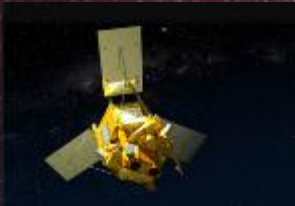


Welcome to the world of Astrium Satellites

April 2013



Together pioneering excellence



Astrium: part of EADS – a global leader in aerospace and defence

EADS



Airbus
Airbus Military



Eurocopter



Astrium



Cassidian

Facts & Figures 2012



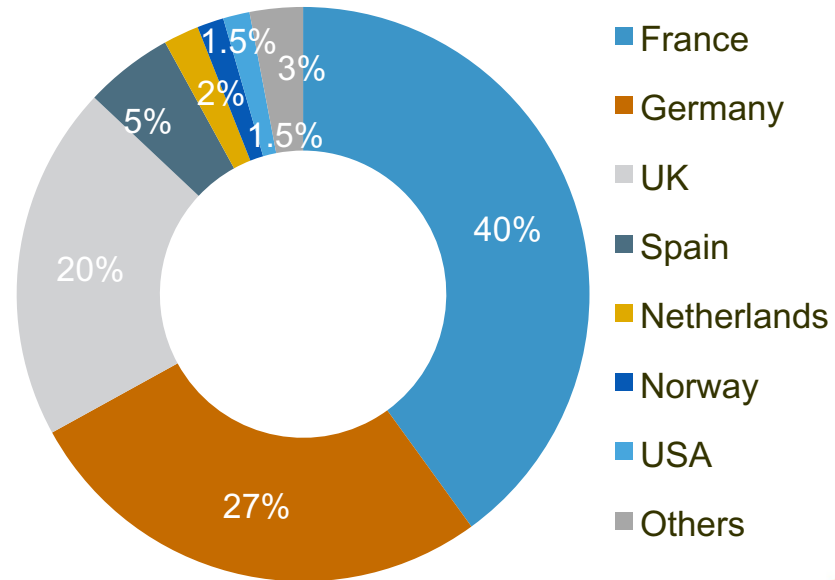
Employees:
18,000

Turnover:
€5.8 billion

Order backlog:
€12.7 billion

CEO:
François Auque

Employees by country:



Astrium's activities are based in three key areas to serve governmental and commercial markets

Astrium Space Transportation

The European prime contractor for space transportation and orbital infrastructure



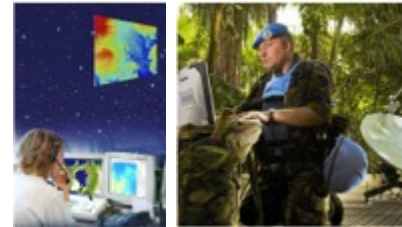
Astrium Satellites

A world leader in the design and manufacture of satellite systems and ground segments



Astrium Services

A global provider of end-to-end solutions for satellite communications and geo-information services



Astrium at work



“Astrium is a global space industry leader, with world-class expertise and extensive prime contractorship experience across all sectors of the space business.”

- No. 1 space company in Europe
- No. 3 space company worldwide
- The only European company that covers the whole range of civil and defence space systems and services

