:

§9 The members' meeting

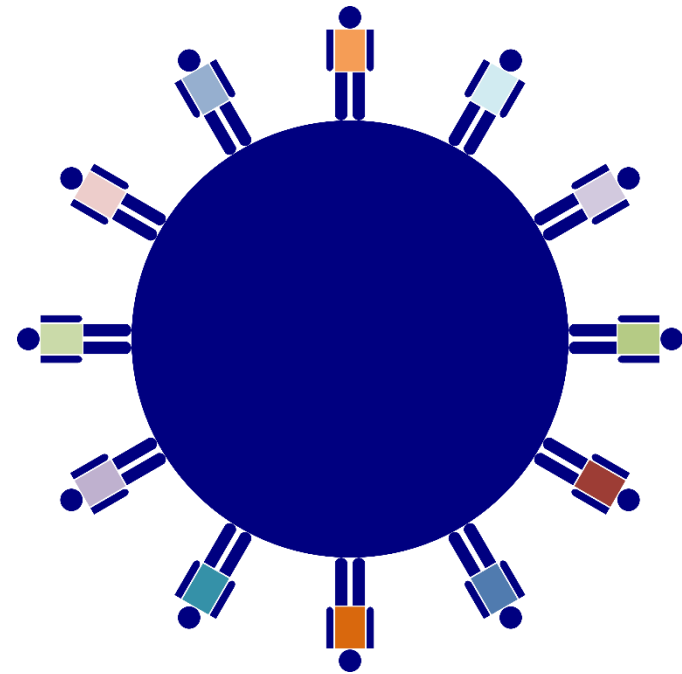
(2) The members' meeting should be held once a year.

The members' meeting may also be held using electronic communication (e.g. by phone or video conference) or in a mixed meeting with members attending both live and via video conference/other media/phone.

It is up to the board discretion whether the members' meeting shall be held as a live event, via electronic communication or as a mixed meeting with both members present and attending using video conference/other media/phone.

4. Business year 2023

4.2 Board election



Some information regarding the election of the board members

- Board members are normally elected for 2 years
- To ensure some continuity on the board, in practice many board members stay longer in office, (vice) presidents are usually on the board for 6-10 years. It is a commitment!!!
- The workload ranges from 1 day/month to 1 day/week!
- You need to be available for the highlights
- A balanced distribution among the different members is advantageous for the work



Technical information to the election

- All participants on site have received a voting card and represent their company in the course of the election.
- Companies that can only participate via Zoom have determined who is entitled to vote for their company in accordance with the invitation before the election begins.
- Voting in the room is done by lifting the voting card.
- Voting via Zoom is possible.

The following positions are up for election

- 4.2.1 President
- 4.2.2 Vice-President (Small scale drilling)
- 4.2.3 Vice-President (Large scale drilling)
- 4.2.4 Vice-President (Associate members)
- 4.2.5 Treasurer
- 4.2.6 Board member
- 4.2.7 Board member
- 4.2.8 Board member

Election of the President



Proposal of the Board:

**Re-election Jorn Stoelinga,
LMR Drilling GmbH**

Board activities:

Since 2019 President of the DCA

2017-2019 Vice-President

2015-2017 Representative for Further Education

Election of the Vice-President (Small Scale Drilling)



Proposal of the Board:

**Re-election Marco Reinhard,
Leonhard Weiss GmbH & Co. KG**

Board activities:

Since 2019 Vice-President Small Scale Drilling
2015-2019 Representative Public Relations

Election of the Vice-President (Large Scale Drilling)



Proposal of the Board:

**Re-election Atef Khemiri
Horizontal Drilling International SA (HDI)**

Board activities:

Since 2019 Vice-President Large Scale Drilling
2018-2019 Representative for technical issues
2016-2018 Representative for member support

Election of the Vice-President (Associate Members)



Proposal of the Board:

**Re-election Marc Schnau,
x-plan schnau engineering**

Board activities:

Since 2021 Vice-President (Associate Members)
2019-2021 Board member
2017-2019 President of the DCA
2016-2017 Vice-President
2010-2016 Representative of member support

