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Views on Personal and Collective Commitment
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The importance of being willing to fail

Everything that could go wrong, did go wrong. The polar explorer Ben Saunders has been quoted for saying so following his very first expedition, and so we asked him two questions: Why was that? And what did you learn?

We were delayed due to bad weather in Russia, we had equipment problems, issues with our rations, the only satellite phone network that covers the polar regions went bust that year, we were underfunded, we bumped into a bear on day two, and I had frostbite in a toe. I learned hundreds of lessons, but most importantly it taught me the importance of being willing to fail. Without that first expedition, I wouldn’t be where I am now.

You were the youngest man to ski solo to the North Pole. What drove you to do this?

It seemed like a fascinating challenge. I’d always loved the outdoors, and I’d been an athlete since my teenage years, so this appealed on a number of levels, and it felt like the ultimate challenge in many ways: the North Pole is in the middle of the Ocean, so there are no maps, and when I started planning it, only two people had ever skied solo to the North Pole. I became the third in 2004, and no one has been able to do it since.

‘Controlling the controllables’

What are the most important elements when preparing for and carrying out a polar expedition?

It’s impossible to rank the individual elements as so much of the preparation – from raising sponsorship to physical training – is vital, but choosing your partners and teammates properly is pretty key!

In the area of occupational safety and health, what can the oil and gas industry learn from your experiences as a polar explorer – if anything?

A big lesson for me has been learning to focus on ‘controlling the controllables’; on trying to dedicate my energy purely on the factors that I can change, and not expending mental or physical energy worrying about things that will always be outside my control (the weather, the ice conditions, the drift of the pack ice, the wind speed/direction, visibility, etc.)

Bold or reckless

Given that planning has been excellent down to the smallest detail, that the gear is state of the art etc. – what factors decide in the end whether you return alive and well from a polar expedition?

The ability to turn back (or to call for assistance) before you cross the boundary between being bold and being reckless.

A strange paradox

How much do you rely on yourself and how much on your partners in planning and execution, when exploring the arctic region?

In some ways I’m hugely self-reliant and I have great pride and faith

It would be impossible to keep track of everything in my mind, so having a trusted system is essential
in my own knowledge and skills, but in other ways there’s a strange paradox, particularly on solo expeditions, whereby the more isolated I am, the more absolutely reliant I am on my support team in the background, often thousands of kilometres away from me.

**A giant Excel spreadsheet**
Pilots always go through a checklist before take-off. Have you also developed and are using such a tool or something similar when preparing for an expedition? And if so, what are the advantages?

I have a giant Excel spreadsheet for every single one of my expeditions, so yes! There are so many vital elements to each project, from aircraft charter to thermal underwear, that it would be impossible to keep track of everything in my mind, so having a trusted system is essential. Even during expeditions I have a checklist laminated in the front of my diary for the list of things I have to go through on my daily satellite phone call: my position, distance covered that day, my physical state, any equipment issues, etc.

**Train your decision-making skills**
You must have been in situations, where you have had to make a snap decision. What advice do you have for people, who in their daily work for instance on a platform or rig, are facing a challenging situation, where they have to make a prompt and – hopefully – wise decision?

I think decision making (or decisiveness) is a skill, and that you can practice it. I’m usually pretty good at making snap decisions when under pressure on expeditions, but that’s because I’m an expert in that field, and expertise of course usually comes from making lots of mistakes. So don’t be afraid to make a decision – often the worst thing a leader can do is to be indecisive.

“Often the worst thing a leader can do is to be indecisive.”
We consider leadership to be the essential enabler for our ambitions of a zero accident culture. We need leaders who put their leadership into practice by engaging in and maintaining a behaviour that assists and inspires employees and contractors in achieving our safety ambitions, Niels Bojer Jørgensen continues.

**Five strategic focus areas**

In order to create an accident free working culture, we work targeted on our five strategic focus areas, which together support our ambitions of a zero accident culture, these are:

1. Competences
2. Systems and processes
3. Organization
4. Contractors
5. Analysis and knowledge sharing

Each strategic focus area is elaborated into a number of 2020 ambitions, which is further expanded into the success criteria we use actively in our safety initiatives. We do so in order to make sure our HS strategy is visible and present in all safety activities.

**Practice-oriented solutions**

One thing is strategy; something else is reality in the front line. What is most important in implementing ‘an accident free working culture’?

In our safety strategy we have a strong focus on the end user and the opportunities and challenges that can make a difference in the sharp end. We consider practice-oriented solutions to be prerequisite in every safety initiative, and implementation at eye level to be essential for long-term efficiency and commitment. We stress test our ideas in the front line and involve employees from production in our safety projects and implementations.

*Where do the potentially greatest safety hazards in your industry lie?*

The most common safety hazards in power plants are: direct contact with electricity, fires and explosions of boiler equipment, and contact with hazardous chemicals.

*The infamous performance plateau*

In your work with both personal and process safety, have you been able to learn anything from the experiences in the oil and gas industry? And if so what have you primarily learnt?

BTP 

management and employees are all dedicated to and understand the importance of safety. Safety responsibility is placed in the line and supporting safety tools and processes are in place. Together these elements have contributed to yearly safety performance improvements over the last six years.

However, we have reached the infamous performance plateau and need to rethink and find inspiration for our future safety activities and focus in order to continue our safety journey. Among other efforts, we do so by finding inspiration from the oil and gas industry, which we in many ways consider a pioneer in the field of safety. Especially the strong and natural incorporation of safety in every aspect of work activities is admired from a distance in BTP.

Right now we find much encouragement from the many strong and coherent initiatives aiming at improving safety behaviour and the mind-set among employees and contractors, says Niels Bojer Jørgensen who has had different management responsibilities within fuel purchase, logistics, mineral sale and QHSE Support since 2003.
After years of industry average performance, the Danish Metro Company decided it was time to create a safer working environment; slightly better than the industry average was no longer seen as ‘good enough’.

In 2016 the Danish Metro Company embarked on collaboration with Oil Gas Denmark and its member organizations, as well as meetings with Crossrail UK. This cooperation kickstarted a leadership journey towards creating greater safety for the people working at their sites.