Equipment

Satellite and
launcher
manufacturing

Launch
services

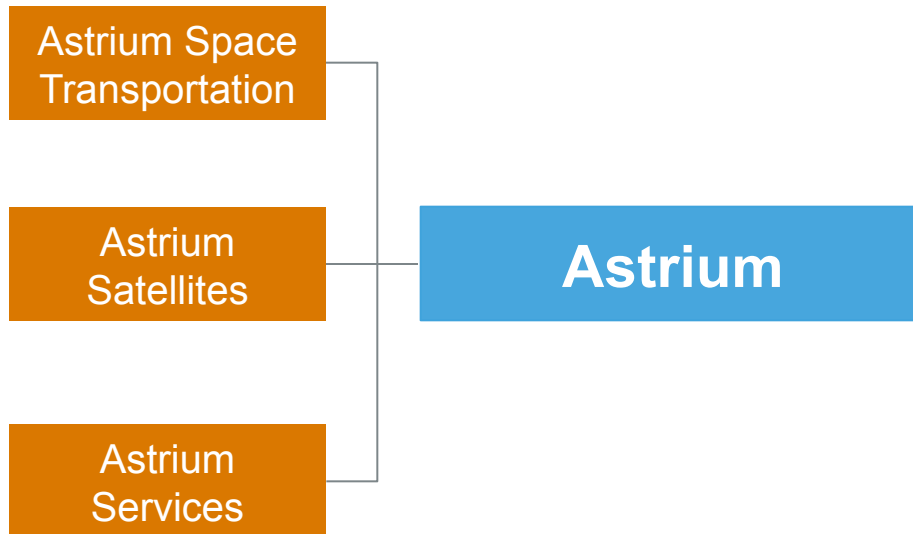
User ground
equipment
and terminals

Satellite
operation

Value-added
services

Astrium: an integrated company

Business Units



Central functions



Astrium Satellites



“A world leader in the design and manufacture of satellite systems and ground segment.”

