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co-financed by



Motivation

- **Trend for Small Satellites and Constellations Worldwide**
 - small satellites evolve from experimental to operational systems
 - 250% increase of annual launch rate of small satellites since 2001
- **Germany's capital region well positioned in small sat business**
 - 8 successful satellite missions since 1991
 - Innovative missions make the region top flight in small satellites

Vision

- **Cooperation is the key to realize large scale projects**
- **RiBB as the core of the satellite integration center of Eastern Germany**
- **Participation in the success of small satellite business**



AI:
Aerospace
Institute



Astro-
und Feinwerktechnik
Adlershof GmbH



10 Partner (6 Small and Medium Enterprise & 4 Institutes)

With a total of 360 Employees

Turnkey High-Tech-Systems from one single contractor

- Satellite systems from 1kg to 100kg
- 8 successful Missions since 1991
- Many others in the pipeline

End to End Systems

- Realization of the whole value added chain of earth observation
 - Ground segment, launch segment, mission segment
 - For your convenience - take over of all formalities:
launch, frequencies, satellite operation
 - In cooperation with national partners

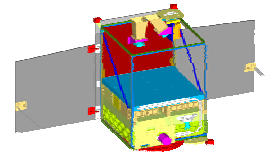
RiBB offers you: Turn Key Systems

Highlight: Technology Transfer and Education

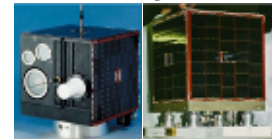
DLR BIRD



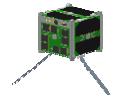
DLR TET



TUBSAT



BeeSat



Development, production and testing

- highest international standards
DIN9001, EN9100, ECSS

Complete in-house qualification and test facilities

- vibration, shock, thermal vacuum and radiation
- optic calibration and attitude control

Test equipment

- Transport containers - MGSE, EGSE
- complete qualification and test facilities

RiBB offers you: products certified at highest standards

Highlight: all facilities needed to build up own capacities

Thermal Vacuum



Shaker



ACS Facility



MGSE



Optic calibration



- Each year 200,000 square kilometres of forest and scrub land catches fire across the world
- Huge economic loss and a disaster for the environment



Cassification of fire ranks

© Courtesy: Govt. of British Colombia

Operational Firemonitoring

- Based on DLR BIRD Technology operational fire monitoring is feasible
- On board data processing accelerates the way of the data from the satellite to the fire fighter on the ground

Highlights:

- Firemonitoring constellation: Global Operational Firemonitoring based on DLR BIRD heritage

Crop Monitoring

- Increased population but shrinking areas of cultivated land
- Increase of productivity based on satellite based precision farming



Earth Observation for Insurance Industry

- Number of damage on insured goods increased dramatically
 - Insurance business is reluctant on precise data
- Risk assessment and damage analysis needed

Highlights:

- RapidEye: First Operational Commercial EO System für Agricultural Monitoring and Insurance Company's

Globale Warensicherheit

- Security Observations
- Maritime Security
 - Tracking of Sea Vessels, Fighting of Smuggling, Piracy, Terrorism



Advantages of Small Satellites for Security applications

- Innovative technical solutions offer great opportunities for small satellites
- Small satellites own a high system redundancy

Highlights

- Dobson Space Telescope: 1m resolution on 100kg systems
- TUBSAT: Tracking of moving targets with Live Video Coverage

RiBB – small satellites industry network in Germany's capital region

- Excellent know-how for small satellite missions and technology
- 8 successful Missions since 1991
- Everything you need for your small satellite mission

RiBB – Innovation Management

- Your Contact Point to small satellite industry in Germany's capital region
- Situated at the TSB Innovation Agency Berlin GmbH / FAV
- supported by the senate of Berlin

Contact:

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