

SAP IoT Strategy

How to influence your processes and business models

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10.10.2018



„May the Force be with you!“

Yoda

The Change of Value Creation and Business Models

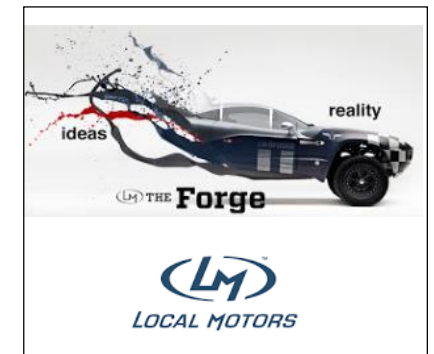
New Technologies

Connectivity

New Players

Individualization

New Value Creation



3D-Print, Blockchain, etc.

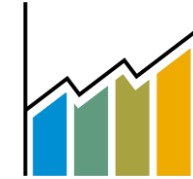
Connected Things –
Everything is connected

Logistics Provider opens
3D Printing Factory

Personalized Products

Local Motors* develops
vehicles in an Open-Source
Community

Digital Enterprise: How to survive disruption and thrive in the digital age



Digital business models

Rethink new business ventures

30% industry revenues from

Digital transformation initiative

Rethink core & support functions

90% companies significantly optimized operations past 2 years

Digital talents and skills

Rethink automation & working culture to attract, retain & develop talent and diversity

81% managers believe that machines will increase employee productivity

Digital metrics for success

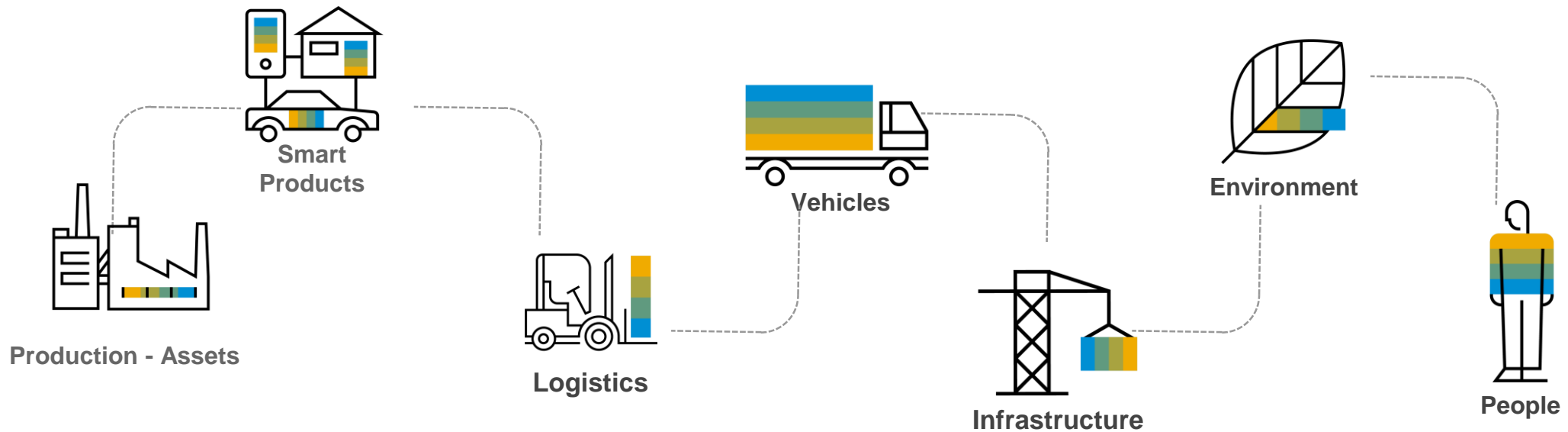
Rethink KPIs in the digital age, track metrics that matter and respond in real time

26% more profit is earned by companies that understand digital transformation

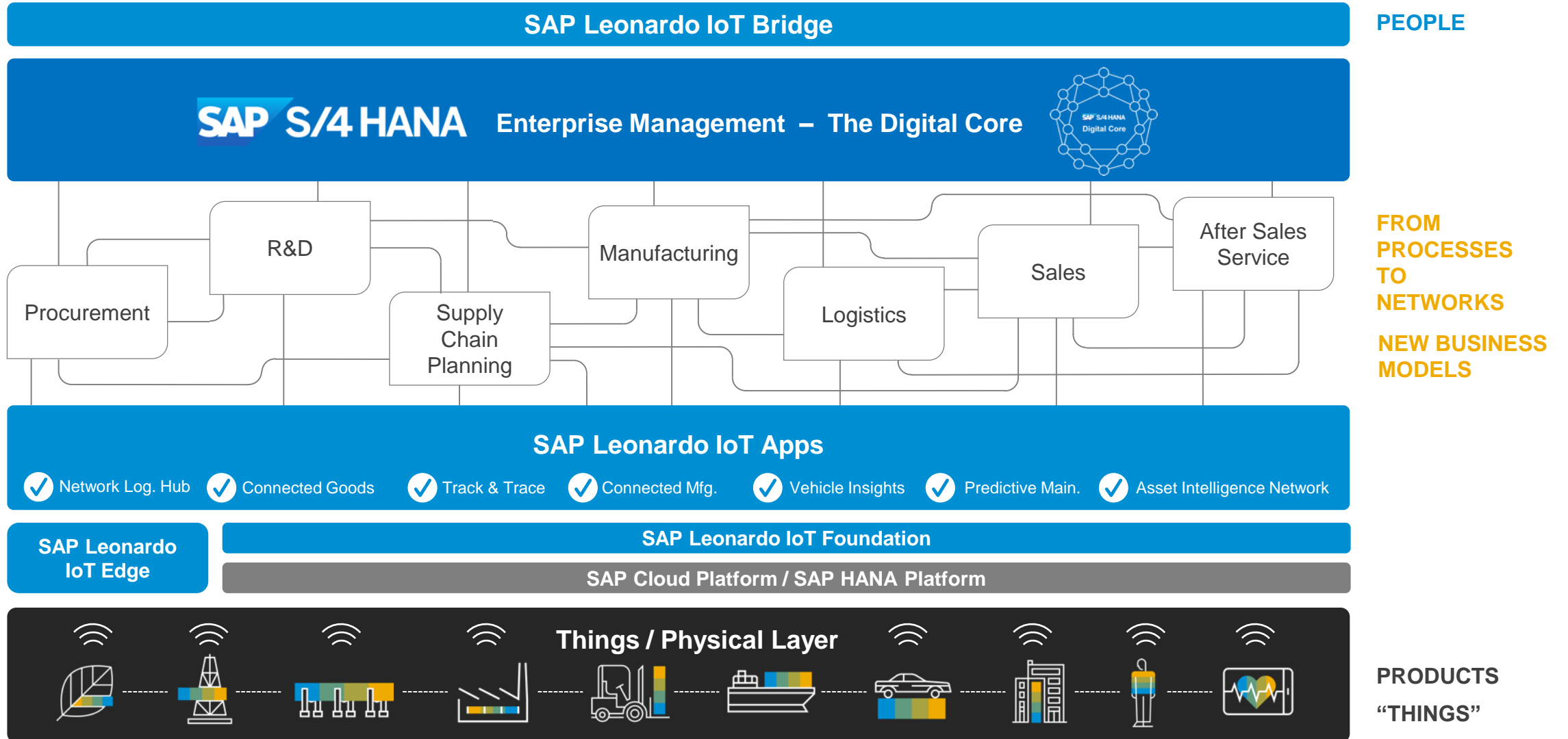
World Economic Forum - Digital Strategies: <http://reports.weforum.org/digital-transformation/>

