



MONTHLY NEWSLETTER

SPE Ghana INSIDER

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edition

Rethinking Operations: How Lean Can Transform the Oil and Gas Industry

Feature Article

by Benedict Northey, PMP®, PE

The oil and gas sector has historically been a fundamental part of the global economy, yet it consistently encounters challenges: variable market prices, escalating operational expenses, and tougher environmental regulations. As competition intensifies and the push for sustainable practices rises, companies are seeking innovative methods to enhance efficiency, minimize waste, and boost profitability.




One approach that is proving to be exceptionally beneficial across various sectors is lean thinking.

Although lean is primarily linked with manufacturing, its concepts are highly applicable to the oil and gas industry. Lean focuses on maximizing output with fewer resources, emphasizing value creation while eliminating waste. It represents a philosophy that motivates organizations to continuously assess and refine their processes, guaranteeing they operate at optimal efficiency without unnecessary costs.

What exactly is Lean?

Lean is fundamentally a philosophy aimed at reducing waste—whether it involves time, materials, energy, or effort—while enhancing value for the customer. In sectors like oil and gas, where profit margins are often narrow and operational expenses are considerable, the potential advantages are significant. Embracing lean principles allows companies to eliminate operational inefficiencies, enhance safety, and establish more sustainable practices without compromising quality. However, lean goes beyond mere cost reduction; it promotes a culture of ongoing improvement. In a lean-focused organization, individuals at all levels—from senior management to frontline employees



—are urged to share ideas for optimizing processes. It centers on making small, incremental improvements on a daily basis that accumulate over time.

Lean in Oil and Gas: A Fresh Perspective on Age-Old Issues

The oil and gas industry encounters a range of distinct challenges, where lean practices can truly provide significant benefits. For instance, the intricacies associated with large-scale projects can be daunting. These endeavors frequently involve numerous stakeholders, experience delays, and often exceed budget expectations. Lean project management, which incorporates strategies like value stream mapping and just-in-time planning, aids in spotting and removing bottlenecks early, before they escalate into major problems. This not only cuts costs but also guarantees projects are finished on schedule and within financial constraints.

Lean also has a considerable influence on production and maintenance operations. Operating and maintaining oil rigs and refineries can be quite expensive. Downtime represents a significant cost, not only in terms of missed production but also due to safety hazards and environmental concerns. Lean methodologies aim to optimize maintenance schedules, pinpoint failure points before they lead to operational interruptions, and eliminate unnecessary maintenance activities. This forward-thinking strategy can enhance equipment longevity and diminish both scheduled and unscheduled downtime.

The Supply Chain: A More Streamlined and Agile Process

A critically important—and frequently neglected—aspect of the oil and gas sector is the supply chain. An efficient supply chain ensures the timely availability of materials and equipment without excessive inventory accumulation. By implementing just-in-time (JIT) practices, businesses can decrease storage expenses and mitigate the risk of surplus inventory that ties up financial resources. Moreover, lean principles advocate for strong relationships with suppliers, ensuring that all supply chain participants are synchronized and striving toward shared objectives.

In numerous respects, the oil and gas sector resembles a complicated puzzle. With hundreds of suppliers, contractors, and logistics providers, lean practices assist in assembling the pieces more effectively. They enable companies to deliver the appropriate resources to the right location at the right moment, ultimately enhancing the overall value chain.

Lean and Sustainability: A Natural Match

As environmental regulations tighten, the oil and gas sector faces increasing pressure to minimize its carbon emissions and enhance sustainability. Notably, lean practices and sustainability align well together. By concentrating on eliminating waste—whether from excessive energy use, material waste, or production inefficiencies—organizations that adopt lean principles inherently promote sustainability. For instance, cutting down on energy use at a production platform not only reduces costs but also lessens environmental impact, reflecting the industry's heightened emphasis on lowering emissions and resource usage.

The Influence of Lean on Culture

One of the most significant effects of lean is the cultural transformation it fosters. Lean thinking transcends the mere implementation of new processes or tools—it involves shifting the mindset of everyone within the organization. Employees at all levels are encouraged to identify inefficiencies, propose enhancements, and take ownership of their processes. This fosters a sense of accountability and pride, driving success over the long term. It is a collaborative approach where everyone contributes to optimizing the business.

Continue reading [*here*](#).

Benedict Nortey is an Engineering Manager with extensive experience in oil and gas and manufacturing operations. He received his Lean Six Sigma training from General Electric, widely recognized as a leader and champion of lean thinking, and is a strong advocate for lean practices in the industry.

Courtesy Visit to the CEO of Petroleum Commission

A team from the SPE Ghana section, led by the Section Chair, paid a courtesy visit to the Acting CEO of the Petroleum Commission, Emeafa Hardcastle, to congratulate her and discuss potential partnership opportunities.

