

**Future Energy Exports (FEnEx) CRC
MILESTONE SUMMARY TABLE**

Research Program 3 – Digital Technologies and Interoperability

3	Generally aligned with the goal of advancing Digital Technologies & Interoperability but not specifically aligned with any of the other RP3 Milestones	1 Jul 2020	30 Jun 2030
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 Jul 2020	30 Jun 2021
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 Jul 2027	30 Jun 2029
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 Jul 2021	30 Jun 2023
3.2.2	Adaption of digital ecosystem architecture to expanded information standards and extended use case coverage	1 Jul 2023	30 Jun 2025
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 Jul 2025	30 Jun 2026
3.2.4	Adaption and finalisation of digital ecosystem architectures with an extended suite of demonstrated information standards	1 Jul 2028	30 Jun 2030
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 Jul 2020	30 Jun 2022
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 Jul 2022	30 Jun 2024
3.4.2	Refined second generation remote plant operation solutions demonstrated in realistic scale plant implementations	1 Jul 2025	30 Jun 2027
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 Jul 2026	30 Jun 2028
3.6.1	15 PhDs completed in RP3	1 Jul 2020	30 Jun 2030