The Evolution of Operational Excellence: 15 Years of OPEX in Oil & Gas

Exclusive insights from

Nicolas Felix,
Operations Director, Asset Management and O&M at ***TotalEnergies***,

Julie Thyne,
Global Improvement Director at ***Dow***,

Stephan Blasilli,
Head of Business Process Excellence at ***EDP Renewables.***

#OPEXOG

CONTACT THE TEAM

VISIT WEBSITE

Change is inevitable, and excellence is imperative.

The oil and gas industry has consistently focused on improving its operations, particularly as production costs rise, refinement margins come under pressure, labor shortages persist, and there is increasing pressure to reduce risks and enhance sustainability. These challenges collectively amplify the need and value for Operational Excellence (OpEx), enabling industry leaders to confidently demonstrate that they are operating their assets safely, reliably, sustainably, and cost-effectively.

The Timeline: 15 Years of OpEx in Oil & Gas

*The **Operational Excellence in Oil & Gas Summit**, like all the notable milestones, began from humble origins. The inaugural Energy Process Excellence Event in 2010 planted the first seeds of what has now become North America's largest dedicated OpEx event for the sector. Over the past 15 years, the event has evolved in both appearance and name, transitioning from a methodology-based conference to one focused on driving strategic, enterprise-level transformation. As we celebrate our 15th anniversary, we take this moment to reflect on the key milestones that have shaped not only our event but the entire oil and gas landscape.*

1 **2010 Exxon Mobil Acquires XTO Energy**
On June 25, ExxonMobil acquired XTO Energy Inc. (XTO) for $30 billion by merging a wholly owned subsidiary of ExxonMobil with XTO, bolstering its position as a leading U.S. natural gas producer.

Event launches as
Energy Process Excellence Network.

2 **2011 Space Shuttle Atlantis Touches Down**
On July 21, the final Space Shuttle mission concluded with the landing of Atlantis, marking the end of the 30-year program.

3 **2012 US and Mexico Jointly Drill in the Gulf of Mexico**
In February 2012, the US and Mexico reached an agreement to jointly drill 1.5 million acres along the US Outer Continental Shelf in the Gulf of Mexico.

4 **2013 Barrack Obama's 2nd Term**
After winning the re-election, Barack Obama, the first African American President in US history, was sworn in for a 2nd term in office.

5 **2014**

The event rebrands to
Operational Excellence in Oil & Gas

6 **2015 Shell Acquires BG Group in a ~ $70 Billion Deal**
The landmark deal granted Shell access to the most exciting deepwater oil projects in the world, particularly in Brazil.

7 **2016 The Paris Agreement**
A legally binding international treaty on climate change was adopted by 196 Parties at the UN Climate Change Conference (COP21) in Paris, France, on December 12.

8 **2017**

Speaker Spotlight

Captain Hung Nguyen, Former U.S. Coast Guard Captain and Co-chair, Deepwater Horizon Joint Investigation Team, **speaks at the OpEx in Oil & Gas Summit.**

9 **2018 Marathon Petroleum acquires Andeavor**
Marathon Petroleum Corp. agreed to acquire rival Andeavor for $23.3 billion in the biggest-ever deal for an oil refiner.

Speaker Spotlight

Jim Wetherbee, the only American to have commanded 5+ space flight missions, **speaks at the OpEx in Oil & Gas Summit.**

10 **2019 Occidental Petroleum Acquires Anadarko Petroleum in a $38 Billion Deal**
This acquisition was expected to add nearly a quarter million acres to Occidental's holdings in the Permian shale basin and double its global production to 1.4 million barrels of oil and gas per day.

11 **2020 The Pandemic**
COVID-19 was declared a pandemic, ushering in a period of monumental change and transformation within the oil and gas industry.

12 **2021 Kamala Harris Becomes Vice President**
Kamala Harris becomes the first woman, first Asian American, and first African American Vice President of the United States.

13 **2022 The Beginning of Chat-GPT**
Launched by San Francisco–based OpenAI, Chat-GPT, paved the way for advancements in natural language, highlighting the accelerating pace of AI innovation.

Speaker Spotlight

Gretchen Watkins, President, Shell USA speaks at the **OpEx in Oil & Gas Summit.**

14 **2023 Chevron Agrees to Buy Hess Corp**
This all-stock mega deal, worth $53 billion plus debt, provided Chevron with even greater access to US shale production in Texas' Permian Basin.