Election of the Treasurer



Proposal of the Board:

Re-election Jürgen Muhl, Step Oiltools

Board activities:

Since 2010 Treasurer

2005-2010 Representative for member support

Election of the Board Member



Proposal of the Board:

**Re-election Scott Stone,
Michels Trenchless GmbH**

Board activity:

Since 2019 Board Member

Since 2020 Representative of the DCA for UK and Ireland

Election of the Board Member



Proposal of the Board:

**Re-election Jörg Himmerich,
Dr.-Ing. Veenker Ingenieurgesellschaft mbH**

Board activities:

Since 2021 Board member

Election of the Board Member



Proposal of the Board:

**Re-election Ronald Siebel,
Tennet TSO GmbH**

Board activities:

Since 2021 Board member

4. Business year 2023

4.3 Resolution of the Members' fees



Update to the Members' fees

- general cost increases
- necessary adjustments in parts of the financial budget,
- last fee adjustment took place seven years ago on 01st January 2016

Proposal of the board:

Increase of the fees **of 10%** applicable from 01.01.2023



Explanation

- Implementation of the Board's objective: **"The DCA should become more European"**,
 - ✓ Higher investment in members meeting, task Groups, congress planning, forums, workshops, PR (e.g. Congresses in Europe).
- Expansion of the areas of responsibility of the office/Management e.g.
 - ✓ Introduction and support of DCA representatives
 - ✓ Organisation and preparation of the DCA Members' Forum
 - ✓ More time-intensive preparation of the annual congresses

Explanation

- ✓ Time-intensive maintenance of the new DCA website with extensive members' area as well as provision of an archive.
- ✓ Expansion of the existing DCA member database with SQL connection, link to the association's website, etc.
- ✓ Reactivation of the sponsorship programme for students
- ✓ Support in DCA Task Groups

Proposal Fees - 01.01.2023

Regular Members	Contributions 2022	Contributions 2023
Group 1	1,050.00 €	1,150.00 €
Group 2	2,100.00 €	2,300.00 €
Group 3	3,150.00 €	3,450.00 €
Associate Members		
Group 1	840.00 €	920.00 €
Group 2	1,050.00 €	1,150.00 €
Group 3	1,320.00 €	1,450.00 €
Group 4	1,580.00 €	1,730.00 €
Group 5	100.00 €	100.00 €

4. Business year 2023

4.4 Tasks and Goals 2023/24



Tasks and Goals 2023/24

- **Finalization of the Technical Guidelines (5th Edition)**
- Continuation of the Task Groups
- Oldenburger Rohrleitungsforum with lectures and stand
- 5th Members' Forum in Aachen
- 27th Annual Congress in Leipzig
- Preparation and implementation of the training courses in Kassel (DVGW)
- DCA in den Social Media (LinkedIn...)
- 7 Board meetings
- Preparation of the members' meeting 2024
- Support of member activities and events ...and more!

Member Forum 2023

„Accuracy in HDD-Drillings “

Venue: Novotel, Aachen



3rd May 2023
Exclusively for members,
two linguistically
separate groups



27th DCA Annual Congress in Leipzig

SAVE THE DATE



04th-06th
October 2023

Sponsors of Annual Congress 2023

GOLD-Sponsoring



Bohrtec-Teubner Wittenberg GmbH

www.bohrtec-teubner.de

Gold-Sponsor



Gold-Sponsor



Gold-Sponsor



Gold-Sponsor



Gold-Sponsor



Gold-Sponsor

Sponsors of Annual Congress

SILVER Sponsoring



Silver-Sponsor



Silver-Sponsor



MANNESMANN
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A Member of the Salzgitter Group

Silver-Sponsor



Silver-Sponsor



Silver-Sponsor



Silver-Sponsor

Sponsors of Annual Congress

BRONZE Sponsoring



Bronze-Sponsor



A big thank you to all our sponsors
2023!!

