



NECTEC-ACE
2026 ANNUAL
CONFERENCE &
EXHIBITION

วันที่ที่สร้างไว้
เพื่อก้าวต่อไปที่ยั่งยืน
(Legacy & Beyond)



Road to **Intelligent Industry:**

กรอบประเมินความพร้อม **3 แกน**
สู่พิมพ์เขียวการลงทุนที่ทำได้จริง



ดร.วิรัช จัตตรรงค์

- รองประธานสภาอุตสาหกรรมแห่งประเทศไทย
- ประธานสถาบันดิจิทัลเพื่ออุตสาหกรรม (IDTI)



3 กันยายน 2569
15:00 – 15:15 น.



Meeting Room 2
สยามพารากอน ฮอลล์ ชั้น 5



FTI 5Is Policy Framework

Driving Thailand's Industry to a Sustainable and Competitive Future



5Is for Thailand's Industrial Future



The Questions Every Manufacturer Asks

Many know they must transform,
but struggle with where to start and whether it's worth the investment.

What Manufacturers Often Face



Too many technologies

Unclear which tools fit our needs



Unclear starting point

Not sure which issue to solve first



Budget uncertainty

Unsure if the investment will pay off



Hidden gaps

What we don't know may
be holding us back

Today, I will share with you 3 key topics

1



Positioning

Where we are,
what we lack,
and how each
tool fits

Understand
our position

2



Decisioning

Which tool group
to choose for
which issue,
and is it worth it?

Make the right
investment decision

3



Supporting

How FTI, the government,
and partners can
support our journey

Leverage support
for success



A clear roadmap to transform with confidence
and measurable results

Positioning: Understand Our Position

Before deciding where to invest, we must first know where we stand.
Several established assessment tools help manufacturers evaluate their readiness.

Thailand i4.0 Index

A comprehensive assessment tool for Thailand's manufacturing sector



17
Sub-dimensions
Covering key capability areas in depth



6
Bands of Readiness
From Beginner to World Class



Developed by
NECTEC / NSTDA
together with FTI

Industry-specific tool that reflects the unique characteristics and challenges of the manufacturing sector.

TARI – Thailand AI Readiness Index

Assess AI readiness across the organization from strategy to execution.

3 Levels of Assessment



Management
Organization-level strategy and governance



Function Leader
Department-level capability and implementation



Individual
AI awareness and skills at the individual level

Launched in July 2026 by MHESI + AIS + IRIS

Other Assessment Resources



Digital Capability Assessment for businesses of all sizes



Digital Maturity & Readiness Assessment tools

Supporting organizations in their digital transformation journey



These tools tell us **“How ready are we?”** — but not necessarily **“Where should we start first?”**

Positioning: Introducing the 3+ Framework

Two intelligences, one data foundation — protected by one guardrail.

1) Conceptual View

The 3+ Framework is built on a simple but powerful idea.



