



DEFENCE AND SPACE

# Industrial Policy Strategy and Supply Chain

Chris WARD – Space System R&D

Finnish Space Industries Days  
Helsinki - April 4th, 2019

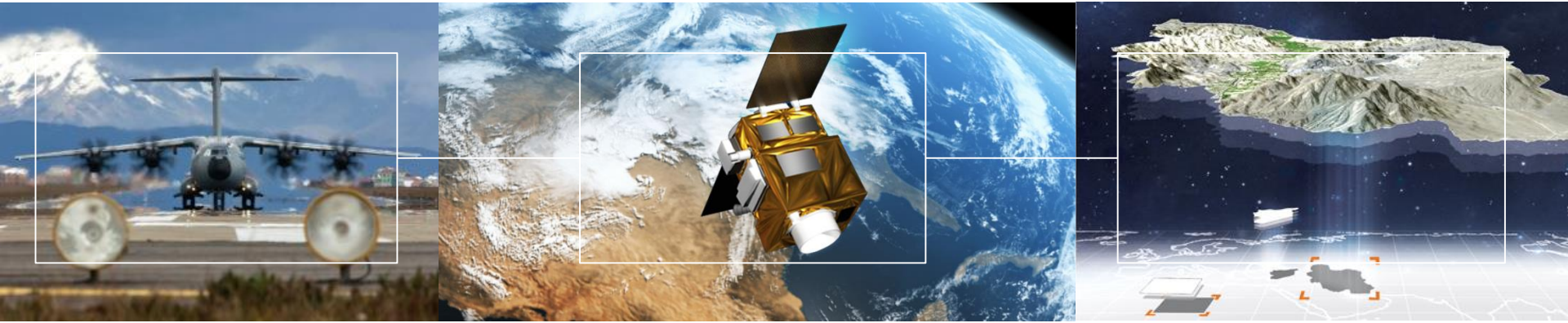
**AIRBUS**

WE MAKE IT  
**FLY**



**AIRBUS**

# Airbus Defence and Space – Our Portfolio.



## Military Aircraft

- A400M
- A330 Multi-Role Tanker Transport
- Special Mission Aircraft
- Combat Aircraft
- Unmanned Aerial Systems
- Full In-Service Support

## Space Systems

- Telecommunication Satellites
- Earth Observation Satellites
- Navigation Satellites
- Manned Spaceflight
- Space Exploration
- Space Equipment
- New space programmes
- Launchers

## Communication, Intelligence & Security (CIS)

- Earth Observation
- Satellite-based Geo-Intelligence Services
- Government Satellite Communication
- Command & Control (C5ISR) Systems
- Cybersecurity Solutions and Services
- Mission critical communication solutions



# Airbus Defence and Space Footprint in Finland



# Airbus is not just a European, but also a Finnish company with world-wide market access

## A Finnish Company

2002

### Virve secure radio communication

World's first nationwide secure TETRA network was deployed in Finland. It keep evolving and developing today and in the future.

2007

### C295 tactical air transportation fleet

The largest aircraft of the Finnish Air Force, in total three units have been delivered.

2015

### MST real-time air situation picture

Multi-sensor tracking system is an essential part of Finland's air defence capability.

Over **340** employees work at two locations, Helsinki and Jyväskylä

The company is one of the 30 largest R&D investors in Finland with annual investments of ca. **€30 M**.

The annual revenue of Airbus entities in Finland is ca. **€160 M** which of over 90% is export.

# Part of European defence, space and security industry – together with our partners

## European Defence

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Airbus receives annually ca. **€80 M** worth of goods and services from Finnish companies.

Some of Airbus' partners in Finland are DA Group, Datactica, Patria, Robonic, RUAG, SSF and Tieto.

Airbus Defence and Space has **32,000** employees worldwide.

**AIRBUS**



# Space Systems

DEFENCE AND SPACE

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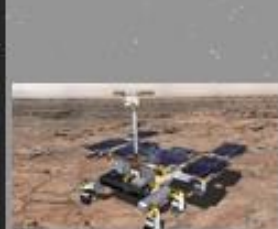
## OUR VISION

# Making Space a Universe of Possibilities for Everyone

At Airbus, our purpose is to improve life on Earth and beyond through our cutting-edge Space technologies. With every technological breakthrough we bring people closer together, we navigate new frontiers and we discover new and unexplored destinations. And we don't just take innovations to Space, our Space solutions help solve global challenges on Earth.

