Volume 99
Number 71
June 2024

SOCIETY OF PETROLEUM ENGINEERS
SPE NEWS
COPENHAGEN SECTION

FROM THE SECTION CHAIRMAN

DEAR SPE COPENHAGEN MEMBERS,

Another season has come to its conclusion in style at SPE-CPH and this also happens to be my last article as Chairman of the Board as my tenure ends with this season.

I look back on the last 3 years with pride and a sense of achievement. My tenure started in 2021 as the world was emerging from the throes of the COVID pandemic and its attendant challenges. A refresh of the Board was needed and a realignment of focus areas and operating model. With the help and corporation of the core board members, the board was delineated into committees to ensure smooth operation and achievement of annual objectives. The overall aim was to enhance the experience of an SPE CPH member.

The results over the last 3 years have been quite positive. The DTU student chapter was vibrant with a variety of activities, our YP which was previously dormant has been revamped, we initiated a local and regional awards program, expanded the board, and received recognition for membership numbers. The engagement of our members improved considerably locally as well as across Europe sections. Our online presence was considerably enhanced by the startup of our LinkedIn page and revamp of our website. SPE Copenhagen now has over 1400 followers on LinkedIn.

I must add too, that we organized and celebrated our 40th anniversary at a colorful event hosted at TotalEnergies. Indeed, I am handing over a robust operation to my successor.

Circling back to this outgoing season, SPE Copenhagen hosted several activities including technical presentations, panel discussions and site visits.

As is customary, the season started off in September 2023 with a beautiful and fun season kick-off party at DJOF where the new Board was introduced.

Some familiar faces left the Board, while new ones joined.

WE SAID GOODBYE TO

- Mette Furstnow
- Jamie Cassasus-Bribian
- Darya Shingaiter

WE WELCOMED

- Michal Stepien
- Lucas Correa
- Bartosz Bula

> During the course of the season, we organized events that were memorable and valuable

ORGANISED EVENTS BY SPE

SEPTEMBER

22

17:00 - 22:30

Social Dinner Party

København

OCTOBER

25

16:30 - 19:15

SPE Meeting at NOV (National Oilwell Varco)

Brøndby

NOVEMBER

29

17:00 - 21:00

SPE Meeting at GEUS

København K

JANUARY

18

17:00 - 21:00

SPE Distinguished Lecture by Rick Chalaturnyk

INEOS | Virum

FEBRUARY

07

07:30 - 19:30

Guided tours at Highlander Rig

Drillconsult & Noble Corp.

Field Trip | Esbjerg

FEBRUARY

28

17:00 - 20:00

SPE Meeting at DTU Speakers: Charlotte Nørgaard Larsen & Simon Ivar Andersen

DTU | Kgs. Lyngby

MARCH

20

17:00 - 21:00

TotalEnergies Meeting Speker: Susanne Frederiksen & SPE Copenhagen Section 40th Anniversary

TotalEnergies

APRIL

18

17:00 - 20:00

SPE Meeting Facts & Figures with Rystad - The Energy Transition

Rystad Energy København

MAY

16

17:00 - 21:00

SPE Distinguished Lecture & Horizon56 Presentation by Jaideva Goswami

Noble Drilling | Lyngby

JUNE

26

17:00 - 21:00

Annual General Meeting

Ross Energy | København

Farewell to DTU Petroleum Engineering Program and the SPE DTU Student Chapter

DTU's decision 2 years ago to discontinue the Petroleum Engineering program will see the final set of students graduating this year and the end of the Student Chapter.

This is a sad development. In my opinion, it is a decision fueled by the need to appear to dissociate from the Oil and Gas Industry which incidentally is still active in Denmark and globally, still provides the bulk of the energy we use today. While I understand the university's commitment to sustainability and the global shift towards renewable energy, it does not detract from the fact that there are current daily energy requirements that need to be satisfied to maintain and run society as we know it. Both can be true at the same time.

This might be coming late in the day, but I believe there are compelling reasons to reconsider the shutdown of the program.

DTU's Petroleum Engineering program has long been recognized as one of the leading programs globally. It has consistently ranked among the top institutions in the QS World University Rankings, and the DTU Petroleum Engineering through its Center for Energy Resources Engineering has provided high quality education and research. Through the expertise of the faculty, the program has produced graduates who are highly respected and sought after in the petroleum industry worldwide. Personally, I have hired mostly DTU Petroleum Engineering graduates in my role in one of the top Danish Companies and I am certain the same can be said for similar companies.

This employability of its graduates and the international recognition of the qualification not only enhances DTU's reputation, but also contributes to Denmark's standing in the field of engineering education. This is one of the main reasons I believe this decision should be reconsidered.

The Petroleum industry, despite its challenges, remains a critical component of the global energy landscape. The transition to alternative renewable energy sources is an extremely daunting global undertaking that will take time and massive amount of resources and cost. During this period, skilled petroleum engineers will be essential to ensure that current energy needs are met responsibly and efficiently. The world needs the top institutions like DTU, to provide the graduates who will be sufficiently well-equipped to apply their knowledge in ways that support both traditional energy needs and the integration of new, sustainable technologies. In fact, I would call it a responsibility - an obligation as an institution of high standing to provide the required manpower.

Additionally, the interdisciplinary nature of Petroleum Engineering education at DTU has fostered innovation across various fields, including mechanical, chemical, and civil engineering. By integrating sustainability into the curriculum rather than discontinuing the program, DTU can continue to lead in producing engineers capable of driving the energy transition while maintaining the necessary expertise in traditional energy sectors. This in my opinion, is the more noble challenge I believe DTU should face up to instead of backing out completely.

Instead, I propose enhancing the program with a stronger focus on sustainability, renewable energy integration, and environmental stewardship. This approach would align with DTU's strategic goals while preserving the valuable legacy and international prestige of the Petroleum Engineering program.

