Thales Alenia Space 2012

Orbits from 400, 20 000, 36 000 km and beyond

SCIENCE



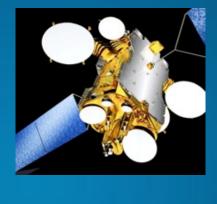
OBSERVATION



NAVIGATION



TELECOMS





Space in a few words



Contribution of satellites

- Global coverage & without limit
- Broadcast, multicast & points to points
- Strong Services, direct access
- Easy, fast to deploy
- In complement of other systems
- Right on time, low cost
- Cooperation Driving

An Answer to Political, Economical, Social, Technological & regulation needs:

- Public sector
- independence , sovereignty , security,
- ecology, security of citizens, employment

Private sector

- Innovations, technologies,
- competitiveness, development,
- standards, export

Dual Infrastructures and services



Telecoms, mobility
TV Broadcasting
Digital Radio

Prevention, Crisis Management Security Defense





Navigation Localization

Meteorology Environment



Observation





A Global Offer



We design, build and deliver end-to-end space systems for telecommunications, observation, navigation and exploration

A Global Offer from Equipment to End-to-End Space Systems

A joint venture between two leaders: A unique combination of expertise covering the full value chain

Thales: 67% Finmeccanica: 33%



Finmeccanica: 67% Thales: 33%





Equipments

Payloads

Satellites

Systems

Services



Key Figures

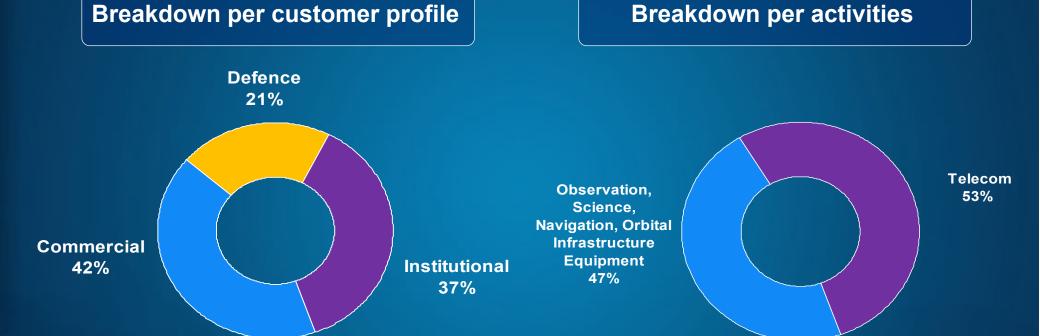
- ~ 7500 Employees
- > 10 sites in 5 countries
- 2 Bn€ Sales in 2011



A Strong Industrial Presence in Europe Commercial Representation in Multiple Countries



Business Breakdown 2011



A balanced Portfolio of Competence Addressing a Large Customer Base



A committed partner to deliver cutting-edge solutions

Telecommunications



Fixed / Mobile

Broadband

Dual / Military

Secured

AMC 21, Amos 4/5, Arabsat, Arsat-1, Athena-Fidus, Ciel 2, EuropaSat, Express MD1/MD2, Globalstar. Hispasat, Iridium Next, Kazsat 2, Koreasat 6, Loutch Pleiades, SPOT, CSO, Gokturk... 5/6. Nilesat 201, O3B, OverHorizon 1, Palapa-D1, RascomStar-Qaf 1R, Satcom BW 2a/2b, Sicral 1B, Sicral 2, Syracuse 1/2/3, Thor 6, Turksat 3A, W2A, W3B, W3C, W3D, W7, W6A, Yahsat 1A/1B, Yamal 401/402

Observation



Climate Change

Meteorology

Oceanography

Intelligence

Surveillance

Meteosat/MSG/MTG Jason, Calipso, COSMO-SkyMed, Sentinel 1&3, Envisat, ERS, GOCE, Helios, IASI,

Navigation



Localization

Aeronautical Communications

Data collect

EGNOS, Galileo, MTSat...

Exploration/Science



Planetology

Fundamental physics

Astronomy

Human spaceflights

Space transportation systems

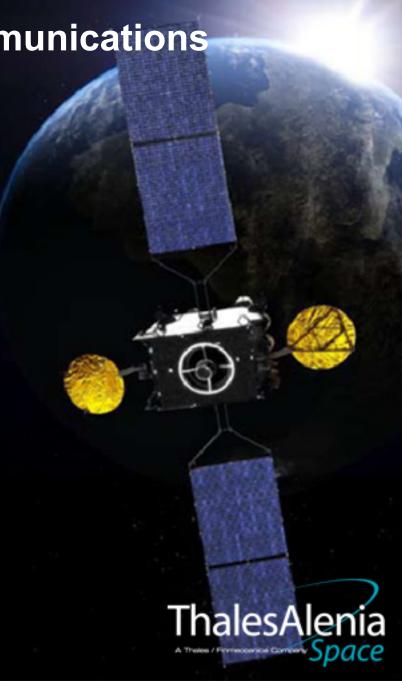
Herschel, Planck, Exomars, Alma, Corot, Cassini-Huygens, Node 2&3, Columbus, Cupola, MPLM, Automated Transfer Vehicle (ATV), ...

