

2ND ESA EARTH OBSERVATION COMMERCIALISATION FORUM EVENT

Dr. Siegbert Martin
CTO

TESAT IN A NUTSHELL



Core Business Satellite Payloads,
Equipment & Subsystems

Employees 1,100

Turnover ca. 300 million Euro

Total area 63,000 m²

Clean room area 17,000 m²

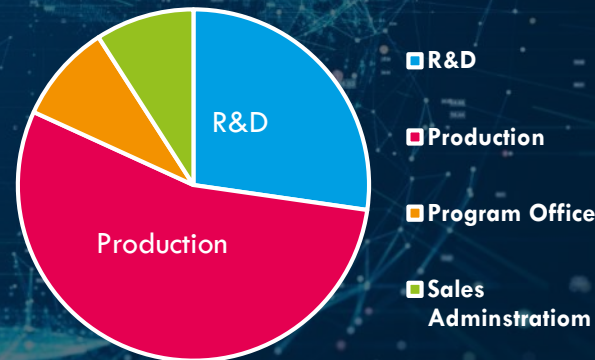
Independent supplier/partner for:

- Space Products
- Satellite Systems
- Cooperation



**NEW BUILDING FOR LEO
CONSTELLATION MARKET.
INDUSTRY 4.0: MATRIX-PRODUCTION**

Location in Backnang, Germany, close to Stuttgart



Tesat is strong technology and production orientated

5 KEY AREAS OF COMPETENCES & TECHNOLOGY

TESAT is investing in **5 Key Areas** of Competences & Technology

» to support our business in

Navigation



System engineering of Communication Networks, Payloads & subsystems

Telecommunication & Secure Communication

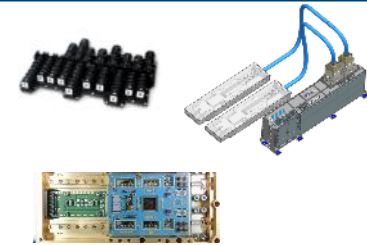


Multi Orbit Connectivity based on Laser technology

Earth Observation



Radio Access Units
Data routing, switching & 5/6G integration



RF Products: Amplifiers, Modules for Radar & Antenna application,

Science



Application of Laser Products, Quantum Key Distribution, Positioning, Timing, Ranging

