

IOT e Cloud, come trasformare i dati in valore aggiunto

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L'obiettivo di Industry 4.0



Produrre di più e a prezzi più bassi



Minimizzare i fermi macchina e gli sprechi



Realizzare prodotti di qualità sempre più elevata



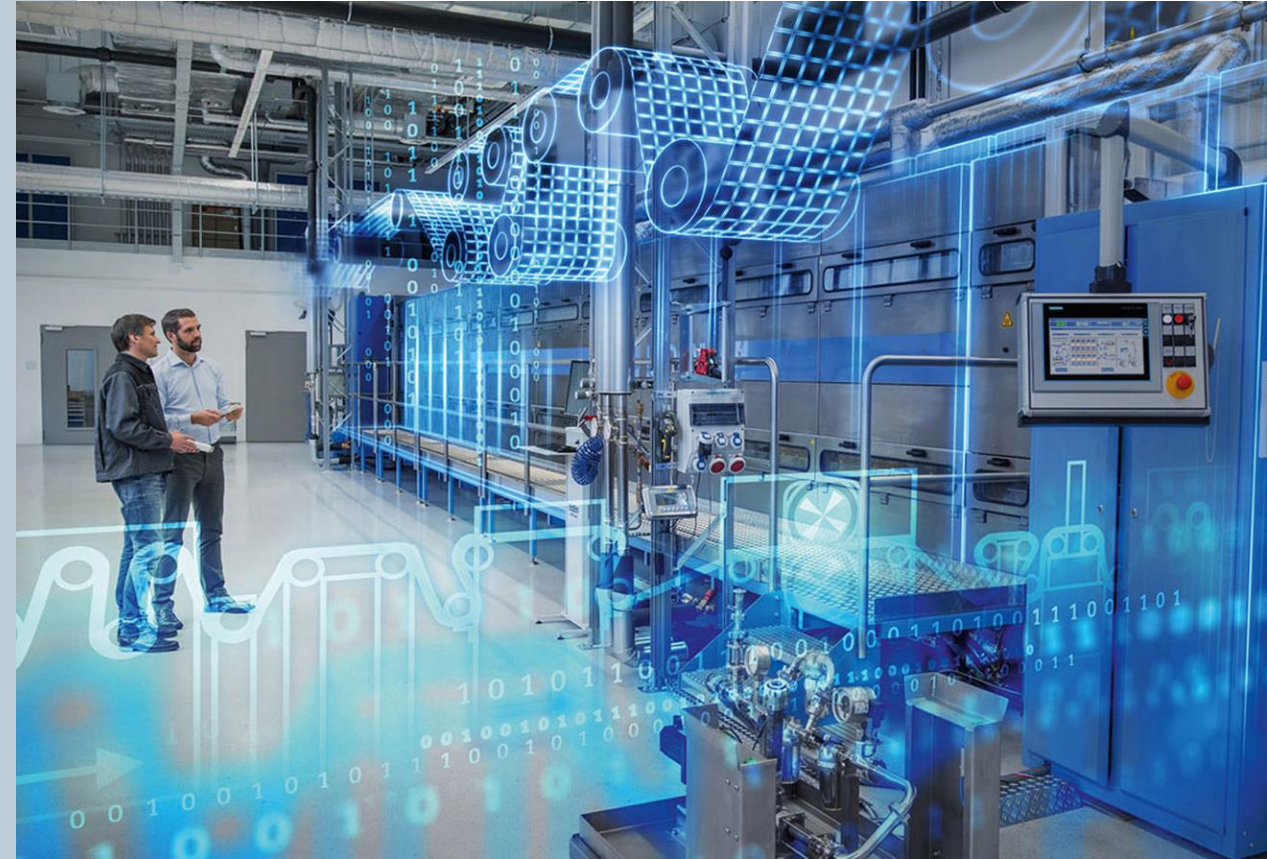
Ridurre i materiali, le risorse e l'energia utilizzata

L'IloT risolve alcune sfide del manifatturiero:

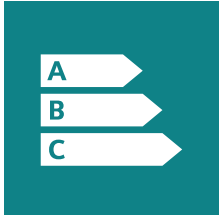
- Maggior trasparenza operativa
- Aumento dell'uptime
- Miglioramento dell'efficienza operativa
- Velocità nella diagnosi e risoluzione dei problemi

...ma gli approcci esistenti sono problematici

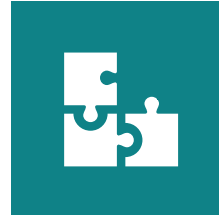
- Applicazioni proprietarie e legacy (brown field)
- Infrastrutture On-premises (no scalabilità)
- Soluzioni "Piecemeal" (frammentazione)



Le sfide create dagli approcci IloT esistenti



Da dove partire e come applicare la digitalizzazione per avere un ROI rapido



Piecemeal IoT solutions non rispondono a tutte le esigenze



Approcci che non soddisfano requisiti di sicurezza e compliance



Utilizzo di applicazione proprietarie, chiuse



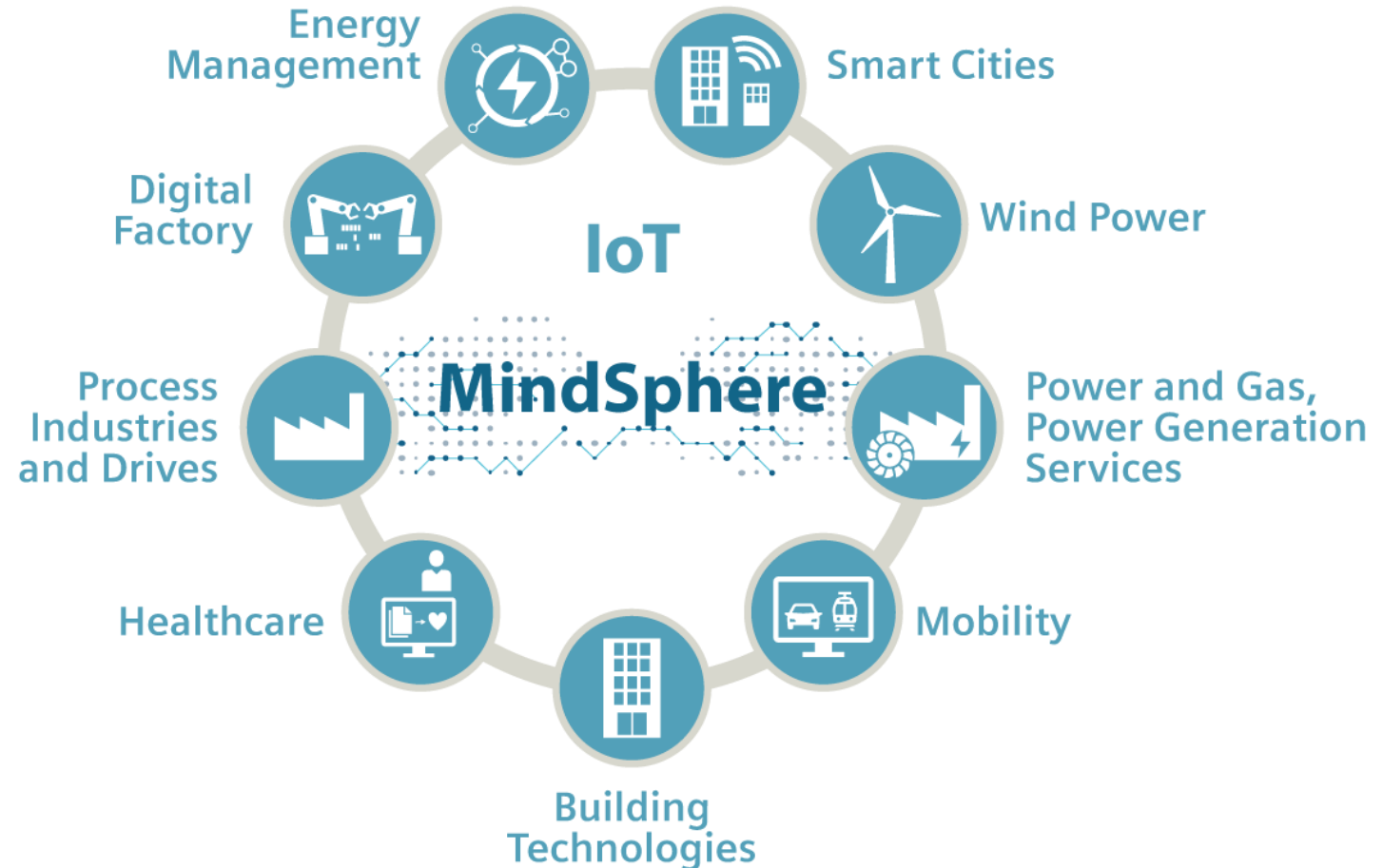
Impossibilità di utilizzare in modo diffuso i dati generate dai propri asset

