



Data and System Architecture and Its High Impact on Smart Manufacturing

14th Annual European Manufacturing Strategies Summit, Berlin

11/27/2018 - Josef Kriegmair

Agenda

**Introduction by
Chairperson**

1

**MTU Aero
Engines AG**

2

**Data and System
Architecture**

3

Q & A

4

2

MTU Aero Engines AG

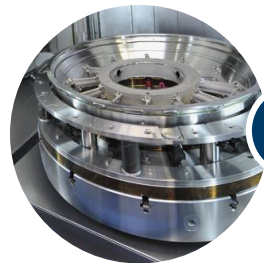
MTU Competency



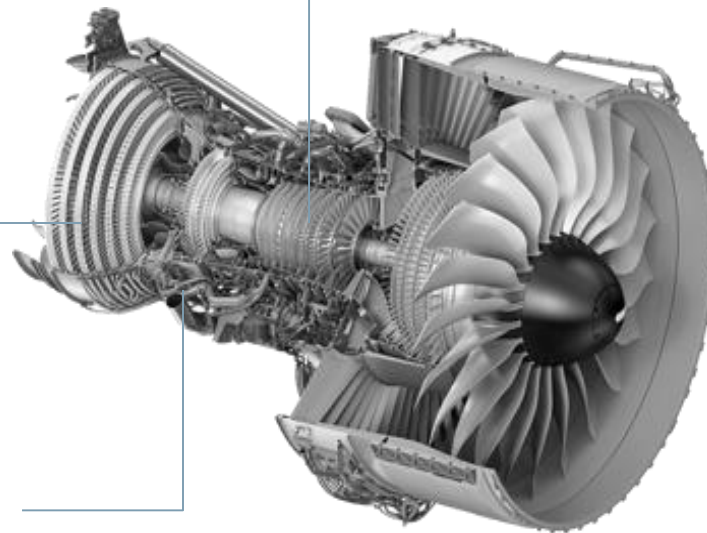
1 Low-pressure compressor (HPC)



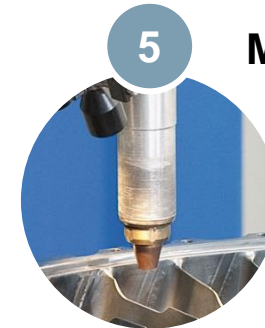
2 Low-pressure turbine (LPT)



