

Astrium – a Global Player in the Earth Observation Business

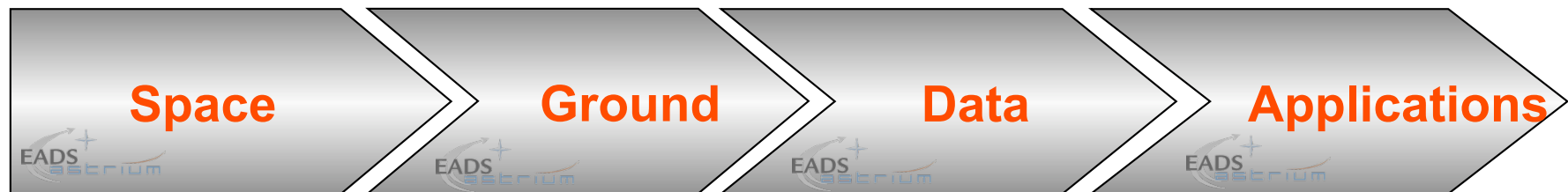
Dr. Reinhold Lutz
Managing Director Astrium GmbH

All the space you need



A complete portfolio

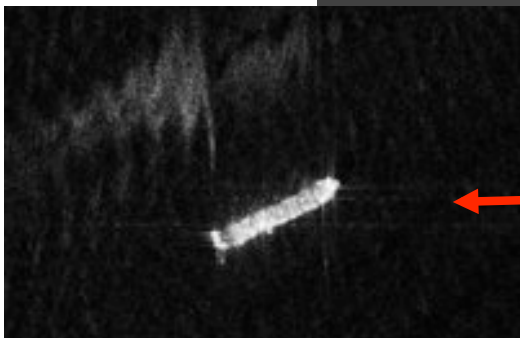
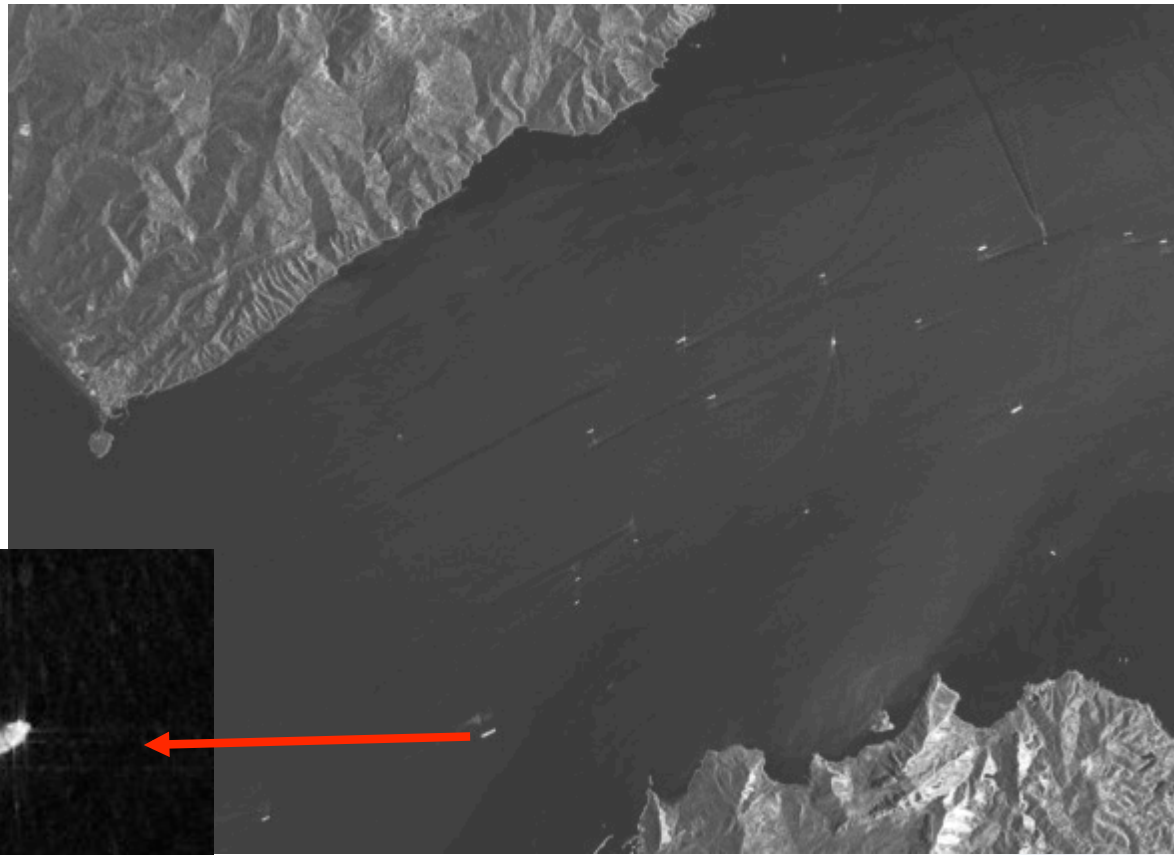
Astrium is an end-to-end solutions provider for **optical and radar systems**