But we don't stop there: We envisage a future where our human economy expands beyond Earth's orbit and everyone benefits from the value of Space.

**EXPLORE, DISCOVER, CONNECT.** Together, we can make tomorrow more than just another day.

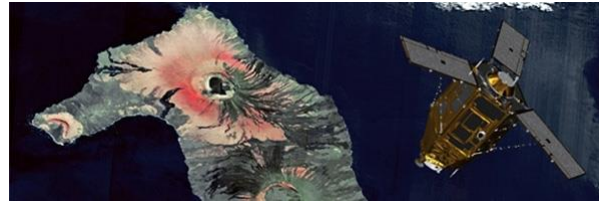




# Space Systems – Our Activities.



Telecommunication Satellites



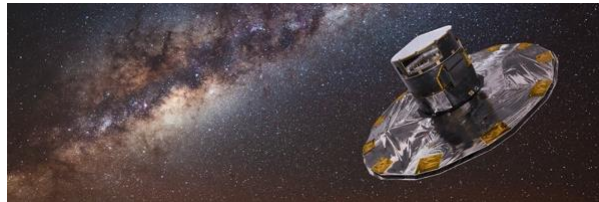
Earth Observation Satellites



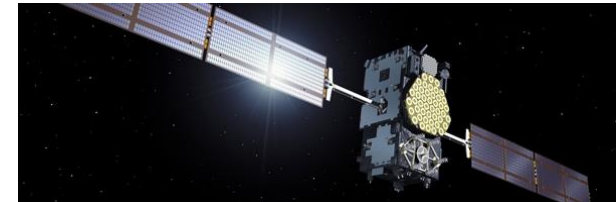
Space Equipment



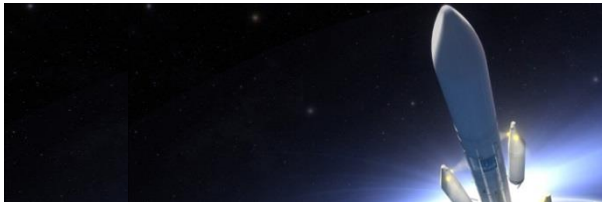
Manned Spaceflight



Space Exploration & Science



Navigation Satellites



Launchers & Deterrence



New Space ... with OneWeb

... and a complete range of  
**Space-based Services** in our  
“Communications, Intelligence and  
Security (CIS)” business line.

# Our Roots are in Europe, the World is Our Home

Only supplier trusted by the top **seven** commercial telecom operators Worldwide

#1 supplier of Earth Observation Systems on the international market: 16 satellites for eleven countries around the Globe

First-ever non-US supplier of a mission-critical element for a **NASA** human spaceflight mission

Figures from 06/2018

Thousands of people with more than 67 different nationalities work **at 16 sites** across seven countries...





# OneWeb Joint Venture

Largest-ever  
constellation for  
global internet

A revolution in satellite  
manufacturing with production  
rates of 2-3 satellites per day