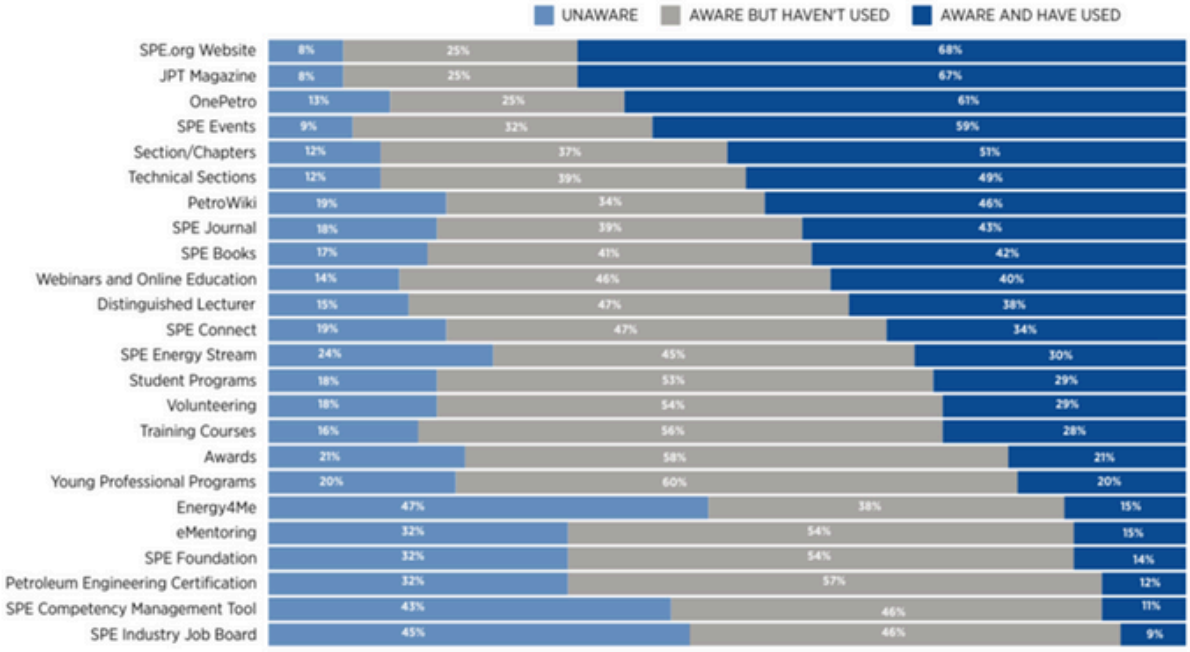
I sincerely hope this strikes a chord with anyone who reads this.

Member Value Survey

The Member Value Survey results were recently released and there were some interesting trends. The aim of the survey was to help shape SPE's future and 9706 SPE members including students participated.

Below are a few of the interesting data.

MEMBER OFFERINGS: AWARENESS AND USAGE



Base: All respondents

STUDENTS

Across professionals and students, the awareness and usage shifts across our offerings, but the **top and bottom 5 offerings are fairly consistent** across both membership types.

OFFERING AWARENESS AND USAGE

35%

On average, respondents are **aware and using just 35% of SPE member offerings.**

On average, respondents were aware of and using just 35% of SPE member offerings. This data, alongside the analysis of what members value, will help SPE prioritize and improve its most highly valued offerings.

MOST AWARE AND USED OFFERINGS

PROFESSIONALS

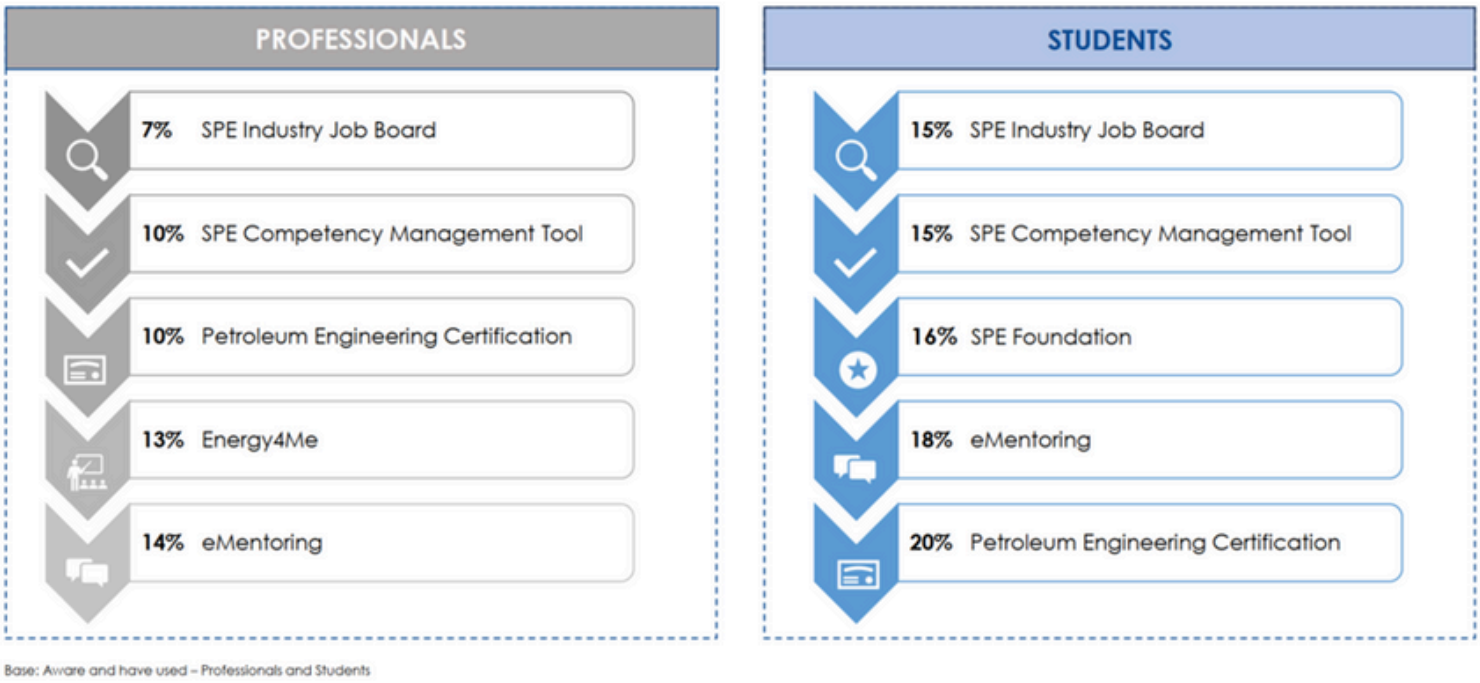
- **73%** *Journal of Petroleum Technology®* Magazine
- **69%** SPE.org Website
- **66%** OnePetro® (online library)
- **63%** SPE Conferences, Workshops and Forums
- **52%** Technical Sections

