François Dorléans

Drilling & Energy Engineer — Well Operations, Field Execution, Energy Transition

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PROFILE

Chartered engineer (EIGSI 1994, IESF) with thirty years of international experience in the energy industry. My geothermal roots date back to 1999-2000 (CFG Services, a BRGM subsidiary); in between, twenty years with Shell International and Petroleum Development Oman industrialising drilling operations and technical risk management on a global scale. Since 2020, a deliberate return to geothermal energy — deep and shallow — and industrial energy transition. MBA Essentials (London School of Economics, 2023). Engineering rigour, uncompromising standards compliance and supportive team leadership, underpinned by a personal discipline built as a triathlete and former Army Combat Engineer officer.

Track record of delivering drilling projects on schedule and on budget while ensuring compliance with national regulatory frameworks and industry standards — API, IWCF, ISO 9001, AS/NZS — across more than ninety applicable codes on a single land-rig and camp programme.

KEY SKILLS

- Drilling operations industrialisation and technical risk management: originator of the TRIM and iCAPA protocols, deployed across eleven countries
- Deep and shallow geothermal drilling: well engineering, well integrity with free-cooling, Ground Source Heat Pump (GSHP) options
- Contract administration and claims defence (supplier contracts, EPCI)
- Financial analysis and budget management (profitability ratios) applied to operational cost discipline
- Digital tools practitioner: AI prompt engineering, notably with the GROKbuild tool, applied to building web applications for drilling operations monitoring. Enthusiast of SAP ERP systems (Procurement, Maintenance, Projects modules — 27 years), Power BI dashboards.
- Multi-site, multicultural project and team management across three continents
- Low-temperature, 5th-generation district heating networks and tie-in of efficient renewable sources
- Regulatory compliance and quality management systems: ISO 9001 Lead Auditor, Bradley Curve safety culture
- Broader vision of heat production and recovery technologies (see below)

PROFESSIONAL EXPERIENCE

Founder & Senior Consultant | *EngEthics Consulting NL* | *Netherlands / France / International — since 2020*

- Leading multidisciplinary consulting engagements under the EngEthics banner: engineering for geothermal energy, energy transition, quality management, business optimisation and industrial integrity, from scoping through operational delivery.
- Established practice as an AI prompt engineer, notably using the GROKbuild tool, for building web applications applied to drilling operations monitoring — supporting Well Engineer, Data Engineer and Mud Logger functions.

Client engagements

- **Excellence Logging Services — Paris Basin (geothermal sites) — (May 2026 – present):** Mud Logger, real-time geological monitoring of the Dogger and Bathonian formations, calcimetry, process safety (HC/H2S detection, well control and kick monitoring). Review of official Aulnergie 2026 project files; production and presentation of continuous-improvement reports supporting the industrialisation of deep geothermal projects. Hands-on exposure to Paris Basin geology.
- Feasibility study for tying multiple heat sources into a low-temperature, 5th-generation district heating network in Gironde.
- **Géotec Énergie, France/Belgium (Nov 2024 – Mar 2025):** industrialisation of shallow geothermal drilling (ground-source heat pump systems).
- **SEATECH Engineering, Malaysia (Sabah) / remote (Feb–Oct 2024):** Non-Executive Director; structuring partnerships across maritime, oil & gas, decommissioning and marine renewables (seawater air conditioning – SWAC, ocean thermal energy conversion – OTEC); overhaul of the quality management system and HSSE training.
- **Techdrill, remote (2023):** engineering of interconnected multilateral wells for complex geothermal applications, drilling simulation and modelling software, well integrity management, market survey of drilling rigs available across Europe and beyond.
- **ECW Energy, Netherlands (2021–2022):** preparation of a deep geothermal doublet drilling project supporting industrial greenhouse horticulture in North Holland; standardisation of supplier contracts and compliance, administrative simplification; water resource protection, crew training.

Lead Engineer, Methods & Performance | *Shell International* | *New Zealand, China, Australia, Malaysia, Netherlands — 2006-2020*

- Author of the TRIM protocol (Technical Risk Identification Management), deployed across eleven countries, and of the iCAPA approach (24-hour immediate Corrective and Preventive Action), adopted globally across Shell well operations.

