

CERTIFIED SMART INDUSTRY READINESS INDEX (SIRI) ASSESSOR

In collaboration with the International Centre for Industrial Transformation



Duration: 40+ hrs Online coursework

Role: Consultants, Engineers, Managers

Languages: English

Class size: Up to 20 participants

Prerequisites: STEM degree + 3–5 yrs relevant professional experience

Certification: Certified SIRI Assessor (CSA) – valid 2 years

OVERVIEW

The Certified SIRI Assessor (CSA) Programme is the recognised certification for professionals who assess manufacturing facilities using the Smart Industry Readiness Index – the framework created by Singapore's Economic Development Board and used worldwide to help manufacturers start, scale, and sustain their Industry 4.0 transformation.

SITA delivers this programme in collaboration with INCIT, the International Centre for Industrial Transformation, which owns and governs the SIRI framework and certification scheme.

The programme combines 40+ hours of structured coursework across five topic areas, Industry 4.0 fundamentals, the SIRI frameworks and tools, business consulting methodology, professional ethics, and live assessment facilitation, followed by a two-part examination. Candidates who pass are awarded the CSA designation by INCIT and gain access to the SIRI Portal to conduct Official SIRI Assessments.

The full INCIT Fact Sheet, including detailed certification requirements, examination rules, and the SIRI Portal onboarding process, is provided to participants upon registration.

WHO SHOULD ATTEND

- Management and technology consultants advising manufacturing clients on digitalisation and operational improvement
- Production, automation, and operations engineers seeking a recognised Industry 4.0 assessment credential
- IT/OT convergence specialists and system integrators supporting factory digitalisation projects
- Innovation and transformation leads within manufacturing organisations benchmarking their own facilities
- Technology providers and solution vendors looking to credibly assess client readiness before deployment
- Academic researchers and industry trainers building practical expertise in smart manufacturing evaluation

LEARNING OUTCOMES

- Gain a deep understanding of Industry 4.0 – its history, architecture (RAMI 4.0), and key enabling technologies including IoT, cyber-physical systems, IT/OT convergence, cloud computing, big data analytics, and digital twin
- Master the SIRI framework: its 3 building blocks, 8 pillars, and 16 dimensions of assessment, the LEAD transformation methodology, and the TIER prioritisation framework
- Apply the Assessment Matrix to accurately evaluate and band a manufacturing facility across all 16 dimensions, and use the Prioritisation Matrix to identify and rank transformation initiatives
- Conduct a full Official SIRI Assessment end-to-end: planning and preparation, evaluation (factory tour, stakeholder interviews), analysis, report generation, and client debrief
- Demonstrate professional consulting skills – client engagement, structured problem-solving, business etiquette, and clear communication of assessment findings
- Uphold the ethical standards required of a Certified SIRI Assessor: independence, objectivity, confidentiality, and conflict-of-interest disclosure

CERTIFICATION PREREQUISITES

To enrol in the programme and sit the CSA Examination, applicants must hold a relevant STEM academic qualification and meet at least one professional experience criterion:

Criteria	Requirement
Academic	Relevant degree in a STEM subject (e.g. Engineering, Computer Science, Mathematics, Physics, Chemistry). Cases without listed qualifications reviewed individually by INCIT.
Consulting	At least 3 years of advisory/consulting experience, with a minimum of 300 project hours recommended
Domain expertise	At least 5 years of experience in the manufacturing sector
IT/OT convergence	At least 3 years' experience integrating operational technology into digital (IT) environments
Technology consulting	At least 3 years applying technologies and solving process/organisational problems in a manufacturing context
Coursework	Completion of at least 40 hours of approved coursework (fulfilled by attending this programme)

Full prerequisite documentation requirements (CV, academic certificates, attendance record) and the INCIT review process are detailed in the SIRI Assessor Fact Sheet provided to participants upon registration.

AGENDA

Module 1: Industry 4.0 foundations; 8 hrs coursework · 15 hrs self-study

- History and evolution of the four industrial revolutions, with emphasis on Industry 4.0 and the shift to cyber-physical systems
- Core principles of Industry 4.0: Platform Industry 4.0 and the Reference Architecture Model Industry 4.0 (RAMI 4.0)
- Key enabling technologies: Internet of Things, cyber-physical systems, IT/OT convergence, cloud computing, big data analytics, and digital twin

Module 2: Smart Industry Readiness Index (SIRI) frameworks and tools;

16 hrs coursework · 40 hrs self-study

- Introduction to SIRI: purpose, development history, and the role of INCIT and the Singapore Economic Development Board
- The LEAD Framework: Learn, Evaluate, Architect, and Deliver – mapping a company's transformation journey
- The SIRI Framework: 3 building blocks (Process, Technology, Organisation), 8 pillars, and 16 dimensions of assessment
- The Assessment Matrix: definition and application of the 6 maturity bands across all 16 dimensions
- The TIER Prioritisation Framework: Today's state, Impact to bottom line, Essential business objectives, References to the broader community
- The Prioritisation Matrix: calculation methodology including Cost Factor, KPI Factor, Proximity Factor, Industry Best-in-Class Benchmarks, Planning Horizon, and Degree of Relevance Tables
- SIRI Manufacturing Transformation Insights: SIRI Maturity and Variance, Archetypes of Transformation, 3B Benchmark, and Industry Performance Cards

Module 3: Business consulting methodology; Self-study · 5 hrs

- The consulting process: diagnosing the problem, formulating the contract, analysing the problem, developing solutions, proposing recommendations, assisting with implementation, and review and follow-up
- Business etiquette for client engagement and workshop delivery in a manufacturing assessment context

Module 4: Professionalism and ethics; 4 hrs coursework · 10 hrs self-study

- Maintaining independence and objectivity in assessment activities; avoiding misrepresentation and improper conduct
- Duties to clients: loyalty, prudence, care, and confidentiality in the assessor-client relationship
- Duties to employers: loyalty and disclosure of additional compensation arrangements
- Assessment standards: diligence, thoroughness, disclosure of relevant information, and proper record-keeping
- Identifying and disclosing conflicts of interest and referral fees

Module 5: SIRI assessment facilitation; 12 hrs coursework · 30 hrs self-study

- Overview of the Official SIRI Assessment: objectives, stakeholders, scope, principles, timeline, phases, and deliverables
- Planning and preparation: scheduling and conducting briefing calls, sending preparatory materials, scheduling Evaluation and Review sessions
- Evaluation phase: conducting the initial Assessment Matrix discussion, factory tour, and refinement and validation of dimension bandings; gathering Prioritisation Matrix inputs
- Analysis and review: reviewing evaluation data, analysing Assessment and Prioritisation Matrix results, generating the SIRI report, providing insights, and debriefing the client
- Mock SIRI Assessment Workshop (Stage 1 of practical examination): 25-minute case review followed by 20-minute walk-through
- Mock SIRI Debrief Session (Stage 2 of practical examination): interpreting results, benchmarking against 3B Benchmark and Industry Performance Cards, and guiding next steps

EXAMINATION

To pass the CSA Examination, candidates must meet all three criteria: minimum 25/50 in the theory, minimum 25/50 in the practical, and a combined total of at least 70/100. The examination is registered and administered directly through INCIT. Full examination details and the CSA Agreement are shared upon registration.

CERTIFICATION AND RENEWAL

After 2 years, renewal requirements are based on the number of Official SIRI Assessments completed: 0–2 assessments requires retaking both examinations; 3–4 assessments requires retaking the practical only; 5 or more assessments results in automatic renewal.

Full renewal details are available on the INCIT website and in the Fact Sheet provided upon registration.