

Track 1 | Session 2

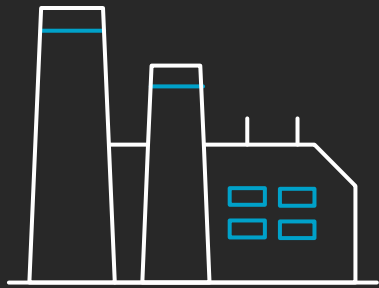
如何藉由雲端優勢推動製造及運籌數位轉型

Attila Lin

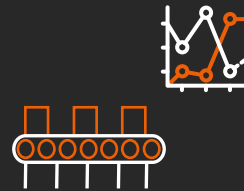
Lead of Enterprise BD

Amazon Web Services

Smart Factory Use Cases



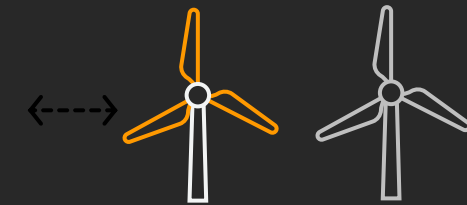
Production/Process optimization



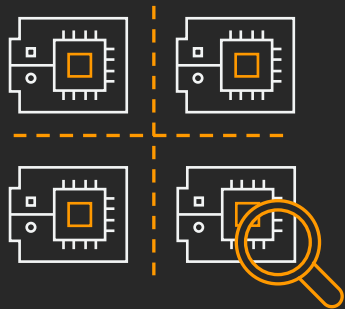
Preventive/predictive maintenance for machines



Machine as a service



Digital Twin



Computer vision for quality control



Automated material management



Track & Trace



OEE visualization

AWS in Manufacturing

VOLKSWAGEN
GROUP

SKF®

GP Georgia-Pacific

AIRBUS

MANN
+ HUMMEL

SIEMENS

QMI

WÄRTSILÄ

SUMITOMO CHEMICAL

SANY

H G
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rotimatic

KRONES

KOCH

JABIL

Valmet

BECKHOFF

FOG HORN

ThermoFisher
SCIENTIFIC

GE

pitney bowes

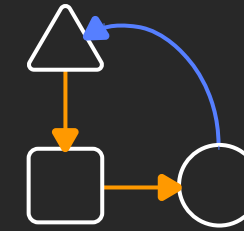
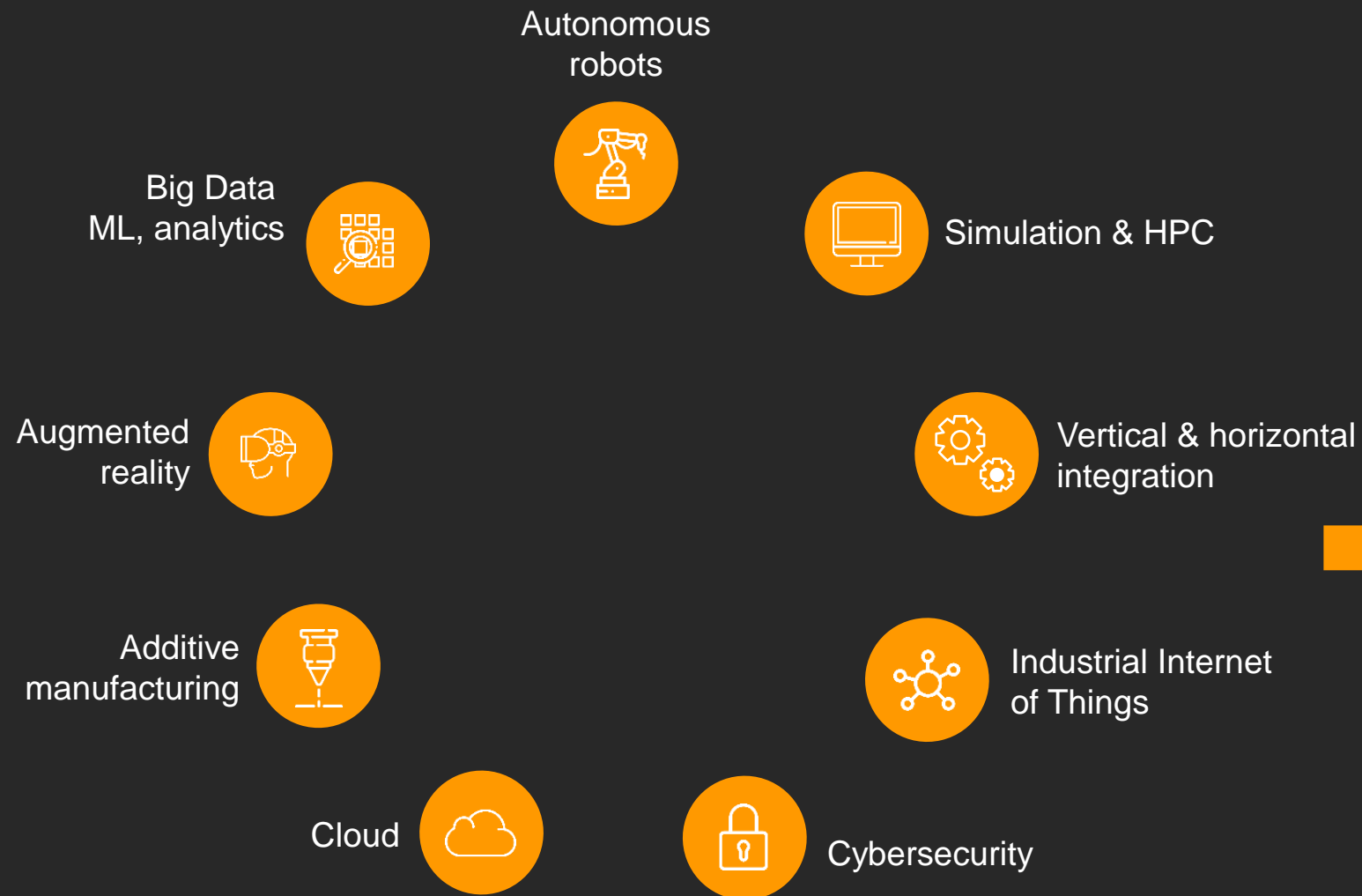
infor