In aggiunta, cercando solo risultati di breve termine ci si limita a grattare la superficie del vero potenziale dell'IloT

Source: IloT Best Practices
Siemens Global Services

Siemens Knows IoT and Connected Devices

Siemens is the #1 automation provider, delivering mission critical operation and automation technology, with **30M automation systems, 75M contracted smart meters.** And Siemens already has **over 800K connected products in the field today.**



MindApps

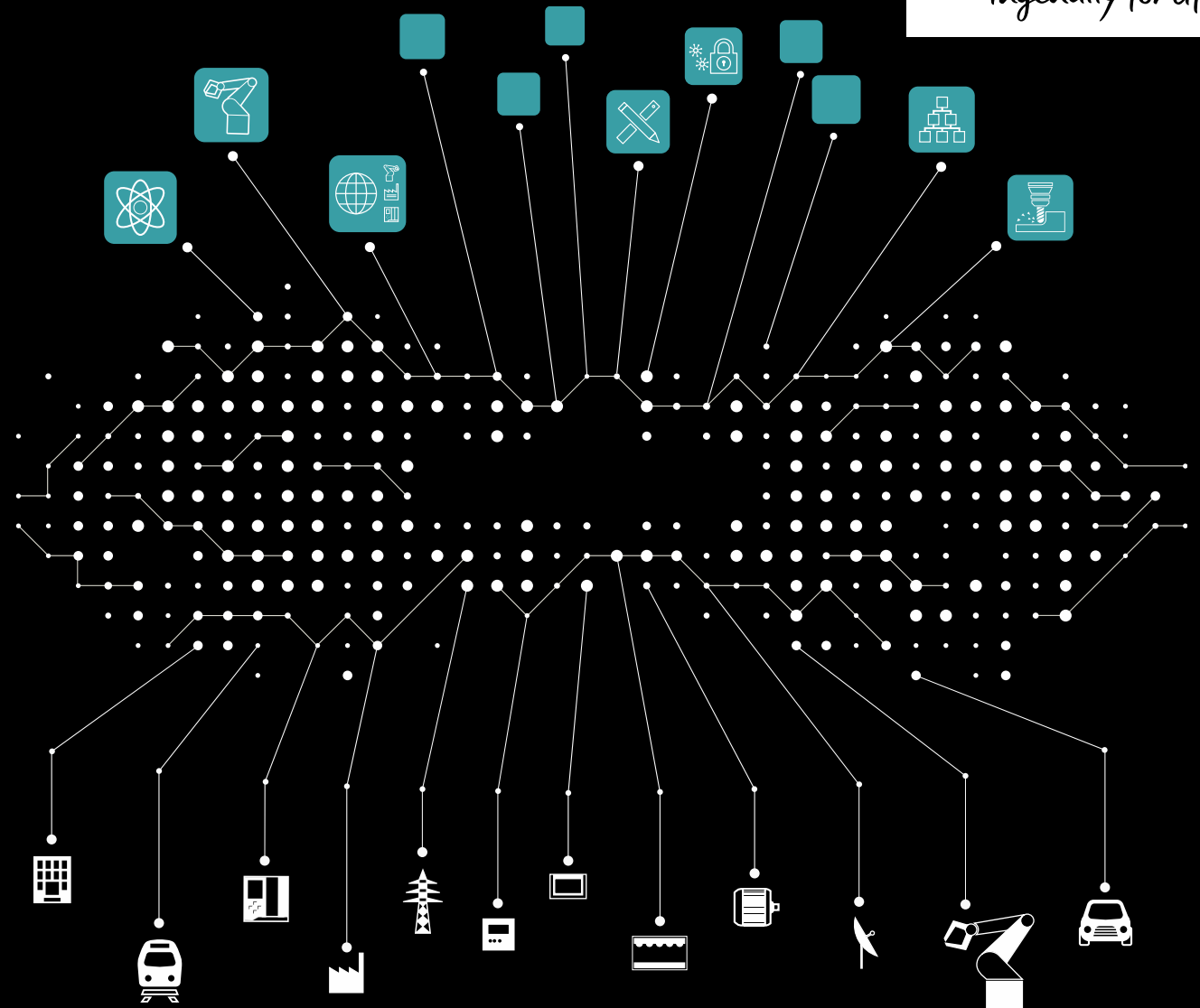
Powerful industry applications and digital services for asset transparency and analytical insights

