

DIALOGUE

A JOURNAL FROM THE PETROLEUM SAFETY AUTHORITY NORWAY

REVERSING THE TREND

*How will your company
and your organisation
contribute?*





Norway's safety history is written **every** day

THE REST IS ALSO HISTORY

This issue of *Dialogue* presents the PSA's main issue for 2017: *reversing the trend*. Read here about the background for our choice and how we expect the industry to work with the challenges.

The goal of *Dialogue* is to stimulate discussion of relevant safety-related subjects. We want to involve you the reader, your company and your organisation in this debate.

What are the most important challenges facing the industry? And specifically: how can the negative trend be reversed?

Safety in the petroleum sector is our collective responsibility.

At the beginning of 2017, Norway can look back on 50 years as an oil nation. The next chapter is being written here and now. The choices we make today will shape the future.

Read – and write history.

Øyvind Midttun

Editor

REVERSING THE TREND

Norway has 50 years of oil history behind it. But what will the next chapter of its safety saga look like? Did developments take a wrong turn? Or was the country able to reverse the worrying trend of the past two years?

The very first well on the NCS was spudded in the summer of 1966. That was a milestone in Norwegian oil history – and the start of a 50-year tale of upswings and downturns, celebration and catastrophe, and tough times and bold decisions.

Safety runs like a red thread through all these years. Constant progress has been made since 1966, and Norway has undoubtedly achieved a high safety and working environment performance in petroleum operations.

This success has rested on responsibility, learning, regulatory development, and drawing the lessons from serious incidents.

This formula also embraces the common ambition of all sides in the industry to achieve continuous improvement.

Five decades after the Norwegian oil adventure began, the petroleum sector faces important safety challenges. Trends are moving in the wrong direction in a number of areas.

To get safety developments back on the right track, we have identified a main issue for 2017 – reversing the trend.

The goals of this commitment are to influence the industry and to achieve visible and measurable results.

Quite simply – the trend will be reversed.

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TRIPLE FOCUS We have decided to focus work with the 2017 main issue on three defined areas.

COLLABORATION Collaboration between the various sides in the petroleum sector is under greater pressure, both between companies and unions and between them and the government. Such bi- and tripartite interaction occupies a key place in Norwegian safety efforts.

Consequences of a weakened cooperation could include a poorer basis for important decisions by company managements, and weaker entrenchment with employees of important choices for the way forward.

ROBUSTNESS The industry is making major changes to cut costs and become more efficient. We are worried that such optimisation will increasingly squeeze margins in technical facilities, operating systems and organisations. The end result could be reduced robustness.

STANDARDISATION Norway's petroleum sector has been among the leaders for standardisation and the use of standards. We are now observing a trend which can threaten the norms forming the basis for the functional HSE regulations.

Main issue 2017

REVERSING THE TREND

The industry is changing and being challenged. Pressures are growing. The past two years have been characterised by serious incidents and safety challenges. This trend will be reversed in 2017 – with us as the driving force and industry as the implementer.

How will your company and your organisation contribute?

From main priorities to main issue

Launching an annual main issue means we are ending work on our main priorities as such. The four of these we had in 2016 – barriers, the far north, management responsibility and safe late life – are being terminated in this form at the start of 2017.

But they will continue to be pursued by us through regular assignments and projects – and must also be maintained by the industry.



What we want to achieve

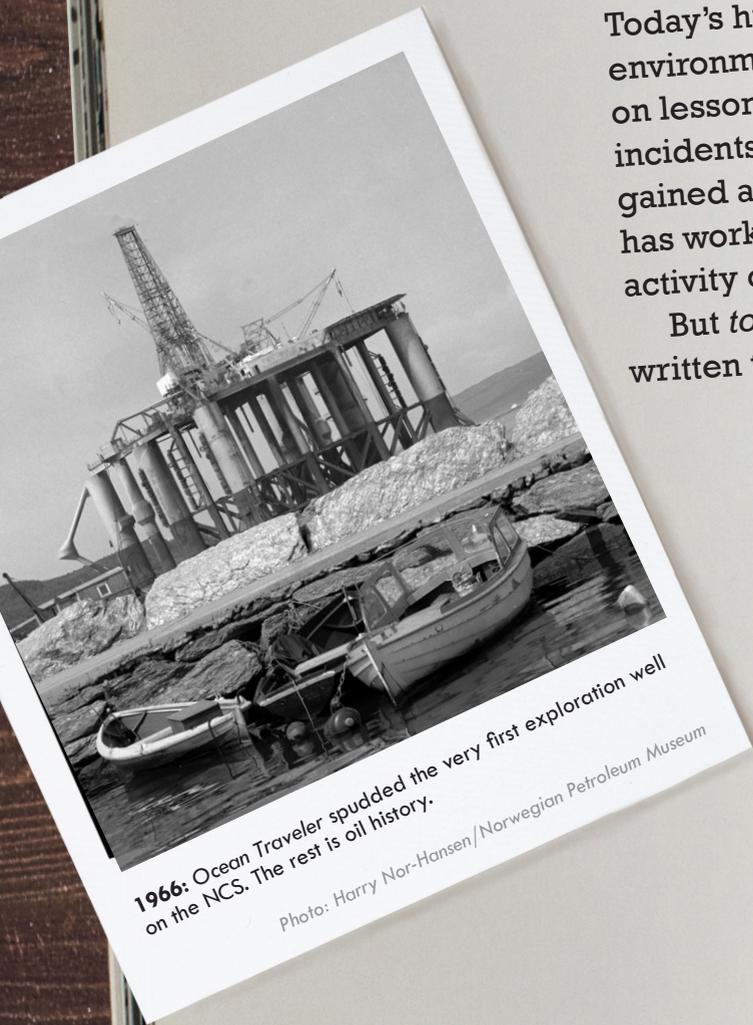
The main issue of *reversing the trend* applies for one year. Work on it will have a high priority with us and in the industry over coming months.

