



Thales and Digital Transformation

Sean Perry-Evans
Director, Services Development Thales UK



Who Are Thales?

Collective intelligence for a safer world

Whenever critical decisions need to be made, Thales has a role to play.

In all its markets (aerospace, space, ground transportation, defence and security)

Thales solutions help customers to make the right decisions at the right time and act accordingly.

World-class technology, the combined expertise of **64,000 employees** and operations in **56 countries** have made **Thales a key player in keeping the public safe and secure**, guarding vital infrastructure and protecting the national security interests of countries around the globe.



Employees

64,000



Global presence

56 countries



Self-funded R&D*
2016

731 million euros

* Does not include therefore R&D undertaken with external funding.

A balanced revenue structure

Defence
50%

Civil
50%

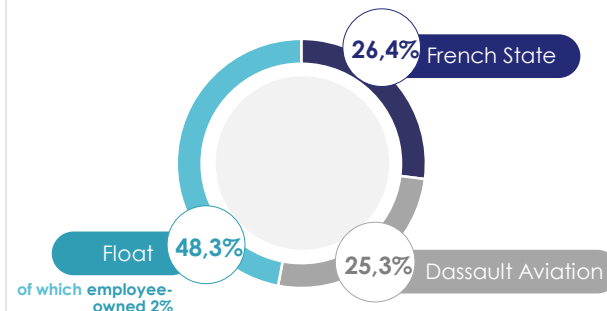


Revenues in 2016

15 billion euros

Shareholders

(at 31 December 2014)





AEROSPACE



SPACE



GROUND
TRANSPORTATION



DEFENCE



SECURITY

**EACH OF THE MARKETS
THALES SERVES
PLAYS A VITAL ROLE
IN SOCIETY.**

Thales operates as a **single organisation**, drawing on the talent and technologies of the entire Group to act as prime contractor, systems integrator, equipment supplier and value-added service provider on both civil and military programmes.

OPEN

Global leadership

N°1
worldwide



Payloads
for telecom satellites



Air Traffic Management



Sonars



Security for interbank
transactions

N°2
worldwide



Rail signalling systems



In-flight entertainment
and connectivity

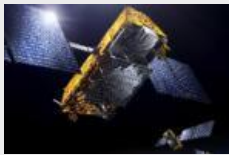


Military tactical
radiocommunications

N°3
worldwide



Commercial avionics



Civil satellites



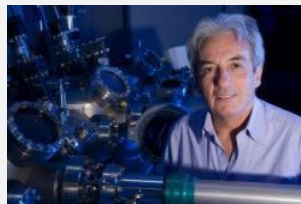
Military surface radars

€15
billion
in revenues

A strategy driven by innovation

Long-term vision

- **Self-funded R&D: 731 million euros**
- **Focus on key technical domains**
 - Complex systems
 - Hardware (sensor technologies)
 - Software
 - Algorithms and decision support
- **Open research policy**
 - International network of research centres
 - Cooperation with academic and government research institutes worldwide
- **Focused product policy**
 - Shorter development cycles
 - Risk reduction



ALBERT FERT
scientific director of the CNRS/Thales joint physics unit and winner of the 2007 Nobel Prize in Physics.



Some **25,000** Thales employees, over **70% of them engineers**, are involved in the Group's technical operations from research to engineering.

Inventing tomorrow's products today

Global reach

We are truly global in our outlook and presence



Global revenues in 2016
€15bn

Employees
64,000 globally
around **6,500** in the UK

UK revenues in 2016
£1.2bn

Global Presence
56 countries
12 major sites in the UK

A balanced revenue structure

Defence
50%

Civil
50%

Self-funded R&D
€731m globally
£50m UK

Geographical Footprint

Belfast: 496

Missile Systems
Platform Survivability
Precision Effects

Cheadle Heath: 598

Underwater Systems
Transport and Energy Solutions
Information Systems

Birmingham: 35

Transport Solutions

Templecombe: 869

Underwater Systems
National Security Systems
Air Operations

Bristol: 408

Naval Systems,
Land Defence
CIC Consulting

Glasgow: 706

Optronics
Protected Vehicles
Transport Solutions

York: 45

Transport Solutions

Doncaster: 168

High-Security Data Centre
Procurement Shared Service

Cambridge: 171

Data Encryption Solutions

London: 1,016

Transport Solutions

Reading: 650

Corporate HQ CIC Consulting
Missile Electronics Research & Technology
Radio Systems National Security Systems

Employees in the UK

around 6,500
in the UK

Workforce under management
at 31 Dec 2016

Crawley: 2,124

Military Sensors & Systems,
Military Simulation & Training Services
Radio Communications
Data Encryption
Information Systems
Shared Services
Transport Solutions
Commercial and Military Avionics
Air Traffic Management

