Next generation EO satellites and Direct Access: challenges and opportunities

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About European Space Imaging

- Munich based Company, established in 2002
- SME- around 40 employees
- WorldView Global Alliance since 2009
- Local Tasking of MAXARS optical satellite fleet
Current VHR Optical Satellite Missions

- **WORLDVIEW-3**
  - GSD: 31 cm
  - Coverage: 680,000 km² per day

- **WORLDVIEW-2**
  - GSD: 46 cm
  - Coverage: 1,000,000 km² per day

- **WORLDVIEW-1**
  - GSD: 50 cm
  - Coverage: +1,000,000 km² per day

- **GEOEYE-1**
  - GSD: 41 cm
  - Coverage: 350,000 km² per day
DIRECT ACCESS with the European Space Imaging

GROUND STATION

Local Tasking of:
• WorldView-1
• WorldView-2
• WorldView-3
• VGTasking for GeoEye
Local Tasking

Shooting in between the clouds
The ground station allows greater flexibility for our customers and includes the following benefits:

- Last minute order entry
- Maximizing collection yield (# of targets)
- Minimizing cloud cover and maximizing area of collection
- Faster production and near real-time delivery
**EUSI Ground Station**

- Secured Data Downlink (X-Band)
- Authenticated “Handshake” uplink (S-Band)
- upload of the Pass Scenario (S-Band)

**DATA FLOW**

From the Satellite to Archiving the Data

- **MAXAR Archive**
  - Backhauling to Maxar
- **EUSI ARCHIVE**
  - Level 0 Data
  - Level 2 Data
- **Customers**

**MAXAR Archive**
ARCHIVING SYSTEM

- Data stored from 2002 up to date:
- 160 TB available
- 71% in use

-> All data stored in Level 0 Data format

RATIO Level 0 VS Level 2: 1:3-1:5
(depending on the Band combination)
Current and Future VHR Optical Satellite Missions

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- 350,000km² per day

2. Legion Polar Orbit 50cm
4. Legion Mid inclined Orbit 34cm
Thank you!