3 Turbine center frame (TCF)



4 Manufacturing



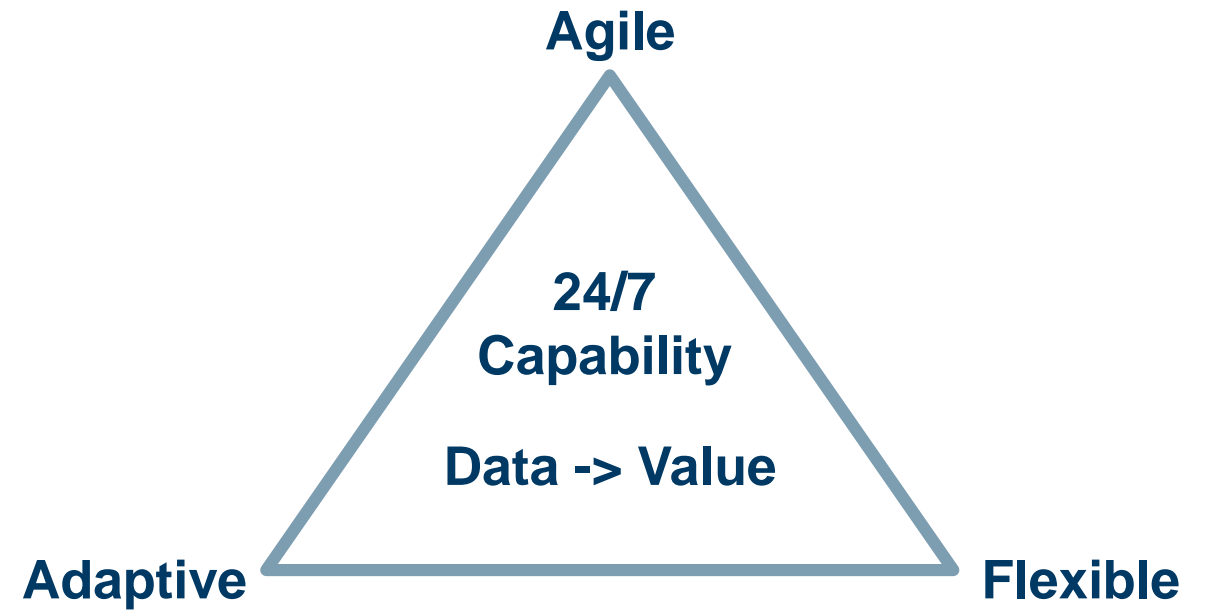
5 Maintenance

3

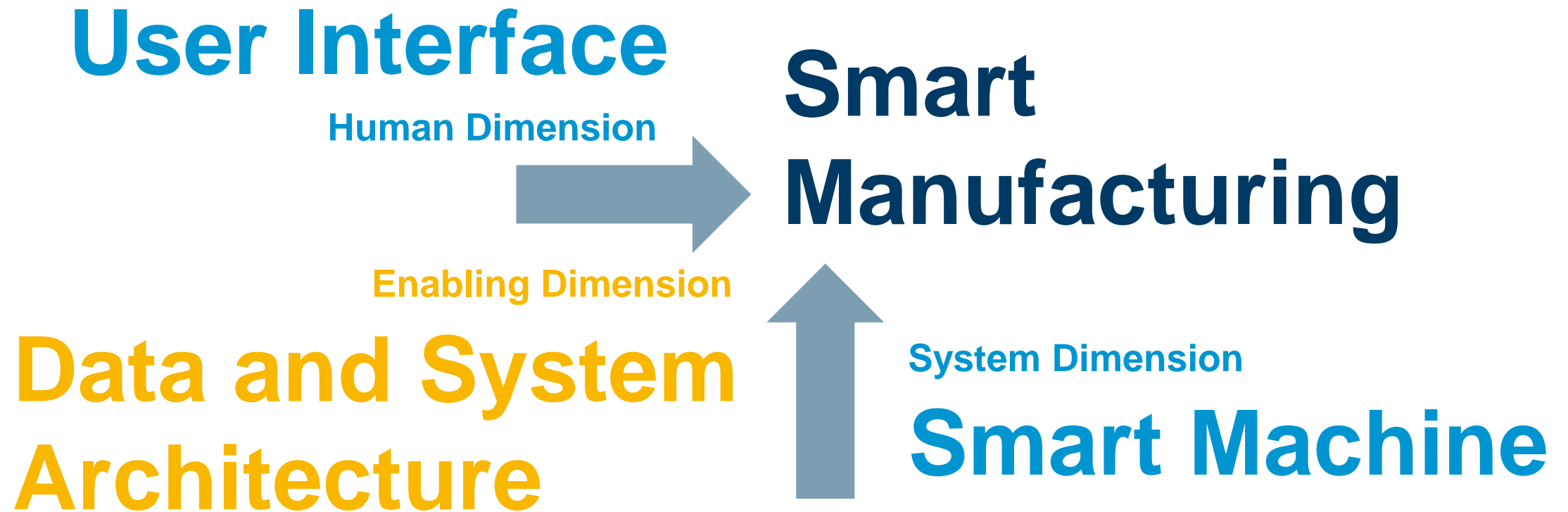
Data and System Architecture