SPE Ghana's Special Projects Chair presented the vision and mission of SPE, along with various activities and initiatives, including Energy4Me, Diversity and Inclusion (D&I), STEM events, and participation in key industry conferences.

The discussions emphasized the contributions, partnerships, and collaborations between SPE and the commission in the past. Additionally, SPE sought future support and partnerships from the commission.

The team also presented SPE Ghana's annual magazine, Ghana Petroleum Times (GPT).

Hardcastle appreciated the engagement, encouraged more staff from the commission to join SPE, and urged support for the SPE Ghana Section, Ghana's oil and gas industry, as well as the country's energy transition.

Read more via this [link](#).



Having an Entrepreneurial Mindset: Insights from Stephane 'Abbas' Miezán



In a recent webinar hosted by the SPE Ghana Academic and Student Liaison Committee, Stephane 'Abbas' Miezán, President of the Ghana National Chamber of Commerce and Industry, shared valuable insights on cultivating an entrepreneurial mindset. He stressed the significance of finding a unique edge in one's entrepreneurial journey and highlighted that life is filled with cycles of doubt and challenges. During these times, passion and purpose should guide decisions. Miezán emphasized that the entrepreneurial path is not always straightforward, and attributes like self-belief, resilience, and adaptability are crucial for success. Viewing challenges as opportunities for learning can greatly enhance personal growth. The session, moderated by Lord Kwame Segbeawu from TTU, encouraged participants to approach their journeys with confidence, recognizing both setbacks and breakthroughs as essential components of the process.

Watch the full session on [YouTube](#).

Financial Mastery for Young Professionals



The SPE Young Professionals Committees from the Ghana and Benin City Nigeria Sections hosted a highly engaging webinar on "Financial Mastery for Young Energy Professionals." The session focused on balancing savings, spending, and investments, equipping participants with practical strategies to manage their finances effectively.

The event featured insightful discussions moderated by Freda Agyapomaa Mensah, with expert contributions from: Abdel Rasheed Mohammed, Deputy Manager, Tax Strategy & Planning, NNPC E&P Ltd; and Nelson Kpatakpa – Investment Advisor, Standard Chartered Bank, Ghana.

Participants gained valuable insights into wealth-building, smart investment choices, and financial discipline within the energy industry. The session provided actionable advice tailored to young professionals looking to secure their financial future.

For those who missed it, catch up via the this [link](#).

Gas to Power Framework for Sustainability



As part of the SPE Ghana Young Professionals & Students Lecture Series, an insightful session was held on the Gas-to-Power Framework and the vast opportunities it presents for a sustainable energy future. The discussion was led by Kate Pokua Lamptey, Senior Business Development Officer at the Volta River Authority, who provided key insights into the evolving global energy landscape.

The session explored three major drivers of the global energy transition—decarbonization, digitalization, and decentralization—highlighting the shift from coal to oil and now to cleaner energy sources like natural gas. Ghana's power regulation framework was also examined, with a focus on policies shaping the country's energy sector. Additionally, participants gained valuable knowledge on entrepreneurial and business opportunities in the oil and gas industry, emphasizing the growing need for innovative energy solutions.

This engaging discussion provided participants with a deeper understanding of the energy sector's future and how to navigate emerging opportunities.

Missed the session? Watch it [here](#).

Digital Transformation in the Energy Industry

PRESENTS

Digital Transformation In the Energy Industry

Dr. Jude Kwaku Bonsu
Lecturer & Researcher, KNUST
Chemical Eng. Department

Richard Bobie
Moderator

Meeting ID: 842 6296 8203
Passcode: spegh

Fri, 21st February, 2025 12:30 GMT

www.speghana.com

SPE GHANA SECTION

The SPE Ghana Section Career Guidance & Outreach Committee recently hosted a webinar on Digital Transformation in the Energy Industry, featuring Dr. Jude Kwaku Bonsu from KNUST. He discussed the impact of artificial intelligence, automation, and data analytics, emphasizing the importance of mastering tools like Excel for optimization. Dr. Bonsu highlighted that the energy sector encompasses more than just oil and gas, including regulators and digital tool developers. He also pointed out the need for affordable digital transformation to lower the barriers to new technologies.

