

THE FOURTH REINVENTION

The Gap Between Awareness and Action

Manufacturing is in the middle of its fourth reinvention. After mechanisation, mass production and computerisation, Industry 4.0 fuses the physical and digital into cyber-physical systems — machines that sense, connect,

analyse and increasingly decide for themselves.

Most manufacturers accept it matters; far fewer know where they actually stand. That gap between awareness and action is exactly what a maturity model closes.

Before a company can improve, it has to see itself clearly.

FOUR INDUSTRIAL REVOLUTIONS

1	2	3	4
Mechanisation	Mass production	Computerisation	Industry 4.0
STEAM POWER	ELECTRIC POWER	ELECTRONICS & IT	CYBER-PHYSICAL SYSTEMS
The discovery of steam power enabled the first industrial revolution.	Innovations in electric power catalysed the second.	Electronics and IT systems brought an unrivalled degree of precision and efficiency through automation.	The digital and physical converge; machines sense, connect, analyse and increasingly decide for themselves.

THE FRAMEWORK IN FIVE NUMBERS

THE STRUCTURE	3	Building Blocks	Process, Technology and Organisation — all three advance together.
	8	Pillars	Critical areas beneath the blocks that companies must focus on.
	16	Dimensions	The specific areas a facility is scored against.
THE SCORING	6	Bands (0–5)	The ladder each dimension is scored on, least to most mature.
	5	Star Levels	The readable rating those sixteen scores resolve into.

Figure 1 — The four industrial revolutions, and what each of the framework’s five numbers means.

THE INSTRUMENT

What SIRI Is

The world's first independent digital-maturity assessment for manufacturing.

The Smart Industry Readiness Index (SIRI) is delivered as the **Official SIRI Assessment (OSA)** — a roughly two-day independent review conducted by Certified SIRI Assessors.

By 2022, some **600 manufacturers** across **30 countries** had been assessed; the network has since grown into thousands of factories.

HOW THE STANDARD CAME TO BE

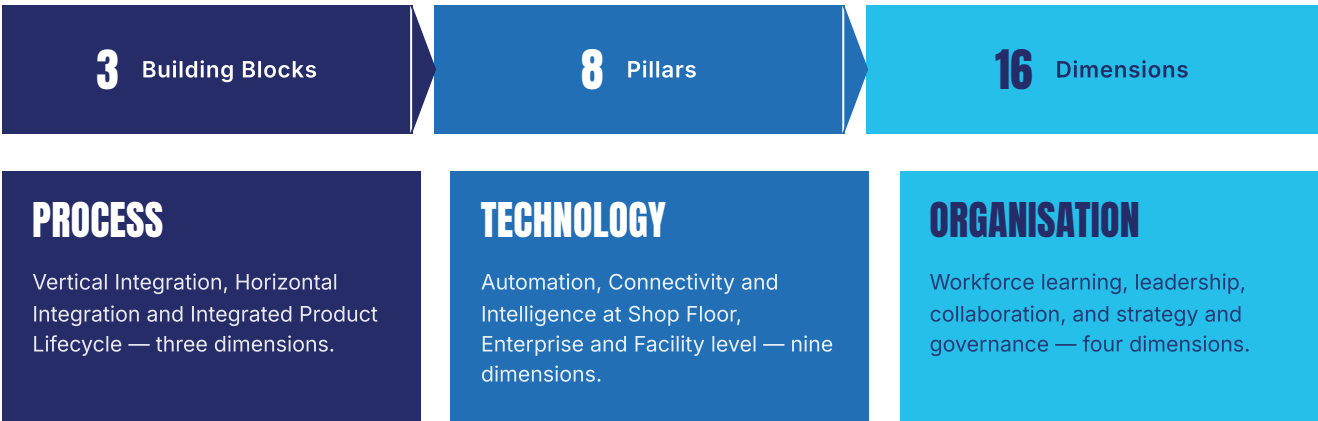


Figure 2 — SIRI's provenance, delivery model and reach.

