

#### What is it?

<u>Smart Industry Readiness Index (SIRI)</u> is a suite of frameworks and tools to help manufacturers, regardless of size and industry, to start, scale and, most importantly, sustain their manufacturing transformation. SIRI <u>serves as a first step</u> to help companies identify the gaps in their adoption journey to become smart factories for the future (Industry 4.0).

#### Why use it?

- 1. To have a Strategic Roadmap and convert into an execution plan.
- 2. An impactful Industry 4.0 Strategy does not start with a technology road.
- 3. The first stage of the Strategy is about identifying the application areas in a structured way across your entire business, where significant impact to the bottom line can be delivered to through Industry 4.0 by using SIRI Frame work.

- 4. It simplifies the abstract concept of Industry 4.0 into 16 concrete dimensions to help companies identify where they are today and which level they want to achieve in the short, medium and long term.
- 5. It helps identify the focused areas that will generate the greatest value to companies. It drives an informed decision making and effective resource allocation.
- 6. It enables companies to characterize in a standardized format across key pillars the current level of maturity of their manufacturing plants. It identifies high impact areas for improvement. Allows benchmarking against industry peers and a global manufacturing community.
- 7. It also helps companies to produce more comprehensive proposals when applying for grants from government agencies.

# SIRI has been adopted globally by more than 900 companies and organisations across ~35 countries



















Oil & Gas

(Upstream)







(Downstream)



Beverage



Manufacturing











Technology





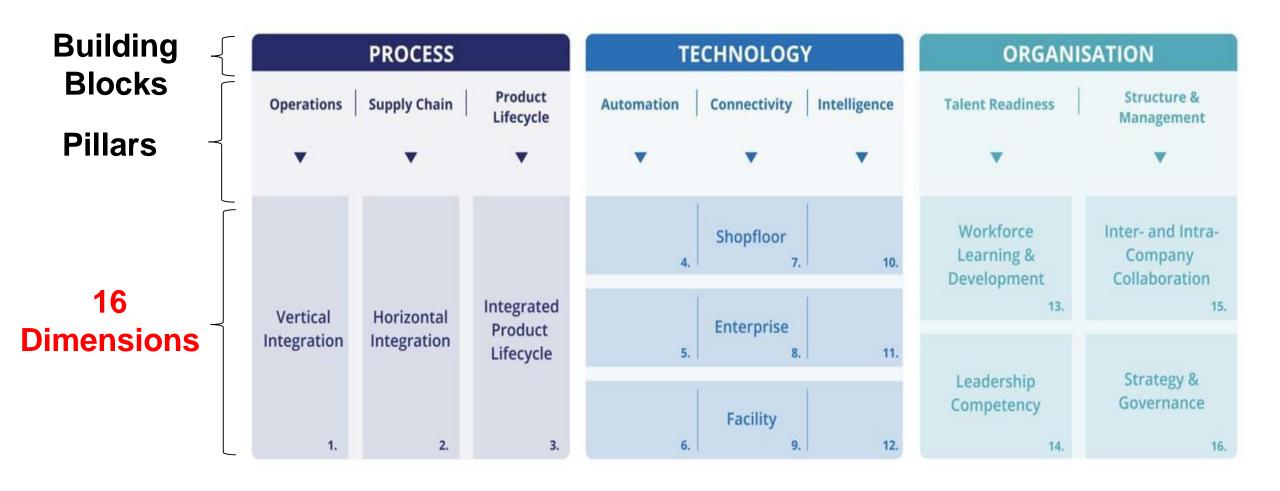




Leather & Footwear



## The Smart Industry Readiness Index Framework



#### **Smart Industry Readiness Index Framework**

Validated by a global advisory panel of industry experts, the Assessment Matrix is designed to strike a balance among technical rigor, usability, and relevance. The tool breaks down each of the 16 Dimensions into 6 progressive bands of maturity. These dimensions represent assessment areas that companies can use to evaluate their current digital maturity, readiness of facilities, benchmark themselves against known scores of other companies and identify potential gaps in their transformation.