“Although we have been doing a little better than average, it was a real wake up call when we – about a year ago – made contact with the oil and gas industry and learned that they have an average LTI frequency of 0.5 per one million working hours. Especially learning that this focus on safety goes hand in hand with high efficiency and productivity, was an eye-opener,” says Margot Brabrand, Director of Safety & Environment in Metroselskabet.

In the Danish construction and infrastructure industry an LTI frequency of 28 per one million working hours is considered normal. A recent report from the Danish working environment authority, ‘Arbejdstilsynet’, shows that the number of accidents in the construction industry has increased by 14 percent since 2011. Between 2015 and 2016 alone, the number of injuries rose by 6 percent to 5,177 – the latest figures available.

Metroselskabet is a transport, development and construction company with the overall responsibility for the operation of Copenhagen Metro, and the extension of the metro network with the City Circle and a metro line to North Harbor and South Harbor.

Opening our eyes to Safety Leadership

“The way we think and work in order to create a world-class safety culture of our own and are now gaining internal alignment towards this goal,” Margot Brabrand says.

Metroselskabet have been very forthcoming in sharing their learning and experiences from their 25+ years of working with creating world-class safety cultures for their employees and contractors,” Margot Brabrand continues.

“Learning that focus on safety goes hand in hand with high efficiency and productivity, was an eye-opener

Safety in the company DNA

“We have been working with several of the offshore companies engaged in the Danish sector of the North Sea for some time now, and they
Edgar Schein
First, a short introduction to Schein’s model: The culture consists of three different but interrelated levels: Artefacts and behaviour, values, and finally underlying assumptions. These have developed throughout time and have come to be taken for granted – they are the imbedded norms that the employees and leaders navigate within.

Culture is the way employees and management talk, behave and relate to each other – and it is a thing that can’t be ignored in the process of change. When talking about improving the area of HSE or adjusting to new business, the organizational culture can be the crucial element between success and failure.

The oil and gas industry has experienced shifting business conditions and meets constant change along with the need to adapt to new situations and circumstances. This also requires a lot from the culture within. As Simon Byrne, Head of HSE in Maersk Oil, explains it: “The oil industry has seen many ups and downs but none have been as prolonged as those we have today. The new reality in the industry and how to deal with it is best described by Edgar Schein. He says: ‘Organizational cultures that can embrace uncertainty more easily will be inherently more adaptive’. This has to be a significant advantage in today’s reality!”

This adaptability is especially interesting, not only the process of adapting to new conditions, but also in the issue of safety. Does the culture promote or hinder an improvement of the safety? Safety is in Schein’s perspective an organizational matter – not an individual responsibility. The way employees act around safety issues and understand safety is rooted in the culture.

It is also very much a question about leadership. Whether it is in the arena of safety or business performance the leader has an important role in guiding the organization in a positive direction and in accordance with the strategic goals. The leader has the key responsibility for creating and managing the culture within. It is his job to build an environment that enhances trust and cooperation.

When these values are present, it is possible for the employees and the leader to bring up different kinds of issues and talking about how things are going. But how do you facilitate such a dialogue as a leader? The answer is to ask genuine questions. Without the emphasis on asking, instead of telling, organizations can’t improve the culture and the leaders can’t lead effectively.

The art of humble inquiry has been very inspirational to Simon Byrne: “Throughout my career I have learned many lessons and heard many quotes but the one that made and continues to make the most impact in my daily work is a quote from Edgar Schein and it is now, what I hope is a major part of my leadership style: ‘What we choose to ask, when we ask, what our underlying attitude is as we ask – all are key to relationship building, to communication, and to task performance.’”

Edgar Schein has published numerous books on the topic of leadership, organizational culture and development. To mention a few: Organizational Culture and Leadership, The Corporate Culture Guide and Humble Inquiry – The Gentle Art of Asking Instead of Telling. To satisfy your curiosity please go to www.scheinocli.org/publications/.
The background being the magnitude of risks facing non-operators who were brought home by the 2010 Deepwater Horizon disaster when BP’s non-operating partners Anadarko and Mitsui found themselves exposed to billions of dollars in potential liabilities.

“It starts with the standards and the frameworks that the Joint Venture has in place,” Dick Benschop said, continuing:

“We require that those standards are materially equivalent to the Shell standards. The next level is how we support and challenge the operator. From my point of view, our role as partner is not to step into the operator shoes. However, we must verify – in partnership with the operator – that the controls critical in preventing major process safety events are in place and functioning as intended.

Shell operates in UK, NL and Norway where we have partners such as Exxon and Statoil, and it is my experience that their independent and critical view holds a mirror on us and this also helps us grow stronger in our performance.

Finally, as part of Safety Leadership: Never feel comfortable.”

The harder part
When entering into new NOV’s how do you go about making sure that high safety standards for employees are met – not only on paper, but also on the work sites?

“Indeed, all ventures in which we participate need to either adopt the Shell Policy & Commitment on Health, Safety, Security, Environment, and Social Performance, or a materially equivalent policy.

Implementation is key, however. As a partner we focus on the significant risks such as process safety and air transport, and when establishing the venture, we work on making sure that appropriate standards are adopted, and that the right organizational strength is there to make sure these standards are implemented,” says Dick Benschop, who is accountable for Shell’s JV business improvement programs including UPN’s joint ventures in Abu Dhabi, Brunei, Denmark, Egypt, Italy, Kazakhstan, Kuwait and Oman.

Lessons learned
How do you go about having robust partner appraisals and risk assessments in your NOV’s?

“The Joint Venture Agreement should have various partner rights in place. Our asset management team has a critical task in performing the risk assessments. We will raise issues at every level, including at the Board or the management committee. We will offer support as well as address gaps.”

And when it comes to process safety, how do you go about making sure that the facilities are well designed, safely operated and properly maintained to avoid hazards and prevent leaks of hazardous materials?

“This really builds on one of your prior questions. The design, engineering as well as operations and maintenance standards are key.

We pay particular attention to what we call Process Safety Basic Requirements. These are lessons learned from industry process safety events such as Macondo, Texas City, Exxon Longford and Piper Alpha. In this case we also see retrospective adherence – for example fitting riser ESD valves on facilities designed and built before Piper.

