INSIGHTS

BY Anotech
AN ALTEN COMPANY

EMPOWERING INVESTMENTS

NAVIGATING RISKS: TECHNICAL SUPPORT INTELLIGENCE

ABOUT ANOTECH

Anotech is your **key partner** in delivering **large-scale infrastructure projects**, cross sectors, with international capital investment, ensuring smooth execution while mitigating risks. As part of a major engineering group, we empower **global industry leaders** to implement strategies and execute complex projects worldwide, fully compliant with regulations. With expertise in project services (project management, project control, engineering, construction, commissioning…) we offer innovative solutions that ensure success across all project phases while maintaining high quality and safety standards. We help organizations meet goals while staying on time, at the lowest possible cost, and in line with requirements.

Our key commitments:

- Commitment to **integrity**, **health**, **safety**, and **environmental** protection.
- **Expertise** from a board of **50 top energy industry** leaders driving project success.
- **Global** delivery capabilities, built on experience with major industry players.

With **30%** of our activity in renewable energy, Anotech embraces a market-driven approach focused on continuous innovation.

TABLE OF CONTENTS

Dear Team, Clients, and Partners,

As we move forward in an ever-evolving landscape marked by significant challenges, it is imperative that we focus on managing the multifaceted risks we face in large capital expenditure (CAPEX) projects, particularly in the context of energy transition. The interplay of financial, geopolitical, health, and reputational risks has never been more salient, and navigating these challenges requires a strategic approach and deep expertise.

At Anotech, our experience during the COVID-19 pandemic serves as a prime example of how we can effectively manage crises. Through proactive engagement and responsive adjustments, we were able to support our clients, especially in construction projects around the world. We demonstrated our commitment to safety and continuity, even amidst unprecedented disruptions. We adopted new delivery set up, more agile and reconfigured our process to preserve our customer's assets. This experience reinforced our belief in the importance of resilience and adaptability in project management.

Moreover, the geopolitical landscape has introduced additional layers of complexity to our operations. The recent events at the gates of Europe and ongoing instability in various regions have underscored the importance of understanding and addressing geopolitical risks. We have navigated these challenges by incorporating comprehensive risk assessments into our customer's project planning, ensuring that we remain vigilant and prepared for any emerging threats.

Our commitment to equipping our teams and clients with the best possible support is rooted in our belief that experience is invaluable and cannot be transferred. it has to be lived to be forged. That is why we prioritize engaging experts who have not only lived through crises but have also amassed significant insights from their experiences. Their lessons learned can support our customer in making informed decisions and implementing effective strategies to mitigate risks.

In conclusion, as we continue to advance towards our goals to deliver an exclusive support to our customers in the strategy & execution of their large capex projects, let us remain focused on risk management and leverage our collective knowledge to navigate the complexities ahead. Anotech is dedicated to not only supporting our clients through challenging times but also helping them thrive by turning risks into opportunities.

Thank you for your continued trust and collaboration.
Together, we can forge a path toward a more sustainable future.

Frédéric JAMMES
CEO of Anotech

THE 17-18 JUNE 202, FIND US AT

GLOBAL INFRASTRUCTURE DIALOGUE 2025 #GID 2025

Anotech
AN ALTEN COMPANY

DELIVERING PROJECT CERTAINTY, SECURING INVESTMENT RETURNS.
PROJECT ASSURANCE FROM STRATEGY TO ROI.

As industry leaders, we contribute in transforming real-world challenges into solutions, enhancing the certainty of project success, to reinforce financial confidence.

Strategic Advisory | Technical Advisory | Integrated Project Management | Global Delivery

RECENT PROJECTS SUPPORTED

YOU FUND THE FUTURE,
WE MAKE SURE IT'S DELIVERED.

RENEWABLE ENERGY | INFRASTRUCTURE | CONVENTIONAL ENERGY

INDUSTRY, RISK, AND ENERGY: THE ART OF NAVIGATING INSTABILITY

AN INTERVIEW WITH MICHEL DERDEVET

With this striking statement, ***Michel DERDEVET*** *sets the tone. How can we anticipate in an uncertain world? He addresses the question with pragmatic clarity. For more than thirty years, he has explored all dimensions of risk management, from the core of institutions, companies, networks, and local territories.*
As the author of several publications including ***the report "Energy: A Europe of Networks," presented to President François Hollande in 2015 former ministerial chief of staff under the Jospin government, and former Secretary General of Enedis,*** *he now serves as President of the Maison de l'Europe in Paris. He is also involved in a French startup developing small modular nuclear reactors (SMRs). Michel DERDEVET embodies the convergence of industrial experience, public engagement, and political vision. In this no-nonsense interview, he offers a clear-eyed, practical, and deeply humanist perspective on modern risk management.*

ENERGY IS ALSO POWER

Since his early career in the 1980s, the world has profoundly changed not gradually, but abruptly. "We've moved from a linear world to a chaotic one," explains Derdevet. Back then, risk was often limited to technical, industrial, or financial parameters. Today, it has become systemic. *"Volatility has become the norm. Just look at what's happening now: a single tweet can crash the price of oil. We can no longer build strategy on a single scenario. We must explore multiple hypotheses, detect weak signals, and embrace the unexpected."*

He gives a concrete example: the war triggered on February 24, 2022, the day Russia invaded Ukraine. That day, Europe's energy landscape was reshaped. Europe rediscovered that energy is a matter of sovereignty. For years, European countries had built a relationship of dependency, fueled by the hope of lasting peace. But as Derdevet puts it, *"Cubic meters of gas are not neutral. They are instruments of influence."* Today, that dependency has shifted. American LNG now accounts for more than half of Europe's imports. And once again, risk looms: *"If the Trump administration decided to impose a tax, it would trigger another energy shock for Europe."*

Michel Derdevet is ***President of Confrontations Europe*** *and* ***the Maison de l'Europe de Paris, Executive Vice-President of Naarea*** *(developing innovative micro nuclear reactors), and author. He previously served as* ***Secretary General of Enedis, Deputy General Delegate for European Affairs at EDF, Director of Communication and Public Affairs at RTE****, and Head of Cabinet, among others* ***at the Ministry of Industry****.*

THIS IS NOT A PASSING CRISIS. THE WORLD HAS CHANGED. RISK IS NO LONGER JUST A POSSIBILITY. IT IS A CONSTANT FACTOR IN EVERY DECISION.

In this context, where risk is multifaceted, shifting, and unpredictable, risk mapping becomes a vital tool. Not a mere administrative task, but a living framework, agile, dynamic, and capable of adapting to the unforeseen. At Enedis, Derdevet describes how this mapping was the subject of ongoing work, shared with supervisory boards, managers, and employees alike. *"It covered everything: technical, legal, climate, reputational, and social risks."* To minimize risks, organizations must be structured, collaborative, and apply this tool with rigor.