STUDENTS

- **62%** SPE.org Website
- **56%** Local Section or Student Chapter
- **50%** Student Programs
- **44%** *Journal of Petroleum Technology®* Magazine
- **42%** OnePetro® (online library)

Base: Aware and have used – Professionals and Students

LEAST AWARE AND USED OFFERINGS



Base: Aware and have used – Professionals and Students

While the awareness and usage of member offerings shifted between student and professional respondents, their top 5 and bottom 5 lists were largely consistent as shown above.

NEXT STEPS

My main takeaways from the above charts are:

1. I believe SPE CPH has done well with the a few of the *"least aware"* for example, YP programs and Student programs. There is however room for improvement.
2. Our members should take advantage of the numerous benefits and offerings of SPE membership.
3. The SPE CPH Board will review the data and select some of the "least aware" offerings to focus on.

APPRECIATION

Finally, I wish to express my gratitude to our Corporate Sponsors who have through their kind donations provided the funding to keep our section going. They are:

- ***TotalEnergies***
- ***Noble Corporation A/S***
- ***WellTec***
- ***Calsep***

My thanks also go to the following companies who supported by hosting our monthly events.

- ***NOV Subsea Production System***
- ***GEUS***
- ***INEOS***
- ***DrillConsult***
- ***DTU Offshore Technology Center***
- ***Rystad Energy***
- ***Ross Energy***

I would like to thank you, our members, for your continued participation and engagement within the section. I am particularly happy to see the attendances at our events from members from the sections.

As is now my custom, I will use this last paragraph to express my heartfelt thanks to the Board of SPE Copenhagen Section. I write this every year, and it still holds true:

"A selfless group of people who have dedicated their time and effort towards running the section, organizing various events, organizing field trips, publishing newsletters, mentoring our students, improving the level of member engagement and keeping the section alive."

Thank you, **Peter T, Mette B, Hans H, Jonathan H, Nikolai A, Jose A, Fabio G, Jedrzej B, Søren H, Patryk B, Michal S, Lucas F, Natalia P and Bartosz B** for your teamwork and support during this season.

I look forward to seeing you again next season. Until then, have a wonderful summer holiday and be safe in your travels.

Yours Sincerely,

Adebowale Solarin
Outgoing Chairman
SPE CPH

Adebowale Solarin
SPE Copenhagen Section Chairman

About the SPE Copenhagen Section: *Founded in 1984, the SPE Copenhagen Section brings together professionals in the oil and gas industry, services sectors, and academia. Through networking events, knowledge sharing, and informal engagements, we contribute to solutions that benefit society. Join us in celebrating our 40 anniversary!*

For more information visit:

THE BOARD

SECTION CHAIR
Adebowale Solarin, Noble Corporation
Lyngby Hovedgade 85, 2800 Kgs Lyngby
Tel.: +45 6336 3472
E-mail: asolarin@noblecorp.com

PROGRAMME CHAIR
Peter Tybjerg, Calsep A/S
Tel.: +45 4597 0817
E-mail: pt@calsep.com

TREASURER
Mette Juncker Brædstrup, SLB
Dampfærgevej 27-29 3rd floor,
2100 Copenhagen Ø
Tel.: +45 6035 0711
E-mail: mhansen4@slb.com

SECRETARY
Hans Horikx, DOTC
Tel.: +45 6114 1852
E-mail: horikx@dtu.dk

MEMBERSHIP CHAIR
Jose Antonio Peraz Acero, INEOS Energy
Tel: +45 3018 6261
E-mail: jose.perez@ineos.com

COMMUNICATIONS CHAIR
Nikolai Andrianov, GEUS
Øster Voldgade 10, 1350 Copenhagen K
Tel.: +45 9133 3488
E-mail: nia@geus.dk

STUDENT LIAISON OFFICER
Jedrzej Bryla, INEOS Energy
Teknikerbyen 5, 1st floor, 2830 Virum, Denmark
Tel: +45 3018 0898
E-mail: jedrzej.bryla@ineos.com

TECHNICAL CHAIR:
DRILLING & DECOM AND DATA SCIENCE
Michal Stepien,
Wintershall Noordzee B.V.,
Tel: +45 9185 4263
E-mail: stepien.michal01@gmail.com

TECHNICAL CHAIR: CCS
Lucas Correa, Calsep A/S
Tel: +45 9185 7543
E-mail: lc@calsep.com

YOUNG PROFESSIONALS CHAIR
Patryk Bijak, Ross Energy
Flæsketorvet 68, 1st floor, 1711 København
Tel.: +45 5017 2167
E-mail: patryk.bijak@rossoffshore.dk

ASSISTANT YP CHAIR + NEWSLETTER
Bartosz Bula, INEOS Energy
Tel: +45 3018 6211
E-mail: bartosz.bula@ineos.com

OUTREACH CHAIR
Fabio Rosas Gutterres, Welltec A/S
Gydevang 25, DK-3450 Allerød,
Tel.: +45 5213 8232
E-mail: frgutterres@welltec.com

