



ENDUROSAT

Giuseppe Sisinni
CubeSat Platforms for Astronomy Missions

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Our Mission

EnduroSat designs, engineers and integrates **remarkable CubeSats**, creating a functioning **Space infrastructure**

<https://www.endurosat.com>

Achievements

Unique online satellite store

Configure and order a satellite in less than 5 min.!

5-days delivery time for all satellite subsystems!

Cubesat Store

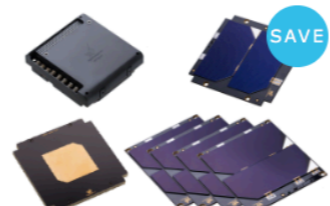


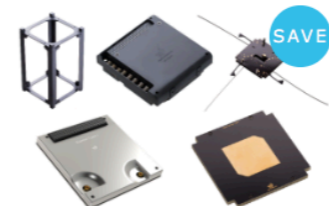


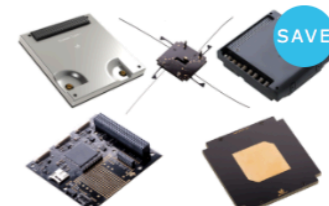


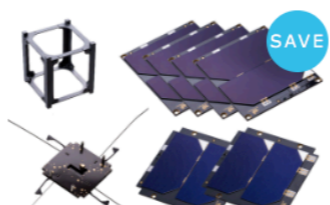


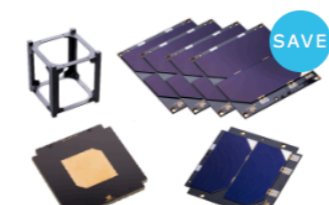


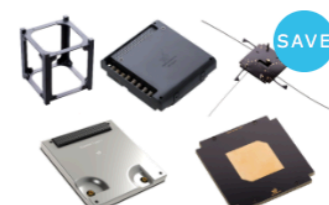


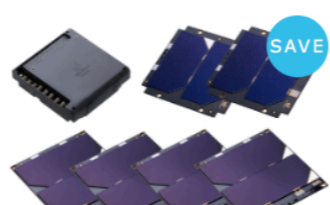


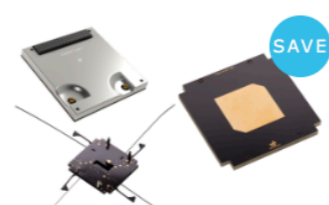


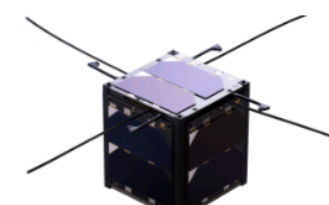


CHANGE CURRENCY

EUR(€)

USD(\$)

PRODUCT CATEGORIES

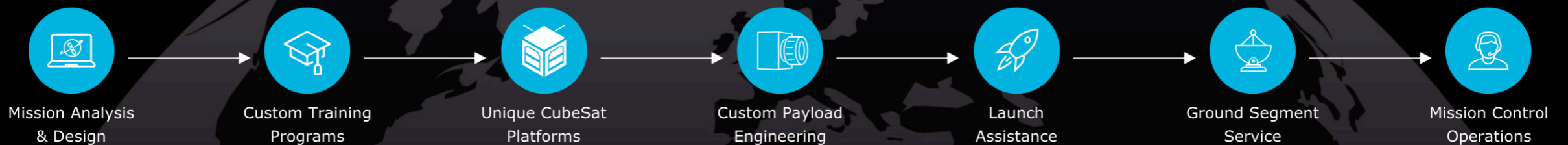
- > Upcoming
- > PACKS
- > CubeSat Platforms
- > All
- > Communication
- > OBC
- > Payloads
- > Power Modules
- > Structures

 <p>Power + 5 Panels + S-Band Antenna</p> <p>€19,750 €12,375</p> <p>ADD TO CART  DETAILS </p>	 <p>Structure 1.5U + Power + COMM + 2 Antennas</p> <p>€17,150 €15,435</p> <p>ADD TO CART  DETAILS </p>	 <p>Power + COMM + OBC + 2 Antennas</p> <p>€18,400 €16,560</p> <p>ADD TO CART  DETAILS </p>
 <p>Structure 1U + 6 Panels + UHF Antenna</p> <p>€19,850 €12,465</p> <p>ADD TO CART  DETAILS </p>	 <p>Structure 1U + 5 Panels + S-Band Antenna</p> <p>€12,500 €11,250</p> <p>ADD TO CART  DETAILS </p>	 <p>Structure 1U + Power + COMM + 2 Antennas</p> <p>€16,750 €15,075</p> <p>ADD TO CART  DETAILS </p>
 <p>Power + 6 Panels</p> <p>€12,100 €10,890</p> <p>ADD TO CART  DETAILS </p>	 <p>COMM + 2 Antennas</p> <p>€13,900 €11,700</p> <p>ADD TO CART  DETAILS </p>	 <p>1U CubeSat Platform</p> <p>€30,000</p> <p>ADD TO CART  DETAILS </p>