A crucial question
Are we good enough to learn from the events that happen and are investigated and reported
extensively? And if not, how can we get better at this?

This really is a crucial question. All too often we see repeat incidents – even if we have shared learning via videos or bulletins. I believe the crux is to engage a worker or supervisor in such a way that he or she truly believes it can happen to them and/or their team – and be clear on what they need to do differently as part of the learning process. Ultimately we need to develop a new risk awareness – and enough practice in the new behaviour / pattern to make it a new way of working. That is not easy!

**Rules are lessons learned**

*Rules and procedures are inevitable elements in securing a high level of occupational safety and in the quest for zero accidents in the oil and gas industry. Do we focus too little on individual initiative and self-discipline?*

“All these rules are lessons learned from incidents – so following them is not optional. Where initiative comes to play is in finding efficient ways to adhere to the rules. And speaking out if rules are unworkable.

Self-discipline – and competence! – are keys in ensuring personal ownership and empowerment.”

**What do you see as the next important steps in the work for still better safety performance within the oil and gas industry?**

“For personal safety, I think we need a much deeper engagement with our contractors and their front line workers in order to understand how we make our lessons learned, and make our risk understanding come to life at the worksite.

For process safety it is being able to better understand the risks of the multiple small changes that ultimately can lead to a major event.”

Our role as partner is not to step into the operator shoes. However, we must verify — in partnership with the operator — that the controls critical in preventing major process safety events are in place and functioning as intended.

* Non-operated Venture
Those without safety commitment should be left on the beach

Anyone who does not now understand that his or her personal commitment to being on guard for safety – for themselves and their co-workers – should be left on the beach, Taf Powell said, when we asked him to comment on the presentation for the conference where it is said, ‘that safety is both a personal and a collective commitment’.

“Process safety, or major hazards safety is more complex and a collective responsibility is therefore important,” he continued. “We have heard it before, but safety starts in the boardroom. Companies that strive for high integrity in their operations will have a strong safety culture and an exceptionally high likelihood of continuous operations. We all want to work in organizations that are like that, don’t we?”

Taf Powell has held numerous positions in the oil and gas industry since 1988 when he became engineering project manager in BP leading safety upgrades to production platforms in the aftermath of the 1988 Piper Alpha disaster. He has also worked ‘on the other side of the desk’. Thus, he joined the UK regulator in 1992 as Aberdeen Operations Manager. Following the Macondo accident in April 2010 Taf was assigned to the European Commission as its expert advisor in oil well drilling and production.

Cost, competence and safety
When, based on your vast experience, you look ahead, which are the greatest challenges facing the oil and gas industry seen from a safety point of view?

“From my perspective, I see three:

1. Cost
   Spiraling, excessive cost tipped the industry into a market correction that has still to play to a conclusion. High costs eat up profits and reduce investment in maintenance, parts replacement, training and research.

2. Competence
   Thousands have left our industry and will not return. There are hundreds of new rigs waiting to enter service and 30,000 people will be required to crew them. Even with no turnover, skills requirements are rising and we need to bring oil and gas people up to – at least – the competence levels of the best maritime crews.

3. Safety
   Of course. We still have not finished raising our game in well control after the Macondo disaster. In process safety, we have not achieved the high levels of integrity seen in high integrity sectors such as civil aviation. We retain the industry’s long held problem with transparency and this does not help us attain high integrity in our activities.”

Regulators have a case to answer
Are we good enough to learn from the events that happen and are investigated and reported extensively? And if not, how can we get better at this?

“Yes, our people are good enough, but lessons always need to be re-learned as we move forwards. But I happen to think that major incidents are not investigated
In process safety, we have not achieved the high levels of integrity seen in high integrity sectors such as civil aviation. We retain the industry’s long held problem with transparency.

Taf Powell, Corporate Integrity Partnership
and reported extensively enough. Regulators have a case to answer here. They have statutory access to accident sites but it can sometimes take years for them to release information, if at all. Claims by regulators that early release of information may prejudice legal proceedings are not right. It took 5 years for us to learn anything from the most important incident on a HPHT production facility – Elgin-Franklin. That is just not good enough.”

Professor Sidney Dekker at Griffith University in Brisbane wrote in his book ‘Just Culture’, “Accidents are no longer accidents at all. They are failures of risk management.” What is your opinion on that?

“I quite agree with Prof. Dekker. I struggle to think of a notable incident, even recently – where there has not been a demonstrable failure of risk assessment and response. Risk assessment is too often used to justify the original intent of the process being assessed. How often does a risk analysis lead to a conclusion that the original idea is invalid and the organization needs to think again?”

It is time to make me proud
When working on creating a safe workplace and establishing a safe working culture – how much is leadership and a battle of minds and how much rules, procedures etc.?

“Rules and procedures are important, provided they are kept under review and remain coherent and useful. In my experience rules are sometimes treated with contempt and sidestepped with the knowledge of supervisors and managers. Leadership and personal mental acuity are truly important if people are to have belief in the safety management system and the corporate commitment to it. In the complex working environment of process safety and operational integrity, leadership will direct people to thoroughly understand the rules and procedures: not just what they are, but why they are so.”

What do you see as the next important steps in the work for still better safety performance within the oil and gas industry?

“We know what to do; and yet we continue to experience failures in areas that by now should be well controlled. I admire companies that are shelving yet more initiatives and campaigns and focusing instead on ensuring that they achieve what they know needs to be achieved in risk control terms. I was greatly taken by the Danish regulator’s head of oil and gas safety, Katrine Krone, who once told a large audience: “You are a great industry but you fall short of your abilities. It is time to make me proud,” said Taf Powell who in 2016 established the Corporate Integrity Partnership, a professional community dedicated to the pursuit of ethical behaviours in large corporate bodies and the public sector. “
How to have a Perfect HSE Day

Could we use some ‘disruption’ in the safety thinking and practice? We posed this question to Lamberto Nonno, North Sea Senior HSE Manager at Baker Hughes. Lamberto Nonno won the ‘Innovation in Safety’ Offshore Award in 2016, presented by Oil & Gas UK and Step Change in Safety. Here is what he answered.