Smart Manufacturing of Jet Engines Parts



Enabling Smart Manufacturing

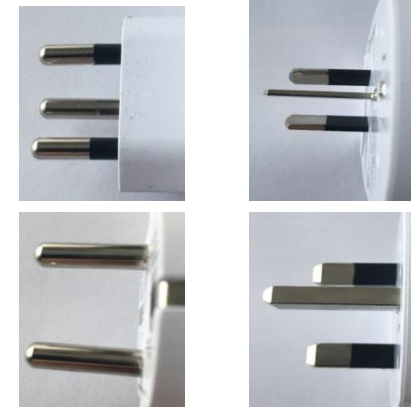
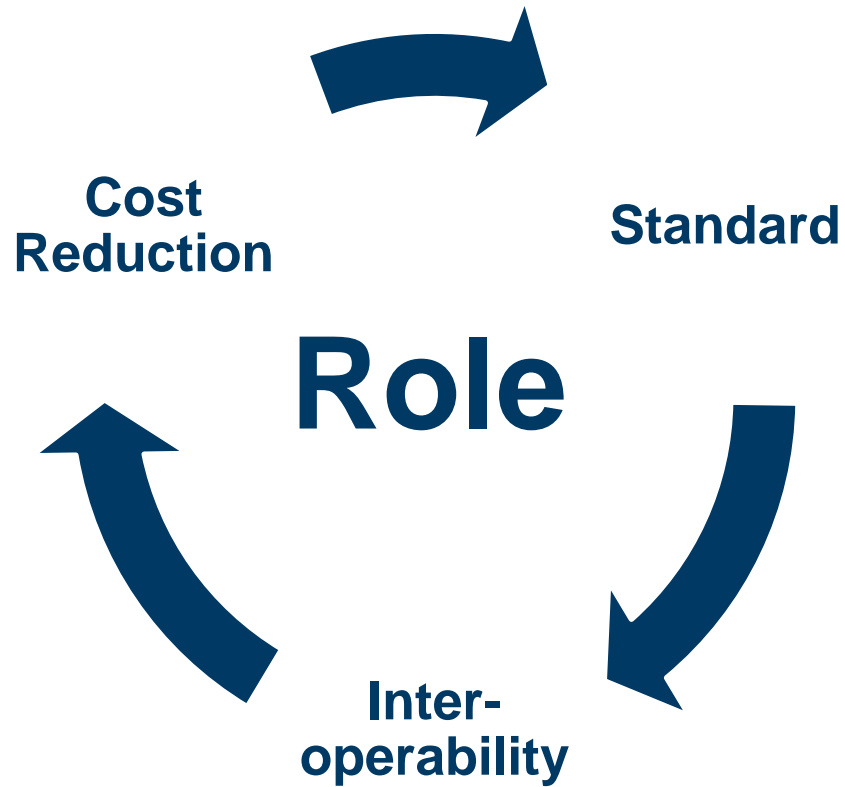