TULIP

ITT

Gräbert

Cloud drives Industry 4.0 initiatives



Innovation and Automation



Provide tight integration between OT & IT

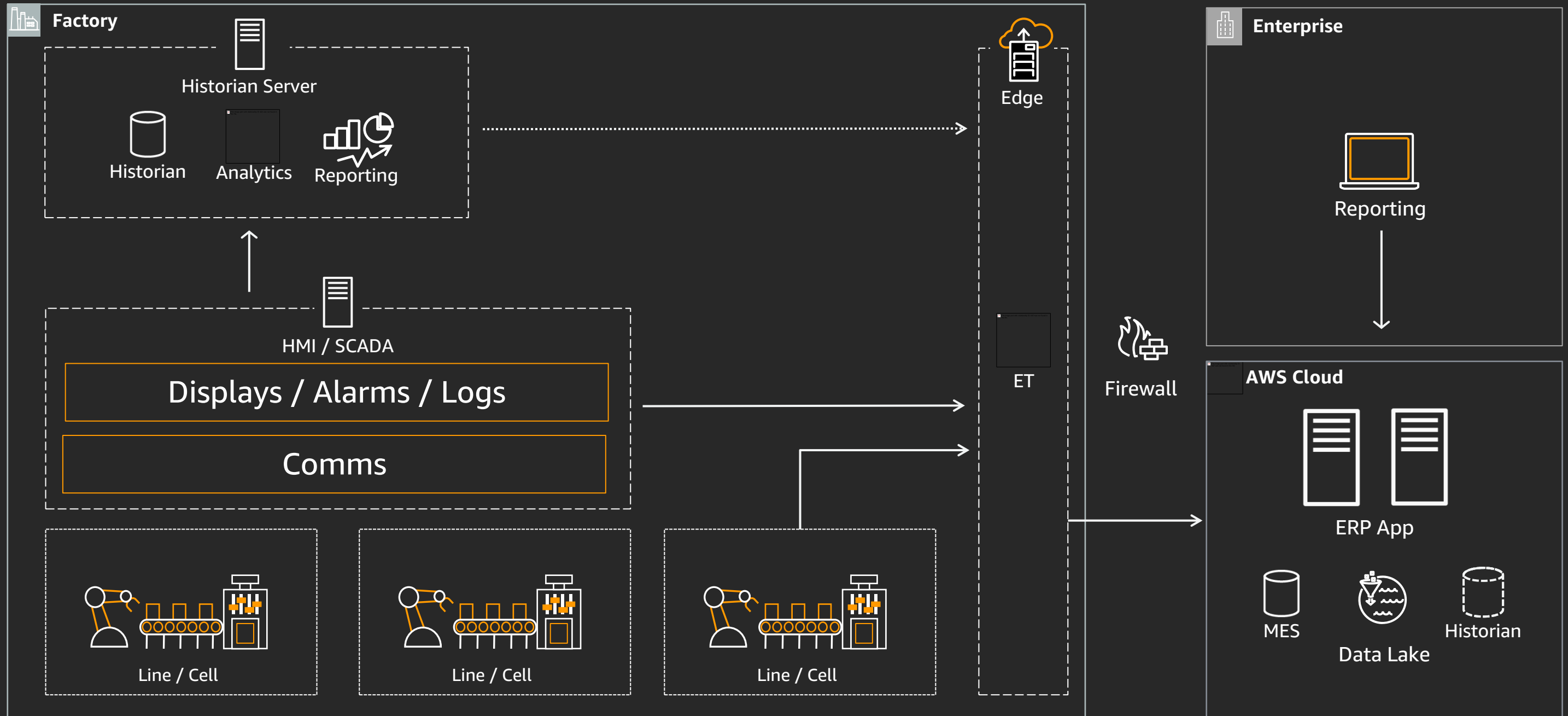


Utilize the scalability, reliability and portfolio of the Cloud

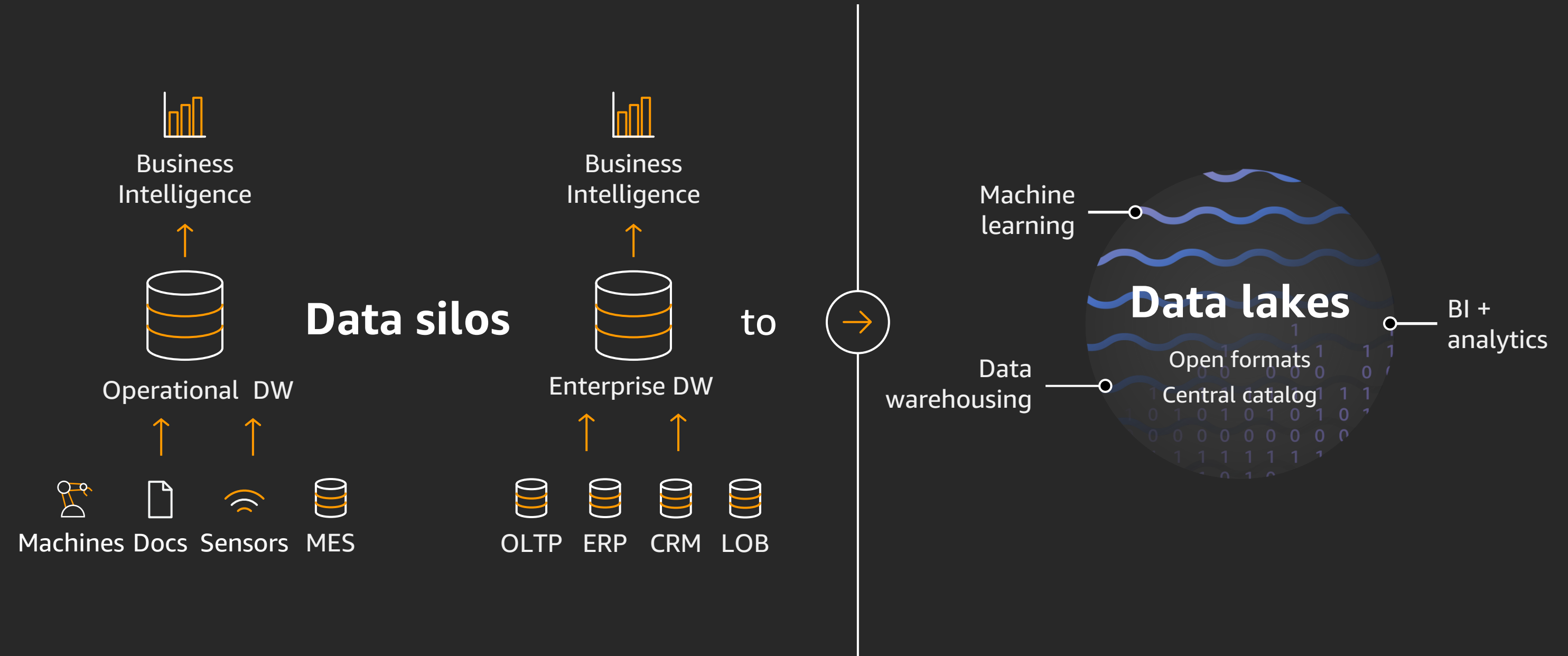


Leverage skills and resources

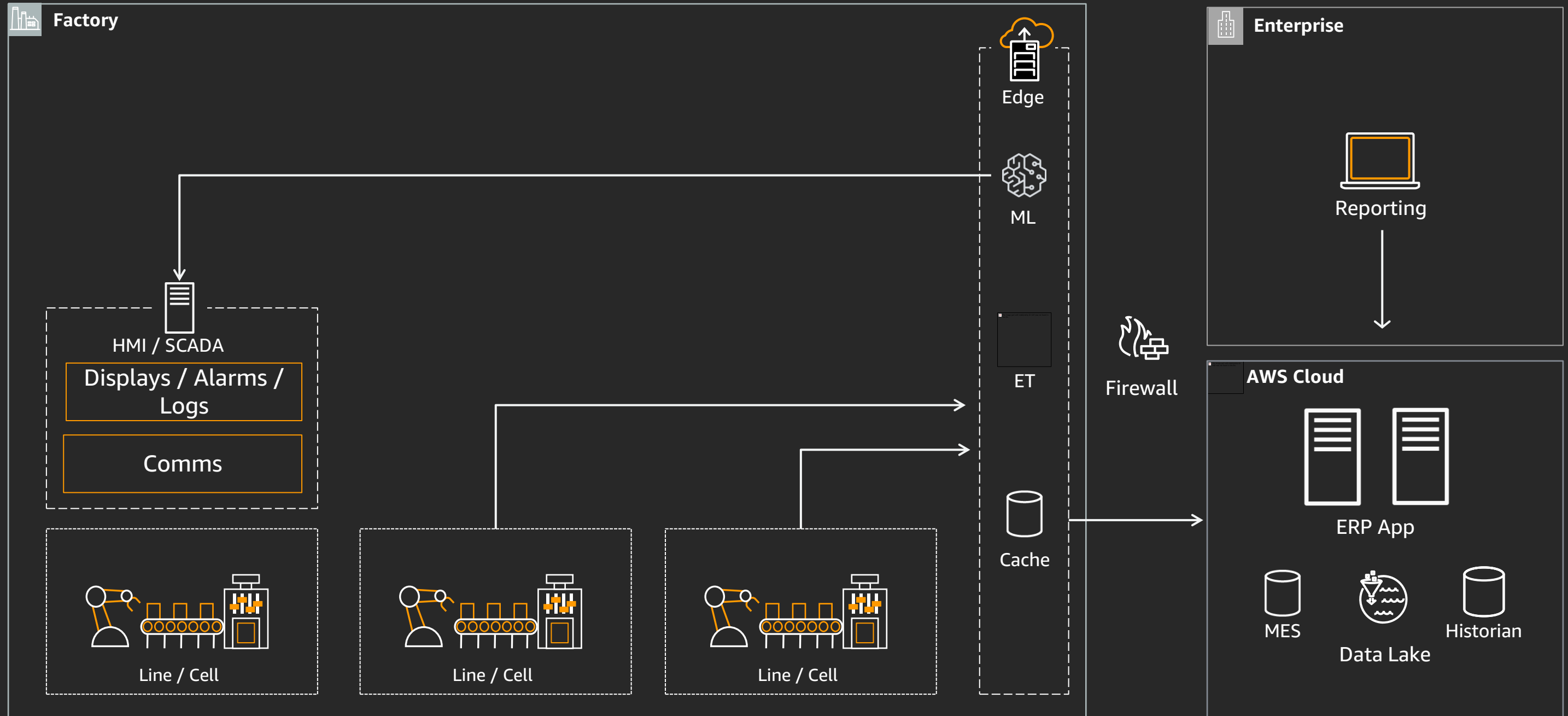
Hybrid Manufacturing