- **Contract and Performance Manager, New Zealand (Shell/Todd joint venture):** full contract authority over the land drilling programme; contractor administration; leadership of international tenders; **compliance with API/Shell/AS-NZS requirements across more than ninety applicable standards.**
- Led seven simultaneous rig-build projects across three continents; in Malaysia, directed a group-wide review of over 60,000 operational risk records.

Project/Operations Well Engineer | *Petroleum Development Oman (PDO — Shell)* | *2001-2006*

- Risk-zone isolation strategies and drilling operations standardisation; achieved a threefold reduction in operating costs through consolidation encompassing standardisation, efficiency gains, continuous improvement and budget discipline.
- Operations in highly fractured formations with H2S presence: developed and applied enhanced detection and well control procedures, including installation of H2S venting fountains (H2S-in-solution treatment system) and assurance of their proper operation.

Intervention Engineer — Geothermal Wells | *CFG Services (a BRGM subsidiary)* | *1999-2000*

- First geothermal assignment of my career: well intervention involving removal of an electric submersible pump (ESP) and verification of water-column drawdown.
- Under scheduling pressure, I requested the time needed to validate that measurement before sign-off — a decision that cost me the assignment for non-technical reasons, yet foreshadowed exactly the scientific rigour I would formalise fifteen years later in Shell's TRIM protocol: speed is worthless without science — the pursuit of reliability suited to the human factor.

Well Engineer — Operational Training | *Santa Fe Drilling / Shell International* | *North Sea (HPHT project, semi-submersible and jack-up platforms) — 1996-2000*

- First operational and technical responsibilities in High Pressure High Temperature (HPHT) environments.
- IWCF Well Control certification obtained in 1996; entered the Shell Wells Academic curriculum (Round 1, 1997) — the start of continuous Shell training through 2006 (Round 2 diploma).

Engineer — Graduation Thesis (EIGSI) | *Frigofrance* | *1994*

- Engineering thesis on neural-network-based predictive maintenance applied to pattern recognition of fluid-filling machine malfunctions on an automotive production line, applied across Frigofrance's entire export machine fleet.
- Used a matrix diagonalisation method to anticipate failures — an approach that foreshadowed artificial intelligence as early as 1994.

EDUCATION & CERTIFICATIONS

- 2024 — Shallow geothermal certification (BRGM) · DSS+ Bradley Curve safety culture training
- 2023 — MBA Essentials, London School of Economics
- 2015 — ISO 9001 Lead Auditor / API Q1-Q2 equivalent
- 1997-2006 — Shell Well Projects Academic: Round 1 theory (1997), Round 2 (1999), final Site Supervisor & Project Manager diploma (2006) — nine years of continuous training
- 1996-2018 — IWCF Well Control Level 4 certification, for surface and subsea well-intervention and drilling operations, recertified biennially
- 1994 — Industrial Engineering degree, EIGSI (IESF, Chartered Engineer, France)
- Army Combat Engineer officer, French Army — holder of the DMOE (Explosives Handling Diploma)

BROADER VISION OF ENERGY TECHNOLOGIES

Beyond geothermal energy, a personal body of work on heating and cooling systems energy efficiency, covering:

- Induction plants as direct gas-plant replacements
- Cogeneration
- Waste-to-energy (incineration with heat recovery)
- Industrial waste-heat recovery
- Biogas recovery and valorisation
- Hybrid photovoltaic-thermal (PVT) panels

Personal thesis on long-term energy infrastructure financing: Eurobonds, in line with Olivier Blanchard's work on public debt, and complementary local currencies.

PERSONAL ASSETS

- Amateur triathlete; certified dragon-boat instructor and coach
- Former Combat Engineer officer, French Army — operational instructor
- Author of a book on minimalist, low-carbon personal mobility in Europe, 2025
- Bilingual French/English (30+ years of professional practice); cultural knowledge of Dutch, Arabic, Malay, Spanish
- Full mobility: Netherlands, Nouvelle-Aquitaine, France, Europe, international