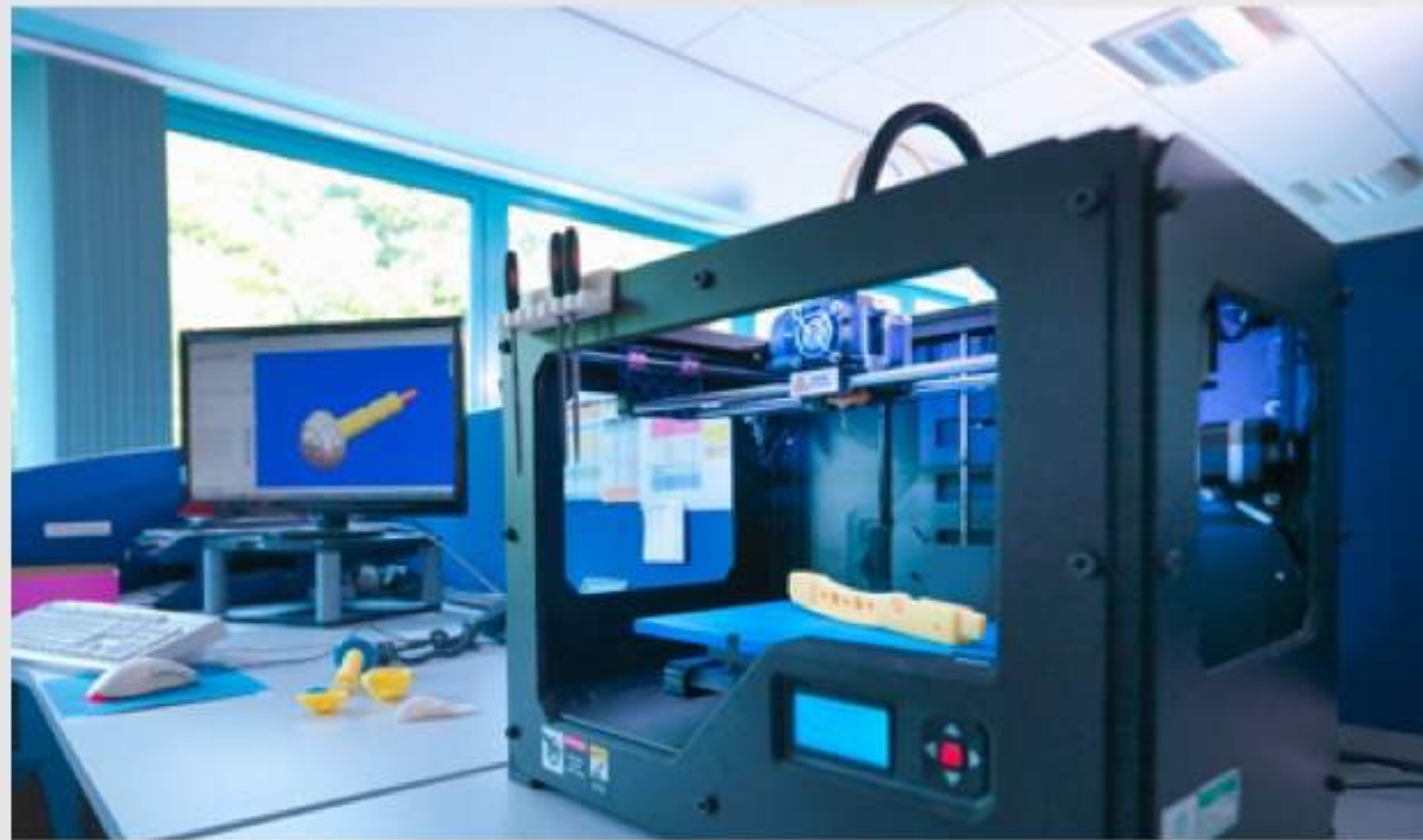




The pace of disruption
is higher than ever

**We face massive
opportunities for
more Speed, Agility
and Efficiency**



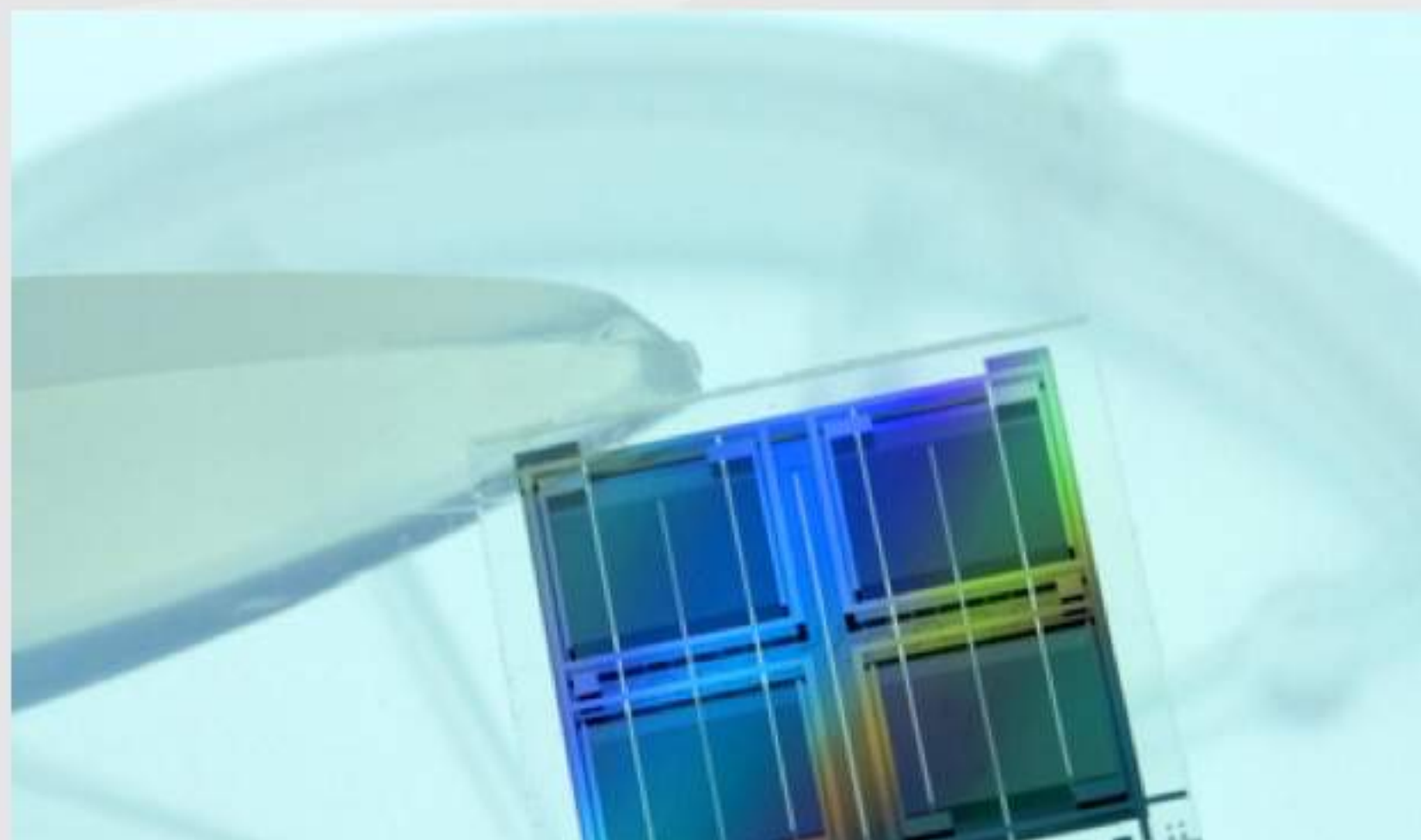
3D Printing



Industrial Robots



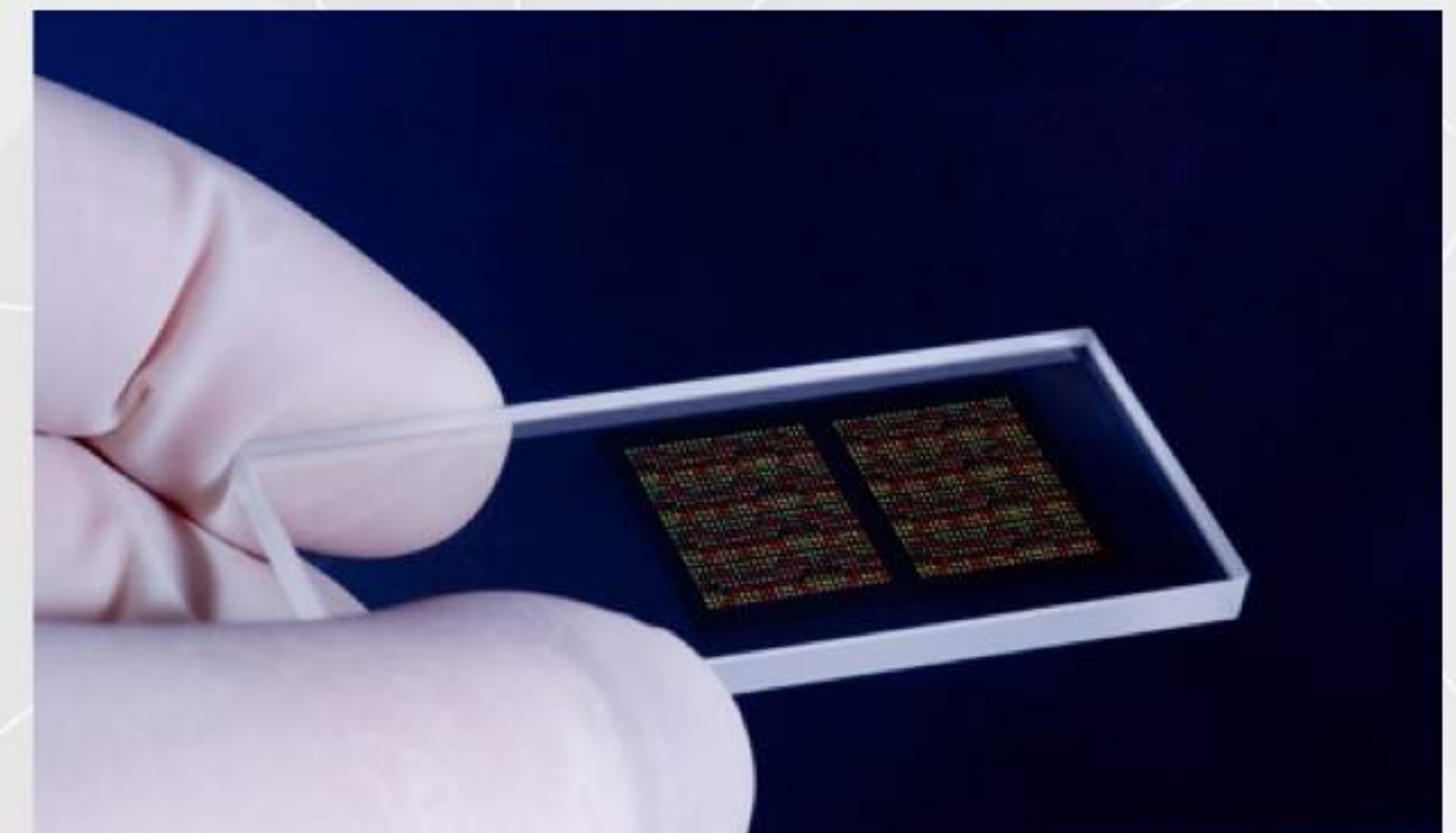
Drones



Sensors (3D LIDAR)



Neurotech (BCI devices)



Biotech (DNA sequencing)





\$40,000 (2007)
to **\$100** (2014)

3D Printing

400x in 7 years



\$500,000 (2008)
to **\$22,000** (2013)

Industrial Robots

23x in 5 years

A high-angle, aerial photograph of a city, likely New York City, with a river visible on the right. Three drones are flying in the sky. The drone in the foreground is a large, black, quadcopter with a red light on its underside and a camera. The other two drones are smaller and further away. The sun is low in the sky, creating a hazy, golden light over the city.

\$100,000 (2007)
to **\$700** (2013)

Drones

142x in 6 years



\$20,000 (2009)
to **\$79** (2014)

Sensors (3D LIDAR)

250x in 5 years



\$4,000 (2006)
to **\$90** (2011)

Neurotech (BCI devices)

44x in 5 years



\$10,000,000 (2007)
to **\$1,000** (2014)

Biotech (DNA sequencing)

10,000x in 7 years

Why are we doing it?