“The disruption is changing the way we imagine a safe work environment and employees taking care of it. I can’t speak for the industry, but what we have done in Baker Hughes is building a generative and interdependent environment where every employee, at all levels, and especially in the front line, feels empowered to tell us how to have a Perfect HSE Day, a day where all employees go home safely to their families and the environment is not harmed.”

Spontaneously generated by the employees

“We made sure that safety wasn’t driven from the top down, but spontaneously generated by the employees. As an example, we simplified the way employees see their contribution to the overall safety performance: the Perfect HSE Day concept was simple and created a greater awareness as to how every employee can impact their own safety and the safety of their colleagues. But we are also looking into the gaps in our defensive barriers using and learning from what our organization is telling us, with the understanding that the effectiveness depends extensively on the quality of the interactions we have with them: always questioning, but at the same time not blaming individual employees for gaps in the system.”

Speak to the heart of people

Not long ago you were featured in Wireline Magazine as an inspirational leader. In what ways do you inspire your employees, what are the results and what can others learn from this?

“I wish I was inspirational! I love to do my job, I love working with people, I love innovation and doing things differently. But I’m lucky to work for a company where these things are in the DNA of the organization, starting at the very top. So when we speak to the heart of our people, they feel motivated. If we are good leaders, our expectations drive and reinforce their actions, and their actions drive the results we aim to see.”

April 2016 marked a milestone in Baker Hughes’ company history with the best HSE performance in the UK – a full year without recordable incidents. This was achieved through a novel approach of using gamification principles to spark a fresh look at HSE challenges and foster safety leadership. Four questions regarding this:

What did you do?

“In 2014, I embraced the Baker Hughes Leading Indicators scorecard approach, and developed my own set of indicators for the UK, introducing an HSE scorecard dedicated to the Baker Hughes UK GeoMarket. Driven by the effectiveness of the framework, I then applied ‘gamification’ principles to further enhance the scorecard into a point-based game and that worked well, further shifting our focus from results to specific HSE actions.”

We used Tour de France
How did you foster the idea?

“We started with a simple scorecard version in 2014 announcing a monthly podium. At that time there was no award, just a light competition between leaders for appearing the best at doing the right thing. But we grasped that aspect and thought we had to build on that. We saw the opportunity from highlighting who was first for the month, who was first for the year, and who was coming last. But one day, speaking with a colleague about the broom wagons in the cycling road races, it all came together! We developed the whole gamification framework around the Tour de France and that was a success.

More and more engaged employees
Have you seen positive side effects?

“While a lot depends on how their leaders are engaged with the game, no doubt the majority liked the idea and engaged with the healthy competition. As first, all Leading

The Perfect HSE Day concept was simple and created a greater awareness as to how every employee can impact their own safety and the safety of their colleagues.”
Indicators that we used received a much larger attention and improved. But as a direct measurable example, the employees have become more and more engaged and are raising more observations, and there is more focus on addressing the corrective actions of the incidents in a timely fashion. And yes, there is more fun when discussing what we do in HSE!

Do you have new ideas in the pipeline?

"Indeed! There are a couple of new ideas in the pipeline, and we’re now developing them, especially looking into the Human Factors side, with the aim to further understanding how to design, train, write procedures and improve organizational factors to help our people performing better. But it’s too early to let it out!"

The best HSE performances in history

How has the safety performance been since April 2016?

“In May 2016 we have reorganized our business unit and we are now leading a large GeoMarket that includes Norway, UK, Netherlands and Denmark. We have therefore expanded the HSE Tour of the UK into the HSE Tour of the North Sea, including all those countries and tuning up the Leading Indicators with more indicators being counted. And I feel compelled to reveal that we have just closed 2016 with the best HSE performances in the history of Baker Hughes in the entire North Sea. So fulfilling!"

For years and years safety work has been based on the goal of ‘zero incidents’, but we still have not reached this goal. Is it time for a new approach and a different goal?

“It’s not about having a different goal. It’s rather having a different mindset and really embracing the idea that getting to zero is possible, and sustainable. A lot of companies limit themselves by thinking about ‘zero incidents’ only as a vision. It’s essential for all leaders and employees to believe, take a stand, and embrace ‘zero’ not as a goal but as an expectation. Once everyone takes ownership of this expectation, ‘zero’ becomes a reality.”

Look what lies beneath the surface

Do we have too much traditional thinking and not enough ‘out of the box’ in other words: are we more or less going around in circles in the field of safety?

“There are plenty of great examples of doing things differently – and more importantly doing things better. But sometimes you don’t know what you don’t know. Too often, organizations are stuck in traditional thinking because they only see and understand what is obvious, and they think and act based on quantity, not quality. They don’t realize what they can learn by looking closely at what lies beneath the surface, and by asking around for suggestions or sharing best practices across companies. As an industry, we are committed to ‘Getting to Zero,’ but we’ll get there only by collaborating on the mutual expectation of an incident-free workplace.”

"The employees have become more and more engaged and are raising more observations, and there is more focus on addressing the corrective actions of the incidents in a timely fashion."
A new safety paradigm puts realism back into safety

The traditional safety paradigm has focused on behaviours of individuals and the use of bureaucratic accountability and constraints to prevent negative outcomes. But despite unprecedented investments in safety, organizations still experience significant incident levels, says Dr. John Green, Director HSEQ at Laing O’Rourke, and he adds.

“Furthermore, while this approach has led to significant improvements it has also produced several problematic side effects: disengagement and disempowerment of people, increasing bureaucracy, loss of innovation and productivity. Safety differently suggests a paradigm shift in how organizations understand and manage safety. This new paradigm requires new or refocused safety practices as well as new roles for safety professionals and business leaders.”

Put realism back into safety

Why are you convinced that this approach does NOT erode the present health and safety culture?

“This approach puts realism back into safety. It ensures that risk is not managed remotely, but by those who stand in the middle of it every single day.

It ensures transparency around major risks and drives a culture of both collective and individual responsibility at all levels in an organization.

It ensures that decisions are made at the appropriate level and that performance is not blocked by cumbersome and unnecessary paperwork.

It ensures that safety is seen as a capability not simply the absence of accidents and it helps the organization get better and deliver work successfully.”