Ambition 10: common framework

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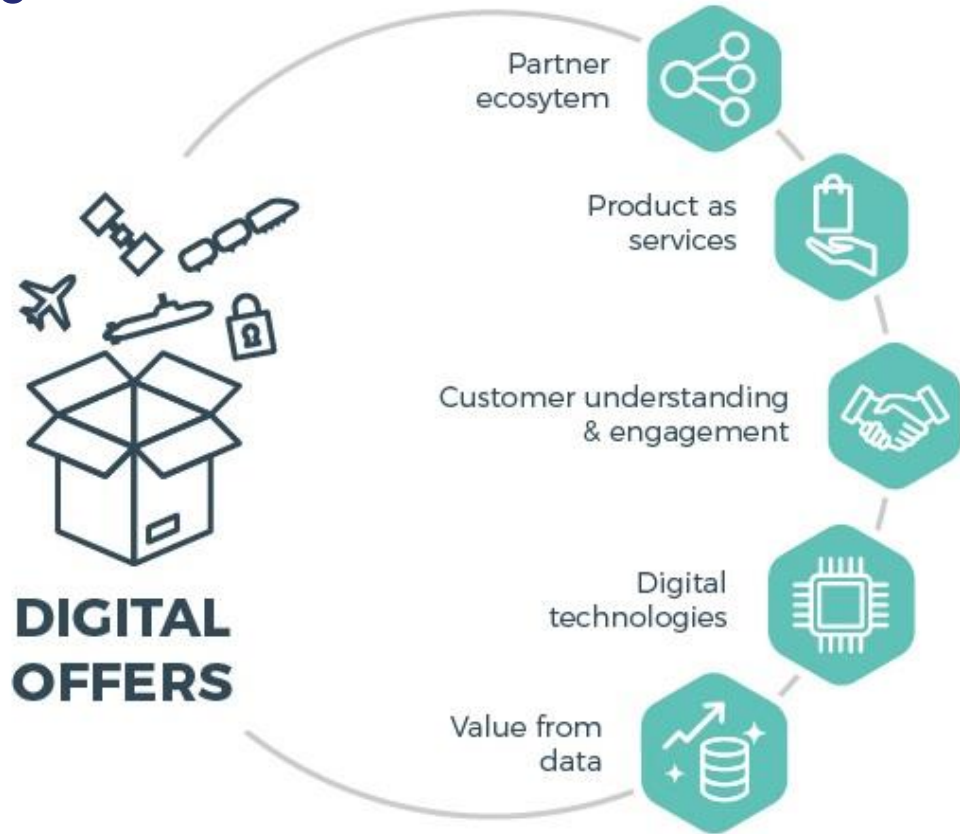


A word from our Sponsor!

Video (Olivier Flous, VP Digital Transformation and Digital Factory)

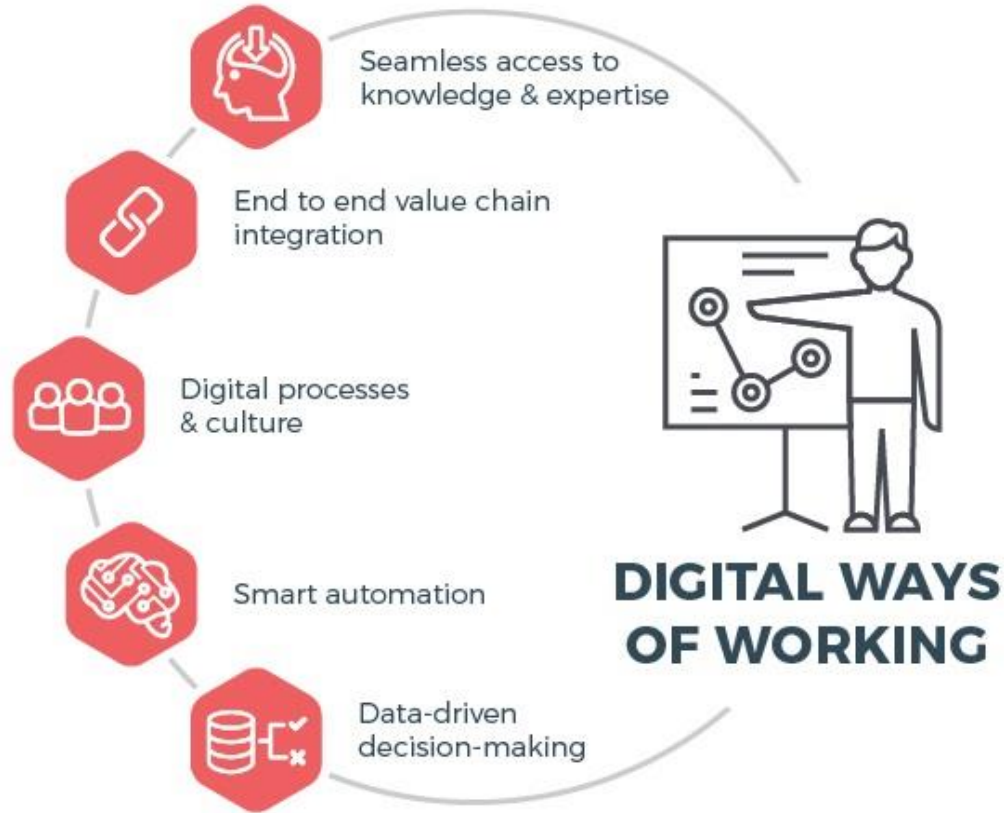
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Digital Offers



