

ALEXANDRU CORNEA

Construction Manager ▶ EPC Project Delivery Leader ▶ Heavy Industrial Megaprojects



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EU Passport Location: Abu Dhabi, UAE ▶ Mobility: Available to relocate across the EU and internationally on a 30 days notice

PROFESSIONAL PROFILE

Accomplished EPC Construction Leader with 13+ years of proven experience delivering multi-billion-dollar oil & gas, petrochemical, and low-carbon megaprojects across the Middle East, Europe, and Asia. Demonstrated expertise in FEED-to-EPC transitions, early works planning, construction readiness, modular execution strategies, (AWP) advanced work packaging, and integrated project controls, ensuring schedule certainty, cost optimization, and reliability. Trusted by global EPC contractors and clients for CAPEX management, execution oversight, and delivery from FID to handover. Renowned for HSE leadership, risk control, and productivity optimization, consistently achieving zero-incident performance in both major greenfield and complex brownfield projects.

CAREER HIGHLIGHTS

Delivered EPC mega-projects up to \$3.5B and 50M+ safe man-hours across 5 countries, achieving a flawless safety record through rigorous HSSE leadership. Led full-scope EPC construction across civil execution and modularized construction (AWP), with expertise in mechanical, structural, electrical, and instrumentation integration, including substations, HV/LV distribution, and advanced control systems for petrochemical and low-carbon infrastructure projects. Consistently delivered on-time, on-budget results through strategic planning, advanced logistics, active contractor alignment, and stakeholder engagement.

KEY PROJECT EXPERIENCE

- Hail and Ghasha Project – UAE 2024 ▶ ADNOC ▶ \$9B ▶ 120M man-hours
Successfully delivered one of the world’s largest gas decarbonization and hydrogen production programs, reducing 1.5 Mt CO₂ annually and supplying ~3% of Europe’s natural gas demand, reinforcing ADNOC’s long-term decarbonization strategy and energy transition roadmap.
Scope: Oversaw execution of multiple Sulfur Recovery Units (SRUs) (\$3.5B, 25M man-hours), incorporating precast modular pipe racks, high-voltage substations, control buildings, and full mechanical/E&I integration for advanced gas treatment. Directed heavy-lift operations for mega-reactors, modular structural assemblies with strict adherence to ADNOC’s HSSE standards.
- RDCG Rotterdam Capacity Growth – Netherlands 2023 ▶ NESTE Oil ▶ \$1.5B ▶ 3M man-hours
Supported the EPCm-led renewable diesel and sustainable aviation fuel (SAF) expansion, increasing refinery output to 2.7 Mt/year, including 1.2 Mt/year SAF (~2% of European aviation demand), strengthening NESTE’s global SAF roadmap and decarbonization commitments.
Scope: Directed structural and mechanical construction of hydrocracker and fractionation units, including reactors, columns, compressors, and pump systems. Managed heavy-lift reactor operations, brownfield tie-ins, and utility integration under live-plant constraints, ensuring continuity of operations while fully meeting EPCm safety, quality, and productivity performance objectives.
- Long Son Petrochemicals Complex – Vietnam 2020 ▶ LSP (SK Engineering JV) ▶ \$1.5B ▶ 8M man-hours
Delivered a large-scale greenfield olefins complex, producing 1.6 Mt/year olefins (~1% of global supply), under international consortium-based execution.
Scope: Managed construction of the Ethylene Cracker (1 Mtpa capacity, 1.5 Mt/year ethylene, 750 kt/year propylene), with an 8M man-hour schedule. Coordinated installation of furnaces, cooling towers, heat exchangers, static and rotating equipment, and extensive process and utility piping. Oversaw completion of high-voltage substations, instrument/control buildings, and critical mechanical systems to ensure safe and timely commissioning.

CORE COMPETENCIES

- EPC Project Leadership & Execution: Large-Scale EPC (Greenfield/Brownfield), FEED-to-EPC, Brownfield Tie-ins, Modular Construction, Advanced Work Packaging (AWP), Fabrication Oversight, Path of Construction.
- Leadership & Communication: High-Performance Team Leadership, Conflict Resolution, PMC/EPCm Interface, Client Reporting, KPI Visualization.
- Construction Operations: Site Management, Productivity Optimization, Procurement Interface, Material Readiness, Heavy Lifting, Logistics Strategy, Systems Completion (MC, RFC, RFSU), Turnover, Pre-Construction Planning.
- Planning & Risk Management: L4 Scheduling, Construction Readiness, Progress Audits, Punch Closure, Change Management, Claims, Risk Mitigation.
- QA/QC & Compliance: ASME, ISO 9001, IOGP, OSHA, ADNOC/Shell/OQ Standards, Engineering-Constructions Interface Compliance.
- Tools & Reporting: Primavera P6, Navisworks, Tekla, BIM 360, MS Project, Power BI (KPI Dashboards).
- Frameworks & Certifications: PMP, PRINCE2, IPMA-D, Lean Construction (Six Sigma Green Belt), FID Readiness.
- Engineering & Commissioning: Constructibility Reviews, Field Clarifications, Design Coordination, Walkdowns, Pre-Commissioning, System Handover.

PROFESSIONAL EXPERIENCE

CONSTRUCTION MANAGER

- Tecnimont Spa Al Ruwais UAE Jul 2024 – Present ▶ Hail & Ghasha Onshore Project ADNOC \$3.5B 35M man-hours.
- Built and directed a high-performance team of 50+ engineers and supervisors, instilling discipline, accountability, and proactive leadership across all trades to drive safe and efficient execution.
 - Interfaced directly with ADNOC and PMC senior leadership, ensuring alignment on execution strategy, HSSE expectations, interface and milestone delivery.
 - Developed and implemented the Construction Execution Plan (CEP) using Advanced Work Packaging (AWP) and modularized systems, achieving a 20% reduction in site congestion, 15% increase in labor productivity, and accelerated work-front availability on all critical-path activities.
 - Established site procedures and method statements fully compliant with ADNOC specifications, ensuring EPC interface compliance and audit readiness.