The basic key to safety

What do you see as the basic key to safety – personal and operational – if such a key exists?

“There is no simple answer to this but I think that the three principles help explain how I see the world:

1. People are the solution
   Things go right because people adapt and adjust their performance to changes, inefficiencies, and surprises in the workplace.

2. Safety is not the absence of accidents but the capacity to adapt

   To enable more things to go right, organizations can invest in the capacity of people and processes to achieve desired outcomes. People, with their capacity to adapt and learn, are in this perspective a critical resource for organizations to harness in order to understand how work gets done, but also to develop solutions to improve performance.

Paperwork has grown and the bureaucracy around safety is now a significant problem

To manage safety differently does not mean that organizations should do away with any traditional safety activity. Activities such as audits, incident investigations, risk assessment, implementations of safety control and inductions, still need to be done. However, ‘safety differently’ suggests that organizations can and should use a different lens when they go about such activities,
and broaden their focus from prevention of negatives, to enabling good performance under a wider set of conditions.

Safety differently can be defined as a shift in the basic assumption we hold about what safety is, the role of people, and how responsibility for safety is organised. Shifting the definition from preventing negative outcomes to enabling positive outcomes drives organisations to pay closer attention to everyday performance. This way they are more likely to capture and address issues proactively, even before they become safety issues.

3. Safety as an ethical responsibility

Accountability for safety is traditionally distributed into the various roles of employees. Safety has gradually become something that employees owe to the organization – to fill out five cards, to ensure work complies with legislation, to enact the values of safety culture programs etc. This way, safety has turned into something you do to look good to external parties – clients, regulators, competitors, your boss, etc. Put differently, safety has become a bureaucratic accountability up. However, using such external drivers for safety shifts ownership and the focus of safety towards serving those who are the recipients of the risk and troubles in the workplace.

To reverse this situation, organisations managing safety differently see safety as an ethical responsibility down. In other words, safety is a service that they provide to their employees. This shifts the role of, for example, a safety management system to be around controlling what happens, to be about supporting people. This way, safety is restored to be about caring about people and enabling people to successfully tackle the risks they face in their workplace."

The war on error

‘Zero harm’ has been the very foundation under the safety work in the oil and gas industry for many, many years – isn’t it more important to continue enforcing this than trying to abolish it?

“Zero harm has certainly been used effectively over the years in driving down accident rates across industry but this focus on negative events – this war on error – becomes increasingly difficult as these numbers drop. There is less to fix and the danger that complacency creeps in is very real.

In any case there is no correlation in the number of high frequency, low consequence events that you have (or prevent) and the likelihood that something serious will happen. In fact most large-scale events are preceded by long periods on accident free operation. I would argue that safety is not something that you can enforce your way to and that safety is not the absence of something. I think that’s a very dangerous assumption.”

Bureaucracy around safety is a significant problem

Your new philosophy is based on the theories of Australian academic Sidney Dekker at Griffith University in Brisbane. He has said: “I believe that if we are in safety don’t change, nothing is going to change in safety”. If you agree, what changes are needed?

“Many organisations now see the limitations of the existing safety paradigm where control and constraint are the main approaches. These organizations are now creating safety based upon three principles:

1. Traditionally people are seen as a risk to control in organisations. They are controlled by limiting their choices and behaviours or by placing constraints between them and the actual work. What would happen if we saw people as part of the solution? What are the behaviours and language associated with either option? Do you see some of these in yourself?

2. Safety performance gets confused with Accident rates. What if we measured something else? What would it be? How would we know if it was working? What would the target be or would there be one?

3. Paperwork has grown and the bureaucracy around safety is now a significant problem. What do we ask the projects to do or what do we do that adds little value? What’s the dumbest thing that we get people to do?”
Out-of-the-box thinking is required

‘Disruption’ was a very popular term in 2016 – do we need some disruption in the safety thinking and practice in the oil and gas industry, we asked Robert Frimpong, Managing Director, Wintershall Noordzee B.V., and his answer fell without hesitation.

Regardless of the in-vogue buzzword, the intent behind it remains the same: non-complacent, out-of-the-box thinking is required when it comes to improving the safety performance of our industry.

The routine way of thinking and practice in safety can lead to complacency, and any change in the organizational awareness and absorption of improved HSE practice is a step forward.

We are very much focused on incidents right now where incidents are just an outcome of a chain of events and circumstances. Influencing incidents after the event is not possible whereas anticipating and taking care of the premises of a potential incident is achievable and much more interesting,” Robert Frimpong continued.

Safety is about the presence of defences

Professor Sidney Dekker, Griffith University, Brisbane has advocated that we put an end to the established culture of ‘zero harm’ policies, and a greater acceptance of accidents as part of working life. What is your opinion on that?

“As Dr. Todd Conklin told us last year during the TFZ Offshore Safety Conference:

“Safety is not about the absence of incidents but about the presence of defences”.

We start with the premise that every one of our team returns home safely at the end of the working day. Hence our obligation to ensure intrinsic risks are identified, understood and mitigated. Our organization, processes and systems are designed in a way that our defences are in place, active and functioning. In this way, we, collectively, return home safe at the end of each working day.”

Human behaviour is uncertain

In the presentation of this year’s conference, it is stated, and I quote: “For a number of years, oil and gas industry experts and data have shown that Denmark is in the bottom quartile in terms of safety performance in an international oil and gas perspective.” Have you been able to pinpoint more precisely why this is the case – where more safety work has to be done and new initiatives taken (safety culture, behaviour, personal safety, process safety...)?

“As Wintershall recently commenced operations in Denmark with one location it would be inappropriate to comment on these statistics in too much detail. However, we do recognise the need for continuous attention to the behaviour of people and the culture that binds them together. After all, we work in an industry that involves managing many significant risks and uncertainties.

Therefore, it is imperative that we identify and mitigate the risks that our colleagues are exposed to. But where technology, physics and chemistry are predictable, it is human behaviour that is uncertain. However, it is also human behaviour that is capable of mitigating these risks. So as we work to improve our safety performance we must continue to focus on people.”