Every “Thing” is Connected

- Chances for Processes and Business Models
- Data is available 24/7



SAP Leonardo Internet of Things & Digitizing Business: The Big Picture



KAESER
KOMPRESSOREN

Reimagining business models



Reimagining quality

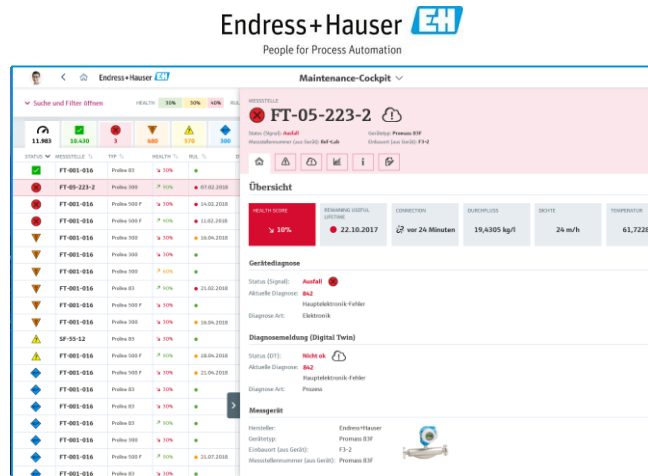
Digital Services

A large industrial facility, likely a refinery or chemical plant, is shown at night. The facility is illuminated with warm yellow lights, and several tall smokestacks are visible, emitting plumes of white smoke that rise into the dark sky. The facility is situated near a body of water, which reflects the lights and smoke. In the background, there are dark, silhouetted mountains under a twilight sky.

IoT Business Models

Digital Solutions

- Products and services
- Connectivity
- Data driven services
- Personalized, individual products



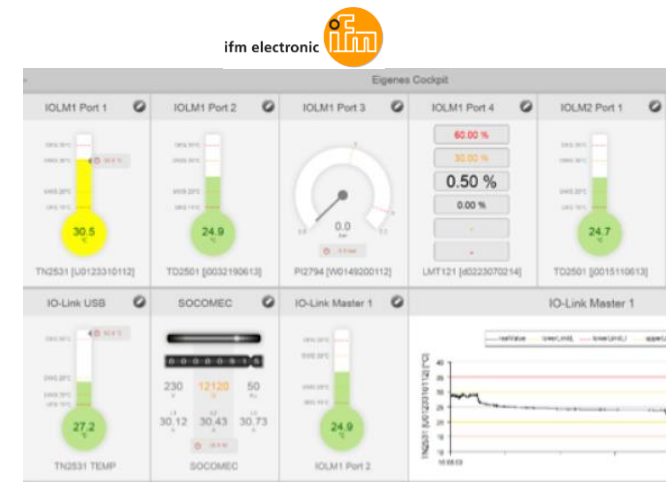
Value-Creation Networks

- Processes along the horizontal Value Chain
- Different partners of the horizontal chain and network operator, supplier, service-provider
- Networks for Logistics, Assets, Purchasing etc.



Platform Business Model

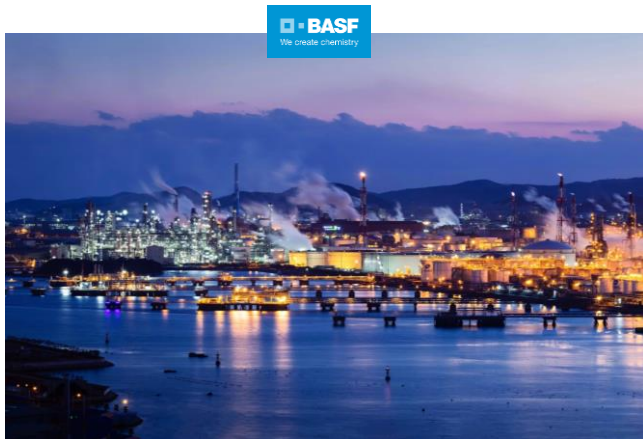
- Platform for apps
- Development for customers and partners
- Marketplace concepts
- Open or closed platforms
- Choice of the right platform



IoT Process Innovation

Asset Management/Operations

- Increase Plant Availability
- Move from Fixed to Dynamic Intervals
- Move from Reactive to proactive and predictive maintenance
- Avoid and reduce over maintenance
- Optimize Maintenance process together with the relevant manufacturers (asset collaboration)



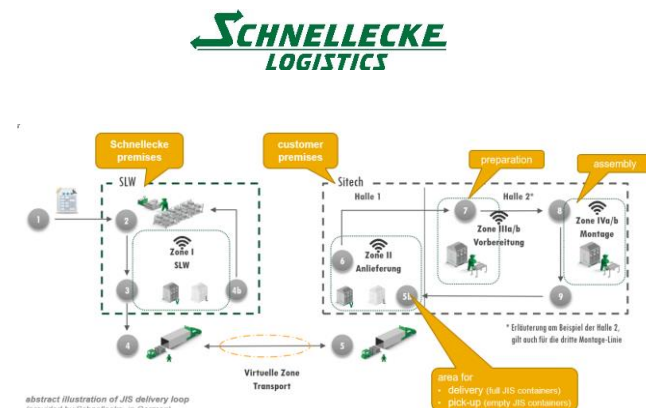
Digital Service

- Optimize Service Processes together with the operator
- Optimize value chain from configuration into service
- Spare Parts Processes
- Reduce Lead Time
- Service Contracts Management

