AI FOR INDUSTRY

GRAND PALAIS

Report & Replays

Adopt AI

Grand Palais
25 - 26 November, 2025.

Adopt AI

20 000+	7	600+	8	250+
Attendees	Ecosystems	Speakers	Stages	Exhibitors

Adopt AI Summit **2025 edition at a glance.**

20.000 attendees

27 CEOs

3.000+ CXOs

650+ speakers

250+ exhibitors

7 stages

35+ country delegations

70+ country represented

14 country booths

AI for INDUSTRY speakers.

REPLAYS

xx
Conferences

Xx
speakers

Conference Program

AI FOR INDUSTRY Yann Lechelle CEO :probabl.	**AI FOR INDUSTRY** Wojciech Janusz EMEA AI & Data Science Lead DELL Technologies	**AI FOR INDUSTRY** Hélène Macela-Gouin Vice President, Secure Power and Data Center Business, France Schneider Electric	**AI FOR INDUSTRY** Stan Zurkiewicz CEO DEKRA	**AI FOR INDUSTRY** Sébastien Rousset Chief Artificial Intelligence Officer NAVAL GROUP	**AI FOR INDUSTRY** Dr. Sabine Klauke EVP HO Digital Design Manufacturing and Services AIRBUS
AI FOR INDUSTRY Emmanuel Cox Director of Strategy and Digital Transformation SNCF RÉSEAU	**AI FOR DEFENSE** BY AI FOR INDUSTRY Mickael Brossard VP cortAIx Factory, AI by Thales THALES	**AI FOR INDUSTRY** Alice GUEHENNEC Group Chief Tech, Data, Digital & Innovation Officer sodexo	**AI FOR INDUSTRY** François Cuny Deputy CEO for Innovation Inria	**AI FOR INDUSTRY** Pierre-Yves Le Morvan France Manufacturing Lead nVIDIA.	**AI FOR INDUSTRY** Pierre Houles Deputy CIO, Renault Group, Chief Technology Officer Mobilize and General Manager Renault Digital Renault Group
AI FOR INDUSTRY Su Yang Head of Artificial Intelligence & IT Innovation BNP PARIBAS	**AI FOR INDUSTRY** Laurent Degré VP GM HPE France HPE	**AI FOR INDUSTRY** Wassila Zitoune Dumonet CEO Orange Business France orange Business	**AI FOR INDUSTRY** Stéphane Tanguy CIO & CTO at EDF Labs EDF	**AI FOR INDUSTRY** Mihir Sarkar Chief AI Officer ENGIE	**AI FOR INDUSTRY** Mohammed Alharthi Computer Operating Systems Analyst aramco

AI for FINANCE speakers.

AI FOR INDUSTRY
Chris Van Pelt
Distinguished Engineer and Cofounder
Weights & Biases by CoreWeave

AI FOR INDUSTRY
David Glijer
Chief Digital Officer
ArcelorMittal

AI FOR DEFENSE BY AI FOR INDUSTRY
Dr. Chaouki Kasmi
President – Technology & Innovation
EDGE

AI FOR INDUSTRY
Franck Bonnay
Key Account Director
Google Cloud

AI FOR INDUSTRY
François Lavernos
Chief Information Officer Renault Brand and VP IS/IT Industry
Renault Group

AI FOR INDUSTRY
Ghassan Abumohssin
Computer & Communication Specialist
aramco

AI FOR INDUSTRY
Guilhaume Leroy-Meline
IBM Distinguished Engineer
IBM

AI FOR INDUSTRY
Julien Nicolas
Chief Digital Group & AI officer, Member of the Executive Committee
SNCF

AI FOR INDUSTRY
Hakim Dridi
EMEA Solution Architect - Industry Tech Lead
DELL Technologies

AI FOR INDUSTRY
Caspar Herzberg
CEO
AVEVA

AI FOR INDUSTRY
Jean-François Tarabbia
Member of the Executive Board of AUMOVIO Head of Architecture and Network Solutions
AUMOVIO

AI FOR INDUSTRY
Raphael Frisch
CEO & Co-Founder
HAWAI.tech

AI FOR INDUSTRY
Bruno Ricaud
Lead AI
KNDS

AI FOR INDUSTRY
Jean-Stéphane Didier
Managing Director, Construction
LEON GROSSE

AI FOR INDUSTRY
Sébastien Arbola
EVP Data, Digital, IT, Strategy, R&I
ENGIE

AI FOR INDUSTRY
Alain Bécoulet
Deputy Director General
iter

AI FOR INDUSTRY
Ahmed Nazer
IT Specialist
aramco

AI FOR DEFENSE BY AI FOR INDUSTRY
Biljana Weber
Senior Vice President and Managing Director for Northern Western Europe
HPE

AI FOR INDUSTRY
Wojciech Janusz
EMEA AI & Data Science Lead
DELL Technologies

AI FOR INDUSTRY
Philippe Magarshack
Microcontrollers, Digital and RF Products Group, Strategy VP
ST

AI FOR INDUSTRY
Patrick Aufort
Director
AGENCE INNOVATION DÉFENSE

AI FOR INDUSTRY
Johannes Brandstetter
Co-founder & Chief Scientist
Emmi AI

AI FOR INDUSTRY
Manik Sharma
SVP Supply Chain
celonis

AI FOR INDUSTRY
Clément Dietschy
CEO
ask for the moon

AI FOR INDUSTRY
Michael Harrell
SVP Engineering Maps
tomtom

AI FOR INDUSTRY
Yazan Alahmadi
IT Systems Analyst
aramco

AI FOR INDUSTRY
Mostafa Amer
Computer & Communication Specialist
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AI FOR INDUSTRY
Édouard Guillaud
Former French Chief Of Defence, JEDI Board Member

AI FOR DEFENSE BY AI FOR INDUSTRY
Bertrand Rondepierre
Head of Ministerial Agency for AI in Defense
AMIAD

AI FOR INDUSTRY
Jérémie Profeta
Chief Transformation Officer & Executive Committee Member
sonepar

AI FOR INDUSTRY
Karim Beguir
Co-founder and CEO
InstaDeep

AI FOR INDUSTRY
Meriem Riadi
Chief Information Officer, Veolia France – Water Division
VEOLIA

AI FOR INDUSTRY
Jean-Yves Delannoy
Digital R&D Scientific Director
ARKEMA

KEY HIGHLIGHTS AI FOR INDUSTRY

Conferences Program

The integration of Artificial Intelligence into the industry sector represents a fundamental paradigm shift, moving far beyond incremental improvements to redefine operational strategy and asset utilization entirely. This transformation is not on the horizon; it is actively reshaping how vehicles, fleets, and infrastructure are managed today. To provide your team with a comprehensive understanding of these changes, the replays are now available.

These strategic highlights detail the most critical AI trends. They are not merely coexisting, they are part of a self-reinforcing flywheel that is rapidly reshaping the industry landscape:

- **Autonomous Operations are Becoming the New Standard:** The industry is advancing beyond simple automation to AI agents that perform complex, large-scale dynamic optimization of entire physical infrastructures, such as national railway networks or airport ground operations in real time. **The Workforce is Being Augmented, Not Replaced:** AI is successfully being deployed as a co-pilot that simplifies complexity and allows specialists to focus on their core craft, a transformation that thrives when championed by middle management, not just imposed from the top.

- **Digital Twins are Evolving into AI-Powered Innovation Engines:** Digital twins have transformed from passive sandboxes into proactive discovery engines that accelerate simulation by orders of magnitude, autonomously searching millions of variants to find optimal solutions for physical processes before implementation.

- **Generative AI is Moving from Digital Content to Physical Design:** The capabilities of generative AI are expanding beyond text and images and into the physical world, playing an emerging role in R&D and engineering to create novel outputs like new molecules, advanced materials, and optimized mechanical components.

- **AI Sovereignty has Become a Core Business Imperative:** Protecting core intellectual property and ensuring operational autonomy in a volatile geopolitical landscape has elevated data and AI sovereignty into an existential business imperative for strategic survival.

To lead your organization through this era of change, it is essential to internalize these principles. We encourage you to explore these themes in greater depth by watching the session replays, an essential resource for your strategic planning and execution.

AI FOR INDUSTRY

GRAND PALAIS

Adopt AI

CEO STAGE

25 - 26 November, 2025.

Visionary Keynote.

Christophe Périllat, CEO

About Christophe Périllat: An experienced automotive executive with a strong engineering background, Périllat has served Valeo for over two decades, currently leading the company's strategic pivot toward electrification and advanced assistance systems.

Valeo has made bold strides in artificial intelligence. Integrating AI in their technologies for the past 20 years in rear cameras and in all perception systems, Valeo has led the way in integrating cutting-edge AI into assisted and autonomous driving technologies.

At Adopt AI, he will share his perspective on how artificial intelligence is reshaping the automotive world, from improving safety and intelligence to driving more sustainable mobility.

⋀ **While legacy ADAS (Advanced Driver Assistance Systems) have saved millions of lives,** the industry is hitting the "limit by design" of rule-based approaches which cannot account for every driving variable. The challenge is shifting from reactive programming to AI-driven cognitive systems to accelerate road safety and autonomous capabilities.

⋀ **Operational Acceleration:** Valeo has aggressively adopted Generative AI in R&D. Through a partnership with Google, 100% of software engineers are trained in GenAI. Consequently, 25% of certified automotive code is now AI-generated, a massive leap from 0% just 16 months prior.

⋀ **The Rise of Physical AI:** The transition to Software-Defined Vehicles (SDV) centralizes computing power, enabling "Physical AI." Unlike traditional perception modules that simply categorize objects, Physical AI understands dynamic laws (inertia, grip, braking distance) and reasons like a human driver to predict trajectories rather than just react.

⋀ **Hybrid AI Strategy:** While "End-to-End" models (learning driving behaviors directly from raw data) offer adaptability, validating them is difficult. Valeo adopts a "Hybrid AI" strategy, combining proven modular safety systems with progressive end-to-end enhancements to ensure explainability and fail-safe reliability.

⋀ **GenAI Simulation:** To validate these systems, Valeo utilizes GenAI to create infinite simulation scenarios from single images—adding rain, fog, or night conditions—to rigorously test perception algorithms against edge cases without needing physical fleets for every scenario.

⋀ **Christophe Périllat:** No single European player possesses enough data to compete globally in the race for autonomous driving. Success requires a "constellation of European players" pooling data as a common good to achieve the critical mass necessary for robust AI training and road safety certification.

⋀ **Conclusion:** The question is not if AI will be part of our lives (the answer is yes), but how we can coexist and ensure AI is secure, safe, and trustworthy. This requires cross-border collaboration and the use of regulatory sandboxes to enable technology deployment and testing.

> **"**
> *"25% of our certified automotive code is already today AI generated which is up from 0% 16 months ago. That's an unbelievable acceleration."*

Adopt AI. Adapt AI. Cut through the hype to find AI sweet spot.

Sami Al Ajmi, Senior Vice President of Digital & Information Technology

aramco

About Sami Al Ajmi: As the Senior Vice President of Digital & Information Technology at Aramco, Sami Al Ajmi leads the company's digital transformation strategy, focusing on integrating 4IR technologies and AI into industrial operations.

About Aramco: Headquartered in Dhahran, Saudi Arabia, Aramco is the world's largest integrated energy and chemicals company. With a workforce of approximately 73,000 employees and revenue exceeding $440 billion (2023), its mission is to drive the global energy transition while maximizing value from its hydrocarbon chain.

∧ **The global AI narrative is currently polarized between "unbounded optimism" and skepticism regarding practical business outcomes.** Sami Al Ajmi highlights a critical efficiency crisis, citing Gartner data that only one in five AI initiatives delivers positive ROI, and MIT reports indicating 95% of companies experimenting with GenAI have yet to see real returns. The core challenge is not adoption, but navigating the "middle road" to identify where AI truly creates measurable value.

∧ **Aramco differentiates between "adopting" (buying compute/models) and "adapting" (integrating into complex realities).** This strategy generated $1.8 billion in third-party verified value in the last year alone. Success relies on democratizing knowledge; Aramco has trained over 6,000 subject matter experts (SMEs) to co-design solutions with data scientists, ensuring models address actual operational pain points rather than remaining abstract experiments.

∧ **AI is now embedded across the value chain. In Upstream, advanced pro-physical models predict rock and fluid properties in real-time to reduce drilling risks.** In Downstream, global optimizers provide a 360-degree view of assets to improve margins. In Corporate functions, proprietary LLMs automate supply chain and finance reporting. These initiatives are supported by a massive data foundation of 10 billion daily data points.

∧ **Aramco is expanding its global footprint by opening an Aramco Ventures office in France and investing $2 billion in its digital arm, Aramco Digital.** Sami Al Ajmi concludes that while adoption is no longer optional, adaptation is the true leadership metric required to turn hype into decades of sustainable value.

∧ **Value Measurement:** Rejecting the notion that AI ROI is unmeasurable, AXA has deployed 400+ use cases globally by adhering to a strict "Learn, Adopt, Repeat" cycle where economic rationale is mandatory.

∧ **Pilot Purgatory is Real.** With 88% of AI pilots failing to reach production, leaders must shift focus from experimentation to verified value generation.

∧ **Human-in-the-Loop is Non-Negotiable.** Value emerges only when SMEs co-design AI solutions; dropping models into processes without domain adaptation rarely works.

∧ **Ecosystem Expansion.** Aramco is solidifying a France-Saudi innovation corridor, leveraging partnerships (Thales, Pasqal) and sovereign investments to build a robust AI infrastructure.

> "
> *"You can buy the models and compute. But unless you adapt AI to your processes and complex realities, it will not scale or unlock value."*

CEO Panel: Driving Operational Efficiency and Customer Experience with AI. (1)

Guillaume Texier, CEO

REXEL

Dirk Hoke, CEO

VOITH

Thomas Mackenbrock, Deputy CEO Group

About Guillaume Texier: CEO of Rexel, a global expert in the professional distribution of products and services for the energy world.
About Rexel: French group specializing in the distribution of electrical supplies; Revenue ~ €19B, ~26,000 employees, HQ in Paris.

About Dirk Hoke: Identified as the leader steering the Voith Group through its digital modernization and sustainability transformation.
About Voith Group: German technology company (Hydropower, Paper, Turbo); Revenue ~ €5.5B, ~22,000 employees, HQ in Heidenheim.

About Thomas Mackenbrock: Deputy CEO of Teleperformance (TP), leading global digital business services and CX transformation.
About Teleperformance: Global digital business services leader; Revenue ~€10B, ~500,000 employees, HQ in Paris.

How is AI facilitating sustainability and the energy transition in your industries?

Λ **Guillaume Texier:** Notes a paradox: AI drives data center energy demand (accounting for 2/3 of Rexel's recent growth) but is also the solution to supply chain bottlenecks. Rexel uses AI to solve skilled workforce shortages by drastically reducing administrative time; quoting processes that took hours now take minutes.

Λ **Dirk Hoke:** AI is applied across the entire value chain—hydropower and paper making—to optimize consumption of water and energy while reducing waste. The group uses real-time condition monitoring to minimize downtime and CO2 emissions, often embedding AI so deeply that clients and employees don't even realize algorithms are running.

Λ **Thomas Mackenbrock:** Connects sustainability to the "Cloud Campus" model. By enabling remote work for tens of thousands via secure AI-backed infrastructure, TP reduces commuting (Scope 3 emissions) while simultaneously improving quality outcomes and employee work-life balance.

Λ **Legacy Knowledge Preservation:** For industrial firms, AI is the critical bridge to capture and query the tacit knowledge of retiring experts regarding long-lifecycle assets.

Λ **Organizational Redesign is Mandatory:** AI is not a productivity add-on; it requires a fundamental restructuring of roles (e.g., sales workflows) to unlock more than "25% of the value."

Λ **The "Customer Zero" Mandate:** Adoption fails if it is top-down only; executives and employees must use AI in personal workflows ("Customer Zero") to build the intuition needed for enterprise scaling.

> "
> "We say 'If Voith knew what Voith knows'... by now having a platform where you can ask... you get answers across the whole 227 sites that we have on a global side."

CEO Panel: Driving Operational Efficiency and Customer Experience with AI. (2)

Can you share concrete examples of digital solutions transforming operations?

⋀ Dirk Hoke: Highlights "Mill One," a condition monitoring system for paper production. It synthesizes data from thousands of sensors into a single, role-specific dashboard (CEO vs. Technician). For hydropower, they use radar and AI to predict failures in assets that have 100-year lifespans, ensuring maintenance occurs only when necessary to prevent downtime.

⋀ Guillaume Texier: Focuses on "Inside Sales" (50% of workforce). Previously, only 20% of orders (basic ones) were optimized. Now, AI-driven internal chatbots and technical documentation tools allow agents to handle complex technical queries instantly, optimizing 80% of their time and reducing the need to consult scarce internal experts.

⋀ Thomas Mackenbrock: Positions TP.ai as an "operating system" rather than just a tool. He cites collections as a use case where "Agentic AI" handles routine interactions while human talent manages complex cases, creating a symbiosis that drives better financial outcomes.

> *"You as an individual have to be customer zero... try to incorporate AI in your daily life and then for the company."*

> *"If you do AI without thinking about how to change your organization to adapt to the new world, you're probably going to unlock one quarter of the benefits."*

How do you handle knowledge sharing and scaling AI across diverse organizations?

⋀ Dirk Hoke: Addresses the "Baby Boomer" retirement cliff. The group is building a platform to capture the tacit knowledge of experts leaving the workforce (using video/audio) to ensure maintenance know-how for equipment lasting decades is preserved. They also use internal chatbots to solve the "If we knew what we know" problem, connecting 227 global sites.

⋀ Guillaume Texier: Emphasizes confidentiality and organizational redesign. Implementing AI requires a "confidential environment" for proprietary data. More importantly, he argues that IT architecture must change; systems must now talk to each other via AI layers rather than being siloed in a single ERP.

⋀ Thomas Mackenbrock: Adopts a "Co-creation" strategy, running 400+ AI projects jointly with clients. TP launched company-wide training not just on AI hard skills, but specifically on "Human Empathy," reinforcing that human ingenuity becomes more premium as routine tasks are automated.

Industrial AI and Europe's Attractiveness: Insights from Aramco Digital and Mistral AI.

Nabil Al-Nuaim, CEO

aramco

Cédric O, Co-founding advisor

MISTRAL AI_

About Nabil Al-Nuaim: Currently the CEO of Aramco Digital, leading the digital transformation and industrial AI strategy for the energy giant.
About Aramco Digital: The technology subsidiary of Saudi Aramco (HQ: Dhahran; Revenue: ~$495B; Employees: ~70,000), focused on industrial digital enablement and sovereign cloud.

About Cédric O: Former French Minister of State for the Digital Sector, currently a co-founder and shareholder at Mistral AI.
About Mistral AI: A Paris-based leader in Generative AI (Valuation: ~$6B; Employees: ~350-400), specializing in open-weight models and enterprise deployment.

> "In business, there is not such thing as love. There is only evidence of love. And so the fact that Aramco considers Europe as a place to grow technology... shows something about Europe."

How is Mistral AI bridging the gap between models and industrial application?

∧ Cédric O: Digital transformation is about systems and organization, not just technology. Mistral AI employs a "boots on the ground" strategy with forward deployment engineers working directly alongside clients. The goal is to reinvent entire legacy processes—dealing with non-API compatible software and human workflows—rather than simply swapping tools. This deep vertical integration is necessary because 95% of enterprise AI projects fail when they lack this systemic approach.

Why are Aramco and global players choosing France and Europe for AI investment?

∧ Nabil Al-Nuaim: Europe offers a critical ecosystem for AI expansion driven by three factors: a unique talent pool rooted in elite mathematical engineering (crucial for AI), a forward-thinking regulatory framework, and an established industrial base. Aramco Digital aims to leverage these assets to become a global leader in industrial AI applications and new economy sectors.

∧ Cédric O: The investment by Aramco is "evidence of love," validating Europe's technological viability. Europe possesses three distinct assets: world-class talent (France ranks highly in Fields Medals), a dense network of industrial incumbents determined to adopt AI, and a geopolitical opportunity. As the US and China compete, Europe offers a "third way" for nations in Asia and the Middle East seeking independent technology partners.

What are Aramco Digital's strategic priorities and new focus areas?

∧ Nabil Al-Nuaim: Building on Aramco's digital transformation since 2017, the new entity focuses on four pillars:
Cybersecurity: Essential for OT and manufacturing (owning Sbrani, a Tier 1 firm).
Connectivity: Utilizing the 450MHz spectrum alliance and partnering with Qualcomm to push "mission-critical" AI to the edge.
Digital Platforms: Moving compute to the edge (sensors) to predict asset integrity for thousands of rotating equipment pieces, reducing data center reliance.
Sovereign Cloud: Creating multi-cloud orchestration to ensure data sovereignty for industrial players.

> "We are exploring very seriously of setting up an innovation hub in Sophia Antipolis... we can access talents from all Europe not only France."

No responsible AI without a sustainable infrastructure.

Benoît Coquart, CEO

Legrand is a global specialist in electrical and digital building infrastructures. The company offers the systems that power, connect, and protect buildings in over 90 countries. Artificial intelligence is emerging as a powerful lever to optimize energy consumption, manage complex infrastructures, and develop smart, user-centric environments.

Benoît Coquart has led Legrand as CEO since 2018. He has shaped the Group's transformation by aligning performance with responsibility and innovation with impact.

Energy consumption projections for AI are staggering (up to 2,500 TWh by 2030). How can the industry reconcile this demand with sustainability and social acceptance?

∧ **Benoît Coquart:** The scale is massive; 5,000 data centers consumed ~420 TWh last year, a figure expected to reach 1,000–2,500 TWh by 2030 depending on Nvidia's chip deployment. This creates a dual concern: power supply availability and the ethical dilemma of prioritizing machine power over human needs. To maintain social license to operate, the industry must drastically improve efficiency to ensure growth isn't achieved at the expense of local communities.

With 50% of data centers located in the US, can Europe catch up, particularly regarding sovereignty and infrastructure?

∧ **Benoît Coquart:** European growth is inevitable due to sovereignty requirements—nations want domestic data networks. However, the "energy dilemma" is global. Whether in the US, China, or Europe, the universal KPI is Power Usage Effectiveness (PUE). The industry must collectively reduce energy and water consumption regardless of geography.

Regarding European regulation, is there a risk that aggressive policies might stifle the region's ability to compete in the AI race?

