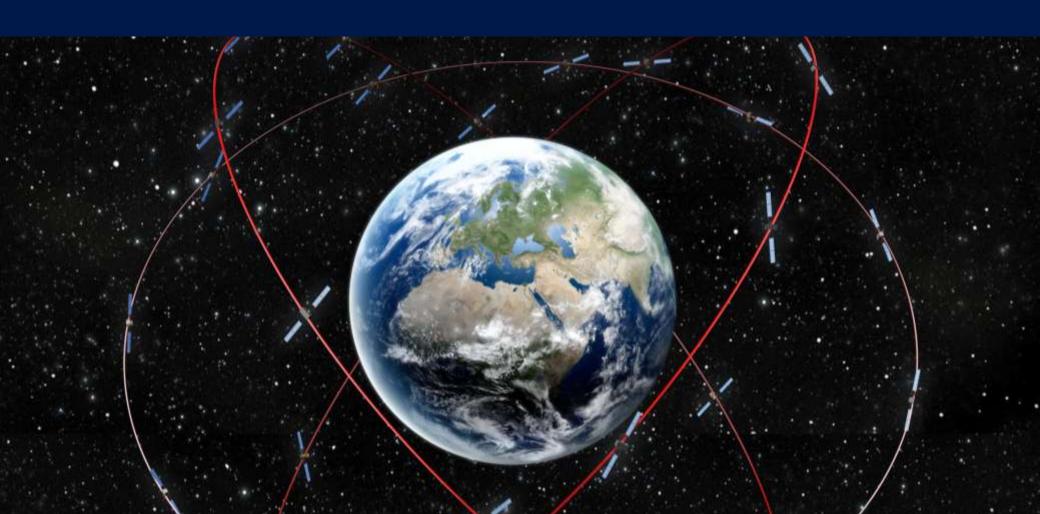
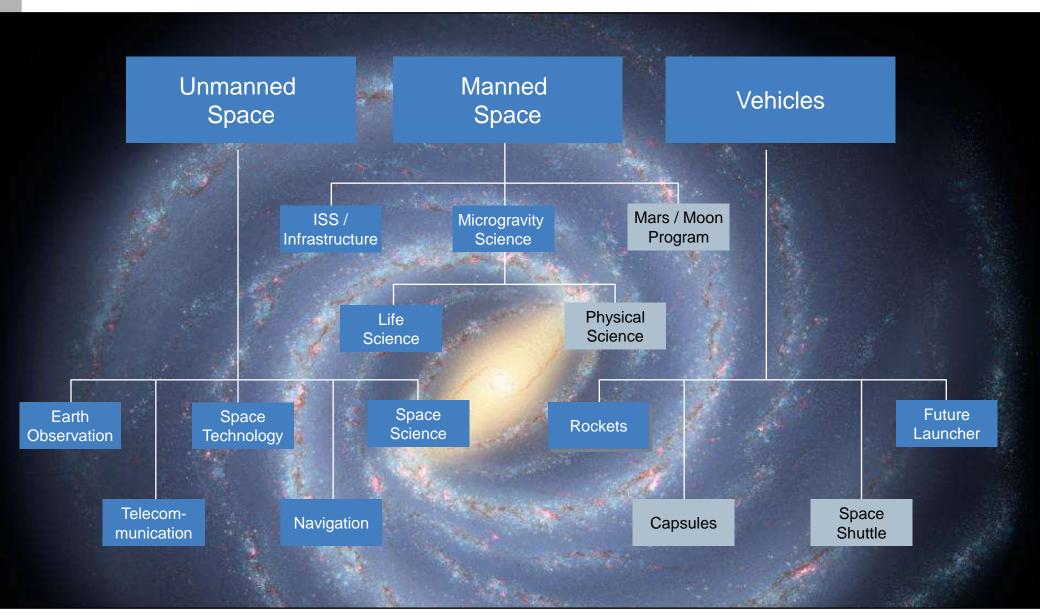