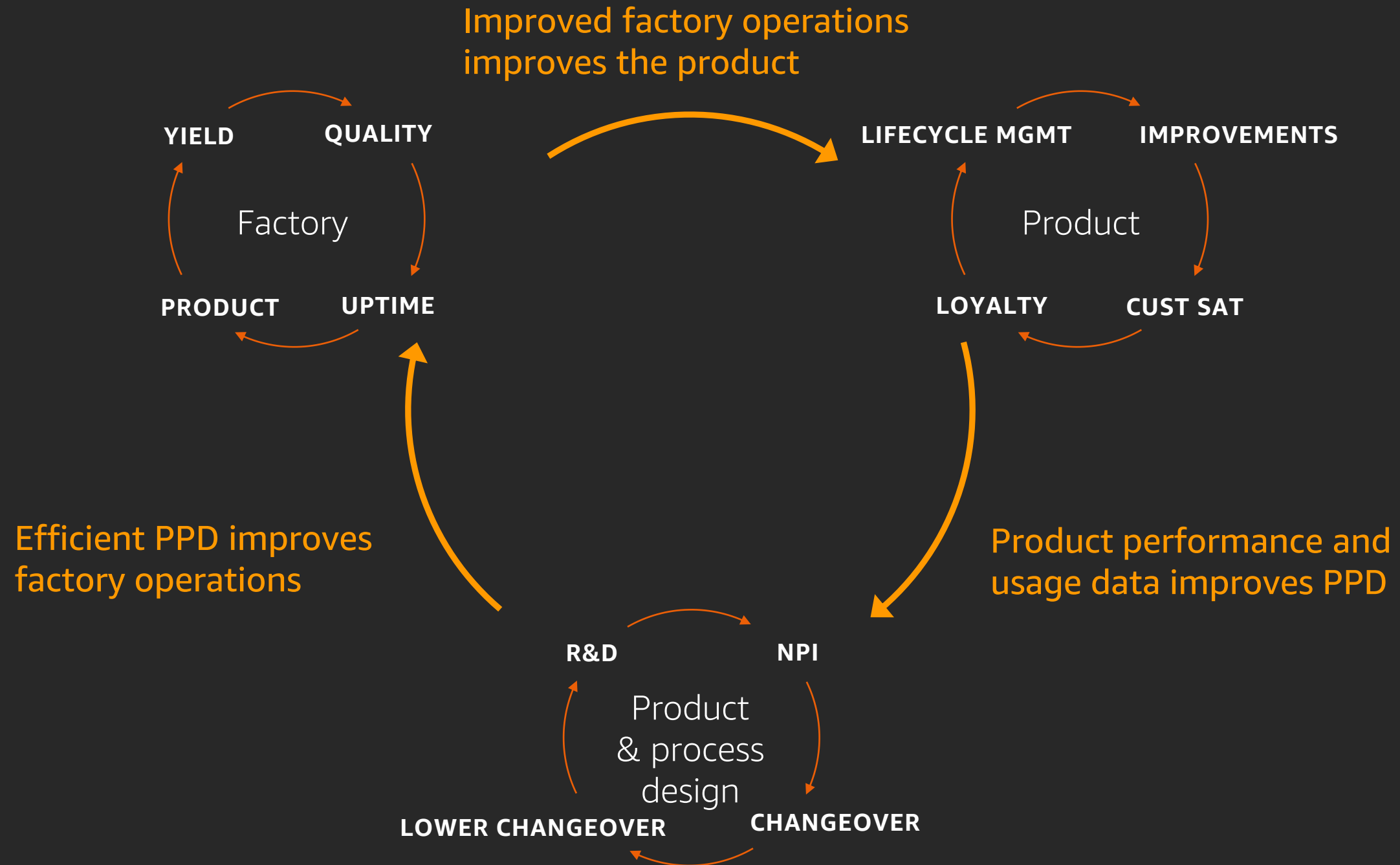
Insights through a Data Lake



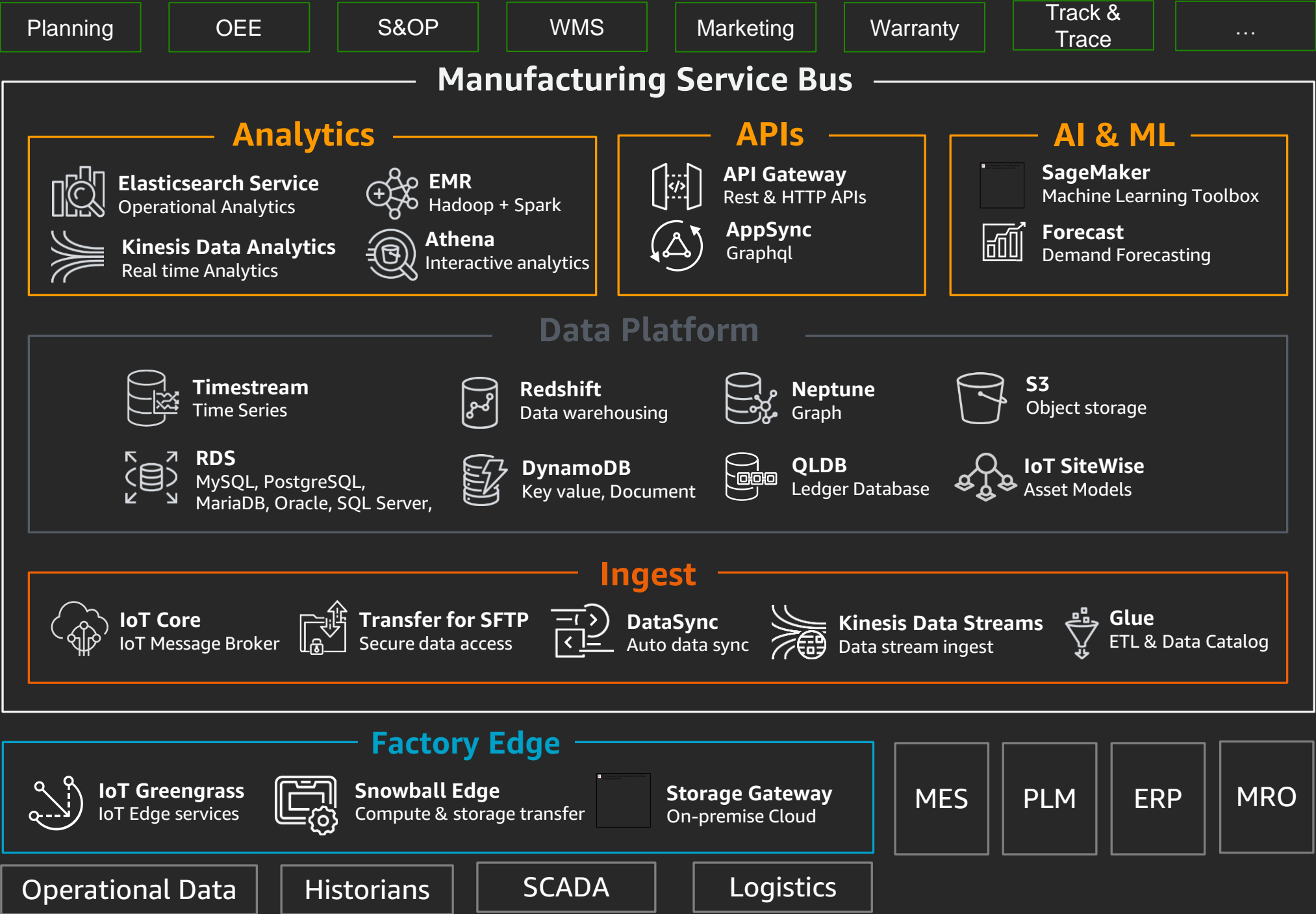
Cloud Native Manufacturing



Manufacturing Data Flywheel



Manufacturing Service Bus



Case study: Preventative Maintenance



Challenge

- Move beyond selling only products to a “Rotating Equipment Performance” model
- Ensuring automatic lubrication of bearings to maximize performance
- Gather data from customers to improve product design
- Add new placement part revenue

Solution

Connected System 24 single point lubricator feeding Data Lake with Amazon S3 to ingest and analyze data; AWS ML to analyze products in the field; AWS Database to manage large amounts of complex vibration and equipment data; AWS IoT and Lambda to speed time to market and lower costs

Benefits

- Revenue expansion beyond ship-and-forget to a services enhanced model
- Grow sales even if raw product shipment numbers do not increase
- Innovate faster with lower costs
- Focus on value for customers instead of managing IT resources

“I see a lot of speed of innovation coming from AWS, and we are confident that this the platform we are going forward with.”