+ Guardrail: Trust, Security & Governance

Cross-cutting guardrail that protects and enables the entire system



X

Strategic Intelligence

Analysis, planning, and office decisions that shape the future



Y

Operational Intelligence

Real-time decisions at the shopfloor that drive daily performance

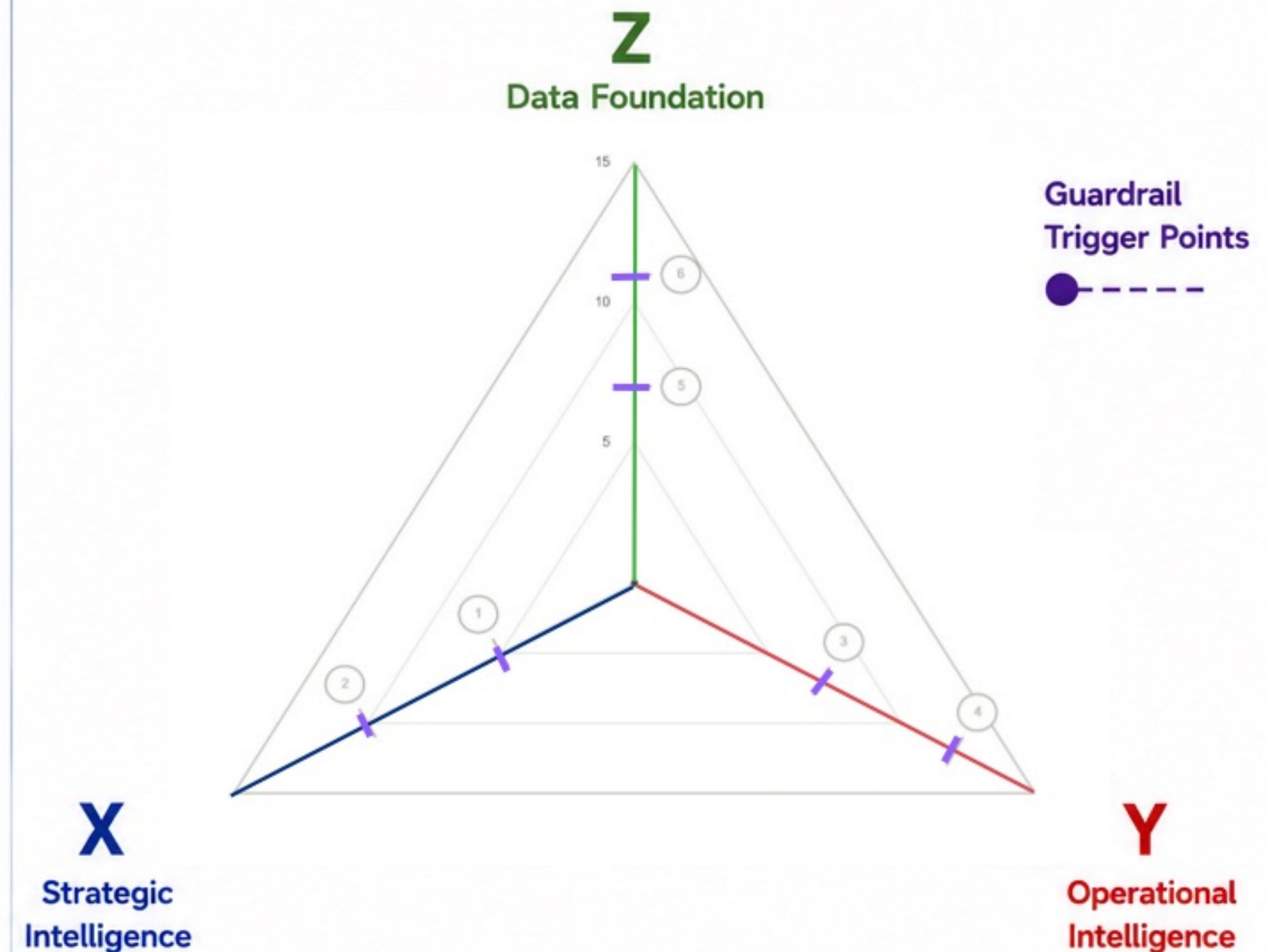


Z Data Foundation