> **DESPITE THE WARNINGS, DESPITE ALREADY PASSING THE +1.5°C THRESHOLD, WE ACT AS IF NOTHING HAS CHANGED.**

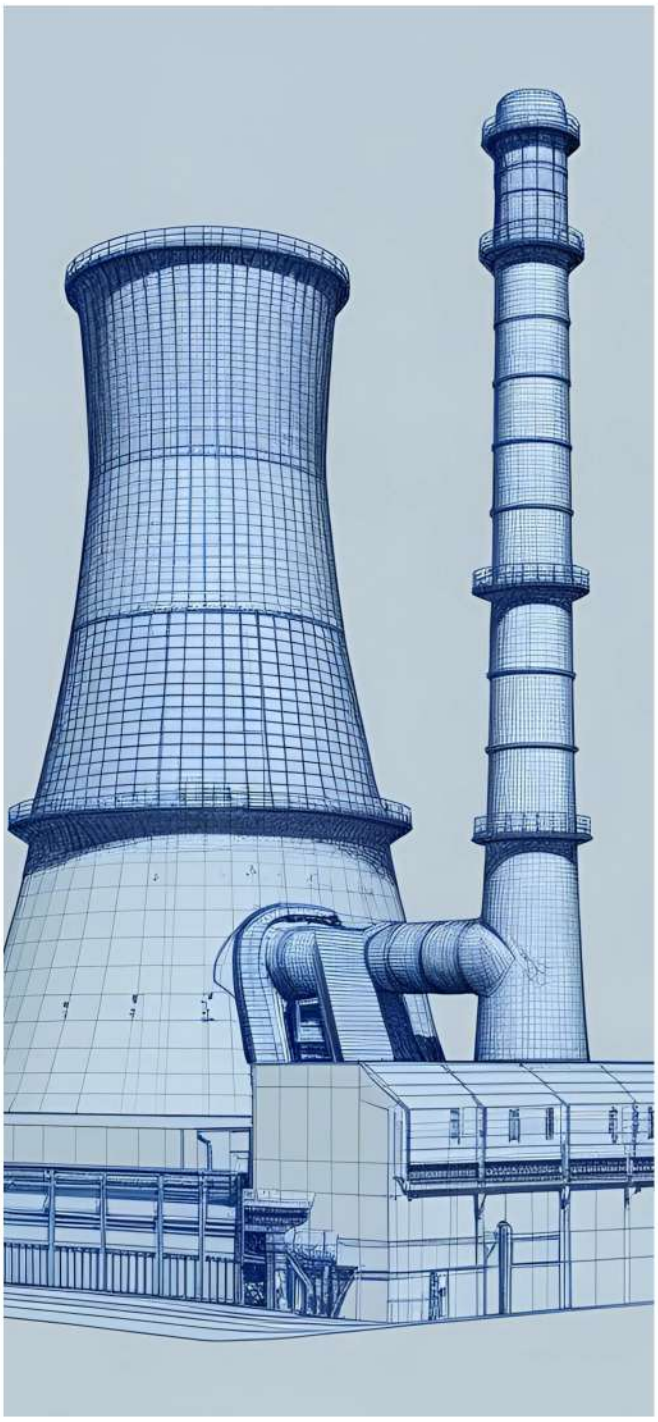
ENERGY IS CHANGING

His analysis is especially powerful when addressing climate disruption. Not in activist terms, but from a strategic standpoint: *"What concerns me is that despite the warnings, despite already passing the +1.5°C threshold, we act as if nothing has changed."* He highlights a growing disconnect between science and political decision-making: *"Scientific logic no longer holds weight. Decisions are made as if facts don't matter."*

Meanwhile, insurers raise alarms and natural disasters multiply, yet their underlying causes are often downplayed or ignored.

Faced with this paradox, Derdevet calls for fully reintegrating climate into risk mapping, and adopting an ecosystemic lens for all projects. *"Even without being an environmentalist, we can no longer ignore impacts on forests, water tables, and soils."* His message is critical, but not defeatist. He advocates for a public response on two levels: short-term sobriety, and in the medium to long term, decarbonized local energy production combining renewables and nuclear, without ideological battles. He recommends reading the report Energy: A Europe of Networks, he presented to President François Hollande in 2015, a full reflection on how to build a more integrated, resilient, and sovereign European energy system, one that embraces cooperation, anticipates risk, and balances innovation with strategic autonomy.

In designing such maps, Derdevet advocates for unwavering modesty. It's about embracing a humble posture that acknowledges uncertainty, not trying to control everything, but listening to both industrial experts and diverse, cross-sector, locally rooted perspectives. This broader view allows for deeper understanding and better forecasting.



ETHICS, INNOVATION, AND INFLUENCE

Risk, he insists, is also ethical. Corruption, lack of transparency, manipulation of information, and loss of trust are invisible yet highly dangerous threats. *"An ethics charter must be as operational as a business continuity plan. It must live within the company, explained, shared, and monitored."* In this framework, communication must not be superficial. Can it amplify risk ? Derdevet disagrees. He believes transparency is always an advantage. *"A company never loses by explaining what it does and by building a relationship of trust."*

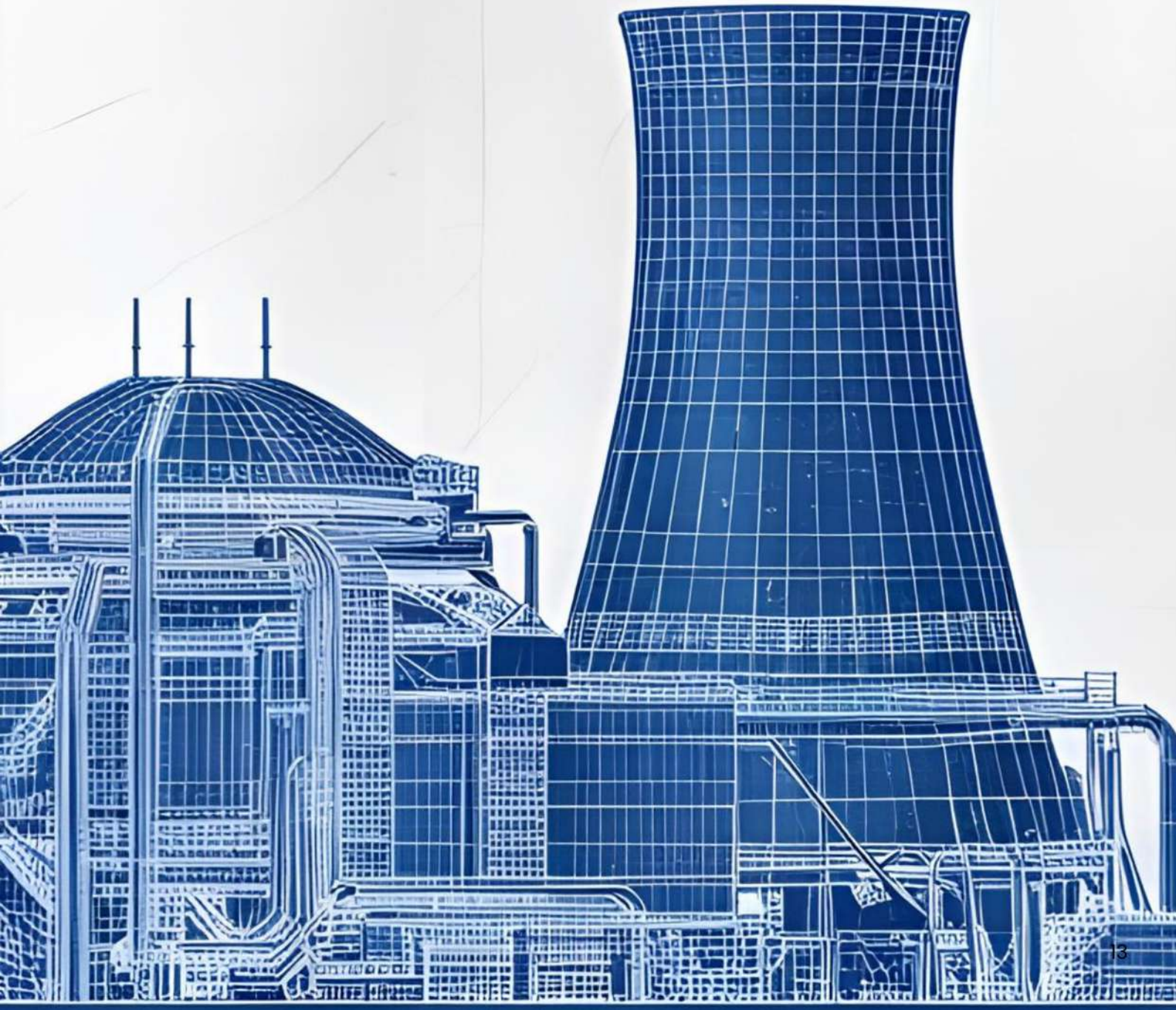
The same principle applies to technology. Innovation is a powerful ally, so long as we retain control over it. He gives a tangible example: an SMR project being developed with a French company using a digital twin. *"We can simulate the reactor's operations, run millions of calculations. It's a revolution. But innovation is never neutral. It carries sovereignty issues."* Especially in the nuclear field, he warns, *"We must remain in control of our tools. Safety cannot be outsourced."*