THREE LAYERS

The Architecture Beneath the Levels

Three Building Blocks, eight Pillars, sixteen Dimensions.



All three must advance together

A common failure is to pour money into shop-floor technology while neglecting process and people.

INSIDE THE TECHNOLOGY BLOCK

	Automation	Connectivity	Intelligence
Shop Floor	Shop Floor Automation	Shop Floor Connectivity	Shop Floor Intelligence
Enterprise	Enterprise Automation	Enterprise Connectivity	Enterprise Intelligence
Facility	Facility Automation	Facility Connectivity	Facility Intelligence

Figure 3 — The three Building Blocks, and the nine technology dimensions inside the Technology block.

HOW MATURITY IS MEASURED

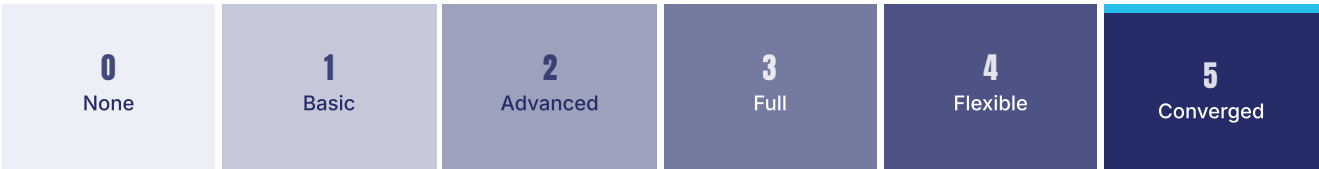
Six Bands, Numbered 0 to 5

Each of the sixteen dimensions is scored on six bands, from the least mature state to the most advanced.

The bands are not generic — each family of dimensions has its own ladder that reflects how maturity genuinely progresses in that area. They describe recognisable states rather than raw scores, **capturing where a facility is today, not its future potential.**

MATURITY PROGRESSION BY PILLAR · BAND 0 → 5

Automation



Connectivity



Intelligence



Integration



Figure 4 — The maturity progression for each pillar family, from Band 0 to Band 5.

ONE READABLE RATING

From Sixteen Dimensions to One Rating

Sixteen band scores are precise but hard to communicate at a glance, so SIRI expresses overall maturity as a **star emblem**: a one-to-five-star rating averaged across the three Building Blocks.

Half-stars are allowed and the score is always rounded down, so the emblem never overstates where a company is. The official emblem is awarded on completing an assessment and is valid for two years.