Data quality, flow, and accessibility that enable everything

2) Measurement View

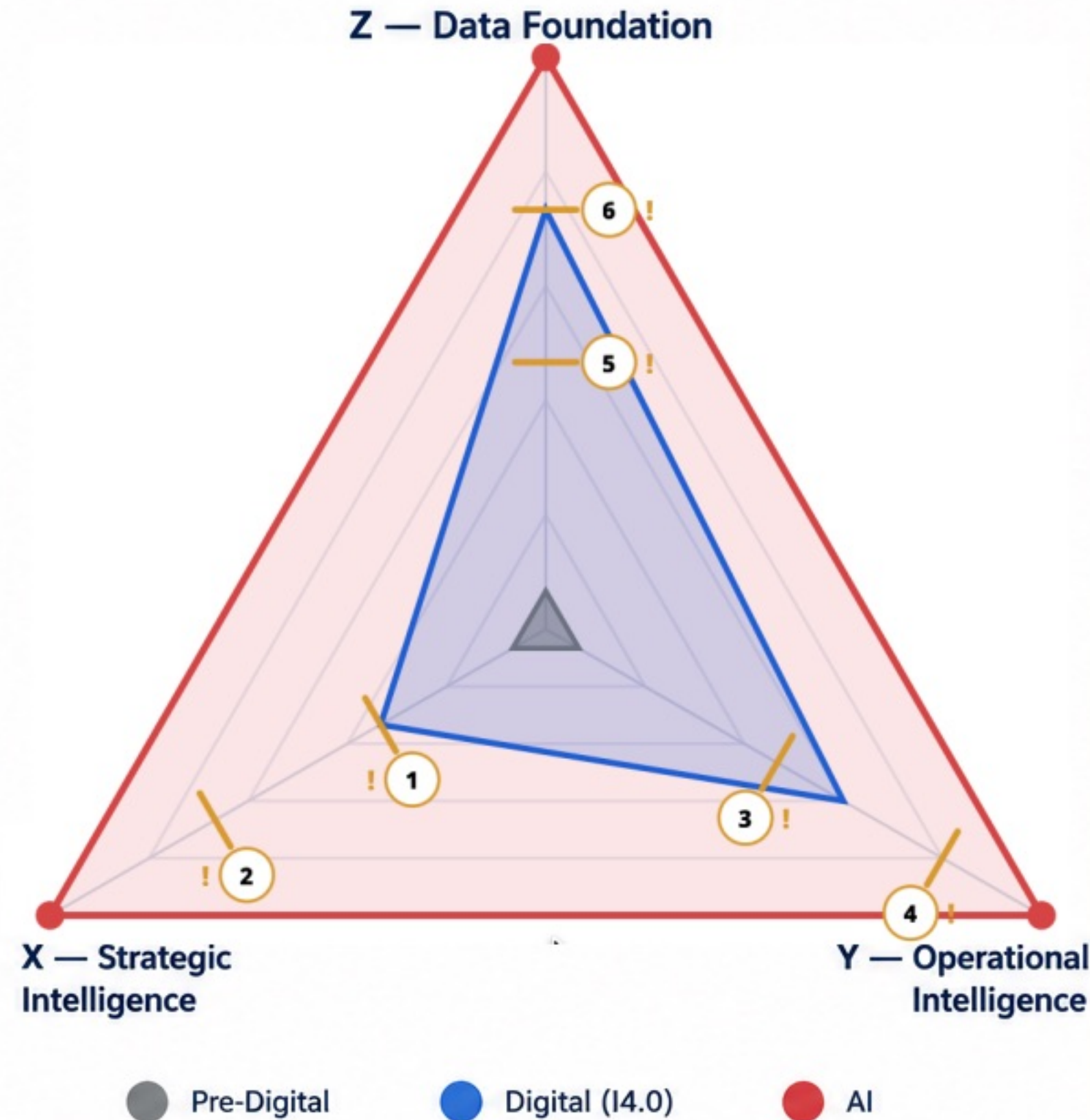
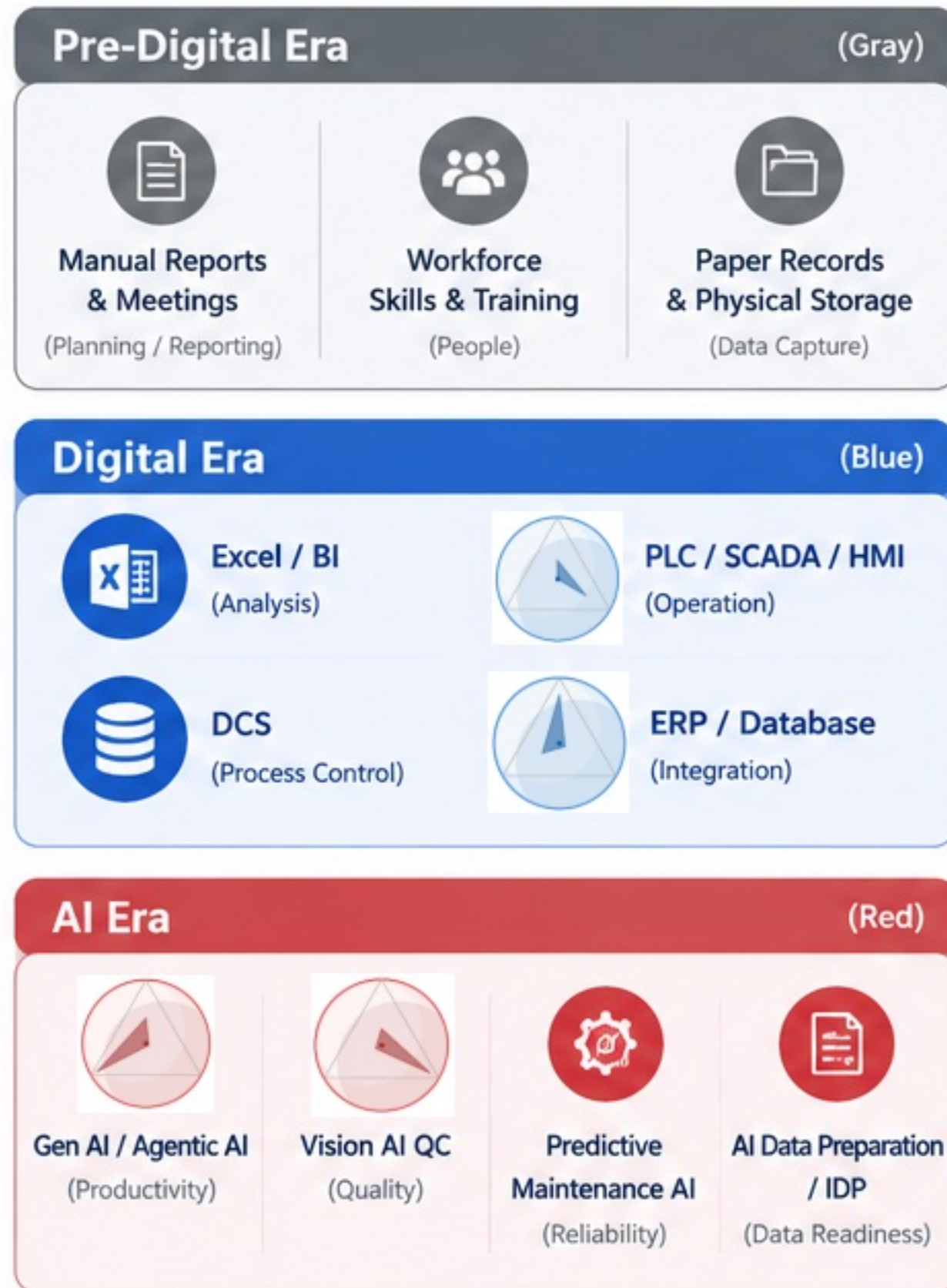
Readiness across the 3 dimensions can be measured.