Satellite as a Service

- **Spaceflight-ready satellite**
- **Mission analysis and launch procurement**
- **Assistance in satellite registration**
- **Ground Segment and Operations Services**
- **Training of customer's engineering team**

Your single stop to space



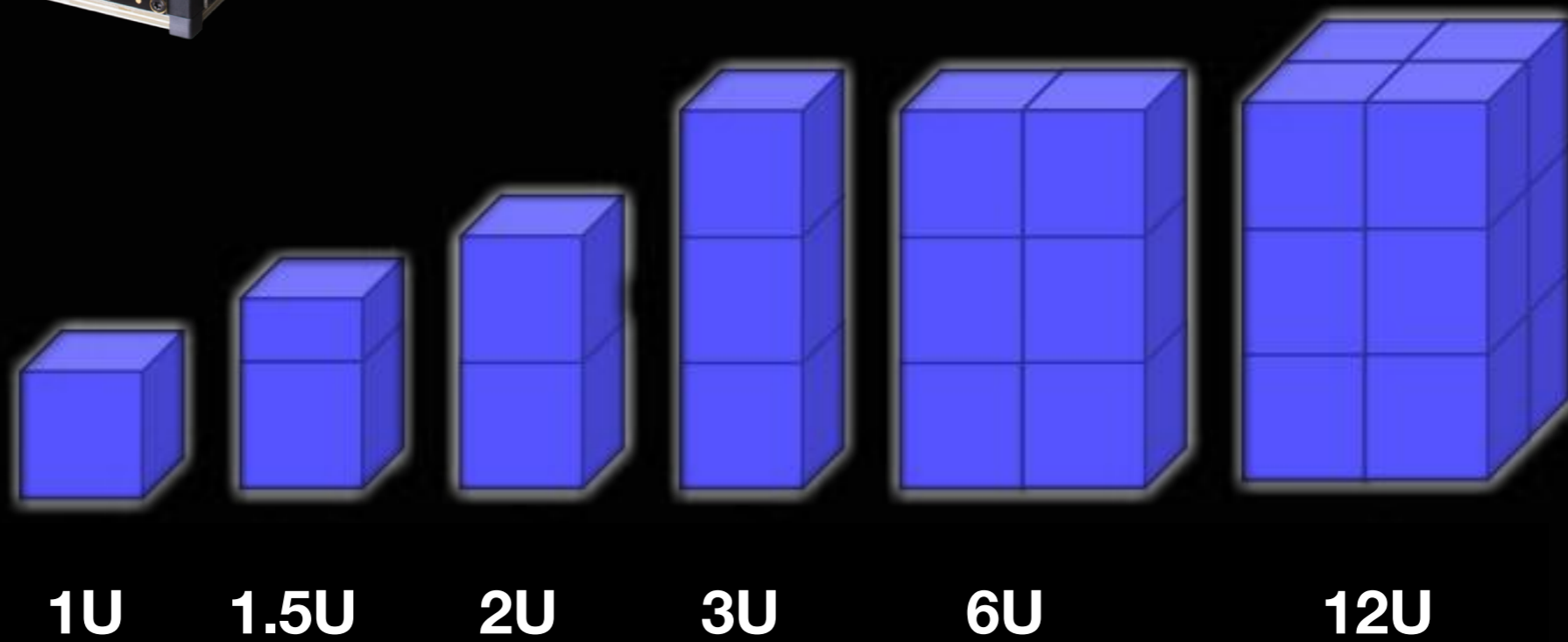
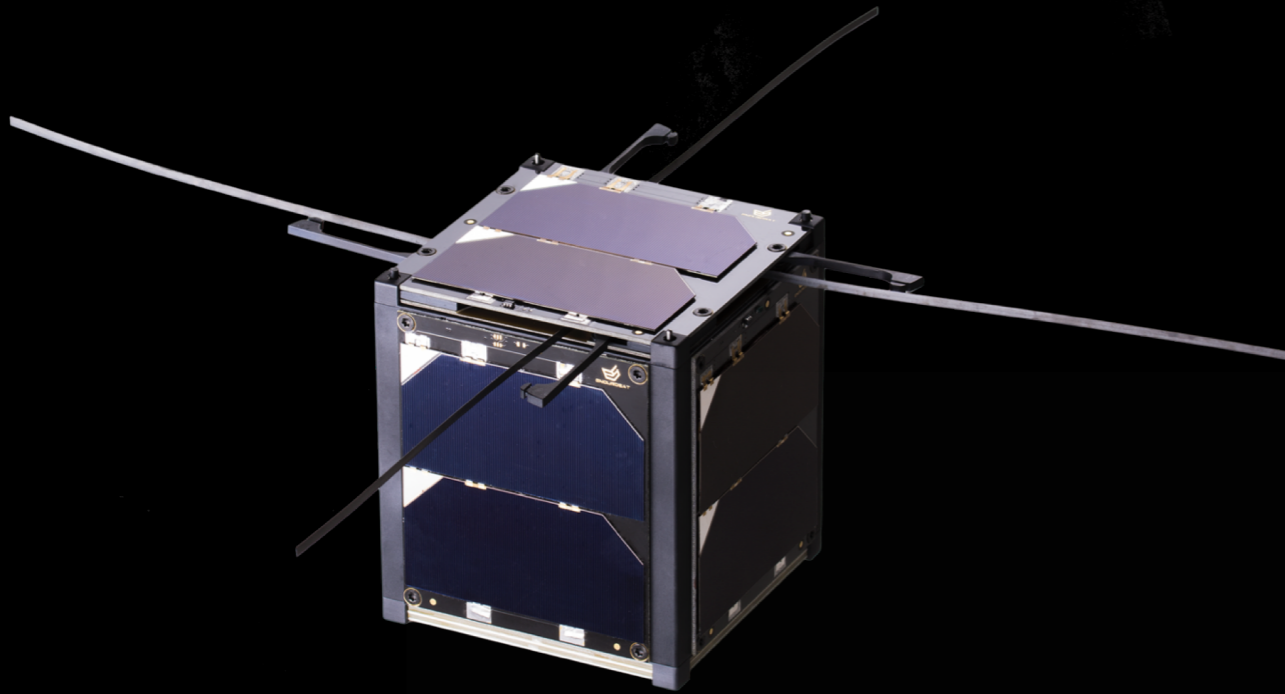
Small Satellites