Task

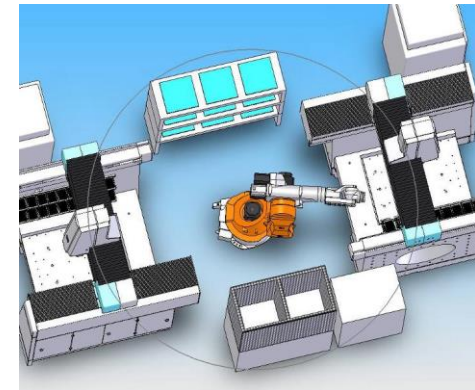
Metamorphosis

Machine Focus -> Software Focus

Reference Model

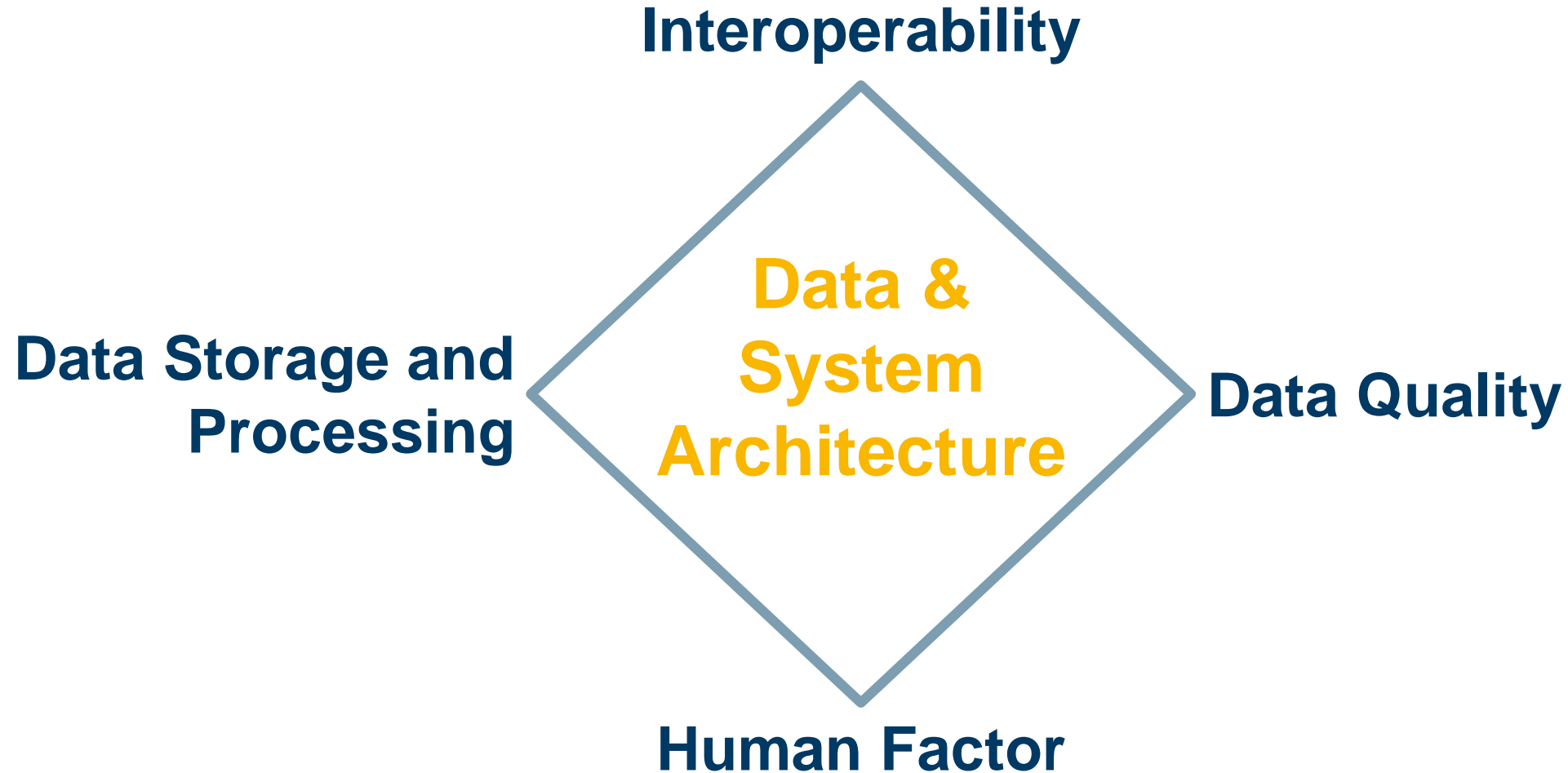


Several