**Digital Masters
outperform competitors
from a financial
perspective...**

Business value

Market differentiation

**Specific aerospace
opportunities**



Revenue

+9%

Profitability

+26%

Market
Valuation

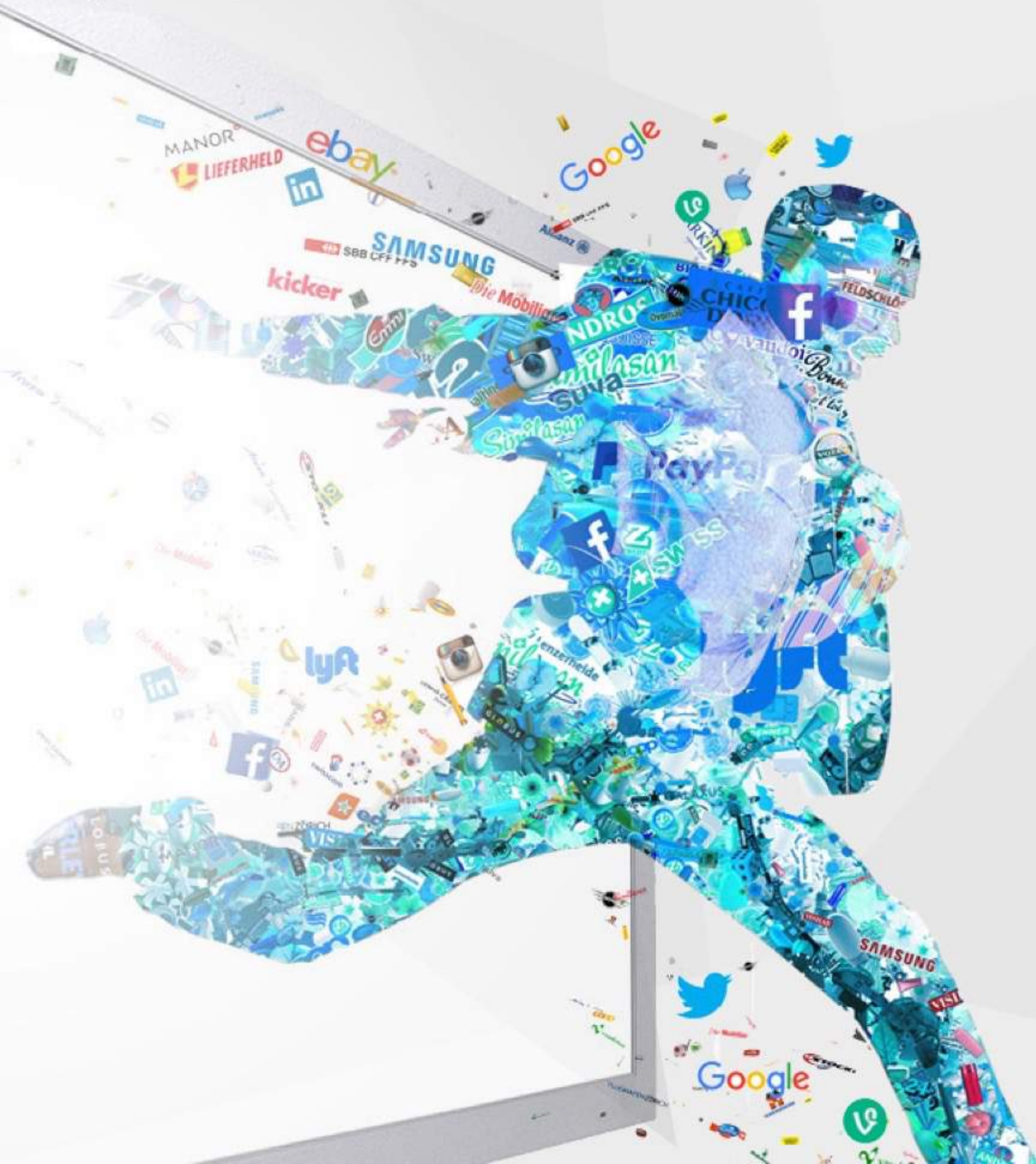
+12%

Why are we doing it?

**Digital Masters
outperform competitors
from a financial
perspective...**

**... but we consider as
well digital as a way to
accelerate our internal
transformation**

Employee engagement



DIGITAL CITIZENS

How are we approaching it?