People remain the key

What have you in Wintershall Noordzee done differently and/or what new initiatives have you taken in the last couple of years in order to improve the safety performance?

“Considering our business performance in general and HSE in particular one should quickly realise that it is the people in our company and the contractors we hire that shape the social environment that has the largest influence on HSE performance. People remain the key to either success or failure. We have therefore focused increasingly on competence and training of personnel, in particular on awareness and communication with the workforce.

We recognise the distance between our office organization and the offshore workforce, and have put significant effort into reducing this distance. Strengthening safety culture is a clear leadership task, therefore we continue to drive visible presence and support from
management whilst at the same time empowering the team to actively engage in enhancing our safety culture."

**Inspiration comes from all quarters**

*Where do you seek inspiration in order to further improve the safety performance?*

“We are always looking to learn from within and from outside the organization. Inspiration comes from all quarters, whether it be from the knowledge and creativity of colleagues within our company; or from learning from others in our industry through regular contact or events such as these; or indeed from non-industry related sources that provide a different but applicable perspective on HSE and HSE performance improvement.”

What do you see as the next important steps in the work for still better safety performance within the oil and gas industry?

“We must maintain an unrelenting high level of commitment towards safety. Any release of attention will inevitably lead to a decrease in safety performance outcome. Engagement of the entire organization, steering on the right indicators, a positive but realistic attitude and a willingness to learn from outside the industry will ultimately result in a safer and thriving industry,” said the Managing Director, Wintershall Noordzee B.V.

People remain the key to either success or failure. We have therefore focused increasingly on competence and training of personnel, in particular on awareness and communication with the workforce.
For us disruption is very tangible

When talking to Patrick Gilly, Managing Director at Maersk Oil Danish Business Unit, we began by asking him if we need some ‘disruption’ in the safety thinking and practice. The background being that data have shown that Denmark is in the bottom quartile in terms of safety performance in an international oil and gas perspective.

“For us disruption is very tangible like constantly making sure that people understand, accept and acknowledge that it is worth it in the end when you stop work for safety reasons,” Patrick Gilly answered continuing:

“You may lose a bit short term, but it helps to keep all of us safe. Thus, we should encourage stopping and taking stock even more. It could be stopping an unsafe act despite the fact that you have a very expensive rig or expensive equipment ready for use. You might lose a day, but in the end it creates better business performance.”

Confidence and vulnerability
Have you been able to pinpoint why Denmark is trailing behind?

“Essentially I think we haven’t yet been good enough at striking the needed balance between confidence and sense of vulnerability. We are fortunate enough to have very experienced, highly motivated people, who have the desire to do and to deliver. They sometimes feel that they are on a mission and this drive and confidence may unfortunately work against them at times. There are a lot of good intentions, but not necessarily always an understanding of how these intentions may have repercussions and eventually hurt people. This is the constant dilemma we have of finding the right balance between confidence and sense of vulnerability.”

What have you in Maersk Oil done differently and/or what new initiatives have you taken in the last couple of years in order to improve the safety performance?

“The first and the ultimate barrier to any incident is capable employees and competent leaders acting in the right manner and making the right decisions. Therefore, we have introduced two programs to raise the bar when it comes to competences, namely what we have chosen to call the Frontline Leadership Development Program and OCAP (Operations Competence Assurance Programme).

Secondly, we continuously use the A. P. Møller-Maersk values actively for people to understand their duty to intervene, to own any unsafe situation or conditions and for them to welcome an intervention and accept that sometimes we are at fault and should be doing things differently.”

Stop any unsafe work

“Thirdly, we work very hard to make sure that all Maersk Oil employees have the tools, the frameworks and the procedures needed to be able to carry out their job in a safe manner. We strongly emphasize that everyone has not only the right, but also the obligation to stop any unsafe work. Last year we introduced eight Life-Saving-Rules, which provide a brief and easily understandable overview of the rules regarding some of the situations where we are most likely to see incidents occur.”

We continue to believe that a target of ‘No incidents’ is the right one
“The Incident-Free Life-Saving-Rules provide a common and standardised set of requirements that are aligned with the company’s objectives.

The rules are mandatory for everybody working for Maersk Oil – in the field or in our offices. They set out how specific high-risk activities must be carried out and will help guide excellent safety behaviours and practices.

A fourth point is about understanding that we can be our own worst enemy. So we work to minimize the contributing factors, which may lead to incidents. We continuously improve our planning since that plays a major role in being able to do things safely. We are currently rolling out an initiative regarding Control of Work to make sure that we do things in an aligned manner across the business, which in turn will lead to improved safety.

Last, but not least, we see each incident as a source of learning. We have an ambition to be incident-free. That does not mean avoiding recording any incidents. Quite the contrary. It means that we accept and record every incident and we strive to learn from each and every one of them to avoid recurrence.”

**Safety partners**

*Where do you seek inspiration in order to further improve the safety performance?*

“We don’t want to limit ourselves in this regard because we never want to miss an opportunity to improve. We have suppliers and partners with very impressive safety records and we want to learn from them. It is my strong belief that we should always be open to learning from and seeking inspiration from each other. When it comes to safety we are in this together – regardless of whether we are competitors or partners. We all stand to benefit.”

**Life-Saving-Rules**

*What do you see as the next important steps in the work for still better safety performance within the oil and gas industry?*

“For me it is about raising the standards as an industry. Working together in a way in which suppliers and/or contractors, come to our platforms having the same knowledge about standards and the same rights, but also the same obligations while on board. For instance, we share the Life-Saving-Rules with partners so that they know that not only will they be protected by those rules, we also expect them to live by them.

Working jointly, undertaking investigations jointly, learning jointly and pushing the standards jointly – to me that is essential for us to continue to improve as an industry,” Patrick Gilly concludes.
We need to continuously develop our safety leadership. For that purpose we need evidence on trends in safety both from our own and other industries.

On the other hand, Flemming Horn Nielsen continues, “We need to be very conscious about how we react as managers when incidents occur. We cannot focus narrowly on our zero accident goal. It cannot be seen isolated as a must win KPI. That would create all the wrong behaviours. Incidents, whether energy was ‘released’ or not, is such a huge opportunity to learn, that we MUST make sure, that everyone understands, that accidents can be prevented, and that we need to get the maximum learning from them.”