In an unstable world where energy is a lever of power, Michel DERDEVET calls for global vigilance, technical, ethical, media-related, and strategic. Risk management also involves the ability to maintain control.

THE INTELLIGENCE OF DOUBT: A STRATEGIC IMPERATIVE

Faced with growing threats, his advice for the future is clear: *"No matter how dense the risks, we must keep moving forward."* Risk is not an impassable wall, but a shifting landscape where progress is possible, if we accept uncertainty and work together. In modern risk management, humility is not just a moral posture, it is an operational requirement. It means acknowledging uncertainty as a structural factor and being capable of reading weak signals, adjusting models, and surrounding oneself with external perspectives. This avoids rigid certainties, improves listening and anticipation, and grounds decision-making in a broader understanding of reality.

IN THE END, IN AN UNSTABLE WORLD, TRUE STRATEGIC FINESSE IN FACING RISK LIES IN THE INTELLIGENCE OF DOUBT.



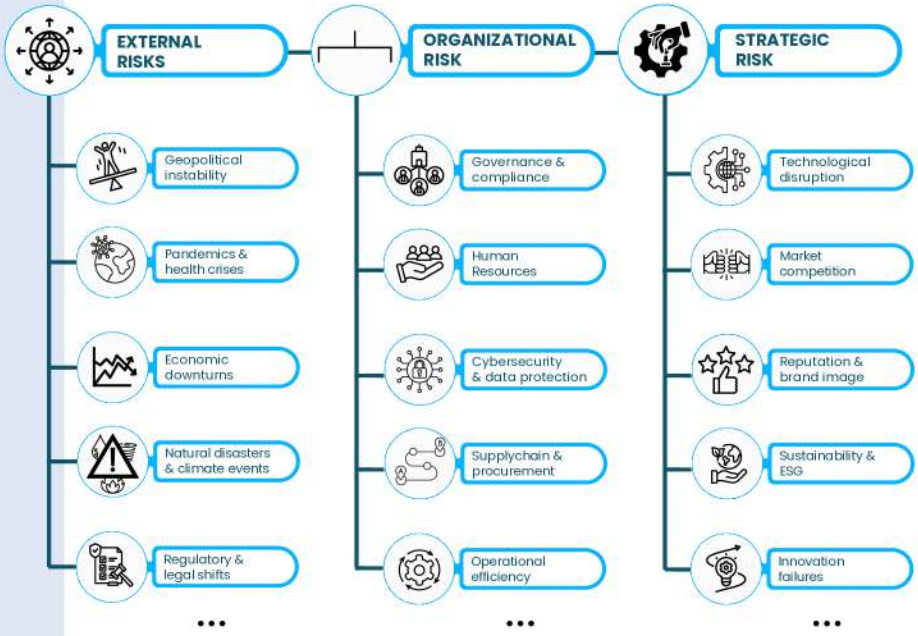
THE ART OF ANTICIPATION

RISK MANAGEMENT AT ALTEN GROUP – BEHIND THE SCENE

Risk Management is essential to ensuring business continuity and enabling strategic growth in an increasingly complex and unpredictable environment. It involves anticipating emerging threats, assessing vulnerabilities, and guiding decision-making at every level of the organization. ***Supervised by Yohan Favreau (Head of Risk & Compliance, ALTEN) and Romain Legrand (Risk Manager, ALTEN).***

GLOBAL CONTEXT

As highlighted in the *Global Risks Report 2025* by the World Economic Forum, the global landscape is becoming increasingly fragmented. A wide range of challenges, geopolitical, environmental, societal, and technological, now threaten global stability and progress.



The year 2024 was marked by a broad economic slowdown that impacted nearly every industry. As a key economic player, **ALTEN Group,** like any large company, is exposed to risks that could jeopardize its long-term viability and economic development.

RISK MANAGEMENT OBJECTIVES

ENABLE GROUP PROSPERITY

Support **ALTEN** and its subsidiaries in identifying, assessing, and managing risks, as well as implementing control measures across operational entities.

PROVIDE ASSURANCE

Ensure that all Group-level risks are effectively controlled and provide reasonable assurance to ALTEN's executive leadership.

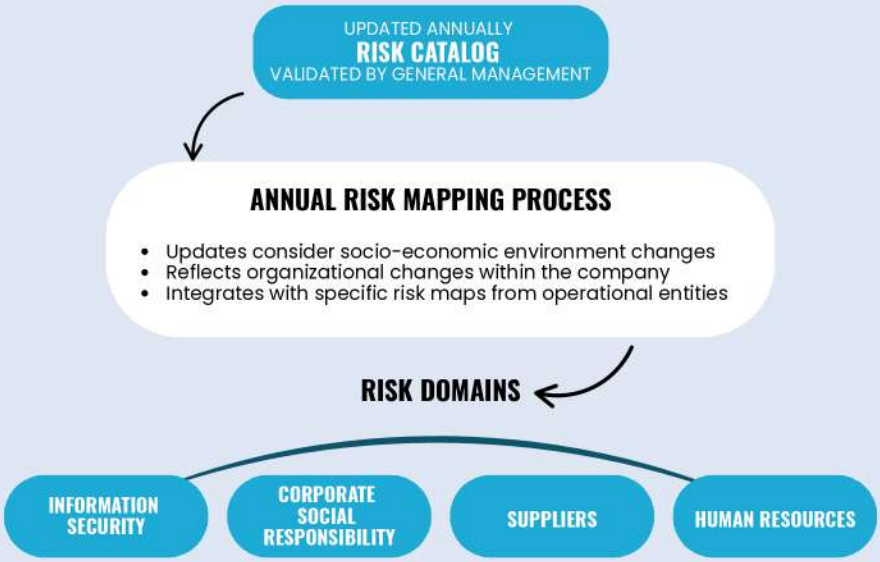
TEAM STRUCTURE

LEGAL DEPARTMENT → RISK DEPARTMENT → SUBSIDIARIES & RISK LEADS

With over 10 years of experience in risk management, security, and business compliance, Yohan Favreau has led the Group Risk & Compliance department at **ALTEN** since 2018. He is supported by Romain Legrand, Risk Manager and Group lead for the Risk Management Information System (SIGR). Together, they work closely with subsidiaries such as **Anotech** to identify, assess, and manage risks, and collaborate with Group stakeholders to define mitigation actions for major exposures.