**Improve internal
operations**

**Further grow in services
and improve products**

**Invent disruptive
business models**

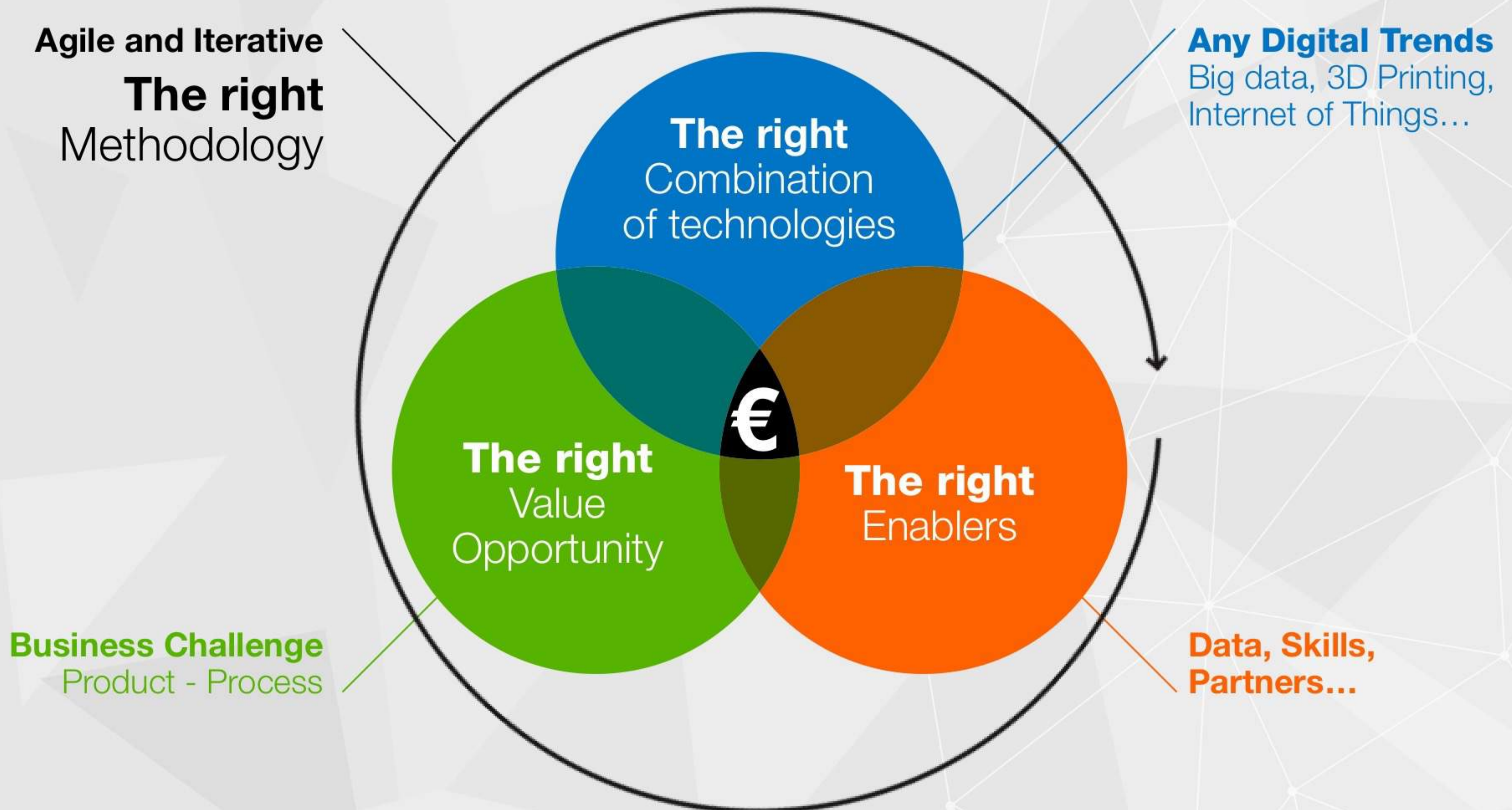


Change culture

Value can be created everywhere

Industrial Operations, Products &
Customers, Support Functions

Value creation is not only a technological challenge



Digital is happening in Airbus Group



+450 initiatives

**Challenge is a lot about reuse,
synergies and scaling up successes**

Predictive Analytics

Big Data

3D Scanning

Mobility & Portable