A world player in each of the space markets

A Forefront Position in Telecommunications

- ~ A complete offer from system design to equipment
- Networking satellite solutions and satellite delivery services
- Flexible payloads for all missions in all frequency bands
- A high-performance Spacebus platform family, proven in orbit, for GEOs
- A long track record in developments of partnerships with other manufacturers
- Flight proven credibility for Constellations : Globalstar 1st & Second Generation + O3b
- Prime for Iridium Next, the world's biggest low-earth orbit satellite constellation

Mastering cutting-edge technologies to deliver first class solutions

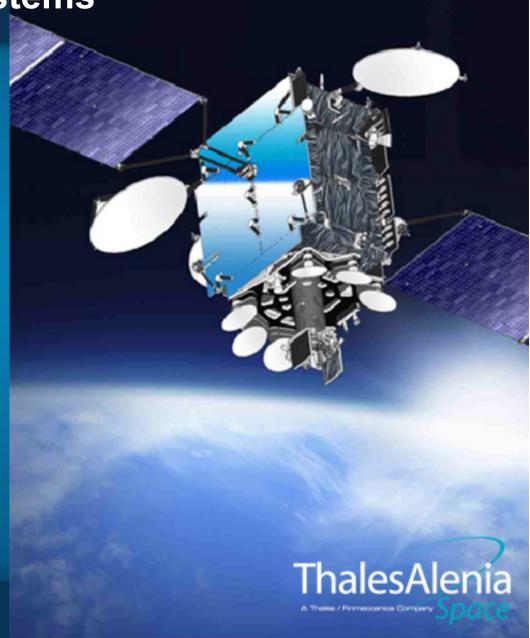


Space-based defense systems

Thales Alenia Space is experienced in all fields of military space

- Athena-Fidus and Sicral 2
- Outsourcing of the Syracuse system
- 2nd generation of Cosmo-Skymed
- Helios / CSO MUSIS intelligence system.
- CERES electronic intelligence
- Spirale Follow-On for early warning.

Ready to serve the new needs of Europe and their Allies



Shaping Navigation Systems in Europe

LOCALIZATION

Galileo

- End-to-end system design and integration leader
- Ground Mission Segment prime

Prime of EGNOS, the cornerstone of Galileo

- Satellite based augmentation system
- Aeronautical Positioning Integrity service opening in 2009
- Mobile telecom. operators location server

AERONAUTICAL COMMUNICATIONS

Air traffic Management

POSITIONING DATA COLLECT

- Maritime cooperative surveillance (AIS)
- Argos

Linking technology to markets



Climate Change Monitoring

- More than 35 years of expertise
- Contribution to almost every European climate-related mission
- Partner for worldwide agencies: ESA, Eumetsat, CNES, ASI, NASA, NOAA, JAXA, CSA, KARI.
- World leadership in operational oceanography based on Poseidon radar-altimeters success
- At the heart of GMES (Sentinel 1 and 3 series)
- Prime contractor for meteorological satellites since more than 30 years: Meteosat, MSG, MTG.



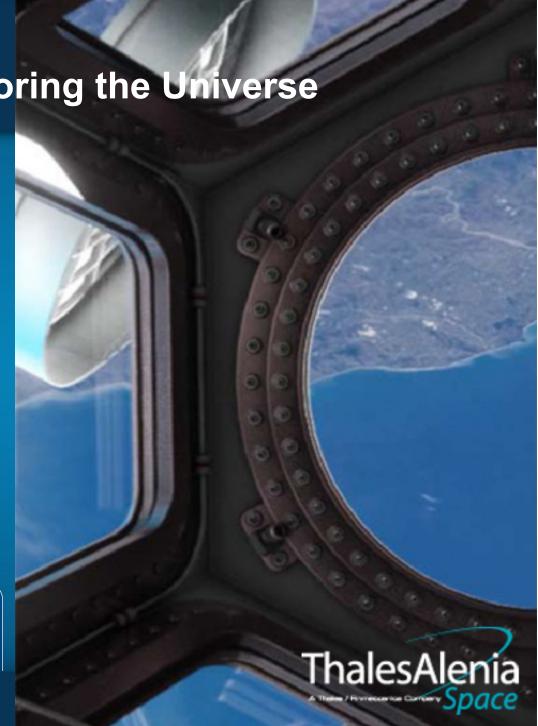
Key player in the Observation of the Earth's Climate & Environment based on Optical and Radar Top of Class Capabilities