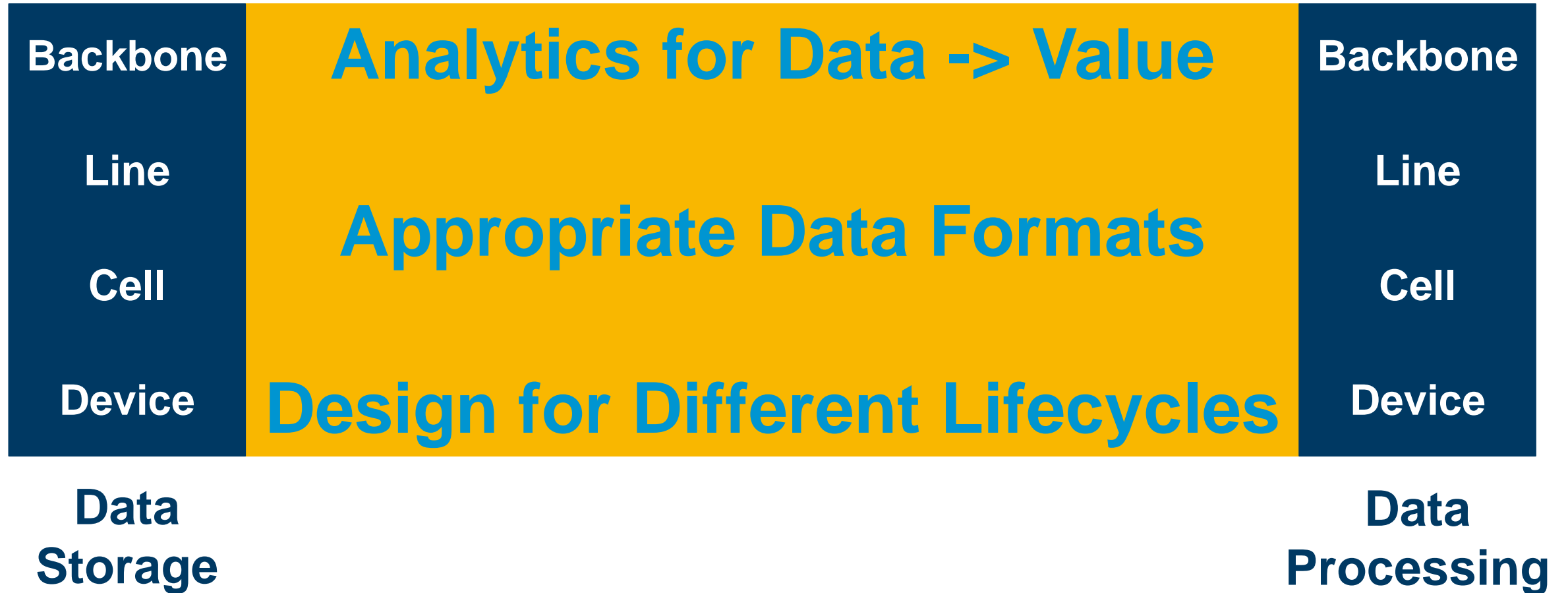


Novelty

Proprietary Concept



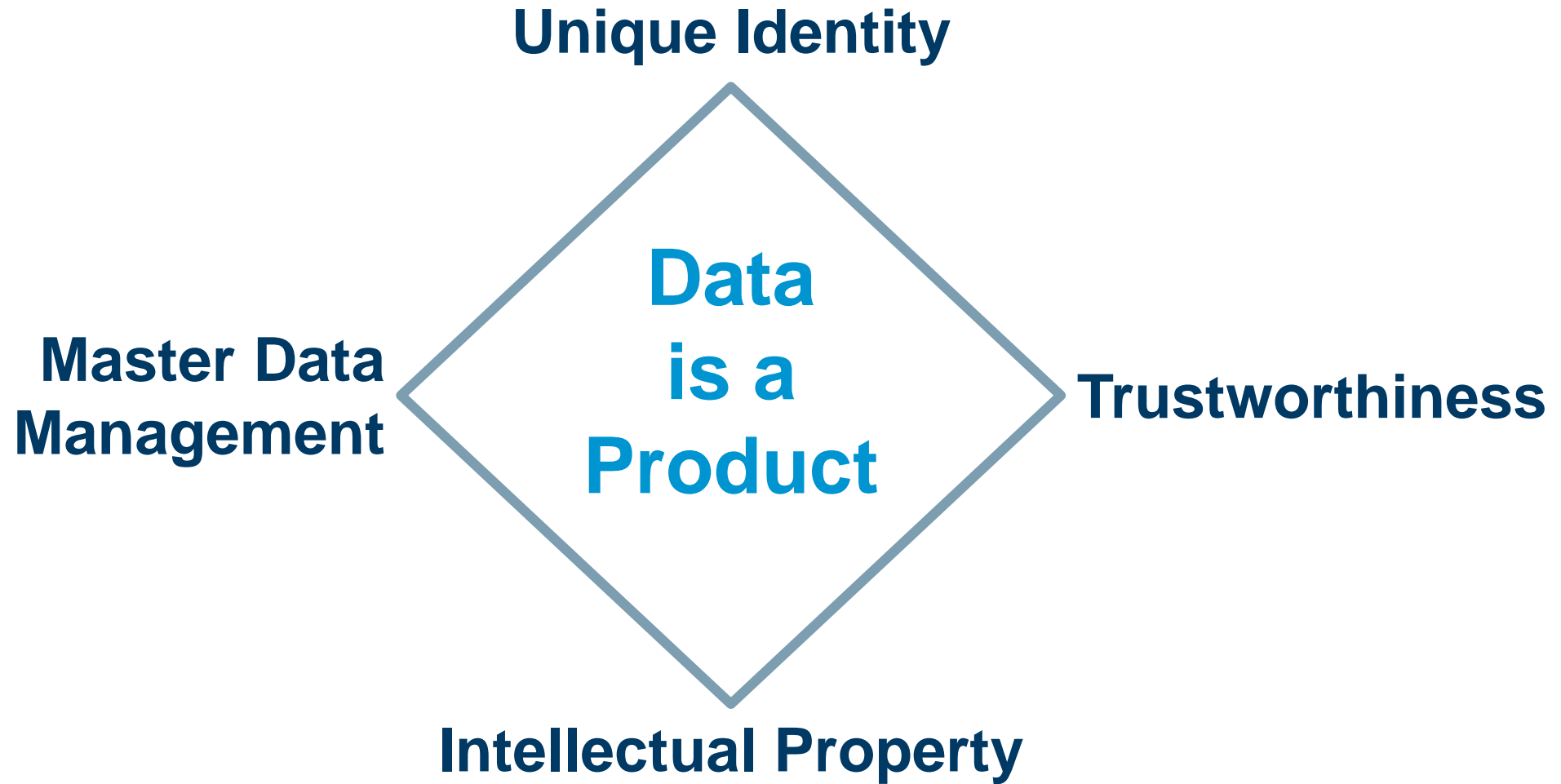
Data Storage and Processing - Implementation