During 2017, we will be conducting a number of audits and projects directed at efforts by the companies to reverse a worrying trend.

The effects of this commitment will be monitored and measured, both during the year and afterwards. Some results could be quickly achieved, while others will take longer to have an impact.

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Work document – THREE CHALLENGES

Norway's history as an oil nation is a proud and impressive one, but has also had its unhappy episodes. Today's high safety and working environment performance rests on lessons learnt from serious incidents – and on knowledge gained about everything which has worked during 50 years of activity offshore and on land. But *tomorrow's* history is written today. And the next day.



1966: Ocean Traveler spudded the very first exploration well on the NCS. The rest is oil history.

Photo: Harry Nor-Hansen/Norwegian Petroleum Museum



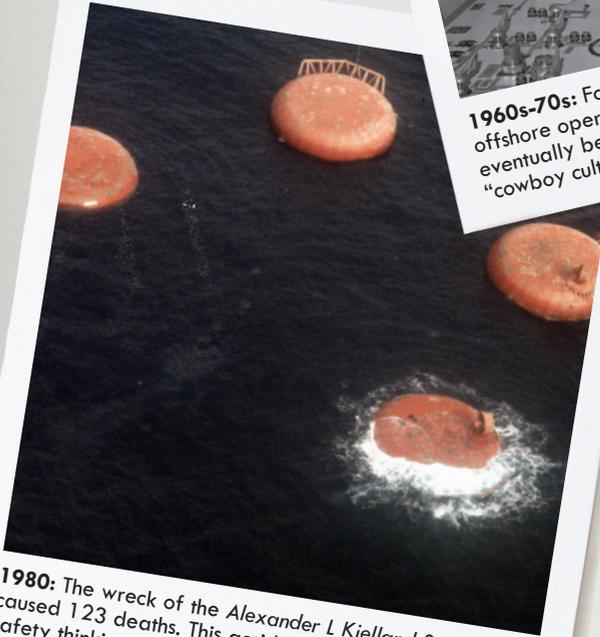
1977: The blowout from the 2/4 B platform on the Ekofisk field is so far the only serious uncontrolled escape of oil on the NCS.

Photo: NTB Scanpix



1960s-70s: Foreign expertise dominated Norway's offshore operations to begin with. The industry eventually became Norwegianised, and the "cowboy culture" disappeared.

Photo: NTB Scanpix



1980: The wreck of the Alexander L Kielland flotel caused 123 deaths. This accident has influenced safety thinking ever since.

Photo: NTB Scanpix

THE CHALLENGE

The pressures on the industry mean that companies are looking for new solutions. These could involve simplification, cost cuts and rationalisation, but may also contribute to greater uncertainty.

Will the new solutions be robust enough to cope with tomorrow's challenges? Can the industry strengthen safety when costs, downsizing and efficiency are its dominant concerns?

To put this another way: will decisions being taken today and tomorrow contribute to avoiding accidents? How will the next 50 years be summed up?

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ROBUST means rock-solid, compact, strong and hard-wearing – something physically and mentally resistant, durable and lasting. ROBUST is something which withstands wind, weather and the ravages of time, and which copes with change and the unforeseen.

ROBUST is a suitable word to describe the requirements facing the Norwegian petroleum industry.

Q: How will your company and your organisation contribute?

A:



1988: The Piper Alpha disaster on the UK continental shelf led to big changes in Britain's offshore sector. These were inspired to a great extent by Norway's safety regime.

Photo: Pa Photos



1980s: The seabed in the Ekofisk area has subsided as a result of oil extraction. All the steel platforms in the field centre were jacked up by six metres in 1987.