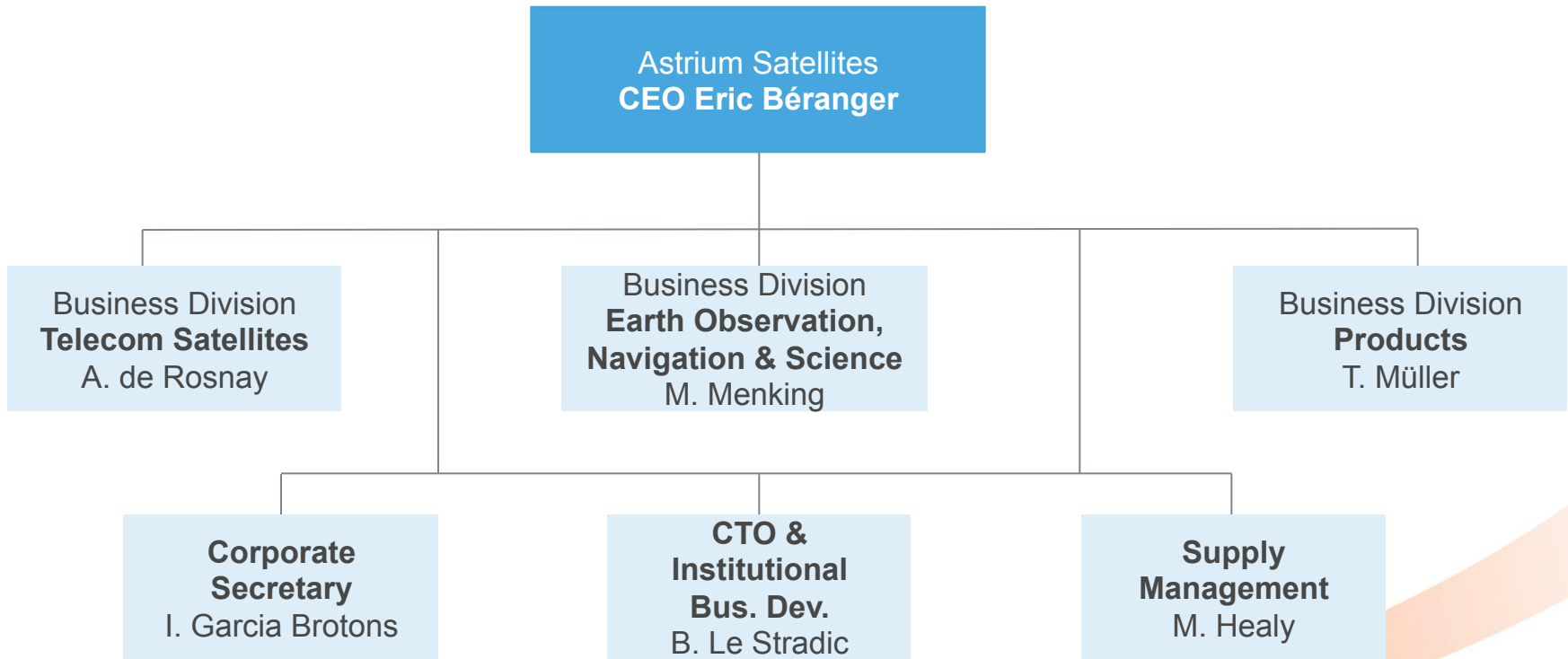


CEO: Eric Béranger

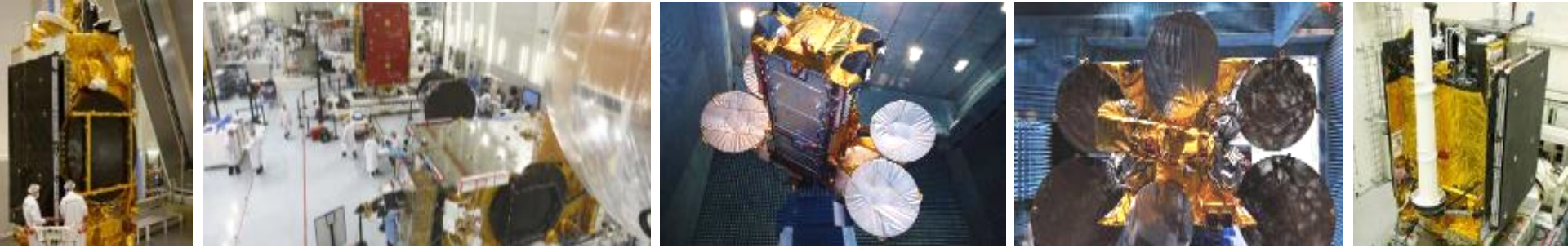
Business Divisions:

- Telecom Satellites
- Earth Observation, Navigation & Science
- Products

Astrium Satellites



Telecommunications



A market leader

- Established in a challenging commercial market and a major provider of military systems
- Eurostar E3000, best-selling telecom platform
- At the forefront of innovation

Telecommunications



A partner of confidence for major operators worldwide

- 50-year experience in satellite manufacturing
- Prime for over 100 GEO communications satellites
- Product range covering all mission needs:
broadcast and fixed services, mobile, interactive broadband,
secure communications
- Efficient industrial organisation

Telecommunications



Complete capability

- Spacecraft and payload design, manufacture, test, launch and operations
- End-to-end communications system infrastructures
- Civil and military telecom systems

