

Future Energy Exports (FEnEx) CRC

MILESTONE SUMMARY TABLE

Research Program	Output	Milestone Number	Milestone Description	Milestone Start Date (Grant Agreement)	Milestone End Date (Grant Agreement)
Research Program 3: Digital Technologies & Interoperability					
RP3 Digital Technologies & Interoperability	Significant contribution to the objectives of RP3 Digital Technologies & Interoperability	3.0	Generally aligned with the goal of advancing Digital Technologies & Interoperability but not specifically aligned with any of the other RP3 Milestones	1/7/2020	30/6/2030
RP3 Digital Technologies & Interoperability	New information standards for the effective data exchange and communication across inter-enterprise processes, as well as methods to maintain and improve these standards.	3.1.1	Review of existing production and maintenance information standards and prioritised use cases for key operational process areas (production/maintenance; transactional /analytical data) as needed to develop data-exchange and communication systems.	1/7/2020	30/6/2021
RP3 Digital Technologies & Interoperability	New information standards for the effective data exchange and communication across inter-enterprise processes, as well as methods to maintain and improve these standards.	3.1.2	Extended implementation and demonstration of standards-based data-exchange systems for LNG and other energy sector plants using pilot data sets. Support tools evaluated and further improved using experimental data.	1/7/2027	30/6/2029
RP3 Digital Technologies & Interoperability	Digital Ecosystem Architectures that enable continuing interoperability across the industry	3.2.1	Selection of key communication pathways and initial communication infrastructure design (bus, languages) and demonstration with initial information standards for priority process areas	1/7/2021	30/6/2023
RP2 Hydrogen Exports & Value Chains	Digital Ecosystem Architectures that enable continuing interoperability across the industry	3.2.2	Adaption of digital ecosystem architecture to expanded information standards and extended use case coverage	1/7/2023	30/6/2025
RP3 Digital Technologies & Interoperability	Digital Ecosystem Architectures that enable continuing interoperability across the industry	3.2.3	Evaluation of new architectural and language concept integration, as well as adaptation of architectures to changing partner requirements in line with improvements and updates in industry information standards.	1/7/2025	30/6/2026
RP3 Digital Technologies & Interoperability	Digital Ecosystem Architectures that enable continuing interoperability across the industry	3.2.4	Adaption and finalisation of digital ecosystem architectures with an extended suite of demonstrated information standards.	1/7/2028	30/6/2030

RP3 Digital Technologies & Interoperability	Improved LNG and Hydrogen plant control systems with increased predictive ability, reaction speed and ability to adapt.	3.3.1	Techniques and specifications for integration of improved process control system designs into existing architecture developed, demonstrated and evaluated using experimental data sets for priority operations. Additional areas for improvement identified	1/7/2020	30/6/2022
RP3 Digital Technologies & Interoperability	Remote plant operation solutions based on effective data interchange, visualisation and control interfaces.	3.4.1	Integrated system for visualisation, control, & data exchange to enable remote plant operations based on initial information standard definitions and sample data set schemas, demonstrated and tested through workshops and pilots.	1/7/2022	30/6/2024
RP3 Digital Technologies & Interoperability	Remote plant operation solutions based on effective data interchange, visualisation and control interfaces.	3.4.2	Refined second generation remote plant operation solutions demonstrated in realistic scale pilot implementations	1/7/2025	30/6/2027
RP3 Digital Technologies & Interoperability	Digital Twin models for LNG and hydrogen plants suitable for process industries covering the whole plant lifecycle	3.5.1	Digital twin models extracted and described incorporating prediction and anomaly identification techniques. Models and frameworks for plant lifecycle priority areas implemented and evaluated on pilot data	1/7/2026	30/6/2028