Photo: Shutterstock

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1976: The Norwegian Petroleum Directorate rejected plans from Mobil and Statoil for the Statfjord B platform and demanded that the living quarters be moved. This letter has been called "the most expensive in Norwegian history".

Photo: Shutterstock



1985: The new Petroleum Act came into force, with the Alexander L Kielland accident inspiring far-reaching changes – not least in the organisation of regulatory responsibilities.

Photo: NTB Scanpix

THE CHALLENGE

How can progress with safety be maintained in the Norwegian petroleum industry? Where does the shoe pinch most tightly?

The HSE regulations have primarily been formulated as functional requirements which describe the safety performance to be attained. Many of these provisions are supplemented by reference to industrial standards and norms.

Can a functional or performance-based regulatory system be maintained if standards decay and are not prioritised, respected and used by the companies? What are the **alternatives** to today's model?

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Q: How will your company and your organisation contribute?

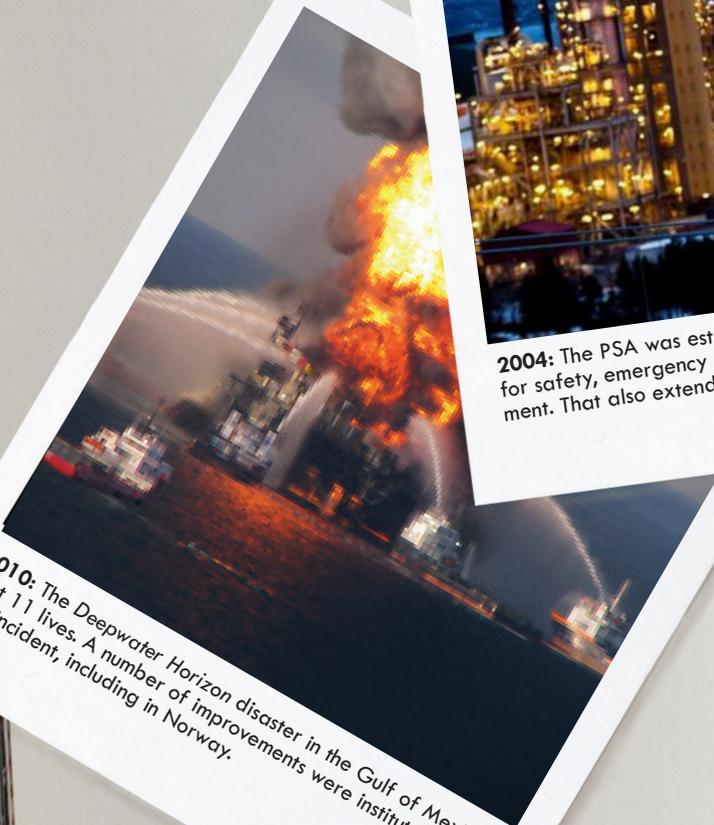
A:

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2004: The PSA was established with regulatory responsibility for safety, emergency preparedness and the working environment. That also extended to petroleum facilities on land.

Photo: Statoil



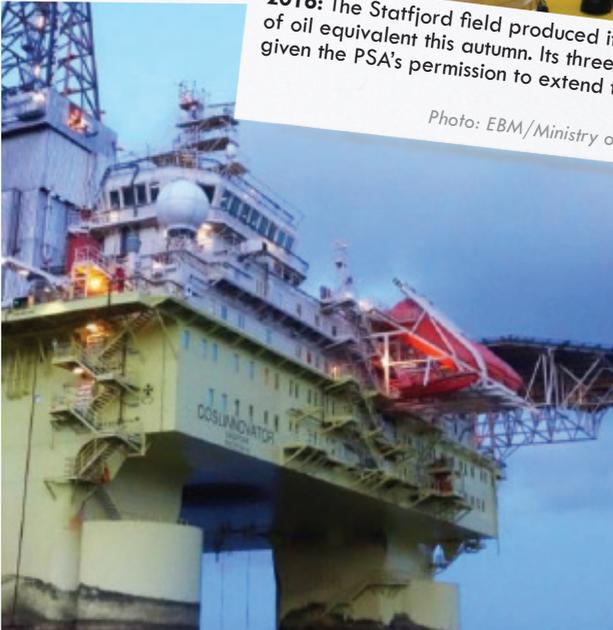
2010: The Deepwater Horizon disaster in the Gulf of Mexico cost 11 lives. A number of improvements were instituted after this incident, including in Norway.

Photo: US Coast Guard



2016: The Statfjord field produced its five-billionth barrel of oil equivalent this autumn. Its three installations have been given the PSA's permission to extend their producing life.

Photo: EBM/Ministry of Petroleum and Energy



2015: One person was killed when a wave hit mobile drilling rig COSLInnovator on the Troll field.

