

Early Launch of Validation via an Evolving Engineering Simulator

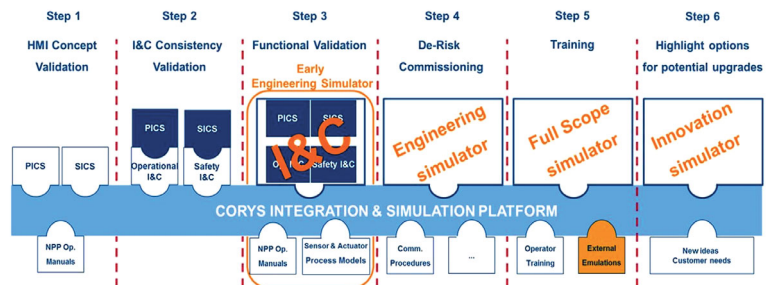
ELVEES simulation strategy is based on an evolving engineering platform that allows early and iterative dynamic validations of engineered I&C systems and plant operator displays.

Challenge

From the design, through test bay, all the way to plant commissioning, Instrumentation & Control (I&C) projects are challenged by:

- Late detection of implementation errors
- Late design corrections
- Unexpected re-validation costs

These errors and delays turn into unplanned costs and missed deadlines.



Solution

Drawing on more than 200 successfully installed simulators, together with its subsidiary CORYS, Framatome offers ELVEES for agile and flexible but also early implementation, verification and validation in both new build and modernization projects.

ELVEES is an integration platform with combinable simulation blocks that are able to:

- Grow with the maturity of the project deliverables using a stepwise approach, from low-fidelity simulator to full-scope simulator capabilities
- Provide availability for the design team beginning in the design phase
- Support early and iterative validations with both open- and closed-loop testing
- Ensure digital continuity within the Framatome I&C tool chain but also with customers and suppliers
- Involve and immerse operators and design team into future plant operation

Customer benefits

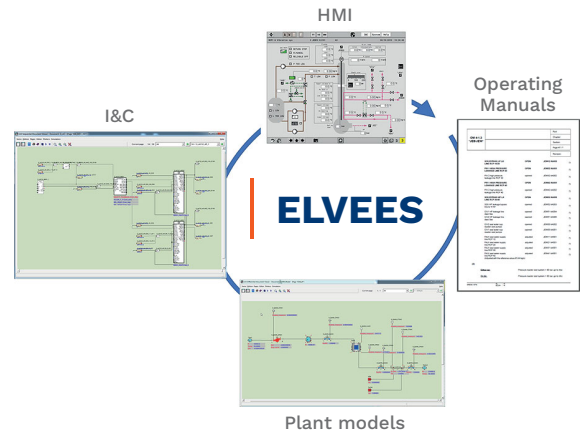
- Confidence – Proven simulation technology based on the state-of-the-art CORYS platform (ALICES)
- Schedule certainty – detects project errors early on, from design to commissioning phases
- Cost savings – ELVEES mitigates unexpected project revalidation, getting the job done right the first time
- Flexibility – scalable to the project needs
- Easy to use – supporting engineers not familiar with complex simulation environment
- Reliability – through Operator Training Simulator (FSS) capabilities

Technical information

ELVEES facilitates*:

- Human Machine Interface (HMI) mock-up
- I&C Testing (open- and closed-loop)
- Interface consistency verification
- Architecture tests
- Human Factors Engineering (HFE) analysis
- Operating Manuals/I&C consistency checks
- Functional and dynamic verification and validation
- Degraded modes analysis
- Commissioning procedures preparation
- Execution of plant scenario (recorded data)

* For a complete list of ELVEES capabilities, please inquire at the contact information below.



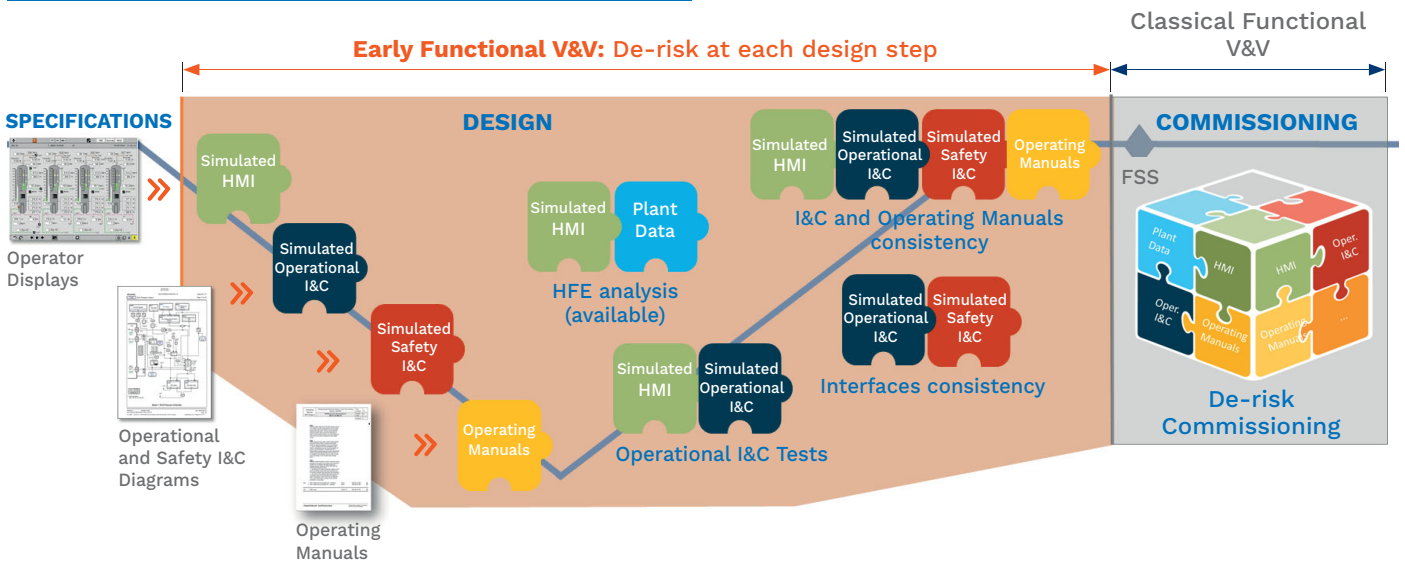
Key figures

100 + reactors worldwide use our complete instrumentation solutions

1,300 professionals in support as a global team on 17 sites in 9 countries

More than **200** simulators successfully installed worldwide

Examples of Engineering Practices



Contact: ic@framatome.com
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