- **Small Satellites are satellites of low mass and size usually under 500kg**
- **Typical classification of Small Satellites:**

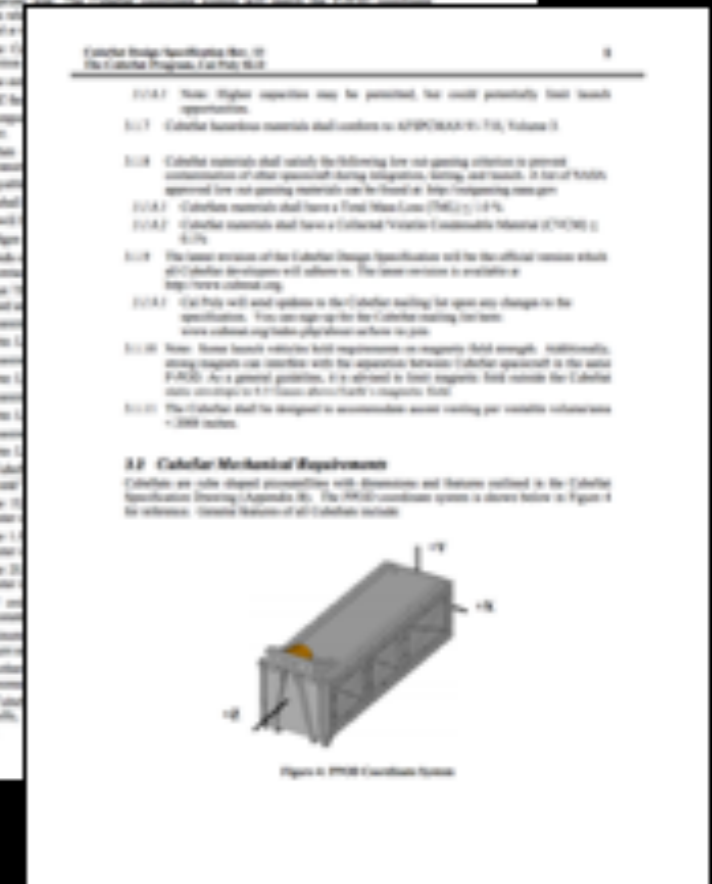