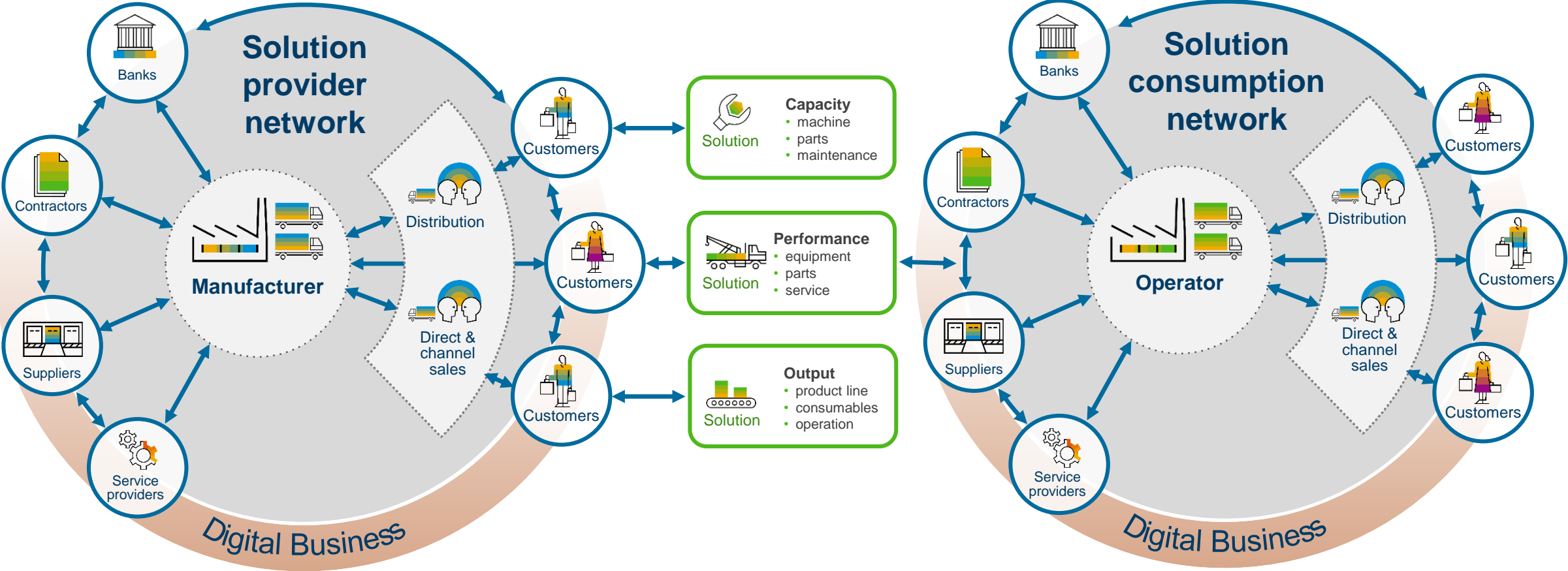


Logistics

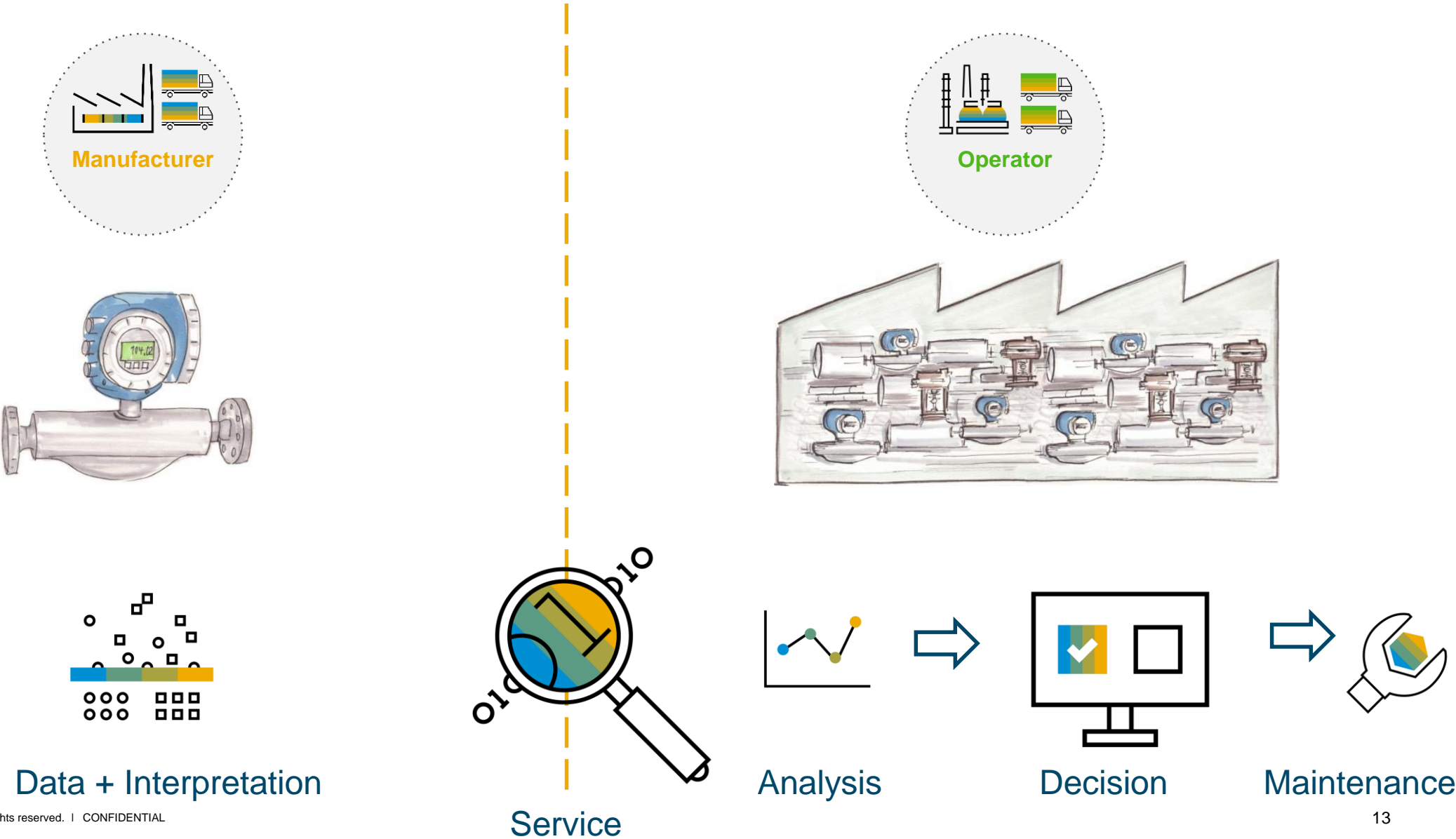
- Reduce Time to Delivery
- Increase Delivery Quality
- Optimize Logistics and Transport Processes
- Monitor Commercial Vehicles