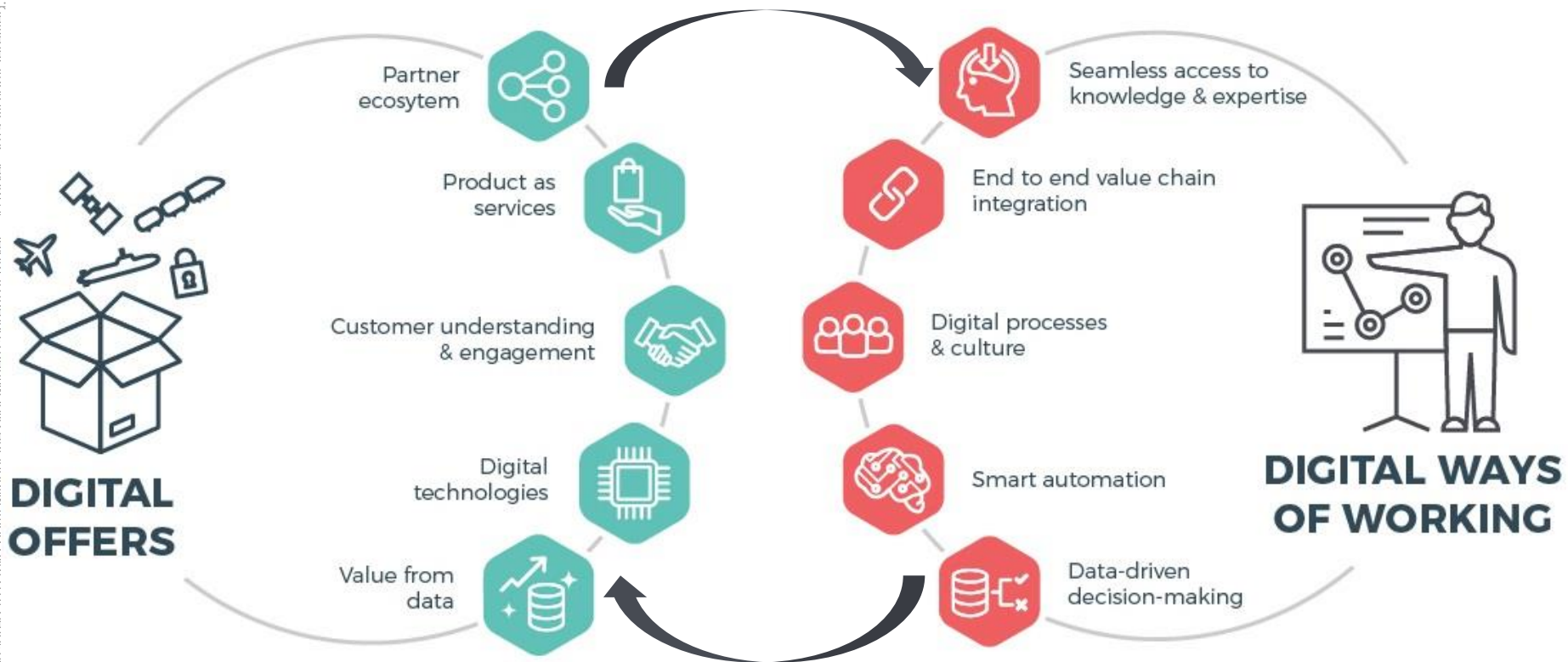
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Digital Ways of Working