FACULTY LIAISON
Alexander Shapiro, DTU
Department of Chemical and Biochemical Engineering
DTU b. 229 Søltofts plads, 2800 Kgs Lyngby
Tel.: +45 4525 2881
E-mail: ash@kt.dtu.dk

SECTION ADVISOR
Jonathan Hastings, TotalEnergies
Amerika Plads 29, 2100 Copenhagen Ø
Tel.: + 45 5164 0531
E-mail: jonathan.hastings@totalenergies.com

EVENTS CHAIR
Søren Weiss Hartmann, Drillconsult
Fagerlunden 23, 2950 Vedbæk
Tel.: +45 3111 1101
E-mail: swh@drillconsult.dk

STUDENT CHAPTER PRESIDENT + SOCIAL MEDIA
Natalia Sol Pereyra, DTU
Anker Engelunds Vej 101, 2800 Kongens Lyngby
Tel.: +45 3448 6057
E-mail: s216357@student.dtu.dk

SPE Meeting

SPE CPH ANNUAL GENERAL MEETING AT ROSS ENERGY A/S

Please join us as we celebrate the end of season before a well-earned summer vacation. This seasons last SPE meeting for the Copenhagen Section will be our Annual General Meeting Wednesday June 26 at Ross Energy A/S in Copenhagen.

SPE International®

Copenhagen Section

PROGRAM

17:00 - 17:30 - Networking and Drinks

17:30 - 17:40 - Introduction to Ross Energy

17:40 - 18:30 - Annual General Meeting

18:30 - 19:00 - Networking and Drinks

WEDNESDAY, 26 JUNE

Please sign-up no later then 25 JUNE 2024

Register HERE

ROSS ENERGY A/S |STORE KONGENSGADE 81D, 2. SAL, 1264 COPENHAGEN

THE 40TH ANNIVERSARY OF THE SPE COPENHAGEN SECTION

It has already been 40 years since a group of drilling and petroleum professionals came together to create the Society of Petroleum Engineers (SPE) section in Copenhagen. In March 2024, the Copenhagen Section organized an anniversary event to celebrate our collective achievements. A big thanks to our host, TotalEnergies, for throwing an unforgettable reception to honor our milestone.

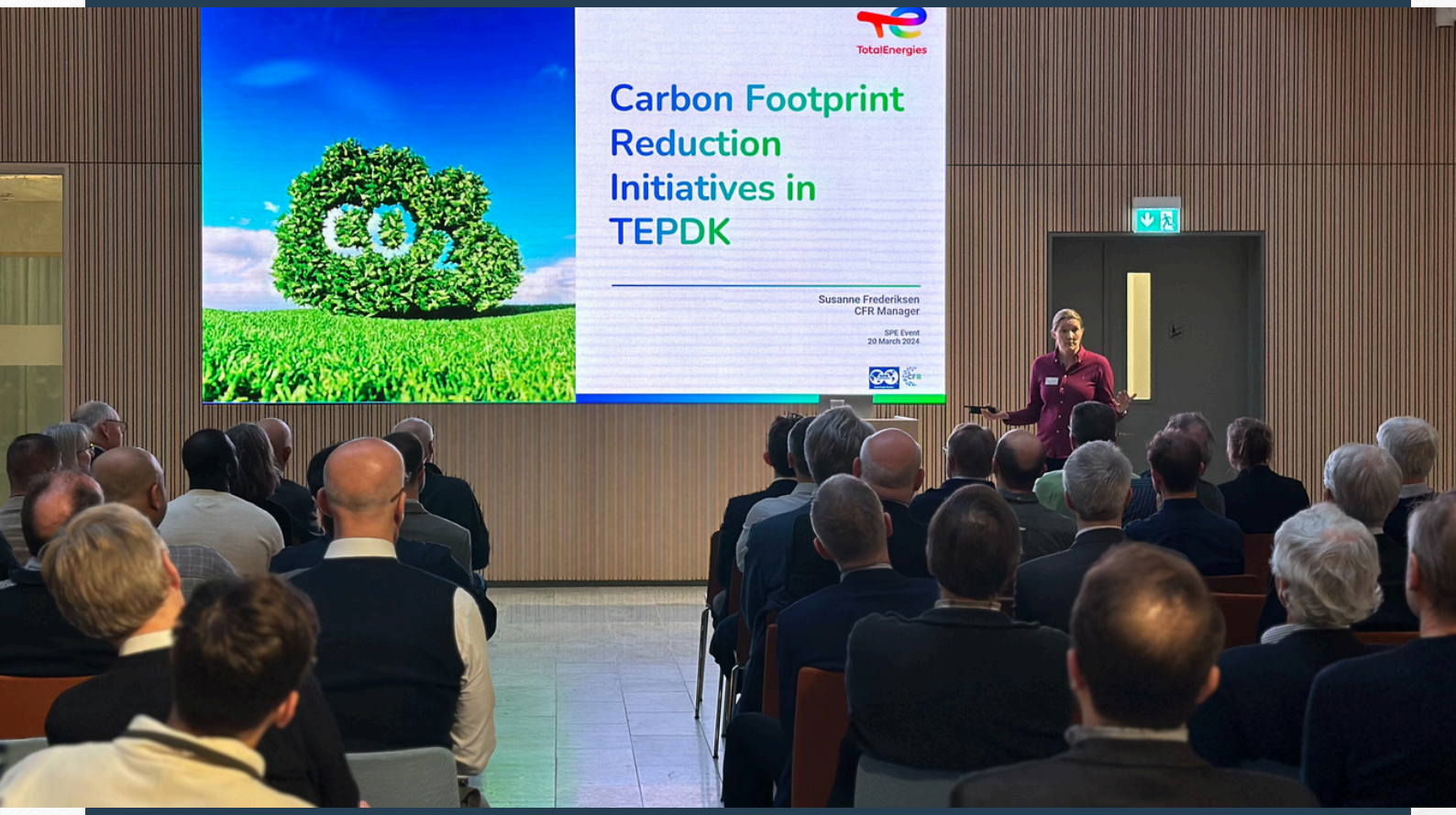
The Mission Of SPE Copenhagen Section

The primary objective of the SPE Copenhagen Section has been to facilitate knowledge sharing and technical expertise among its members. This has been achieved through regular meetings, technical seminars, and workshops. The section has provided a platform for networking, enabling professionals to connect, share experiences, and collaborate on industry challenges.