15 **2024 Celebrating 15 Years of OpEx Oil & Gas**
Bigger and better, the 15th Operational Excellence in Oil & Gas Summit brings over 70 industry speakers to share how they are reducing risk, cost, and complexity in their operations.

Leadership Insights: Shaping the Future of Operational Excellence

Ahead of the **15th Operational Excellence in Oil & Gas Summit**, we caught up with advisory board members **Nicolas Felix**, **Operations Director**, **Asset Management and O&M** at **TotalEnergies**, **Julie Thyne**, **Global Improvement Director** at **Dow Chemicals**, and **Stephan Blasilli**, **Head of Business Process Excellence** at **EDP Renewables**, to discuss the evolution of Operational Excellence within the oil and gas industry.

Read as they highlight the importance of learning from failures, the transformative impact of digital technologies, and the rise of automation and AI, along with challenges faced by operators today - from balancing investment with returns to managing change fatigue.

In your opinion, which events or developments have served as the biggest catalyst for advancing operational excellence in the last 15 years?

Nicolas Felix, TotalEnergies: I believe that failures are a significant driver. When companies experience setbacks, such as losing a power purchase agreement or a client contract, or significant financial losses, they become aware of the gaps in their operations. Recognizing these gaps makes it easier for them to appreciate the importance of having operational excellence in place, including well-defined procedures and key performance indicators (KPIs).

Julie Thyne, Dow: Advances in digital technology have been a game changer for operational excellence. Access to tools to easily visualize data, and the ability to digitally connect people and data has taken OpEx to a new level.

Stephan Blasilli, EDP: For me, the most significant catalysts were the intelligent business process management systems that emerged around 15 years ago. Subsequently, around 2015, Robotic Process Automation (RPA) became a major catalyst, and now the focus is on integrating AI to intelligently automate processes.

What would you say is the biggest challenge operators face today and what can they do to address it?

Nicolas Felix, TotalEnergies: The biggest challenge lies in finding a balance. From a top management perspective, strike a balance between the cost of implementing excellence and the potential gains. While there's always room for improvement, determine the optimum investment. How much should we allocate to maintain operational excellence, and what return can we expect?

It's essential to recognize that the return is not infinite. There comes a point where hiring more people or implementing additional systems and software yields diminishing returns. So, the challenge lies in identifying that optimal balance.

Julie Thyne, Dow: The pace of change is a huge challenge. Our operators have change fatigue from all the new things that are thrown at them. Because of this, it's critical that we approach new changes with a people-first mindset and consider the impact on the end user.

Stephan Blasilli, EDP: In our line of business, we encounter a multitude of technologies, reports, and analytics, which can feel overwhelming at times. To address this, I propose a straightforward approach: provide a simple process and a clear information source. Having an intelligent AI assistant - like a copilot - by your side can guide you through these complexities effectively.

How has the rise of AI and advanced automation impacted the goals and potential impact of operational excellence programmes?

Nicolas Felix, TotalEnergies: The renewables energy industry is in a relatively immature phase compared to oil and gas. While there's a lot of marketing hype, concrete examples are scarce. However, we've already made strides in analytics, particularly in predicting losses and automating processes. For instance, AI-powered imaging to enhance our inspections, and the processing capabilities for analyzing images and identifying issues are impressive. We've already seen positive results in capturing critical insights.

Operators often rely on manual or drone-based infrared (IR) inspections and then visually examine images to spot problems. However, with AI, the processing capacity multiplies significantly as we can train models to detect issues that might be imperceptible to the naked eye. High-quality cameras and robust equipment further enhance our ability to identify problems.

As for the future, it is hard to predict precisely. AI's immense power suggests it will likely bring significant disruptions, but those specifics remain elusive.

Julie Thyne, Dow: We're still learning all the ways that AI can contribute to operational excellence. It's an exciting time to be in an OpEx role and be on the leading edge of trying new technologies.

Stephan Blasilli, EDP: I believe that automation significantly impacts operational excellence. Even non-intelligent automation can substantially reduce the time and resources spent on repetitive tasks. The real promise, however, lies in intelligent automation and the emergence of AI. While we haven't fully achieved mimicking advanced human tasks, we're making remarkable progress.

What cultural changes are necessary within organizations to drive greater operational excellence?

Nicolas Felix, TotalEnergies: The adoption of AI presents both opportunities and challenges. Operators, including those from the oil and gas industry, interestingly, remain hesitant about embracing computer assistance and automation. This reluctance is common, especially amongst senior professionals who have witnessed significant technological changes over the years.