30 Eurostar E3000 satellites launched



Eutelsat W3A
15 March 2004



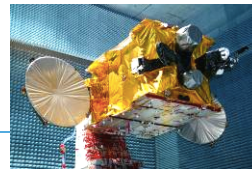
Intelsat 10-02
16 June 2004



Amazonas 1
4 Apr. 2004



Inmarsat-4 F1
11 March 2005



Anik F1R
8 Sept. 2005



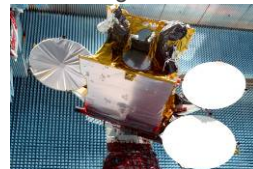
Inmarsat-4 F2
8 Nov. 2005



Hot Bird 8
4 Aug. 2006



Skynet 5A
11 March 2007



Anik F3
9 Apr. 2007



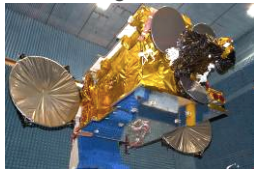
Skynet 5B
14 Nov. 2007



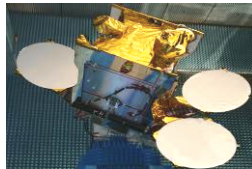
Skynet 5C
12 June 2008



Inmarsat-4 F3
18 August 2008



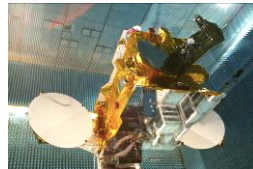
Nimiq 4
19 Sept. 2008



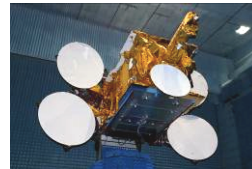
Astra 1M
5 Nov. 2008



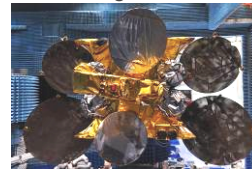
Hot Bird 9
20 Dec. 2008



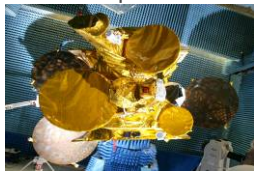
Hot Bird 10
12 Feb. 2009



Amazonas 2
1 Oct. 2009



Astra 3B
21 May 2010



Badr-5
3 June 2010



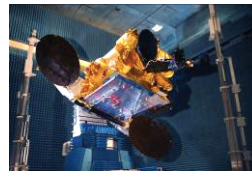
Arabsat 5A
26 June 2010



Ka-Sat
26 December 2010



Yahsat Y1A
22 April 2011



Astra 1N
6 August 2011

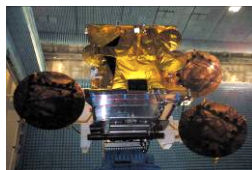


Express AM4*
18 August 2011

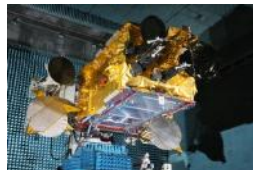
* Launch failure



Arabsat 5C
21 Sept. 2011



Atlantic Bird 7
24 Sept. 2011



Yahsat Y1B
24 April 2012



Astra 2F
28 Sept. 2012

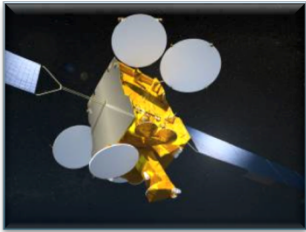


Eutelsat 70B
3 Dec. 2012

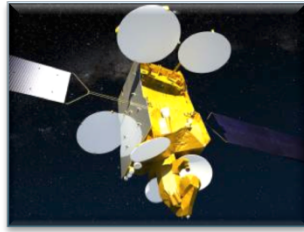


Skynet 5D
19 Dec. 2012

11 Eurostar E3000 satellites under construction



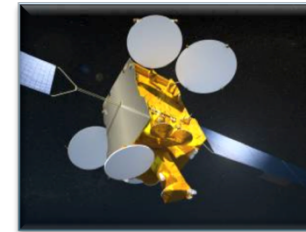
Astra 2E



SES-6



Astra 5B



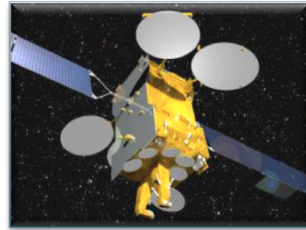
Astra 2G



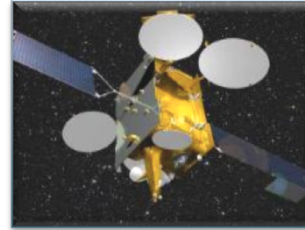
Measat-3b



Arabsat 6B



Eutelsat 3B



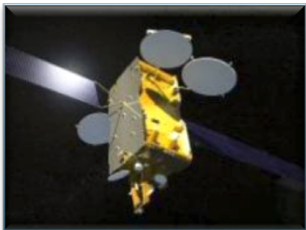
Eutelsat 9B



DirecTV 15

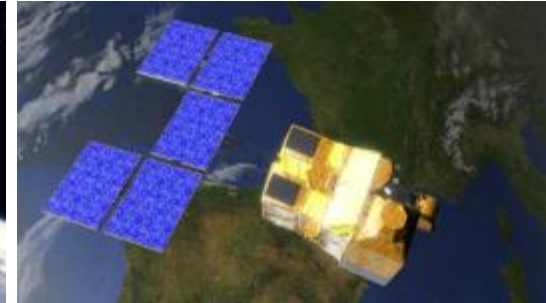
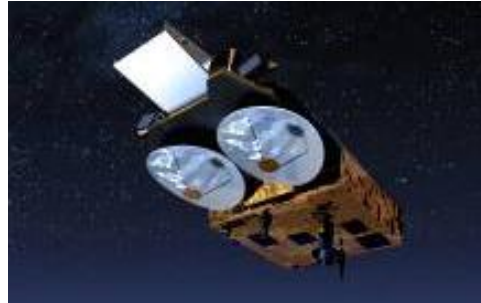