▼ AVERAGED ACROSS THE THREE BUILDING BLOCKS, THEN ROUNDED DOWN

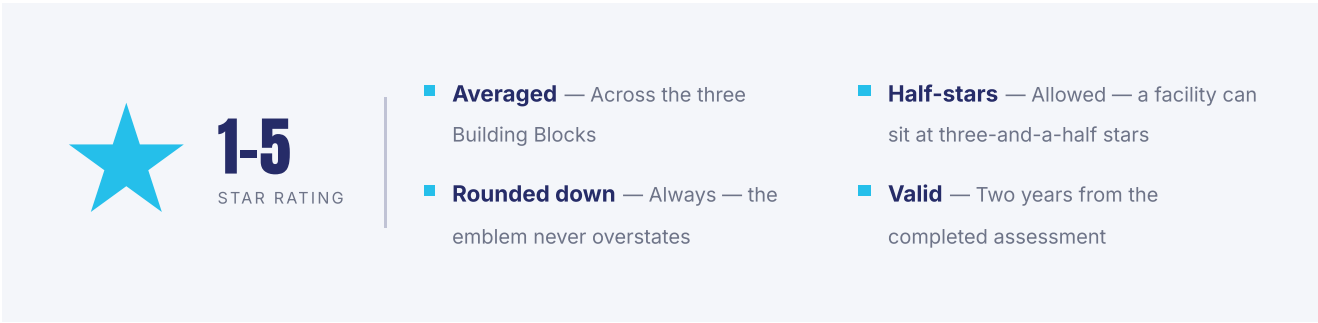
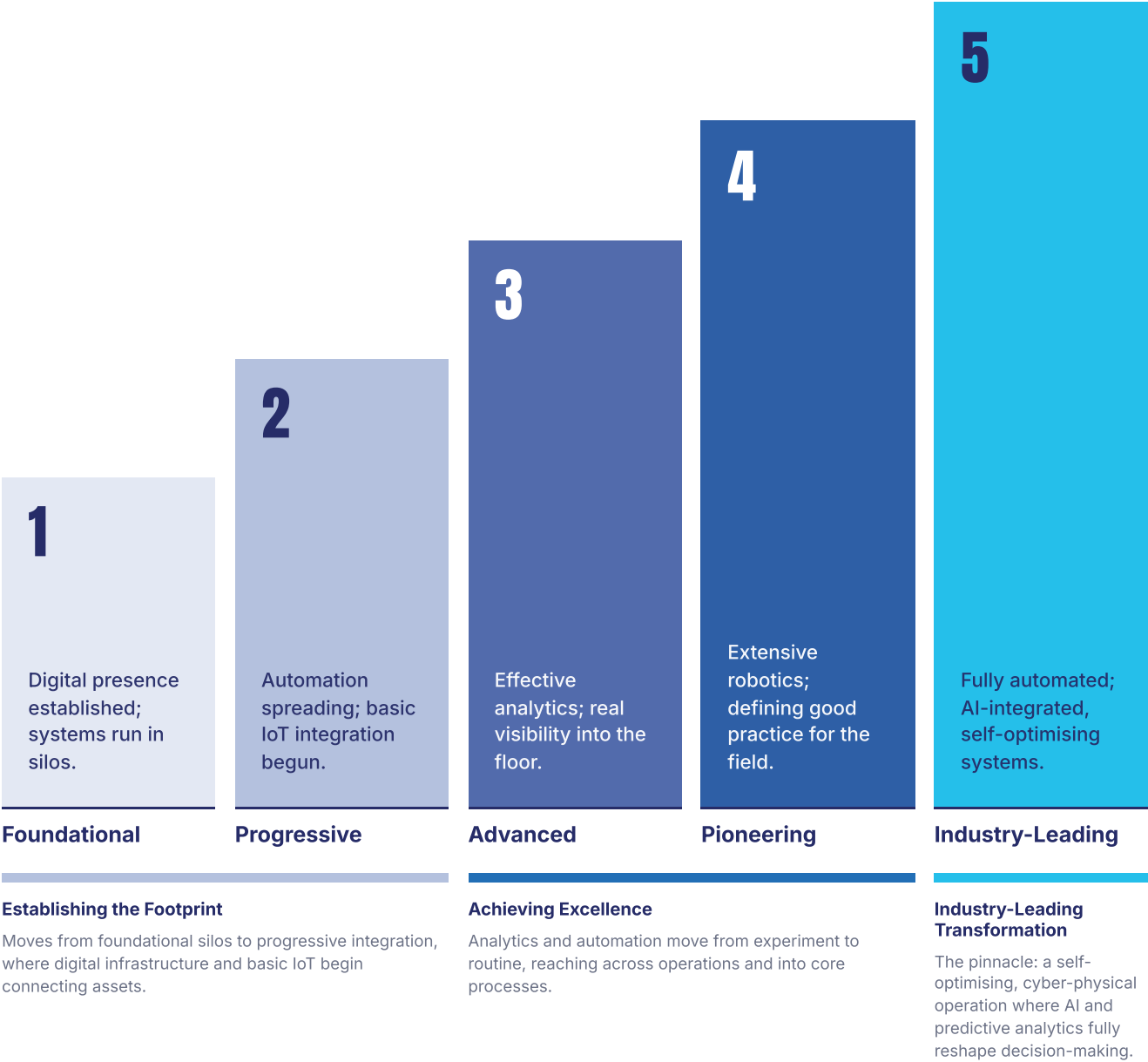


Figure 5 — How sixteen dimension scores resolve into a single star emblem.