WELCOME TO OUR UNIVERSE









OHB – No. 3 in Europe

- Acquisition of Carlo Gavazzi Space and Antwerp Space strengthened the position of OHB in Europe
- OHB's business is clearly focused on space
- OHB is involved in all major European space programs (e.g. Ariane 5, Galileo, MTG, Columbus/ISS, Small Geo, etc.)
- Additionally OHB concentrates on attractive markets (e.g. Small, Mini and Micro Satellites) and high-tech solutions

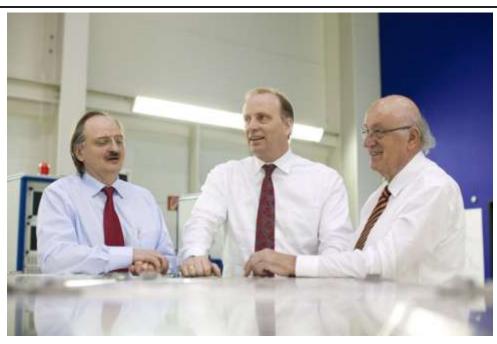
No. 3 in the European satellite manufacturer market

(million)	2008
1 EADS Astrium	\$6.046
2 Thales Alenia Space	\$2.890
3 OHB Technology	\$440
4 Swedish Space Corp.	\$86

Source: Space News Top 50 (2009)

OUR MANAGEMENT





Ulrich Schulz COO

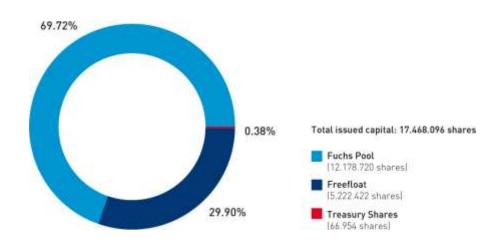
Marco Fuchs CEO

Prof. Manfred Fuchs

OHB Group is family run, independent and flexible



Christa Fuchs
Chairwomen of the Supervisory
Board



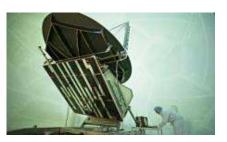


Space Systems

- Satellites, manned and unmanned space systems, space transportation/exploration
- Development and implementation of payloads, scientific devices and equipment for aerospace, science and the industry

Aerospace + Industrial Products

- Space products, aerospace products, antennas and mechatronics
- On-board computers, GIS software and worldwide satellite-based data communication