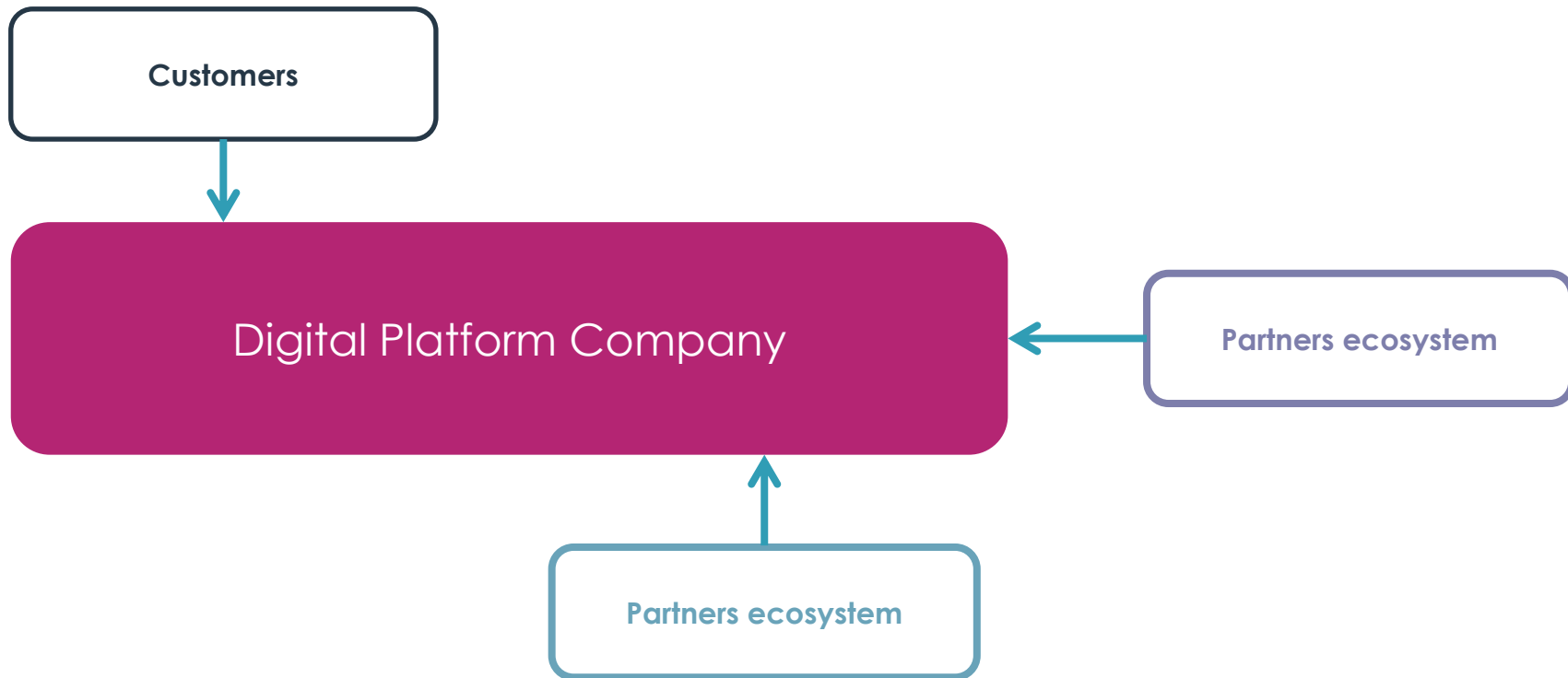
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Interdependent Transformations



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Digital Platform at the Heart of Digital Transformation



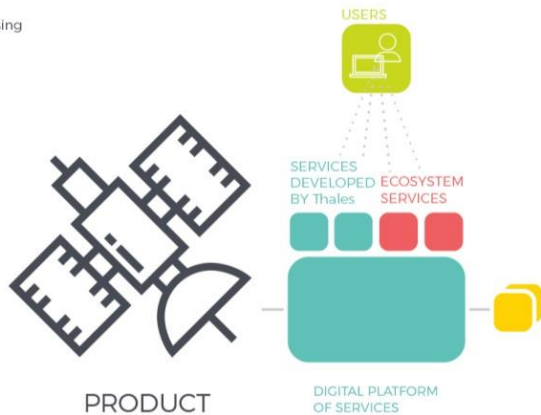
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Value Shift

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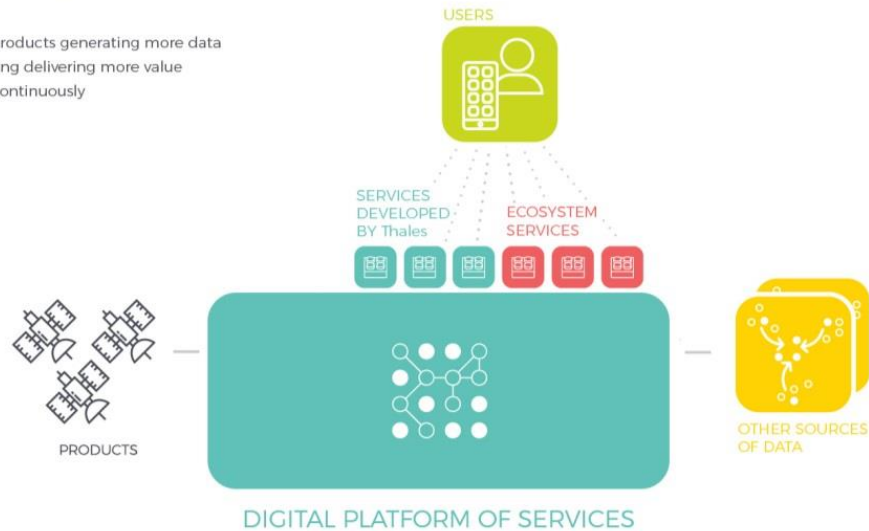
TODAY