For those who missed it, you can watch the full session here:
Watch on [YouTube](#)

SPE Ghana Section Hosts Essay Competition to Mark International Women’s Day 2025

ESSAY WRITING COMPETITION

in celebration of International Women’s Day 2025

THEME: ACCELERATING ACTION FOR GENDER EQUALITY

CASH PRIZES FOR 1ST AND 2ND PLACE

CLOSING DATE: MARCH 5TH, 2025

SUBMISSION GUIDELINES

- Word Limit:** 250 words (max)
- Font:** Times New Roman, size 12, double-spaced
- Subject:** International Women’s Day Essay Competition Submission



The Society of Petroleum Engineers (SPE) Ghana Section hosted an Essay Writing Competition to commemorate International Women’s Day 2025, themed "Accelerating Action for Gender Equality." This initiative encourages youth to engage in discussions about gender equality and its societal impact. Participants could win cash prizes for their essays on promoting gender balance, with a requirement of a 250-word submission.

For more details, visit [here](#).

PRESENTS

INTRODUCTION TO data ANALYSIS

- Introduction to Excel
- Data Visualisation in Excel
- Data analysis in Excel
- Introduction to Power BI

MODERATOR
EMMANUEL KOFI OKRAKU

SPEAKER
OSEI BONSU AGYAPONG
Data Analytics Department
of Petroleum and Natural Gas Engineering, UJER

8th-23rd Feb., 2025
1pm on Saturdays
3pm on Sundays
live on zoom

www.speghana.com

SPE Ghana Section

Digital Transformation in the Energy Industry

The SPE Ghana Section Career Guidance & Outreach Committee successfully hosted an insightful Introduction to Data Analysis training from February 8th to 23rd, 2025. This virtual series equipped participants with practical skills in Excel, data visualization, and Power BI, offering a strong foundation in data analytics. With engaging sessions led by industry experts, attendees gained valuable knowledge to enhance their analytical capabilities. The event reinforced SPE Ghana's commitment to professional development, leaving participants better prepared for data-driven decision-making in the energy sector and beyond.

Watch the full training [here](#).

Student Chapter Activities

Kwame Nkrumah University of Science and Technology



As part of SPE KNUST 15th Anniversary celebrations, an exclusive cross chapter webinar was organised on Maximising Your Student Membership in SPE.

The webinar highlighted the benefits of SPE student membership; how to leverage SPE student membership for career growth and networking.

Finally, it provided an opportunity for students to meet and connect with fellow students from different SPE chapters.

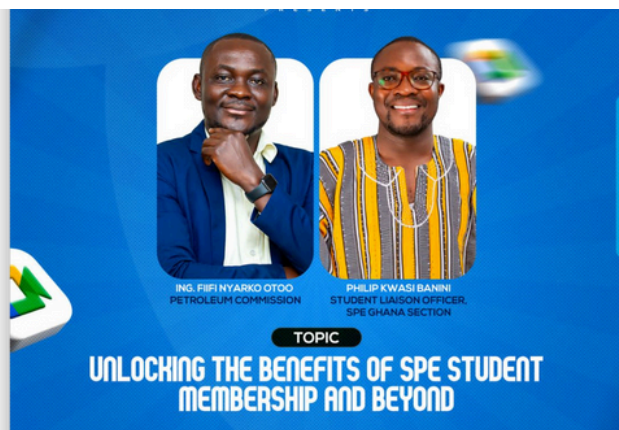
University of Energy and Natural Resources



The SPE UENR Chapter's summit, part of its 5-year anniversary celebration, featured notable speakers and lecturers from the Department of Petroleum and Natural Gas Engineering at UENR. The event included discussions on the commitment of SPE Ghana, a keynote address on energy governance and its importance for sustainable development in Ghana, and panel discussions covering various aspects of energy governance. A networking session also contributed to a positive experience for participants.

Photos of the summit can be accessed [here](#).

University of Mines and Technology



On February 7th, a webinar was held discussing the benefits of SPE student membership. The first speaker emphasized the importance of membership while in school and offered guidance for navigating this phase. The second speaker focused on the advantages available after graduation. The event was facilitated by the chapter president.

SPE in Essikado



The SPE event at the Essikado campus of UMaT in Takoradi successfully engaged over 82 students, with many of them signing up to be SPE members. Key figures included the Section Chair, a Deputy Student Liaison officer, and a Lecturer who agreed to serve as the matron. The Section Chair delivered a speech on the impact of SPE, personal experiences, and challenges in the energy sector. Another speech highlighted the journey of the UMaT chapter and its activities, such as Petrobowl and Drillbotics. The program concluded with the registration of all new members present.

OUTSTANDING VOLUNTEERS FEB '25



Odame Isaac Asirifi

UENR Chapter President



Emmanuel Boadi

UMAT Chapter President



Solomon Aidoo

Communications and Media Committee

Programs Coming Up

PETROBOWL COMPETITION

15th Mar, 2025 | 02:00 pm GMT | live on ZOOM | Meeting ID: 849 7471 8648 | Password: 349385

www.speghana.com

Join the WINGS INITIATIVE!