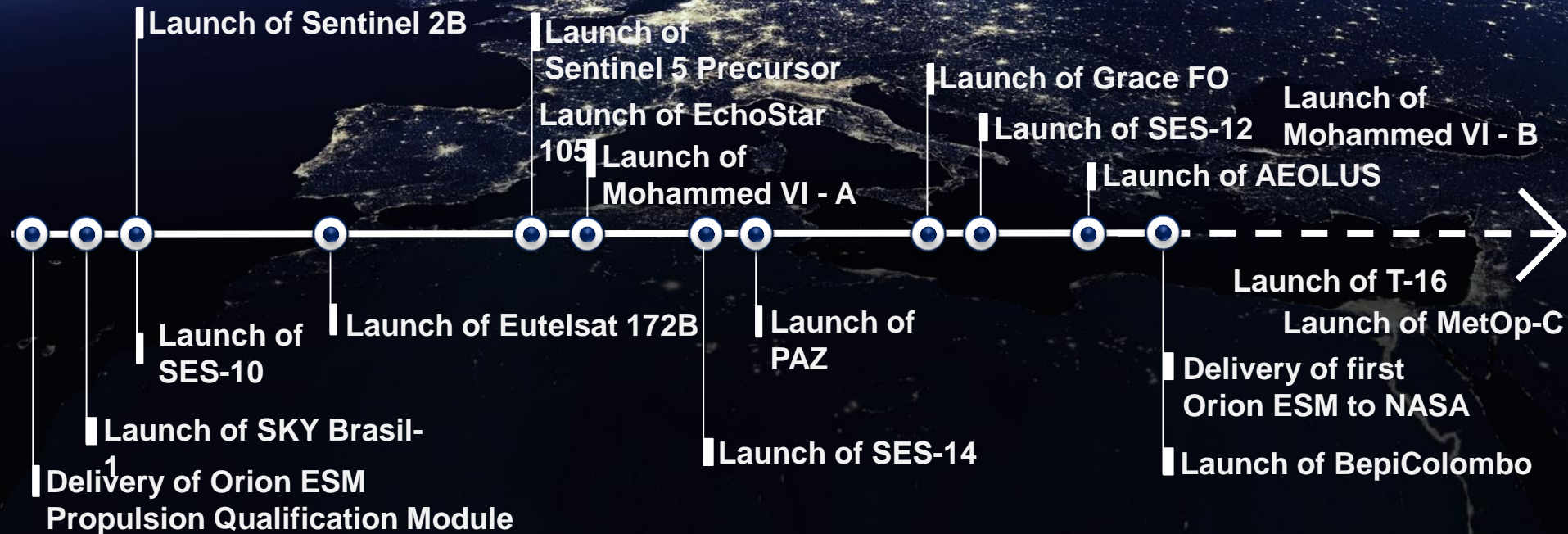
Paving the way for new  
constellation opportunities in LEO



# We Deliver

[2017 | 2018]

STATUS 07/2018



# Airbus Industrial Policy Strategy

## Support of ESA Industrial policy 5 principles and their adaptation

1. European Preference
2. Cost Effectiveness
3. Industrial Competitiveness
4. Fair Return
5. Use of Competition

**Develop a solid and competitive industrial basis across Europe,**  
supporting institutional and commercial programmes

## Our objectives:

- Anticipate with Member States how its industry can be better prepared with the right technology and industrial maturity for future bids
- Favour the “Open R&D” approach with Member States and its industry, SME, and Labs that stimulate joint innovation
- Prepare future programs/missions and R&D / T activities with potential Airbus Group enlargement: start-up (via Airbus Ventures), new technology
- Reinforce Airbus industrial knowledge across Europe with a systematic participation in ESA and National Industry Space Days.

The background of the slide is a dark blue, stylized graphic. It features a map of the world with glowing white lines connecting various points, representing a global network. The lines are thicker in some areas and thinner in others, creating a sense of depth and connectivity. The overall aesthetic is futuristic and technological.

# Airbus Supply Chain



# Airbus @Slush

Airbus BizLab has been for years actively at Slush with its Startup Accelerator Program. The first Finnish startup is now also in the program.



# Our supply chain and knowledge

## Our Finnish Suppliers:

Airbus Space System mainly works with:

- DA Design: Scout and METOP programs
- SSF: Recovery Software Image for the ExoMars Rover
- RUAG Space: Solar Orbiter, Sentinel-2, Sentinel-6

## Our Knowledge:

- Bittium
- DA-Design
- Harp Technologies
- ICEYE
- Lnafin
- Reaktor Space Lab
- RUAG Space
- RSI Solutions
- Sievi Tools
- SSF
- T&G
- Terma
- Tidorum
- VTT Technical Research Center

## HS Foils Oy Study

"Finnish technological capacities with regard to ESA opportunities" following 2017 ESA/ESTEC meeting

## Airbus knowledge

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Airbus works more and more as a genuinely international company, despite the particularities of the defence market.



## Airbus/Supplier joint efforts to meet Customer demand: A reliable Supply Chain



### PARTNERSHIP

Partnership development and innovation with supplier

### ON-TIME DELIVERY

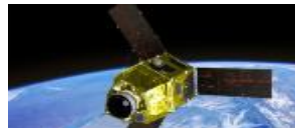
Reach and sustain excellent performance for a reliable supply Chain (OTD)

### QUALITY

Make it right the first time (OQD)

### COST

Be creative and propose solutions for cost optimisation by maintaining competitiveness







## How to become supplier for Airbus' space activities?

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1. BTB participation
2. Please send presentation on your capabilities to us:

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Chris Ward  
[chris.c.ward@airbus.com](mailto:chris.c.ward@airbus.com)

Thank you!