- Complex products with onboard processing
- Built to last

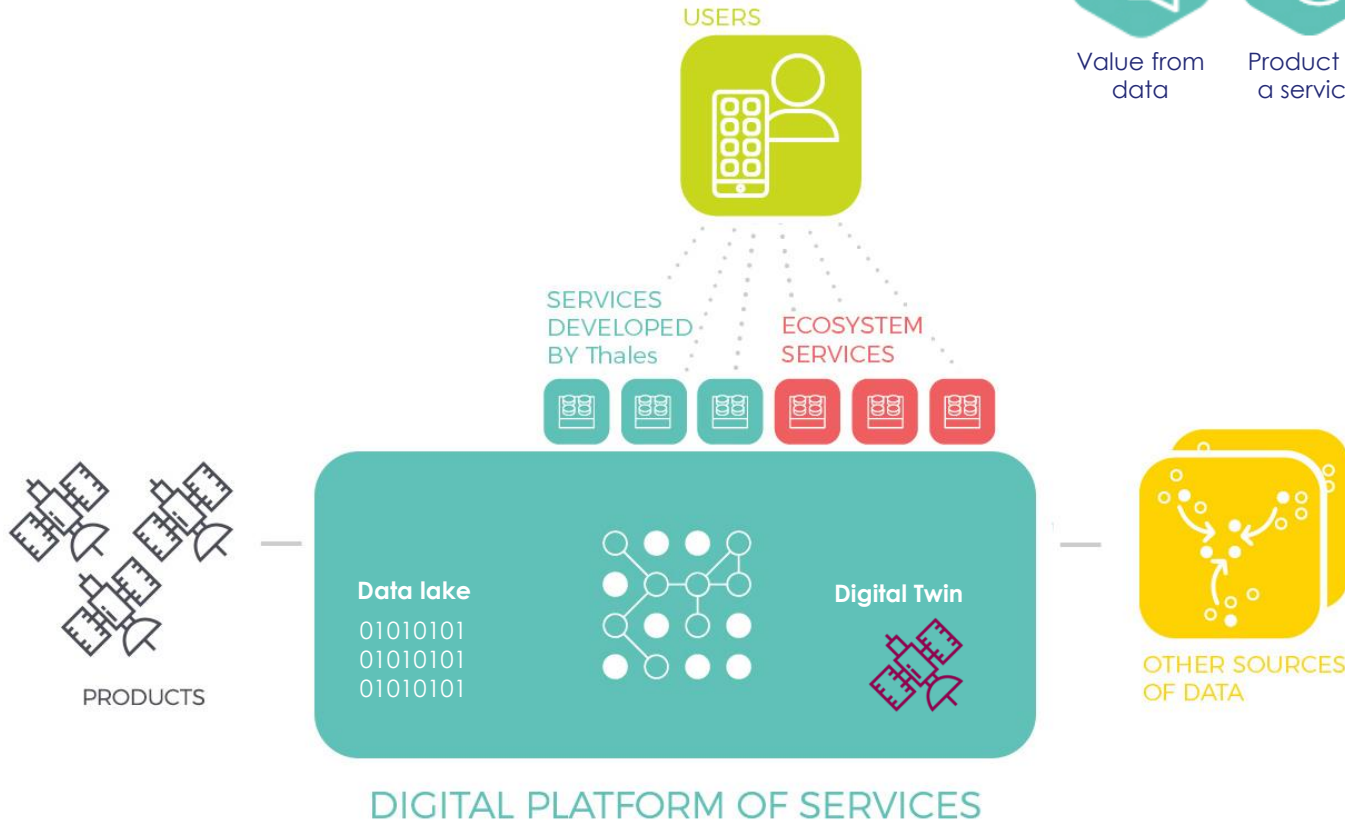
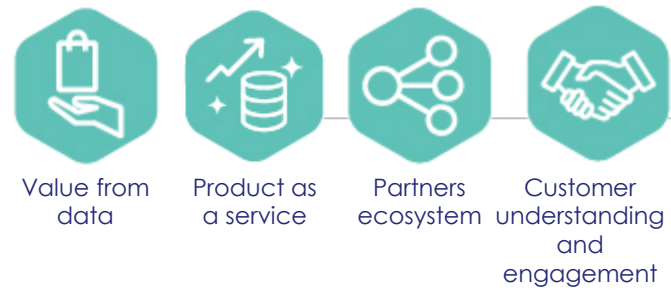


TOMORROW

- Simpler set of products generating more data
- Central processing delivering more value
- Built to evolve continuously