ABOUT WINGS
WINGS is an exciting initiative inviting students and young professionals to engage as hosts, moderators, and guest speakers on various energy sector topics. It's a vibrant platform for sharing insights across diverse channels like X (formerly Twitter), LinkedIn, Zoom, and Google Meet.

TYPES OF WINGS

- Technical:** Delve into engineering and technical processes in energy production and distribution.
- Environmental:** Explore the impact of energy production on the environment and sustainability practices.
- Economic:** Understand the financial dynamics of energy projects and market trends.
- Safety:** Learn about safety protocols and risk management in the energy sector.
- Policy:** Discuss government policies, regulations, and incentives in energy production.
- Societal:** Examine the social impacts and equitable access to energy.
- Technological:** Discover technological advancements in energy optimization and cybersecurity.
- Partnerships:** Highlight collaborations between industry, academia, and government.

Be a Part of the Energy Revolution! Don't miss the opportunity to connect, learn, and contribute to the evolving energy sector discussions. **Join us in shaping the future!**

Visit our website to learn more about participation opportunities.

www.speghana.com

INTRODUCTION TO 3D MODELLING

3D modelling in Oil and Gas | 3D modelling project 1&2

MODERATOR: ISAAC ODAME ASIRIFI | **SPEAKER:** JUSTICE AGBOODAN

8th-30th Mar, 2025 | 1pm on Saturdays | 3pm on Sundays | live on ZOOM

www.speghana.com

SPE AFRICA 2025 ANNUAL STUDENT CONGRESS

THEME: BUILDING THE ENERGY WORKFORCE OF TOMORROW

INSIGHT ON INNOVATION, TECHNOLOGY AND TALENT DEVELOPMENT

FEATURING

- SPE Africa Student Paper Contest
- SPE Africa Petrobowl Qualifies
- Career-Driven Professional Programs
- SPE Nigeria Council Student Paper Contest
- SPE Africa Energy Challenge
- Award Night Ceremony

3RD - 5TH APRIL, 2025 | BAMBALY | BAYERO UNIVERSITY, KANO NIGERIA

Dr. Riverson Oppong, Africa Regional Director | Engr. Amha Darmasanti, PhD, Chair, SPE Nigeria Council

ESSAY COLUMN

coming soon

www.speghana.com

Call for Exhibition

Theme: NAVIGATING THE FUTURE: Building Technological Excellence For Sustainable Energy In Africa

27-29 MAY 2025 | Tanzania

#ATC2025 | oppong@comacghana.org | mshah@jgpe-events.com



Ghana Section

YOUNG PROFESSIONALS SPOTLIGHT

MARCH 2025

Michael Quaw

NDT Inspector (Octg), GRO OilField
Alliance Ghana Ltd



PROFILE

BTech in Mechanical Engineering from Takoradi Technical University(TTU). His career is a testament to the power of seizing opportunities and continuous growth.

ACHIEVEMENTS

Michael's path into the energy industry was significantly shaped by his early involvement with SPE. He began with the TTU student chapter, where his leadership potential shone as he rose to become President.

SPE CONTRIBUTIONS

Through SPE conferences, He connected with key industry players and gained critical insights. Notably, mentors like Dr. Riverson Oppong PhD and Franklin Akweh provided guidance that accelerated his professional development. His SPE experience has opened doors to invaluable networking and knowledge sharing.

FUN FACT

Listening to motivational words

INSPIRING QUOTE

"Proving one's worth when opportunities arise."

This drive has fuelled Michael's academic and professional success.



Michael Quaw



Join us, or Renew your membership

Innovative Solutions for Oil and Gas Professionals

Despite being hundreds or even thousands of miles apart, SPE members continue to make connections with like-minded students and professionals within the E&P industry from all around the globe.

Plus, each year SPE recognizes members for their technical contributions, professional excellence, career achievement, service to colleagues, industry leadership, and public service.

So, what are you waiting for? Join us, or Renew your SPE Membership today and unlock your professional growth opportunities!

Join. Renew. Belong.

JOIN/RENEW NOW 

Email

secretariat@speghana.com

Website

www.speghana.com

Social Media

    SPE Ghana Section

Membership Benefits

- ✓ Conference discounts
- ✓ Free or discounted access to online education;
- ✓ Ten free technical papers each year;
- ✓ A complimentary subscription to Journal
- ✓ A wealth of resources for networking, knowledge building, career advancement, and streaming content;
- ✓ Select business and insurance discounts,

Find out more at

www.spe.org/members/benefits/ 

How to Join

Joining SPE is EASY!

Simply visit www.spe.org/join 

Then register either as a student or a professional, using the relevant button provided on the webpage, as shown below:

For Professionals:

[Join Online - Professional](#)

For Students:

[Join Online - Student](#)