∧ **Benoît Coquart:** Europe must avoid the mistake made in the automotive industry, where regulators mandated specific technologies (EVs) rather than outcomes. The correct approach for data centers is a "code of conduct": set strict targets (e.g., PUE caps, water usage limits per MW) but allow the ecosystem—hyperscalers, contractors, and suppliers like Legrand—to determine the best technological path to achieve them. Innovation should drive compliance, not prescriptive regulation.

Legrand is a historic industrial player. How have you pivoted to become a key stakeholder in the AI and Data Center market?

∧ **Benoît Coquart:** While Legrand is a 150-year-old traditional building company, it entered the data center space a decade ago. Today, this segment generates approximately €2.5 billion in sales, representing 25% of total revenue. Legrand provides technology for both the "gray space" (energy feeding infrastructure) and the "white space" (server locations/racks). A recent strategic move includes acquiring a US-based load bank specialist to test electrical installations before data centers go live, ensuring reliability in a sector where 60% of Legrand's data center sales occur in the US.

"It's I sometimes use the analogy of the the the rush to gold... those who made a successful business model were those actually selling everything that help the gold diggers to to find gold. Well, it's a bit the same for data centers... that are able to provide solutions to help data centers to be more efficient."

Special interview.

Bernard Fontana, Chairman & CEO

eDF

About Bernard Fontana: As Chairman and CEO of Électricité de France (EDF), Mr. Fontana leads Europe's largest nuclear operator and is a prominent figure in the continent's transition toward low-carbon, highly available energy infrastructure.

About EDF: EDF is an integrated electricity provider headquartered in Paris, France, operating with a mission to build a net zero energy future; the group reports annual sales of approximately €118.7 Billion and employs over 119,444 people worldwide

Can France effectively position itself as a prime location for data centers, given the global energy demands of the AI revolution?

Λ **Bernard Fontana:** France is optimally positioned due to its reliable, competitive, and low-carbon electricity supply, which are the 4 key requirements for data center and AI customers. The national grid guarantees reliability at a factor of 99.9995%, backed by close to 100 terawatts of available power. The energy is highly competitive, currently priced €8/MWh lower than in Spain, €36/MWh less than in Germany, and half the price of Italy (a €51/MWh differential). Critically, it is low-carbon, at only 22 grams of CO2 per kilowatt for continental France—eight times less than Germany.

How significant is the reliability of the French grid in attracting large-scale data center investment?

Λ **Bernard Fontana:** The grid's reliability is a key argument, as France benefits from both excellent generation and a high-performing distribution network. EDF's guaranteed reliability figure (**99.9995%**) stands in stark contrast to the US, where the average outage duration exceeds **10h/year**, which is more than 10 times higher than in France.

Beyond energy provision, what turnkey solutions is EDF offering to accelerate site deployment for data center operators?

Λ **Bernard Fontana:** EDF is leveraging its position as one of France's largest landowners to offer turnkey, "ready-to-plug-in" industrial sites, significantly accelerating deployment speed. For example, OpCore announced a **€4 billion** investment for a data center on a former coal generation site in Montereau, close to Paris; this represents a very successful site transformation. Similarly, Eclairion announced investment in two sites in Moselle (La Maxe and Richemont) following the same industrial approach. The full package also includes optimizing environmental factors, such as heat recovery from data centers via the subsidiary Dalia.

What is the regulatory landscape in France regarding speed of deployment, given concerns about long permitting times in Europe?

Λ **Bernard Fontana :** EDF is proactively working to anticipate regulatory hurdles by conducting environmental studies ahead of time so sites are pre-approved and ready. Furthermore, the French President recently announced a fast-track approach for key strategic projects in regions, clearly signaling a supportive mindset toward the rapid deployment of data centers across France.

How is EDF integrating AI into its core business, specifically in nuclear engineering and operational efficiency?

Λ **Bernard Fontana:** AI is integrated not only as a service utility but also for internal efficiency, extending far beyond the electricity supply chain. EDF is using AI in conjunction with digital twins of its plants, where simulations help optimize engineering processes and control command systems, which are inherently complex. The application of machine learning has allowed EDF to reduce unplanned outages by 30% through improved learning and anticipation.

"

"It's low carbon. 22 grams per kilowatt for France... it's four time less than Spain and nine eight time less than Germany."

Visionary Keynote.

Patrick Pouyanné, CEO

TotalEnergies

About Patrick Pouyanné: Rising through leadership positions, he became CEO in 2014 and Chairman in 2015, guiding the company through global energy transitions and strategic growth. He holds degrees from École Polytechnique and École des Mines de Paris.

About TotalEnergies: TotalEnergies is a global multi-energy company that produces and markets energies on a worldwide scale: oil and biofuels, natural gas and green gases, renewables, and electricity. Under Patrick's leadership, TotalEnergies has made significant strides in leveraging digital technologies and artificial intelligence to enhance industrial performance and accelerate its transformation.

Patrick Pouyanné
Chairman & CEO

Grand Palais, Paris.

∧ **Data Platform Strategy:** Recognizing the criticality of reliable data, TotalEnergies is launching major data platform development programs in 2024 (focusing on the power value chain with Amazon) and 2025 (industrial assets with Aspentech and Cognite) to maximize the value of AI solutions.

∧ **Operational Excellence & Emissions Reduction:** AI's primary objective is to increase revenues rather than merely lowering costs. Examples include connecting 3,000 equipment for predictive failure anticipation and monitoring methane emissions using 3,000 sensors combined with cameras, satellites, and drones to quickly analyze and correct leaks, directly supporting the "less emissions" objective.

∧ **Integrated Power Modeling & R&D:** The 2025 strategic research and technology program includes four platforms centered on AI to optimize integrated power modeling, improve design and integration of renewable assets into grids, enhance weather/price forecasting, and accelerate project development.

∧ **Ecosystem Development (Mistral AI):** TotalEnergies is collaborating with Mistral AI, setting up an innovation lab to explore generative and agentic AI for operational performance and R&D assistance, while also examining the use of Mistral AI infrastructure in Europe to ensure digital sovereignty.

∧ **Conclusion:** AI creates a huge new demand for energy, with data centers potentially growing from 4% to 8%-12% of global electricity demand. TotalEnergies sees a major business opportunity in supplying clean and firm power to tech companies (e.g., Amazon, Microsoft, Google), positioning itself as a leader in this booming segment by leveraging gas-to-power assets, such as through the recent joint venture with EP in Europe.

∧ **Context:** TotalEnergies is executing an integrated multi-energy strategy built on two pillars: producing low-cost, low-emission oil and gas, and aggressively developing an integrated power and electricity business. Data and AI are identified as a strategic lever to support both operational performance and the overall energy transition, allowing the company to deliver more affordable energy to customers while providing a huge opportunity to grow their business.

∧ **Industrializing AI:** The company established a Digital Factory in Paris five years ago, staffed with 300 data scientists and AI engineers, resulting in the development of over 100 applications and the deployment of over 10,000 AI models to production, demonstrating a rapid scaling of AI delivery capabilities.

> "Artificial intelligence is a strategic lever for total energies which on one side will support our operational performance but on the other sides as well energy transition of the company."

Building the AI-Powered Supply Chains.

Marie-Christine Lombard, CEO

Thomas Larrieu, CEO

About Marie-Christine Lombard: She joined GEODIS in October 2012, eventually being named Chairman of the Executive Board.
About GEODIS: A global leader in transport and logistics, committed to ensuring the efficient, sustainable, and reliable flow of goods across every link of the supply chain.

About Thomas Larrieu: An independent global pharmaceutical group governed by a non-profit foundation, HQ in Suresnes, France, with ~€5.3B in revenue and 22,000 employees.
About Upply: A technology company dedicated to creating efficient and resilient supply chains using intelligent software and agents, significantly backed by GEODIS.

> *"I see AI as an enabler to constantly improve the synchronization of flows on behalf of customers and make our operations more efficient and optimized, be it a truck, an aircraft, or a vessel."*

∧ Logistics digital platform revolution: The investment, starting around 2018-2019, was driven by the rise of digital freight forwarders and startups. GEODIS decided to launch a new venture, UPPLY, with a different setup and governance, intending for it to become the "booking.com of logistics". The core goal is to optimize the greatly unoptimized supply chain, where assets like trucks are often not fully utilized because operators don't communicate. UPPLY was created to be a platform that collects the offer and the demand to create an ecosystem, leading to greater efficiency and positive environmental impact by reducing waste.

∧ AI expands logistics market: AI can increase the addressable market by attracting and touching new markets and potential clients. He cites UPPLY's new market intelligence agent, trained on proprietary and client data, designed to give freight forwarders and users better insights to make more intelligent decisions.

∧ Platform neutrality, open capital: UPPLY is at a crossroads, currently a platform open to shippers and transport companies, but its 100% ownership by GEODIS (a competitor to other transport companies) creates uneasiness. The next chapter is to open the capital of UPPLY to other players, with GEODIS remaining a core shareholder, to achieve the ultimate goal of optimizing the supply chain and reducing negative environmental impact. This involves having competitors join the platform, which is deemed acceptable for the sake of sector-wide optimization.

∧ Supply chain digitization opportunity: The transport and supply chain industry is huge, strategic, and critical for sovereignty and resilience. It is a field where AI can have a very strong impact by solving specific operational and strategic problems. Despite a large amount of available data and investment, the supply chain industry has not yet completed its digital revolution and remains "under digitized," which creates a huge opportunity for AI in the forthcoming years.

∧ Context: The supply chain is complex, global, and multimodal, requiring perfectly seamless management where real-time data has always been key to resilience. AI is seen as an augmentation of GEODIS's existing digital efforts to synchronize worldwide flows. The logistics market is worth 10 trillion, with 5 trillion outsourced, indicating a vast potential for optimization. GEODIS made a strict decision in 2018 to invest heavily in data management, building a modular Data Lake to clean and unleash data from disparate systems. GEODIS spends 4% of revenue on IT, digital, and AI expenses, underscoring its vital role in business management.

> *"Supply chain hasn't done its digital revolution yet. It's a market with a lot of digital aspects, but it's under-digitized. I think this is something where AI will have an impact in the forthcoming months and years."*

Special interview.

Guillaume Faury, CEO

AIRBUS

About Guillaume Faury: As CEO of Airbus, his expertise is central to navigating the aerospace giant's technological transformation, which includes the integration of Artificial Intelligence and a cohesive global market strategy.

About Airbus: A global leader in aerospace, defense, and space, its 2023 figures include €65.4 billion in revenue, approximately 148,000 employees, and its corporate headquarters are located in Toulouse, France. Airbus is leveraging AI as a critical enabler of its future, from automated flight systems and unmanned traffic management, to AI-powered making assistants, computer vision, machine-learning technologies and even AI in space.

Grand Palais, Paris.

How is AI accelerating the commercial plane manufacturing process, especially with a 10-year backlog?

∧ AI is used across three core fields—development, production, and services—with production being a current main challenge. AI is already deployed for quality checks and process efficiency, powering automation and robotics. The full transformative impact will be on the next generation of planes, where AI will be deeply integrated with robotics and engineering simulation to ensure faster, more efficient production with an "even higher degree of quality first time". In services, predictive maintenance uses massive onboard data to identify failure patterns, allowing Airbus to prevent deficiencies rather than fixing them afterwards.

Will AI lead to autonomous commercial planes or single-pilot cockpits?

∧ No, not in the near term for commercial aviation, as AI today is "not considered predictable enough" for core, safety-critical functions. While military systems use AI extensively, such as for automatic refueling, commercial aircraft use AI primarily in non-safety-critical ground systems (engineering, quality, support). Onboard commercial planes, AI is only used to enhance safety; for instance, using image recognition in automatic landing systems to detect ground objects that might be missed by the pilot, thus increasing the safety layer. This cautious approach is due to the high risks involved when carrying passengers.

What is your view on the risk of over-regulation in Europe compared to the US/China approach to AI innovation?

∧ Europe faces a complex dual mandate: the need to protect against risks and the need to unleash the full potential of new technologies and opportunities. This creates a fundamental challenge because Europe's current philosophy is to regulate upfront to try and prevent risks, which stands in stark contrast to the US approach of unleashing full potential and managing risks later. The result of the European approach is that it is limiting opportunities and significantly reducing the speed and field of action for innovation. This risks Europe lagging behind global competitors like the US and China, who are focused on speed. Therefore, the debate on regulatory "simplification" needs to be reframed as a necessity for Europe to "accept more risk" to capitalize on opportunities, recognizing that in the current technological environment, speed matters most. The goal should be to rebalance the framework to foster innovation without losing the competitive race.

> "We're deploying AI in military systems to digest a huge volume of data and bring consolidated information or help for decision to human beings. But we keep human beings at the center when it comes to decision making."

Special interview.

Estelle Brachlianoff, CEO

VEOLIA

About Estelle Brachlianoff: Estelle Brachlianoff, who is a graduate of the École Polytechnique and the Ponts et Chaussées engineering school, took over as CEO of Veolia on July 1, 2022, following a successful tenure as Deputy CEO and Zone Director for the UK and Ireland. Estelle is leading the global reference in ecological transformation and pioneering solutions for water, waste, and energy management.

About VEOLIA: With nearly 215,000 employees worldwide, Veolia is a global leader in ecological transformation, providing game-changing solutions in water, waste, and energy management.

How is GenAI enabling Veolia's ecological mission and achieving broad adoption across its 215,000 employees?

Λ Veolia uses GenAI to directly enhance its core mission—reducing water footprint, increasing green energy, and cutting pollution. A key deployment, "Talk to my Plant," demonstrates this by using a Natural Language Model (NLM) to democratize technical expertise, allowing any technician to query plant issues (using live data and digital twins) via their cell phone for immediate, efficient maintenance guidance. This approach supports employee adoption by building trust "milestone after milestone." Instead of a top-down mandate, Veolia trained 13,000 AI ambassadors across all levels to manage the transition, leveraging the inherent democratization of GenAI to empower non-specialists and place employees at the center of the revolution.

How does Veolia reconcile the high resource and energy consumption of AI and data centers with its ecological mission?

Λ This was at the forefront of our choices, including provider selection. The rule is that the environmental costs of the data center must be lower than the environmental benefit of the AI application. Veolia has developed an offer to make data centers more sustainable by recouping wasted heat, recycling cooling water, and treating electronic waste.

Will the use of AI lead to job replacement within Veolia?

Λ AI does not replace human beings; it enhances them by saving time from repetitive tasks, and allowing them to focus on what creates value. For example, AI can detect leaks in water networks to improve efficiency, but a person is still required to perform the physical replacement of the pipe section. We need the same 215,000 employees, but with enhanced resources, placing human beings at the center of the revolution.

What are the biggest current challenges in adopting AI?

Λ The biggest challenge is scaling up and industrialization, not job loss or environmental footprint. Many companies have great proof-of-concepts, but the difficulty lies in moving beyond an example to deploying the tool across thousands of sites. It requires rationalization and industrialization to move past the initial excitement phase.

Considering your global role, where does Europe currently stand in its AI journey?

Λ Based on an external study, Veolia is positioned in the best-in-class group among industrial companies. However, this is not a time to "rest on our laurels," as the landscape evolves rapidly. Success depends on maintaining clear views on conditions: ethical use, geopolitics, and environmental footprint, with the intent of using AI for good.

> "
> *"The biggest challenge for me is scaling up. There are many companies which have lots of PoCs and great ideas, but the question is how do you make sure that it doesn't stay an idea."*

AI for Industry Grand Palais Opening Ceremony.

Sébastien Martin,
French Minister Delegate for Industry

About Sébastien Martin: A prominent figure in French local governance and industrial advocacy, Sébastien Martin serves as the Minister Delegate for Industry. He is well-known for his leadership as President of Grand Chalon and Intercommunalités de France, bringing a strong focus on territorial equity and decentralizing industrial innovation.

About The Ministry of Industry (France): Headquartered in Paris (Bercy), the Ministry oversees France's industrial strategy and digital sovereignty. It manages key frameworks like "France 2030" to support a sector generating roughly 13% of French GDP, with a mission to bridge the gap between research and industrial application.

The Minister declares that the era of theoretical AI is over; the technology has reached maturity and is now a critical "pillar of sovereignty" and competitiveness. Citing the Mario Draghi report on European competitiveness, he highlights that Europe has suffered a growth deficit due to slower digital adoption compared to the US and China. The immediate imperative is a "productivity shock" to maintain industrial relevance.

⋀ **The Electricity Analogy:** AI is positioned not merely as a tool but as a foundational shift comparable to the introduction of electricity 200 years ago. It is ready for immediate scaling in logistics, maintenance, and factory operations.

⋀ **Ecosystem Maturity & Champions:** France leverages a robust ecosystem, ranking third worldwide for notable AI models. The Minister cites Wondercraft (robotics/exoskeletons) and Fives (industrial engineering) as proof points of operational AI. He explicitly references national champions (e.g., Mistral AI) fostering partnerships across mobility and energy sectors.

⋀ **Data as Raw Material:** The "raw material" of this transformation is industrial data. Currently underutilized, this data—when collected, cleaned, and shared through trusted commons—can unlock productivity gains of up to 20%.

⋀ **Territorial Equity & SMEs:** Drawing on his background as a local elected official, Martin emphasizes that innovation must not remain trapped in Paris. The "Phase 3 National AI Strategy" prioritizes decentralization, utilizing the "Territorial Industry" program to ensure SMEs in all regions access ready-to-use AI solutions.

⋀ **The Minister issues a direct call to action for C-Level management:** within six months, every industrial company must define exactly where AI can capture market share. The goal is to use low-carbon infrastructure to make France the natural home for global AI projects, ensuring technology serves as a lever for re-industrialization.

> **"**
> "AI will transform industry tomorrow the same way electricity transformed it 200 years ago. We are entering a moment of real technology maturity."

AI acceleration in Heavy Industries. (1)

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David Glijer, Chief Digital Officer France

ArcelorMittal

Valéria Fernandes, Group Chief Digital and Information Officer

vallourec

Guillaume Eymery, Chief Strategy, Innovation and Digital Officer

Nexans

About Valéria Fernandes: Currently Group Chief Digital and Information Officer at Vallourec, she leads the global digital and data strategy across the group's industrial footprint.
About Vallourec: A world leader in premium tubular solutions for energy markets, Vallourec employs ~16,000 people with €5.1 billion in revenue, headquartered in Meudon, France.

About Guillaume Eymery: Serving as Chief Strategy, Innovation and Digital Officer and Member of the Executive Committee at Nexans, he drives the company's strategic transformation and industrial digitization.
About Nexans: A global player in electrification and cabling systems, Nexans generates ~ €6.7 billion in revenue with 28,000 employees across 41 countries, headquartered in Courbevoie, France.

About David Glijer: As Chief Digital Officer France for ArcelorMittal, he oversees digital transformation and the "digital native" plant initiatives within the world's largest steel producer.
About ArcelorMittal: The world's leading steel and mining company, ArcelorMittal reports ~$68 billion in revenue with ~154,000 employees, focused on smarter steels for people and planet.

What are the primary operational challenges driving your AI and data strategies today?

∧ **Valéria Fernandes:** Vallourec operates 35 production facilities worldwide with vastly different maturity levels due to a history of mergers and acquisitions. The central challenge is harmonizing data capture and usage across these heterogeneous legacy plants to make information actionable.

∧ **Guillaume Eymery:** Nexans is undergoing a profound transformation to become a pure player in electrification. Since 2018, the focus has been on amplifying a financial turnaround program called "Shift." The goal is to apply AI to codified private-equity-style levers to maximize value generation.

∧ **David Glijer:** ArcelorMittal faces the complexity of managing massive plants with interconnected domains (maintenance, production, quality). While the company has 30 years of experience with machine learning for defect detection, the current challenge is breaking silos to put data directly into the hands of employees, eliminating low-value tasks.

How is GenAI being deployed to foster culture and innovation within the workforce?

∧ **Valéria Fernandes:** Vallourec launched a "Vow AI" community and a company-wide hackathon to engage employees. This bottom-up ideation process generated numerous use cases which were then vetted by the Executive Committee for business value and feasibility. Current implementation focuses on Knowledge Management, maintenance, and quality.

"

"There are some state-of-the-art plants that we have all the data capture... and we have the ones that we don't... That's our biggest challenge... having the information out of the information actionable."

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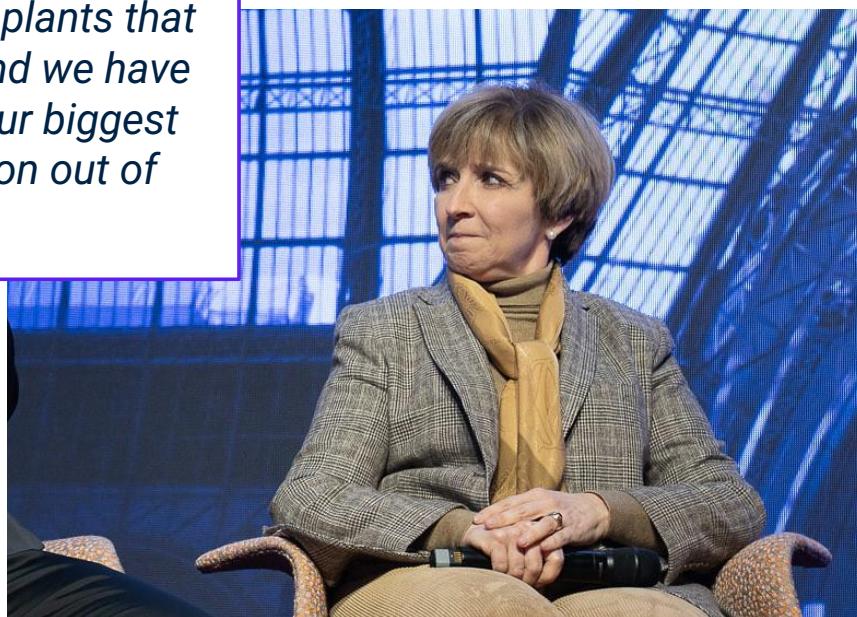
Can you detail a concrete program where AI is delivering measurable financial impact?

∧ **Guillaume Eymery:** Nexans identified that managers were using only 5% of available data. The "Shift AI" program aims to increase this to 90% to accelerate the turnaround. Key initiatives include "complexity cockpits" to identify high-margin clients/products and predictive models for working capital and stock optimization. They also launched "Foresight," an AI tool predicting raw material prices and volumes six months out with high accuracy.

What does a "Digital Native" industrial approach look like in practice?

∧ **David Glijer:** ArcelorMittal is investing €600 million in a new "Digital Native" plant in France for electrical vehicle motor steel. Unlike legacy sites, this plant integrates IT and OT from day one, featuring 5G mobility, centralized cockpits merging production and maintenance data, and full digital twins. AI is also embedded in safety systems to manage interactions between pedestrians and automated cranes.