Members of the SPE Copenhagen Section have made significant contributions to the industry, including advancements in offshore drilling technology, environmental sustainability practices, and innovative exploration techniques. Collaboration with universities and research institutions has been a cornerstone of the section's activities, promoting education and research in petroleum engineering for last 40 years.

THE BEST HOST: TOTALENERGIES

In March 2024, the 40th anniversary celebration took place at the TotalEnergies office at America Plads in Copenhagen. The event began with the well-known SPE networking session, attracting a diverse array of guests. Attendees included long-standing SPE members, past chairmen of the section,



committee heads, and board members who continue to celebrate the Copenhagen section's achievements. Additionally, the reception welcomed section members who always contribute technical lectures and keep the petroleum community informed about recent discoveries. Finally, students and young professionals, who are beginning their careers in the oil and gas industry, were present, ensuring the continuation of the Copenhagen section's legacy.

Guests had the opportunity to reconnect with colleagues and reminisce about past activities and achievements within the Copenhagen section. A picture slideshow displayed on a big screen prompted stories from the good old days, allowing everyone to reflect on cherished memories. Additionally, a photo booth filled with gadgets sparked creativity and captured unforgettable moments, ensuring that lasting memories would stay with us for a long time.

After the networking session, attendees had the opportunity to learn about reducing greenhouse gas emissions from Susanne Frederiksen, the Carbon Footprint Reduction Manager for TotalEnergies Denmark in Esbjerg. Susanne delivered a lecture titled "NET ZERO BY 2050: PIONEERING THE REDUCTION OF GHG EMISSIONS." Thanks to Susanne, the SPE society gained insights into the actions that TotalEnergies has taken to reduce greenhouse gas emissions. These insights can be valuable for companies within the energy industry striving to achieve net zero emissions by 2050.

The celebrations then moved to the TotalEnergies canteen, where the lovely staff had prepared an array of delicious bites. The food was served as Spanish tapas, featuring both vegetarian and non-vegetarian tarts, smoked salmon, and a variety of seasonal hams and cheeses. All this was complemented by a great selection of beverages. Once everyone had satisfied their appetites, it was time for the eagerly anticipated speeches.

Smiles appeared on guests' faces as stories about the SPE Copenhagen Section began. The gentlemen who founded the section and have served as chairmen to this day shared their best memories from previous years. The audience, reminiscing about the growth of the Copenhagen Section, felt proud to be part of this achievement. Over the last 40 years, individuals involved in the Danish hydrocarbon industry have done an amazing job building a society of engineers where everyone who joins has memorable moments associated with it. Young professionals starting their careers in the oil and gas industry listened attentively, eager to contribute fresh energy to the SPE Copenhagen Section and extend its existence for another, who knows, 40 years?

CCUS WELL INTEGRITY - CHANGING LANDSCAPE

BY SANDEEP DHAWAN

Moving into 2024, it will be safe to say that the era of the low carbon energy mix has begun as the primary energy production landscape is changing fast. Until now, fossils fuels have dominated, and may still for the energy mix; however, a shift is taking place that will gain momentum, driven by global efforts toward addressing climate-change challenges and the large cost to human health caused by fossil fuels.

Several cleaner energy solutions such as renewables are expanding global footprints. Some of these options require wells like those for oil and gas but with convoluted integrity challenges. This means that in the future, well integrity will become even more important and will continue to be part of the energy-mix solution. It is time to double down on how we, as part of the energy-mix industry, understand the many aspects of well integrity.

Repurposing of existing oil and gas wells for carbon storage driven by cost optimization is currently under discussion in many parts of the world. While this makes sense commercially, it is critical to assess the in-situ state and, more importantly, the suitability of the existing flow-wet well barriers' (refer to figure 1) metallurgy for repurposing because failure conditions and risk envelopes change. A holistic review of flow-wet material conformance for repurposing is currently a subject of low focus, but due diligence on a case-by-case basis is imperative lest these wells present well-integrity issues with consequences when operational. As the well-integrity role grows, well surveillance and complete monitoring with artificial intelligence also will play a crucial role in the journey ahead.

Taking CCUS well integrity changing landscape discussion little further, typically, oil and gas producing wells are abandoned toward the end of their life cycles with reservoir pressures depleted compared with the virgin pressures. Carbon capture and storage (CCS) projects, however, present different operating conditions.

First, the pressurized containment sites have a higher life expectancy, say, between 50 and 100 years. Second, the containment pressure is higher than the virgin pressure. The overpressure limit is dependent on several factors, especially the caprock sealing capacity. It goes without saying, that CCS