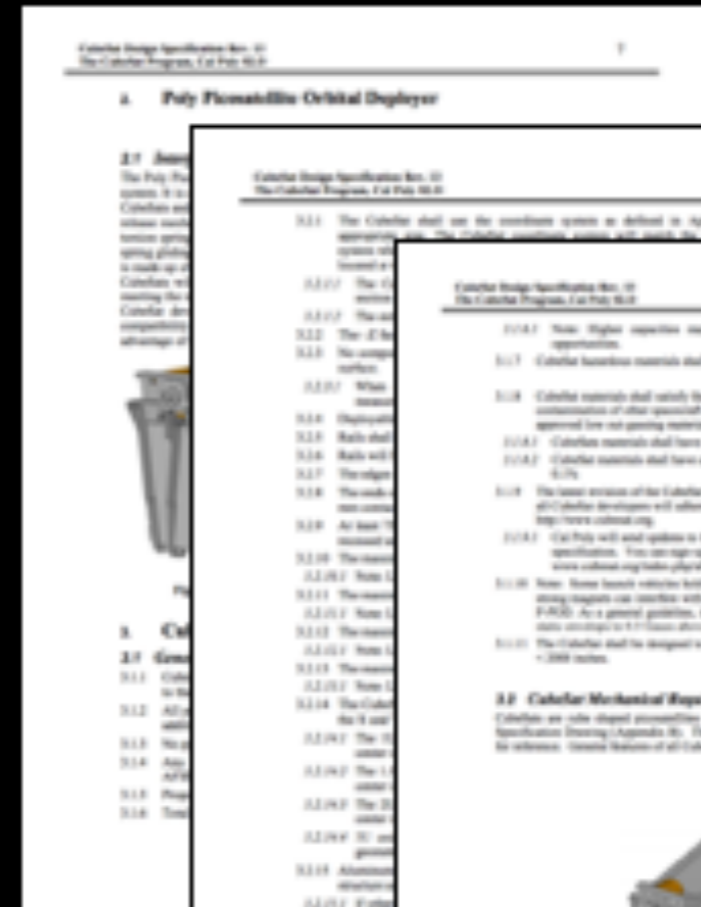
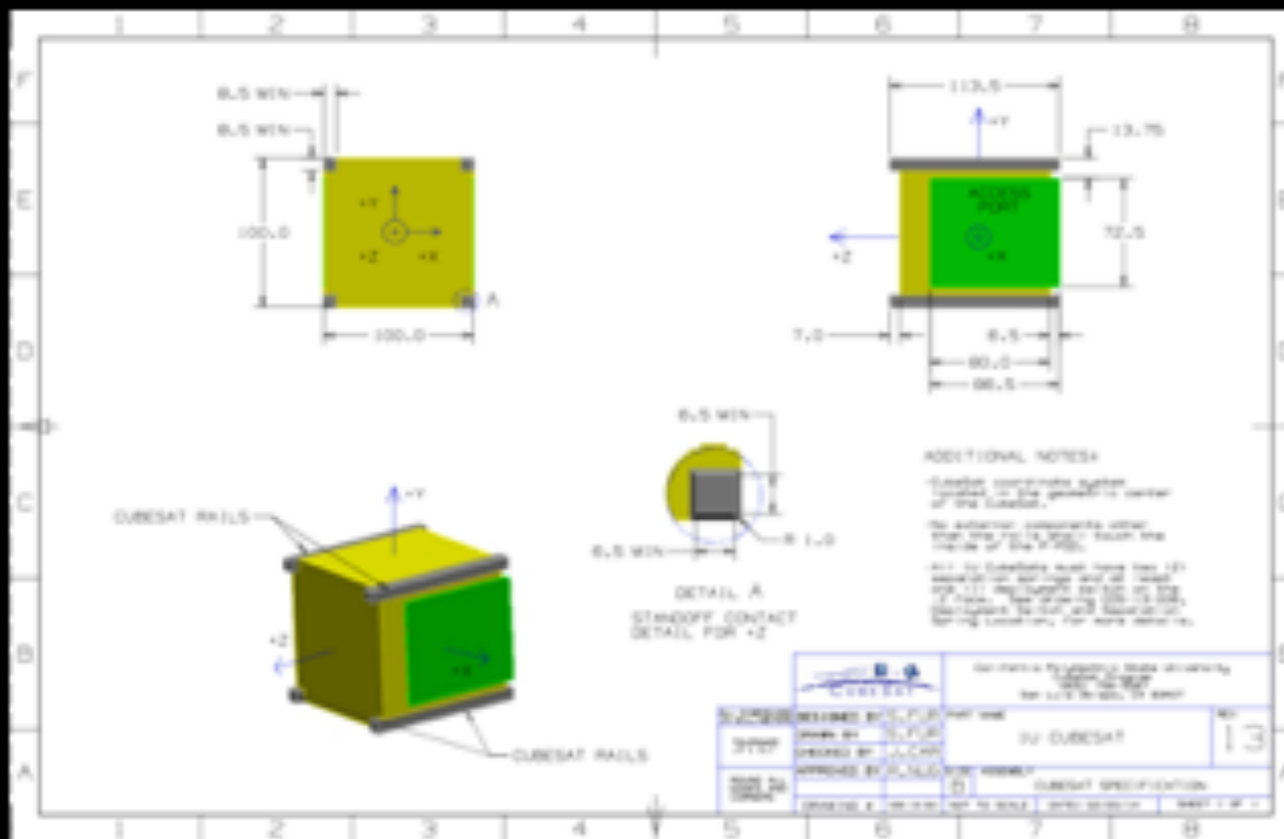
	Mass	Total Cost (M\$)
Mini	100 -500	10-150
Micro	10-100	1-30
Nano	1-10	0.1 - 1
Pico	0.1-1	0.05-2
Femto	<0.1	< 0.05