Express AM4R



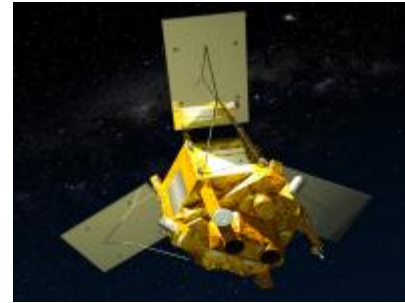
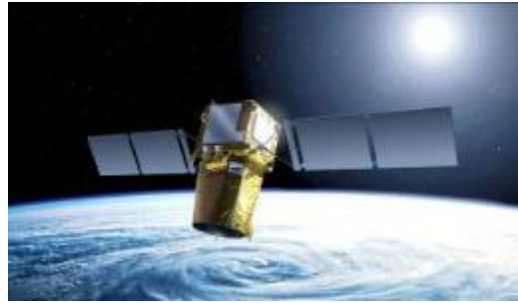
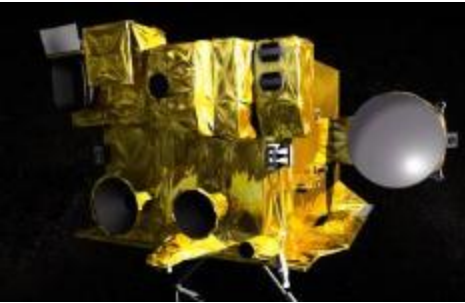
Express AM7

Earth observation



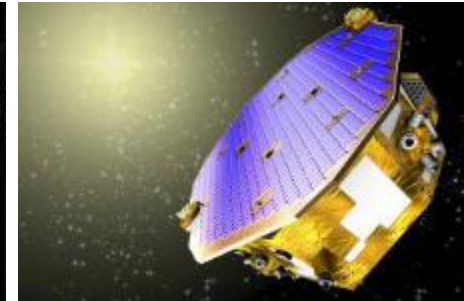
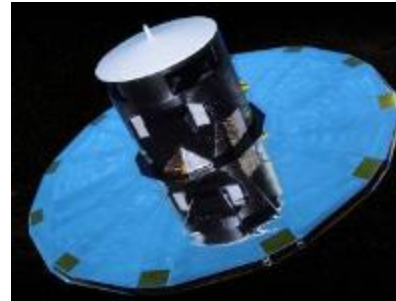
- Prime for over 30 Earth observation satellites
 - Meteorological forecasting
 - Global environment monitoring
 - Reconnaissance for national security and peacekeeping
- Design and manufacture of highly versatile platforms, optical and radar instruments
- Ground segment equipment

Earth observation



- **Environment:** Envisat, CryoSat-2, GOCE, SMOS, Swarm, Sentinel-2, Aeolus, EarthCARE
- **Imaging:** Spot 5, TerraSAR-X, TanDEM-X, ALSAT-2, Theos, Pléiades, SSOT, Ingenio, Paz, ERSSS, Spot 6 & 7, VNREDSat-1
- **Meteorology:** MSG, MetOp, COMS
- **Security:** Helios II, ESSAIM, Spirale, ELISA, CSO

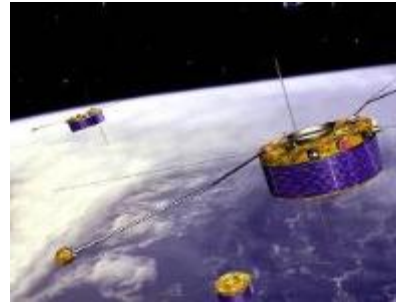
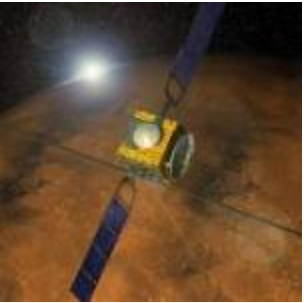
Space science



World-renowned expertise for building satellites, probes and instruments for exploration missions

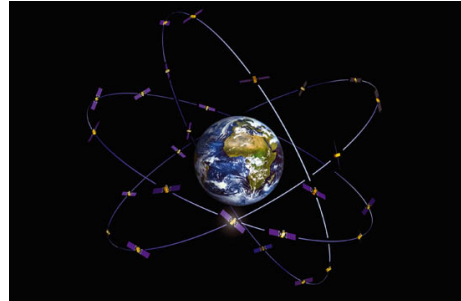
- Planetary exploration
- Deep space missions
- Astronomy
- Fundamental physics missions
- Monitoring solar activities and Sun-Earth interaction