YOHAN FAVREAU
HEAD OF RISK & COMPLIANCE

ROMAIN LEGRAND
RISK MANAGER



THE GLOBAL RISK MANAGEMENT SYSTEM INTEGRATES MAJOR RISK MAPS WITH SPECIFIC RISK MAPS.

RISK IDENTIFICATION

RISK ASSESSMENT CRITERIA

RISK CRITICALITY
This represents the potential severity of the risk, based on a combination of: Likelihood of occurrence / Potential impact

LEVEL OF CONTROL
Assesses how well the risk is currently being managed or mitigated by existing measures.

ACTION PLANS AND CONTROL MEASURES
Depending on the risk's priority level (based on its criticality and control), specific actions and controls are defined to prevent, reduce, or limit its impact.

ACTIONS AND SOLUTIONS FOR MANAGING RISKS

The combination of risk criticality and the level of control enables **ALTEN** to classify risks into four priority zones, based on a predefined risk matrix:

- Priority Zones 1 and 2 refer to major risks that could have a significant impact. **Zone 1** requires the implementation of a short-term action plan. **Zone 2** calls for a review of existing control measures to ensure the risk is adequately managed.
- Priority **Zones 3 and 4** correspond to moderate or low risks. Given their limited potential impact, these risks mainly require periodic monitoring.

”

In today's highly uncertain economic environment, the ability of companies to identify and manage their risks has become more critical than ever. Effective risk management is a true strategic asset, regardless of the industry. The energy sector is no exception: **Anotech** has fully embraced this reality by integrating structured risk identification and rigorous management practices throughout its entire operational chain for several years now.

MANAGING RISK IN ENERGY CONSTRUCTION

With over 40 years of international field experience, ***Franck Faroldi has worked across some of the world's most complex energy projects—from nuclear and LNG to today's modular biofuel plants.*** *In this interview, he shares key insights from his career, the realities of technical risk management in modular construction, and the lessons no software can replace.*

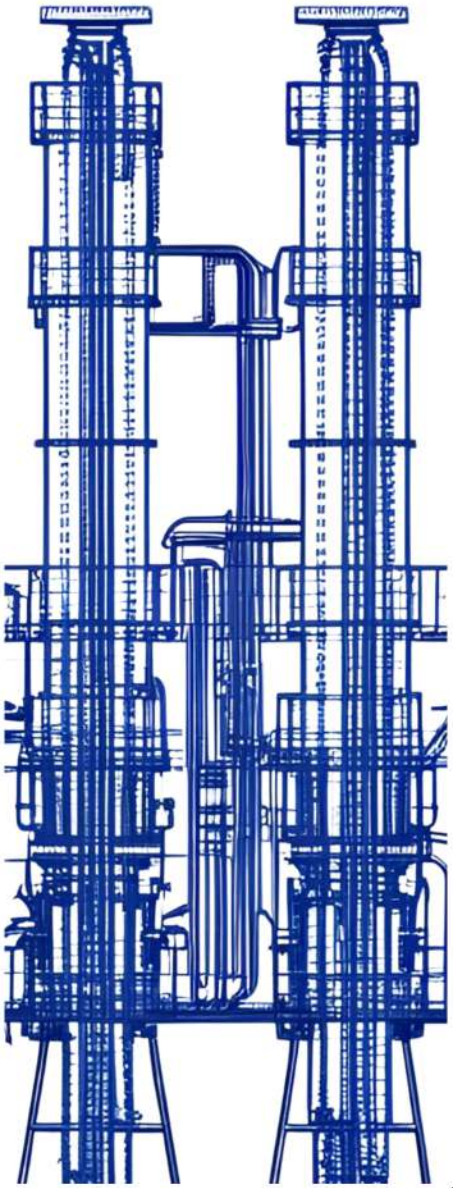
CAN YOU TELL US ABOUT YOUR BACKGROUND IN THREE KEY EXPERIENCES? HOW DID YOU MOVE FROM YOUR EARLY STEPS IN CONSTRUCTION TO MANAGING SUCH AMBITIOUS PROJECTS?

My career is simple, and unusual. I started as a boilermaker, pipefitter, welder. All my welding qualifications were in place, even for nuclear and submarines. I did that for 10–11 years. Then I got into international work. The first project abroad was in Congo at age 21. Since then, I've never stopped. I moved into management positions, from foreman to site manager. Later I joined a French company as a PVV (Piping Vessel & Valves) engineer. and spent 11 years managing all trades across projects. I even worked five years in engineering, just to understand what comes before construction. It changed how I approach the job.

WHAT ARE THE MAIN TECHNICAL CHALLENGES YOU FACE IN THE CONSTRUCTION OF MODULAR BIOFUEL PLANTS?

One of the main challenges is the constructability review, which involves defining the installation sequence: structure, piping, and equipment. If this isn't properly planned, time is wasted redoing work that's already been completed. Piping, in particular, requires pre-dressing, meaning it needs to be installed in sync with everything else. This is also tied to procurement; materials must be delivered in the precise order they're needed. Any deviation from this order can lead to project delays. When building in China for delivery in Canada, the biggest risk is falling behind schedule. If the modules are delayed, contractors on the Canadian site are left waiting. Strong planning and adequate manpower are essential to ensure the project stays on track and is delivered on time.

> **YOU STILL NEED THE HANDS, THE PENCIL, THE JUDGMENT.**



> **THAT'S HOW YOU MANAGE RISK. YOU TAKE A SHORT HIT TO AVOID A LONG-TERM FAILURE.**

RISK MANAGEMENT IS CRITICAL. CAN YOU SHARE A MOMENT WHERE A TECHNICAL APPROACH HELPED AVOID A MAJOR ISSUE ON SITE?

Yes. On a LNGproject in China, I saw immediately that the workshop was too small. We had 26,000 tons of piping to fabricate, it wasn't going to work. I flagged it right away, but no one listened. After three months, we were stuck. I made the decision to split the contract and open a new yard 165 kilometers away. We went from a 20,000 m² shop to five 15,000 m² workshops, plus painting facilities. The new yard totaled 400,000 m². It cost us a four-to-five month delay, but we delivered six months ahead of schedule in the end. That's how you manage risk. You take a short hit to avoid a long-term failure.

HAS THE ENERGY TRANSITION CHANGED RISK MANAGEMENT IN BIOFUEL PLANT CONSTRUCTION? WHAT KEY RISKS?

Not really. From a construction point of view, it's exactly the same. It's still structure, equipment, piping. In the biofuel modules, we didn't even do commissioning. There were no compressors or generators. Some equipment is IP-protected we weren't even allowed to touch it. That's all done later in Canada. In LNG, it's different . For an LNG project, we fabricated the modules without equipment. But for an other, still LNG we had full processing systems inside the modules. Compressors, generators... We even ran functional tests before shipping. That level of commissioning is much more demanding.

