EMC4.0™

The EPC industry, like many others, is now confronting an unprecedented need to rapidly evolve. For the first time in decades, the imperative to "adapt or fall behind" has become a reality.

The adoption of EMC4.0™, aligned with the broader principles of Industry 4.0, is no longer a future consideration or a competitive advantage, it is an immediate necessity for survival and continued relevance in the increasingly digital engineering landscape.

AVEVA™ Systems Integration Partner

EMC Supports the full Engineering suite embracing EPC4.0 and ENG4.0 roadmaps with the release of EMC4.0™

- PRO/II Simulation
- Electrical
- Instrumentation
- Engineering for Process and Mechanical
- Intelligent P&IDs
- ERM (Enterprise Resource Management)
- ISM/AIM-A (Information Standards Manager / Asset Information Manager Advanced)
- PCM (Point Cloud Manager)

AVEVA Partner Ecosystem | System Integrator | MEMBER

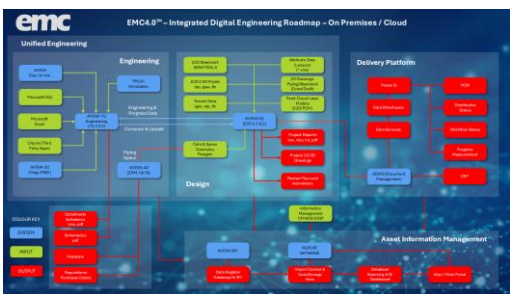
EMC4.0™ – Integrated Digital Engineering Roadmap

On Premises / Cloud

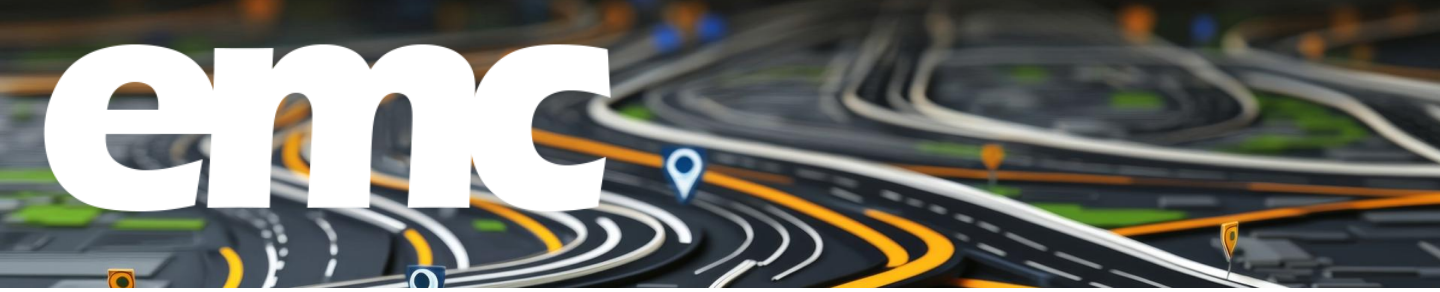
To ensure clarity, let's define what we mean by EMC4.0™. It refers to the development of a fully integrated, data-centric environment that brings together all Engineering, Procurement, Construction, and even Management (EPCM), information within a single unified system CDE (Common Data Environment).
This approach not only supports design activities but also enables effective information management, change control, data reuse, and a structured digital handover to Owner Operators.

EMC4.0™ represents a significant shift from traditional, often siloed methods that blend paper and digital workflows. Instead, it delivers a seamless, data-driven model that spans the entire lifecycle of a facility, from initial concept through to operations, enhancing transparency, consistency, and long-term value.

Delivering confidence through technology at every stage of your project.



Download the EMC4.0™ Digital Roadmap
https://www.emcserv.com/wp-content/uploads/2025/07/EMC4.0_Digital.pdf



What is EMC4.0™

With EMC4.0™, all engineering data is consolidated into a single CDE (Common Data Environment), trusted digital hub. This allows for seamless tracking and management of every phase of the project within a fully connected digital environment, from early engineering and design through procurement, execution, handover, and into operations and maintenance. This integrated data structure forms the backbone of the Digital Twin for your operating asset.

At EMC, we support and optimise these digital processes through three core pillars:

- **AVEVA Unified Engineering** – enabling cross-discipline collaboration from the earliest project stages.
- **AVEVA Unified Project Execution** – streamlining construction and commissioning with real-time visibility and control.
- **AVEVA Unified Learning** – empowering teams through targeted training and continuous digital competency development.

Why EMC4.0™?

By integrating advanced digital capabilities across every stage of the EPC lifecycle, we help you:

- **Increase efficiency** through streamlined, data-driven workflows
- **Reduce costs** by minimising rework, delays, and resource waste
- **Enhance performance** with real-time insights and process optimisation
- **Achieve operational excellence** powered by cutting-edge technology and industry expertise
- **Data extraction, readiness & verification** through the benefits of having all your engineering and design data in one CDE (Common Data Environment) to access and control

Summary Table (Oil and Gas)

Benefit	Impact
Digital Twin	Improves design accuracy, early error detection
Predictive Maintenance	Reduces downtime and repair costs
Smart Procurement	Cuts material waste, lowers lead times
IoT + AI	Enables remote monitoring, enhances safety
3D/4D Modeling	Improves planning and constructability
Centralised Data	Better lifecycle management and handover

Ready to build smarter with EMC4.0™?

Contact us today to unlock digital engineering excellence.

Contact EMC today! Email colin.fairweather@emcserv.com or gary.patterson@emcserv.com or call us on 020 363 363 03 (Option 2), and let's get started.