As we navigate this landscape, acknowledging both the strengths of AI and the enduring importance of human expertise will be critical.

Julie Thyne, Dow: We have to get comfortable with change and be okay with a little uncertainty. One size doesn't fit all, and everything doesn't need an enterprise solution. There are often opportunities to find a custom solution that exactly meets the needs of a particular use case.

Stephan Blasilli, EDP: In this moment, we're in the exploratory phase, and full integration into day-to-day operations remains a work in progress. There's still apprehension about workforce displacement - whether humans will be replaced by bots, and additionally, trust in the information provided by AI is a valid concern.

To address this, workforce training is crucial as employees need to understand what these technologies can do for them and their work. For instance, merely creating an AI model is not enough; you must also explain its functionality because if you can't articulate how the model works, implementing it within an organization becomes challenging.

> "With proper training, skill development, and good measurement of ongoing work in the field operations teams, we're sure to impact."

Where should companies be focusing their investments and priorities today, to accelerate their operational excellence programmes?

Nicolas Felix, TotalEnergies: Training and skill development for field teams are essential because even with the integration of AI technology, understanding how to use it effectively remains key.

Additionally, there's a significant focus on effectiveness and efficiency in measurement, as common saying goes, "If you don't measure, you don't manage." With proper training, skill development, and good measurement of ongoing work in the field operations teams, we're sure to impact.

Julie Thyne, Dow: New technology is exciting, but ultimately it succeeds or fails because of the people. Recruiting, onboarding, and retaining talent in our industry is a top priority. We have to foster work environments that make people want to stay in our industry and in our company.

Stephan Blasilli, EDP: For me, the answer is fairly simple: think of copilots or intelligent assistants. This concept involves a combination of automations, both non-intelligent and intelligent, to perform specific tasks that need to be completed for various reasons, whether related to compliance or reporting.

There's also potential for more intelligent automation, such as troubleshooting equipment issues. Imagine having an agent by your side to guide you through the troubleshooting process, providing specific information based on the circumstances you're facing. This can be incredibly powerful, and it's something we're currently working on.

Looking ahead to the next 15 years, how do you foresee the roles and expectations of operational excellence leaders transforming?

Nicolas Felix, TotalEnergies: The underlying principles of operational excellence don't change. The fundamentals, such as the wisdom and good business practices of measurement and continuous improvement, remain the same regardless of the technology involved. However, the amount of technology and the tasks that humans will no longer perform will change, particularly in terms of staffing and processes.

There might be disruptions in what humans do versus what machines will take over, and that will continue to evolve.

Julie Thyne, Dow: There's a big focus right now on bringing in new digital tools and technologies, but there are limits to what a tool can replace. I'm already seeing a renewed interest in developing core problem solving and continuous improvement skills in our workforce. I'm anticipating that this will continue to grow as we find ways to blend foundational CI knowledge with enabling technology solutions.

Stephan Blasilli, EDP: When I look back to when I started my career, many OpEx leaders were primarily lean-trained folks, but I don't think that will be sufficient in the future. You have to be much more technologically adept to cope with the changing landscape.

The best thing you can do right now is ensure that you don't get distracted by technology or fancy buzzwords as people often get caught up in those. If you really understand the business problem, you'll understand the process and can intelligently discuss where you see improvement opportunities.

Additionally, I think it's important to have some technical expertise. It doesn't have to be extremely advanced, but leaders should be able understand the basics of how to come up with a solution, even if you're not the one building it. I think that's a good starting point.

Oil & Gas iQ

OPERATIONAL EXCELLENCE IN OIL AND GAS

November 5-8, 2024
Norris Conference Center - CityCentre
Houston, Texas

Join us in Hoston this November to celebrate 15 years of Operational Excellence in Oil & Gas.

The **15th Annual Operational Excellence in Oil & Gas Summit** is bringing together 70+ oil and gas industry speakers to share how they are reducing risk, cost, and complexity in their operations.

Nicolas Felix, Julie Thyne, and **Stephan Blasilli** will also be taking to the stage to provide further insights and expert knowledge, including a step-by-step approach to implementing and using Lean and Six Sigma to achieve operational excellence, how to meet the growing energy demand while rapidly decarbonizing, and how digital technologies can aid in managing risk.

To view the full range of sessions on offer and who will be leading them, **Download your copy of the Event Guide**

DOWNLOAD YOUR COPY OF THE EVENT GUIDE HERE

#OPEXOG

CONTACT THE TEAM | VISIT WEBSITE | in