Astrium - together with its industrial and institutional partners - offers **complete Earth observation solutions**, including not only the space but also the complete ground segment for satellite control, data processing, and user-driven applications

SAR systems

TerraSAR-X: 1m resolution radar system

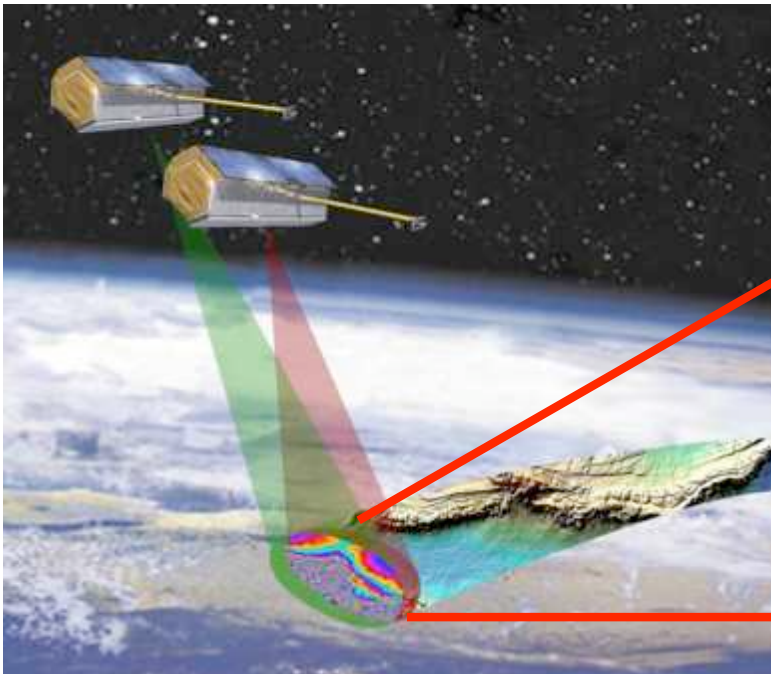


Street of Gibraltar

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SAR systems

Follow-on of SRTM mission: **TanDEM-X**, first DEM of the Earth available in 2014 offering elevation accuracy of 1-2m



Astrium positioning

- Very well positioned in Astrium **home markets**:
 - France: Spot family, Pleiades, Helios
 - Germany: TerraSAR-X, TanDEM-X
 - Spain: SeoSAR “Paz”, SeoSat “Ingenio”
- Strong position in Europe’s **GMES** (Global Monitoring for Environment and Security) program
- World leader in **export markets**:
 - 9 Earth observation satellites worth more than **\$1 billion** sold to customers in Asia, South America and Africa (2000-2009)
- Recognized **technology leadership** in SAR imagery
- **Broad portfolio** for optical E/O satellites (size and resolution)

The way ahead / Trends

- Market for commercial / dual-use Earth observation satellites* to **double** until end of this decade:
 - 2000-2009: more than **50** launches
 - 2010-2019: more than **100** launches
- **Security, Defence and Climate Change** remain the main growth drivers
- Need for mapping (“**Google Earth** effect”) will trigger global demand for commercial E/O satellites
- **Asia** is the fastest growing market
- **Multi-sensor** payloads (optical + radar → “**data fusion**”)
- Stereo capability for **3D models**

* excl. meteorological satellites

How healthy is the global industrial base?

Answer 1 for Europe:

Stable/growing activity level in Space:
Stimulus packages such as
“German High Tech Initiative” worth €12bn

Answer 2 for Astrium:

Astrium work force grew
9% in 2008 and 4% in 2009

Astrium is very healthy