H2SAT
Galileo

SCOT 20
SCOT 80, 135

Ethernet Antenna
Multi-Purpose Processor

Quad MPM
Q-Band SSPA

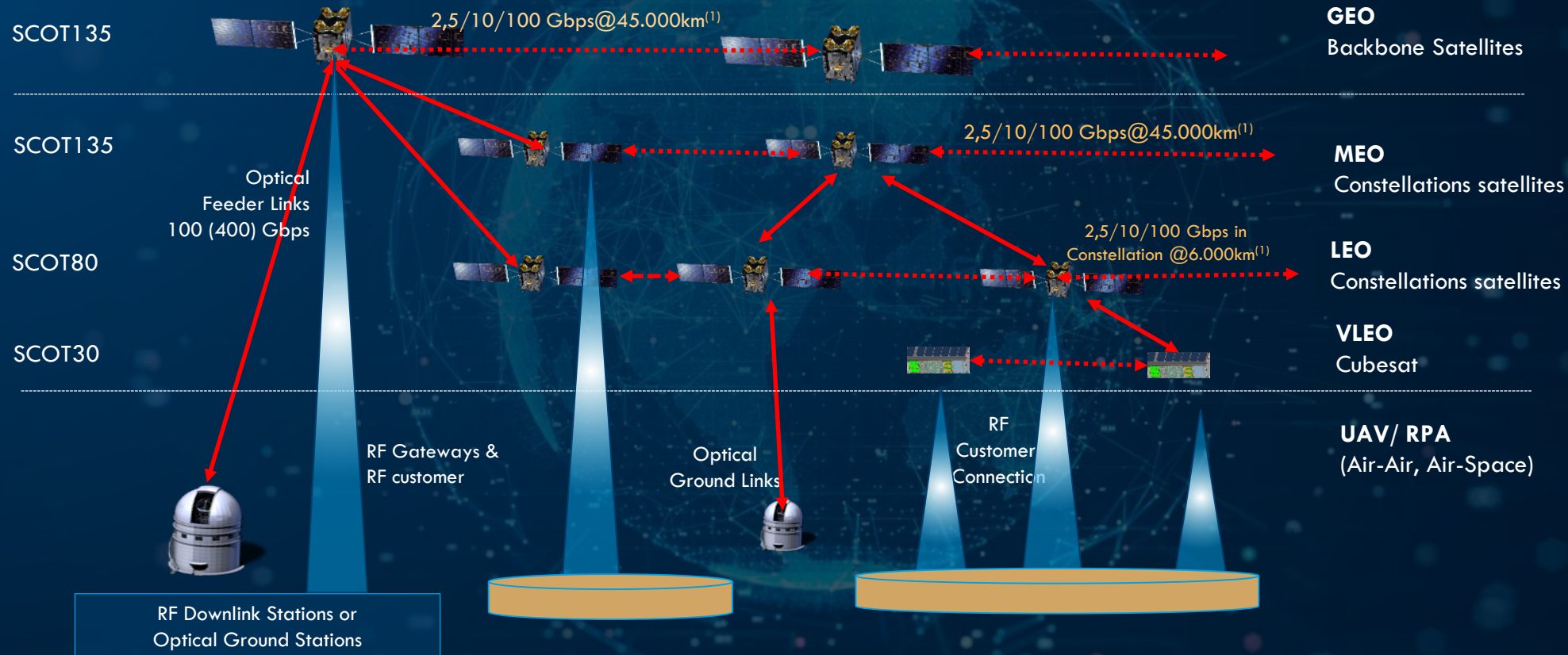
EAGLE 1
SAGA, QTRIP (DLR QKD)

Major R&D Activity to support IRIS2, Galileo (PNT, 2G2B), further EO-Activities & TESAT Transformation

TRANSFORMATION OF SATELLITE NETWORKS IS CHANGING EOS AS WELL.