- **CubeSat is a specific class of nanosatellites**

CubeSats

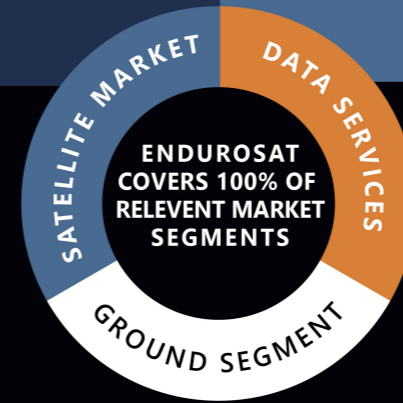
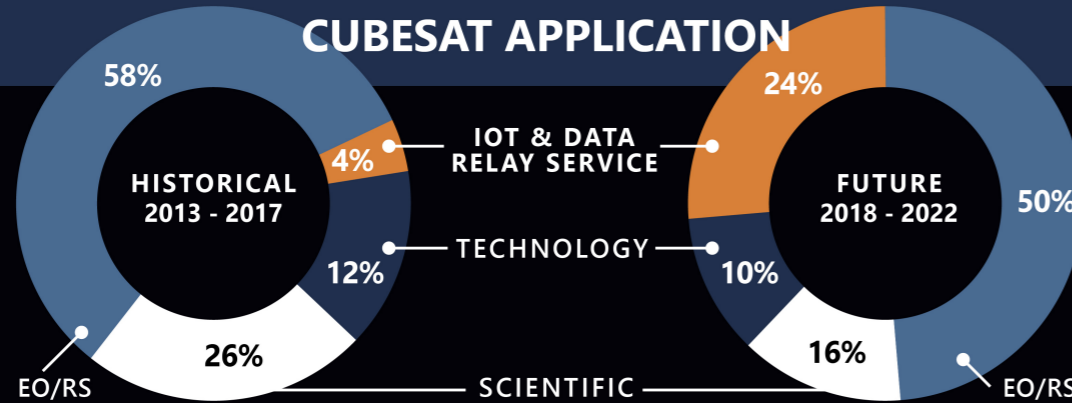