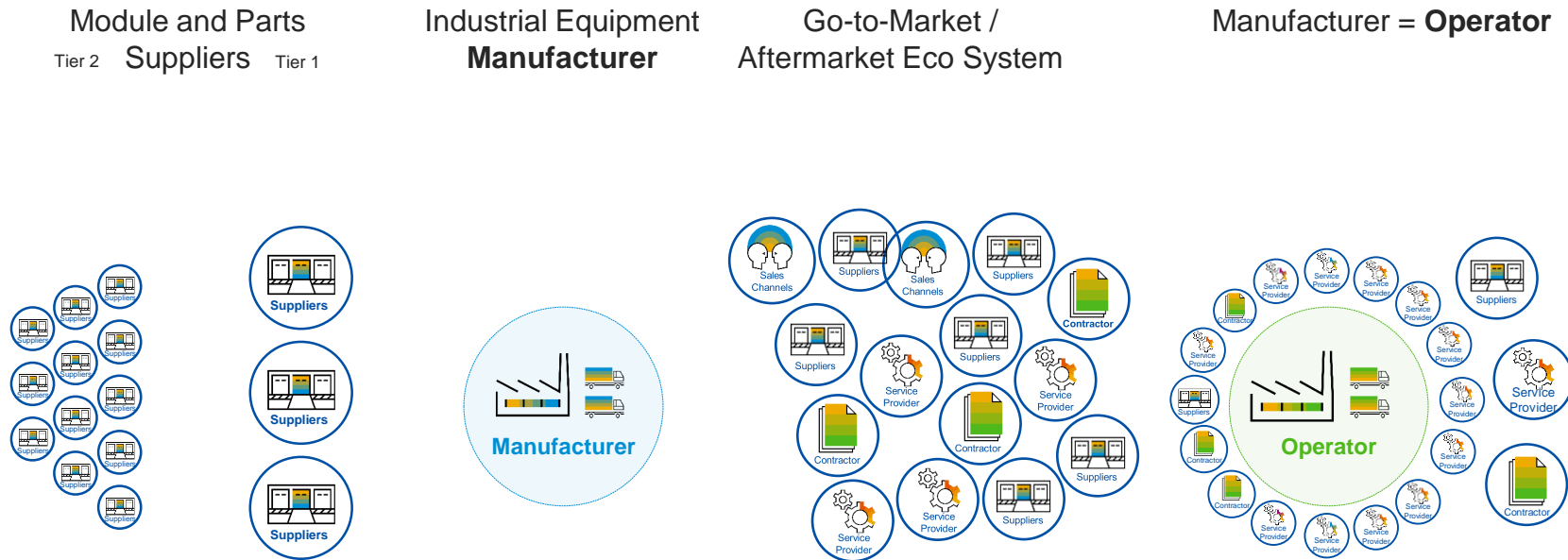
The Solution Provider Network – 1:1



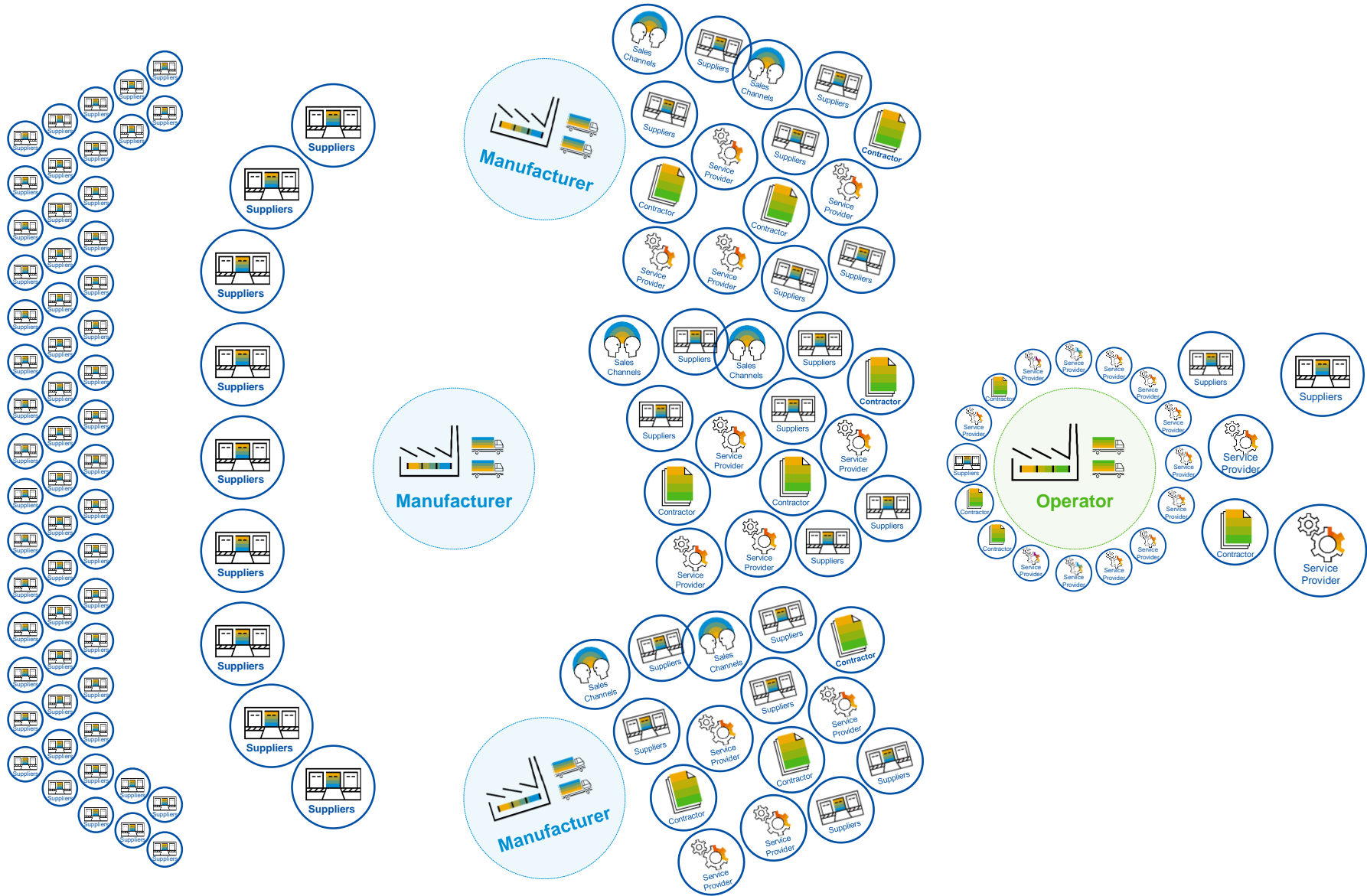
Manufacturer and Operator



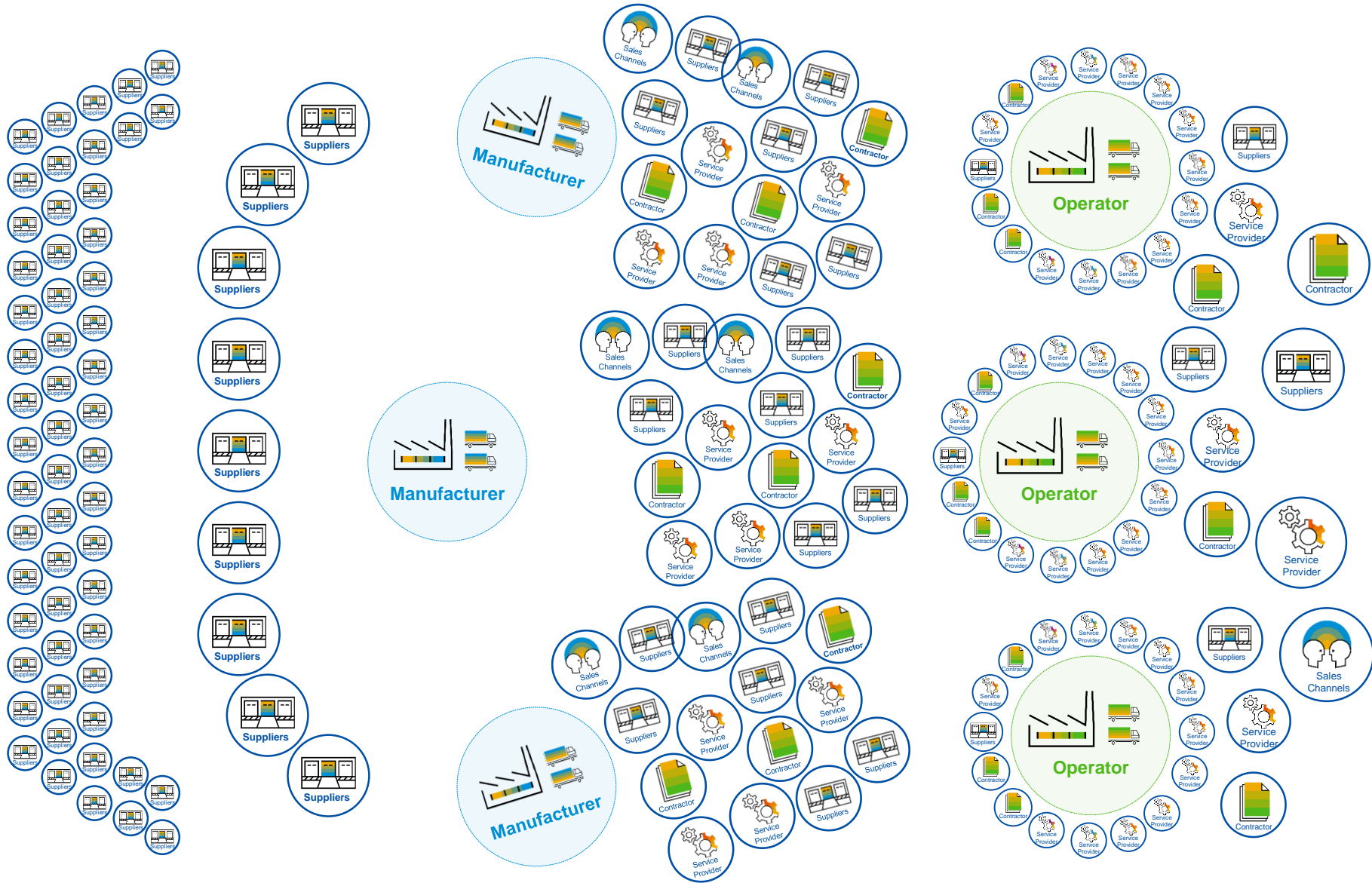
The Solution Provider Network in the Digital Age



