Solutions for an
Intelligent Industry

SYSTEMS ENGINEERING & MBSE

Managing the growing complexity of systems development in distributed environments is a challenge for industries. To keep one step further than the competition, industrial stakeholders need to deliver optimized products, with customization at the right time to the market. They also need to pave the way for disruptive services as a key differentiator.

A robust systems engineering approach shows advanced benefits with a holistic view to enable, anticipate and address the manufacturing and operations problems all along the product development lifecycle.

Capgemini fosters Systems Engineering and Mobel Based System Engineering (MBSE) in the Intelligent Industry by leveraging 30+ years of multi-domain expertise of complex systems development with emerging digital technologies and methods.

WHAT WE OFFER

ASSESS, ANALYSE, DEFINE and **DRIVE** Systems Engineering with a global transformation support, and monitored results (time to market, quality, flexibility, cost optimization)

DEPLOY Systems Engineering for industries and **CONNECT** business with a global integrated approach to break silos and enhance transformation

APPLY core engineering expertise on the whole v-cycle and **ENSURE** certifications and quality delivery per industry (ISO 15288)

ORCHESTRATE the end-to-end projects with standards and adapted training, use of Rightshore® model all along the lifecycle

OUR EXPERTISE

- **MBSE standards**
  - Majors standards: OMG, INCOSE
  - COTS standards: MAGIC GRID, ARCADIA, RFLP, HARMONY SE
  - Enterprise framework standards: UAF, DoDAF, MoDAF
- **MBSE methods & tools**
  - MBSE: CAMEO, CAPELLA, RHAPSODY, ENTERPRISE ARCHITECT
  - PLM: 3DX, WINDCHILL, Teamcenter
  - Requirements: DOORS, 3DX (TRM) & REQTIFY
  - V&V: STIMULUS, SIMULINK
  - Product Line: PURE, VARIANTS
  - DYMOLA & MODELICA
  - Interoperability: ReqIf, FMI/FMU, OSLC
- **Ontology to ease domains connections**
- **Enterprise-as-a-System**
- **Systems Engineering & MBSE deployment plan**
- **Transformation programs deployment**
- **Coaching & training**
- **Change management**
- **Engineering core skills expertise**
- **An enabler for manufacturing excellency**

DIGITAL ENABLERS
for an *Intelligent Industry*

- **Digital twin** enabler ensuring digital continuity with PLM synchronization and real data acquisition (IoT)
- A vision to accompany distributed engineering through **Agile & SAFe methodologies all along v-cycle**
- Data science expertise for an optimized **system engineering paradigm**

SUCCESS STORY

Collaborated with an automotive OEM to develop new innovative products that are efficient and reduce the lead time through MBSE practices.

OUR ADDED VALUE

Scalable solutions ensuring local proximity consulting with our best international Systems Engineering & MBSE practices & COEs

Innovative mindset to frame **Intelligent Industry vision**

Experienced Systems Engineering skilled transnational team

E2E process coverage with engineering, methods & IT capabilities

Strong ecosystem & strategic partnerships with major Systems Engineering & MBSE COTS editors, organizations & educational R&D institutes

Cross leveraging expertise from other innovative industrial sectors and technologies

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