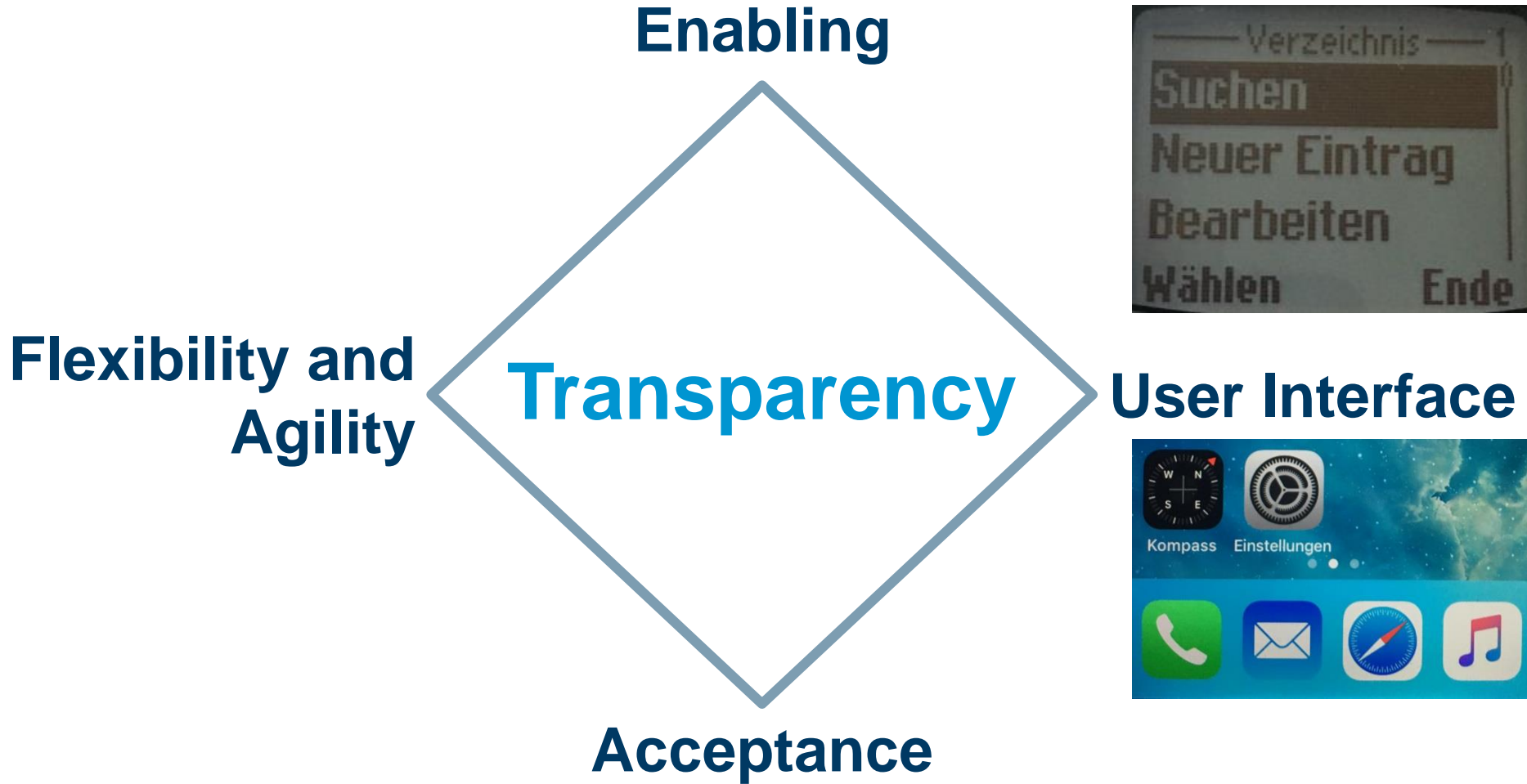
Smart Manufacturing - Free Flow of Information is a Precondition