Source: PSA

THE CHALLENGE

Collaboration between companies, unions and government is a cornerstone of Norway's petroleum activities, and not least for HSE. A good tripartite collaboration depends on trust between the various parties.

Increased pressures on the industry can put greater strain on interaction between management and employees. When worker participation fails to function, the basis for important decisions is weakened – which can lead to less robust solutions in the longer run.

Tripartite collaboration also faces challenges in demanding times.

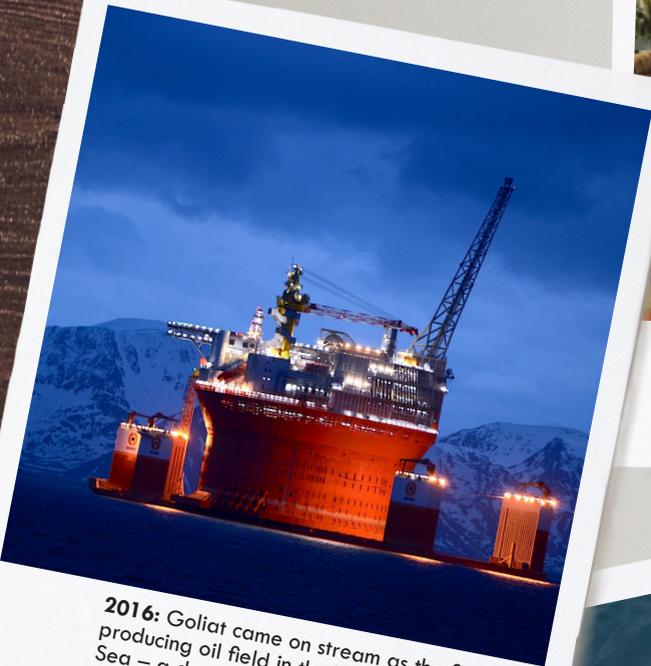
How can continued cooperation be ensured in the difficult conditions now affecting the industry? Are company managements accepting enough responsibility? What about the government and the unions?

How can a model which is so important for the industry's future and progress be sustained through collective action?

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Q: How will your company and your organisation contribute?

A:



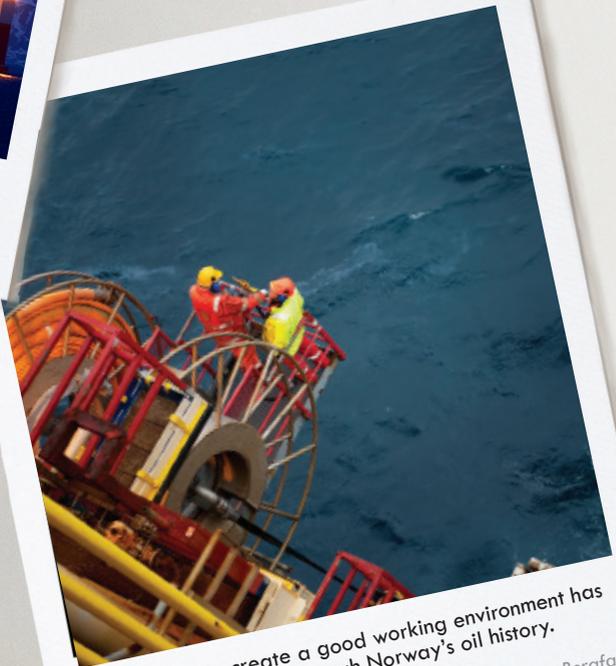
2016: Goliat came on stream as the first producing oil field in the Norwegian Barents Sea – a demanding project for both operator Eni and the PSA.

Facsimile: TVP



2016: Norway's oil history continued as the first production well was spudded on the Johan Sverdrup field.

Photo: Arne Reidar Mortensen/Statoil



The struggle to create a good working environment has run like a red thread through Norway's oil history.

Photo: Norske Shell/Alice Bergfall



As operations move further north in the Barents Sea, new requirements arise – not least for rescue equipment and emergency preparedness.

Photo: Hansen Protection



The development of simpler installations and new modes of production makes demands on the industry's risk assessments.

Photo: Koninklijke Niestern Sander BV

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REVERSING THE TREND



The industry is changing and being challenged. Pressures are growing. The past two years have been characterised by serious incidents and safety challenges. This trend will be reversed in 2017 – with us as the driving force and industry as the implementer.

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DIALOGUE is published by the
Petroleum Safety Authority Norway (PSA)
www.psa.no

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PRINTER: Kai Hansen Trykkeri
PAPER: 190/100 g Highland Offset
PRINT RUN: 6 700 Norwegian, 2 200 English

This edition went to press on
18 november 2016.

DIALOGUE

ISSN 1893-7292



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