CubeSat Design Specifications



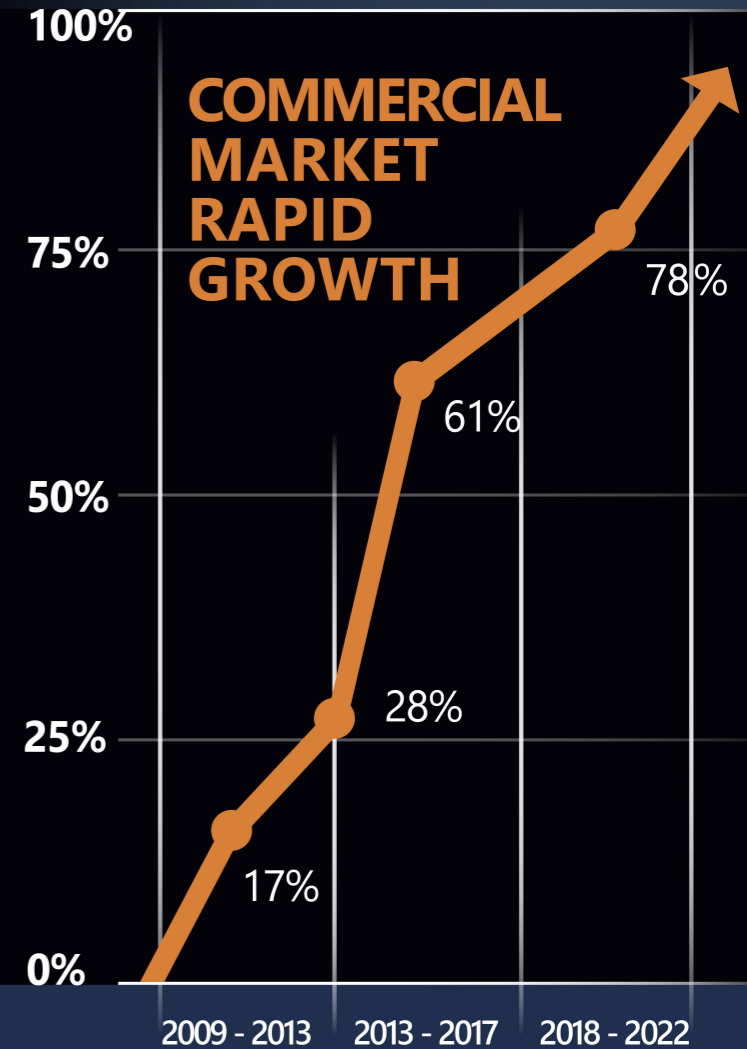


Why it matters?