WHEN BUILDING MODULES FOR GAS AND ENERGY PRODUCTION, DID YOU HAVE TO ADJUST YOUR RISK MANAGEMENT COMPARED TO MORE CLASSIC INDUSTRIAL PROJECTS?

No difference at all. The base approach is the same: define the planning, manage interfaces, ensure quality. Whether it's renewables or not, we're working with the same materials. What changes is the regulatory framework (welding procedures, equipment standards) but it's all technical detail. For example, in Russia we worked with low-temperature steel for 45°C. In Canada it was ,30°C, but we used the same materials. What changes are the welding qualifications. The core construction approach doesn't.

IS THERE A STANDOUT MOMENT IN YOUR CAREER WHERE RISK MANAGEMENT TRULY MADE THE DIFFERENCE IN A COMPLEX SITUATION?

One moment I'll never forget was building the first FPSO in Africa. We had to install a huge export line, 26 or 28 inches wide, from the bow of the ship, 60 meters high, down to a swivel. The line had to match the curve of the ship perfectly. But no computer could calculate it. We kept getting errors. So I said, we're doing it by hand. We built scaffolding all along the hull, mocked up the pipe using tubing, and manually adjusted it to match the shape. We then prefabricated the line on a barge beside the ship. Divers were in the water, cranes were ready. We lifted the pipe, and it fit. Perfectly. That's a moment where you realize: sometimes, you can't solve it with a computer.

LOOKING BACK, WHAT'S THE ONE LESSON YOU'D WANT TO PASS ON?

Young people today, many don't know how to work without computers. If you take away the screen, they're lost. But in this job, you still have situations where the digital tools don't help. In those cases, it's your instinct, your judgment, your field experience that saves the project. Technology helps, but you need the basics. You need the hands, the pencil, and the judgment.

PARTNER

PURPOSE

Leasing of an FPSO unit and an FSO unit for a project in Ivory Coast prepared in a specific location for this purpose, with an expedited departure date.

OBJECTIVE

Subsea development and processing management of oil and gas production from the field, with export to Ivory Coast.

LOCATIONS

KEY NUMBERS

- FEBRUARY 2025 — Date of delivery
- 42 — Number of experts
- 156 — Number of procedure on both FSO & FPSO

RISK FACTORS

- Short delivery times
- Lack of proper procedures
- Inflexible cost & resource management
- Lack of infrastructure in the destination country

HOW WE HELP OUR PARTNER TO SUCCEED ?

EFFICIENCY

Resource Optimization : Adapting resources to optimize costs.

PROCESS

Procedure Management : Expanding & refining procedures

FLEXIBILITY

Flexibility & Adaptation : Continuous team realignment.

MOBILITY

On-Site Support : Local support in Dubai and global mobility, including Abidjan.

PROJECT TIMELINE OVERVIEW

2024

JANUARY
Anotech will perform a detailed review in January 2024 with the Project Director, Commissioning Manager, and FSO Project Manager to assess the required number of commissionning procedures.

APRIL
Scope of work has been received, and the technical proposal has been submitted.

MAY
32 procedures are scheduled for the FSO over 6 weeks. Anotech's technical leader, will be on-site in Dubai with 5 technical authors and 5 remote for flexibility. The data collection and review phase will align with partial team demobilization to meet client needs.

JULY
The FSO scope increases from 32 to 50 procedures to optimize time and ensure quality and expertise.

JULY
The scope is extended to include procedures for the FPSO, which were initially excluded. The contract is extended by 6 weeks to meet new requirements. Overall scopes is now 88 for FPSO & 68 procedures for FSO.

AUGUST
Anotech Commissioning Manager oversees both FPSO and FSO projects. (0 to 20 experts deployed within 1 month.)

AUGUST
Departure to FPSO: Site discovery in Abidjan and logistics/admin setup with a local Anotech partner, ensuring time and resource savings for expert arrivals.

SEPTEMBER
Departure of FSO from Dubai to Ivory Coast, in compliance with approved procedures.

OCTOBER
Mobilization of a team of 20+ experts for FSO & FPSO commissioning activities in Ivory Coast.

NOVEMBER
Finalization and delivery of procedures for both FSO and FPSO.

DECEMBER
Succesfully achieved First Oil on time

2025

FEBRUARY
Project handover to Operation team

PROJECT EXECUTED !

SUPPORTING OUR CUSTOMERS

FROM MIDDLE-EAST TO AFRICA : HOW DID ANOTECH SUPPORT HIS CLIENT'S SUCCESS ?

FPSO & FSO PROJECT: A SUCCESSFUL CHALLENGE.

In the context of tight deadlines and cost pressures, the development of a FPSO & FSO project in Ivory Coast, in partnership with another entity, highlighted the need for **flexibility** and **responsiveness** from the teams involved. The objective of this strategic project is to connect offshore production facilities. These two units need to be prepared for commissioning, with a crucial departure from a specific location to the project site in the summer of 2024.

AN AMBITIOUS LOGISTICAL AND TECHNICAL CHALLENGE

The final client, a major player in the energy sector, tasked another entity with modifying and preparing an FPSO and an FSO for large-scale continuous production. The **FPSO**, connected to a complex subsea production network, will treat and stabilize extracted oil before transferring it to the **FSO**. A specialized project management company was requested to review and validate commissioning procedures for the installations. The mission was clear: **reduce timelines, optimize resources, and ensure compliance** so the two units could depart from a specific location on schedule, ready for their offshore mission.

A PROACTIVE APPROACH AND EARLY INTERVENTION

In January 2024, **Anotech**, represented by its Global strategic, Technical and Local directors, intervened directly with the client project team, including the Project Director, Commissioning Manager, and the FSO Project Manager, to conduct a comprehensive review and estimate the number of required procedures. Initial estimation showed that **32 procedures** were planned for the FSO, spread over a **6-week cycle.**

DYNAMIC RESOURCE MANAGEMENT

The project kicked off in 2023, with very tight delivery deadlines. The FPSO was set to depart in **July 2024** and the FSO in **August 2024,** creating significant logistical and human resource challenges. The key was meeting technical requirements while adhering to strict budget constraints. **Anotech** took charge of managing teams and revising procedures, critical elements for the project's success. Initially, around **32 procedures** were planned for the FSO. However, as work progressed, the scope expanded to around **156 procedures**. Flexibility and adaptability were crucial: **Anotech** adjusted its teams and resources to meet new demands while maintaining **tight cost controls**.