> "
> *"The industry doesn't stop at the frontier of a company... It's very important to create a global ecosystem around us in which we train the different operators and the different employees."*

> "
> *"We all heard in this room that data is the new gold. But how many percent of your data is used by your managers?... The answer was 5%."*

What are your strategic priorities for scaling AI in the coming years?

∧ **Valéria Fernandes:** The priority is data democratization and literacy. Vallourec is investing in technology to streamline data industrialization while expanding GenAI use cases from the hackathon into production. The focus remains on foundational data architecture to support services, maintenance, and safety.

∧ **Guillaume Eymery:** The goal is to fully scale "Shift AI" across all 41 countries by 2028 to maximize shareholder return. Strategically, AI is viewed as the horizontal connector between functions (finance, supply chain, manufacturing) and the vertical link between management and the shop floor.

∧ **David Glijer:** The roadmap for 2026 focuses on the human element, ensuring continuous training and knowledge transfer via GenAI platforms. David emphasizes that industry extends beyond company walls; ArcelorMittal is building an ecosystem to train local startups and partners, reinforcing the competitiveness of the European steel industry against global pressure.

AI UCs to build better Digital Twins, and Digital Twins for better end-to-end AI Use Cases. (1)

Gerhard Kreß, Senior VP Xcelerator Portfolio and Digital Business

SIEMENS

François Lavernos, Chief Information Officer Renault Brand VP IS/IT Industry

Renault Group

Meriem Riadi, Chief Information Officer

VEOLIA

Manik Sharma, SVP Supply Chain

celonis

About Gerhard Kreß: Oversees the Siemens Xcelerator portfolio, driving the integration of the real and digital worlds through industrial metaverse and digital twin technologies.
About Siemens: A global powerhouse in electronics and electrical engineering, focusing on industry, infrastructure, and mobility. Revenue: €77.8B (2023) | Employees: ~320,000 | HQ: Munich, Germany.

About Meriem Riadi: Leads digital transformation and IT strategy for Veolia's water division in France, focusing on data-driven operational efficiency.
About Veolia: The global leader in optimized resource management (water, waste, and energy management). Revenue: €45.3B (2023) | Employees: ~218,000 | HQ: Aubervilliers, France.

About Manik Sharma: Senior Vice President at Celonis, specializing in supply chain transformation and process intelligence solutions.
About Celonis: The market leader in Process Mining software, helping companies reveal and fix inefficiencies in their processes. Valuation: ~$13B (Est.) | Employees: ~3,000 | HQ: Munich, Germany & New York, USA.

About François Lavernos: Responsible for the IS/IT strategy across Renault's industrial operations, steering the transition toward the "Industrial Metaverse."
About Renault Group: A major international automotive player undergoing a profound transformation into a tech-mobility company. Revenue: €52.4B (2023) | Employees: ~105,000 | HQ: Boulogne-Billancourt, France.

How do you define a Digital Twin in your specific industrial context, and what foundation is required to build one?

∧ **Gerhard Kreß (Siemens):** A Digital Twin is more than a static 3D model; it is a dynamic system that captures the behavior of a product or production flow. It allows organizations to experiment, optimize, and test customer usage in a virtual environment where only "compute" is consumed rather than physical resources, ultimately making the real world better.

∧ **Meriem Riadi (Veolia):** The prerequisite is a massive data foundation. Veolia has invested 10 years in this journey, now collecting 75 million operational data points daily and managing 4 million smart meters. Their Digital Twin models traditional processes based on this historical data to issue maintenance recommendations and map assets (e.g., partnering with startup SAMP to map plant assets efficiently).

∧ **Manik Sharma (Celonis):** A Digital Twin must serve as the "intelligence graph" of the organization. It is not a snapshot but a contextualized view of the past, present, and predicted future. It must connect disparate data sources (logistics, tariffs, plant data) so that when a disruption occurs, the impact on specific sites or products is immediately visible.

∧ **François Lavernos (Renault):** The automotive DNA is shifting from linear productivity to disruptive transformation (electrification, software). Renault uses the Digital Twin to break silos and "disrupt the delivery model." They have deployed tens of thousands of sensors to capture data from legacy equipment, enabling them to move from standard continuous improvement to reactive, agile management.

Why is the adoption of AI and Digital Twins accelerating right now, and how does AI change the operational capability of these twins?

Λ **François Lavernos (Renault):** It is a matter of maturity in scaling data capture. Renault started years ago, and today the availability of data combined with AI provides the necessary acceleration. They capture data from everywhere—including external supplier ecosystems—to leverage AI for disrupting their industrial model.

Λ **Gerhard Kreß (Siemens):** AI massively accelerates simulation. What once took 300 hours in a digital wind tunnel now takes seconds or minutes—a factor of 10,000x to 20,000x improvement. This speed allows for real-time interaction, enabling systems to automatically search millions of design variants and transition from "designing" a process to actively "automating" it in real-time.

Λ **Meriem Riadi (Veolia):** AI enables the twin to "learn on-site." Instead of building complex models from scratch, algorithms can learn directly from plant data, saving time and money. Furthermore, Generative AI is revolutionizing adoption by providing user-friendly interfaces where operators can simply "talk" to their data.

> *"A digital twin is a system that does not only describe how something looks like... but actually it has the dynamics of the system... We can do all the experiments in a place where we just consume compute and we don't destroy anything."*

> *"Digital twin is not a snapshot. Digital twin is where you see the whole organization in its past, in its current and in its future... Digital twin powers a data-driven organization."*

Can you share concrete "Success Stories" where Digital Twins and AI delivered measurable ROI?

Λ **François Lavernos (Renault):** Renault manages 1 million digital twins updated by 5 billion data points daily. Key results include:
Energy: Reduced energy consumption by 1 Megawatt per car produced annually.
Supply Chain: Reduced CO_2 emissions by 6,000 tons through truck fill rates and route optimization.
Quality: Widespread visual inspection AI on tires, welding, and paint shops to assist operators.

Λ **Gerhard Kreß (Siemens):** In the food industry, Siemens deployed a real-time simulation for spray dryers (milk powder). The system adjusts control parameters in real-time based on the variance of incoming milk (fat content). The result was guaranteed quality, reduced energy consumption, zero waste, and an ROI achieved in under 12 months.

Λ **Meriem Riadi (Veolia):**
Energy Efficiency: An AI algorithm implemented in 300 wastewater plants learns for 3 months and then automates aeration and energy management, achieving a 10–20% reduction in energy consumption.
Adoption: The "Talk to My Plant" GenAI tool allows operators to interact naturally with technical data, bridging the gap between complex systems and daily users.

AI UCs to build better Digital Twins, and Digital Twins for better end-to-end AI Use Cases. (3)

> *"What AI brings is really the ability to learn on site... You can have an algorithm learning based on the data of your plant. So you save time, money... and finally generative AI... helps adoption."*

⋀ **Disruption of Speed:** AI accelerates Digital Twin simulation by factors of 10,000x to 20,000x (Siemens), moving the technology from a pre-production planning tool to a real-time operational engine that "learns on site" (Veolia).

⋀ **The Contextual Layer:** To be effective, Digital Twins must evolve into organizational "Intelligence Graphs" (Celonis). They must connect vertical silos (production, logistics, finance) to provide the context necessary for autonomous agents to execute valid actions.

⋀ **Idea 3: Augmentation over Automation:** The consensus is that these technologies are "Augmented Intelligence" (Renault). Success lies in tools like Generative AI interfaces that simplify complex data for human operators, ensuring adoption and placing the human in the loop of high-value decision-making.

As we move toward the "Agentic Era" (autonomous systems), what are the architectural requirements and challenges?

⋀ **Manik Sharma (Celonis):** AI must not be siloed; it requires a horizontal layer—a "Customer 360" or "Supply Chain Control Tower." For example, a CPG company uses a Digital Twin to merge strategic planning with execution, while an industrial company merges it with multi-tier supplier data (EDI signals). The goal is to contextualize models so they can trigger execution in systems of record (ERP, WMS).

⋀ **Gerhard Kreß (Siemens):** Moving to agentic systems that act (write capability) rather than just read requires rigorous frameworks. Simple guardrails are not enough; we need fine-grained access controls, whitelisting, and security layers. This shift will fundamentally change human-IT interaction, allowing operators to handle significantly more complexity.

> *"At Renault level we don't speak about artificial intelligence but augmented intelligence. So this is where today tools are able to augment the people and the operator."*

Chemistry Reinvented: A New Era of Discovery with Generative AI.

Jean-Yves Delannoy, Digital R&D Scientific Director

ARKEMA

Guilhaume Leroy-Meline, Distinguished Engineer

IBM

About Jean-Yves Delannoy: Leads Digital R&D at Arkema, focusing on integrating AI into scientific workflows to accelerate sustainable material discovery.
About Arkema: A major French specialty chemicals and advanced materials company (HQ: Colombes, France; Rev: ~€9.5B; Employees: ~21,000).

About Guilhaume Leroy-Meline: An IBM Distinguished Engineer specializing in AI, driving the transition from legacy systems to Generative and Agentic AI in enterprise environments.
About IBM: A global technology and consulting corporation (HQ: Armonk, NY; Rev: ~$62B; Employees: ~282,000) pioneering AI in enterprise applications.

> *"Generative AI applied not to text but to molecules is five times more efficient than a standard model."*

Is Generative AI mature enough for R&D, and how does it compare to text-based applications?

∧ **Jean-Yves Delannoy (Arkema):** While 99% of GenAI usage is text-based, applying it to "real world problems" like molecular discovery is where true innovation lies. Working with IBM, they found that Generative AI applied to molecules is five times more efficient than standard modeling methods. It is essential for staying ahead of the competition and delivering sustainable technologies.

∧ **Guilhaume Leroy-Meline (IBM):** The technology has reached a maturity where the principles of Large Language Models (LLMs) are applied to chemistry. Just as LLMs predict the next word in a sentence, chemical models treat atoms as tokens to predict molecular structures. These models act as "digital twins" of knowledge, learning the physics and chemistry to generate materials that do not yet exist but possess targeted properties.

How are you executing your strategy and deploying AI at scale?

∧ **Jean-Yves Delannoy (Arkema):** They have deployed an internal tool for patent and literature search. This tool has successfully reduced the time required for literature reviews by a factor of three to four. This efficiency is critical because research cannot proceed without understanding the current competitive landscape.

∧ **Guilhaume Leroy-Meline (IBM):** The scientific process requires digesting over 1 million new papers annually. GenAI is used to "crunch down" this volume, selecting the most relevant insights to build knowledge graphs. This enables the generation of experimental plans that can reduce the number of physical lab experiments—which can take weeks or months—by a factor of two.

How do you see the workflow evolving with Agentic AI and automation?

∧ **Jean-Yves Delannoy (Arkema):** Agentic AI will reshape the scientific paradigm. The vision is to combine AI with high-throughput experimentation and robotics to create fully automated labs. Ideally, the system will eventually move from a customer's desired property set directly to prescribing the necessary experiment, though this is a progressive journey.

What are the best practices for adopting AI at scale in industrial companies?

∧ **Guilhaume Leroy-Meline (IBM):** The key differentiator is proprietary data. If everyone uses the same "frontier" foundation models, capabilities remain identical. Companies must structure their R&D data and use it to fine-tune smaller, domain-specific models. This does not require thousands of GPUs; it requires a strategic focus on embedding these models into the end-to-end scientific workflow.

> *"The game is really to fine-tune your model to create differentiation with small models... it's just a matter of a few GPU."*

Trusted GenAI at scale : a new Sovereign model for Enterprises.

Laurent Degré, VP & General Manager

HPE

Wassila Zitoune Dumonet, CEO France

orange Business

About Laurent Degré: The Vice President and General Manager of Hewlett Packard Enterprise (HPE) France, responsible for driving the company's edge-to-cloud strategy and digital transformation initiatives in the French market.
About HPE: A global edge-to-cloud company helping organizations accelerate outcomes by unlocking value from all of their data. Revenue: ~$29.1B (2023).

About Wassila Zitoune Dumonet: The CEO of Orange Business France, leading the B2B division's efforts to support enterprises in their digital transition, focusing on cybersecurity, cloud, and data sovereignty.
About Orange Business: The enterprise services division of the Orange Group, functioning as a network-native digital services company. Revenue: ~€7.9B (2023). Employees: ~30,000. HQ: Issy-les-Moulineaux, France.

> "*Your data... is to your balance sheet to an extent because it helps to your differentiation... you need to make sure that you don't do stupid things with your data.*"

What are the key takeaways from the recent "Global Industry" summit regarding the current state of AI in the industrial sector?

Λ **Wassila Zitoune Dumonet:** The industrial sector views AI through the lens of urgent economic stakes: competitiveness, resilience, safety, and innovation. There is now an absolute conviction that data and AI are strategic enablers essential for reindustrialization. However, a critical transversal finding is that any data-driven transformation in this sector remains fundamentally a "human transformation story," requiring the workforce to adapt alongside the technology.

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How does infrastructure specifically act as the critical enabler for the "Data Journey" in industry?

Λ **Laurent Degré:** Infrastructure is the foundation of the balance sheet because data is the primary asset for differentiation and customer satisfaction. The infrastructure must be designed to prevent mishandling of this asset ("don't do stupid things with your data"). It requires three non-negotiable attributes: rigorous security to protect IP, scalability to match the pace of AI innovation, and high energy efficiency to meet sustainability goals.

Λ **Wassila Zitoune Dumonet:** Infrastructure acts as the backbone of any viable industrial project, encompassing fixed connectivity, mobile private networks, data centers, cloud, and edge. However, orchestrating these multifaced layers expands the attack surface. With 80% of cyberattacks being criminal and industry being a top target, security cannot be decoupled from infrastructure. Solutions like "Cloud Avenue" (Orange's sovereign cloud) are designed to integrate connectivity, resilience, and security into a single service layer.

What is the final strategic advice for enterprises looking to adopt GenAI at scale?

Λ **Laurent Degré:** Treat data as Intellectual Property. The call to action is to partner with players who can provide best-in-class, secure infrastructure that respects data sovereignty. The ecosystem in France has the capabilities to handle these restricted environments, so companies should adopt AI without compromising on security.

Λ **Wassila Zitoune Dumonet:** The ecosystem is ready. Orange Business and HPE have the skills and energy to support top-tier AI projects even in restricted environments. The directive is simple: "Adopt AI, but do it the right way."

> "*I believe that sovereignty is about control, having the control, having the choice and the technology choice... in some sectors... [it] is not a nice to have, it is an absolute no-brainer.*"

# Defending Artificial Intelligence with Intelligence.

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Bader Al Khaldi, Director of Cybersecurity Protection

aramco

About Bader Al Khaldi: The Director of Cybersecurity Protection at Aramco, responsible for overseeing the defense strategies of the company's digital and AI assets against evolving cyber threats.

About Aramco: The Saudi Arabian Oil Group, a leading global integrated energy and chemicals company headquartered in Dhahran, with over 70,000 employees and revenues exceeding $440 billion (2023), now heavily investing in digital transformation and AI.
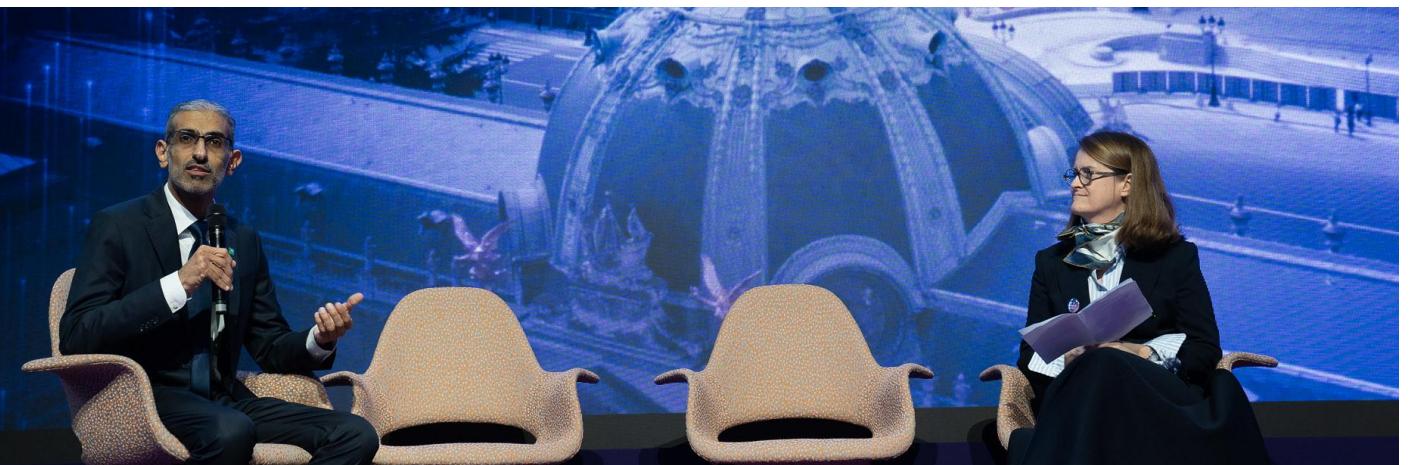
Why is it critical to defend AI, and what are the primary threats involved?

∧ **Bader Al Khaldi:** Defending AI is fundamentally about defending an organization's most valuable asset: its data. By introducing AI, organizations introduce new threat vectors to this data. There are two major examples of these attacks. First, Data Poisoning, where an attacker corrupts the training data, potentially compromising critical facility operations in agentic AI contexts. Second, Prompt Injection, where attackers manipulate Large Language Models (LLMs) to extract sensitive data or bypass activation licenses. Therefore, AI security is synonymous with data security.

What does the concept of "Defending AI with Intelligence" actually entail?

∧ **Bader Al Khaldi:** While AI brings unique risks, it also offers new defensive capabilities. However, the foundational principles of cybersecurity—vigilance, layered protection, and human judgment—must remain constant. "Defending with intelligence" means leveraging human capital and historical expertise in protecting digital assets, and then augmenting that human intelligence with the power of AI tools. It is a synergy of past experience and new technology to secure the future.

Can you outline effective, specific strategies for securing AI ecosystems?

∧ **Bader Al Khaldi:** Aramco utilizes the "Ion AI" program, a layered strategic approach. At its nucleus are the core cyber defense functions: identification, protection, detection, response, and recovery, adapted for AI risks. Surrounding this nucleus are three critical layers:

AI Supply Chain Security: Ensuring third-party models are free of compromises and continuously monitored.

Security by Design: Embedding security guardrails during the in-house development phase so models arrive in production already secured.

Runtime Security: The Security Operations Center (SOC) monitors for behavioral anomalies and conducts red-teaming exercises to identify unique vulnerabilities. The entire program is encapsulated by governance and a commitment to innovation and research.

What practical steps can security teams take immediately to close gaps exposed by AI?

∧ **Bader Al Khaldi:** There are two main practical steps. First, organizations must target Autonomous Security Operations. Just as the aviation industry relies on autopilot to manage 98% of a flight while keeping human pilots for critical decision-making, cyber defense must use AI to automate routine tasks and cut through the noise, allowing human analysts to focus on critical operations. Second, enforce Shared Responsibility through Security by Design. Security is not solely the CISO's job; if AI developers implement security guardrails early, it increases agility, allowing models to move to production without significant delays from the security team.

> "To beat a network,
> we have to be a network."

Own Your Data-science and AI, or Lose Your Sovereignty. (1)

Yann Lechelle, CEO :probabl.

Édouard Guillaud, Former French Chief of Defence & JEDI Board Member

Sébastien Rousset, Chief Artificial Intelligence Officer NAVAL GROUP

Su Yang, Head of Artificial Intelligence & IT Innovation BNP PARIBAS

About Édouard Guillaud: Former French Chief of Defence Staff (CEMA) and current Board Member at JEDI, specializing in military strategy, cyber-defense, and geopolitical sovereignty.
About JEDI (Joint European Disruptive Initiative): The "European DARPA," an initiative focused on funding and nurturing disruptive technologies to ensure Europe's technological leadership and autonomy.

About Sébastien Rousset: Chief Artificial Intelligence Officer at Naval Group, responsible for integrating sovereign, embedded AI into complex naval defense systems.
About Naval Group: A European leader in naval defense (Rev: ~€4.3B, ~16,000 employees), designing and building submarines and surface combatants with a focus on maritime sovereignty.

About Su Yang: Head of AI & IT Innovation at BNP Paribas, managing the operational resiliency of critical financial infrastructure and overseeing the deployment of safe AI at scale.
About BNP Paribas: The European Union's leading bank (Rev: ~€46B, ~183,000 employees), serving millions of clients and handling massive volumes of sensitive financial data globally.

About Yann Lechelle: CEO of Probabl and a tech entrepreneur, focused on industrializing open-source data science tools to secure technological independence.
About Probabl: A mission-driven company spun off to sustain Scikit-learn, the world-renowned open-source machine learning library, ensuring it remains a sovereign digital asset.

How do you define "Sovereignty" in the context of the digital age and AI?

∧ **Édouard Guillaud:** Sovereignty is often viewed as complex, but it fundamentally relies on two pillars: Freedom of Choice (Free Will) and Protection/Autonomy. In the cyber domain, this requires answering difficult questions about the entire supply chain. It is not just about owning the data; one must ask: Which infrastructure is being built? Who operates it? What are the energy costs? Crucially, one must audit the "school of computer science" behind the algorithms—under which scientific hypotheses were they computed? Finally, sovereignty dictates the terms of interoperability: how do we link to allied systems without compromising the integrity or security of our own core data?

∧ **Sébastien Rousset:** For a defense contractor, sovereignty is not theoretical—it is operational. It is the ability to deliver the best decision to the crew at the optimal time on the battlefield. Rousset illustrates this with a reference to the film Le Chant du Loup (The Wolf's Call), where a sonar analyst ("Golden Ear") must classify an acoustic signature. If the AI assisting him is foreign-made and was not trained on specific enemy signatures (or was biased during design), it might misclassify a nuclear submarine as biological noise (a whale). Sovereignty here is the mastery of the design, training data, and validation processes to prevent fatal errors that could lead to unauthorized torpedo engagement or failure to defend.

Own Your Data-science and AI, or Lose Your Sovereignty. (2)

Why is operational resiliency critical for large-scale institutions like banking?