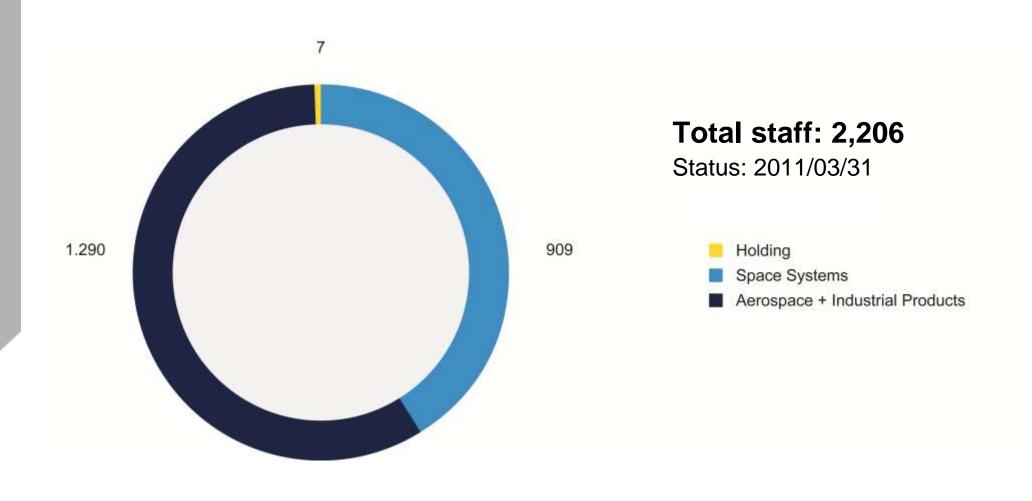




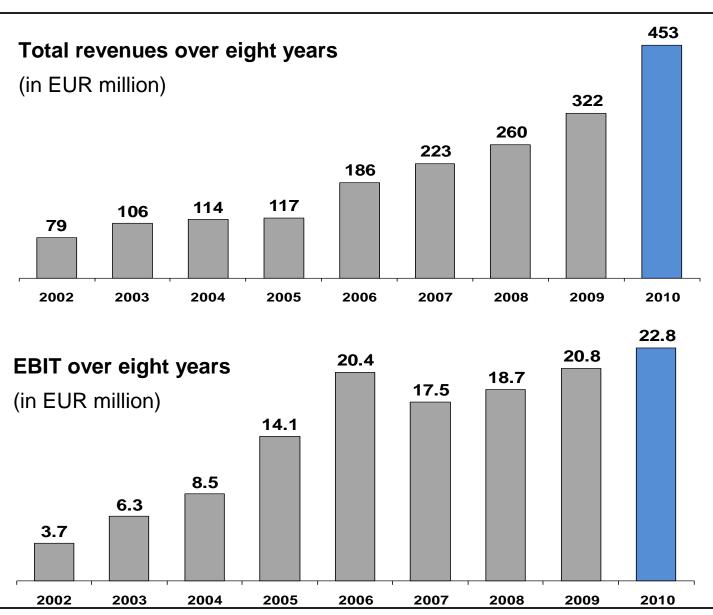
New OHB Group structure















PROJECT HIGHLIGHTS SPACE SYSTEMS



Small GEO / HISPASAT

Small GEO

- Design & development of a cost-effective satellite platform for GEO applications, like
 - ☐ Communication, earth observation/meteo, scientific missions

HISPASAT

- Contract for development of "Hispasat AG1" signed in 2009
- Mission based on the new Small GEO platform will be launched end of 2013





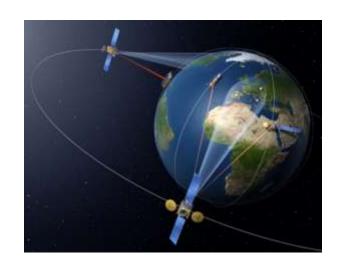
SGEO for data relay applications (EDRS)

EDRS program

- ESA ARTES-7 program to serve the GMES earth
- Observation satellites for data downlink via GEO data relay
- SGEO satellite optimized for data relay functions

Status

- Authorization to Proceed was signed on April 13, 2011 (EUR 7.4 million)
- Order volume for OHB: EUR 150 million
- Launch planned in 2015





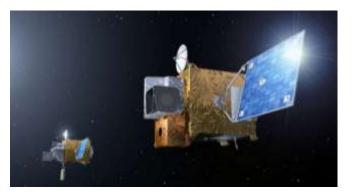
METEOSAT Third Generation (MTG)

ESA/EUMETSAT program

- Constellation of 6 satellites in geostationary orbit
- 2 MTG-S satellites with an infrared sounding instrument (IRS) for cloud and rain forecast improvement and further payloads, OHB-System MTG-S mission prime, Kayser-Threde is payload prime, first launch in 2019
- OHB-System is also prime for the 6 platforms, based on SGEO platform
- Expected OHB order volume EUR 750 million

Program status

- First contract (ATP) signed with Thales Alenia
 Space in November 2010
- Development and procurement activities already started







Galileo – European Satellite Navigation System

Program

- Contract signed for construction, testing and assembling of 14 satellites in January 2010
- Launch of the first two satellites planned for end of 2012, system should be operative in 2014
- Order volume: EUR 566 million



Program status

- First Hardware (Common Security Unit, CSU) in test phase
- Progress according to schedule
- All relevant suppliers and subcontractors are selected
- Build-up of the first structures (EM) started in April 2011

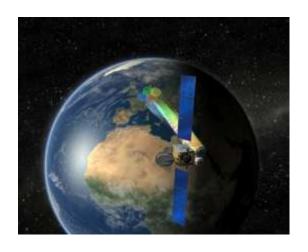




Future mission based on Small GEO platform

German telecom mission: Heinrich Hertz

- DLR program for in-orbit validation for innovative SatCom technologies based on COMED and SGEO
- Ka-Band and X-Band payload
- Utilization planned by German Bundeswehr
- Phase 1 study finished
- Program decision expected in 2011
- Launch planned in 2015