SIRI examines the three core areas of Industry 4.0: Process, Technology, and Organisation. It aims to equip companies with practical knowledge:

#### What Industry 4.0 is and the tangible benefits it could yield.

- The Maturity levels of their organisations and facilities.
- How they can improve in a targeted and incremental manner.

SIRI then utilises frameworks such as the TIER framework below that analyses the results of a maturity assessment and then combines this with other information to ensure that the focus areas identified will be the most impactful. This means aligning your improvement roadmap plans to your company costs and revenue figures and your key KPIs for maximum.



#### **A Holistic Prioritisation Framework**

The Prioritisation Matrix is a management planning tool that helps companies quantitatively identify high-priority Dimensions that would deliver greatest impact to their organisation, after they have used the Assessment Matrix to determine the Industry 4.0 maturity of their manufacturing facilities.



#### **OFFICIAL SIRI ASSESSMENT (OSA)**

# Begin your transformation journey with the SIRI Assessment

The Official SIRI Assessment includes the evaluation of a manufacturing facility across the 16 dimensions of assessment, the identification of recommended areas of priority, and the provision of a report of the findings.



#### The Official SIRI Assessment (OSA)

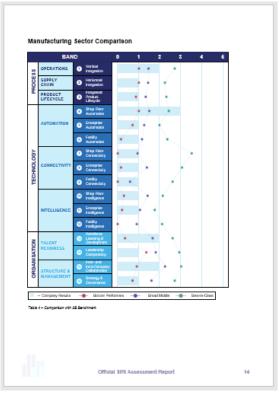
Performed by a Certified SIRI Assessor (CSA), the Official SIRI Assessment (OSA) is an independent assessment of a factory or plant to evaluate its current state, identify high-impact areas to focus on, and benchmark it against industry peers.

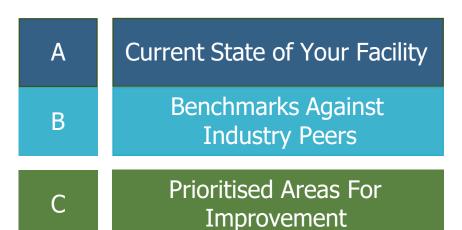
Phase		Phase	Description	Time Commitment
	I	Onboarding (Planning and Preparation)	An onboarding call to prepare the company on what to expect, the materials/information to be prepared, and the key personnel to be involved	~1 Hour
	II	Evaluation	Workshop discussions with an on-site facility visit to evaluate the current state of the company's manufacturing facility and characterise the variables in determining the high-impact areas to focus on.	~1 – 1.5 days
	III	Debrief (Analysis and Review)	A debrief session to review the OSA results and interpret the findings.	~2 – 3 Hours
Deliverable		Deliverable	An Official SIRI Assessment (OSA) Report	2 days

## Companies will receive an official report at the conclusion of the OSA

Provides manufacturers an i4.0 maturity check and data-guided benchmarking and insights on where to focus their efforts on.







#### **How can Singapore Polytechnic help?**

IMRs Certified SIRI Assessors will guide you through the assessment and results, focusing on the following:

- SIRI assessment will enable companies to characterise in a standardised format across key pillars to assess their current level of maturity.
- It identifies high-impact areas for improvement and a targeted roadmap to be generated.
- Allows benchmarking against industry peers and a proprietary global manufacturing community.

#### **Contact SP to find out more**

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Cher Hwee is a Specialist in digital fabrication, teaching CAD/CAM and Tooling Design at Singapore Polytechnic. He received the B. Eng degree and a Master Degree in Mechanical Engineering. He is also a member of the Precision Engineering Technical Committee, Institute of Engineering (Singapore) since 2014. Additionally, he was appointed by the Singapore World Skills Council as a National Expert for Mechanical CAD since 2016. He has actively involving in sending students to industry for internship through visiting factories in manufacturing, aviation, automation and more for the past 20 years.

Currently, he is the Course Coordinator for Advanced Manufacturing Learning Journey for Industry 4.0 to increase the awareness of Industry 4.0 amongst the Singapore manufacturing SMEs.

Cher Hwee has provided consultancy for multiple projects in the precision manufacturing industry.

Working alongside with SP teams to provide engineering & technology solutions to companies in Singapore and overseas, helping them to digitalize and transform.