

# Space at Airbus

## Introduction

DEFENCE AND SPACE

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**AIRBUS**

Airbus is a commercial aircraft manufacturer  
with two Divisions – Defence and Space, and Helicopters



# Who we are

Airbus is the largest aeronautics and space company in Europe and a worldwide leader.

# At a glance

**€2.5 bn**  
2020 revenues

**70%** | **30%**  
Products | Services

**World #1**  
Earth observation export

**World #1**  
Telecom satellites

**Europe's #1**  
Human spaceflight

# Industrial footprint



**12,000+**  
people



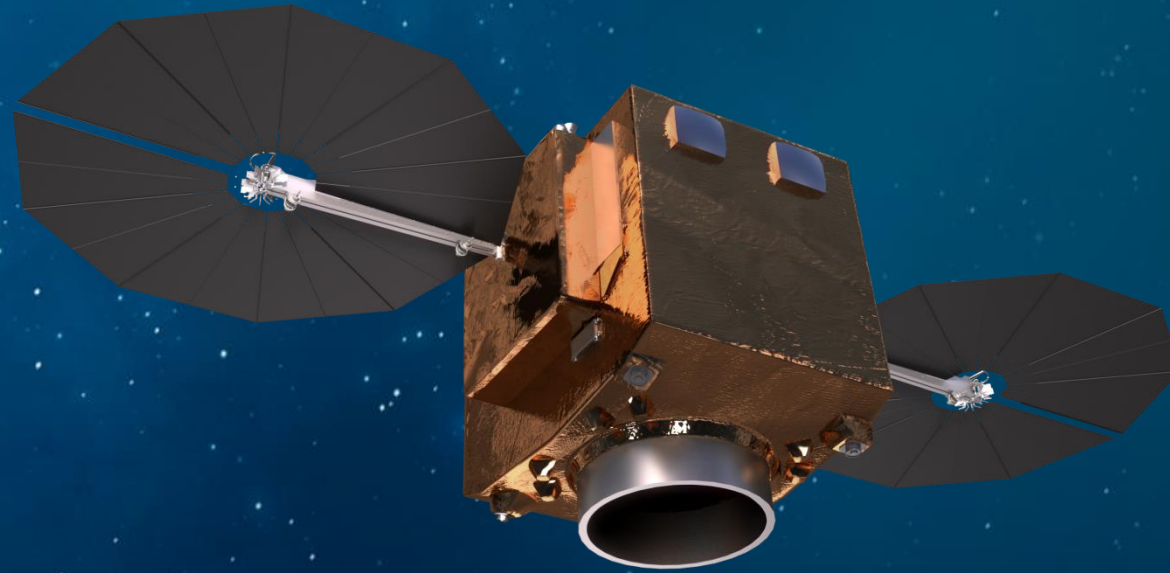
**13**  
sites



**7**  
countries  
incl. US



# @AirbusSpace



One single entity active all along the Space value chain: Airbus Defence and Space



Satellite  
manufacturing



Space  
equipment



Launchers  
and launch  
services



Ground  
segment



Satellite  
operations  
(services)




Earth observation /  
Telecoms  
(services)



Applications

# Airbus Satellite Constellation

## Pléiades Neo

 30 cm  
Revisit capacity  
twice daily, anywhere

Daily acquisition capacity:  
2,000,000 km<sup>2</sup>

## Pléiades 1a/1b

 50 cm  
Revisit capacity  
daily, anywhere


Daily acquisition capacity:  
700,000 km<sup>2</sup>

## Vision-1

 90 cm  
Daily to 8 days, anywhere,  
depending on latitude and  
partner satellites