Understanding and Exploring the Universe

Contribution to major European Exploration missions

- Huygens prime, Rosetta, Mars & Venus Express
- Prime contractor for Herschel & Planck
- Prime Contractor for ExoMars : European Premiere in landing/search for life on Mars
- Prime Contractor for ESA atmospheric re-entry technology demonstrator and ESA experimental vehicle
- Strong position in enabling technologies for human and robotic exploration

Key European Partner for International Cooperation



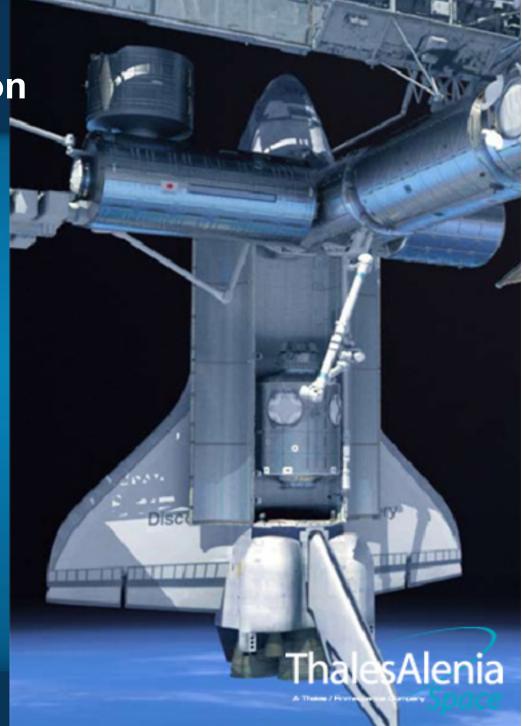
International Space Station

TODAY

- The largest industrial provider after Boeing
- ➣ 50 % of the pressurized volume of the ISS
- ESA's ATV cargo + COTS program

TOMORROW

- Extension of the ISS activities to 2020 and beyond
- Ready to provide more ATV and more Cygnus
- IXV expertise to develop a Cargo Return Vehicle



Serving Customers Throughout the World



APPENDIX

Launches 2011/ 2012 2011 Expected in 2012

TELECOMMUNICATIONS

TELECOMMUNICATIONS

- **~ W3C**
- ➣ Yahsat 1A
- Globalstar 2(3 batches of 6 satellites)
- **→ Arabsat 5 C**
- Kazsat 2
- **➣** Loutch 5A
- **➣** Express MD2
- Amos 5

OBSERVATION / SCIENCE / NAVIGATION

- **➣** Pleiades-1
- **➣** Saral
- **➣** Sadko
- ∼ Galileo IOV (FM1&FM2)

INFRASTRUCTURE

- ATV2 Kepler
- **→ PMM**
- **→ STS134**

- ➣ Apstar 7
- ➣ Yahsat 1B
- **→ Telkom 3/Express MD2**
- ➣ Globalstar 4th batch
- → Yamal 402
- >~ W6A
- > Amos 4
- ➣ Loutch 5B
- **→ Apstar 7B**

OBSERVATION / SCIENCE / NAVIGATION

- **™ METOP B**
- **➣ Kompsat 5**
- **SARAL/Altika**
- **™ MSG3**
- **➣** GEOIK2/Sadko

INFRASTRUCTURE

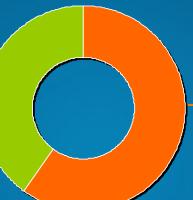
- **→ ATV3**
- ~ Cygnus



Our Shareholder Profiles - THALES

A global company with 67,000 employees and €13,2 billion in revenues in 2011

Aerospace and Transport 40%



Defence and Security 60%

Defence & Security







SAMP-T











Aerospace & Transport





Watchkeeper





Syracuse III



In-Flight

Entertainment





Damocles Ground Master 400

Sophie MF

Flexnet SDR

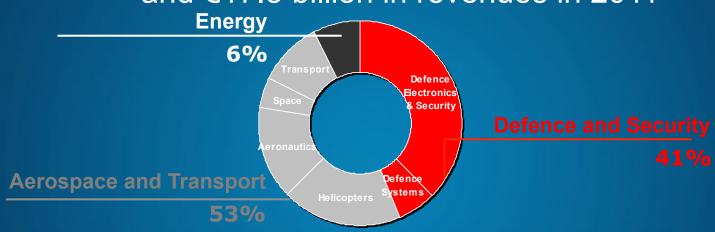
Sonar 2087

Simulators

Air Traffic Earth Observation Main Line Rail Surveillance Radars Satellites Signalling Systems

Our Shareholder Profiles - FINMECCANICA

A global company with 70,000 employees and €17.3 billion in revenues in 2011



Defence Electronics & Systems



Helicopters

Aeronautics

Space

Transport

Energy









Heavy Torpedo







Connectivity



High Speed