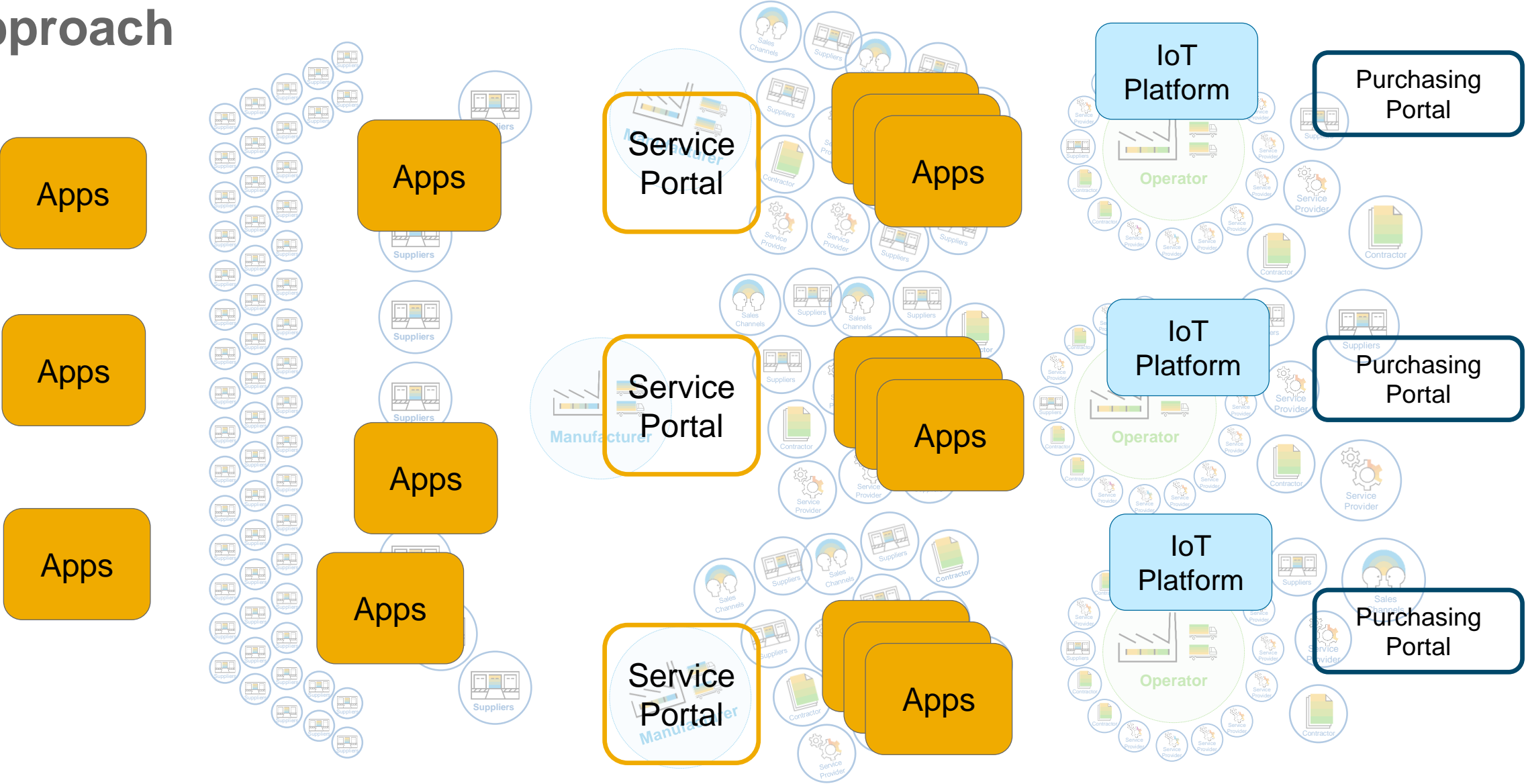
The Solution Provider Network in the Digital Age



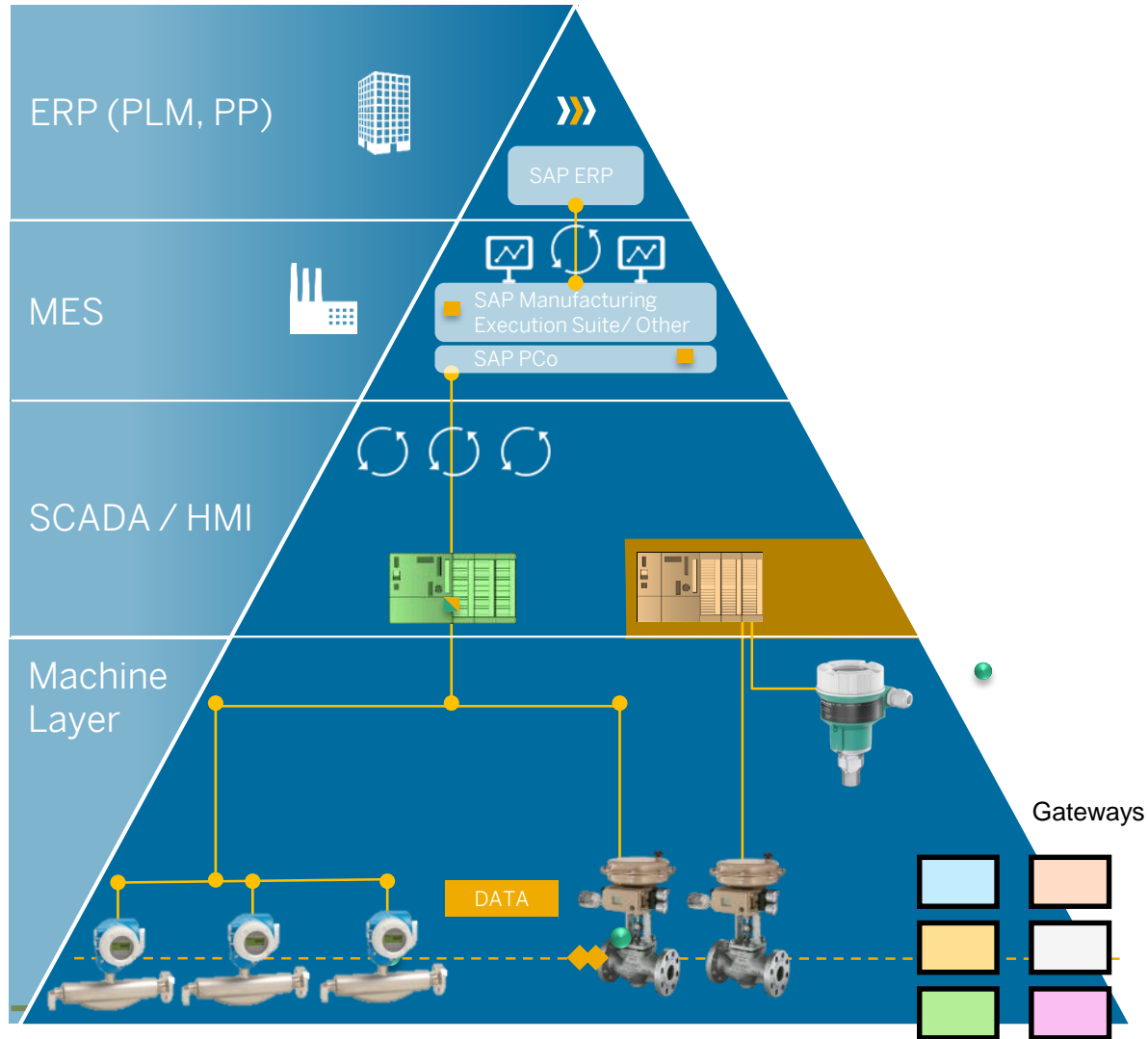
The Solution Provider Network in the Digital Age