3D Visualisation

Paperless

RFID

Augmented Reality

3D Printing

Robots & Cobots

Social Network

Smart Tools & connected machines

Multiple pilot initiatives are under assessment or deployment

Learning by doing



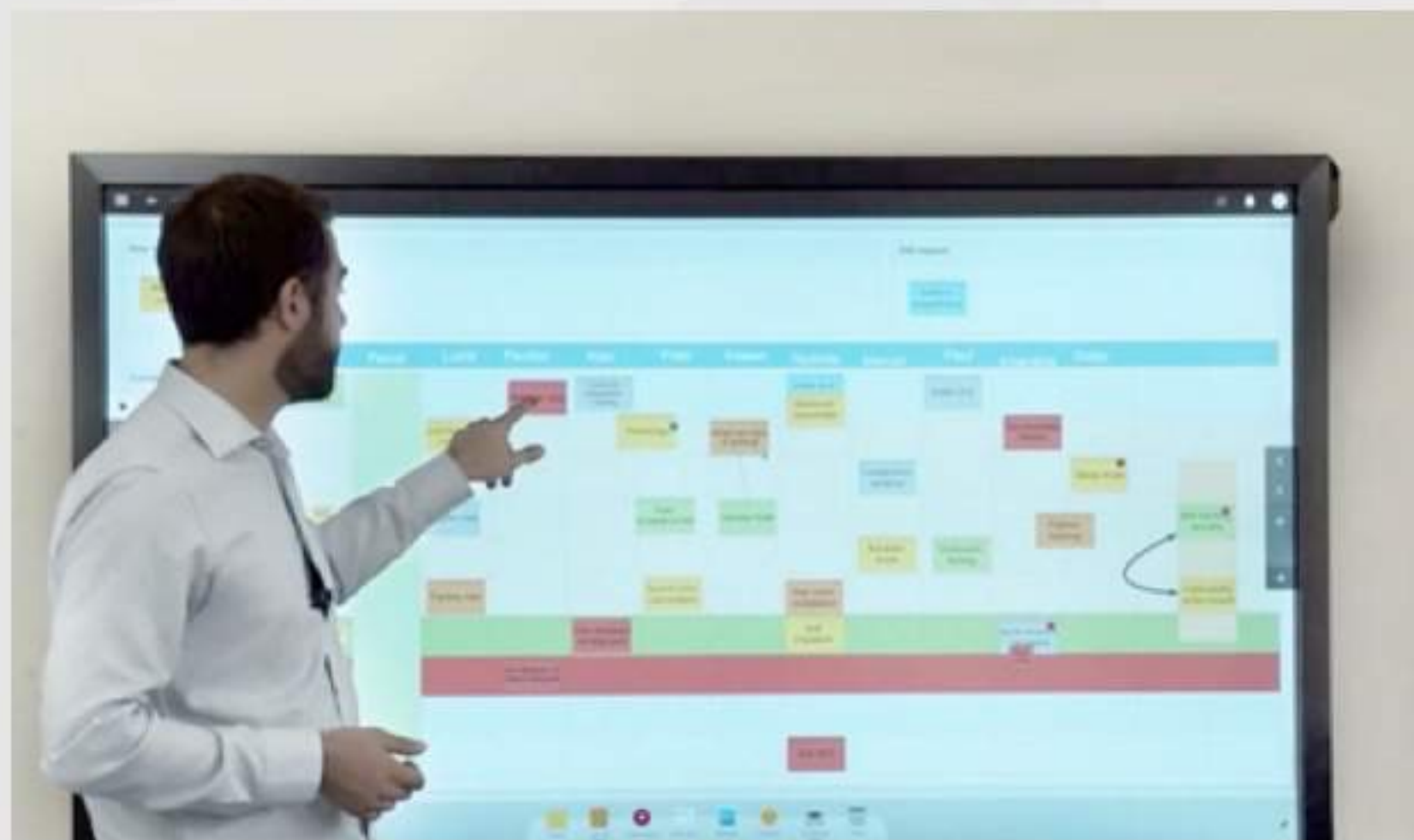
A330 FAL Smart Glasses



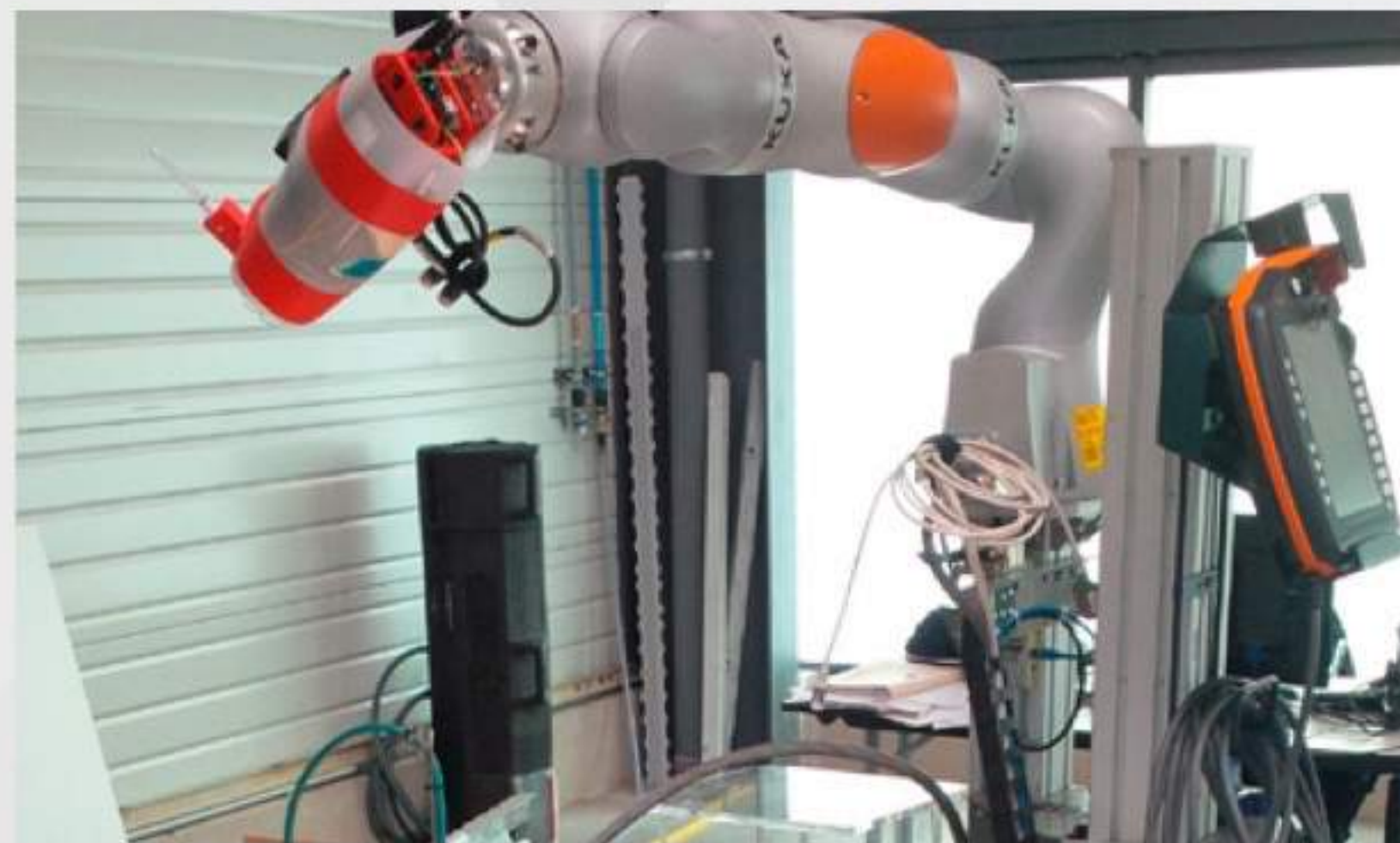
Video Platform for knowledge management



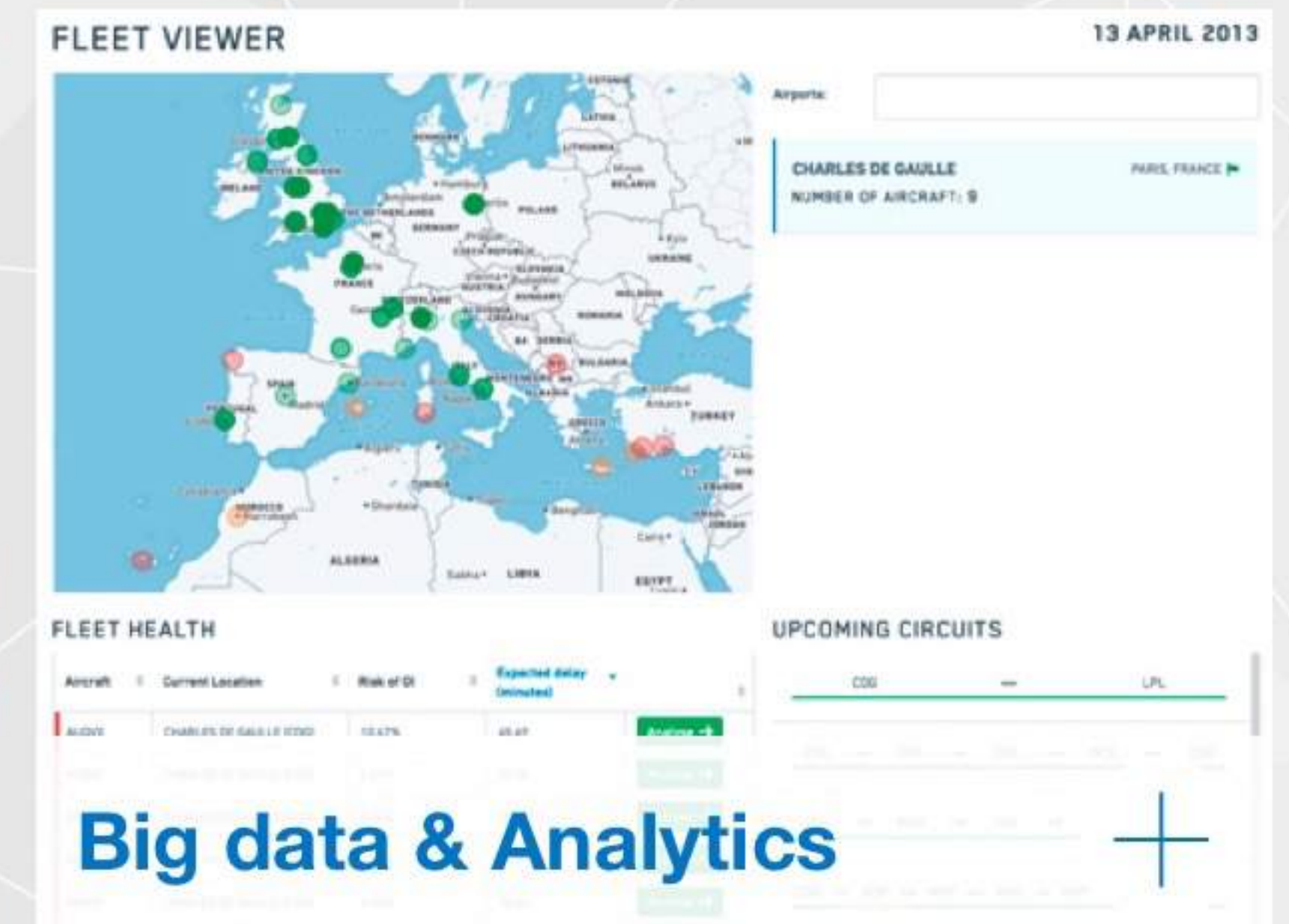
Metal & Polymer 3D printing



Digital Control Rooms



Autonomous guided robot



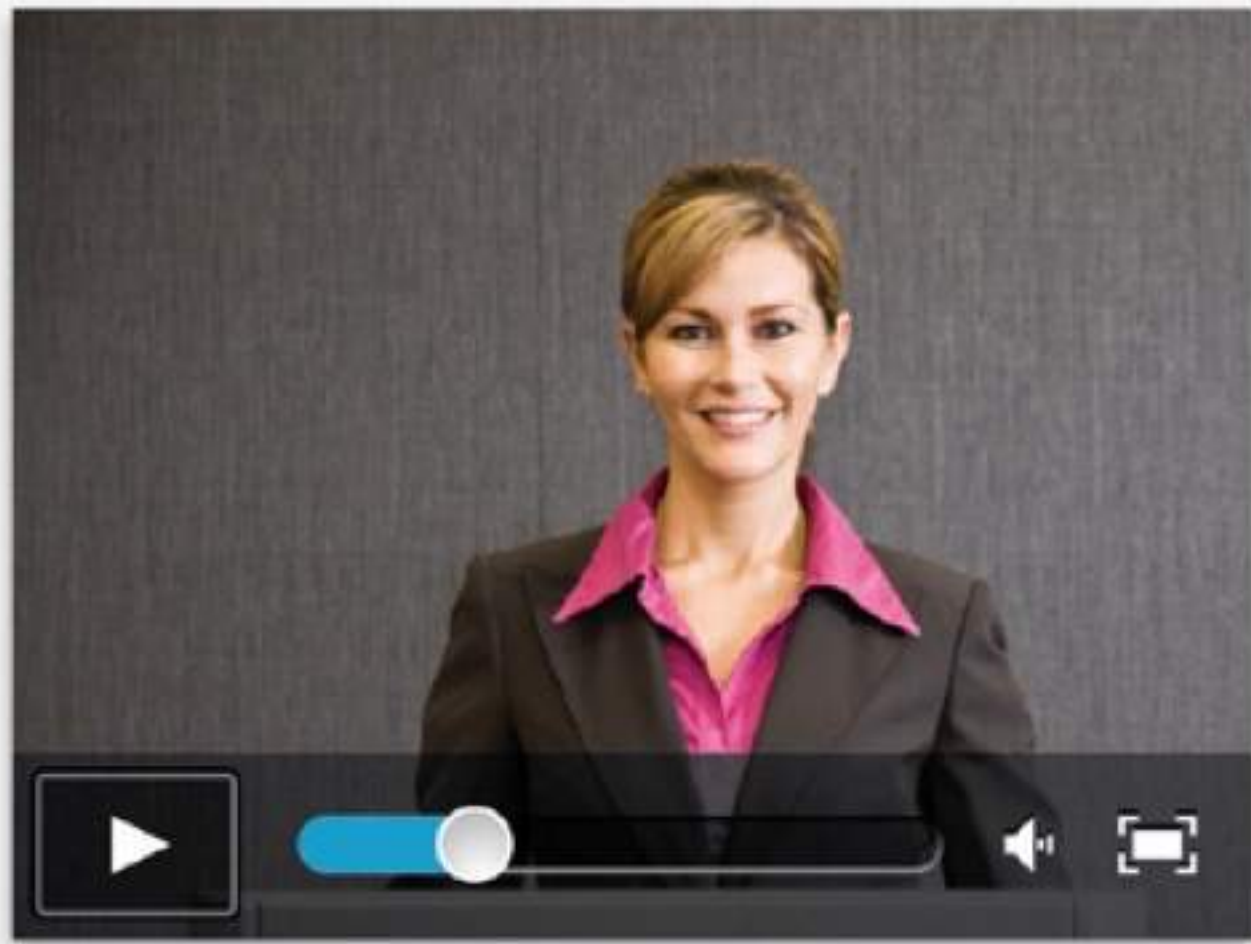
Big data & Analytics





A330 FAL Smart Glasses

- › Operation lead time divided **by 5**
- › **100%** quality first time



Outline

Keywords

Documents

- Antinomy of terms principles
- THE ECOTRANSITION PROCESS
 - The investor's role
 - Ecology: the new motor of competitiveness
 - An expanding market
 - A socially responsible investment
 - The environmental policy within companies
 - A new strategic direction for companies
- REPORTS
 - New notation agencies emerging
 - The state's role
- CONCLUSION
 - What is your definition of sustainable