Λ **Su Yang:** The primary driver for BNP Paribas is Operational Resiliency—the ability to remain secure and ensure continuity regardless of external geopolitical or technical disruptions. This is non-negotiable when handling sensitive client data. To manage this, the bank has established a rigorous governance framework, including a top committee chaired by the Group CEO. They have industrialized AI usage with over 800 use cases currently in production, supported by a workforce of 700 data scientists and 3,000 data specialists. Their goal is to generate business value while ensuring that every deployment—whether traditional AI or Generative AI—is "safe and secure" by design.

> "
> *"Imagine this decision [to fire a torpedo] was suggested by foreign AI... something we do not master the design... imagine the consequences."*

> "
> *"Sovereignty covers... two concepts which rely directly to all the cyber field. The first one is freedom of choice... and the second one is of course protection and autonomy."*

What are the specific technical strategies for building a "Sovereign AI" stack in defense vs. finance?

Λ **Sébastien Rousset (Defense):** Naval Group's strategy is built on Full-Stack Mastery and On-Premise execution. An embedded AI on a submarine cannot rely on a cloud hosted elsewhere; it must run on the ship's own infrastructure (Edge AI). This requires mastering the physics, computing power, and storage locally. They prioritize open-source models because they allow for deep code audits to remove potential vulnerabilities or backdoors. Furthermore, because the battlefield evolves, the AI cannot be static; it requires a continuous training loop where models are updated and adapted to new data encountered during missions, a process that must be co-designed with the Navy.

Λ **Su Yang (Finance):** To counter the rapid obsolescence of tech, BNP Paribas focuses on Operational Autonomy through a private, on-premise cloud system. They have built an internal platform called "LLM Service" which allows internal applications to access Large Language Models via API calls. This platform integrates models from partners like Mistral (a French sovereign AI champion) as well as open-source models. This setup powers applications like the "LLM B" for their Corporate Investment Banking division, assisting 50,000 employees with summarization and translation. The choice of open source here is driven by cost-efficiency and the ability to leverage the "collective intelligence" of the global community to stay at the state-of-the-art.

Own Your Data-science and AI, or Lose Your Sovereignty. (3)

> " *"One of the top priority is the operational resiliency... the ability to remain secure, to ensure continuity and have a complete control over our systems regardless of the circumstances."*

How does Open Source technology function as the "invisible infrastructure" of sovereignty?

∧ **Yann Lechelle:** Open Source is the essential ingredient for resiliency because it provides choice, reversibility, and ownership, effectively neutralizing vendor lock-in. Lechelle points out a critical fact: 96% of the code inside proprietary, closed-source solutions is actually open source. It is the "invisible infrastructure" powering the digital world. Sovereignty, therefore, starts with the corporate "muscle" to acknowledge this dependency and actively select open technologies. By choosing open protocols and data standards, organizations can measure their dependencies and build a stack where they control the components—from semiconductors to the cloud layer—rather than renting a "black box" that can be turned off by a foreign power.

How can Europe and its States level the playing field against US and Chinese dominance?

∧ **Édouard Guillaud:** The State's role is to move from reactive to proactive. Currently, Europe is fragmented, with 50+ states having different understandings of sovereignty. Guillaud argues for a robust Cyber Deterrence strategy to counter "hybrid attacks" and coercion from actors like Chinese or Russian hackers. The State must build a normative landscape (cloud norms, data protection) that enables companies to thrive. He emphasizes that "Europe is bigger than the EU," urging cooperation with the UK ("our British cousins") to pool AI talent and resources. Without this coordination, Europe will remain "one train behind."

∧ **Yann Lechelle:** The most effective strategy for Europe is to weaponize Openness. China made open source a national policy in 2022 to challenge US hegemony; Europe must do the same. Lechelle highlights Scikit-learn, a French creation born at Inria on the Saclay plateau, which has 3.5 billion downloads and powers machine learning globally. This proves that Europe can create "horizontal" leadership that cancels out dominant plays. By distributing technology freely, you prevent any single entity (like a US Big Tech firm) from establishing a monopoly. This "distributed sovereignty" empowers the entire continent and solves security issues by maximizing the number of eyes on the code.

> " *"Open source is a weapon to counter big tech... Europe is losing GDP as a result of not playing as well as the US. Therefore, open source is a way to undercut the dominant play."*

AI For Automotive: Mapping what's possible with AI.

Michael Harrell, SVP Engineering Maps

About Michael Harrell: A veteran technology leader specializing in geospatial data and large-scale platform engineering. Currently the SVP of Engineering for Maps at TomTom, he previously spent over 8 years at Microsoft (Bing Maps/Streetside) and 6.5 years at Amazon (Amazon Business architecture).

About TomTom: A Dutch multinational developer of location technology and consumer electronics. HQ: Amsterdam, Netherlands. Revenue: ~€575M (2023). Employees: ~3,700. Mission: To shape the future of mobility with highly accurate maps, navigation software, and real-time traffic information.

∧ **Executives currently face an "overwhelming" saturation of AI information,** making it difficult to distinguish hype from genuine business impact. The immediate challenge is moving beyond the noise to identify scalable, data-driven applications that deliver tangible ROI, rather than getting lost in endless pilot programs.

∧ **The Technical Breakthrough: T**he shift from stagnant deep learning models to "Attention is All You Need" (Transformers) and Self-Supervised Learning revolutionized the field. Machines can now label their own data by predicting the "next token" (whether text or video frames), solving the bottleneck of human annotation and enabling models to consume insatiable amounts of data.

∧ **AI in Automotive (Vision vs. Reality):** Just as LLMs hallucinate text, Vision Transformers can predict "fantasy land" scenarios when generating future video frames for autonomous driving. TomTom posits that maps are the essential "ground truth" needed to constrain these models, ensuring vehicles remain anchored in reality and safety.

∧ **Paradigm Shift in Engineering:** The role of the software engineer is fundamentally changing from "writer" to "orchestrator." AI agents are now capable of identifying bugs, writing fixes, and reducing technical debt (e.g., cloud cost optimization) in a fraction of the time (one week vs. months), requiring humans only to review pull requests and apply guardrails.

∧ **Leaders must avoid spreading resources thin across too many pilots.** The winning strategy is to "be bold" by selecting a few focused initiatives based on proprietary data availability, proving success in small workgroups, and then aggressively scaling those specific wins to build organizational momentum.

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> *"This technology [Vision Transformers] is going to predict fantasy land sometimes into the future. The last thing we need is our cars driving into fantasy land. They need to be grounded in reality. In vision, grounding these things in reality is a map."*

From silicon to asphalt: paving the way for the future of automotive with AI. (1)

Ben Carter, Client Director, EMEA

CoreWeave

Chris Van Pelt, Distinguished Engineer and Co-founder

W&B

Jens De Buhr, Founder of BIG BANG KI Festival & Publisher of DUP UNTERNEHMER Magazine

BIG BANG KI FESTIVAL

About Ben Carter: Client Director for EMEA at CoreWeave, driving the expansion of high-performance AI compute infrastructure across the European market.
About CoreWeave: A specialized cloud provider for large-scale GPU acceleration. HQ: Roseland, New Jersey. Valuation: ~$23B (2025). Employees: ~1,000+. Mission: To provide the most performant and efficient cloud infrastructure for AI workloads.

About Chris Van Pelt: Distinguished Engineer and Co-Founder of Weights & Biases, focusing on the engineering challenges of building state-of-the-art AI models.
About Weights & Biases: The leading developer-first MLOps platform used by AI engineers to track and visualize models. HQ: San Francisco, CA. Valuation: ~$1.25B. Employees: ~300. Mission: To build the best tools for machine learning practitioners.

About Jens De Buhr: Founder of the BIG BANG KI Festival (Europe's leading cross-industry AI event) and Publisher of DUP UNTERNEHMER, a premier German business platform and magazine.

## Assess the current maturity of autonomous driving (AD). Are we on "training wheels" or ready for Formula 1?

∧ **Ben Carter:** The answer depends on geography. In the US and China, training wheels are coming off as autonomous driving scales efficiently in cities. However, in Europe, the training wheels remain on. Despite a rich automotive heritage, the continent lacks the large-scale deployment seen elsewhere. Europe must leverage large-scale compute infrastructure to bridge this gap.

∧ **Chris Van Pelt:** The most significant recent milestone is the advent of "agentic coding." We are moving toward a singularity where AI agents not only write code but improve the models themselves. In the next 5-10 years, coding agents—rather than humans—will likely drive the next state-of-the-art advances in AD fields.

How exactly do your companies support the transformation of the car industry?

∧ **Chris Van Pelt:** The architecture is shifting from fragmented modules to massive, single neural networks (end-to-end learning) that intake sensor data and output driving actions. Weights & Biases provides the developer tools and "wrapper code" support that allow engineers to build and update these massive networks efficiently.

∧ **Ben Carter:** AD requires phenomenal memory and compute to process video data. CoreWeave provides the necessary large-scale GPU infrastructure to run these models resiliently. Beyond driving, this compute supports predictive maintenance in manufacturing and sensor health monitoring to minimize vehicle downtime.

> "
> "It's somewhat likely in the next 5 to 10 years that these coding agents will actually be giving us um kind of the the next state-of-the-art advances in in the field... historically what we think of as as uh uh the singularity starting to take off."
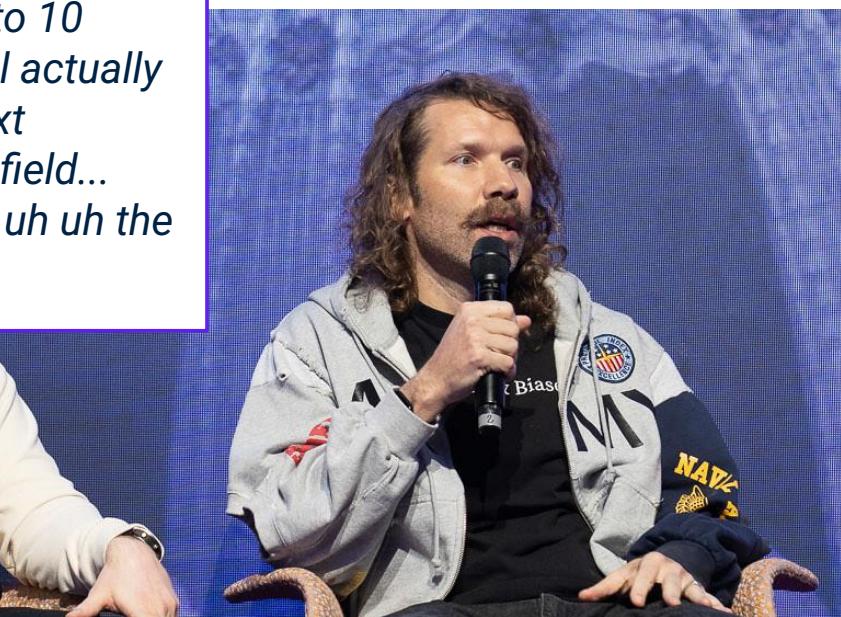
From silicon to asphalt: paving the way for the future of automotive with AI. (2)

Regarding Level 4 vs. Level 5 autonomy—how do we handle edge cases (e.g., natural disasters)?

∧ **Ben Carter:** We are currently at Level 4 (operating on known terrain/roads). Level 5—navigating unknown terrains or "edge use cases" like natural disasters or terrorist events—remains unsolved. Current vehicles must often shut down when facing environmental extremes like wildfires or heavy snow because safety cannot be guaranteed.

∧ **Chris Van Pelt:** Solving edge cases requires vast amounts of data including rare scenarios. The industry is increasingly relying on simulation (synthetic data), using engines like Grand Theft Auto or NVIDIA-powered photorealistic worlds to train models on situations they haven't physically encountered.

How do you view the competitive landscape between traditional OEMs, Tesla, and Google (Waymo)?

∧ **Chris Van Pelt:** Google (Waymo) pushed the industry forward with research like Transformers but suffered from the "innovator's dilemma," moving slower than startups. Tesla is taking a "first principles" bet by using cameras only (mimicking human eyes) rather than expensive LiDAR, banking on the idea that solving driving is equivalent to solving general robotics.

∧ **Ben Carter:** Waymo has a 20-year head start. However, European OEMs like BMW are rebranding as technology-first companies. They are also leveraging partners like Wayve—software-focused autonomous providers—to integrate AD stacks into their vehicles without building everything from scratch.

> " *"I think it's already here. Honestly, I I I think it's already here. [...] I think the technology's proven. It's now about scaling it and moving it internationally into different regions."*

China is a major player. How do they factor into this race, and when will we see mass adoption?

∧ **Ben Carter:** China is advancing rapidly due to deregulation and government planning. Regarding the timeline, the technology is "already here" and proven; the remaining hurdle is scaling it internationally and managing regulatory comfort across different regions.

∧ **Chris Van Pelt:** China is a powerhouse, innovating at speed (e.g., DeepSeek). However, regarding adoption in the West, a more bearish outlook is necessary. Because the world watches every mistake, a single accident sets the industry back. It will likely take 5 to 10 years for prolific use of self-driving vehicles in Europe due to necessary caution.

> " *"In Germany... people very often they love their car more than their children and their wife... is it still the future?"*

AI for Automotive: From Innovation to Trust.

Stan Zurkiewicz, Chairman of the Management Board and CEO

 DEKRA

About Stan Zurkiewicz: Stan Zurkiewicz serves as the Chairman of the Management Board and CEO of DEKRA, bringing extensive global leadership experience in testing, inspection, and certification industries. He is a leading advocate for integrating safety standards with digital innovation, focusing on establishing trust in AI and autonomous systems.

About DEKRA: Headquartered in Stuttgart, Germany, DEKRA is the world's largest unlisted expert organization in the testing, inspection, and certification sector. With approximately €4.1 billion in revenue and over 49,000 employees, its mission is to ensure safety on the road, at work, and at home through independent expert services.

∧ **The automotive industry has successfully solved the capability question—creating AI that learns and predicts—but now faces a critical adoption barrier: trust.** With 75% of future automotive innovation being software-driven, the core challenge shifts from building powerful AI to building systems that are trusted to operate safely in public spaces.

∧ **Convergence of Disciplines:** Safety can no longer be siloed. True "Digital Trust" requires the seamless integration of three domains: AI Safety (correct behavior under dynamic conditions), Cybersecurity (integrity against attacks), and Functional Safety (predictable failure modes). Only by merging these can manufacturers prevent the compromise of safety-critical systems.

∧ **Challenge 1:** Explainability & Transparency: We must move beyond "black box" deployments. While understanding every neuron is unnecessary, the system must be sufficiently transparent to explain actions and mitigate risks. This requires applying standards like ISO 8800 (AI Safety) and UNECE R155 (Cybersecurity) during the architectural design phase to establish a hardware-based root of trust.

∧ **Challenge 2: Lifecycle Verification:** The traditional "one-stamp" approval model (e.g., a crash test) is obsolete for AI that evolves post-factory via Over-the-Air (OTA) updates. Continuous assurance loops must be established to verify safety after every update and supply chain change, protecting against expanded attack surfaces (citing 200+ cyber incidents in 2023).

∧ **Challenge 3: Accountability:** As decision-making shifts from humans to a distributed AI stack, determining liability in accidents becomes complex. Frameworks like the EU AI Act and Japan's Road Safety Guidelines are essential to mandate the recording of algorithmic behavior, ensuring failures are traceable to the OEM, Tier 1, or software provider.

∧ **Just as electricity and aviation required trust before achieving mass adoption,** the transition from "engine to intelligence" relies on confidence, not just code. The industry must embed digital trust architectures immediately to unlock the deployment of autonomous mobility at scale.

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> *"The real challenge is not whether we can build intelligent systems. We already know the answer to that question. The real question is can we earn the trust that will unlock deployment at scale."*

AI for Automotive - How AI is Transforming Automotive OEMs. (1)

Jean-François Tarabbia, EVP Head of Business Area Architecture & Network Solutions AUMOVIO

Pierre Houles, Deputy CIO, CTO Mobilize & General Manager Renault Group

Franck Bonnay, Key Account Director Google Cloud

About Jean-François Tarabbia: Member of the Executive Board at Aumovio, leading the Architecture and Network Solutions business area, focusing on integrating AI into vehicle systems and development processes.
About Aumovio: The independent automotive technology company spun off from Continental (formerly Continental Automotive); Revenue: ~€19.7B (2024), Employees: ~87,000, HQ: Frankfurt, Germany.

About Pierre Houles: Serves as Deputy CIO at Renault Group and CTO of Mobilize (the brand dedicated to new mobilities), driving the software-defined transformation of the automaker.
About Renault Group: A historic French automotive OEM transitioning into a mobility tech company; Revenue: ~€52.4B (2023), Employees: ~105,000, HQ: Boulogne-Billancourt, France.

About Franck Bonnay: Key Account Director for Google Cloud, managing strategic partnerships and AI deployment for major automotive sector clients.
About Google Cloud: A suite of cloud computing services offered by Google; Revenue: ~€33B (2023), HQ: Mountain View, California.

What is the strategic "Why" driving the pivot to mobility products?

Λ **Pierre Houles (Renault):** The industry is facing a "perfect storm" of disruption. First, the product shift to Electric Vehicles (EVs) and the Software-Defined Vehicle (SDV), which introduces new services and entertainment layers. Second, the disruption of the entire industrial value chain—from using GenAI in design and simulation to optimizing the supply chain. Finally, consumer behavior is fundamentally shifting from ownership to "mobility as a service," requiring a complete business model overhaul.

What operational process scales transversal AI adoption across the company today?

Λ **Jean-François Tarabbia (Aumovio):** AI adoption is split into two distinct streams. Product AI focuses on vehicle performance, particularly Autonomous Driving (AD), where AI is non-negotiable. Process AI targets internal efficiency across Sales, Marketing, and R&D. A critical success case is in R&D requirements analysis: by using AI to merge and analyze complex legal and technical requirements, they have reduced engineer workload by 30%, shifting focus from administrative tasks to high-value engineering.

> ❝
> *"Taking the requirements—the legal one combined with a technical one which are quite complex—we reduce the workload of the engineers by 30% in most of the cases here."*

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From the Google perspective, what is the biggest success metric from this initial transformation?

∧ **Franck Bonnay (Google):** The key metric is the pace of innovation—the ability to shortcut the path from idea to scalable product. Evidence of this scale includes Waymo achieving 250,000 paid trips (scaling to 10 cities by 2026) and a 20% growth in the Vertex AI platform. Specific OEM wins include Mercedes integrating conversational AI in the new CLA and Renault deploying AI across 500 control points in plants to double manufacturing quality and efficiency.

How does AI transformation fundamentally differ from past digital transformations?

∧ **Pierre Houles (Renault):** The primary differentiator is speed; the cycle of digesting and testing new solutions is now immediate, unlike the slower pace of traditional digitalization. Crucially, while previous digitalization focused on internal process optimization, Agentic AI acts on the external ecosystem. It augments employees to interact with partners and suppliers, effectively creating an "extended company" that blurs traditional organizational boundaries.

What is your vision regarding the user experience in the vehicle?

∧ **Jean-François Tarabbia (Aumovio):** The vehicle is evolving from a transport tool into a fully integrated node of the user's digital life (IoT). The paradigm is flipping: the user no longer needs to learn the car; the car must learn the user. This involves anticipating destinations, charging logistics, and adapting the cabin atmosphere (music, lighting) based on the user's mood, creating an emotional connection.

> "It's more the fact that with Agentic [AI] you also can act on your ecosystem... the way we are going to interact with our technology partner, the way we are going to interact with our suppliers, it's like having a kind of extended company."

How does Agentic AI specifically enable this complete organizational rethink?

∧ **Franck Bonnay (Google):** AI has evolved from a "secret sauce" feature to the core product purpose. We are transitioning from Generative AI (assistive/passive) to Agentic AI (autonomous). These agents are not mere tools but a "digital workforce" that requires management—defining missions, providing tool suites, and supervising outputs. This shift will inevitably break down technological silos as agents collaborate across verticals (e.g., connecting SAP and Salesforce data) to execute complex workflows.

Do you see consequences of Agentic AI at the workforce/engineering level?

∧ **Jean-François Tarabbia (Aumovio):** Yes, managing the human response to this novelty is a major challenge. The company established an "AI Foundation" (comprising backend LLM incubators and frontend unified platforms) to democratize access and break silos. However, a new risk has emerged: ensuring engineers—especially new graduates—retain the discipline to challenge and verify AI results, particularly in safety-critical and cybersecurity contexts, rather than accepting machine output as absolute truth.

> "It's not a tool... it's clearly a digital workforce that you need to consider as part of your team... you need to define a mission, you need to give them a kind of suite of tools to activate."

Opening AI for Industry - Day 2.

Alexandre Thion de la Chaume, Managing Partner B2B & Industry

ARTEFACT

About Alexandre Thion de la Chaume: As the Managing Partner for B2B & Industry at Artefact, Alexandre oversees the strategic deployment of data and AI solutions for large-scale industrial clients. He specializes in bridging the gap between technical data science capabilities and operational business requirements in the industrial sector.

About Artefact: Artefact is a global consulting firm dedicated to accelerating data and AI adoption for large enterprises. Headquartered in Paris, France, the company employs approximately 1,500 people globally and generates estimated annual revenues exceeding €100 million, with a mission to bridge the gap between cutting-edge technology and business value creation.

Λ **Thion de la Chaume identifies a massive quantitative evolution in the market.** He contrasts current engagement with the landscape of a few years prior, noting that attendance has surged from a niche gathering of 100–200 R&D specialists to "thousands of people." This exponential growth serves as a definitive proxy for the technology's maturity and its widespread acceptance as a critical industrial lever.

Λ **Qualitative shifts are equally significant.** The speaker notes that the conversation is no longer the exclusive domain of technical teams. The ecosystem now integrates C-level decision-makers (CIOs), transformation leaders, and operational "doers" who utilize AI in daily workflows. This signals that AI has successfully migrated from the innovation lab to the factory floor and executive strategy sessions.

Λ **Addressing potential anxieties regarding Europe's position in the global tech race, he references a key sentiment from President Emmanuel Macron: "We are not late."** This statement is framed as a necessary "mojo" or strategic mindset. While acknowledging the difficulty of transforming legacy industries, the narrative firmly rejects the notion of European obsolescence in favor of a proactive stance.

Λ **The session concludes with a directive for acceleration.** The speaker emphasizes that while the industry is on a "long journey," the foundations are secure. The imperative is to accelerate the leverage of sovereign assets—specifically French and European technologies—to maintain competitive momentum.

"

"He [President Macron] said we are not late and this is I think is a good mojo... definitely it's not easy to transform a company with AI... but we are not late. So we need of course to accelerate again and again to leverage our asset technologies."