The Solution Provider Network in the Digital Age without a joined approach

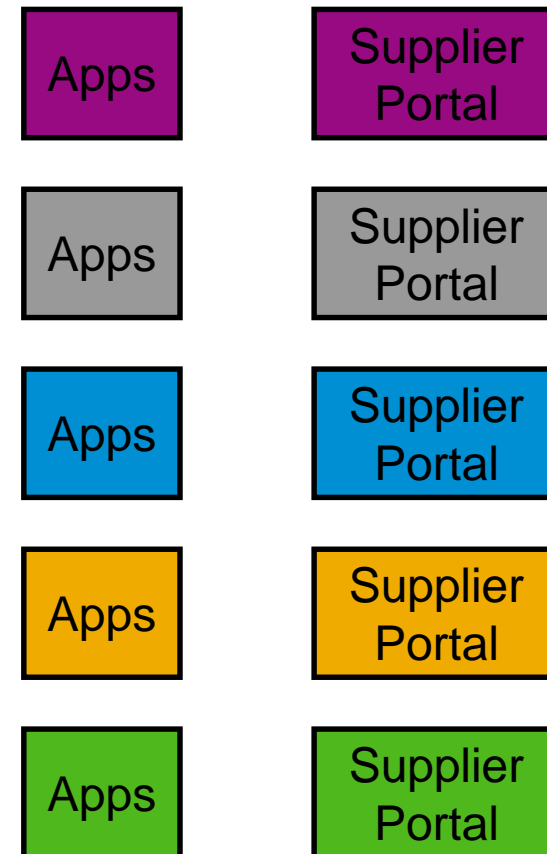


The challenge of the customers



Increase of overall plant visibility and availability?

Device specific applications – no overall IoT apps



Internet of Things Landscape 2018

APPLICATIONS (VERTICALS)

PERSONAL	HOME	VEHICLES	ENTERPRISE	INDUSTRIAL INTERNET
WEARABLES WATCH Gear37 Mi Fitness info360 LG CAEDEN MOTIV WEARABLE X JAWABOX RINGLY	WEARABLES NEOS HONEYBEE SAMSUNG CHANGELIAN SAMSUNG EADO BODILIFE SAMSUNG HOSHI LIFE FINEST FLYTO ARROWAY APOLO CLAYTON LEVIT GARDY SENSIT	VEHICLES PURYX EPT DSI AFRICA VANDER BREVARD SKYSEARCH ZIPLINE ARMAR QUMI WIRELESS FIRETV ARMAR QUMI WIRELESS FIRETV ARMAR QUMI WIRELESS FIRETV	ENTERPRISE STANLEY verity Medtronic profibus SR A.A. HARTMAN VisualCloud ARMAR QUMI WIRELESS FIRETV ARMAR QUMI WIRELESS FIRETV	INDUSTRIAL INTERNET SAPPHIRE ENTERPRISE SIEMENS BOSCH ARMAR QUMI WIRELESS FIRETV ARMAR QUMI WIRELESS FIRETV

PLATFORMS (HORIZONTALS)

SOFTWARE	SECURITY	CONNECTIVITY	ANALYTICS	DEVELOPER	PAYMENTS & MONEY	INTERFACES	3D
DATA STACK RELAYR LEONARDO GLASSBLADE AIRZEN TOLLY TOLLBOX	SECURITY SYNOPSIS QIMTEC THALES SOLARIS ROCANA DRAGAGE PORTNET HJI DATA BASTILLE CyberX IONIC SECURIX COMPTON SENSAR DWAP VES	CONNECTIVITY ALLEN SIGFOX JENSEN SEANIC ARIA UGENIE SENEL VENETA VENTRA SENSORS MEMO MAMA REACTOR WIRELESS SINATI WIRELESS SINATI WIRELESS	ANALYTICS Cylot splunk sumologic QoSEngine QoSEngine QoSEngine	DEVELOPER PARTICULAR ARTIC TESSLA NEUSA SOLARIS ROCANA SINATI WIRELESS SINATI WIRELESS	PAYMENTS & MONEY PAYCOM VISA SQUARE shopify PAYCOM VISA PAYCOM VISA	INTERFACES DIGITAL REALITY LEAP VIVE ARVIZO ARVIZO ARVIZO	3D RENDERING / CADD SOLIDWORKS Carbon DMM SOLIDWORKS Carbon DMM SOLIDWORKS Carbon DMM

BUILDING BLOCKS

HARDWARE	INFRASTRUCTURE	CONNECTIVITY	PARTNERS	
HARDWARE INTEL Qualcomm TOSHIBA INTEL Qualcomm TOSHIBA INTEL Qualcomm TOSHIBA	INFRASTRUCTURE Google Cloud Platform Amazon Microsoft Azure ARTIK Cloud Platform EDGE COMPUTING ARMAR QUMI WIRELESS EDGE COMPUTING ARMAR QUMI WIRELESS	CONNECTIVITY WiFi Bluetooth Sigbee LoRa NB-IoT 4MOTT HARTY HARTY HARTY	RETAIL Verizon AT&T Verizon AT&T Verizon AT&T	RETAIL amazon Walmart amazon Walmart amazon Walmart

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A new Approach is needed



How to make data available in the field devices with little effort?



Out-of the box connectivity

How to increase the availability of the plant?



Asset Collaboration

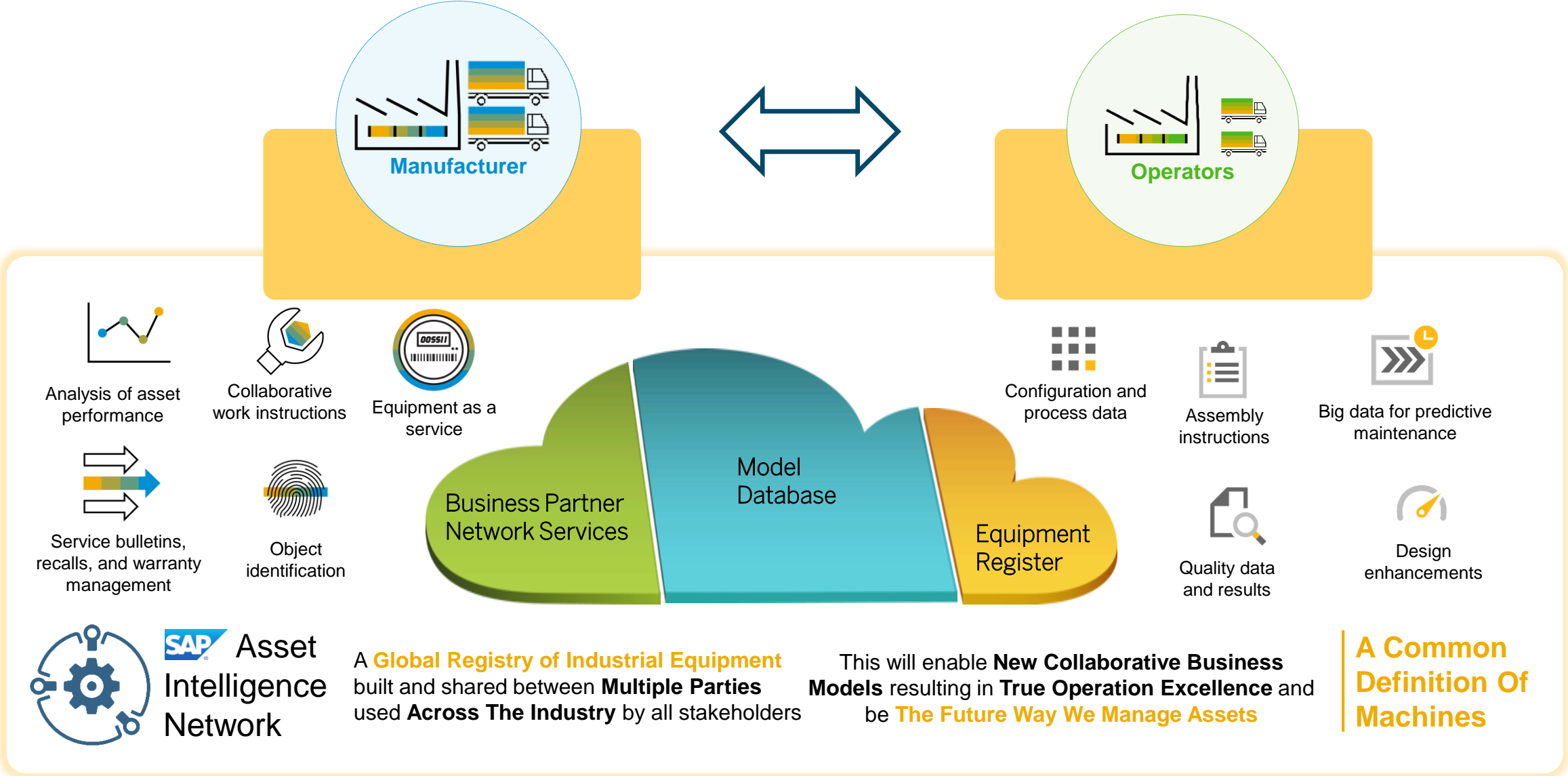
How to offer Digital Services to increase availability?