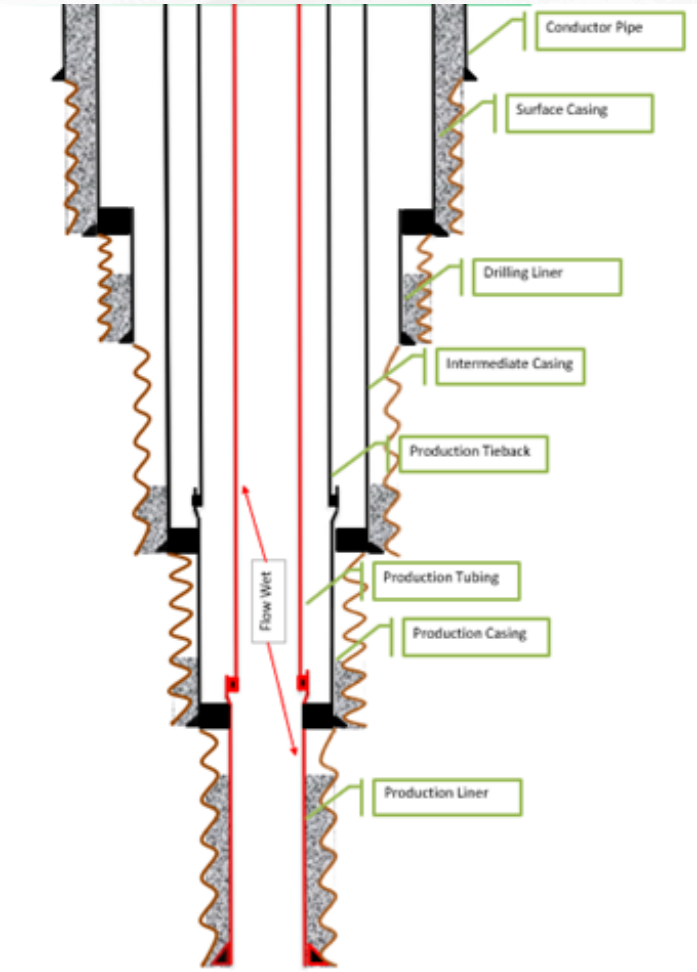


Figure 1

storage in wells requires long-term integrity (i.e., for the entire project life cycle). It is also well-known that in-situ barriers such as cement and casings deteriorate over time. Deterioration of barriers may be accelerated by chemical reaction with carbon dioxide or thermal cycling. Hence, these storage sites could present unique life-cycle integrity risks perhaps never experienced by the oil and gas industry.

To further explain the scenario, a possible breach of the confining strata resulting in pressure communication to the overburden means CO2 finding its way through the deteriorated well barriers of any active or shut-in well, resulting in CO2 ingress to the upper formations; groundwater contamination; or, in a worst-case scenario, appearance at the

surface. Therefore, one of the important subsurface aspects of a CCS site is the presence of two seals (i.e., primary, and secondary), with sealing capacity of both caprocks characterized robustly. Lack of double barriers or improper characterization of these confining strata could present a scenario wherein CO2 flows into overburden (i.e., above the caprock). The wells' outer annuli then could become a potential path of least resistance for CO2 to migrate further up (Refer to figure 2).

Such situations can defy the primary objective of CCS projects and can require mitigation with proper diligence following the "as low as reasonably practicable," or ALARP, principle. The scenario discussed is unique and complex and requires continuous managing and monitoring of CCS storage sites. Furthermore, the role of artificial intelligence and automation is seen as imperative during the operational stage of the project.

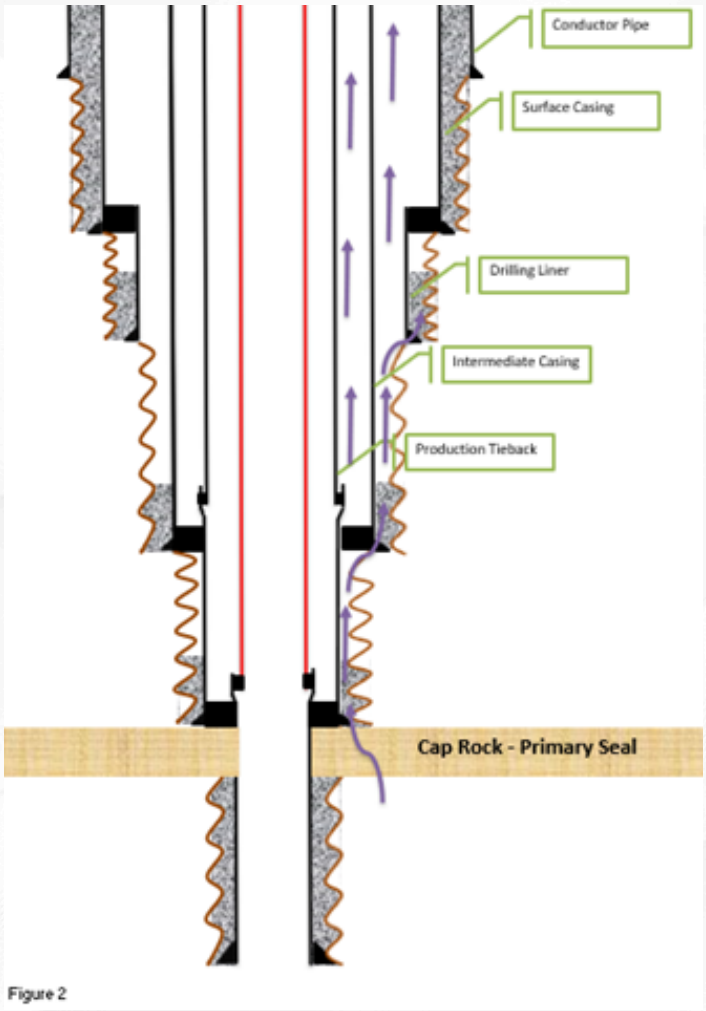


Figure 2

SANDEEP DHAWAN
Principal Well Engineer
WellPerform Aps
Holte, Denmark

DIGITAL ECOSYSTEM CONNECTING OPERATORS' WELL PLANS WITH OFFSHORE DRILLING OPERATIONS

BY ESBEN THORUP, CEO AT HORIZON56

esben@horizon56.io

Horizon56 is offering a new digital solution providing the ability to digitalize the information flow between well plans and rig operations. In-itself this resolves many operational pain-points and enables coordinated operations and operational efficiencies. However, it also enables a wider industry digital ecosystem with solutions for e.g. well design, drilling automation and other advisory services.

1. Background: Current operating model of the industry

The current process for sharing drilling program information from an operator to drilling contractors and service parties remains a manual paper-based process relying on word-document, mails and other unstructured data. The governing information provided by operators is typically named DOPs, RAP's DSI, etc..