Ecology: the new motor of competitiveness



- website
- appendix 1: general statistics

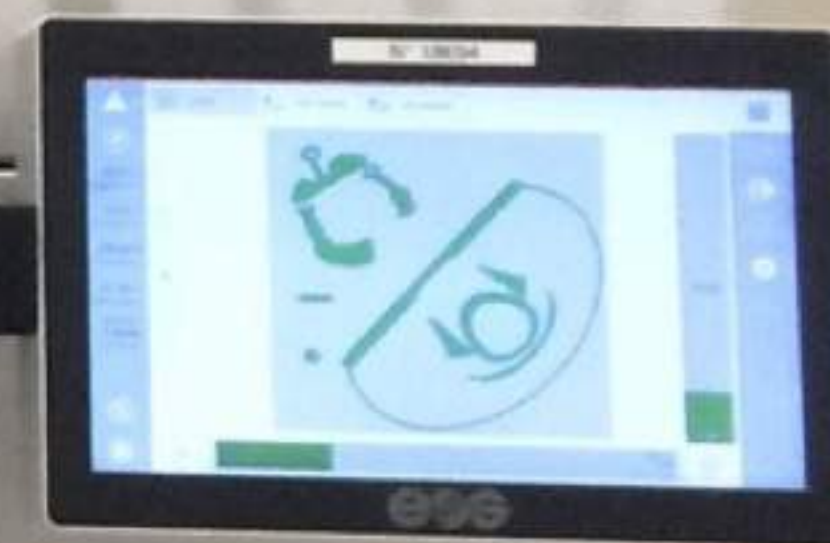
IN718



290



EOS



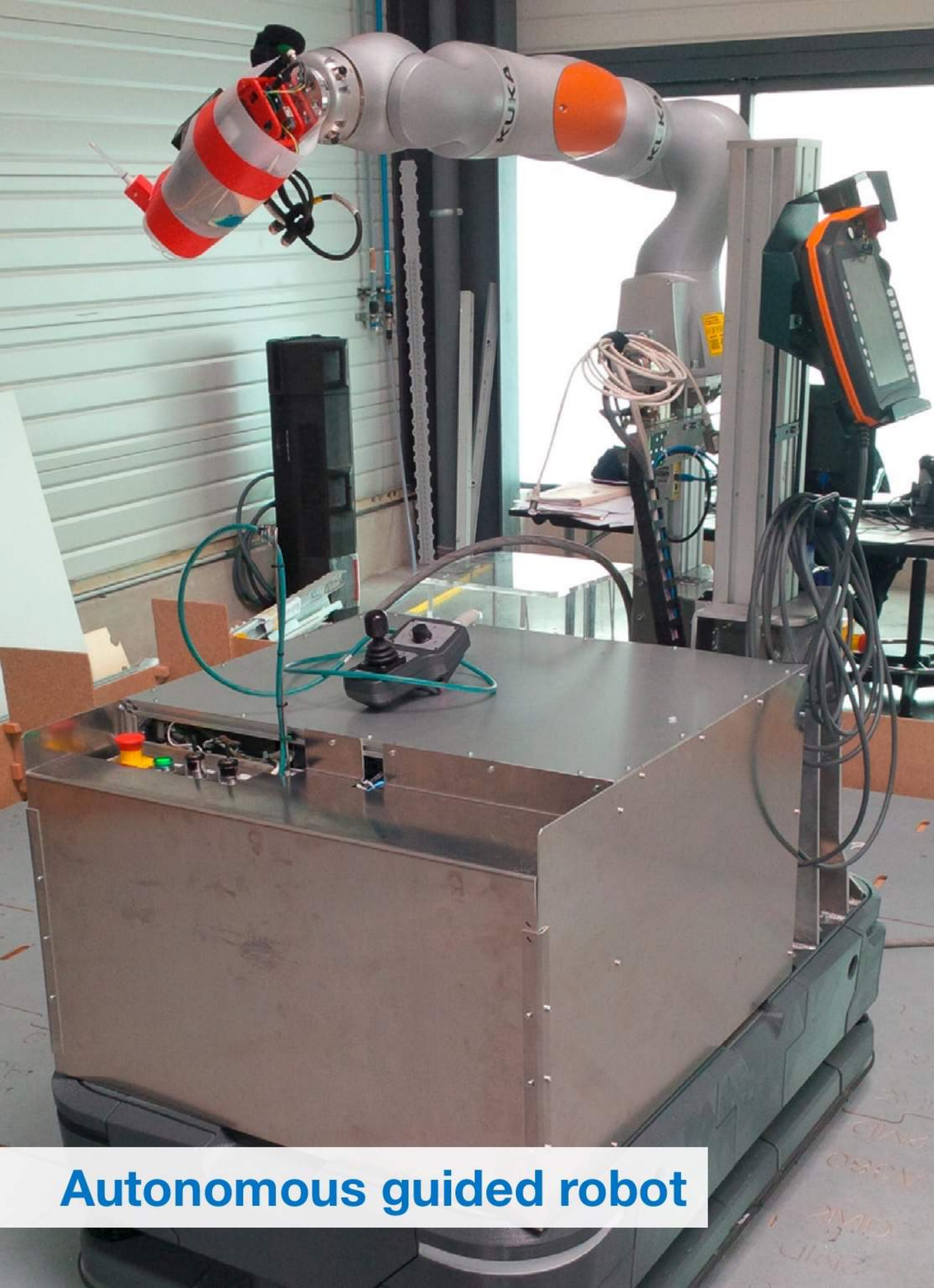