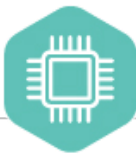


Digital Platform for Industry



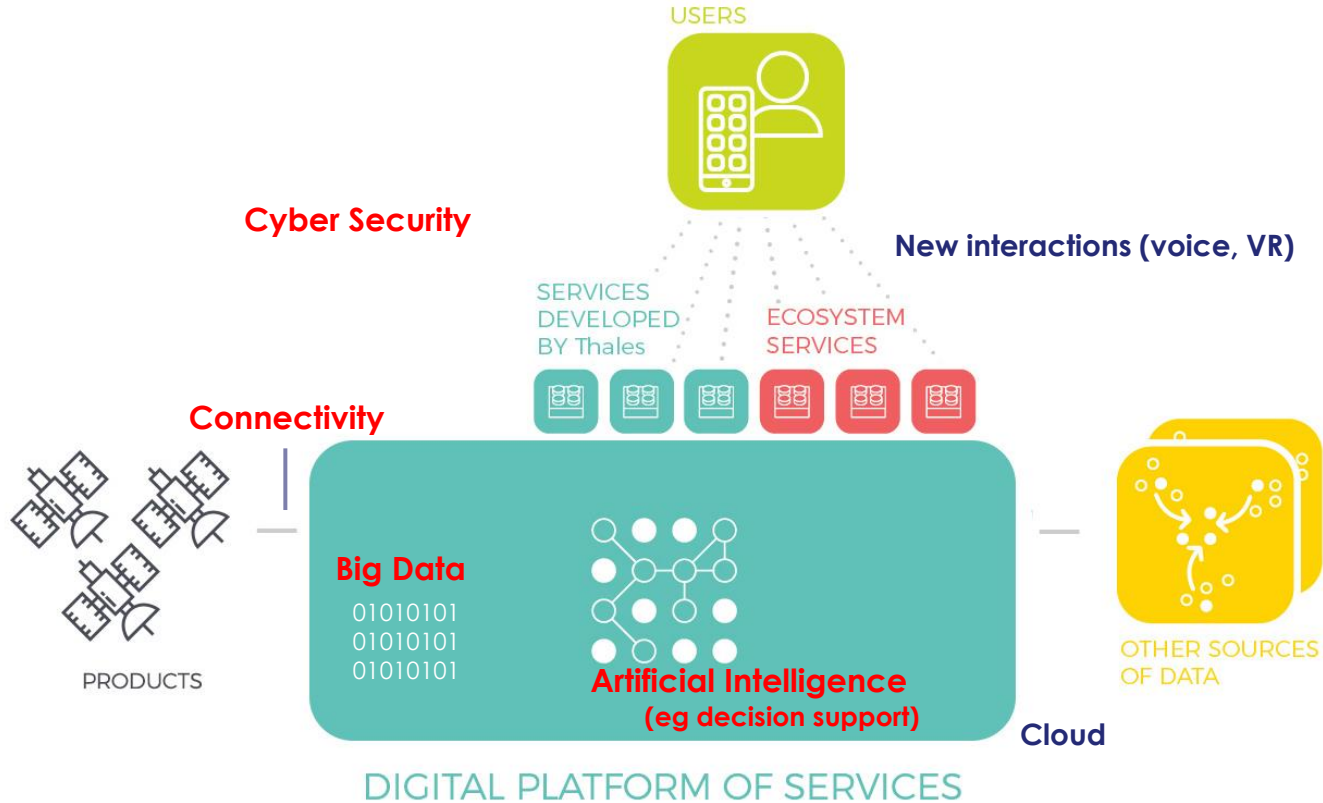
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Key Technological Areas