2. Challenges form the current way-of-working

The current way-of-operating drives multiple operational pain-points including:

1) excessive verbal & radio communication on rigs

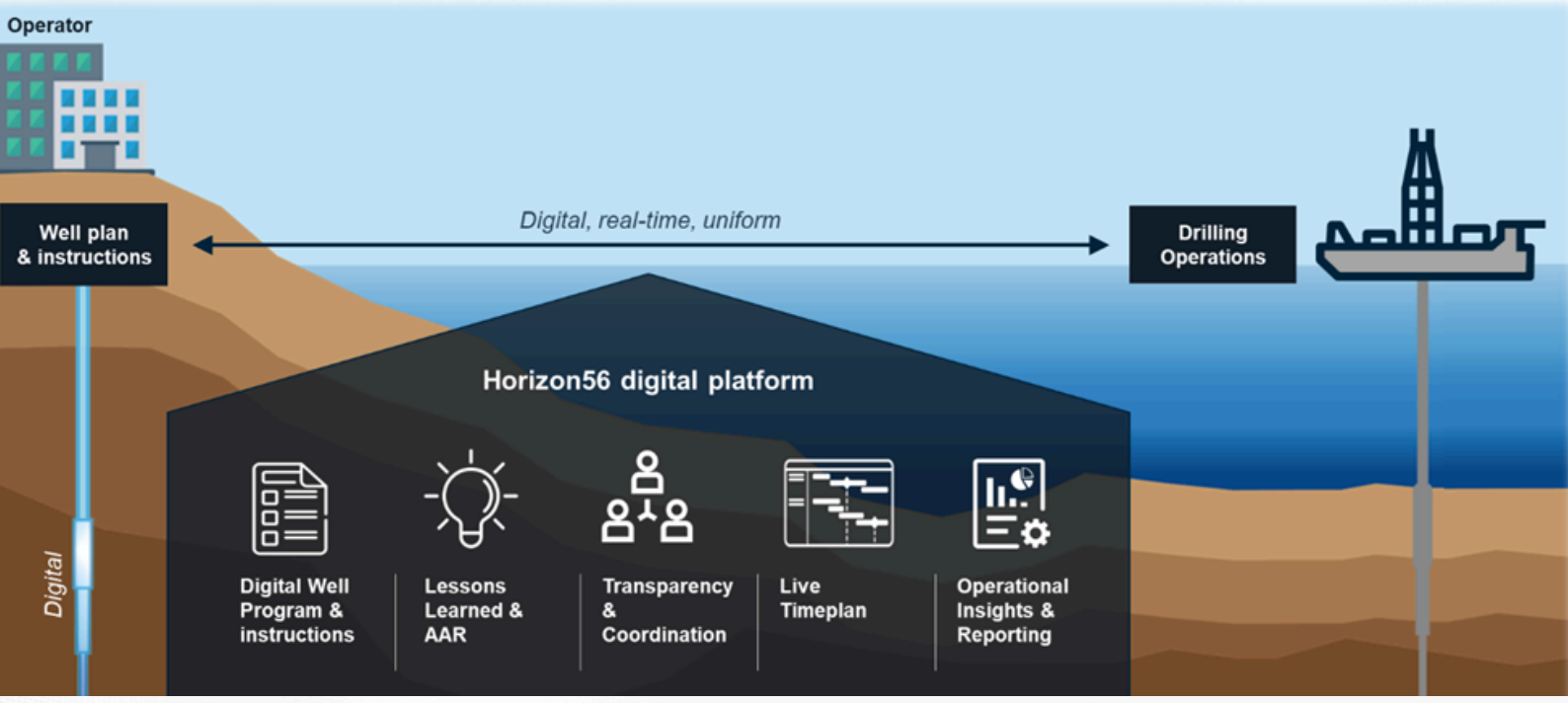
2) slow & tedious revision processes between operators plan and rig crew

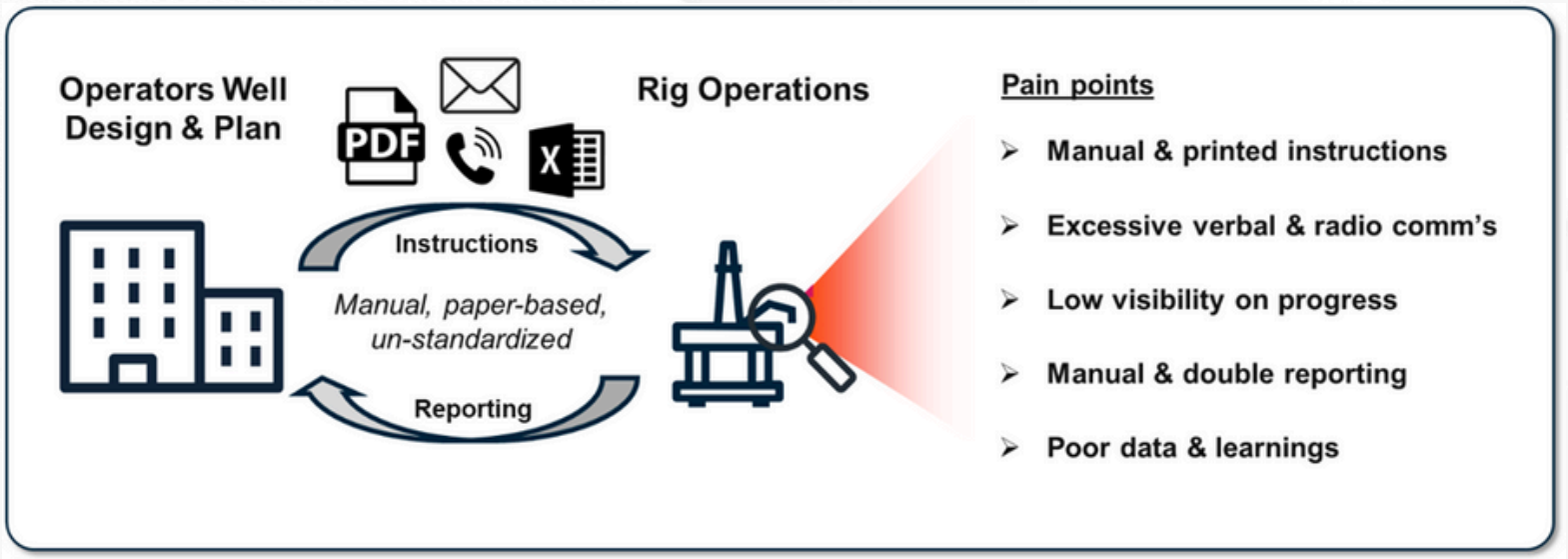
3) lack of operational transparency and coordination

4) manual and double reporting

5) limits ability to captures lessons learned systematic.