EOS M 290

Metal & Polymer 3D printing

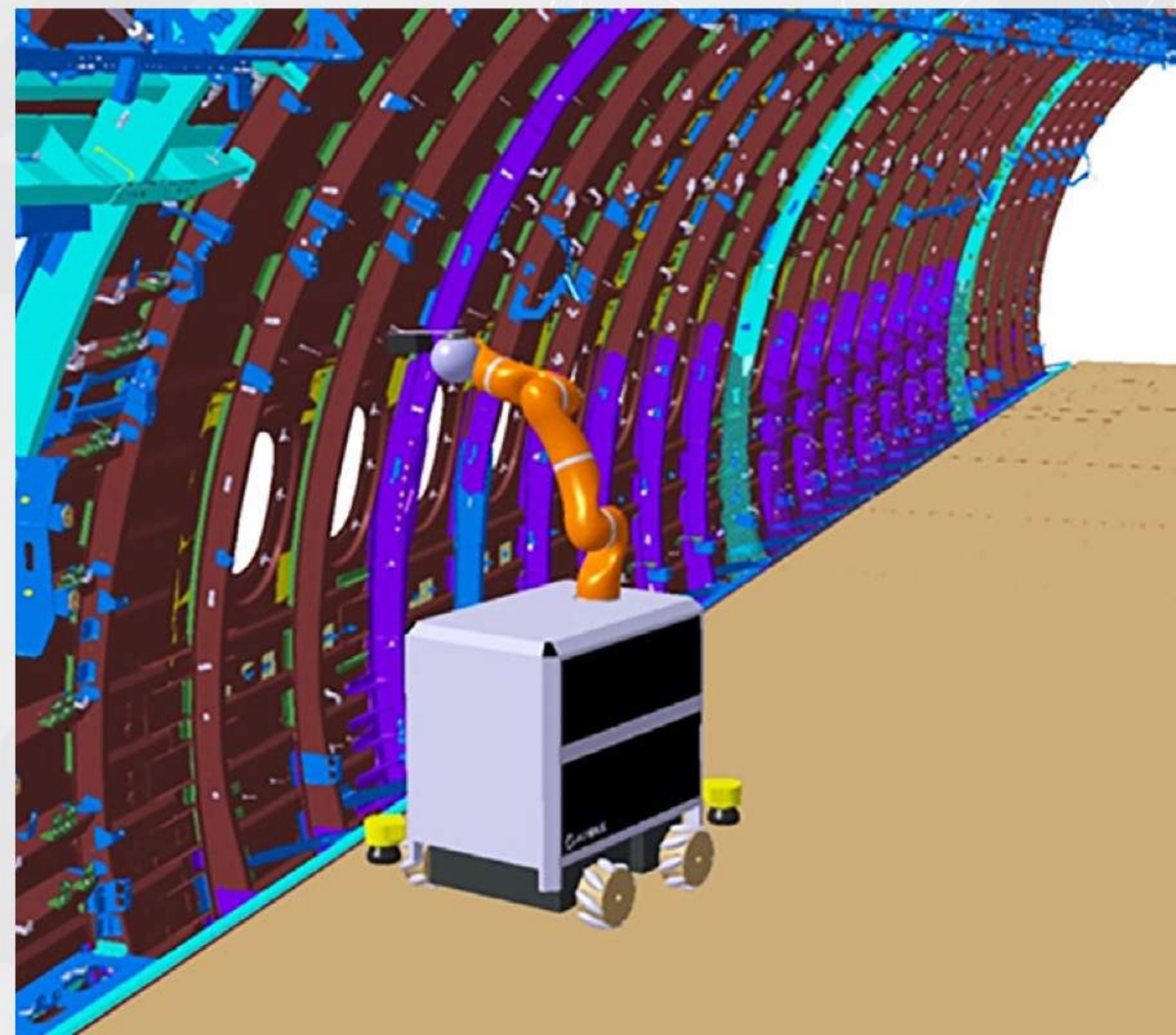
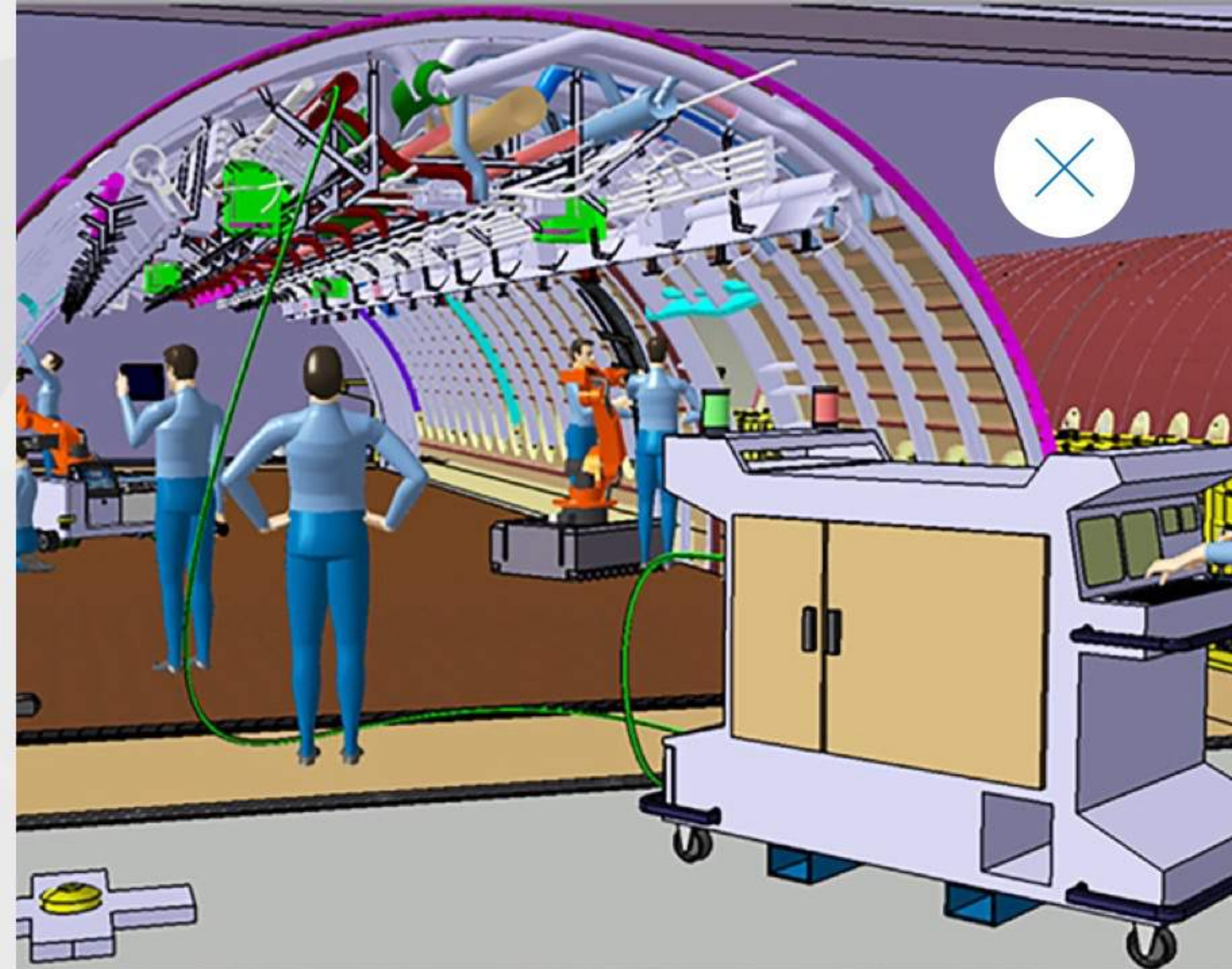
- > 100 titanium parts early 2016
- > 12000 plastic parts