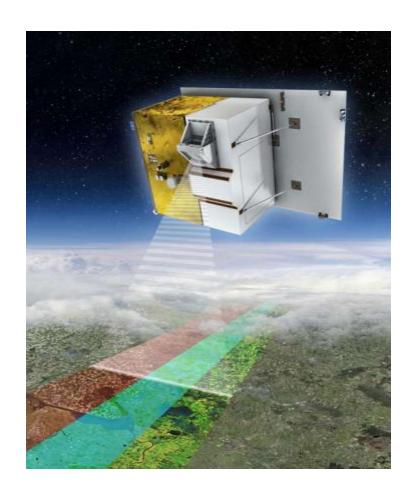
Project EnMAP – Hyperspectral Satellit

German hyperspectral EO-Mission

- Global determination of ecosystem parameters and bio-physical, bio-chemical and geo-chemical variables
- Potential for analysis after natural disaster and pollution of land and water
- Kayser-Threde (KT) is prime, OHB-System is coprime for the platform
- Mass: 900kg; Power: 800W, X-band downlink: 320Mbps

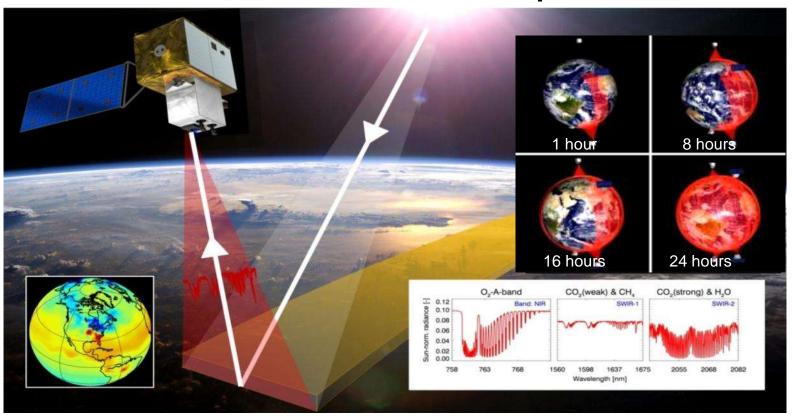
Status

- Launch planned in 2014
- Mission duration : 5 years





CarbonSAT- constellation for coordinated CO2 & Methane measurements from space



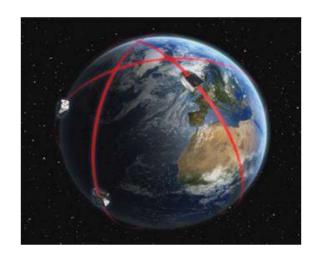
- 5 satellites will cover a complete global coverage per day
- Allows a transparent monitoring of the compliance of climate protection targets



SAR-Lupe follow on

- SAR Lupe: First German satellite-based radar reconnaissance system
 - □ 5 satellites and 1 ground station
 - Satellites and ground station fully operational since December 2007, all satellites in service since July 2008
 - ☐ 10 years operations service contract with the Bundeswehr until 2017
- Preparations for SAR-Lupe next generation competition
 - □ OHB has been selected for a concept study of SAR-Lupe follow on (BWB, BMVg)



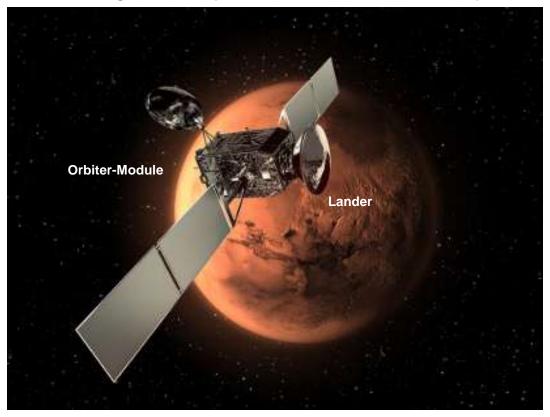




Exomars - Spacecraft und Rover

OHB is responsible for the orbiter of the 2016 mission (structure, thermal design und drive based on SGEO)