Λ **Opening the second day of the summit, the session focuses on the critical transition of AI from theoretical R&D to tangible industrial application.** The central challenge identified is scaling adoption beyond pilot programs to transform core industrial operations amidst a complex global landscape.

Move AI to the Shopfloor for Responsible Industry. (1)

Marc O'Regan, CTO, EMEA

DELLTechnologies

Karim Beguir, Co-Founder and CEO

Matthieu Durnerin, MDRF AI Solutions R&D Director and ST Fellow

InstaDeep™

About Marc O'Regan: CTO for EMEA at Dell Technologies, specializing in emerging technologies, AI, and enterprise architecture.
About Dell Technologies: A global tech leader with $95.6B revenue (FY25), ~108,000 employees, HQ in Round Rock, Texas, providing end-to-end digital infrastructure.

About Karim Beguir: Co-Founder & CEO of InstaDeep (a BioNTech company), an expert in decision-making AI and reinforcement learning.
About InstaDeep: A pioneer in advanced AI with $31.5M revenue (2025 estimate), ~428 employees, HQ in London, focusing on industrial optimization.

About Mathieu Durnerin: Technical Director and ST Fellow for Embedded AI at STMicroelectronics, leading algorithm and tool development.
About STMicroelectronics: A global semiconductor leader with $13.3B revenue (2024), ~50,000 employees, HQ in Geneva, specializing in embedded intelligence.

Can you share successful Edge AI use cases and discuss if all workloads should move to the edge?

∧ **Mathieu Durnerin:** STMicroelectronics facilitates over 60,000 Edge AI projects annually. Successful examples include visual PCB inspection during assembly and "virtual sensors" in appliances. In washing machines, motor current analysis estimates laundry weight to save 15–40% on water and detergent. While edge offers low latency and security, non-critical tasks should remain in the cloud for deep analysis.

∧ **Marc O'Regan:** Standard cloud round-trips can take 50–300ms, which is too slow for essential shopfloor work. Dell's NativeEdge platform targets sub-25ms latency. One client used edge-based machine learning to fix a yield problem that was draining $3.5 million per quarter, highlighting the immediate financial impact of localized processing.

∧ **Karim Beguir:** Factories generate massive video and log data that often goes uncaptured. Edge AI acts as a "data compressor" that fits within a few hundred watts of power. We now see humanoid and industrial robots acting on real-time 3D scenes at a 30Hz refresh rate, enabling decisions to be made locally without waiting for external cloud loops.

What is changing in the ecosystem to lower the challenges of building Edge AI?

∧ **Marc O'Regan:** We are transitioning from "large models" to "agentic architectures" where AI agents swarm together for autonomous task completion. Simultaneously, hardware is evolving toward neuromorphic architectures that solve energy bottlenecks by processing data at the system substrate level, a technology Dell is already piloting with law enforcement in Paris.

"

"Understand what it is that you expect from the AI in terms of return on investment, make it contextual to the business."

# Move AI to the Shopfloor for Responsible Industry. (2)

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∧ **Mathieu Durnerin:** The industry is moving toward a full software-hardware ecosystem. ST's STM32N6 is the first to integrate a Neural Processing Unit (NPU) for computer vision. They provide a suite of tools like STM32Cube.AI to convert and optimize pre-trained models, ensuring a "production-ready" path for developers using platforms like MATLAB or Simulink.

What are the key barriers and strategic invariants for companies to prepare for the edge?

∧ **Karim Beguir:** Data context is the primary moat. Companies must capture the "process"—not just the outcome—by logging everything from machine logs to video of staff performing tasks. This builds a digital history that trains future "digital colleagues." AI is already competent; what it lacks is the deep organizational context provided by comprehensive logging.

> **"**
> *""The takeaway is people need to start with a clear long-term strategy that integrates cyber security... and have cross-functional teams."*

> **"**
> *"Do not capture just the outcome of the process, capture the process itself... the data that you have is your moat."*
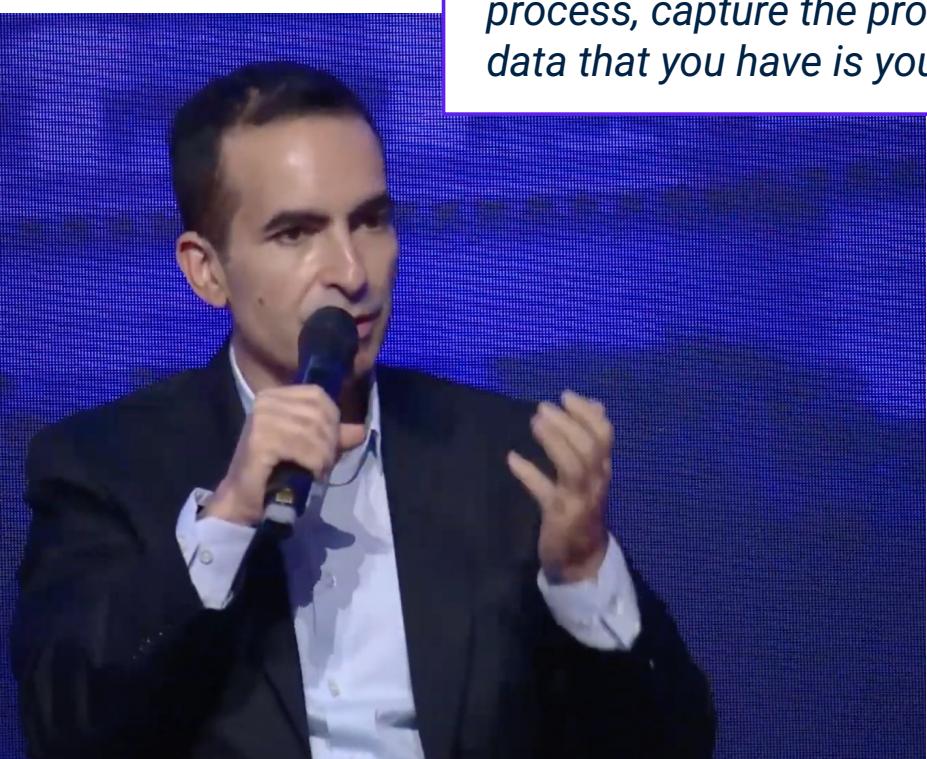
∧ **Mathieu Durnerin:** Cybersecurity and cross-functional collaboration are non-negotiable. Success requires plant managers, IT, and data scientists to align on a strategy that includes hardware-based "root of trust" and encrypted model weights. Compliance with European regulations (CRA/RED) must be part of the initial architecture, not an afterthought.

∧ **Marc O'Regan:** Organizations must focus on "context and integrity" to prevent AI hallucinations. This involves layering software like Knowledge Graphs on top of AI and partnering with entities that can bridge IT with Operational Technology (OT) systems like PLCs and historians. Success should be measured by the ROI of solving specific business problems.

Omni-Channel. Data-Driven. AI-Enabled. Sonepar's Path to the Future.

Jérémie Profeta, Chief Transformation Officer & Executive Committee Member

sonepar

About Jérémie Profeta: He serves as the Chief Strategic Marketing & Digital Officer at Sonepar, leading the group's global digital transformation and omni-channel strategy.

About Sonepar: Sonepar is the world leader in the B2B distribution of electrical products, solutions, and services, generating €33 billion in revenue with 46,000 employees across 40 countries, headquartered in Paris, France.

Λ **The global electrical industry** faces a "trilemma" of navigating the energy transition to limit global warming to 1.5°C, managing rising energy costs due to global conflict, and addressing energy shortages driven by the data center boom. Electricians are at the heart of this transition, requiring a shift from traditional local branch intimacy to a modern, integrated digital ecosystem that supports complex green technologies like EV charging and heat pumps.

Λ **Sonepar is deploying** the world's largest global omni-channel platform to unite customers and 20,000+ customer-facing associates on a single interface. By moving away from siloed channels (web vs. branch) to a unified platform, the company ensures "seamless product access" while maintaining customer intimacy through smarter tools like quote and lead management.

Λ **A strategic investment** made five years ago involved building a comprehensive data lake that covers all enterprise functions—supply chain, finance, and sales. This infrastructure established a "common language" across global operations, enabling granular, real-time data visibility that allows Sonepar to move from simple dashboards to "action boards" for its associates.

Λ **AI is integrated directly** into the data lake to power "Intelligent Offers," which calculate pricing, availability, and CO_2 impact simultaneously. Key applications include "Next Best Action" for sales teams, order automation, and advanced demand planning (S&OP) that integrates manufacturer data to ensure the "perfect order" is delivered 10/10 times on the job site.

Λ **Sonepar views AI** and data as the essential engines for productivity and efficiency, enabling the company to lead the energy transition while supporting the next generation of highly technical electricians. The transformation also extends to the "gray space" of data centers, positioning the company as a critical infrastructure provider for the AI era itself.

> "We're deploying AI in military systems to digest a huge volume of data and bring consolidated information or help for decision to human beings. But we keep human beings at the center when it comes to decision making."
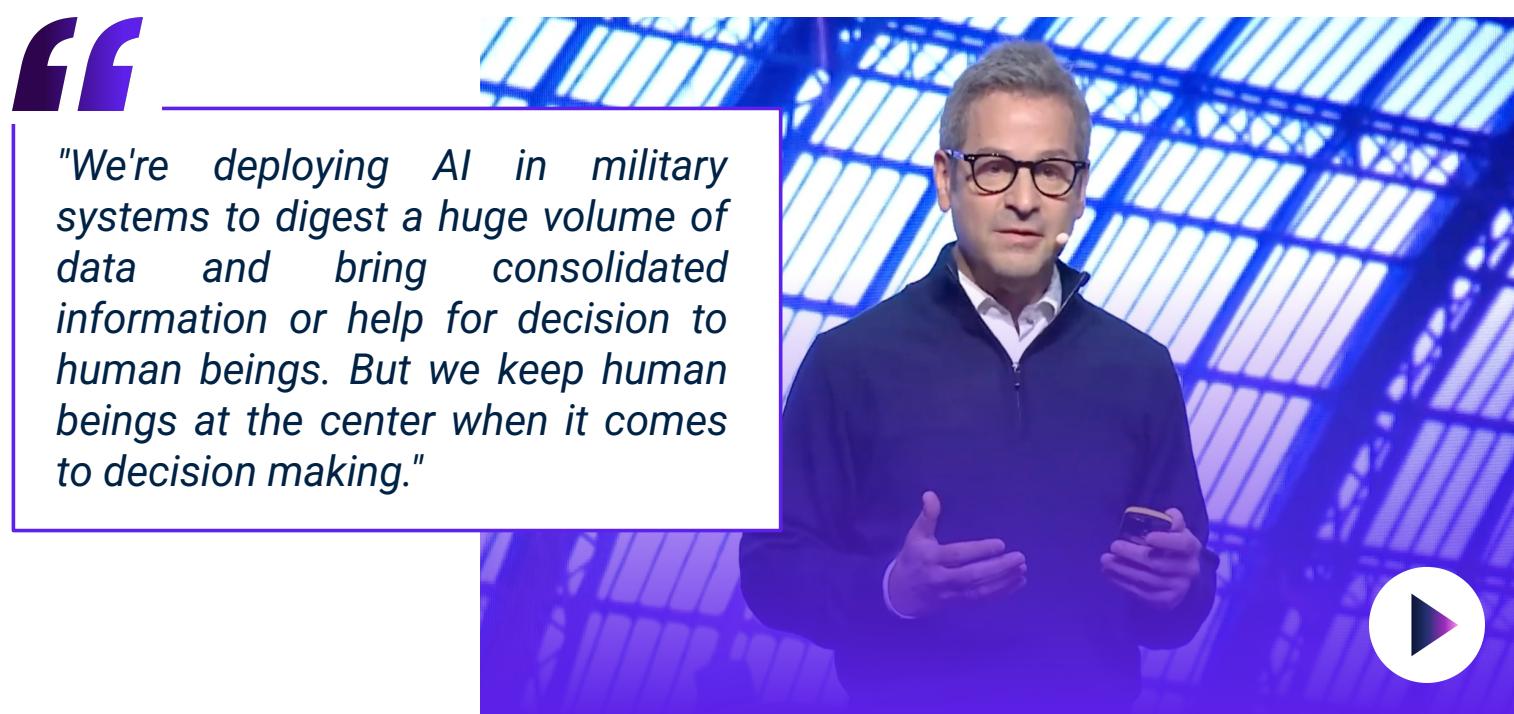
AI for Knowledge Management in Large Industrial Projects. (1)

Alain Bécoulet, Deputy Director General

Clément Dietschy, CEO

Dr. Sabine Klauke, EVP HO Digital Design Manufacturing and Services

About Alain Bécoulet: He is the Chief Strategy Officer at ITER and a leading expert in fusion physics and international research.
About ITER: With an estimated €20B+ budget and over 1,000 employees, ITER is a 35-country fusion research project based in Saint-Paul-lez-Durance, France.

About Clément Dietschy: He is the Head of Growth/Cofounder at Ask for the Moon, focusing on industrial knowledge transfer.
About Ask for the Moon: Based in Paris, this SaaS company provides an AI platform to secure industrial "know-how" for clients like EDF and Framatome.

About Sabine Klauke: She is the CTO of Airbus and a member of the Executive Committee, responsible for engineering and technology.

About Airbus: A global aerospace giant with 2023 revenue of €65.4B, approximately 150,000 employees, and HQ in Toulouse, France.

What is the primary challenge of the ITER project and how does AI intervene?

∧ **Alain Bécoulet:** ITER represents the largest international research endeavor, aiming to prove the feasibility of a nuclear fusion reactor. The challenge is twofold: the project involves half the world's population and spans a massive timeframe—30 years of preparation followed by 30 years of operation. AI is critical because it addresses the "transfer of knowledge" across time and space. We are not just managing data; we are managing the transfer of know-how to stakeholders who will eventually need to build these reactors independently. AI serves as the bridge to maintain continuity among thousands of shifting actors and companies over several decades.

Why is knowledge management uniquely complex in the current Airbus context?

∧ **Sabine Klauke:** Airbus is currently caught between two massive industrial pressures. First, we have an unprecedented customer demand necessitating a production ramp-up where efficiency is paramount. Second, we are designing the next generation of decarbonized aircraft, which requires radical technological "step changes." Because our development cycles are long, we are seeing a generational shift. We have a surge of young talent joining the company who must be upskilled rapidly. The challenge is capturing 50 years of accumulated engineering knowledge—much of which exists only in the heads of senior staff—and making it accessible and actionable for new engineers to build the future of flight.

> *"This is extremely difficult if we don't have an augmented capacity by AI."*

AI for Knowledge Management in Large Industrial Projects. (2)

What are the common industry "stakes" or difficulties regarding knowledge management today?

∧ **Clément Dietschy:** Industries like EDF, Orano, and Airbus are dealing with "expert loss." The core stake is turning knowledge into a functional asset that solves problems. For example, when an engineer at Airbus develops a decarbonized process, they must not repeat the mistakes of the last 50 years. AI's role is to pull from vast historical documentation while simultaneously extracting "tacit knowledge"—information that hasn't been written down yet. It's about building a tool that connects people so that the expertise of the past informs the innovations of tomorrow. AI isn't just a database; it's an extension of human expertise across the entire value chain.

Can you provide concrete examples of AI implementation at ITER?

∧ **Alain Bécoulet:** ITER has officially integrated AI governance across the entire lifecycle, from systems engineering to decommissioning. A major current priority is construction support. Specifically, we will soon begin welding the sub-parts of the vacuum vessel. This is a 2.5-year, 24/7 operation using 27 robots simultaneously. The process generates millions of non-destructive testing data points. Ensuring this vessel meets nuclear-grade certification is nearly impossible for humans alone; it requires "augmented capacity" through AI. Furthermore, in the scientific phase, we use AI to model magnetized plasma physics at high temperatures—a problem so complex it currently exceeds the limits of standard high-performance computing.

> "The AI must be able to also say 'I don't know'... instead of hallucinating.

> "We cannot live with a hallucinated thing that we need to recover... we need to be 100% sure."

How does Airbus balance AI speed with the absolute necessity of safety and certification?

∧ **Sabine Klauke:** Safety is our top priority, and while we've used AI since the 90s for things like ISS docking and satellite imagery, modern applications are even more rigorous. In production, AI manages supply chain workflows to predict missing parts. In the cockpit, we are exploring speech-to-text to help pilots manage heavy workloads on the ground. However, we cannot accept "70% reliability." If an AI translates "Paris" to "Prague," the safety implications are catastrophic. We must certify these models to be 100% reliable and hallucination-free. To maintain security, we don't use public tools like ChatGPT; we have deployed our own secure internal LLM to 70,000 employees.

AI Adoption Strategies in the Construction Industry. (1)

Dr. Mahir Nayfeh, Global Technology & Engineering Leader, CPO

AI71

Jean-Stéphane Didier, Managing Director, Construction

LEON GROSSE
Changeons le présent

Bruno Daunay, Head if AI Program

LEONARD

About Dr. Mahir Nayfeh: Senior leader at AI71 specializing in deploying Agentic AI at scale for large-scale infrastructure and industrial players.
About AI71: A UAE-based AI firm (HQ: Abu Dhabi) focused on sovereign AI solutions with approximately 100+ employees and multi-sector reach.

About Jean-Stéphane Didier: Managing Director of Construction at Leon Grosse, overseeing the firm's business operations and digital transformation strategy.
About Leon Grosse: A premier French construction group with ~2,300 employees, €900M+ revenue, and a focus on high-technical-value projects.

About Bruno Daunay: AI Program Manager at Leonard, the specialized innovation unit responsible for the Vinci Group's technological foresight.

About Leonard: Leonard is an innovation and foresight platform (HQ: Paris) that supports startups and internal projects to transform the construction and infrastructure sectors.

Why is your company investing so heavily in AI at this stage?

∧ **Bruno Daunay:** Leonard's investment, starting in 2019, is driven by the need to optimize industry processes at every scale. AI is viewed through a pragmatic lens: adding "mathematics" to daily tasks to optimize margins, speed up site processes, and improve logistics without getting distracted by the "magic" of the technology itself.

∧ **Jean-Stéphane Didier:** For Leon Grosse, AI represents a path to social and operational efficiency. By simplifying the administrative and reporting constraints on site workers, AI allows teams to spend more time on their core passion—actually building infrastructure. It is a tool for competitiveness through simplification.

∧ **Dr. Mahir Nayfeh:** The focus is on the full value chain complexity. In regions like the UAE, AI is being used for regulatory compliance (validating 3D drawings against municipal codes) and monitoring multi-billion dollar programs using drones and satellite imagery to ensure schedules and costs remain within massive program limits.

What specific tactics are you using to ensure AI adoption and implementation?

∧ **Jean-Stéphane Didier:** The strategy relies on a secure environment (Google Gemini) and a massive 100% staff training initiative. This includes "AI Clinics" for real-time support and "leadership dayouts" where managers are trained on real-world use cases to move them from skeptics to active participants in the digital roadmap.

> "
> *"If you can't distinguish between today and tomorrow, you probably shouldn't do the project."*
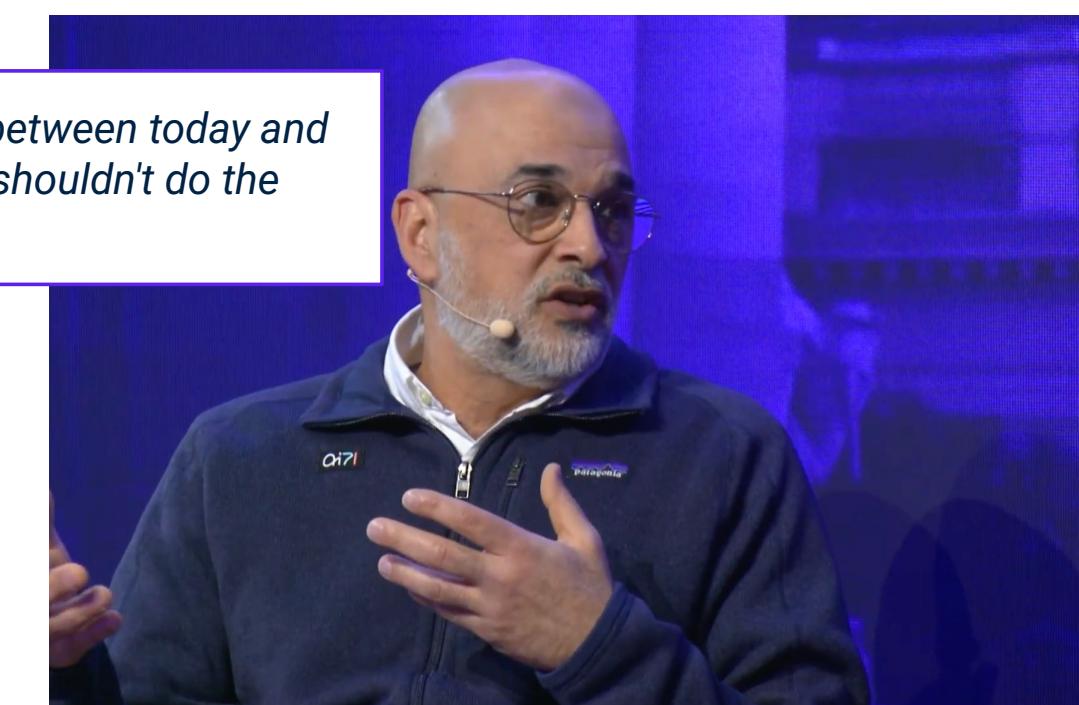
AI Adoption Strategies in the Construction Industry. (2)

How do you monitor and measure the success of AI adoption?

∧ **Dr. Mahir Nayfeh:** Monitoring is fundamentally tied to business value. AI71 asks clients to define how their work will be different tomorrow compared to today; if the change in cost, speed, or efficiency cannot be quantified, the project lacks a baseline for monitoring.

∧ **Jean-Stéphane Didier:** Beyond central tracking of Generative AI usage, the firm monitors how AI settles into the project life cycle. It is currently viewed as a competitive edge, but the expectation is that it will soon become a "defensive" necessity for industry survival.

What is your vision for AI in the construction industry 3–5 years from now?

∧ **Jean-Stéphane Didier:** The goal is to move from general tools to using proprietary company data. The primary challenge is organizational agility; the technology is evolving faster than the corporate structure's ability to absorb it.

∧ **Bruno Daunay:** AI will be ubiquitous and integrated into all standard software. The long-term vision is to leverage Leonard's "early adopter" advantage to deeply integrate these tools into existing complex physical processes before the rest of the market catches up.