The three corners are measurement dimensions; they do not imply equal conceptual roles.

Positioning: How Technology Builds Our Position

Different tools strengthen different dimensions — and one tool can strengthen more than one.



How Each Tool Strengthens the 3 Dimensions

- Pre-Digital**
- Lays the foundation for people and basic processes
 - Improves X, Y (and indirectly Z)
- Digital**
- Builds the Data Foundation (Z) the most
 - Also strengthens X and Y
 - Enables connectivity and integration
- AI**
- Leverages the Data Foundation (Z)
 - Drives significant gains in X and Y
 - Unlocks new capabilities and insights



Key Takeaway

Digital builds the Data Foundation (Z) the most — and that foundation is what makes today's AI work. Industry 4.0 is therefore not something we can simply skip.

Try the Interactive Tool

Explore how different tools shape your position.



This is today's position.
As we move forward, additional guardrails may be triggered.

Decisioning: From Position to Investment Decision

Knowing where we stand is only useful if it leads to the right investment choice.

✓ **Example A: Strong Z, Ready for Strategic AI**
Data foundation is solid — invest in Strategy (X) for higher impact and lower cost.

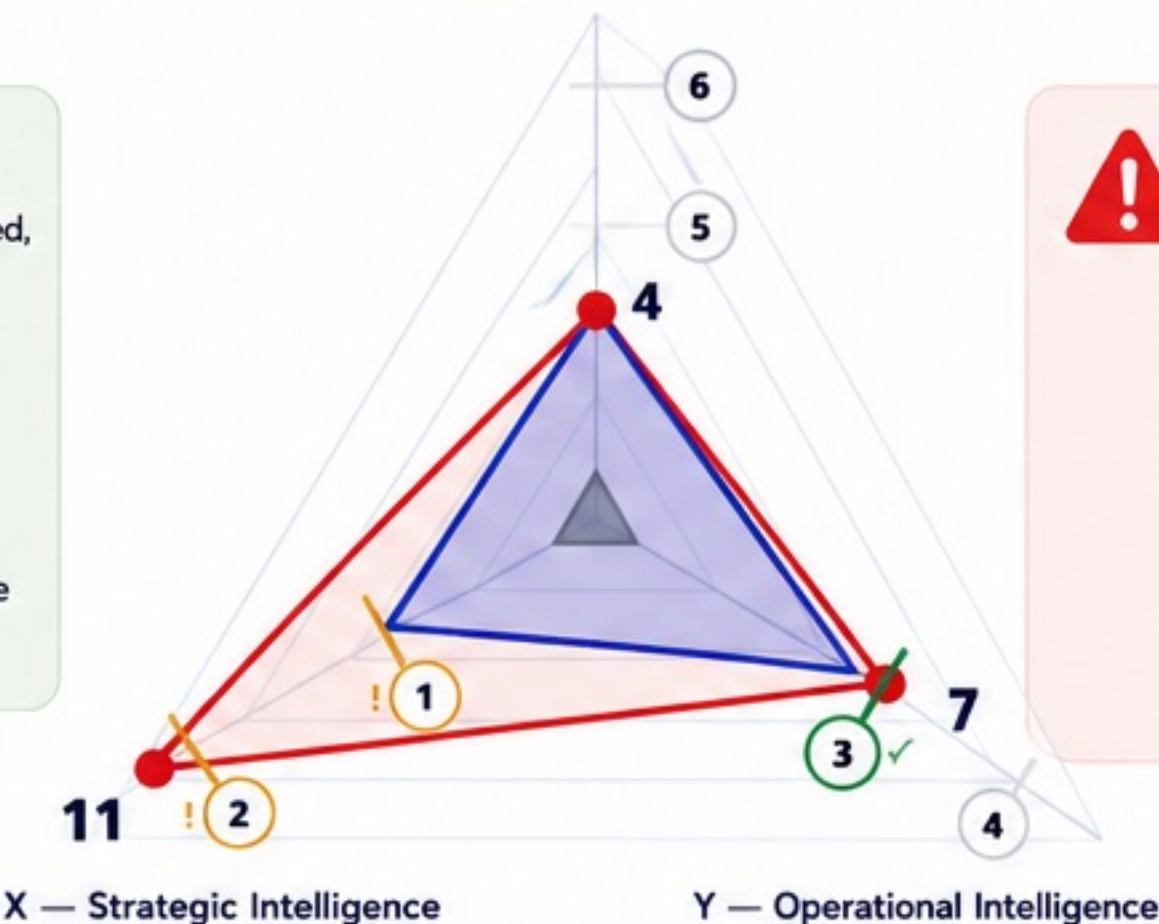
Z — Data Foundation



- Z is strong (data available, connected, and trusted)
- Balanced X and Y capabilities
- Strategic AI (X) delivers the best value and can scale efficiently

✗ **Example B: Weak Z, Aggressive AI Investment**
Investing in AI (X/Y) without a solid foundation creates high risk of scale failure and low ROI.