MindSphere

Open Platform as a Service (PaaS) for scalable, global IoT connectivity and application development

MindConnect

Secure plug and play connection of Siemens and third-party products and equipment



MindSphere - The cloud-based, open IoT Operating System

**Come generare valore
tramite l'interazione
tra i mondi OT/IT?**

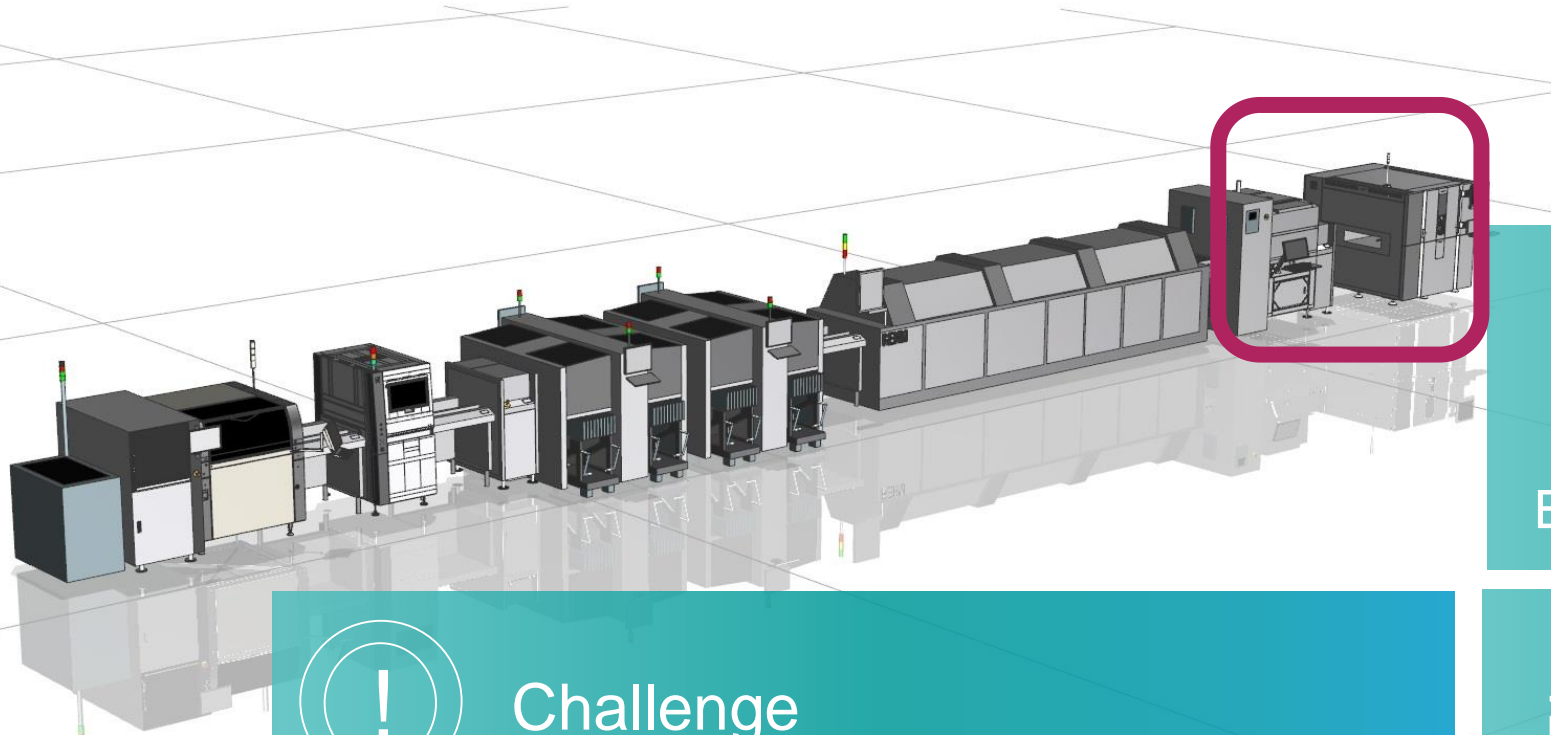


**OT / IT interplay from
the Siemens factory
in Amberg, Germany**



**OT / IT use-case from
the Siemens factory
in Amberg, Germany**

What is the challenge @ the soldering line at our Digital Factory



Challenge