> " *It's really what we want to do... is to get small bits of AI and being able to share that.*"
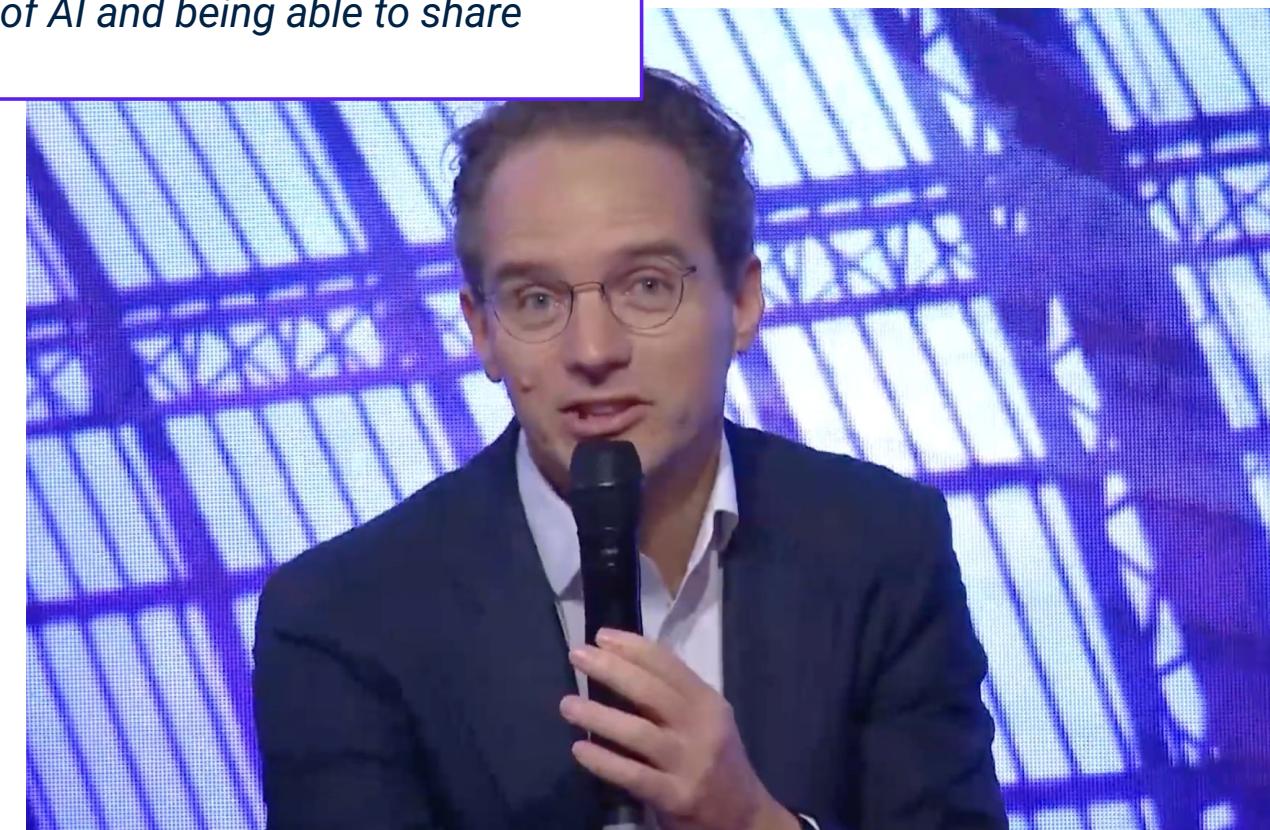
> " *We are not monitoring the people; we are monitoring the revenue of the business unit.*"
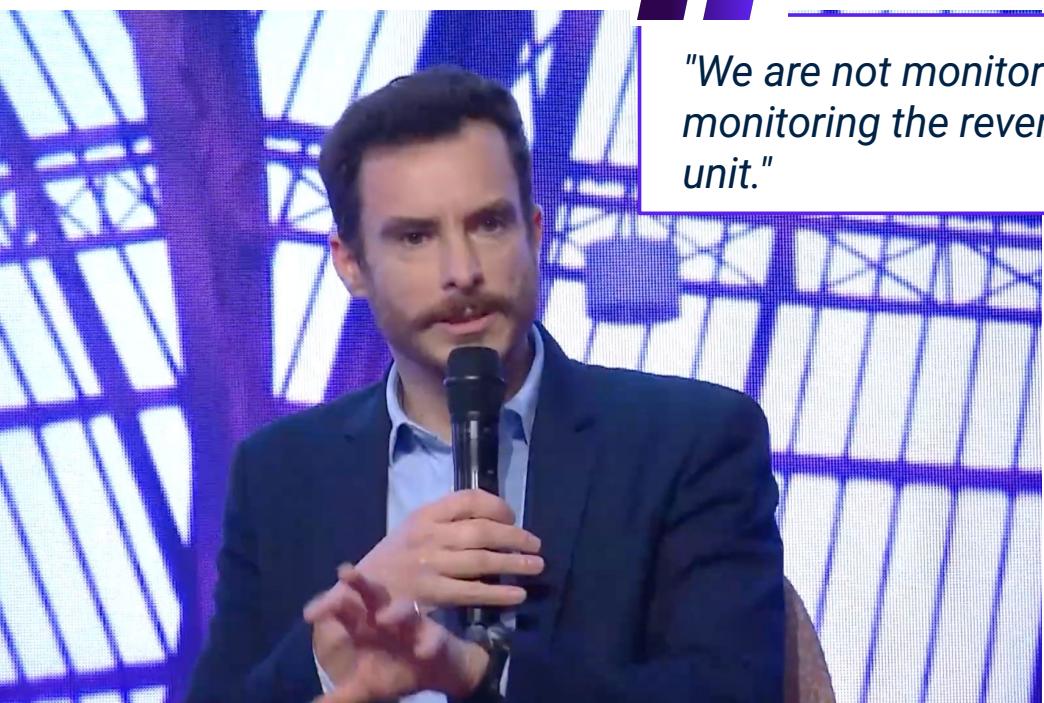
∧ **Scaling AI r**equires a shift from viewing it as a "technical experiment" to a business-led "startup" within the organization, backed by revenue accountability.

∧ **Massive,** 100% staff-wide training programs and "AI Clinics" are necessary to bridge the gap between providing a tool and achieving actual operational use.

∧ **The highest value** in construction AI lies in fusing diverse data types—drawings, satellite images, and logistics—to monitor billion-dollar program schedules in real-time.

The Future of Industry: Scaling AI with Purpose and Precision.

Fayez Alsharef, Chief Executive Officer

About Fayez Al-Sharef: Fayez Al-Sharef serves as the Chief Executive Officer of Sadara Chemical Company, bringing extensive leadership experience from a career deeply rooted in the energy and petrochemical sectors.

About Sadara Chemical Company: Headquartered in Jubail, Saudi Arabia, Sadara is a $22 billion joint venture between Saudi Aramco and Dow Chemical, employing thousands to produce essential performance chemicals.

How do you view the role of AI within the chemical industry and which specific territories will it impact?

Λ **Fayez Al-Sharef:** The industry is defined by high competitiveness and a critical focus on safety, health, environment, and reliability. Historically, the industry has operated in a "reactive" mode—fixing issues after they are investigated. AI is a welcome development that shifts us toward a proactive management style. It provides a strategic edge by maximizing energy efficiency and allowing us to stay ahead in a market where we must produce products that meet evolving consumer demands.

How do you balance the need for innovation with the requirement for operational stability in a dangerous industry?

Λ **Fayez Al-Sharef:** Because we deal with dangerous chemicals, we are naturally "tough" on adopting new technologies without proof. We utilize a "sandbox" approach where we demand rigorous use-case demonstrations and proof of capability. We deploy technology in a safe, constrained environment first to ensure it adds the anticipated value before moving toward full-scale integration across the facility.

What initiatives are you taking to empower your employees and upskill them for an AI-driven future?

Λ **Fayez Al-Sharef:** Fortunately, the majority of our workforce is young and tech-savvy, so there is little resistance to new tools. We engage in constant debate with middle management regarding upscaling methodologies. I view AI as a tool that helps humans rather than replacing them, as humans are resilient. We focus on showing employees the direct benefits of AI—positioning it as a partner that makes them better at their jobs rather than a competitor.

> "
> *"AI is not nice to have. It's a must-have and the people who can figure out a way to adopt it early days... they going to win."*

Executive Roundtable: Leading the AI Construction Industry. (1)

Frédéric Vincent, Chief Digital & Information Officer

Renault Group

Julien Nicolas, Chief Digital Group & AI Officer

SNCF GROUPE

Sébastien Arbola, Executive Vice President

ENGIE

About Frédéric Vincent: Chief Information & Digital Officer at Renault Group, leading the "Software Defined Vehicle" and AI roadmap.
About Renault Group: A global automotive giant with €52.4B revenue and 105,000 employees, HQ in Boulogne-Billancourt.

About Julien Nicolas: AI Program Director at SNCF, responsible for the group's "AI for all" and industrial scaling strategy.
About SNCF: France's national railway company, reporting €41.8B revenue and employing 270,000 people worldwide.

About Sébastien Arbola: Executive Vice President at ENGIE, overseeing the group's digital, data, and AI transformation.

About ENGIE: A global energy leader with €82.6B revenue and 170,000 employees, headquartered in Courbevoie, France.

### How is ENGIE approaching its AI transformation as a global utility leader?

Λ **Sébastien Arbola:** ENGIE's strategy is rooted in the sheer volume of data generated by 3,000 industrial sites and 20 million customers. The approach has shifted from a "digital-first" to a "data-first" focus, necessitated by energy markets that re-price every 15 minutes. The transformation relies on two priorities: aligning the Executive Committee to ensure business ownership of data, and forcing the business units to look beyond simple productivity gains. Arbola emphasizes that AI shouldn't just "augment" tasks but should fundamentally reshape business processes and how the company interacts with equipment suppliers.

What are the guiding principles for AI transformation at SNCF?

Λ **Julien Nicolas:** SNCF utilizes a four-pillar strategy: Governance/Partnerships (including Mistral and academic chairs), "AI for All" (democratizing access for 290,000 employees), Value Creation (focusing on maintenance and passenger info), and Ethical/Responsible AI. To avoid "POC fatigue," the group focuses on ten transformative use cases. Nicolas highlights that by 2024, they established a formal social dialogue with unions to address the impact of AI on work, ensuring the technology remains "inclusive and useful" rather than just a cost-cutting tool.

> "We prioritize use cases systematically by value... keeping a balance that lets us innovate fast without compromising sovereignty or resilience."

Executive Roundtable: Leading the AI Construction Industry. (2)

Adopt ΛI
GRAND PALAIS

What are the key drivers and axes of Renault Group's AI ambition?

∧ **Frédéric Vincent:** Renault's strategy is divided into three axes. Axis 1 is process optimization (development, supply chain, and sales), which already delivers hundreds of millions of euros in value annually. Axis 2 focuses on "Agentic AI" to provide employees with tailored productivity tools. Axis 3 is the B2C product experience, exemplified by the "Reno" avatar in the new R5. Vincent notes that while the technology for process optimization is mature, the B2C aspect is more complex due to high consumer expectations driven by smartphone experiences.

What are the main barriers preventing industrial firms from scaling AI?

∧ **Frédéric Vincent:** The primary hurdle is data accessibility. Renault overcame this by creating a "digital twin" of the company in the public cloud, mirroring physical operations in real-time. Other barriers include the skill gap—requiring "AI literacy" for all staff—and change management. Renault employs "AI Catalysts" to act as local ambassadors within business functions to ensure AI tools are actually adopted into daily workflows.

∧ **Sébastien Arbola:** Arbola cites organizational silos as a major barrier. He advocates for the "two-in-a-box" concept, where data scientists and business experts work as a single unit. He also warns that without an Executive Committee that understands the technical consequences of AI, the transformation will get "lost in translation."

> "AI is the new grammar of the world... as top managers, you need to provide a vision to reassure people that the end of the tunnel is not fully automatized without any people."

> "Our day life is to make sure that 3,000 applications are talking together... maybe we could expect from AI the ability to facilitate this integration."

What are the future "game changers" for your respective industries?

∧ **Frédéric Vincent:** The biggest opportunity lies in using AI to facilitate system integration across a landscape of 3,000 legacy applications. New protocols like Model Context Protocol (MCP) could allow different AI agents to talk to each other, drastically reducing integration time. He also envisions voice-controlled AI on the shop floor, allowing workers to talk directly to machines during maintenance.

∧ **Sébastien Arbola:** For the energy sector, the breakthrough will be the seamless integration of physical assets and real-time markets. Currently, production and consumption are "interrupted" by market transactions; Arbola envisions an AI-powered platform that manages this complexity by factoring in weather, process data, and market prices to optimize the entire grid in real-time.

AI for All: How Industrial Leaders Empower Their Workforce (1)

Fabien Mangeant, Group Chief Data & AI Officer

Alice Guéhennec, Groupe Chief Tech, Data, Digital & Innovation Officer

Emmanuel Cox, Director of Strategy & Digital Transformation

About Fabien Mangeant: CDO and digital expert at Air Liquide, focusing on AI structuring and industrial scaling.

About Air Liquide: A world leader in gases and technologies with €27.5B revenue, 67,000 employees, and HQ in Paris, France.

About Alice Guéhennec: Group Chief Data & Digital Officer at Sodexo, focusing on digital transformation and AI strategy.

About Sodexo: A French food services and facilities management giant with €24B revenue, 426,000 employees, and HQ in Issy-les-Moulineaux, France.

About Emmanuel Cox: Leading digital transformation at SNCF Réseau, specifically focused on AI implementation for infrastructure.

About SNCF Réseau: Managing 30,000 km of track with approximately €6B in revenue and 50,000 employees, HQ in Saint-Denis, France.

Why is AI at the heart of Sodexo's strategy and what are the primary drivers?

Λ **Alice Guéhennec:** AI is a "must" for Sodexo due to high operational complexity and the need for precision. It is used to predict restaurant attendance based on variables like remote work and weather to reduce food waste. In healthcare, AI manages diet restrictions by swapping ingredients automatically. Furthermore, because the company cannot recruit fast enough to meet market demand, AI "augments" existing staff to maintain growth. Finally, AI optimizes recipes to reduce carbon footprints by selecting seasonal and local ingredients.

How has SNCF Réseau evolved its AI journey and how are field workers involved?

Λ **Emmanuel Cox:** The journey began 10 years ago with "classical" AI and machine learning for predictive maintenance on 30,000 km of tracks. Two years ago, they launched an AI Lab to pivot toward Generative AI. The core philosophy is a "bottom-up" approach, ensuring that field workers are directly involved in development so the technology addresses real-world issues encountered on the tracks.

> "
> *"Trust will drive adoption... we will always need people in the loop on the loop to make sure the system we put in production are safe."*

AI for All: How Industrial Leaders Empower Their Workforce. (2)

How has Air Liquide structured its AI initiatives across its massive global footprint?

Λ **Fabien Mangeant:** Air Liquide targets three specific areas: employee productivity, business process optimization, and high-level value chain transformation (energy and customer delivery). They have moved from 20 years of telemetry and cloud-based machine learning to modern GenAI. The goal is to manage millions of customer interactions and optimize several hundred industrial plants for better decarbonization and energy efficiency.

Can you provide concrete examples of AI tools currently deployed at Sodexo?

Λ **Alice Guéhennec:** One flagship initiative is "Power Chef," which uses weather and attendance data to predict staffing needs per site, allowing Sodexo to reallocate staff within a 1km radius to match demand. Another is "Menu AI," a culinary tool for chefs that builds recipes based on sustainability targets, flavor profiles, and cost constraints, which is particularly effective in the highly regulated healthcare sector.

> **"Bringing this tool into the hands of thousands of employees really brings up new usages and new ways to deal with day-to-day tasks."**
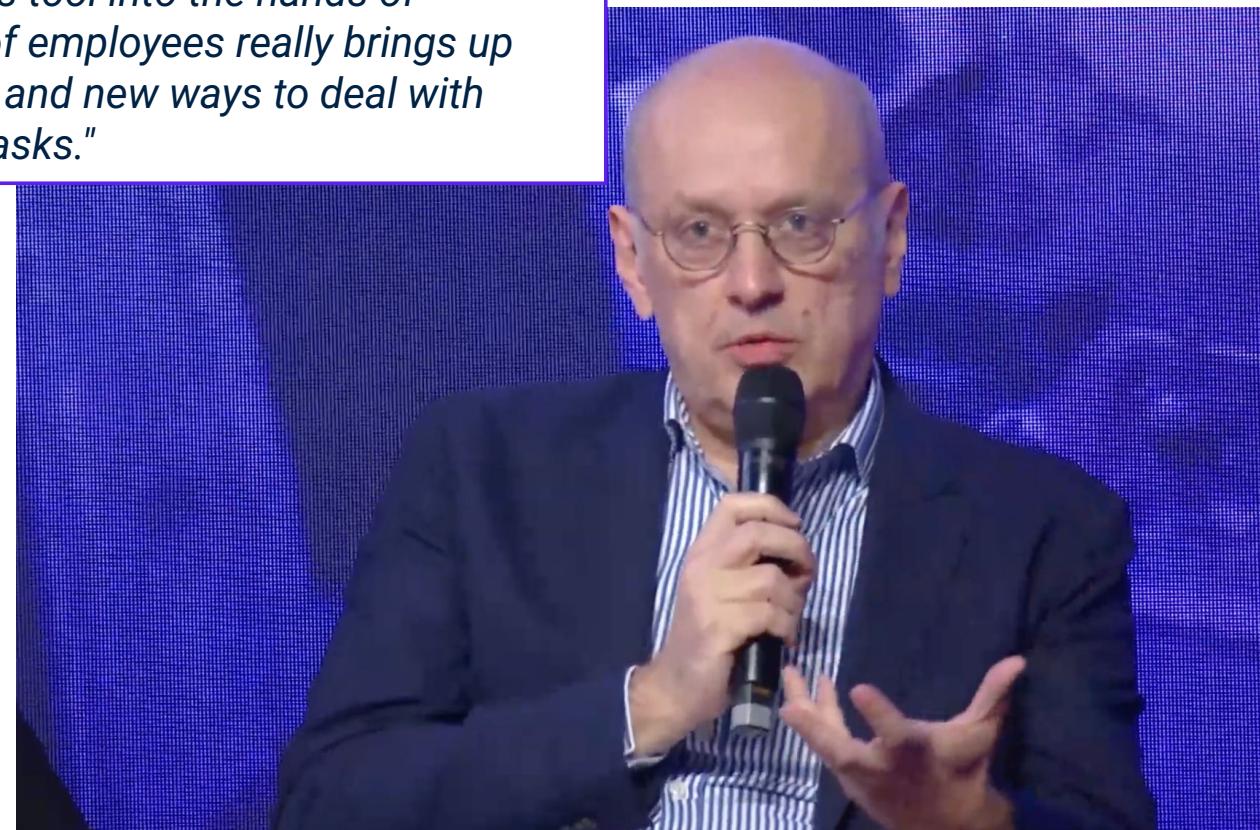
> **"AI is a must because we need to augment our people to make sure we can continue growing on the market."**

What specific AI tools have been launched at SNCF to empower teams?

Λ **Emmanuel Cox:** SNCF launched an in-house GPT platform used by 5,000 employees, with plans to expand to 50,000 next year for daily tasks. They also utilize predictive maintenance tools to monitor engine status and prevent failures. Additionally, they use AI-driven translation tools to bridge communication gaps between foreign train drivers and traffic controllers to ensure safety procedures are followed.

How does Air Liquide foster AI adoption and upskill its 65,000 employees?

Λ **Fabien Mangeant:** They use a three-step approach: acculturation, technical upskilling, and field implementation. They deployed Gemini for Google Workspace to all 65,000 employees so they can "play" with the tech. This is supported by 60,000 training seats and a network of 500 "AI Champions" who provide local, human-led training. They emphasize data quality at the local level to ensure the systems work effectively.

The paradox and promise of industrial AI.

Caspar Herzberg, CEO   AVEVA

About Caspar Herzberg: Currently serving as the CEO of AVEVA, Herzberg has extensive experience in digital transformation and smart cities, previously holding senior leadership roles at Schneider Electric and Cisco.

About AVEVA: AVEVA is a global leader in industrial software, headquartered in Cambridge, UK, with approximately 6,500 employees and annual revenue of roughly $1.2 billion, focused on driving digital transformation across the energy and manufacturing sectors.

What practical implications will agentic and physical AI have on industries like energy and manufacturing?

∧ **Caspar Herzberg:** The industrial world is naturally conservative regarding technology adoption because any error poses a physical risk to core assets like nuclear reactors or chemical plants. Agentic AI offers "augmentation" rather than replacement, providing a unified layer of insight from the executive level down to the machine operator. In energy and chemicals,

superior data standards allow for better implementation of these models to create autonomous dashboards and expand frontline knowledge. Regarding physical AI, we are seeing a shift toward robotic models—particularly in China—that combine telemetry and edge data. AVEVA has invested in Silicon Valley firms developing "superbrains" where hundreds of humanoid and quadruped robots train daily, sharing their collective learning to a central brain overnight. This enables robots to operate in hazardous, non-predefined environments, which will fundamentally redefine sectors like oil and gas and defense warfare.

How is generative AI changing AVEVA's internal strategic roadmap and R&D?

∧ **Caspar Herzberg:** AVEVA has integrated AI into two primary internal areas: software development and knowledge management. Initially, using GitHub Copilot for coding provided a "small wow" because the time saved in writing code was often lost in the rigorous testing required for industrial-grade software. Consequently, we pivoted to "Hypervelocity Engineering," an AI-driven knowledge management system rolled out across the entire R&D function, not just coders. A major cultural hurdle is the "silo" mentality; employees protect their data to feel safe. By building trust and breaking these silos, we've created a more effective internal knowledge base. For our external offers, about 20% of our solutions now sell AI as a core component, acting as a digital advisor to engineers to reduce the time spent on repetitive tasks like CAD modeling for complex assets.