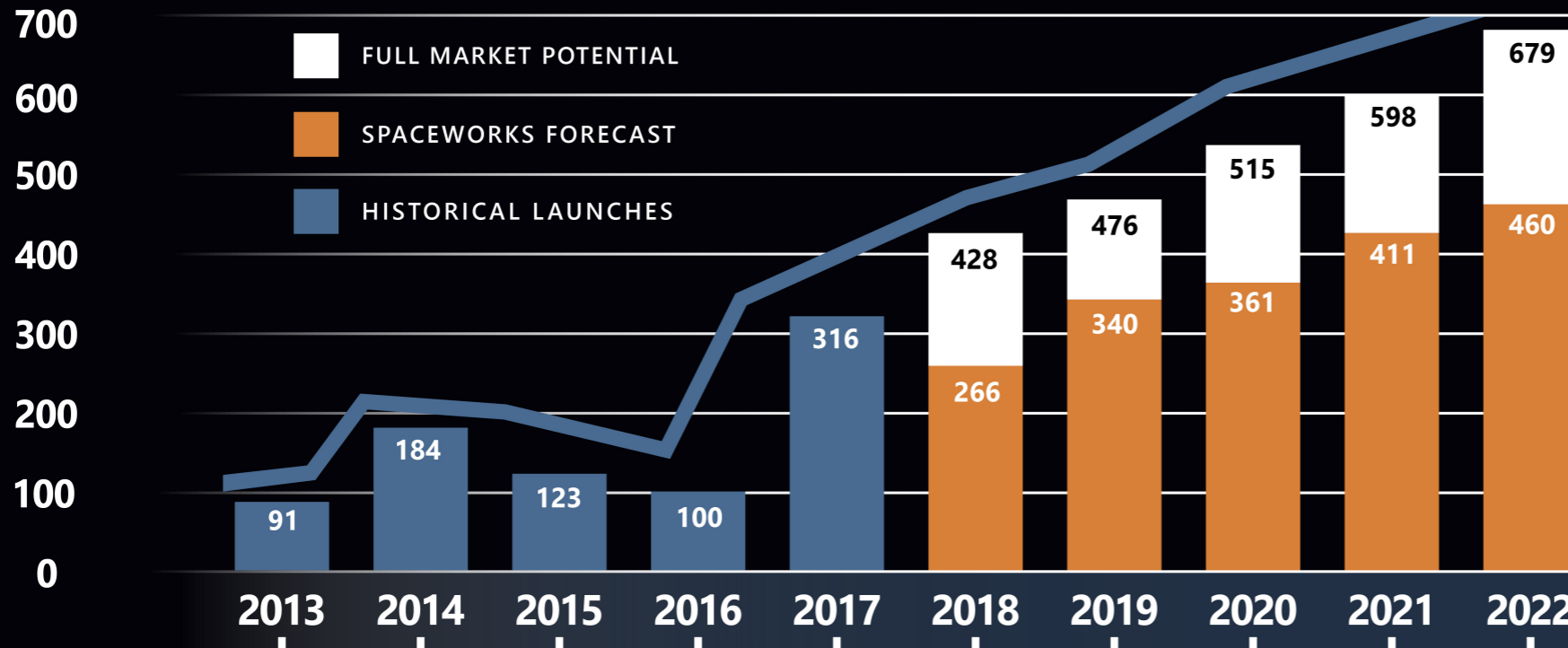
MARKET

COMMERCIAL APPLICATIONS OF THE TOTAL CUBESAT MARKET



NUMBER OF CUBESATS

CUBESAT LAUNCH HISTORY & MARKET FORECAST



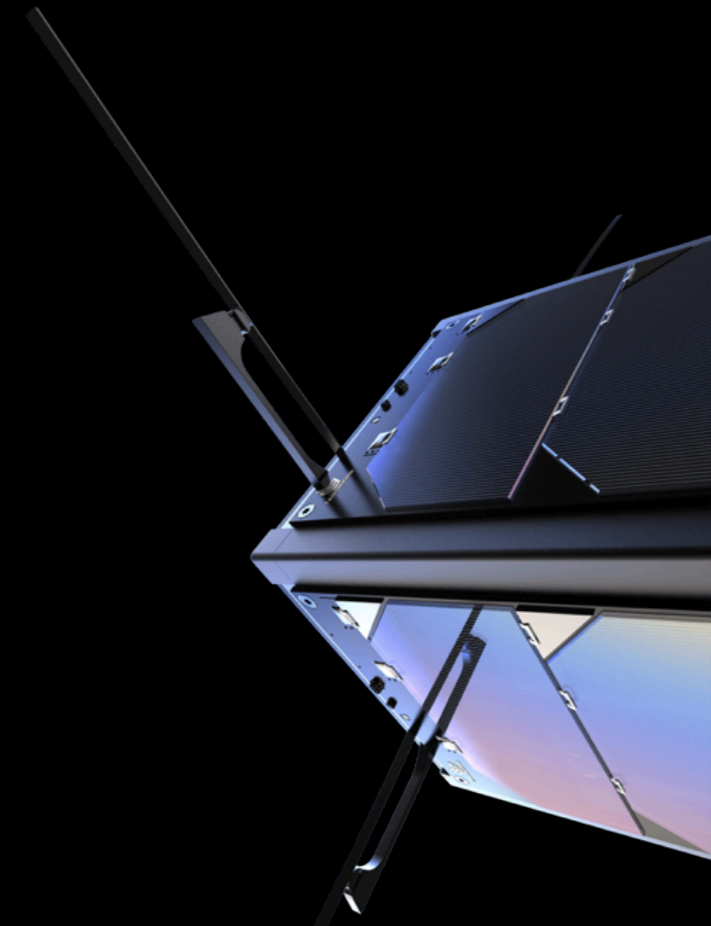
CubeSats

Benefits

- Low(er) cost
- Flexible Launch Strategies
- COTs
- Standardized building blocks
- Short Development time
less than 12 months from
KO to Launch
- Constellation (revisit time, coverage,
scalability, data latency)