Marketplace for SCOT – Scalable Optical Terminals

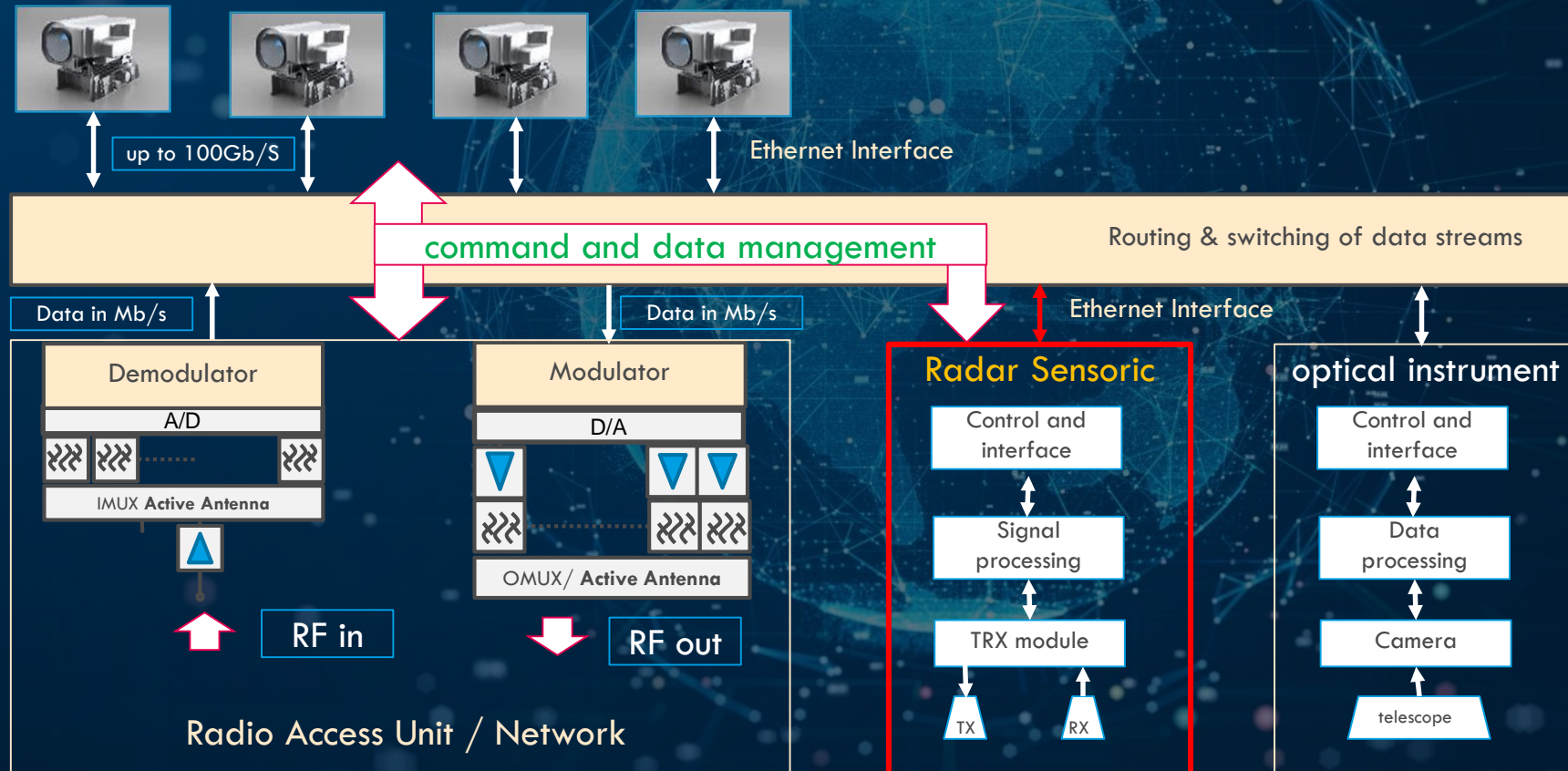
Multi-Orbit Connectivity



(1) Typical values, depending on coding and life time. Optimization for special use cases are possible

DIGITALIZATION OF PAYLOAD ARCHITECTURE IS BASELINE FOR NEW APPLICATION

New Architecture is supporting Modular Multifunctional Satellites



» Key factors to accelerate innovation

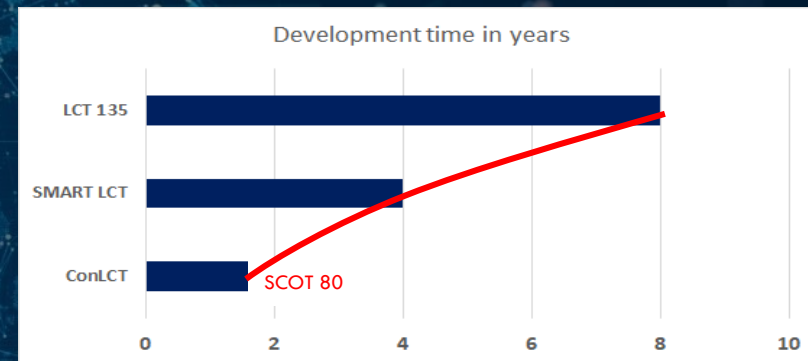
- modularisation
- standardization
- digitalisation

» Reduce cost and increase performance & quality

- lead free soldering
- PCB class 3
- COTs part
- non hermetic
- high integration
- dedicated radiation analysis
- high level qualification / verification

» how should it be in 5 years.... point of view,.....

- » earth observation will be realised by an additional module in constellations
- » using data network of constellation



Speed is a key for present/ future success



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THANKS FOR YOUR ATTENTION