KT: significantly involvement of the payload of the rover (2018 mission)



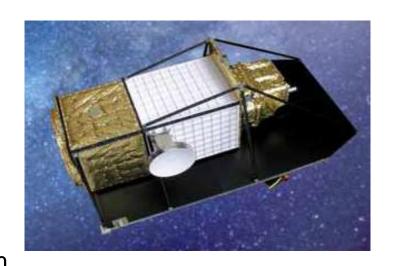
Rover (2018)





PRISMA (Precursor of Hyperspectral Application Mission)

- Earth remote sensing mission with unique hyperspectral payload
- Contract in December 2007
- Launch planned 2011/12
- Project volume EUR 69 million
- CGS is the prime contractor of the program
- PRISMA is proving the capability of CGS to act as a strong prime contractor







HIGHLIGHTS

AEROSPACE + INDUSTRIAL PRODUCTS



ARIANE 5 EPS Configuration ESC Configuration arian = 5 esa 11= = 5 cnes



Booster Cases



Front Skirt



Bulkheads



ESC LH₂-Tank Comp.



EPS Tanks



Thermal Protection Comp.



Hydraulic Pressure Vessels



Cardan

- ▶ MT Aerospace manufactures 10% of the launcher hardware
- With a capacity of up to 8 launchers per year
- This is the largest contribution to ARIANE outside of France
- Production contracts to MT Aerospace comprise 35 ship sets



Products

MT Aerospace supplies

- Tanks and booster casings
- Satellite & orbital transfer system components
- Structures
- Ceramic matrix composites







Tanks and tank components



Ariane 5 - EPS Tanks for MMH and NTO

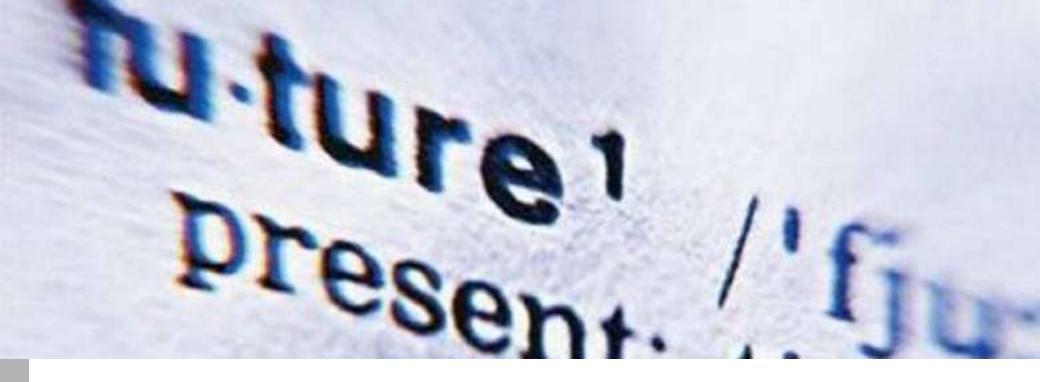


Ariane 5 - LH2 Tank Bulkheads

Aeronautic Products









OHB SWEDEN



OHB Group Strategy

- Core business is space
- Strategy is focussed on Europe with an opportunistic approach for opportunities outside Europe
- Presence in ESA member states is key to generate new programs
- Decentralized management allows multi-domestic approach
- Master key system capabilities in order to handle all kinds of space programs



OHB interest in "SSD"

- Well fitting in the vision of OHB to position as a leading supplier of space systems and technologies in Europe
- Excellent know-how in OHB's core business (space systems) where resources are scarce
- Access to Swedish geo-return helps to initiate future ESA programs
- SSD is present in key subsystems of SGEO which is a strategic program for OHB
- Formation Flying technology can be a key asset for future programs

OHB Sweden will play a key role in the future strategy of the OHB group



Future benefits of "SSD" as OHB Sweden

- Direct access to multi-national group mainly focused on system integration allowing to be more largely involved in new programs (science, exploration, EO, defence) from beginning or increase involvement in existing programs
- Growth strategy of OHB can benefit SSD
- Marketing power increase on European level through the group and/or sister companies
- Management responsibility at local level, low hierarchy, quick routes for decisions
- Only few technology overlaps (no risk of business reduction or know-how swap through synergies)
- Backing of a financially strong group