Johan Tommervik, CIO

Industry: Manufacturing

Headquarters: Sweden

Employees: 46,000

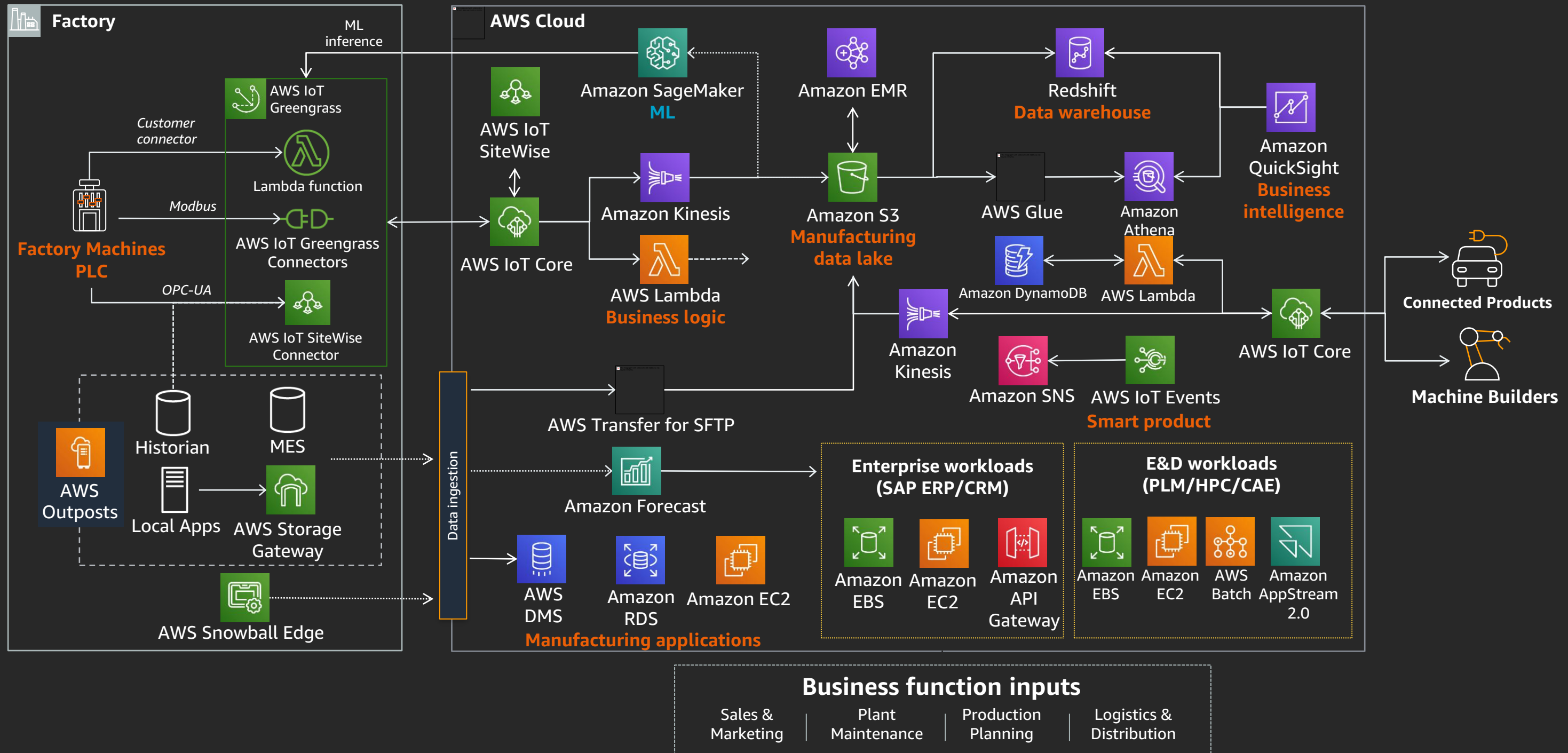
Website: www.skf.com

About SKF

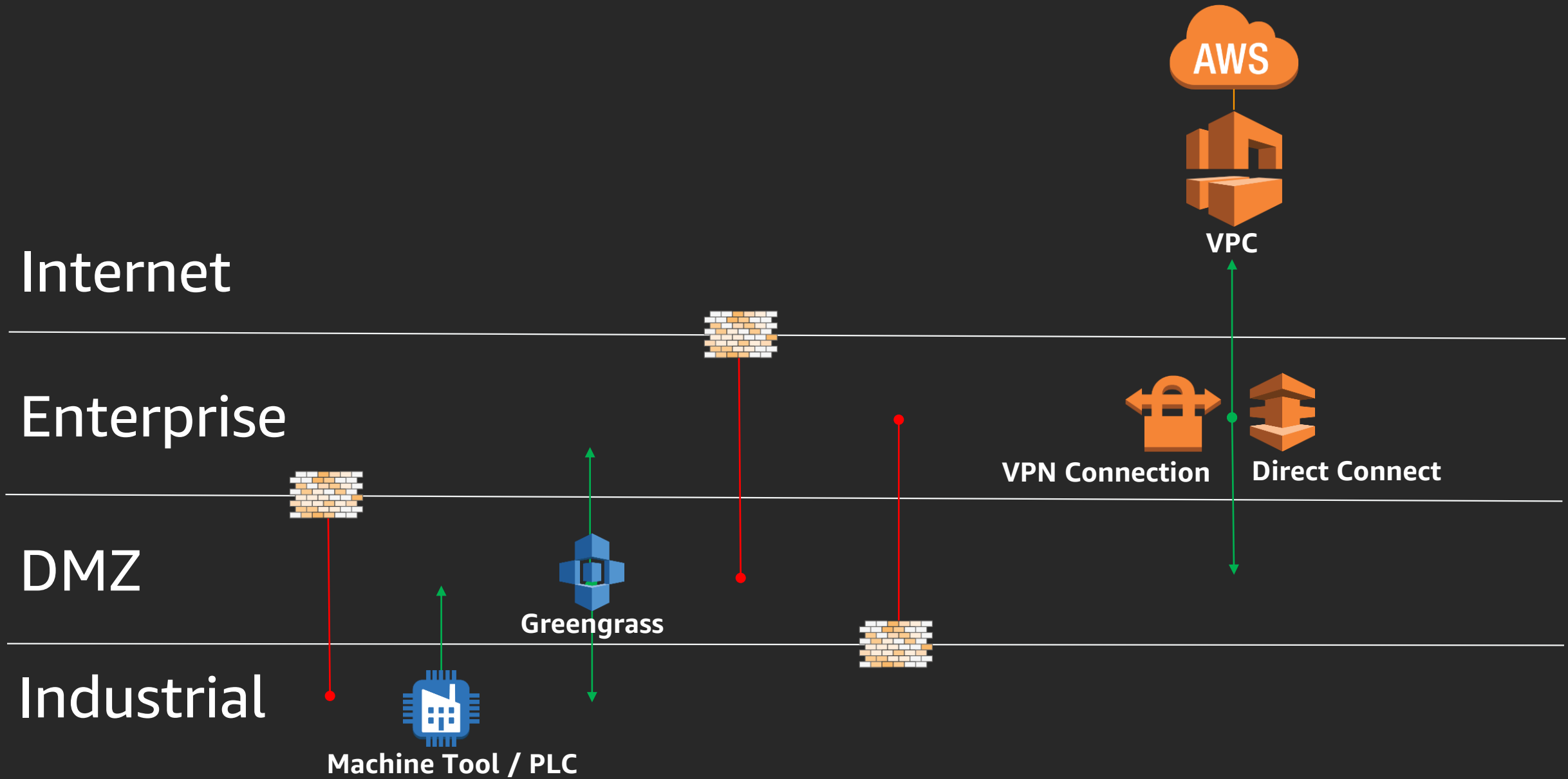
Founded in 1907, SKF is the world’s largest bearing manufacturer. The company also manufactures seals, lubrication and smart lubrication systems, maintenance products, mechatronics products, power transmission products and condition monitoring systems.