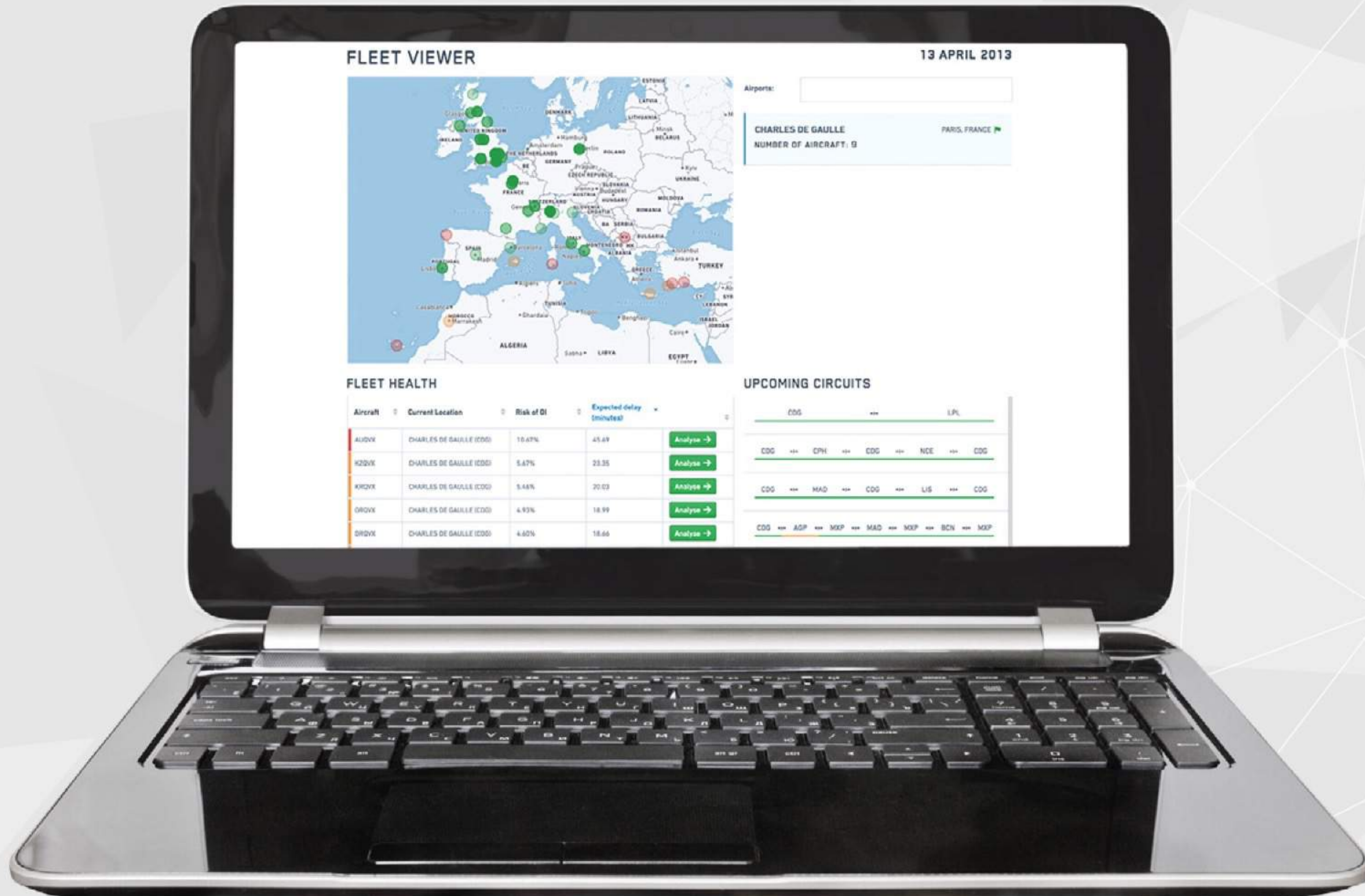


Digital Control Rooms



Autonomous guided robot





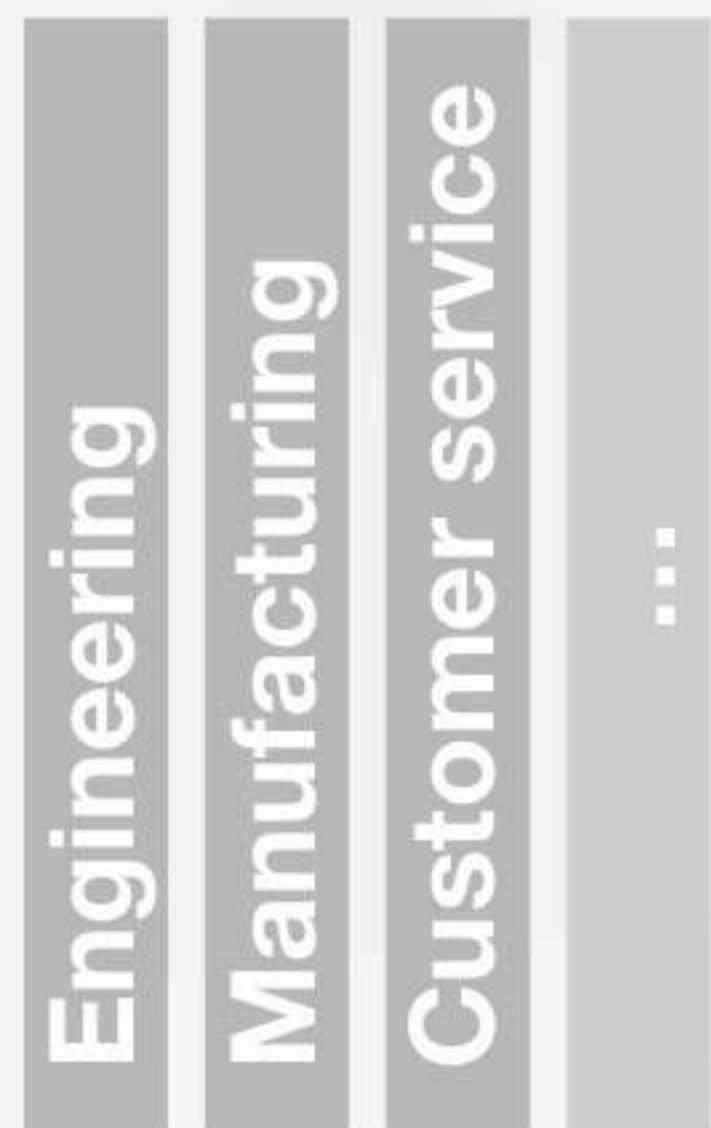
Big data & Analytics

› Lead time to manage non quality events reduced **by 40%**

Route to Digital Aircraft platform

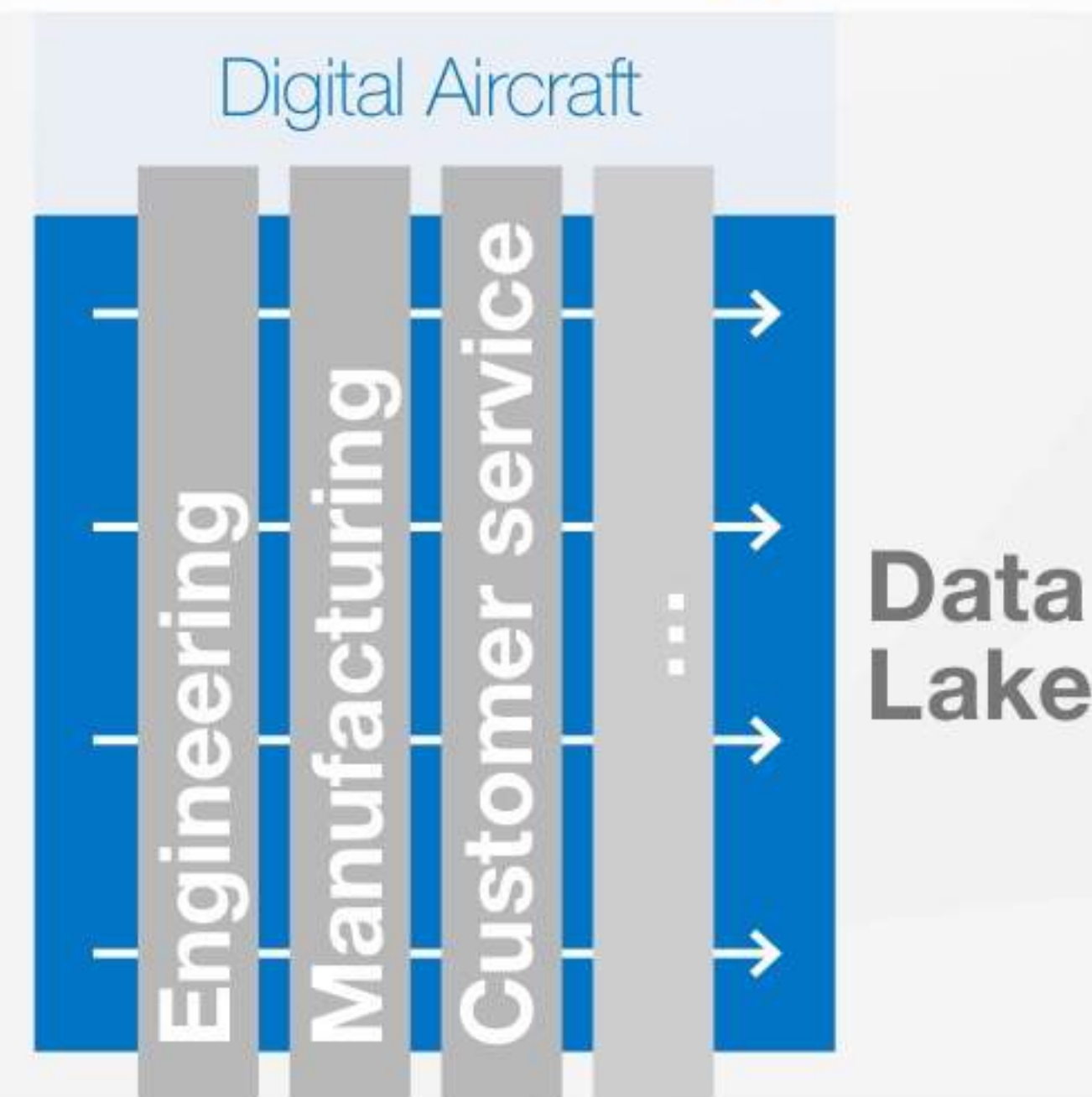
Breaking functional silos

Yesterday



Functional Systems & Data Silos

Launching Now



Functional Systems & Data Lake

Tomorrow



Digital Aircraft Platform

Integrate data for new insights

Pivot to Digital Aircraft Platform

A Digital ambition



Leverage **digital technologies** to bring step change

business value

market differentiation

employee engagement



Redesigning processes along the value chain to improve **operational efficiency and profitability**

Improving **products** & platforms to deliver unmatched operational performance and **value added services**



Imagining **innovative or disruptive business models** to keep our leading edge and drive the market



Boosting company transformation and mindset change to increase **agility, speed and customer centric focus**





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