The biggest challenges
In the presentation of this year’s conference, it is stated, and I quote: “For a number of years, oil and gas industry experts and data have shown that Denmark is in the bottom quartile in terms of safety performance in an international oil and gas perspective.” Have you been able to pinpoint more precisely why this is the case and where more safety work has to be done and new initiatives taken?

“One of the biggest challenges for us is to continue to work with the mind-set and behaviour of each individual. We can have all the bow tie diagrams, procedures and safety cases in place that we want, but at the end of the day, several of the incidents we see, have to do with elements of undesired behaviour or lack of consciousness about the specific risks associated with a job – especially if things do not go as planned. It is therefore important that we continue improving our safety culture. We need to improve our ability – as individuals and in teams – to identify all risks during job preparations and make sure that each individual is continuously alert to potential risks during execution. That includes being conscious of the likelihood of drifting away from the original plan, which will require that we stop the job immediately and re-plan before continuing.

We have come a long way in the oil & gas industry in terms of safety performance. Over the years, comprehensive management systems have been developed, and relevant safe job planning tools are in place as the last barriers before we begin the job. We also have integrity and process safety setups in all companies in order to manage the integrity of our installations and prevent major accident hazards.

One could argue that maybe our management systems are now too comprehensive? Are we losing out on setting the culture by system eagerness? Could we benefit from reducing them to be more simple, focused and with clear direction in order to make it easier for our employees to find relevant procedures and understand the requirements/expectations to a certain job.

Time Out for Safety
What have DONG Oil & Gas done differently and/or what new initiatives have you taken in the last couple of years in order to improve the safety performance?

“Over the last 4–5 years, we have made big improvements to our safety performance. Recently we have had a period of 18 months without lost time injuries. The main contributors to this is our safety culture programme ‘Safe Way Conduct’ along with our Safety Leadership Standard for offshore management and Time Out for Safety (TOFS) campaigns encouraging people to stop the job immediately if things develop in a way that is not part of the plan.

Especially the TOFS campaign has been very effective. In the past, we have seen incidents that could have been prevented, if people had

We can’t focus narrowly on our zero accident goal

It is important that top management signals a strong commitment to safety by setting the goal of zero accidents. And not just set a goal – live by it. The words we use, the way we talk and the way we walk. Accepting accidents can easily be a way of also accepting not being outstanding. In that, we can easily miss an opportunity to learn and continuously improve ourselves, says Flemming Horn Nielsen, DONG Oil & Gas.
just stopped when they ran into problems instead of trying to solve it immediately at site. TOFS is now used actively by our employees, indicating that everyone now really understands the message – safety first!

Do we need disruption?
Where do you seek inspiration in order to further improve the safety performance?

“We have a very diverse leadership team with senior people from various international companies. Their competences and experiences are a great inspiration and leads to useful discussions about safety. I also seek inspiration in my network and among peers both inside and outside our industry, not least through my board position in Oil Gas Denmark. On top of that, I have a strong QHSE organization with QHSE professionals who are excellently engaging with the authorities, our license partners and contractors. The annual Task Force Zero conference is also an important way of getting new insight and inspiration.”

‘Disruption’ was a very popular term in 2016 – do we need some ‘disruption’ in the safety thinking and practice?

“We need to continuously develop our safety leadership. For that purpose we need evidence on trends in safety both from our own and other industries. However, I wish we would be better at disruption: How can we get completely new ways of doing things or generating ideas on how to have outstanding safety performance? How can we bring ourselves to see, what we do not see today? Are we always bringing the ‘usual suspects’ together when we try to improve ourselves? Are we diverse enough when establishing our teams? I think some unlocked potential is hidden here,” says Flemming Horn Nielsen, who is responsible for Operated Assets in DONG Oil & Gas.

Are we always bringing the ‘usual suspects’ together, when we try to improve ourselves?
Let’s put an end to the established culture of zero harm

I disagree. We need to strive for ‘zero harm’ policies; of course we should aim to prevent accidents. Failures will occur, but we need to continuously struggle to improve; implementing a process under which we plan the work, check it, do it, and adjust based on our learning, says Anders Nymann.

The words were spoken when we asked Hess Asset Director for Denmark, Anders Nymann for his opinion on professor Sidney Dekker from Griffith University, Brisbane who has advocated that we put an end to the established culture of ‘zero harm’ policies, and a greater acceptance of accidents as part of working life.

“My personal view,” Anders Nymann went on, “is that any deviation from the zero-harm culture could pose a threat in the sense that lax safety expectations could potentially lead to higher injury frequency. And such expectations run directly counter to our ‘Lean Culture’, which embraces respect for people.

This is why we strive for standard work. It is imperative to know your process, to fully understand the risks, to make as much of work as standard as possible, to develop a method to do it the same way every time (check lists) and religiously follow procedures.

I personally, and more importantly everyone at Hess, truly believes that Zero is possible. It is core to the Hess operating principle of Everyone, Everywhere, Every day, Home Safe.”

A Lean operation is a safe operation

What have you in HESS done and/or what new initiatives have you taken in the last couple of years in order to improve the safety performance?

“What Hess does differently from many others is the heightened application of Lean thinking. Moreover, Hess stands out from its peers in the way it is embracing a culture of continuous improvement and implementing a Lean management system in both its offshore and onshore businesses. We have learned that success in the Lean journey requires that we continue to stretch ourselves in the pursuit of the highest aspirations: zero injuries, zero waste – or rework.

While we have only just scratched the surface of Lean thinking, it has become clear that it is a mindset, which will drive continuous, never ending individual and organizational learning and people development, supporting our goal of zero incidents.

Companies that develop a ‘Lean Culture’ perform better. A practical way to think about culture is as a set of habits, both behaviours and attitudes, that a group of people share: habits about values (what is good, what is bad); mental models (this reasoning holds true, this one is false); tools (we use this tool, not that one); common practices (this is how we all do this, no, here we don’t do it that way).