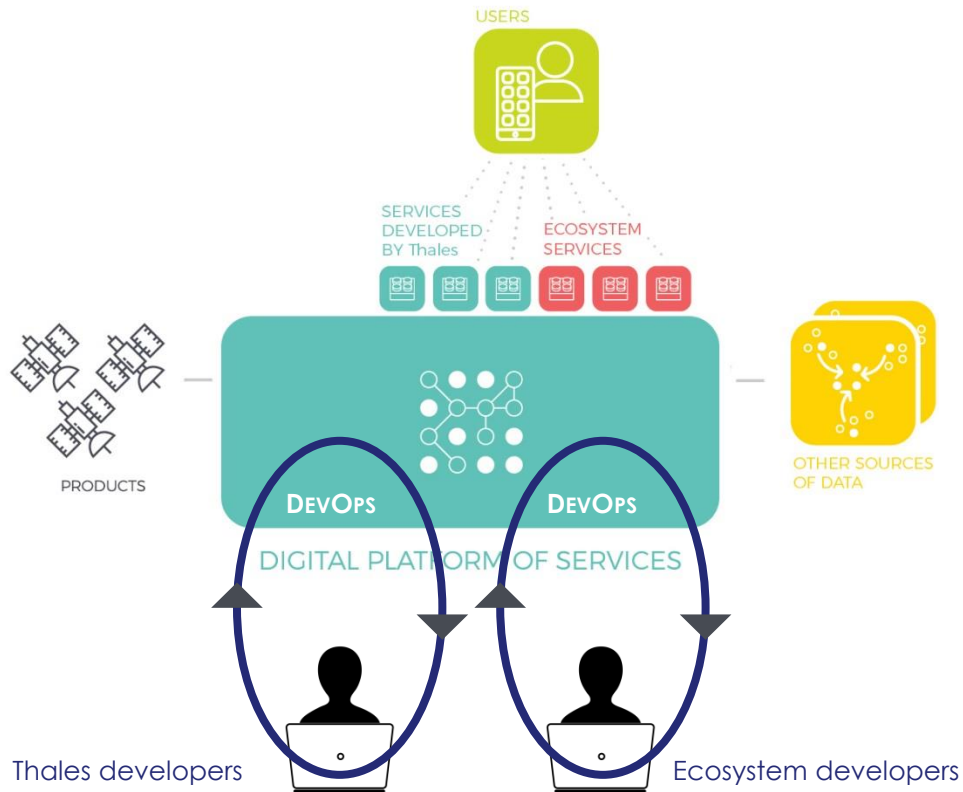
Digital technologies

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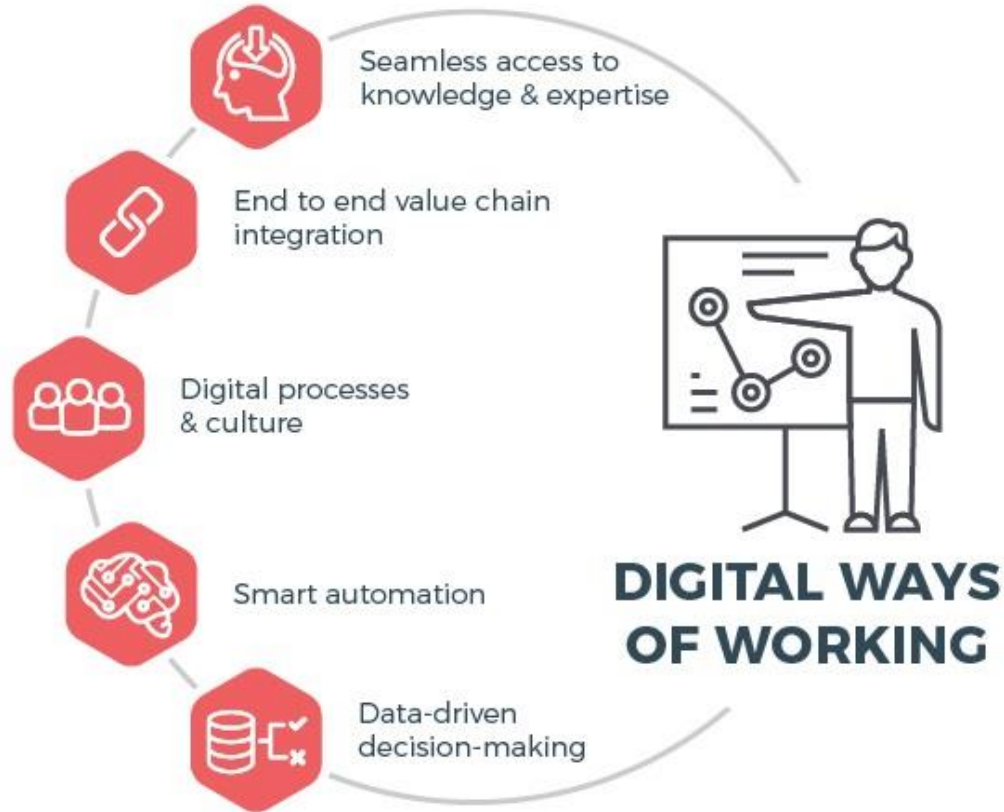
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Continuous Delivery of Value (DevOps)



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Digital Ways of Working



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Digital Platform for Internal Usage



Seamless access to knowledge & expertise



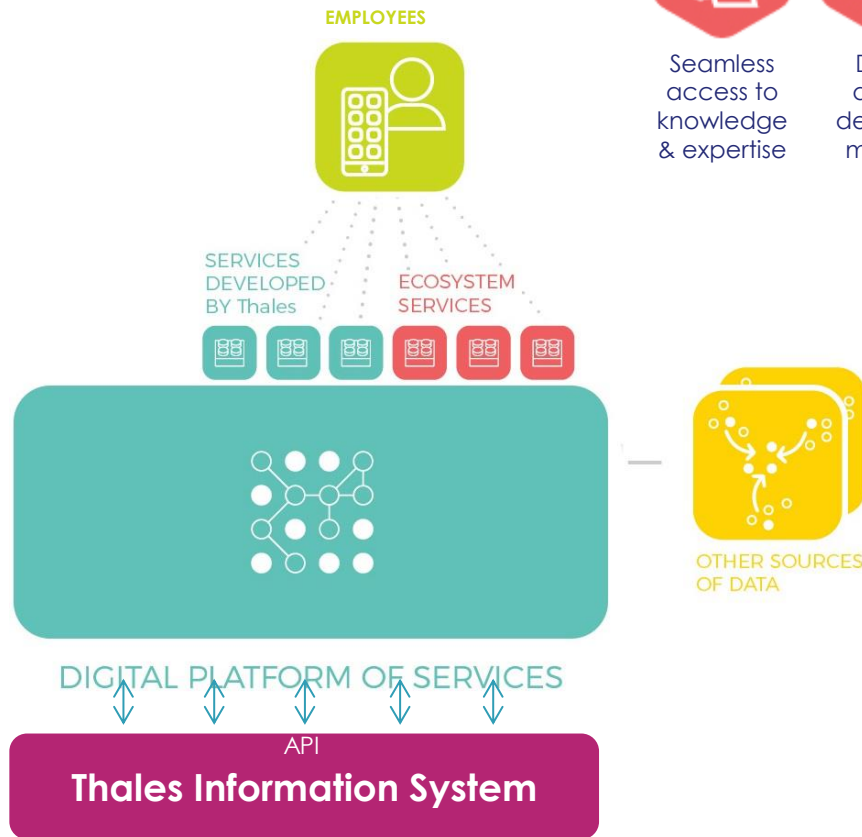
Data-driven decision-making



End to end value chain integration



Smart automation



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Digital Culture Manifesto

Empowerment



Over control

Data



Over opinions

Test & Learn



Over plans

Collaboration



Over protection

Users



Over customers

Failure



Over not trying

OPEN

Digital Culture Manifesto

Empowerment

Data

Test & Learn

Collaboration

Users

Failure



Over control

Over opinions

Over plans

Over protection

Over customers

Over not trying



HUNGRY



HUMBLE



AWARE

OPEN

Thales Digital Factory



A DIGITAL CENTRE OF EXCELLENCE

that will bring together world-class expertise in key skill areas (Artificial Intelligence, UX designers, cybersecurity, connectivity, etc.)