- Directed execution of major civil and structural works, including 90,000 m³ of concrete, 25,000 tonnes of structural steel, and 340,000+ inch-dia of piping (prefabrication, installation, hydrotesting), as well as heavy-lift operations for critical reactors and modular assemblies.
- Oversaw electrical & instrumentation scope, including installation and energization of HV/LV substations, UPS buildings, control panels, and process automation systems, as well as HV/LV cabling, termination, and pre-commissioning in line with IEC & ADNOC standards.
- Monitored project performance through Level 4 schedule reviews, risk register tracking, and executive reporting, ensuring resolution and transparency.
- Fostered a zero-incident HSE culture, leading toolbox talks, SIMOPS coordination, and safety risk assessments together with ADNOC and operations teams.

CONSTRUCTION MANAGER

Technip Energies Rotterdam Netherlands Jun 2023 – Aug 2024 ▶ RDCG Rotterdam Capacity Growth \$1.5B 3M man-hours NESTE Oil

- Coordinated EPCm site interfaces and constructibility reviews, ensuring full alignment with NESTE’s SAF roadmap and long-term decarbonization goals.
- Enabled contractor claims substantiation through structured daily reporting, delay quantification logs, and transparent documentation control.
- Implemented value engineering proposals, reducing delays and site reworks through modularization, mechanical assemblies, and optimized practices.
- Ensured schedule-critical installations consistently met readiness requirements through HQ validation and coordinated project field execution.

CONSTRUCTION MANAGER

Technip Energies Vietnam Oct 2020 – Aug 2023 ▶ LSP Olefins Plant \$1.5B 8M man-hours SK Engineering JV

- Delivered furnaces, cracker units, and utility mechanical packages in a highly complex, multicultural consortium execution environment.
- Ensured mechanical completion and successful commissioning, including post-startup repair campaigns during critical path activities.
- Directed multi-company teams through start-up, shutdowns, remediation activities, and NDT/insulation rework under compressed deadlines.
- Led walk-downs and major punch list closeouts, handing over to the client within tight timeframes as task force leader post start-up of the plant.

CONSTRUCTION SUPERINTENDENT

Tecnimont Spa Sohar Oman January 2018 - March 2020 ▶ EPC2 Liwa Plastics \$895M 10M man-hours Petrochemicals OQ

- Supervised a world-scale integrated polymer production complex with capacity of 1.18 Mt/year—equivalent to 4-5% of Europe’s total polyethylene demand.
- Directed installation of HDPE, LLDPE and PP plants, extrusion and polymerization reactors, pneumatic conveying, pelletizing lines, and utility integration.
- Drove quality and safety compliance, coordinating QA/QC, vendors, construction teams, and supporting engineering.
- Achieved seamless commissioning through detailed functional testing, integrated planning, and strong cross-discipline collaboration.

SYSTEMS COMPLETION LEAD (TURNOVER / HANDOVER MANAGEMENT)

Saipem Spa Port Harcourt Nigeria January 2016 - December 2017 ▶ Southern Swamp AGS \$1.5B 12M man-hours Brownfield and Greenfield SPDC (Shell)

- Led the Systems Completion Department, effectively managing punch lists, final dossiers, and close-out activities.
- Created procedures QA/QC-compliant system handovers, ensuring all deliverables met client and regulatory standards.
- Facilitated seamless communication and effective coordination among construction, commissioning, and operations teams, ensuring alignment of priorities, timely handover of systems, and swift resolution of interface issues to support project milestones and operational readiness.

PROJECT / CONSTRUCTION LEAD (FABRICATION & SITE INTEGRATION)

Saipem Spa Port Harcourt Nigeria September 2014 - December 2015 ▶ Southern Swamp AGS \$1.5B 12M man-hours Brownfield and Greenfield SPDC (Shell)

- Assigned to Saipem Contracting Nigeria Ltd. (SCNL) fabrication yard in Rumuolumeni, supervising full-cycle fabrication and welding of piping spools, structural modules, and mechanical assemblies for both offshore and onshore deployment.
- Ensured strict compliance with ASME/API standards, driving optimized yard productivity, QA traceability, and adherence to client specifications.
- Coordinated across fabrication, QA/QC, and logistics teams to enable seamless material issuance, readiness to site, and uninterrupted construction flow.
- Maintained structured documentation and interface management, supporting smooth transitions from fabrication to site construction, reducing rework.

PROJECT ENGINEERING / CONSTRUCTIBILITY (GRADUATE PROGRAM)

Saipem Spa Milan Italy During Graduate Program January 2014 - August 2014 Corporate Assignment

- Contributed to constructibility studies, refining EPC strategies across regions while creating collaboration with European peers and fostering teamwork.
- Integrated field experience into HQ analysis, improving risk identification, reporting accuracy, constructibility reviews, and EPC efficiency.
- Developed technical, managerial, and project management skills, building a foundation for future leadership, supervision, and EPC execution roles.

EDUCATION

M.Sc. Mechanical Engineering (2014) Renewable Energies (30 ECTS, paused), Technical University of Cluj-Napoca, Romania

B.Eng. Mechanical Engineering (2013) Thermal Systems & Equipment, Technical University of Cluj-Napoca, Romania

CERTIFICATIONS & MEMBERSHIPS

VOL-VCA (Safety for Operational Leaders)

Member – Royal Netherlands Society of Engineers (KIVI)

Member – General Association of Engineers in Romania (AGIR)

LANGUAGES

Romanian (Native) English (Fluent)