Limitations

- Size
- Power
- Data rates
- No Rad-Hard
Components

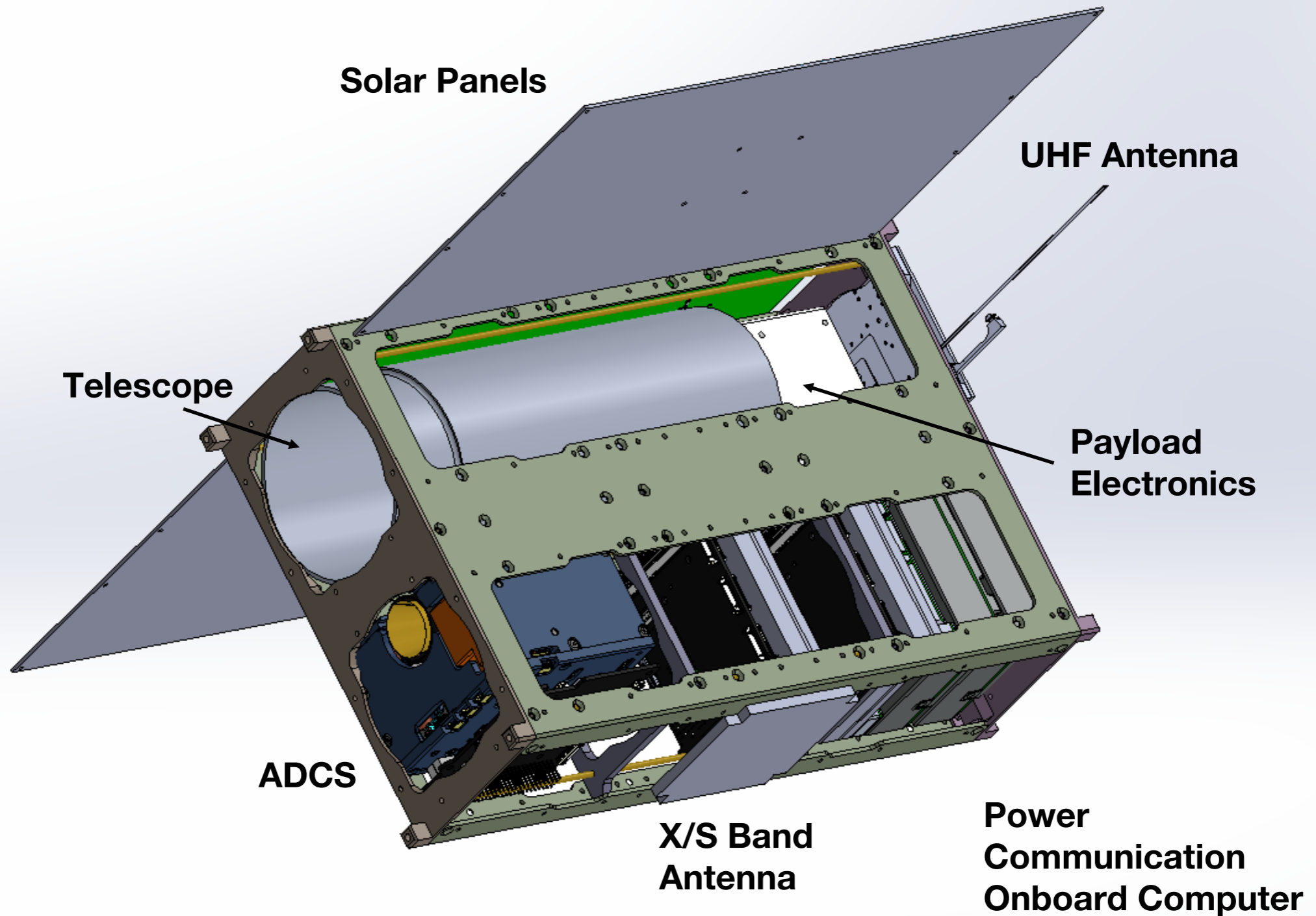




CubeSat Capabilities

	1U	3U	6U
Payload Volume	up to 0.4U	up to 2U	up to 4U
Power Generation	Up to 8W	Up to 50W	Up to 75W
Payload Power	2W orbit average	12W orbit average	24W orbit average
Energy Storage	10 - 20 Wh	40 Wh (expandable)	40 Wh (expandable ~100Wh)
Pointing accuracy	~3°	<0.5° (typical) <0.01°	<0.5° (typical) <0.01°
Data Storage	expandable via SD cards	expandable via SD cards	expandable via SD cards
Data Downlink	10 - 20 kbps	~120Mbps	~120Mbps
Frequency	V/UHF	V/UHF S/X-Band	V/UHF S/X-Band

Toliboy Mission





How much does it cost?

1U CubeSat

- Platform: \$25k
- Launch: \$70k or Free
- Operations: Free

6U CubeSat

- Platform: > \$200k
- Launch: \$450k
- Ground Station: \$100 per pass

Thank you!

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SpacePort



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Choose a mission <

- Space Science
- Robotics and AI
- Space Medicine
- Space Applications
- Engineering**
- Space Exploration



UPGRADE



Advanced Research Facility

Progress is achieved through numerous experiments on technology level. This upgrade will provide your scientists and engineers with the necessary resources to continue exploring further the surface

Credits:

Cost of upgrade: 15pts

Your Credit: 0pts.