> " *The world of industry for good reason is a very conservative world when it comes to technology adoption, especially when it touches core production, operation or design processes.*"

AI for R&D and Engineering.
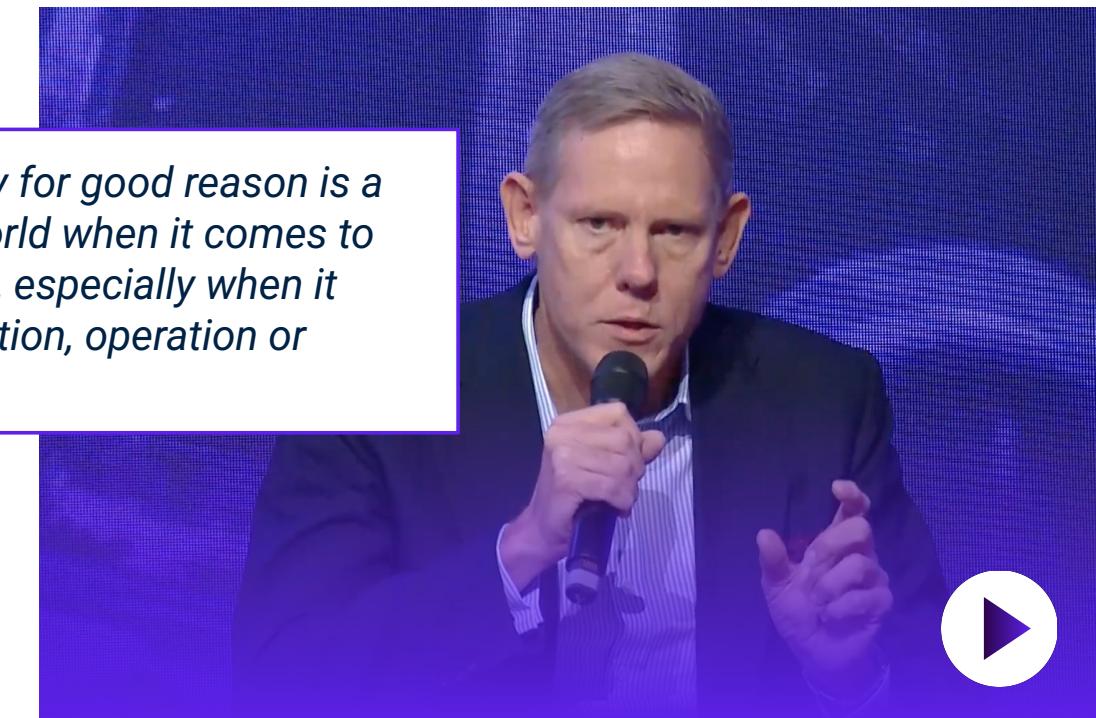
Gualtiero Bazzana, Caio, EVP and COMEX member

About Gualtiero Bazzana: Managing Director at Alten with extensive expertise in digital transformation and the strategic deployment of AI within complex industrial engineering environments.

About Alten: A global leader in engineering and IT services with €4.07 billion in revenue, over 54,000 employees, and HQ in Boulogne-Billancourt, France.
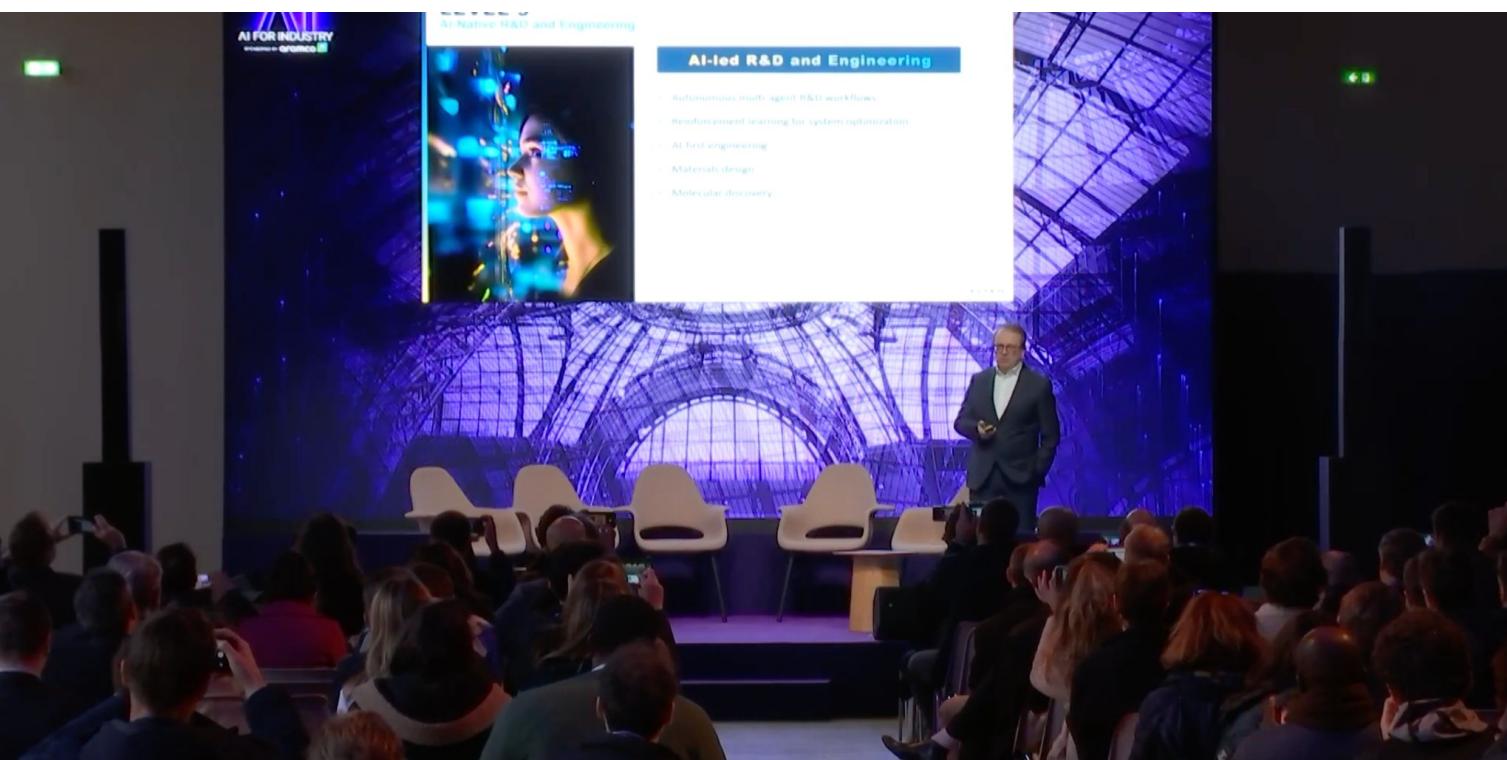
∧ **R&D and engineering** cycles are currently under heavy pressure due to increasing product complexity, "software-defined" everything, and exploding testing costs. While the market promises AI-driven productivity gains of 40%, real-world observations suggest these are often inflated and rarely achieved without a structured approach to the engineering lifecycle.

∧ **Bazzana** outlines a maturity model for AI adoption: Level 1 (AI for Productivity) focuses on personal engineering tools; Level 2 (AI for Excellence) targets augmented processes like quality and speed through predictive maintenance; and Level 3 (Native AI) uses AI as a core tool for material design and system optimization.

∧ **At Level 1, t**ools like Prisma AI for prompt engineering and automated test generation yield realistic productivity gains of 12–15%. Level 2 moves beyond "off-the-shelf" software to "AI-infused PLM" and digital twins, which can reduce time-to-market by up to 30%. Level 3 is the most challenging, requiring deep domain expertise and data science to change the fundamental "physics" of how products are developed.

∧ **Alten operates** through 18 Centers of Excellence and 5,000 data specialists, utilizing over 60 "accelerators"—reusable technical artifacts rather than static software products—to bridge the gap between generic AI and specific industrial use cases across aerospace, automotive, and life sciences.

∧ **The primary obstacles identified** include data sovereignty, security, and the integration of AI into existing toolchains. To counter this, Alten emphasizes "sovereign AI" through partnerships that allow for on-premise installation, ensuring that sensitive R&D data remains under the customer's control.

> "
> *"AI will not replace engineers, but engineers who use AI will prevail over those who don't."*

Accelerate Defence Innovation with Secure Enterprise AI Models and Agentic Workflows.

Marko Berkovic, Head of Revenue EMEA

poolside

About Marko Berkovic: Marko focuses on Go-To-Market and strategic expansion at poolside, bringing a background in enterprise scaling from roles at GitHub and Dell Technologies.

About poolside: A foundational AI company building LLMs for software development, recently valued at $3B with roughly 100 employees and HQ in Paris.


∧ **AI adoption** has accelerated from simple code completion in 2022 to the current "Agentic Age," yet 85% of enterprise projects fail. [01:54] The core problem is that driving value requires giving external AI providers access to all internal data, code, and systems, effectively surrendering a company's past, present, and future intellectual property.

∧ **For defense and government,** the stakes are higher due to extreme security requirements and the need for full ownership. [03:24] Poolside addresses this by building a fully independent stack—from land and energy generation (up to 6GW in West Texas) to a massive training cluster of 40,000 GB300s—ensuring their foundational models are built from "dust to intelligence" without third-party dependencies.

∧ **The solution involves** a connection layer that integrates poolside's foundational models with a business's existing legacy systems and databases. [07:20] This allows employees to orchestrate digital agents while maintaining control over what data each agent can access, creating a fully integrated and interactive digital workforce.

∧ **Poolside** provides the highest level of data segregation, offering air-gapped systems and "AI in a box" for frontline deployments, cyber-offense, and even submarine environments.To support this, they are optimizing models to be 2x−4x more efficient, allowing high-level intelligence to run on limited local compute power.

∧ **The ultimate goal** is to provide a sovereign full stack that empowers organizations to run, host, and own their AI entirely, ensuring they retain the capability to produce value independently.

> "
> *"You're taking your entire intellectual property that you have as a business and you're giving it to whoever is hosting your large language model to compute your future intellectual property and to build your future systems... you've given up your past, your present, and your future capability to create value."*
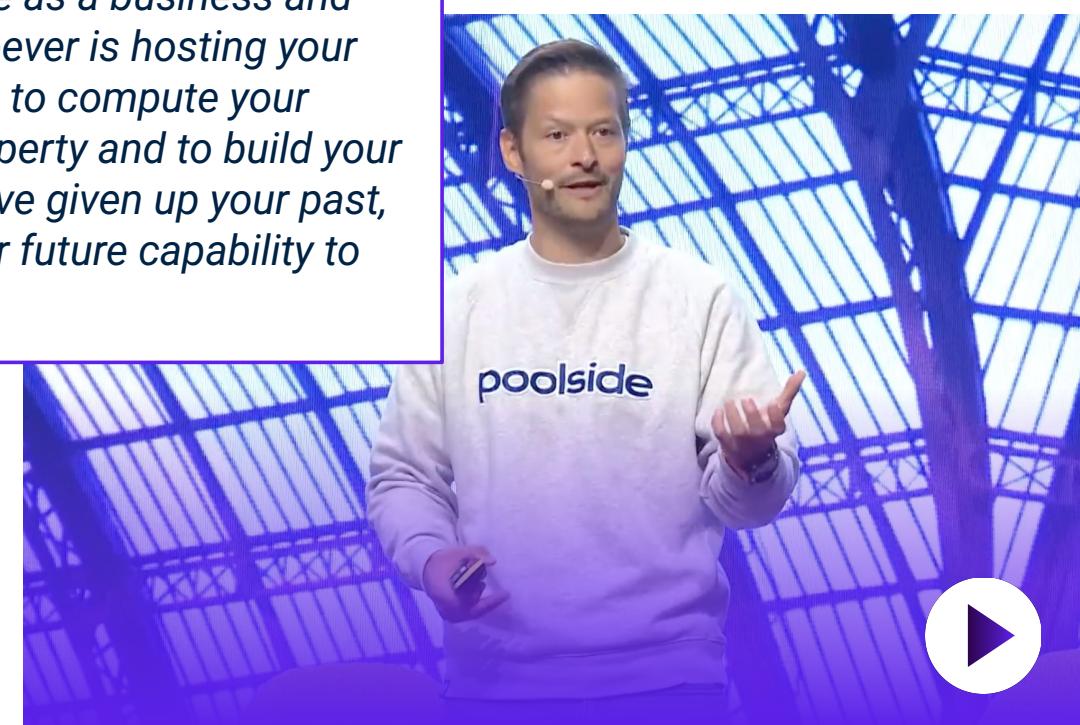
Powering Profitability: Reshaping Automotive with AI & Electrification. (1)

Massimo Cavazzini, Head of Automotive & Manufacturing ISS

aws

Cédric Merlin, Head of AI

Valeo

Clément Tiret, Chief Financial Officer

ELECTRA

About Massimo Cavazzini: Head of Industrial & Automotive at AWS EMEA, leading cloud-scale transformations for manufacturing and utilities.
About Amazon Web Services (AWS): A global cloud provider with $105B annual revenue (2024), 1.5M employees, HQ in Seattle, focused on democratizing scalable AI

About Cédric Merlin: Group Director of AI4ALL at Valeo, specializing in virtual twins and the deep integration of AI into R&D and component innovation.
About Valeo: A premier automotive supplier with €21.5B in 2024 sales, 106,100 employees, HQ in Paris, France, dedicated to sustainable mobility technologies.

About Clément Tiret: Chief Financial Officer at Electra, managing financial strategy and fundraising for high-speed charging infrastructure.

About Electra: A French EV charging leader with over €1B raised in equity and debt, 240+ employees, HQ in Paris, aiming for 14,500 charging points by 2030.

How does AWS utilize cloud and AI to drive optimization across the entire automotive value chain?

∧ **Massimo Cavazzini:** AI fundamentally shifts the "sell more or spend less" profitability lever. AWS focuses on democratizing AI across the entire lifecycle: from engineering simulation and virtual design to manufacturing shop-floor efficiency and after-sales. Beyond technical roles, AI is now being applied to corporate "staff" functions like finance, HR, and legal to eliminate traditional overhead costs.

How does the integration of AI into components link electrification with corporate profitability?

∧ **Cédric Merlin:** AI is the primary catalyst for breaking down silos between physics and chemistry domains, where the greatest innovation potential exists. Valeo uses AI to navigate the complex compromise between performance, cost, and reliability during the design phase. Additionally, AI optimizes production lines and—through Software-Defined Vehicle (SDV) strategies—enables continuous performance improvements throughout the vehicle's life.

> "
> "Technology is there now... what we are focusing on at AWS is democratizing the access to AI with several tools and allowing customers to really speed up and have proficiency."

Powering Profitability: Reshaping Automotive with AI & Electrification. (2)

**How does AI ensure the financial viability and grid stability of charging infrastructure?**

∧ **Clément Tiret:** Profitability depends on two AI-driven phases: site selection and operational automation. First, AI models forecast local demand and traffic to ensure capital-intensive investments (millions/billions of euros) are placed in high-utilization locations. Second, once thousands of stations are active, AI "agents" manage load and dynamic pricing automatically to keep structural costs low while stabilizing the European power grid.

How does AI create a "virtual workbench" to accelerate product design for engineers?

∧ **Massimo Cavazzini:** AI enables the "Software-Defined Vehicle" trend by decoupling hardware and software development. Tools like the "Virtual Hardware Lab" (a joint AWS-Valeo project) allow engineers to test software before physical hardware exists. This has cut design-to-road times from 48 months to as little as 18 months, with some users seeing a 9% weight reduction through Generative AI design.

"If I want to remain profitable—avoid having dozens of millions of structure costs—I need those decisions to be taken automatically in a smart way. And for this we need agents."
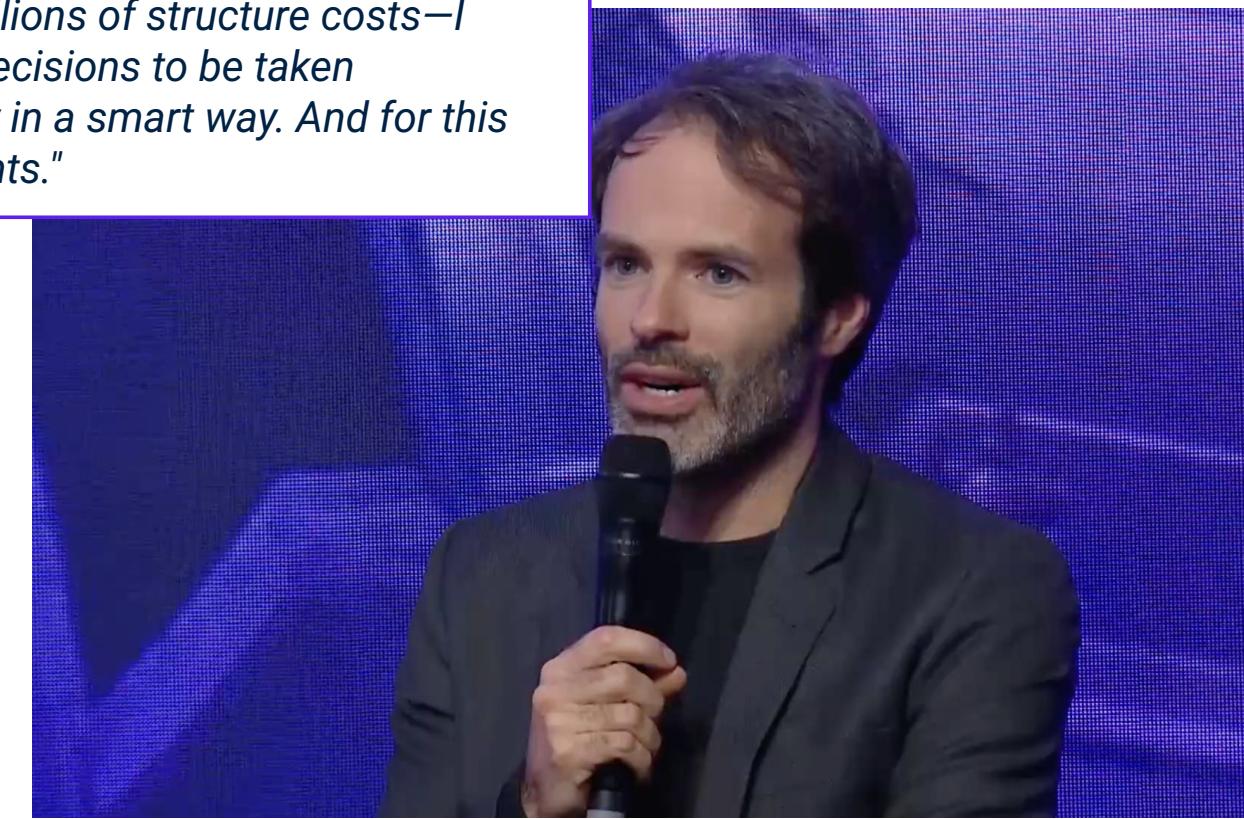
"The point is really to break the silos between the different domains... this is where we have a lot of potential and in fact AI it's a great help to do so."

How is scientific AI specifically accelerating R&D for next-generation components?

∧ **Cédric Merlin:** The focus is on "surrogate models" to emulate complex physics. For example, battery cooling systems that previously took months to design are now generated in a few days. By "learning" the physics of coolant flows and environmental constraints, AI can automatically generate optimal designs, making digital modeling the cornerstone of modern automotive engineering.

What are the concrete use cases for AI in site selection and dynamic pricing for EV charging?

∧ **Clément Tiret:** As batteries improve (e.g., 5-minute charging), the bottleneck shifts to the grid. Electra uses AI to manage on-site batteries that modulate power delivery based on real-time grid congestion. Furthermore, AI-driven dynamic pricing models send signals to customers, incentivizing them to move to less congested stations nearby, ensuring optimal infrastructure utilization and profitability.

AI for Energy Systems: From Infrastructure to Intelligence. (1)

Johannes Brandstetter, Co-Founder & Chief Scientist

Emmi AI

Marta Benito Garcia-Morales, R&D Program Manager in Information Technology

eDF

François Cuny, Deputy CEO for Innovation

Inria

Mihir Sarkar, Chief AI Officer

ENGIE

About Johannes Brandstetter: Co-founder and Chief Scientist at Emmy AI and a researcher specialized in AI-driven physical simulations.
About Emmy AI: An Austrian-based deep-tech startup (with a Paris office) developing high-fidelity AI native solvers for complex engineering problems.

About Marta Benito Garcia-Morales: R&D Program Manager for Information Technology at EDF, specializing in grid resilience and weather-impact modeling.
About EDF: A leading utility with roughly €139.7 billion in revenue and 160,000 employees, headquartered in Paris, France.

About François Cuny: Deputy CEO for Innovation at Inria, focusing on the intersection of public research and industrial application.
About Inria: France's national research institute for digital science, employing 4,000 scientists dedicated to computer science and AI innovation.

About Mihir Sarkar: Chief AI Officer at ENGIE, overseeing the integration of digital solutions for operational efficiency and carbon neutrality.
About ENGIE: A global energy leader with approximately €82.6 billion in revenue and 170,000 employees, headquartered in Courbevoie, France.

How has AI improved drone inspection and asset maintenance in the field?

∧ **Mihir Sarkar:** ENGIE uses drones to inspect wind turbines, solar panels, and high-voltage transmission lines. Because GPS is often too imprecise to distinguish between identical rows of solar panels, they use computer vision and autonomous navigation for precision. Once images are captured, AI models automatically identify defects, making maintenance significantly more efficient than traditional ground-team inspections.

Why is AI critical for predicting storm impacts on the energy distribution grid?

∧ **Marta Benito Garcia-Morales:** EDF's distribution system operator must restore the grid for 90% of customers within 48 hours of a storm. Using an AI-based tool that combines weather forecasts with historical grid data, they can predict potential incidents 96 hours in advance. This allows teams to prepare logistics and field crews with greater "tranquility" and safety before the storm even arrives.

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How can AI optimize energy consumption in energy-intensive data centers?

∧ **François Cuny:** Data centers are seeing massive energy increases due to AI, but AI is also the solution. By monitoring server activity and airflow patterns in real-time, AI allows a shift from reactive to proactive management. Inria works with cloud providers like OVH to design infrastructures where components dynamically turn on or off based on specific workloads.

How does real-time AI simulation improve power grid transformer efficiency?

∧ **Johannes Brandstetter:** Physical transformers are sensitive; if steered incorrectly, they overheat, leading to conservative and inefficient operations. Emmy AI provides real-time CFD (Computational Fluid Dynamics) simulations on meshes of 100-200 million cells. This accuracy allows the grid to run up to 30% more efficiently by optimizing the thermal limits of each transformer in real-time.

"We have to see how the AI has to be implemented in the human loop and not the other way around."