Production bottleneck



Quality

Ensure 100% Quality

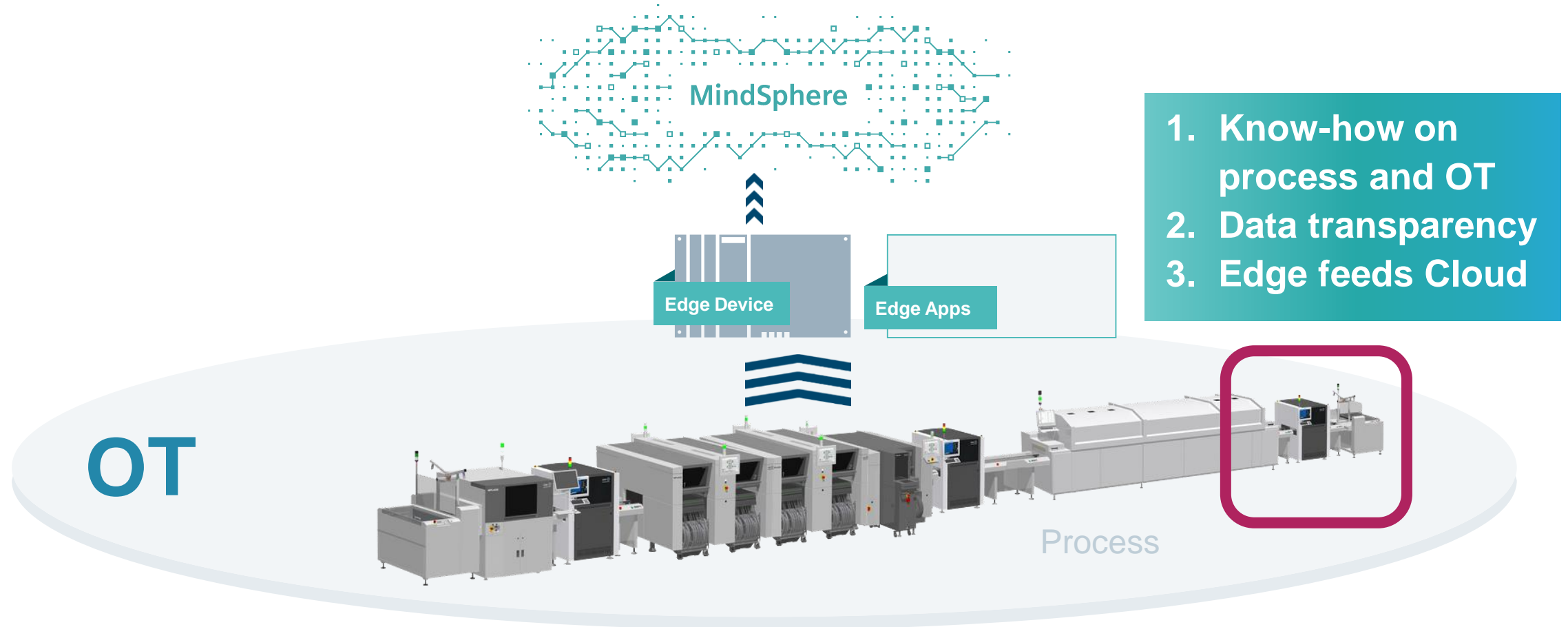


Efficiency

Increase production output w/o rising labor costs & investment

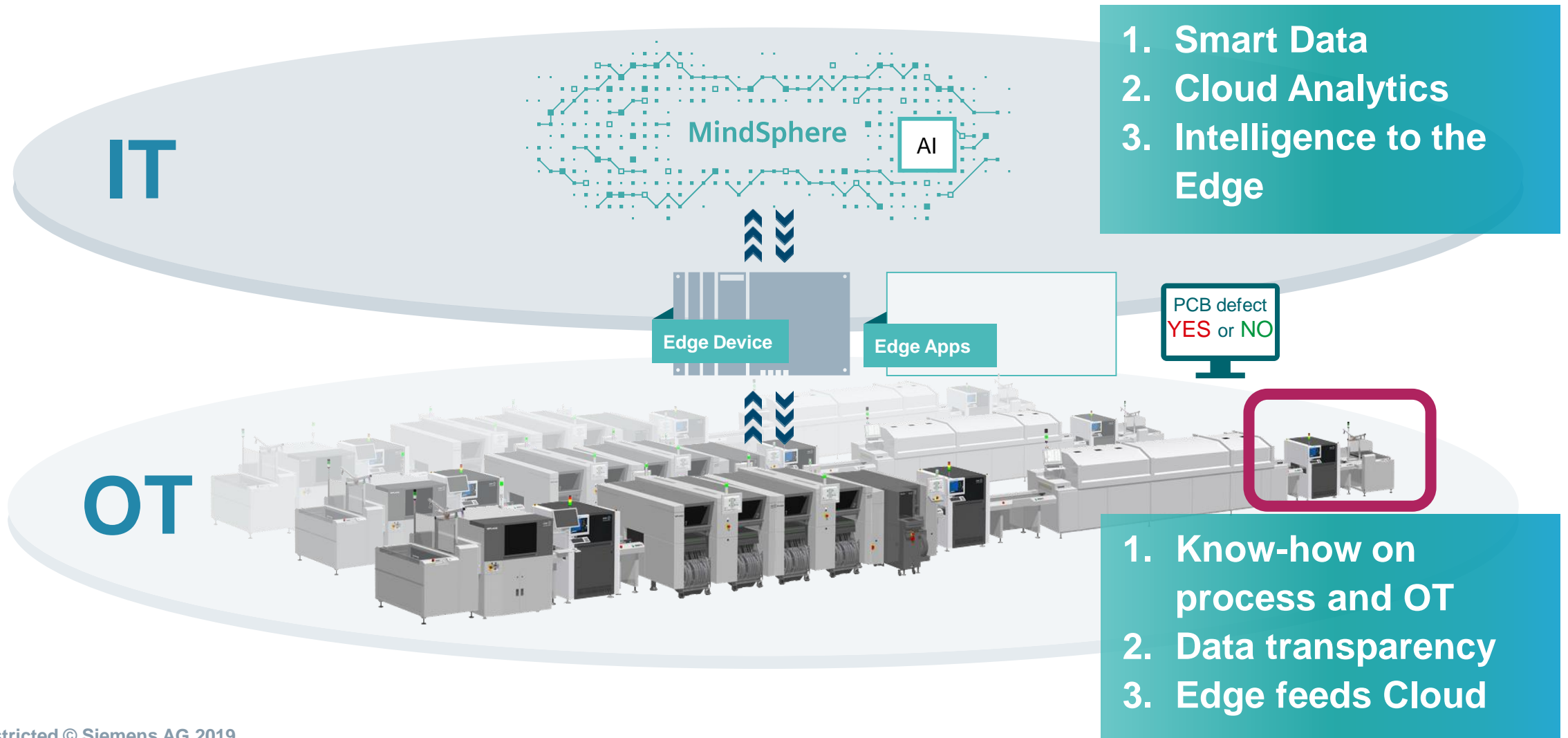
OT – Operational Technology: 60 years of experiences with Totally Integrated Automation