A key common practice we encourage is standard work to eliminate waste, identify problems, and improve efficiency. A Lean operation is a safe operation. As part of standard work around regular toolbox talks, we have implemented a process improvement: before the workers begin the work they take 15 seconds to discuss the steps they need to take to get the job done. A Job Safety Analysis will only go into a limited number of safety principles and practices specific to a task or operation. This short discussion helps workers think through their decision process before they perform the work and reinforces best practices and behaviours.

If we can’t do a job safely, we won’t do it

‘Disruption’ was a very popular term in 2016 – do we need some ‘disruption’ in the safety thinking and practice?

“No. What we need to do is standardize our work processes and meticulously follow the standard work practices. This is the basis of Lean, developing standard work processes, free of wasteful steps, and following the procedures.

It’s important to point out that Lean Thinking will improve safety by improving processes that lead to consistent behaviours. A Lean process is an efficient work process that eliminates wasted or complicated steps. This, along with increasing standardization and thus consistency, organizing work areas, and providing more and better training, coaching, and support is the basis for Lean.
This is why we say that Lean drives improvement that encompasses safety, quality, delivery, and costs (SQDC). And when you get down to it, if we’re not looking at improving in all areas, we are unlikely to achieve sustained improvements in any one area. The more you understand problem solving and improvement, the clearer this becomes."

Safety trumps everything else

“Another reason we always talk about and focus on SQDC is that it provides priorities for people, should a conflict arise. One of our basic principles is Everyone, Everywhere, Every day, Home Safe. It is clear throughout the Hess organization that safety trumps everything else. If we can’t do a job safely, we won’t do it. It comes down to a basic respect for people and we can’t see any other way to operate. Everything we do and every result we’ve achieved is because of our people – empowering them with the tools to best protect themselves and their co-workers to keep them safe is our key priority. This is a responsibility that goes far beyond the workplace. Hess has always had a focus on safety first, but Lean has provided a means for not only applying it, but it is helping us drive toward continually better and safer processes.”

Greater collaboration with our business providers

What do you see as the next important steps in the work for still better safety performance within the oil and gas industry?

“An important objective is to ensure that the safety onboarding procedures for contractors are implemented in a consistent way, in order that they become standard work. We find that the majority of incidents at Hess involve contractors, who make up more than 70 percent of our total workforce hours. We need greater collaboration with our business providers to ensure more standardization of skills and competencies. The more we can standardize that the better.

At Hess we are working to standardize the way we onboard contractors. One provider may have a better quality safety program than another. To address those gaps, we are revising the procedures to incorporate the best programs for all service providers. At the same time we are providing enhanced training for the technical authorities who execute the onboarding procedures. The scope is to review the work, assure the service providers understand the expectations, follow the work procedures, and stop the job if something changes so they are not performing work outside the permit. We also ask that they report safety observations.

We recognize that there are different safety cultures across the industry. Standardization is a safety imperative and a core tenet of our Lean safety culture. As the work becomes more standardized it becomes simpler. Lean underscores respect for people; our work should be simpler. When something is more standardized and simpler, it is easier to identify and mitigate risks, and ensure Everyone, Everywhere, Every day, Home Safe,” Anders Nymann said.
Peter Lund Madsen is a Danish physician, neuroscientist, author – and entertainer with a rare gift to communicate science in a way that is understandable for everyone. When we met, there were hundreds of questions, we wanted to ask, but time allowed for a few only so we began by asking why we humans, the most intelligent animals on earth, often behave irrationally when it comes to safety?

“First of all: Our brain is not constructed to behave rationally. It is constructed to optimize our chances for survival.

Second: The modern human brain emerged about 100,000 years ago, and it has not changed since then. We are present in our time equipped with a brain that is profoundly old fashioned.

Therefore, there will be a lot of situations where we deal with modern time problems using a brain that is designed to secure survival in the stone ages. It has to go wrong, Madsen says.”

The human brain is old fashioned

Peter Lund Madsen has worked mainly with examining the brain activity levels during sleep, dreams, stress and relaxation. In 1993 he defended his doctoral thesis on brain energy metabolism during different states of consciousness.

And we went on to ask him why we far too often expose ourselves to dangerous situations?

“The human brain is old fashioned and therefore designed to be afraid of things that was dangerous many many years ago. In the Stone Age it was animals lurking in the darkness that were dangerous – that is why so many of us – irrationally – are afraid to walk alone in a dark forest.

On the other hand, in the old days no machines or other dangerous devises were invented yet and therefore our brain was born without the ability to fear these things.”

Changing habits gives the brain a double workload

“One major goal for our brain is to serve our conscious mind with interesting information. Therefore, our brain makes a lot of decisions without us being aware of it. In fact, a central part of the process of learning to do a thing very well is to be able to do it without having to think about it. We move our legs and walk around without thinking about it. It happens automatically. This is a good thing. However, this also means that leaning to do a thing we have already learned, in a new way gives the brain a double workload. The brain not only has to learn the new thing, it also has to actively unlearn the old thing. It has to change a habit.”

What happens in the brain when we suddenly have to respond quickly to unforeseen events for instance a gas leak on an oil and gas platform?

“Usually our attention wanders around seeking out our environment. When we are facing an eminent danger, the brain focuses attention to the task at hand. That means that many more nerve cells are occupied dealing with the dangerous situation. This is good because the calculating power allocated to the problem is larger. However, it also poses a danger because the risk of overlooking other dangers increases. We attain tunnel vision when we are afraid.”

Humans must behave responsibly

What is it that makes us humans so special?

“One thing is our knowledge of the time continuum. We know about our past and we are aware that there is a future waiting ahead of us. We know that our actions have consequences and therefore we are able to react in a responsibly manner. You cannot blame a pig morally, because it is not aware of the future, the pig does not realize the potential harm it can cause. We humans do, and therefore we must behave in a responsible manner.”

Does humanity have a future?

“We humans have faced great dangers and solved a lot of problems. There are no known problems of today that we cannot solve, but we must work together and base our solutions on knowledge and facts and not emotions if we want to survive. If we do just that, we can very easily survive as a species for a long, long time to come,” says Peter Lund Madsen who has had part of his scientific training with Professor Louis Sokoloff at the Laboratory of Cerebral Metabolism at the National Institute of Mental Health in Bethesda, Maryland, USA.
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