Z — Data Foundation



- Z is weak (data gaps, siloed, low trust)
- Heavy investment in AI/Automation (X/Y) outpaces foundation
- Pilots may work in limited scope but cannot scale → high cost, low ROI

Structural Risk to Watch



Weak Z + investment in X or Y = very high risk.

Pilots may succeed in a limited scope, but scale fails when data is not connected or accessible — turning investment into sunk cost.

Investment Value Hypothesis Card — Answer These 6 Questions Before You Invest

1 Business Metric



Which metric will this project improve?

Example: OEE, yield, on-time delivery, energy cost, etc.

2 Current Baseline



What is our current measured value?

If we cannot answer this question, we are not ready to invest.

3 Target & Timeline



What is the target value and by when?

Example: +10% OEE within 12 months

4 Monetary Value



What is the expected financial impact?

Example: THB X million per year

5 Total Cost of Ownership



What will it cost to build, run, and sustain?

Include one-time, recurring, people, and infrastructure

6 Result Owner



Who is accountable for delivering the result?

Name / Role / Decision Authority



This is not a new assessment tool.

It is a simple internal decision form that your team can start using today — for free.



Key Takeaway: If we cannot answer #2 — the current baseline — we are not ready to invest. Measure first, then invest.

Supporting: From Decision to Action

Existing FTI and public-sector programs can help manufacturers move from assessment to implementation.



A 4-Phase Journey — Programs and support available today

Leverage what's ready. Take the next step with confidence.

1 ASSESSMENT

Understand our position



100-Factory Expansion / Intelligent Industry Index Development

- Measure X, Y, Z across multiple industries
- Identify strengths, gaps, and priorities
- Build a common language for improvement



Ongoing (Enroll anytime)

2 FUNDING

Access support to get started



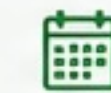
Smart SMEs Digital & AI Camp

- Subsidy up to 80%
- Training + consulting + solution adoption



Intelligent Industry Quick Win

- Up to 50,000 THB
- Quick, measurable improvement projects



Open for application

3 EXECUTION

Implement and build capability



Implementation & Capability Building

- Industry-specific activities and use cases
- Consultancy, technology adoption, and integration
- Knowledge sharing and community of practice



Throughout the year

4 GLOBAL SCALE

Grow and compete globally



Global Market Opportunities

- Connect to global partners and value chains
- International exhibitions and missions
- Support for standards, certification, and export



Ongoing

Resources You Can Access



Online Assessment
Intelligent Industry Index
i3.fti.or.th



Knowledge Hub
Guides, case studies,
and best practices
fti.or.th/ii-knowledge



Consultant & Solution Pool
Pre-vetted consultants
and technology providers
fti.or.th/consultant-pool



Events & Networking
Workshops, seminars,
and industry forums
fti.or.th/events



Support Channels
Line OA: @fti.idti
Email: idti@fti.or.th



IDTI is also working with NECTEC and partners to make assessment easier to use, and to build practical case references on costs and outcomes.

- ✓ Focus on helping members move forward
- ✓ Routing, not gating



Explore programs
and register
fti.or.th/idti-programs

From Intelligent Industry to **Industry 5.0** in Practice

“ *Good transformation does not start with having the most technology — it starts with **knowing what is necessary**, and **what should come first**.* ”

➔ **Next:** Real-world cases and practical roadmaps from industry.

JOIN US NEXT

PANEL DISCUSSION

Road to Industry 5.0 in Practice

Real-World Use Cases &
Roadmap for Factory Transformation



Moderator:
Mr. Piyawat Jomsathan
NECTEC



3 September 2026
14:00 – 15:30



Paragon Hall
Siam Paragon

IDTI

Institute of Digital
Technology for Industry

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30 October 2026
BITEC, Bangkok, Thailand

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