But more importantly it creates a fundamental discount (a gap) between systems for well planning and rig execution, in-turn limiting and dataflows through-out the well-construction process.





3. Challenges form the current way-of-working

Horizon56 as over the past 5 years developed and scaled technology that enables a digital link between the well design information with the offshore rig operations, and in doing so connects planning with execution as-well as onshore- with offshore teams. To achieve this, the solutions both interface with the operator's drilling engineers for well-design and planning information and create digital plans and instructions available for rig-operations. Further, this allows rig-crew drive drilling operations connecting all parties across the rig based on live and real-time plans.

4. Value from digitalization

The flow of real-time information across all parties in the drilling operations significantly improving situational awareness, coordination, preparedness, communication, and transparency both on- and offshore, and thereby providing more efficient and consistent rig operations. Furthermore, this creates an unbroken real-time data flow spanning the drilling program, the actual execution and subsequent reporting significantly improving the foundation for lessons learned and performance data as-well as connecting onshore operational centres as an integral part of the workflows and operations.

5. Creating a digital ecosystem

Digital work execution processes will act as a steppingstone for further digitalization and efficiency gains for drilling operations. This includes integrating Horizon56 systems to well engineering solutions enabling data-flow of information from such system and thereby the opportunity for continues optimization of the well. Further, it allows integration to drilling automation systems that will allow to drive some processes autonomous. Finally, integration so many other solutions such as 1) advisory systems, 2) red zone management systems, 3) procedural system, 4) logistic system and much more.

HORIZON 56

NIGHT AT THE NORTH SEA

BY BARTOSZ BULA, INEOS ENERGY

Oil and gas facilities produce hydrocarbons in the vast expanse of the North Sea, where chilly waters meet the endless sky. During the long, dark winter that stretches from October to February, daylight disappears for many hours each day. Thick clouds cover the sky, and the temperature drops to 3 degrees Celsius. Visibility is poor, and helicopters often cannot depart the airport to bring people home. Waves can reach heights of 15 meters, causing supply vessels to wait for days before offloading drilling equipment. I am Bartosz Bula, a Well Site Engineer working for Ineos Energy. I spent my first winter in the North Sea, and I enjoyed it.

I have been working for Ineos Energy for almost two years. Shortly after my stint as a student assistant, I was offered offshore training, which I could not refuse. Working offshore is fascinating. You travel by helicopter to an oil rig, drill long horizontal wells, experience severe weather conditions, and work 12-hour days. The role of a Well Site Engineer is indeed intense. It combines office responsibilities like reporting and planning with tasks on the main deck, such as measuring casing pipes and verifying drilling equipment. The job is extremely rewarding because progress is constantly visible. The excitement of advancing the project with your team is thrilling. If only there were more sunny and warm days.

Day and night shifts offshore differ significantly due to the amount of sunlight, which affects your mood and motivation. Working the day shift is more manageable. Even a couple of hours of sun in the winter makes you want to take a short coffee break and chat with your colleagues, or observe how the endless blue of the sea and sky meet far away on the horizon.

The day on December 20th, 2023, was something I thought I could imagine before going offshore, but I couldn't. I have the weather forecast from that day in front of me: wave heights of 11-15 meters, winds at 35 m/s (126 km/h), and a temperature of 5 degrees Celsius. That is not the best time to work outside. These conditions may occur every 2-3 weeks, so work on offshore facilities must be planned accordingly to ensure everyone's safety.

Being in the middle of the sea, 200 kilometers from the nearest shore, can be unsettling when I think about it from home. Yet, seeing the endless water around me is spectacular, and there is nothing to worry about. Offshore facilities are robust and built to withstand any weather conditions.

One phenomenon surprised me when I first arrived offshore and continues to surprise me: the night is pitch black. The water beneath the rig is not visible, and all the light is focused on the deck. As a result, there is endless darkness as soon as you look overboard. Occasionally, you can see the blinking lights of passing ships. The feeling of staring into complete darkness is both magical and unsettling.

Why do I enjoy working offshore? Everything is different when working in a remote location. The view outside the window is breathtaking. People from various countries come together to work as a team. The size of the rig and the equipment on board is incomparable to anything I have seen before. The opportunity to spend a few hours each day in the fresh air, doing physical work, helps clear your mind. It is exciting to work in a fast-paced, constantly changing environment that limits your time in front of a computer. Overall, it is an adventure that I wish everyone could experience.

BARTOSZ BULA
Well Site Engineer
Ineos Energy

Denmark's long-term energy partner

We are in the middle of a global energy and climate crisis that highlights the need for energy solutions here and now. As one of the world's largest energy companies, TotalEnergies knows that the future belongs to renewables. This is why we are in full swing transforming our business to help secure a green future for Denmark.

Our focus is on maintaining an energy-efficient and safe production of oil and gas, with the redeveloped Tyra field at the center, while leveraging our many years of experience as an energy supplier in Denmark. We will do this by expanding our activities to wind, solar, and Carbon Capture and Storage (CCS).

TotalEnergies has great ambitions to be at the forefront of green energy production with the objective of being among the world's top five players in renewables by 2030.

TotalEnergies

Follow us on Facebook: @TotalEnergiesDenmark

Learn more about the company: http://corporate.totalenergies.dk

Graphic design: **acwebdev.dk**