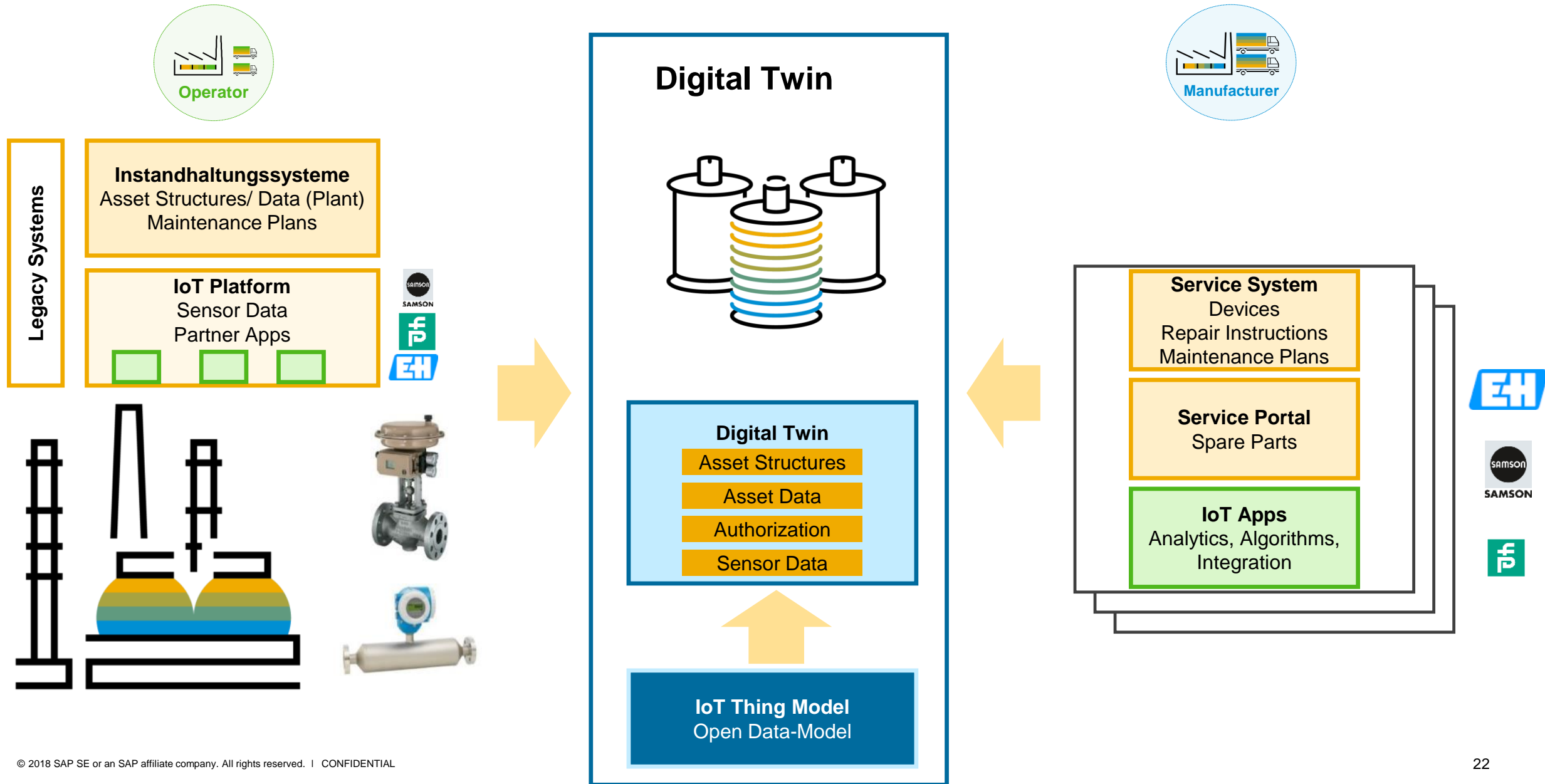
Apps with joined Digital Twin



Accelerate Asset Collaboration: a new type of Asset Management

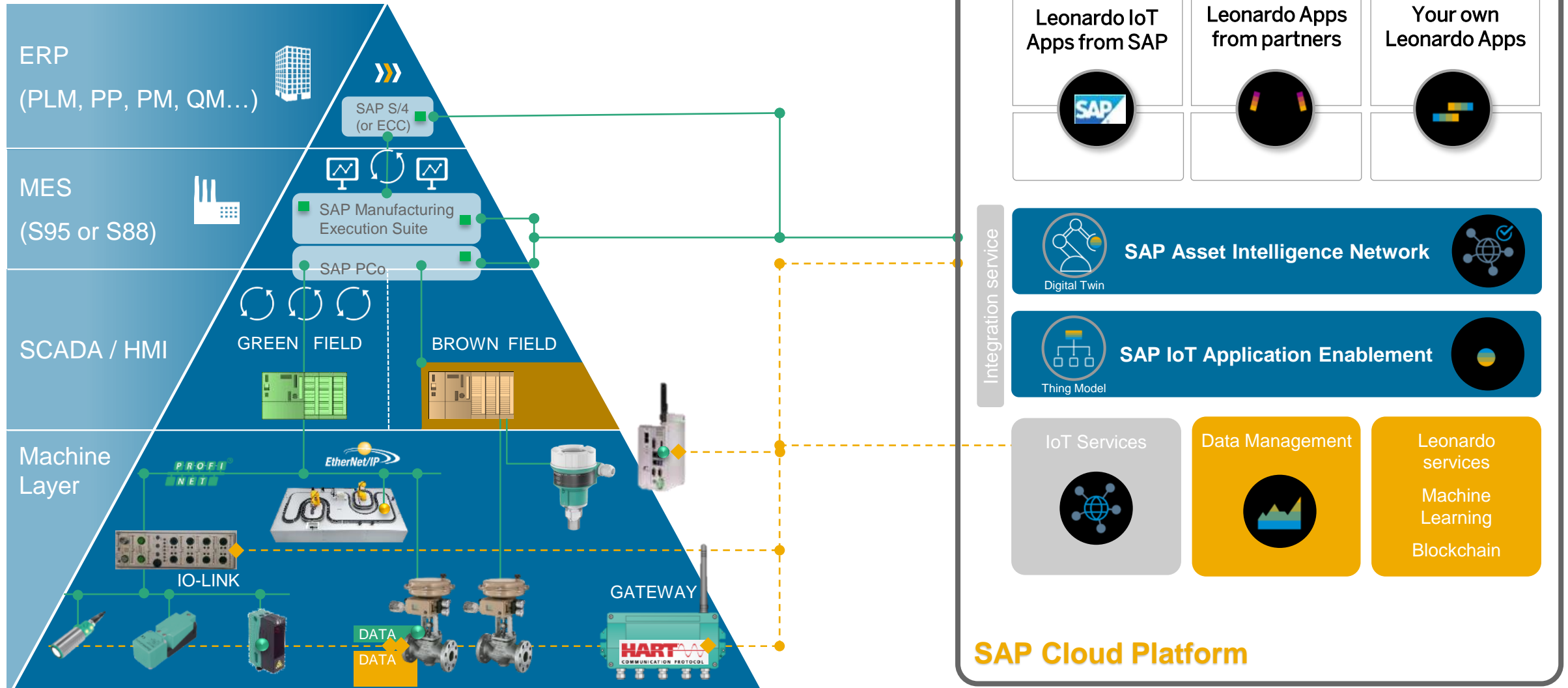


Digital Twin as Combination between Manufacturer and Operator

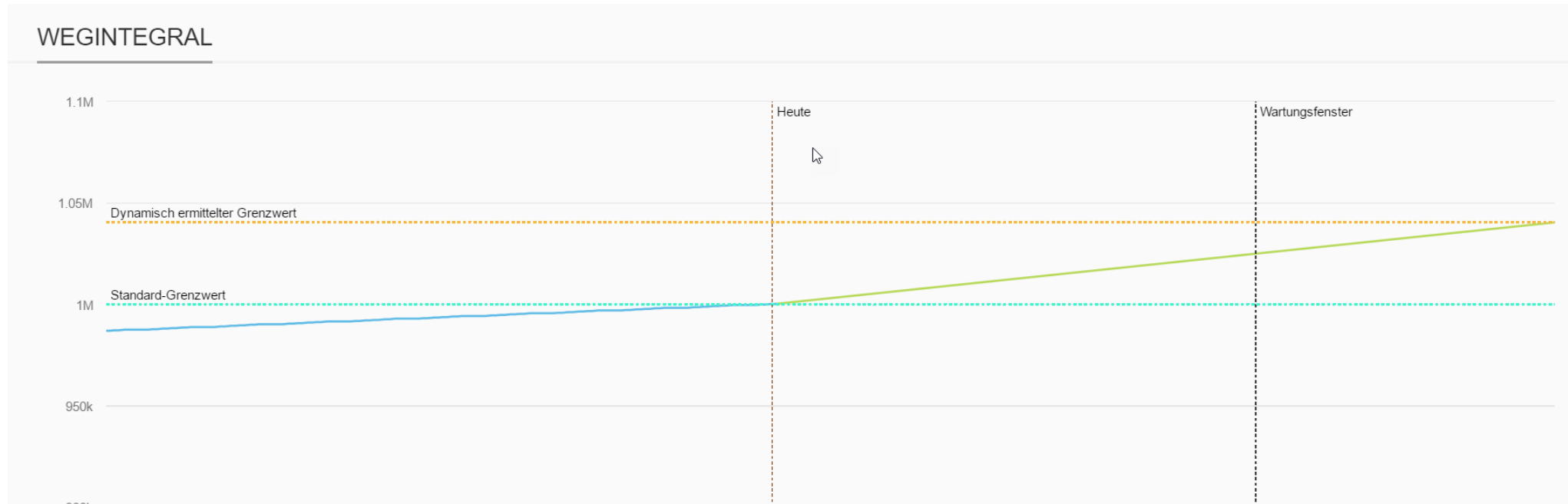


Architecture Model with IoT Cloud Platform