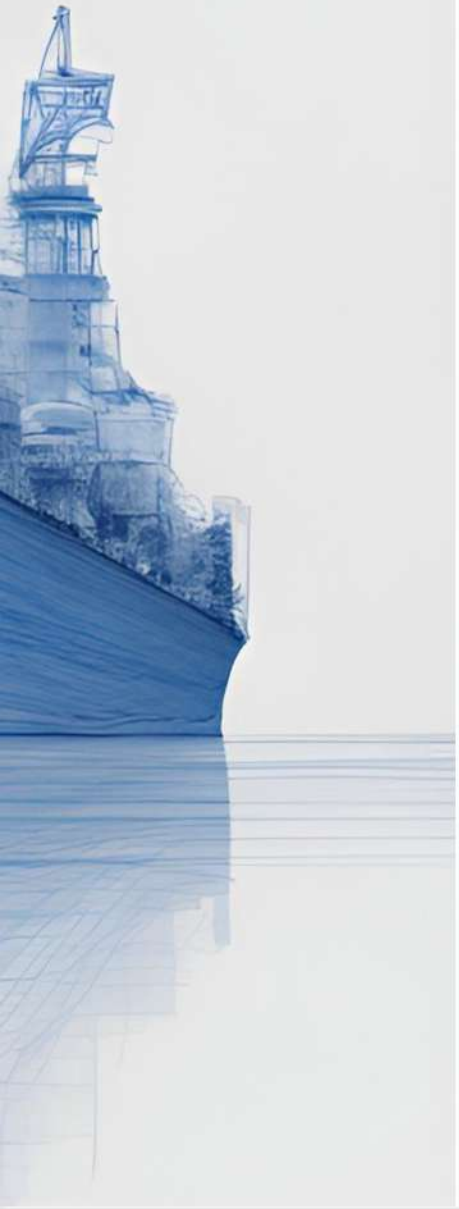
The on-site **technical leader** in Dubai was supported by a team of **5 technical experts**, with an additional **5 remote experts** for flexibility. This allowed Anotech to efficiently manage the workload and adjust resources as required. By August, the involvement of **Anotech's** Commissioning Manager on both the FPSO and FSO ensured full alignment with the client's goals. Over the course of one month, the team **scaled up from zero to 20 experts** as needed, demonstrating exceptional agility. At the same time, constant adjustments were made to align resources with the client's evolving needs. A partial demobilization phase was implemented during the procedure revisions, reducing costs before activities ramped back up. This team size adjustment, with five experts working remotely, ensured high productivity while optimizing operational costs.

A TECHNICAL AND HUMAN SUCCESS

The project reached its conclusion with the **successful validation** of **procedures** by an accredited center, which was a crucial step for the units to depart Dubai. Thanks to the smooth coordination and proactive management of challenges, **Anotech** ensured that the partner met regulatory requirements and facilitated the timely departure of both the FPSO and FSO. In **July and August 2024,** the units were shipped to **Ivory Coast** in accordance with the agreed schedule. The comprehensive, validated procedures ensured full compliance and immediate readiness for commissioning.

A COMPREHENSIVE SOLUTION FOR A LARGE-SCALE PROJECT

The field project was a success, both in terms of **technical performance** and **resource management**. Through a **combination** of **responsiveness** and **efficient procedure management**, **Anotech** not only met the client's expectations but also achieved cost reductions while adhering to tight deadlines. This project demonstrates **Anotech's** ability to support partners in navigating complex energy sector challenges by providing **tailored solutions** and **strategic support** that align with project demands. Our success is measured by the value we bring to our clients and our contribution to a sustainable future.



THIS PROJECT WAS A TRUE TEAM SUCCESS. THANKS TO OUR RESPONSIVENESS AND THE EXPERTISE OF OUR TEAMS, WE EFFECTIVELY SUPPORTED OUR CLIENT FROM THE MIDDLE EAST TO AFRICA.

"Being part of this project has been a great experience for our team at Anotech. We were able to provide integrated support within our customer's teams, helping them successfully deliver their project from the Middle-East to Africa. Our flexibility, availability of resources, and capability to mobilize specialized resources on-site in just 48 hours allowed us to quickly ramp up and accelerate the offshore execution.

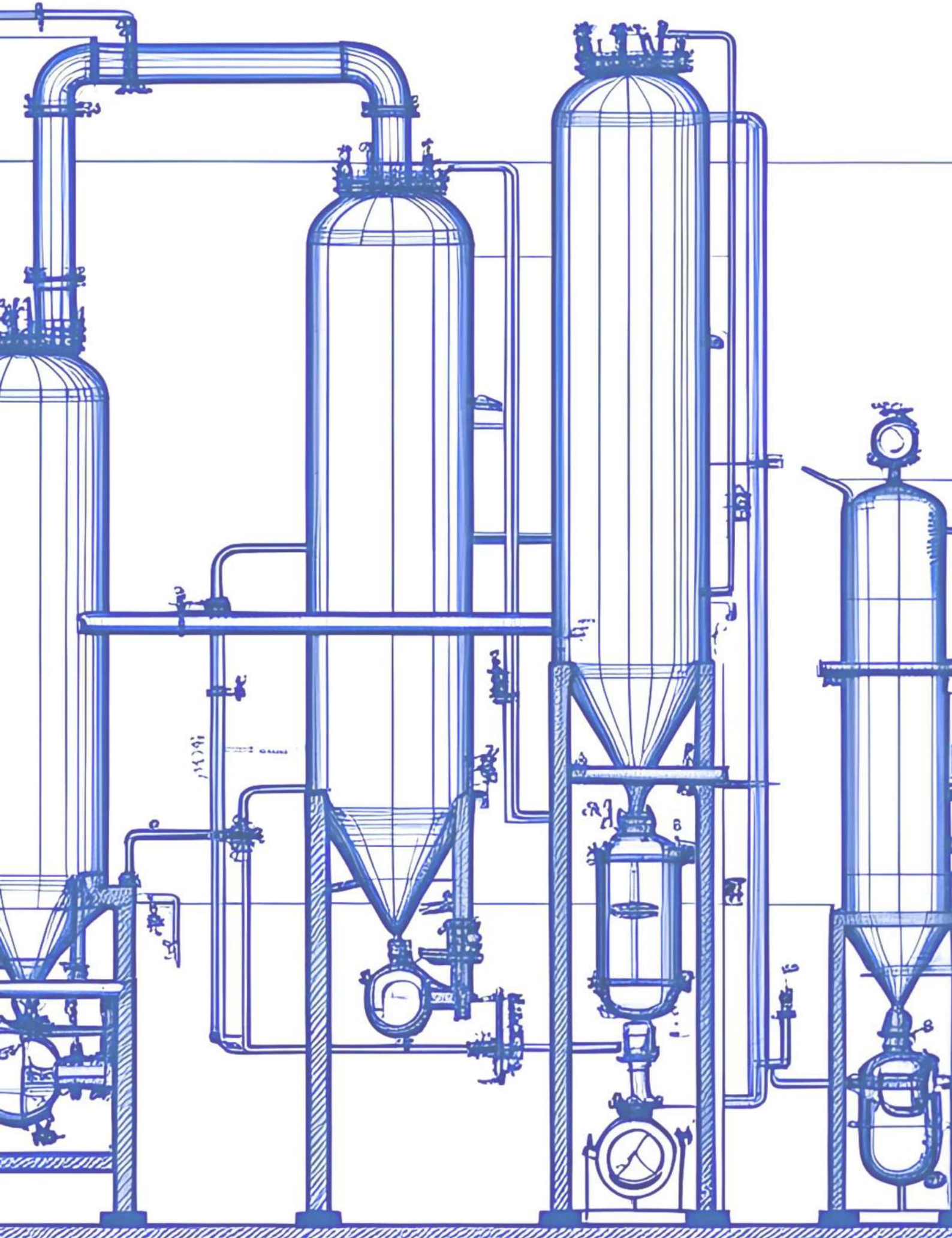
One of the key aspects of our success was providing specialized and experienced FPSO resources. Our team was able to anticipate and avoid potential issues, as well as resolve any existing ones, ensuring a smooth project delivery. In preparation for mobilizing our team in Ivory Coast, our QHSE Manager conducted a site visit to understand the project set-up and Health & Safety requirements. We worked closely with the client to create emergency response plans and bridging documents to align with their procedures, ensuring a seamless integration of our services.