SIEMENS
Ingenuity for life



IT – Information Technology: MindSphere, the future of operating Systems

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With the smart interaction of OT/IT, Siemens factory in Amberg has solved a bottleneck problem in the PCB production line...

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30% increase
of output quantity



Savings of
labor costs and investments



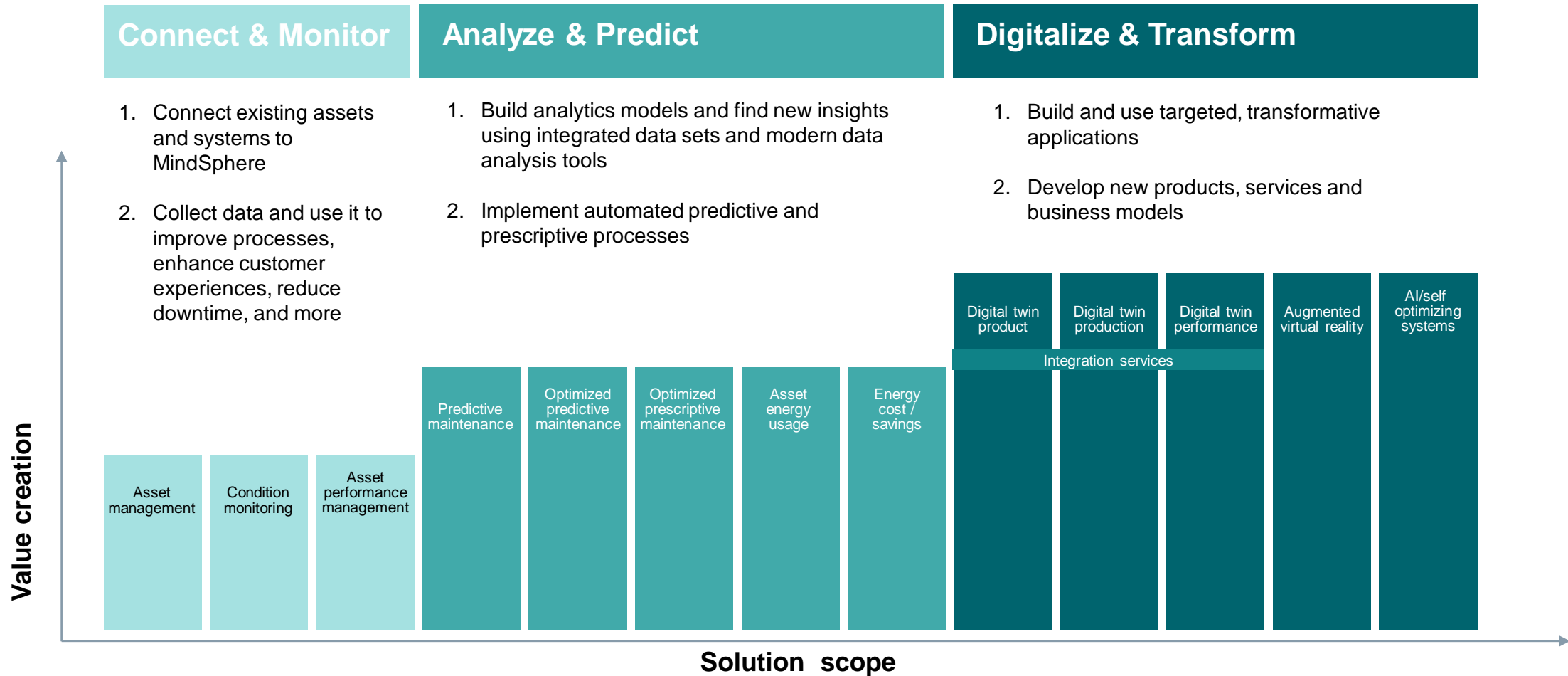
ensure **100%**
Quality of PCB's



Da dove partire?