Daily acquisition capacity:  
20,000 km<sup>2</sup>

## SPOT 6/7

 1.5 m  
Revisit capacity  
daily, anywhere

Daily acquisition capacity:  
6,000,000 km<sup>2</sup>

## RADAR Constellation

 From 25cm to 40 m  
Revisit capacity  
daily for most latitudes

Daily acquisition capacity:  
5,400,000 km<sup>2</sup>

## DMC Constellation

 From 12 to 24 m  
Revisit 3-5 days anywhere

Daily acquisition capacity:  
10,000,000 km<sup>2</sup>



# Our heritage

## Asterix

1965

## Rosetta

2004-2016

## Columbus

2008-present



# 2021 Highlights

Why #SpaceMatters and What's Next at Airbus

**10** new spacecraft serving life on Earth



**5** observing Earth  
2 x Pléiades Neo  
3 x CERES



**4** connecting people  
Eutelsat Quantum  
Inmarsat-6 F1  
2 x Türksat 5



**1** studying the universe's origins  
Webb's NIRSpec instrument



**+** a new robotic arm for the ISS (ERA)



**12** zerogravity slots to provide easy access to space on the Bartolomeo platform



**1** constellation for OneWeb in deployment

World's #1 for space products



**1247** equipments delivered

**10** major milestones



- **Moon**  
Orion ESM 2 delivery
- **Mars**  
Mars Sample Return – ERO Preliminary Design Review
- **Science**  
JUICE final tests, EUCLID telescope delivery
- **Telecoms**  
Design reviews for OneSat, Skynet 6 & SpainSat
- **Climate**  
MetOp-SG integration, Copernicus Sentinels 2C and 6B in test

Building the future:  
New missions



- **Moon**  
- European Service Modules 4, 5, 6 for NASA's Artemis missions  
- Moon Cruiser study for Lunar Gateway
- **Navigation**  
- 6 x Galileo 2<sup>nd</sup> generation satellites
- **Telecoms**  
- SuperBird-9 the 7<sup>th</sup> OneSat fully flexible satellite  
- Eutelsat-36D highly reliable Eurostar Neo
- **Science**  
- Ariel to study exo-planets

**11,000** school children



Inspired by Airbus' World Space Week ambassadors

A step beyond...

Enabling Europe's climate missions for a safer world



Space-powered medicine experiment grows human tissue on ISS



Our world never clearer  
30cm precision from Pléiades Neo



A factory in space rethinking satellite production



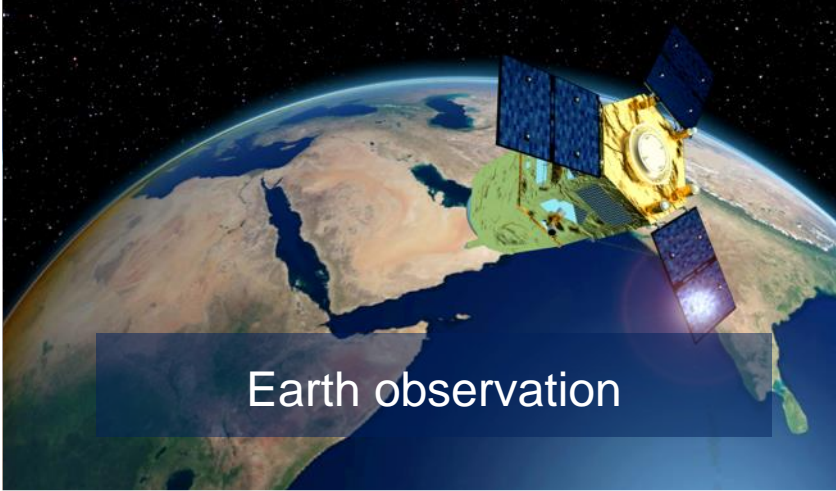
Designing clean space technologies for future generations



...to a more sustainable future



Telecommunications



Earth observation



[ Airbus Amber ]

Spacecraft equipment



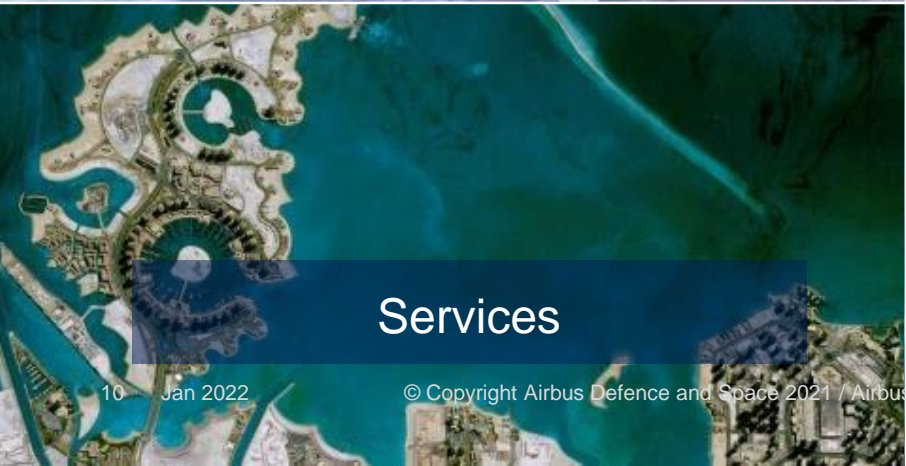
Human spaceflight



Space exploration and science



Navigation



Services



Ground segments



Launchers

**AIRBUS**

# OneSat

## A game changer in a transforming market

The fully flexible ready-made telecommunications satellite: 50% lower in-orbit cost , 50% faster to market, 100% flexibility in coverage, power and frequency