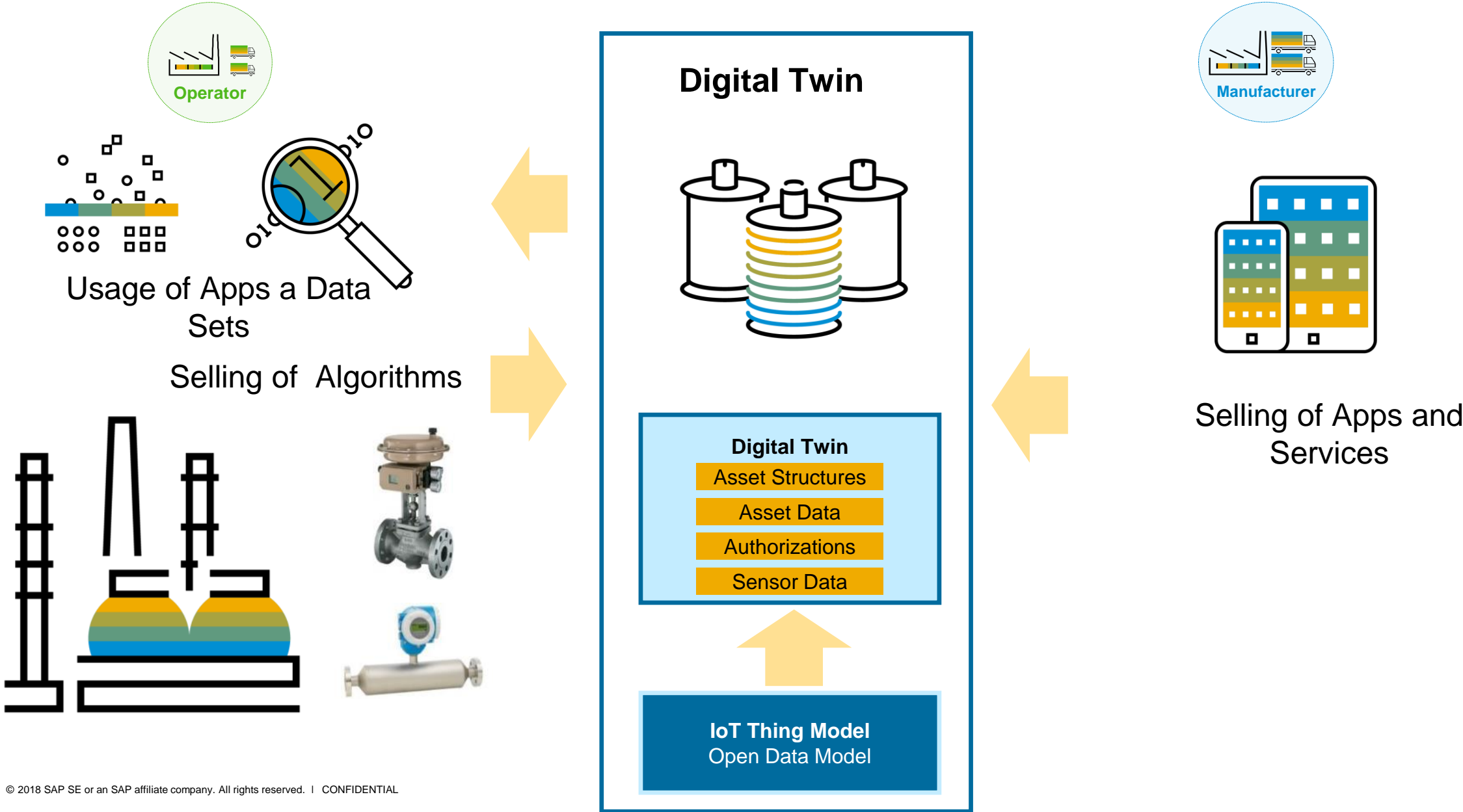
Automation Pyramid in conjunction with IoT Cloud approach



Example of App



Digital Twin as Basis for Business Models





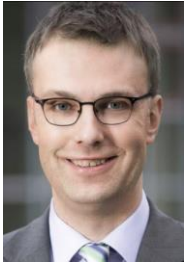




**„Size matters not. Look at me.
Judge me by my size, do you?“**

Yoda

Thank you.



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