Overall, our team's dedication and expertise allowed us to provide exceptional support to our customers, helping them achieve their project goals efficiently and effectively. It was truly a rewarding experience for all of us at Anotech."

Julian DUBOIS, Project Manager
Anotech, Middle East.

"Today is my last day here in project, I just want to say thank you to you and for your team as well for an excellent support.
From the day of mobilization and demobilization. Kindly send my heartfelt thanks to the team of Anotech they are amazing and very professional. All your staff are very supportive and always have an answer for all my query. Anotech is very supportive generous as well nothing to say for a wonderful support until I finish this project. I 'll give 100% star for your team.
Thanks again and hope to find a new project under Anotech."

Anotech Expert
Electrical Commissioning Supervisor.



THE VOICE OF OUR PARTNERS

ALTAF HUSSAIN - SAFETY CULTURE SPECIALIST - ANOTECH PARTNER

I believe that safety is not just a protocol but a culture that thrives when we work together. My role involves empowering teams to embrace safety as a core value. By fostering open communication and leading with empathy, we ensure that every individual feels responsible for creating a safe and productive environment. It's inspiring to see how our team collaborates to overcome challenges, prioritize well-being, and set new benchmarks in safety Excellence.

"I BELIEVE THAT SAFETY IS NOT JUST A PROTOCOL BUT A CULTURE THAT THRIVES WHEN WE WORK TOGETHER.

ENGINEERING AT SEA

NAVIGATING RISK, PRESSURE AND PRECISION.

From the freezing docks of Northern Europe to the deep waters off the coast of Australia, ***Bozidar Ukas*** *has spent nearly two decades immersed in the* ***complex world of offshore*** *engineering. As* ***Deputy Technical Manager****, he has coordinated some of the most demanding energy infrastructure projects. In this third edition ofINSIGHTS, Bozidar opens up about his career journey, the challenges of FPSO projects, the importance of engineering risk management, and how digital tools are transforming the job.*

CAN YOU TELL US ABOUT YOUR CAREER PATH AND WHAT LED YOU TO YOUR CURRENT ROLE AS DEPUTY TECHNICAL MANAGER?

My journey in offshore engineering began back in 2006. I started as a young engineer in my home country, Croatia, and shortly after was transferred abroad. Since then, I've worked across seven different countries, Italy, Germany, Finland, Japan, Russia, Ivory coast, and now France. Each step offered new responsibilities and challenges. I've been involved in heavy cargo transport, offshore installations, and renewable energy, coordinating everything from the load-out of refinery modules in Finland to the engineering of floating production platforms for projects in Siberia and West Africa. I came into my current role following a particularly intense FPSO project in Côte d'Ivoire. It was a fast-track operation, we went from zero to first oil in just 10 months, which is almost unheard of. That experience was a key turning point in my career and showed the leadership that I could handle high-stress, high-impact projects.

WHAT ARE YOUR MAIN RESPONSIBILITIES ON A PROJECT ?

At the moment, I oversee the technical coordination of a major subsea gas compression project. It's a deepwater installation, and the engineering is divided into eight work packages. Each has a lead engineer and a dedicated team working on different scopes, from naval dynamics and structural design to metrology, surveying, and installation. Think of my role like a conductor of an orchestra, making sure all the teams are aligned, playing in time, and not stepping on each other's toes. I coordinate engineering decisions, manage priorities, communicate with clients and internal leadership, and ensure that the whole technical side of the project moves as one.

HOW DO YOU BALANCE TECHNICAL COORDINATION, RISK MANAGEMENT, AND STAKEHOLDER INTERACTIONS?

Risk management is at the heart of everything. But unlike financial or managerial risk, our world is full oftechnical risk. A small miscalculation, a clash between structures, a lifting misalignment, a misread ocean current, can have serious consequences. We regularly hold workshops with other contractors, fabricators, transport providers, installation teams, to examine the knock-on effects of each part of the process. For example, if a structure isn't suitable for transport at sea, it could be damaged or cause damage during installation. So we use simulations, modelling, and a lot of proactive collaboration to keep those risks under control.

WHAT ARE THE SPECIFIC CHALLENGES OF AN FPSO PROJECT COMPARED TO OTHER INFRASTRUCTURES? WHY IS RISK MANAGEMENT PARTICULARLY CRITICAL IN THIS CONTEXT?

Two things make FPSOs particularly challenging: space and location. First, space, or the lack of it. On land, if you need more room, you expand. On an FPSO, the layout is fixed. You can't push a wall out or add an extra floor. Every piece of equipment has to fit within strict spatial and weight constraints. One small error in the planning phase, and you could be facing a complete redesign. Second, location. You're in the middle of the ocean. If something breaks or isn't ready, you can't just "go fetch" it. If production stops, you're potentially losing 100,000 barrels of oil per day, that's millions lost in just 24 hours. That's why risk management is non-negotiable. You must get it right the first time.

YOU'VE LIKELY ENCOUNTERED DESIGN OR EXECUTION ERRORS THAT COULD HAVE BEEN COSTLY. CAN YOU SHARE AN ANECDOTE?

Yes, one that stands out happened during that FPSO project I mentioned earlier. The unit arrived at the site during a period of strong currents, something we'd usually avoid, but delays meant it was inevitable. The divers couldn't enter the water safely. The currents were so strong, they tilted the diving capsule to 45 degrees.

The client was putting pressure on us to deliver, but the situation was dangerous. We had to completely redesign the installation method, from scratch, in three days. I was sure they'd send me home for proposing such a radical approach. But it worked. The key was documenting every single potential risk and building a method that accounted for all of them. It's not about luck, it's about preparation and discipline.

HAS THERE BEEN A MAJOR CRISIS IN YOUR CAREER THAT CHANGED HOW YOU APPROACH RISK MANAGEMENT?

That same project was a turning point. It taught me that you can't rely on standard procedures. Conditions change. Things go wrong. You need to build flexibility into your process, and your mindset. Since then, I've always pushed for a detailed risk review early in every project. We write down everything that could go wrong, even if it seems unlikely, and think through how to mitigate or avoid each one. That way, when surprises happen, they're not really surprises.

MORE AND MORE DIGITAL TOOLS ARE HELPING ANTICIPATE FAILURES BEFORE THEY OCCUR. CAN YOU GIVE AN EXAMPLE?

Yes, one that stands out happened during that FPSO project I mentioned earlier. The unit arrived at the site during a period of strong currents, something we'd usually avoid, but delays meant it was inevitable. The divers couldn't enter the water safely. The currents were so strong, they tilted the diving capsule to 45 degrees.

The client was putting pressure on us to deliver, but the situation was dangerous. We had to completely redesign the installation method, from scratch, in three days. I was sure they'd send me home for proposing such a radical approach. But it worked. The key was documenting every single potential risk and building a method that accounted for all of them. It's not about luck, it's about preparation and discipline.