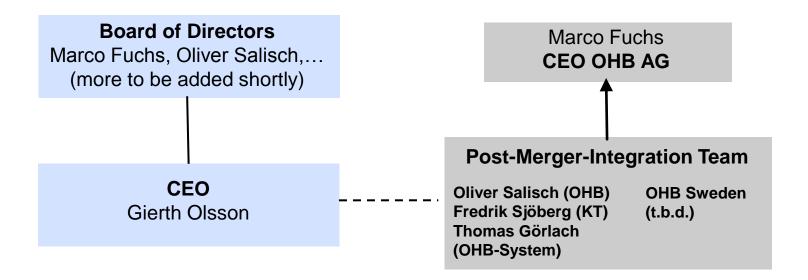


Future Role of OHB Sweden in the OHB group

- Together with the OHB group companies strengthen the position as one of the three big Primes in Europe
- OHB Sweden can become "The Smallsat Expert" in the OHB group
- Project managers and System engineering to strengthen and off load current OHB projects (MTG, Galileo, Heinrich Hertz etc)
- Co-operation with Kayser-Threde on Payloads (MTG, Sentinel-4, Post-EPS etc.)
- Promote and execute bilateral missions in cooperation between Germany/Belgium and Sweden







Role of the PMI-team:

- Secure short-term involvement of OHB Sweden in the running and upcoming programs of KT and OHB System
- Secure integration into the group processes on financial and administrative level
- Support to OHB Sweden in setting up stand-alone company





Mission Statement

We deliver Swedish Satellite Systems with the following core values:

- High content of reliable innovations
- Done by efficient and committed people
- Strengthened by the European Groups clout and knowledge





Products and Competences

- Continue strong developments on mission/system and subsystem level
 - Focus at complete small platforms
 - Focus on complete AOCS, Propulsion and Payload Subsystems
- To do this we need competences and capacities within
 - Electronics and Power
 - Software
 - Mechanics
 - Thermal
 - GST, TM/TC and RF
 - AIT





Markets and Customers

Swedish National Space Board (SNSB)

Together with OHB/DLR to promote bilateral missions with a strong interest from the Swedish User Community

Other Swedish authorities (e.g. Armed Forces)

To continue the close cooperation with educational and start-up activities at mission and system level and therefore naturally be part of the next implementation phase

European Space Agency (ESA)

To early participate in strong OHB consortia wherever Swedish return is available

In coordination with OHB/DLR promote new areas/programs towards SNSB/ESA

Export Market – outside Europe

OHB to guarantee and safeguard the delivery financially and programmatic and us to deliver state-of-the art small systems with a unique concept for Technology Transfer





Company Guidelines

Organization → Quick decision routes in focus

Human Resources → Humans in focus

Table 2 large 1 and 2 large 1 and 2 large 1 and 2 large 2 l

Technology → Roadmaps in focus

New Business → Group Teaming in focus

Financials \rightarrow Cash flow in focus

Processes /QA

Lean methods in focus

Admin / Facilities -> Need to have in focus

OHB Sweden must be transformed from a division of a state-owned company to a modern, dynamic and flexible Swedish company





description We shall become the most attractive company for engineers in Sweden

- Attractive and challenging Technology
- Excellent working environment
- Open and transparent organisation
- Rapidly moving and flexible
- Excellent career opportunities through European network of group companies





Comittment of the OHB group

- OHB Sweden will take over and keep all current SSD employees
- All contractually agreed benefits will remain unchanged
- All other benefits will be reviewed but probably be kept in the same or improved form
- Strong Support of the group during the transition phase





- Establish and communicate final organization (end of July)
- Rollout of new branding (immediately until end of the year)
- Establish necessary functions for new company (end of July)
- Establish business plan/roadmap for 2012/2013 (end of November)
- Secure integration into the group on project, financial and strategic level (ongoing)





Let's go for the future

OHB AG
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28359 Bremen
Germany