A phased, planned approach with targeted outcomes

The digital value model



Mindsphere Mindapp per la macchina utensile

Analyze MyPerformance /OEE-Monitor

Transparency of the production status enables ...

... optimized planning of utilization and usage



... a wide range of standard evaluations



- Plant monitoring
- Availability and analysis
- Indicator for current production level
- Overall equipment efficiency (OEE indicators)

... longer machine operating times



... wide range of connectable controller types



... recording of machine operating times conditions



- Machine operating times and conditions
- Number of workpieces
- Differentiation in good and bad parts

... higher levels of availability and productivity

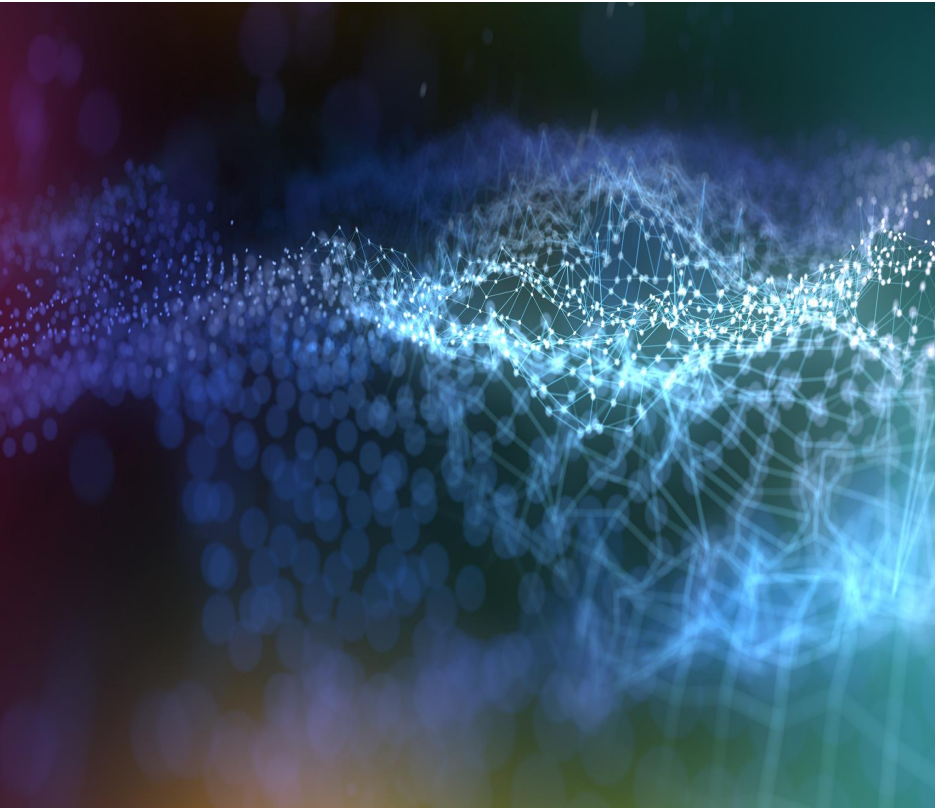


TAKE AWAY

- La creazione del valore a partire dal dato è un percorso aziendale che richiede un approccio strutturato
- Per realizzare il pieno potenziale dell'IloT è necessario far leva su tecnologie pronte e scalabili
- Mindsphere è il sistema operativo aperto per l'IloT sviluppato da Siemens per rispondere alle sfide tecnologiche del settore industriale
- Le applicazioni presenti su Mindpshere sono il punto di accesso al mondo IloT
- La piattaforma offre gli strumenti per realizzare la propria soluzione e massimizzare l'impatto delle nuove tecnologie IloT sulla propria azienda

Thank you for your attention

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