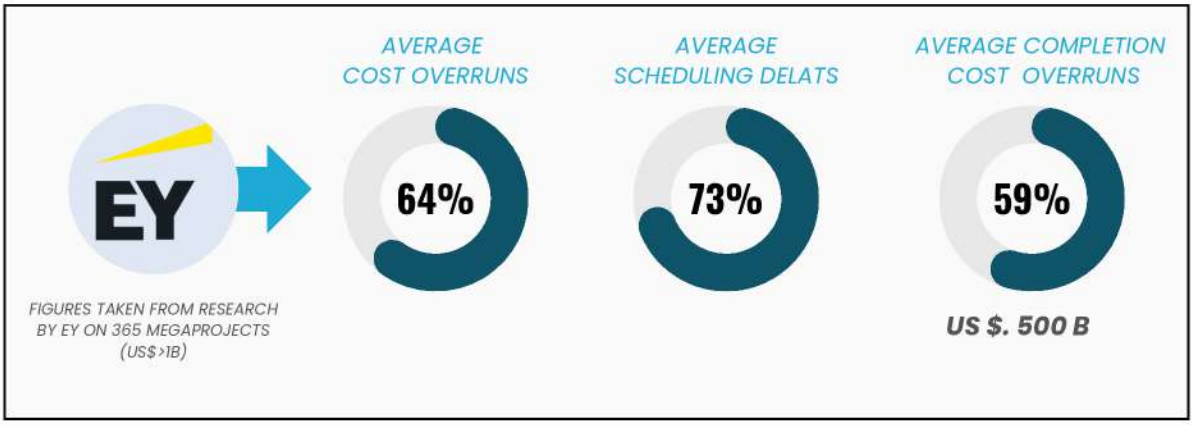
FINAL QUESTION: DO YOU ENJOY YOUR WORK?

Most days, yes. It's demanding, but also incredibly rewarding. This career has taken me around the world. I've met extraordinary people, learned from every project, and grown professionally and personally. That said, there are moments, especially after weeks at sea, when I think, "Maybe my grandmother was right. I should've been a plastic surgeon!"

THE STRATEGIC VALUE OF INDEPENDENT PROJECT REVIEWS

*This article was developed by **Darren AHRENS**, Project and Technical Vice President whose field experience and insights have significantly enriched the analysis presented.*

Major capital projects across sectors such as energy, oil and gas, and infrastructure have historically experienced significant schedule delays and cost overruns. Despite efforts to apply lessons learned, many of these issues persist and are frequently replicated from one project to another. Industry research and post-project assessments consistently highlight a set of recurring root causes. These include poorly structured project organizations, assignment of personnel lacking the necessary experience for the project's complexity, weak governance frameworks, inadequate or misaligned project control systems, and delays or failures within the supply chain. Often, these challenges do not arise in isolation but occur in combination, compounding their negative impact on project delivery and performance.



WHY ARE AUDITS AND REVIEWS REQUIRED?

1

Provide an independent cold eye review of the project status and to create better visibility and predictability which enables proactive actions to increase certainty for delivery of the project, in the shortest possible period and at the lowest possible cost.

2

2. Shareholders of listed companies are usually quite separate from those managing and governing the companies and projects. They need a reliable and independent source of technical and financial information on which to assess the project, and the performance of management and those in charge of the governance. Audits and reviews also enhance the credibility of the information contained within the financial report.

REVIEW METHODOLOGY

REVIEW PRE-PLANNING :

Agree a Term of reference for the review and areas of focus.

IDENTIFY :

Project challenges, priorities, achievable key milestones, road blocks, critical success factors and potential risk areas.

DELIVER :

Based on project experience and industry lessons learned identify practical areas of improvement and recommendations to achieve the project objectives.

DEFINE :

Review compliance to the project objectives, basis of design and evaluation of the project status.

IMPLEMENT :

Assistance in addressing critical issues, capability gaps and monitoring the project progress to ensure the customers success.

In light of the persistent challenges faced by major capital projects, from cost overruns to schedule delays, the importance of independent project reviews cannot be overstated. These reviews serve as essential tools for early risk identification, objective performance assessment, and enhanced governance.

By introducing a structured, external perspective at key decision points, independent reviews help uncover systemic weaknesses, support better-informed decision-making, and improve project predictability and outcomes. As industries seek to deliver increasingly complex projects on time and within budget, integrating independent audits and reviews into the project lifecycle is not only a best practice, it is a critical component of project success and stakeholder confidence.

25 YEARS IN HSE

CHRISTIAN'S GROUNDED VISION FOR SAFETY IN THE ENERGY SECTOR

> **WHAT ISN'T ANTICIPATED AT THE DESIGN STAGE WILL COST YOU LATER IN TIME, MONEY, AND SAFETY.**

With over 25 years of experience in risk prevention, ***Christian Faurie****, Anotech expert has worked across the globe and in some of the most challenging environments imaginable. From offshore rigs to remote rainforests, his approach to* ***HSE (Health, Safety, and Environment)*** *is both deeply human and operationally strategic.*

A FORMATIVE START IN THE WILD

Mr Faurie began his career at the end of the 1990s with a major French geophysics company, immediately stepping into a world of rugged terrain and logistical complexity. His first assignment took him to Papua New Guinea, reachable only by helicopter or boat. *"It was exactly as described in the job offer, an adventure,"* he recalls.

These early years, spent in Indonesia, India, Pakistan, Venezuela, and Argentina, provided him with a unique insight into field realities. "To manage risk effectively, you must first understand the job itself, tools, workflows, environments, and local cultures."

OFFSHORE EXPERIENCE: SAFETY IN TIGHT QUARTERS

Later, Christian transitioned to offshore drilling with a large international contractor. He spent three years on a rig off the coast of Angola. *"It was a drastic shift, from wide open land-based operations to a confined barge at sea."*

On these tight platforms, collaboration and trust were critical. *"One day, the marine crew leader came to inform me about a high-risk operation. That's when I knew I was accepted as part of the team. Trust is everything in HSE."*

FROM RISK ANALYSIS TO SEAMLESS OPERATIONS

According to Christian Faurie, effective risk management starts long before boots hit the ground. Whether on a petroleum platform or a floating wind farm, preparation is essential. *"We rely on structured tools like HAZID and HAZOP to map risks in advance. Engineers, HSE professionals, and operations teams must work together from the start."*

One recent example is a floating wind turbine pilot project off the French coast, where execution phases are short but planning spans years. *"Without thorough preparation, you fail before you begin."*

HSE AS A DRIVER OF PERFORMANCE

Faurie challenges the outdated view of HSE as a constraint. *"Good safety planning boosts performance. Well-maintained equipment lasts longer. Well-trained staff are more engaged and loyal."*
He structures his approach around three pillars: equipment, organization, and the human factor. "When done right, HSE enhances quality of work, productivity, and well-being. It's not a constraint, it's an asset."

FACING NEW RISKS IN THE ENERGY TRANSITION

Working in renewables has brought new challenges. *"In offshore wind, responsibilities between stakeholders can be blurry. There's also a rise in electrical risks and new technologies with their own safety profiles."*
He emphasizes clear role definitions early in the project lifecycle, particularly during commissioning phases that bring multiple actors into complex, high-risk environments.

INVOLVING HSE EARLY: A STRATEGIC IMPERATIVE

Mr Faurie concludes with a strong recommendation: involve HSE professionals from the very beginning of a project. *"What's not considered during the design phase will come back as costly, risky rework."*
He recalls a project in South Korea building a drilling vessel. Late-stage changes were needed because operational teams weren't consulted early enough. *"It's simple: those who operate the equipment should be involved in its design. They know best."*

CONTACT US

contact@anotech.com

www.Anotech.com