THE READABLE FACE OF THE SYSTEM

The Five Levels

The five named levels describe the character of a facility at each rung of the scale.



The five levels are anchor points on a scale that also allows half stars — a facility can sit at three-and-a-half stars, marking steady progress between two named levels.

Figure 6 — The five levels, from Foundational to Industry-Leading.

WHAT EACH LEVEL LOOKS LIKE

The Five Levels in Detail

Each level describes the character of a facility at that rung.



Foundational Digital Footprint Established

A basic digital presence and the first steps toward automation are in place, but integration of digital technologies is limited and data is barely used to inform decisions. Systems still run largely in silos.



Progressive Digital Integration Underway

Digital infrastructure is deployed more deliberately, automation is spreading into key processes, the first data-analytics capabilities are being stood up, and basic IoT integration has begun to connect previously isolated assets.



Advanced Digital Operations Achieved

Advanced digital infrastructure is in place, automation runs across a significant share of operations, analytics is used effectively rather than experimentally, and IoT reaches into core processes. The facility now operates digitally, with real visibility into the floor.



Pioneering Digital Excellence Attained

A robust digital ecosystem is in place, with automation and robotics integrated extensively, advanced analytics actively driving insight, and comprehensive IoT deployment. The company is defining good practice rather than chasing it.



Industry-Leading Digital Transformation Achieved

Operations are fully automated with AI integrated into how the facility runs, predictive analytics reshape decision-making, and seamless IoT connectivity enables real-time optimisation — a self-optimising, cyber-physical operation of the kind Industry 4.0 set out to describe.

Figure 7 — The five named levels and what each describes.

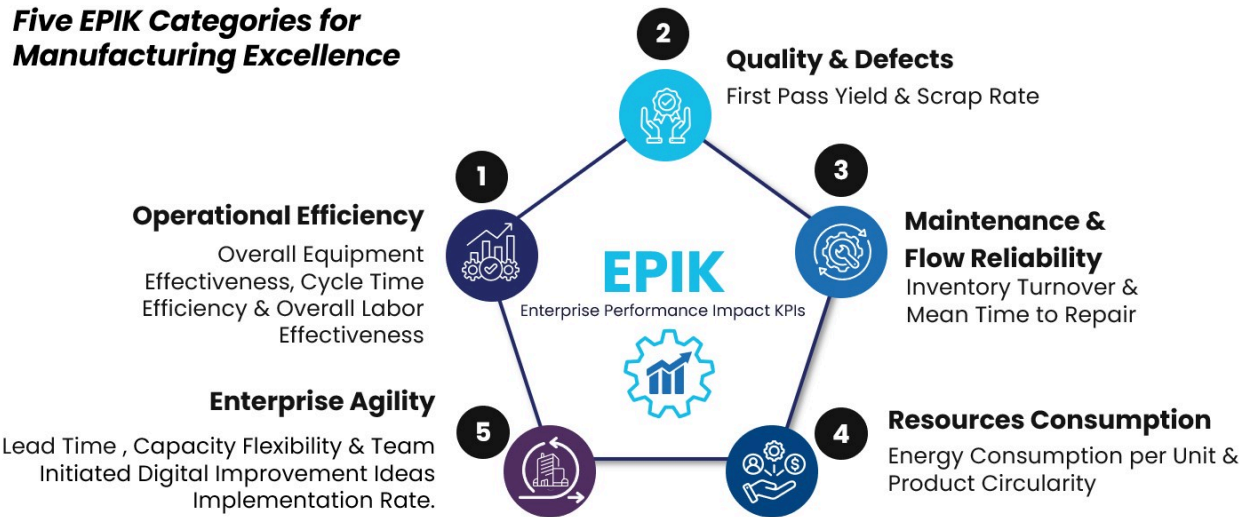
LINKING MATURITY TO RESULTS

The Colour of the Emblem

A second signal: whether a company is measuring the performance impact of its maturity.