# Constellations



## Leveraging the OneWeb manufacturing process

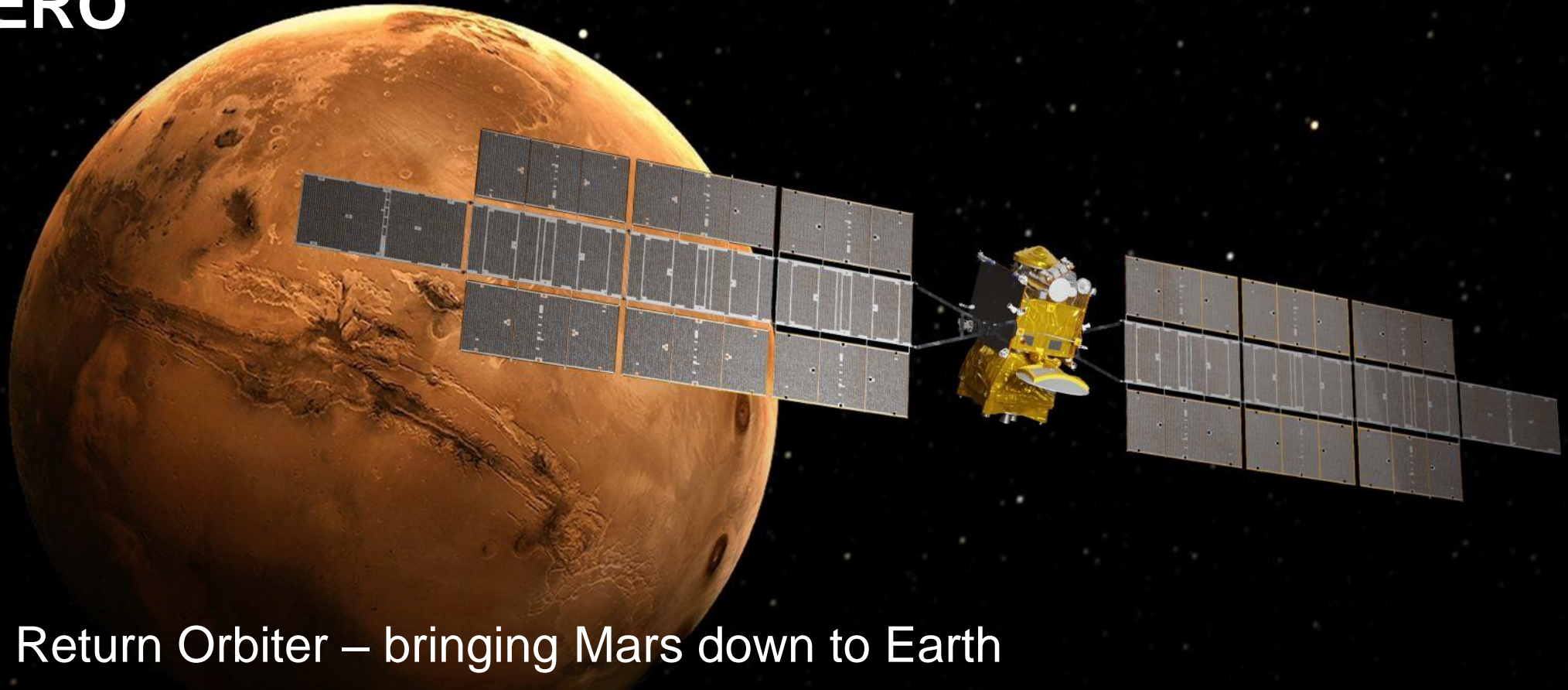
A revolution in satellite manufacturing with production rates of 2-3 satellites per day.  
Paving the way for new constellation opportunities in LEO.

# ExoMars rover

An autonomous rover searching for life on Mars

Scheduled for launch in 2022, the 'Rosalind Franklin' rover combines enhanced autonomy and science packages

# MSR-ERO



## Earth Return Orbiter – bringing Mars down to Earth

Earth Returns Orbiter (ERO) will bring the first ever Mars samples back to Earth by 2031. ERO is EAS's contribution to the final part of the NASA-led Mars Sample Return (MSR) campaign.