A DIGITAL PLATFORM

hosting services for our employees and customers.



A START-UP INCUBATOR

for both internal and external start-ups to accelerate new businesses and be closer to digital ecosystems.



A DIGITAL ACADEMY

able to disseminate digital culture and technologies, through training and coaching opportunities, digital events, hackathons, etc.

OPEN

Launched on 1st October comprising:

- Digital Factory
- Thales e-Security – secure transactions
- Vormetric – Data security platform (2016)
- Guavas – real-time Big Data analytics platform (2017)

➤ Patrice Caine outlined the strategic vision underlying this decision, speaking of *the dual need to underscore the strategic importance of the Group's data analytics and data activities, and to drive the digital transformation of all of Thales's businesses by leveraging the key technologies of Connectivity, Big Data, Artificial Intelligence and Cybersecurity.*

STATION F

- World's largest start-up campus.
- Accelerate the future of cybersecurity.

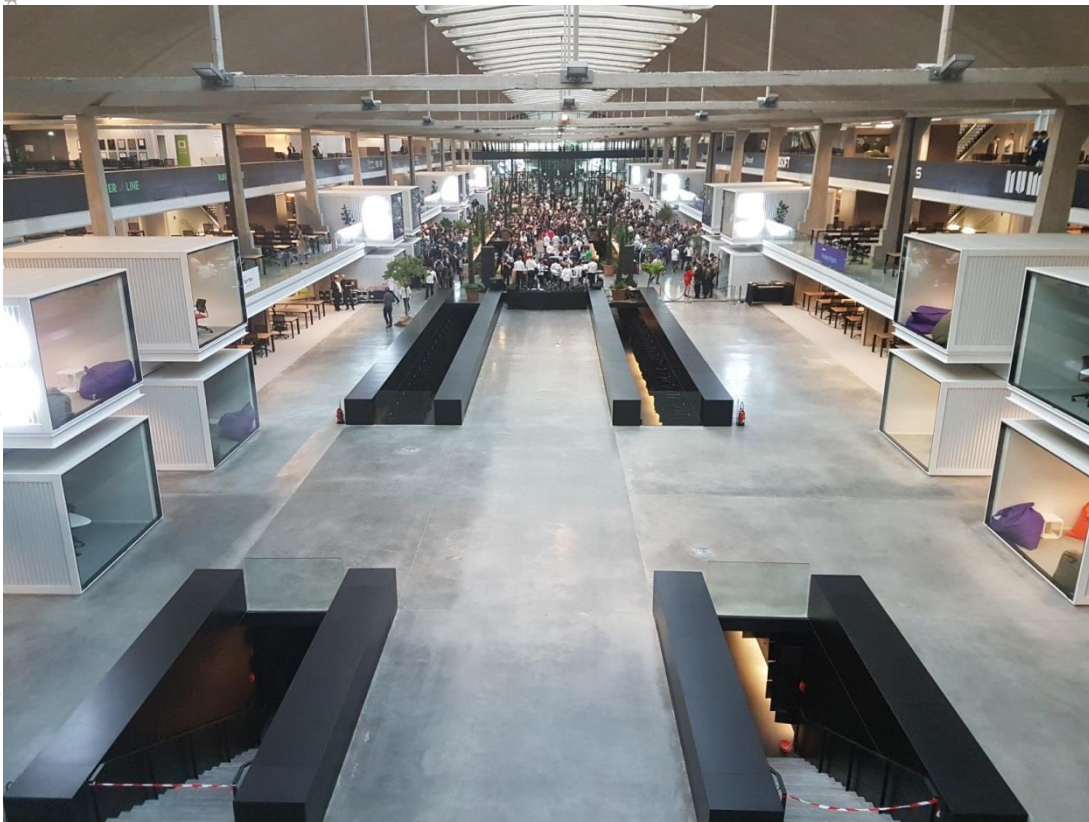
Our aim

- Drive the emergence of cybersecurity champions

Thales role

- Provide advice, technical expertise and access to our technology platforms in order to co-develop the most innovative solutions with applications in the Group's markets.

Thales Cybersecurity Programme @ Station F



■ The move to digital will transform the Group delivering

- Product as a service
- Culture change

■ The Digital Factory will only work if

- The Platform is effective for the ecosystem
- There is genuine Corporate support to engage

■ The Digital Business Unit focuses corporate energy on something that can be measured

■ Services Transformation can happen without Digital Transformation but Digital Transformation cannot happen without the new services business models that Services Transformation will bring