Data Quality



Human Factor



Enhanced Value Creation

Traditional Value Creation

Machining



Optimization

Risk Reduction

Additional Value Creation

Data -> Value

Operational Excellence

Operational Insurance

Data-based Products

In a Nutshell

**Data and System Architecture
is a Key Success Factor for
Smart Manufacturing**

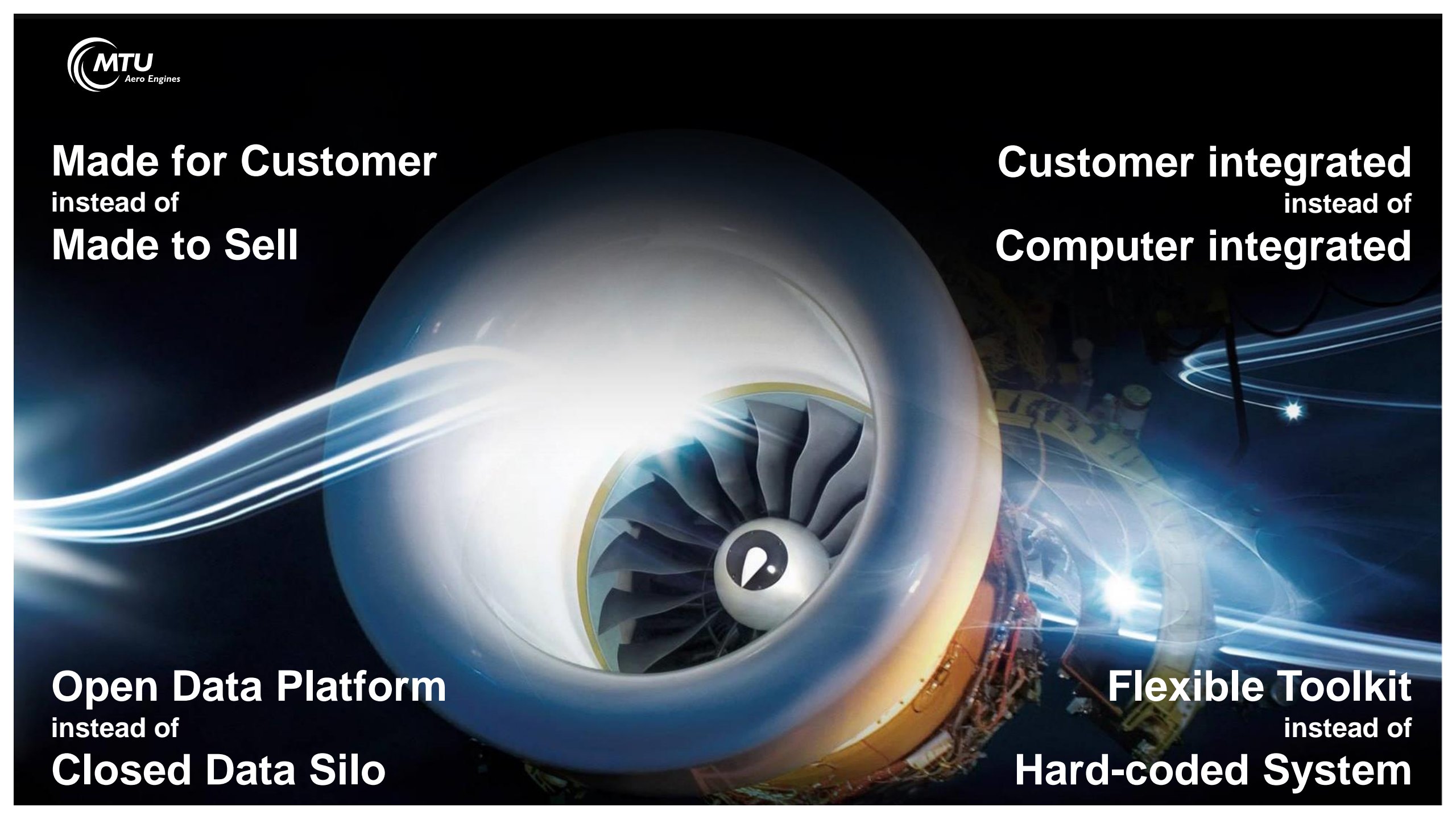


Made for Customer
instead of
Made to Sell

Customer integrated
instead of
Computer integrated

Open Data Platform
instead of
Closed Data Silo

Flexible Toolkit
instead of
Hard-coded System



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HMI** **3**

Q & A **4**



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