# Artemis

## Going to the Moon starts in Europe

A new chapter in human space exploration, the Orion European Service Module will propel NASA's Artemis missions

# Juice

## A mission impossible made possible

Mission to Jupiter, to study whether its icy moons could sustain life – powered by an amazing 97 m<sup>2</sup> of solar panels

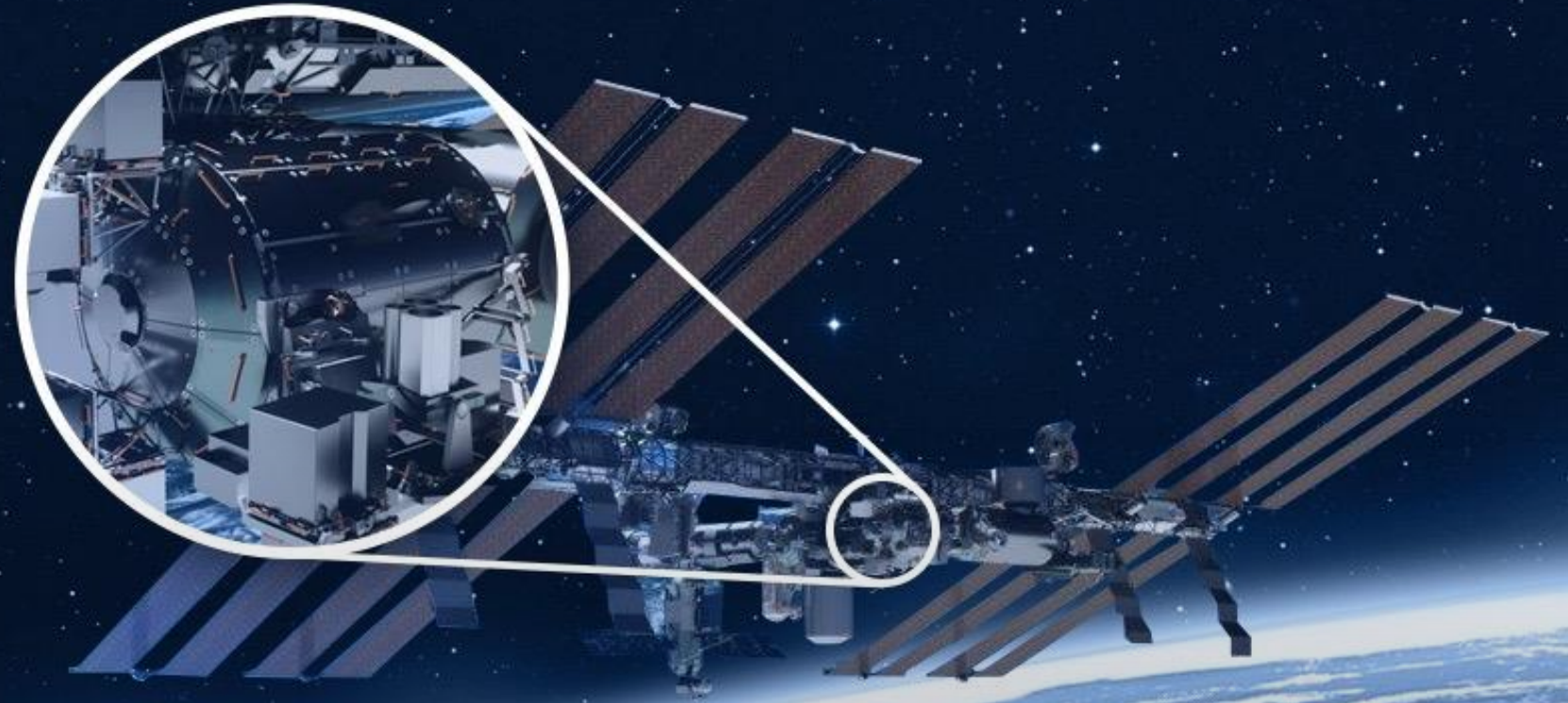


# ISS: Columbus

## Europe's main contribution to the ISS

Built and operated by Airbus for ESA, over 1800 experiments have been conducted in the ISS' pressurised laboratory since its launch in 2008

# Bartolomeo



## Hosted payloads on the International Space Station (ISS)

The all-in-one space mission service provides easy access to low-Earth orbit

# Cimon

## First interactive crew assistant

The Crew Interactive MOBILE companion is an AI-based assistant for astronauts developed in collaboration with IBM (using Watson AI technology) for the German Aerospace Centre (DLR)

# Our future

**Protect**

**Serve**

**Explore**

## Changing how Space at Airbus is perceived

**“Forget ‘New’ vs. ‘old’ space, Airbus is committed to doing the best space possible for the benefit of humanity and dares to be different when needed. That’s Next Space.”**

... This isn't just a motto it's who we are and how we want to be seen



# Thank you

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