SKF has a large distributor network with 17K distributor locations spanning 130 countries.

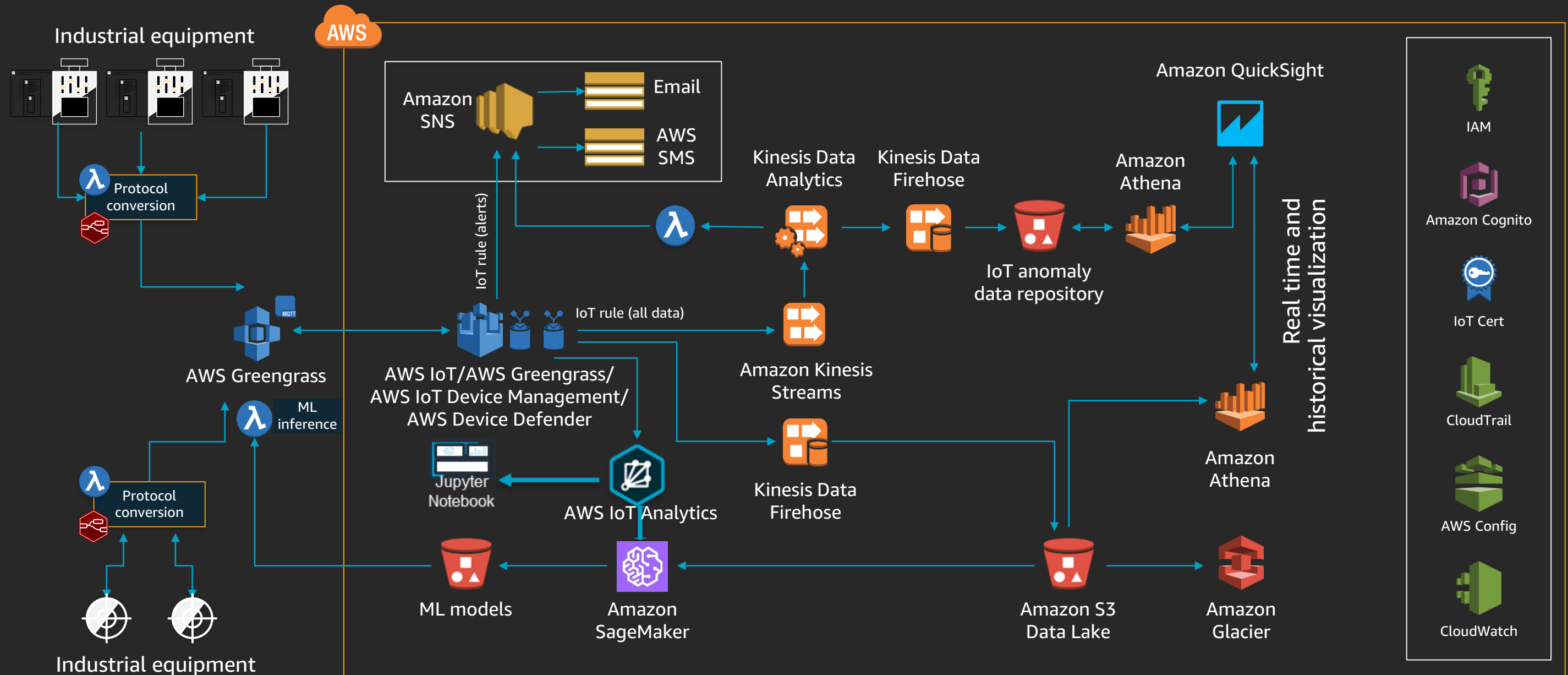
AWS manufacturing reference architecture



Shop Floor to AWS Cloud Connectivity



AWS industrial IoT reference architecture



Thank you!

Attila Lin
Lead of Enterprise BD
Amazon Web Services