That measurement runs through **EPIK** — Enterprise Performance Impact KPIs — twelve metrics across five categories.

Five EPIK Categories for Manufacturing Excellence



Each Performance Metrics measures specific aspects of manufacturing performance. Together, they create a comprehensive view of productivity.

YELLOW STAR

At least **four** of the twelve metrics are **not** being tracked.

Maturity is measured; its impact is not.

PURPLE STAR

More than four metrics are **actively tracked**.

An improvement score can only be calculated by comparing one assessment against the next.

THE GOLDEN RULE

“If it’s not logged, it didn’t happen.”

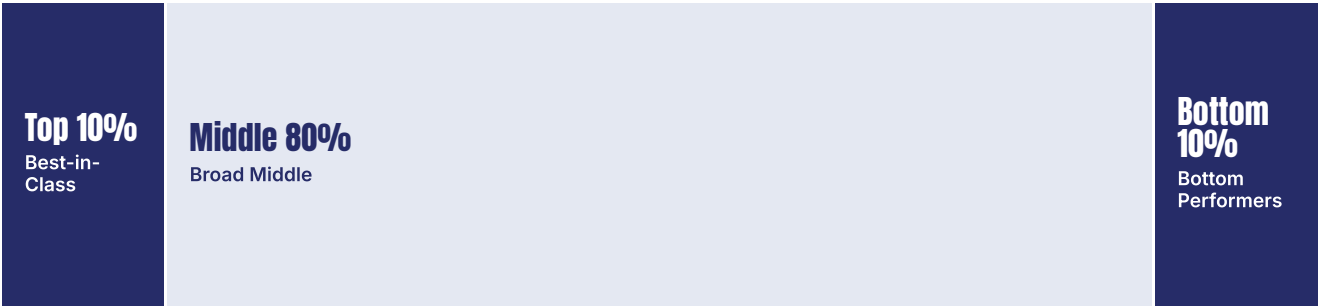
Performance can only be improved once it is captured — which is why maturity and measurement are treated as two sides of the same emblem.

Figure 8 — The five EPIK categories, and the emblem’s colour — which reports whether performance impact is being tracked. Each state is named as well as coloured.

