Many organizations want satellite data but do not want to invest in technical expertise, build an operations capability, and bear the technical risks.
Small satellite products
Off-the-shelf standardized products

- Cubesat structures
- Communications systems
- On board computer
- Attitude control systems
- Ground stations
- Ground support equipment
- Antenna systems
- Solar panels
- Cubesat deployers
- Cubesat development platform
Our market continues to grow strongly driven by applications

Small Satellite Market

Launches of nano/microsatellites (1-50 kg)

<table>
<thead>
<tr>
<th>Year</th>
<th>Historical launches</th>
<th>Forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>95</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>160</td>
<td></td>
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<tr>
<td>2015</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>100</td>
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<tr>
<td>2017</td>
<td>308</td>
<td>€0.4 Bln²</td>
</tr>
<tr>
<td>2018</td>
<td>250</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>390</td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td>470</td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td>538</td>
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</tr>
<tr>
<td>2022</td>
<td>643</td>
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</tr>
<tr>
<td>2023</td>
<td>745</td>
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</tr>
<tr>
<td>2024</td>
<td>847</td>
<td></td>
</tr>
</tbody>
</table>

Market value

- €1.3 Bln²
- +23%
- +21%

New applications

- IoT from space (Hiber, Kepler)
- Real time remote sensing (Planet)
- Defense & security (Dutch MoD)
- Commercial Weather (Spire)
- Precision Agriculture (VanderSat)
- Climate Monitoring (RMIB)
- Air Quality Monitoring (TANGO)
- Commercial science (SpacePharma)
- ...

Market value 2024: €1.3 Bln²
Transition from product and project model to sat-as-a-service

R&D
- Satellite core avionics innovation and miniaturization
- Satellite payload development

Engineering
- Satellite mission design
- Hardware development
- Software development

Parts production
- Mechanical
- Avionics

Satellite building
- Assembly
- Hardware-software integration
- Testing

Test and Launch
- Verification
- Integration into deployer
- Integration onto launch vehicle

Satellite operations
- Commissioning
- Routine operations and satellite management

Value added services
- Data processing
- Data dissemination

End User

Paid R&D, Engineering
- Standard products
- Launch Services
- Operations services

Missions and satellite platforms

Satellite As A Service
ISIS customer base - examples

Academic Institutes

Traditional / Institutional

New Space
ISIS growth path
From 2006 to 2022

- **2006**: Startup
- **2010**: Rapid expansion
- **2017**: Series production of satellites and systems
- **2022**: Sustainability and maximizing profitability

**Revenue Growth**
- **2006**: 1M€
- **2017**: 10M€
- **2022**: 30M€

**Disrupting the Space Sector**
- Delfi-C3
- Envisat (ESA)
Small is beautiful…

Delfi-C3

Envisat (ESA)
Nanosatellites and CubeSats
modular spacecraft

< 100 kg Microsat
< 50 kg Small Microsat
< 24 kg Large Nanosat (12U CubeSat)
< 10 kg Nanosat (6U CubeSat)
< 1 kg Picosat (1U CubeSat)

Dramatically lowering the entry barrier for space activities
Modular building blocks for rapid implementation of space missions
Satellite parts, payloads, designs, launches, ground segment, support, services
Advantages of a **nanosatellite**

- Efficient development process
- Low entry barriers
- Low cost space mission
- Training and skill development
- Highly standardized
- Leveraging electronics miniaturisation
- Fast implementation
Advantages of many nanosats

- Improved revisit times
- Increased coverage
- Scalability
- Failure tolerant
- Low data latency
Nanosatellites as disruptive innovation
A growing market for nanosatellites
The space sector is changing
out of the laboratory, into the factory
Small Satellites offer great opportunities
Huge opportunities for highly constrained small satellite missions

• Leverage cost effective solutions from the civil market to rapidly implement missions for security and defense.
• Tailor made solutions to meet the needs of the military
• Training and knowledge transfer opportunities

Thank you for you attention!

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