"The transformation we are actually living is a transformation of people, of the way we do work... the talent we need is people that are hybrid."
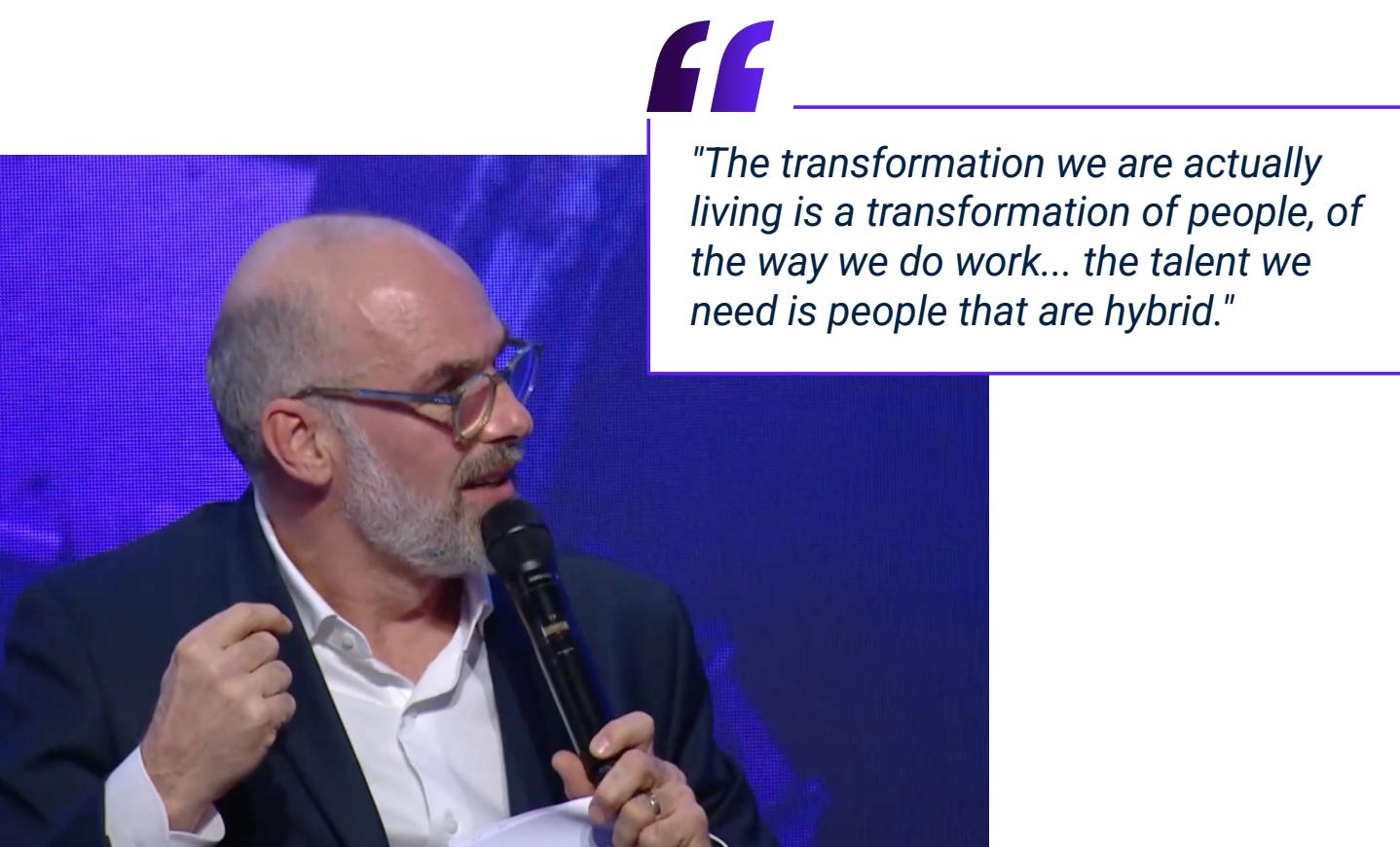
How will Digital Twins and Hybrid AI change the future of asset management?

∧ **Mihir Sarkar:** Digital twins are being augmented by AI to accelerate simulation, optimization, and control. This includes simulating terrain for battery storage or optimizing biomethane production. "Hybrid AI" combines classical machine learning (for quantitative time-series data) with Generative AI and Computer Vision (for unstructured manuals and video), creating a more trustworthy and deterministic industrial system.

Why is trust and sovereignty essential for AI in the energy sector?

∧ **Marta Benito Garcia-Morales:** The energy grid is a critical system where there is no room for doubt or "black box" results. Decisions must be explainable to regulatory authorities, ensuring every step of an optimization is transparent.

∧ François Cuny: Sovereignty is about secure access to data. Through initiatives like GAIA-X and federated learning, Europe can train models while keeping data at its source. Sovereignty should be viewed not as a constraint, but as an investment opportunity for national and continental safety.

"
"AI is an orthogonal new tool in the game... a fast way of testing, a fast way of specializing."
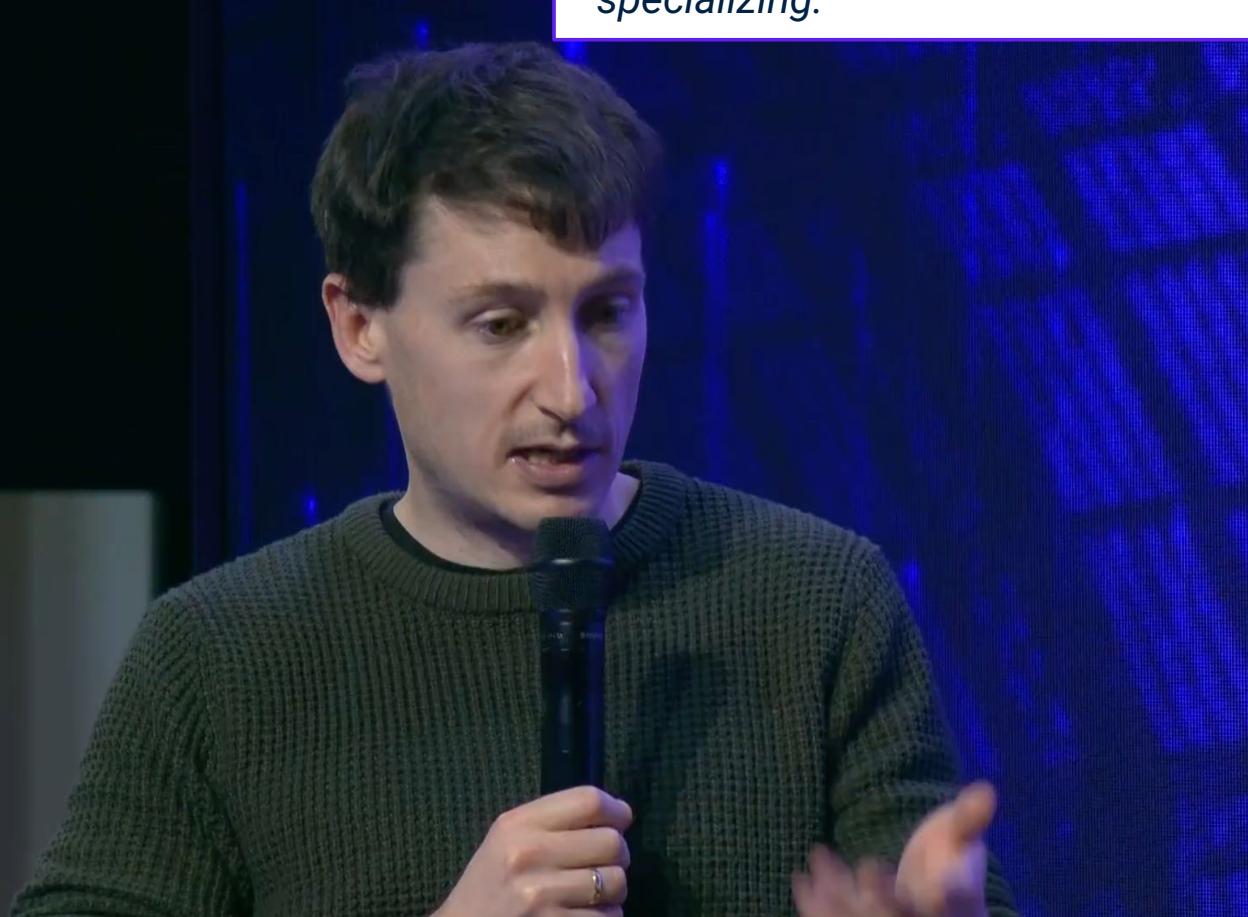
Λ **AI has moved from** a theoretical tool to a prerequisite for managing the massive complexity of decarbonization and grid stability.

Λ **The integration** of AI into critical infrastructure requires "Explainable AI" and "Hybrid AI" to ensure industrial safety and regulatory compliance.

Λ **Bridging** the talent gap requires a "hybrid" workforce capable of mixing physical knowledge (cooling, fluids) with numerical science (AI, cloud).

"
"AI is no longer optional; it is the essential lever for optimizing, securing, and innovating."

How can startups access the high-fidelity data needed for these simulations?

Λ **Johannes Brandstetter:** Success comes from three areas: leveraging the deep expertise of European engineers, partnering with the new generation of simulation software providers to build AI-native solvers, and treating the data stack—potentially petabytes of data—as the company's primary intellectual property.

AI For Defense: AI at the Frontline - From the Lab to the Battlefield. (1)

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Patrick Aufort, Director

AGENCE INNOVATION DÉFENSE

Philippe Keryer, Senior EVP Strategy, Research & Technology

THALES

Bruno Ricaud, Lead AI

KNDS

Raphaël Frisch, CEO & Co-Founder

HAWAI.tech

About Patrick Aufort: Director of the French Defense Innovation Agency (AID), responsible for orchestrating defense innovation strategy and identifying technologies for the French Armed Forces.
About The Defense Innovation Agency (AID): The innovation arm of the French Ministry of Armed Forces; manages an annual budget of approx. €1 billion to de-risk and accelerate defense technologies.

About Philippe Keryer: Senior Executive Vice President of Strategy, Research & Technology at Thales, overseeing the group's technological roadmap and AI implementation.
About Thales: A global technology leader in defense and aerospace; Revenue: ~€18.4B (2023), Employees: ~81,000, HQ in Paris.

About Bruno Ricaud: Lead AI at KNDS (KMW+Nexter Defense Systems), specializing in land defense systems and ground robotics.
About KNDS: The European leader in land defense (Main Battle Tanks, Artillery); Revenue: ~ €3.2B, Employees: ~9,000, HQ in Amsterdam.

About Raphaël Frisch: CEO & Co-Founder of Hawai.tech, representing the deep-tech startup ecosystem in hardware-embedded AI.
About Hawai.tech: A French deep-tech startup specializing in hardware-native AI and probabilistic computing for energy-efficient, explainable AI at the edge; HQ in Grenoble.

What is the top operational use case where AI provides an immediate tactical or strategic advantage?

Λ **Patrick Aufort (AID):**
Context: The Agency conducted a survey two years ago identifying over 400 potential use cases for defense AI. While the scope is vast, efficiency dictates focusing on a few high-impact areas.
Priority 1: Smart Sensors. The most immediate tactical advantage comes from automating the sensor chain. This includes specific capabilities: detection, recognition, identification, as well as multi-target tracking and localization.
Priority 2: Heterogeneous Data Analysis. The ability to process and fuse diverse digital flows—specifically images, sound, and video—is a critical challenge where AI serves as a force multiplier for analysts.
Priority 3: Natural Language Processing (NLP). While NLP is mature in civilian labs, implementing it in a defense context presents unique physics and security challenges. For example, running NLP algorithms in a Rafale cockpit (with high noise/stress) is vastly different from a controlled lab environment.
The "Lab to Battlefield" Gap: Defense faces unique constraints that civilian AI does not: data is often classified or extremely rare (operational data), and sensors are highly specific (e.g., Sonar acoustics), requiring specialized training data rather than generic datasets.

∧ **Bruno Ricaud (KNDS):**

Context: As a land defense leader, KNDS focuses on the complexity of the ground battlefield, which is unstructured and marked by obstacles, unlike the open air or sea.

Priority: Ground Robotics (UGVs). The "must-have" capability is the autonomy of Unmanned Ground Vehicles and their cooperation with aerial drones (UAVs).

Operational Value: AI allows these systems to process adverse sensor data locally to handle navigation and obstacles. This autonomy enables the preservation of the soldier's mission: soldiers can employ robots for surveillance, reconnaissance, or fire support without being forced to manually pilot them, which would distract from their primary combat duties.

∧ **Raphaël Frisch (Hawai.tech):**

Context: Startups bridge the gap between vehicle manufacturers and autonomous capabilities. Manufacturers build excellent hardware (drones/tanks) but often lack the specific "autonomy step."

The "Execution" Niche: Defense AI is fundamentally different from Generative AI (LLMs). One cannot drive a tank with a Large Language Model. The requirement is for deterministic, real-time execution.

Hardware Constraints: The strategic advantage lies in embedded computing power. Vehicles on the front line cannot rely on cloud connectivity; they need onboard hardware capable of processing sensor data fast enough to make navigation decisions in milliseconds.

> *"You will never drive a UGV with LLM to make it simple... it requires a very specific type of AI models [for] real-time computation."*

> *"AI in command centers... accelerates the tempo of a battlefield by order of magnitudes from days to hours based on an information which is more and more important."*

What are the main challenges to accelerate the adoption of AI in the next two years?

∧ **Patrick Aufort (AID):**

The Core Metric: Success is defined by Innovation to Field speed—turning projects into deployed end-user solutions.

Challenge 1: Data Access. The Ministry must provide industry with qualified, operational data to train relevant models.

Challenge 2: Testing Infrastructure. Acceleration requires accessible testing fields where developers can trial systems in real-world conditions, not just simulations.

Challenge 3: Open Architecture. Platforms must be designed with open architectures to allow for the rapid integration of algorithms from various sources (startups, primes, agencies) without friction.

Challenge 4: Redefining Ethics. The "Human-in-the-loop" concept needs precision. It must not mean a human physically approving every micro-action (the "red button" fallacy), which would negate the speed advantage. Instead, control should be established via algorithm certification and defining the precise conditions of use prior to deployment.
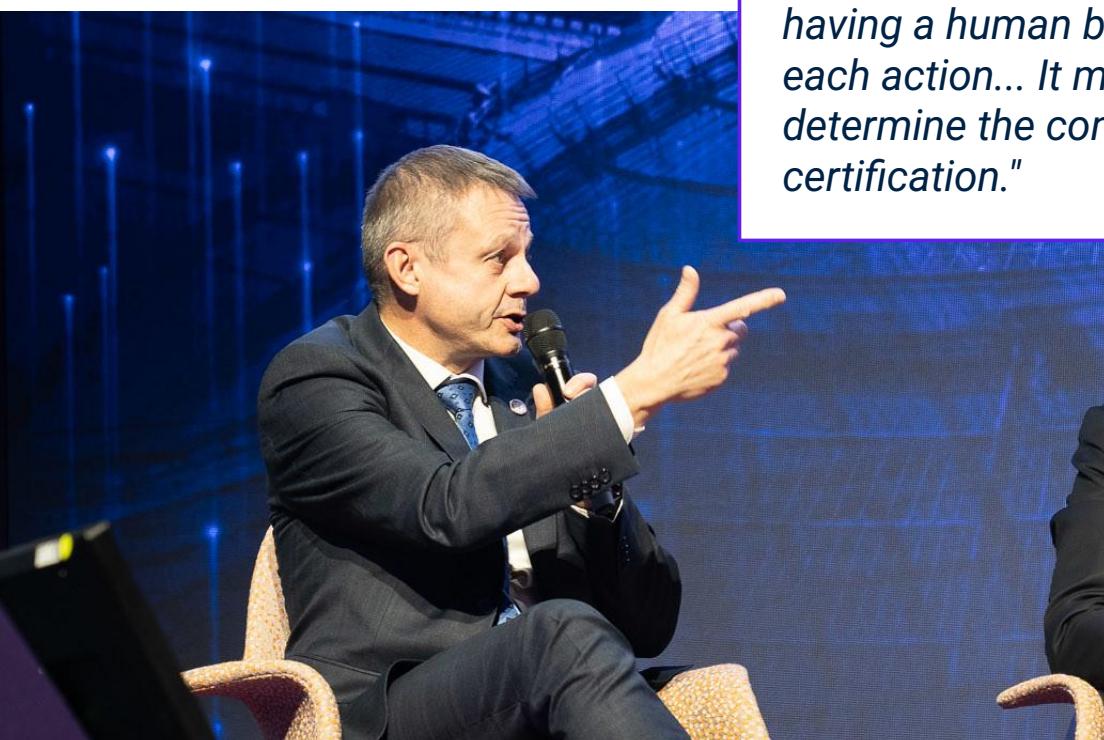
> *"Having a human in the loop does not mean having a human behind the red button for each action... It means that we need to determine the condition... by algorithm certification."*

∧ Bruno Ricaud (KNDS):

Human-Centricity: The challenge is organizational and cultural, not just technological. We must design systems around the human, not force humans to adapt to the machine.

Transparency & Training: Soldiers are not data scientists. Algorithms must be transparent and explainable so operators understand why a system made a decision. Furthermore, military doctrine must evolve; armies need to "drill" with autonomous systems to integrate them into standard maneuvers effectively.

∧ Raphaël Frisch (Hawai.tech):

Obsolescence Risk: If a system takes 10 years to develop, it is obsolete upon arrival. The cycle must be shortened through open collaboration between the "Puzzle Modules"—Startups, the Agency (AID), and Primes—working together on the field.

International Scale: French expertise is high, but maturity requires collaboration with foreign agencies and companies to scale solutions.

Financing: As the representative of the startup ecosystem, he emphasizes that funding (both public and private) is the "sinews of war." Sustained R&D velocity requires consistent capital injection, a constraint less critical for the established giants but vital for deep-tech agility.

> *"One of the major challenge... is that we have to develop systems with... [or] around human and not the the the other way around."*

∧ Philippe Keryer (Thales):

Speed & Reactivity: The geopolitical landscape demands a faster reaction time. The "time-to-market" for defense tech must shrink to match the "time-to-decision" on the battlefield.

Collaboration: Barriers between developers and end-users must fall. Engineers need to work directly with forces to iterate on experiments.

The Export Paradox: A novel challenge arises in exporting AI weapons. Unlike static hardware, AI-enabled products learn and evolve from operational data. This complicates export agreements: How do you sell a system that changes based on how the buyer uses it? New frameworks are needed to manage data sovereignty while allowing for the continuous improvement of exported systems.

Trusted Intelligence: Securing Sovereignty in the AI Era.

Bertrand Rondepierre, Director, AMIAD

AMIAD
Agence ministérielle pour l'intelligence artificielle de défense

About Bertrand Rondepierre: As the Director of the newly formed AMIAD, Rondepierre leads France's strategic initiative to integrate artificial intelligence into defense capabilities, focusing on sovereignty, speed, and talent acquisition.

About AMIAD: The French Ministerial Agency for Defense AI was established to deliver AI at scale for the armed forces, managing projects like the "Asgard" supercomputer.

What was the vision behind the "Asgard" project and your role in it?

Λ **Bertrand Rondepierre:** Described his role as "Chief Facilitator" and Director. The project stemmed from a strong political will to accelerate AI in defense. The creation of AMIAD was a deciding factor, necessitating a dedicated supercomputer to process classified data. The goal was to take back ownership of the entire spectrum—from acquisition and infrastructure to electricity and physical housing—ensuring the machine was wired and operational for immediate military application.

Why establish a new agency (AMIAD) rather than using existing defense structures?

Λ **Bertrand Rondepierre:** To succeed in AI, the Ministry needed to internalize specific engineering skills rather than relying solely on external procurement. This represents a "back to the past" shift where the state reclaims ownership of technical production. Internal engineers must understand the technology deeply to collaborate effectively with industrial and government partners.

How do you define "Sovereign AI" outcomes for France and Europe?

Λ **Bertrand Rondepierre:** Sovereignty begins with skills; without internal expertise, you cannot control the technology. Once skills are secured, sovereignty moves up the value chain: controlling models, data, operating systems, and infrastructure. While France may not yet control the firmware level, AMIAD has successfully secured the layers for models, data, and operational applications within its first year.

> "
>
> *"Speed is a survival... any week, any month that we spend waiting for what we bought in the first place is time that we don't spend working on models, working on applications for armed forces."*

Integrating AI Agents and Mission Factory into a Next-Generation Earth Observation Platform.

Dr. Chaouki Kasmi, President Technology & Innovation

EDGE

About Dr. Chaouki Kasmi: Currently serving as the President of Technology & Innovation at Edge Group. He is a distinguished researcher and executive specializing in electromagnetics, advanced technology systems, and the integration of autonomous capabilities into defense architectures.

About Edge Group: A leading advanced technology and defense conglomerate headquartered in Abu Dhabi, UAE. With over 12,000 employees and reported order intakes exceeding $5 billion, Edge Group's mission is to disrupt the defense industry through autonomous systems, electronic warfare, and smart weapons.


∧ **Architecture & Integration:** The solution is a middleware layer called "Mission Factory" that utilizes Agentic AI to orchestrate tasks. This connects directly to legacy data streams (CCTV, satellite, maritime) to automate analytical workflows without disrupting established client operations.

∧ **Maritime Superiority (Data Integrity):** Reliance on third-party data brokers is risky; internal analysis revealed 20% of maritime data from brokers is filtered. [05:27] By deploying proprietary hardware fused with AI agents, Edge Group successfully localized jamming and spoofing systems during regional conflicts (Iran/Israel context) that standard data streams missed.

∧ **Predictive Security (Digital Twins):** For facility security (CCTV), the approach is inverted: AI Agents and Digital Twins are used before deployment to simulate and optimize sensor placement for compliance. [06:35] Once active, agents autonomously track crowd density, specific individuals, and abandoned assets (bags) to trigger course-of-action alerts for guards.

∧ **Live Demonstration (Bandar Abbas):** In a real-time unedited demo, AI agents processed a request to analyze the Bandar Abbas port. [11:05] The system autonomously selected tools, retrieved satellite imagery, identified vessels, checked for weaponry (missiles/machine guns), and generated a threat report without human-in-the-loop intervention.

> "We are not replacing the legacy platform. We are coming with our agentic platform that we plug directly to the data streams and we create this enablement through AI orchestration without having to impose any critical change to their operations."

∧ **Despite deploying vast networks of sensors and advanced hardware, defense operators remain "underinformed"** because they struggle to extract meaningful insights from the data deluge. The critical challenge is not replacing legacy combat-proven platforms—which is cost-prohibitive—but bridging the gap between existing hardware and necessary intelligence without increasing staffing requirements.

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