AGAINST THE FIELD

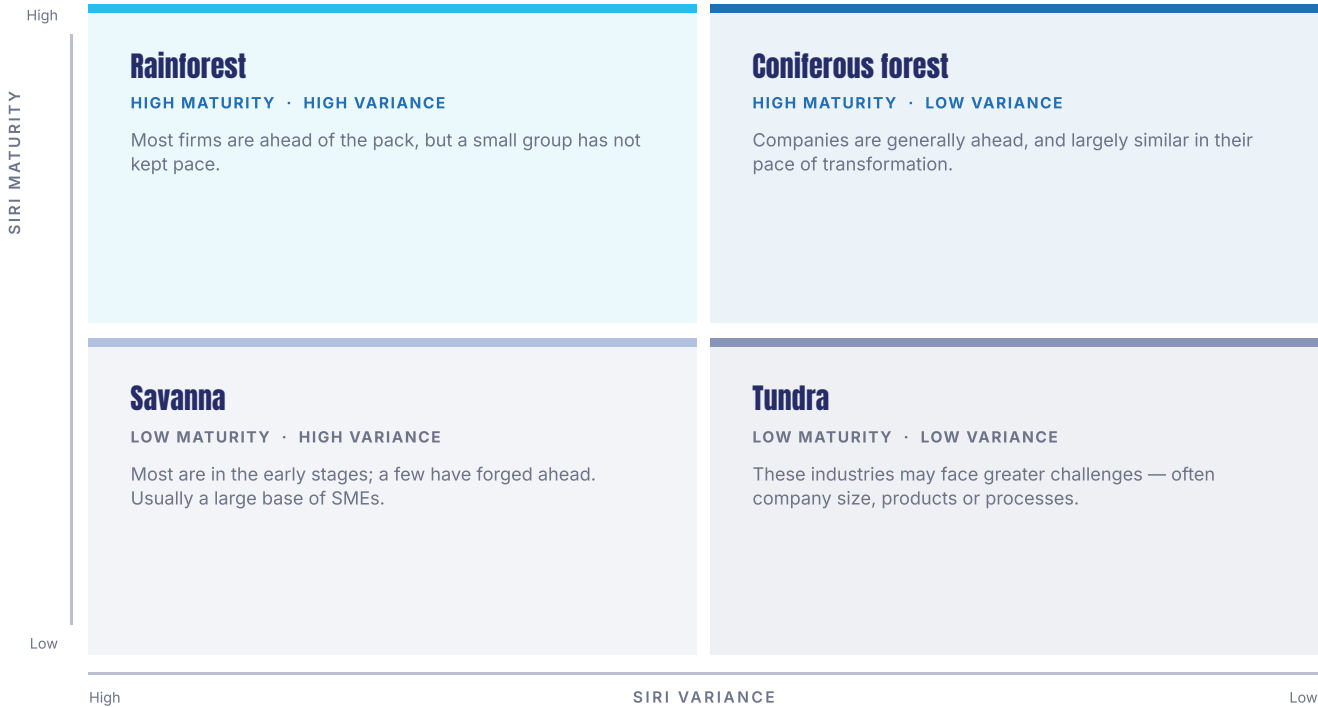
Where You Stand

A single rating means far more against the wider community.



Best-in-Class companies are more mature across all sixteen dimensions — not a showcase few — and have leaned heavily on Connectivity to unlock their data.

THE FOUR ARCHETYPES OF TRANSFORMATION



Industry clusters are placed by how mature they are and how widely their companies vary. Multinational-heavy sectors such as **Semiconductors**, **Electronics** and **Pharmaceuticals** lead the way.

Figure 9 — The 3B benchmark, and the four archetypes of transformation. Archetype definitions and axes after the Global SIRI Initiative report (World Economic Forum / INCIT, 2022).

KNOWING YOUR LEVEL IS THE BEGINNING

Moving Up the Levels

A continuous cycle, paired with a prioritisation method.

THE LEAD CYCLE



THE TIER FRAMEWORK



The Prioritisation Matrix

The method weighs **cost**, **business KPIs** and a facility's distance from its industry's best-in-class.

It is deliberately built to recommend **at least one high-impact dimension from each of the three Building Blocks**.

PRINCIPLES TO KEEP IN MIND

- Higher is not automatically the goal — aim for the bands that fit your industry and cost profile, not Band 5 everywhere.
- The assessment is a snapshot of today, not a verdict on your potential.
- Consider all sixteen dimensions, even the ones you deliberately deprioritise.
- Maturity is a multi-year journey, measured in the distance between one assessment and the next.

Figure 10 — The LEAD cycle and the TIER framework behind the Prioritisation Matrix.

CONCLUSION

The Readable Face of a Rigorous System

The five levels — Foundational, Progressive, Advanced, Pioneering and Industry-Leading — are the readable face of a rigorous system: three building blocks, eight pillars, sixteen dimensions, six bands, and a performance layer that asks whether maturity is actually paying off.

Together they give a manufacturer an honest starting point, a shared language, a credible signal to show partners and customers, and a clear view of the next rung.

An honest starting point

Where the facility stands today

A shared language

One vocabulary across the organisation

A credible signal

Something to show partners and customers

The next rung

A clear view of what comes after this level

HOW THE PIECES FIT TOGETHER



Figure 11 — How a facility's sixteen scores become one emblem, and what its colour adds.

In an era where nearly every industry is being disrupted and companies must transform or risk being replaced, seeing your own maturity clearly is the first, indispensable step toward improving it.



ABOUT INCIT

The International Centre for Industrial Transformation is the custodian of the Smart Industry Readiness Index — the framework behind the Official SIRI Assessment, the LEAD transformation cycle, the TIER prioritisation model and the EPIK performance-impact layer.