*A BIG Thanks
to our Sponsors!*

Further education according to worksheet GW329, Kassel



07.12.2023

4. Business year 2023

4.5 Budget 2023



1.	<u>Revenues</u>	2023
1.1	Dues Members	231.000,00 €
1.2	Revenues from annual congress (Sponsors)	35.000,00 €
1.3	Revenues Annual Congress	85.000,00 €
1.4	Technical Guidelines (Sale)	8.000,00 €
1.5	Other revenues	100,00 €
1.6	Interests	500,00 €
		<u>359.600,00 €</u>
2.	<u>Expenses</u>	
2.1	Personal and Administration	99.960,00 €
2.2	Travelling Cost (Executive Secretary)	28.000,00 €
2.3	Members Meeting, Board meetings	9.000,00 €
2.4	Annual Congress	110.000,00 €
2.5	Simultantranslation Members Meeting	9.800,00 €
2.6	Membership Advertisement	6.000,00 €
2.7	Exhibitions	15.000,00 €
2.8	Insurance	210,00 €
2.9	Postage	1.500,00 €
2.10	Office Material, Office Services	6.000,00 €
2.11	Tax/Legal Consultant	4.000,00 €
2.12	Incidentals Bank	2.000,00 €
2.13	Depreciations/ Lost receivables	5.000,00 €
2.14	Informationmaterial	6.000,00 €
2.15	Sponsorship Program	5.000,00 €
2.16	Public Relation	14.000,00 €
2.17	Special Event - 25 years DCA Brussels	- €
2.18	Print Technical Guidelines	5.000,00 €
2.19	Members' Forum	8.000,00 €
2.20	Task Groups (Support)	20.000,00 €
		354.470,00 €
3.	<u>Surplus</u>	
	Profit/Loss	<u>5.130,00 €</u>

5. Election of the financial auditors 2023



6. Miscellaneous





Van: Jorn Stoelinga <presidentboard202122@gmail.com>
Verzonden: maandag 24 januari 2022 09:02
Aan: Hans Blok <h.blok@drillguide.com>
Onderwerp: Re:Request

Dear Hans,

Thanks for the response, Please can you process a wire transfer or make an online bank transfer to a Vendor in (Holland) on behalf of the board Today and get reimburse on Wednesday, Let me know so I can send you the instruction (Intel) to complete this request.

Regard
 Jorn Stoelinga

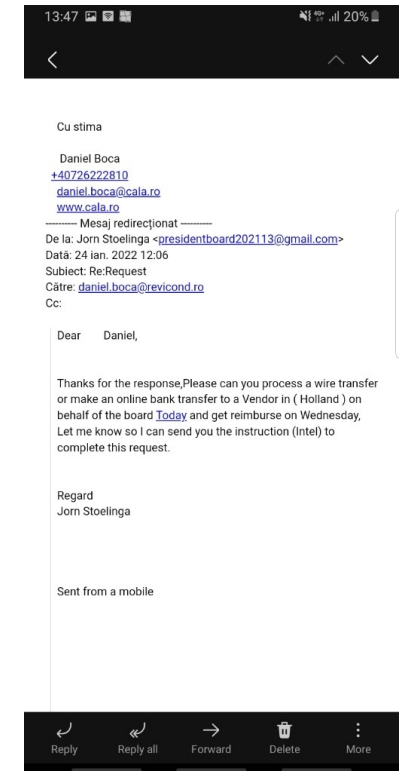
Von: Jorn Stoelinga <presidentboard202113@gmail.com>
Gesendet: Montag, 24. Januar 2022 09:59
An: Jörg Himmerich <Joerg.Himmerich@veenkerghmbh.de>
Betreff: Request

Dear Jörg,

How are you doing? Please are you available to take care of something for the board today?
 Email me so I can explain more better.



- **Emails from DCA will normally be sent by either Mr Dietmar Quante or Mrs Antje Quante. Email address will be xxx@dca-europe.org**
- **If any emails from me, they will normally be sent from my company email address jorn.stoelinga@lmr-drilling.de**
- **We will not ask for any money other than your annual fee, congress participation, technical guidelines etc. These will however be proper invoices!**



Many thanks for your attention!



Stay safe!

**See you at the IRO, Members Forum,
Annual Congress...**