Space science



- ❑ **Planetary exploration:** Mars Express, Venus Express, BepiColombo, ExoMars Rover Vehicle
- ❑ **Deep space:** Rosetta
- ❑ **Astronomy:** XMM-Newton, Herschel telescope, Gaia, JWST instruments
- ❑ **Fundamental physics:** LISA Pathfinder
- ❑ **Solar science and Sun-Earth interaction:** SOHO, Cluster II, Solar Orbiter

Navigation



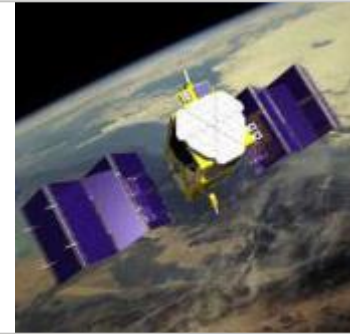
- A major EC–ESA partner in the design and development of Galileo*
- Prime for a concept phase study for ESA on the next generation of the European Geostationary Navigation Overlay Service (EGNOS)
- A leading role in the development of practical and cost-effective solutions for secure and safety-critical Global Navigation Satellite System application infrastructures

* The European Global Navigation Satellite System

Navigation

Space Segment

- Prime for the GIOVE-B test satellite
- Prime for the four In-Orbit Validation satellites
- Supply of the payloads and platform equipments for the first batch of FOC satellites



Ground Control Segment

- Prime for the Galileo Ground Control Segment



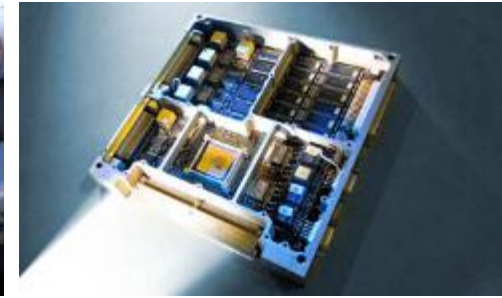
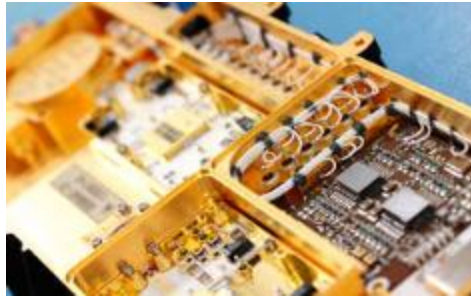
System Support Segment

- Major role in overall systems engineering with leading expertise in signal design, performance and verification



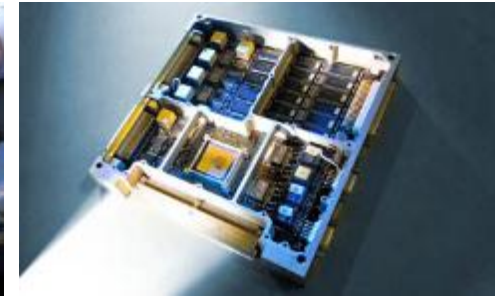
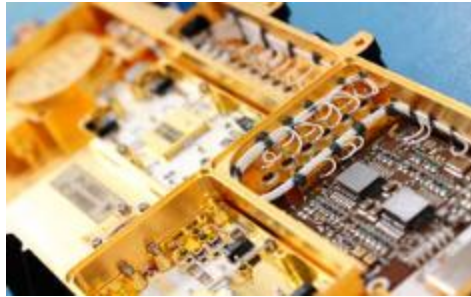
Galileo

Products



- World-class developer and supplier of space products for internal and external customers
- In-house development of key equipment, subsystems and leading-edge technologies
 - To optimise spacecraft performance
 - To enhance cost-effectiveness
 - To provide generic products across many fields
- Sustained R&D effort
 - To foster innovation breakthrough

Products



- Key space products include
 - Solar generators
 - Power equipment and subsystems
 - Electrical, RF and microwave equipment
 - On-board digital processors
 - Sensors and actuators
 - Mechanisms
 - Optical, radar and navigation payload equipment

Your contact at Astrium Satellites

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France

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Email: jean-marc.stephan@astrium.eads.net