

# LARGE DEPLOYABLE REFLECTOR ANTENNAS

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# DEPLOYABLE SOLUTIONS

Founded in 2013

87 employees in 2024



✓ Reduced Complexity



✓ Stowage Efficiency



✓ Mass Savings



✓ Cost Competitive Price

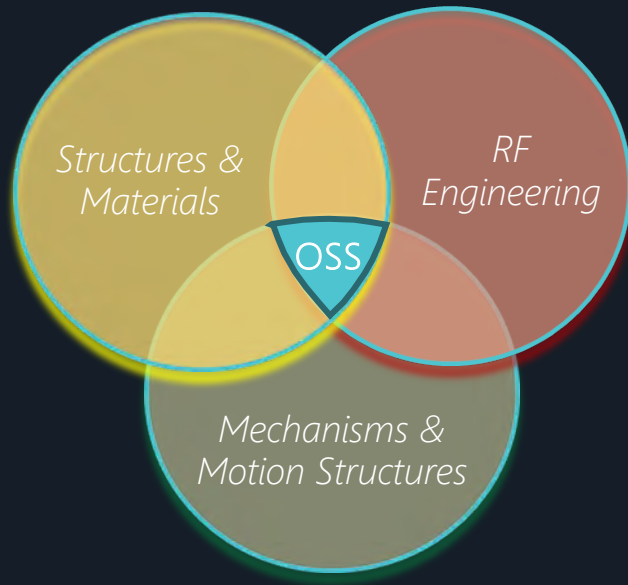


Enabling large mission capabilities on small platforms



# UNIQUE COMBINATION OF SKILLS

Space Engineering



Expertise from outside space sector

*Textiles & Fashion*  
for our metal mesh capability



*Formula 1*  
for our composite manufacturing



*Kite making expertise*  
for kinematic structures



*Origami*  
for innovative folding structures



# OSS FACILITIES

Harwell – office,  
industrial area and  
cleanroom



Abingdon -  
composite  
manufacturing facility

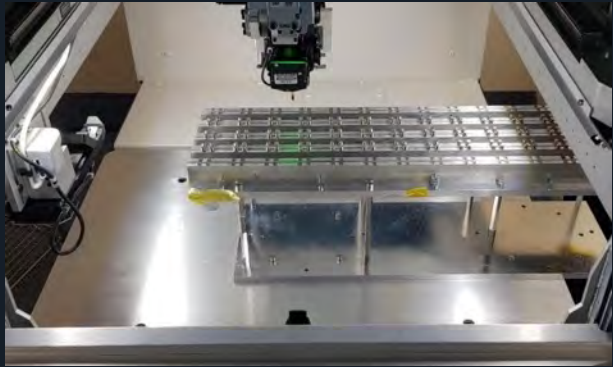




# WRAPPED RIB PRODUCTION APPROACH

- Critical Manufacturing and testing capability brought in-house to allow more control of cost, schedule, quality and key technology and processes through vertical integration.

## Harwell



Wire bonding machine



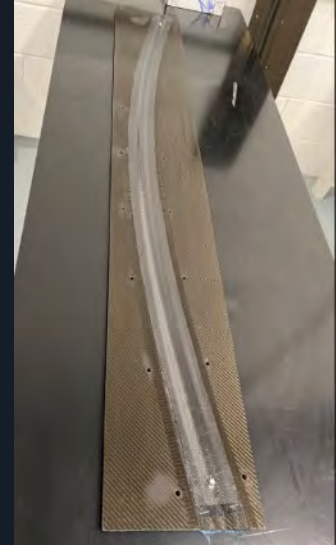
Metal Mesh Knitting Machine



## Abingdon (Composite facility)



Composite Autoclave



Composite Rib mould



# DEPLOYABLE ANTENNA PRODUCTS AND APPLICATIONS

Yagi



Deployed: ~0.7m (W, L & H)

Maritime tracking

Aeronautical VHF

Spectrum monitoring

VHF

Helical



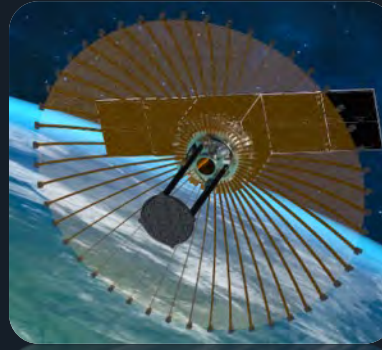
0.3m - 3m (L)

Internet of Things

Navigation

UHF

Wrapped Rib

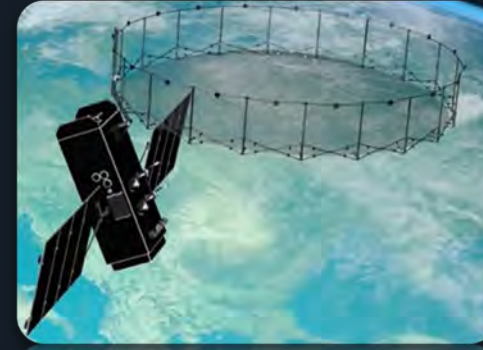


3m - 5m+ (Ø)

Synthetic Aperture Radar (SAR)

L-band

Offset



3m - 5m+ (Ø)

Telecommunications

Ka-band

Hinged Rib



0.6m - 1.5m (Ø)

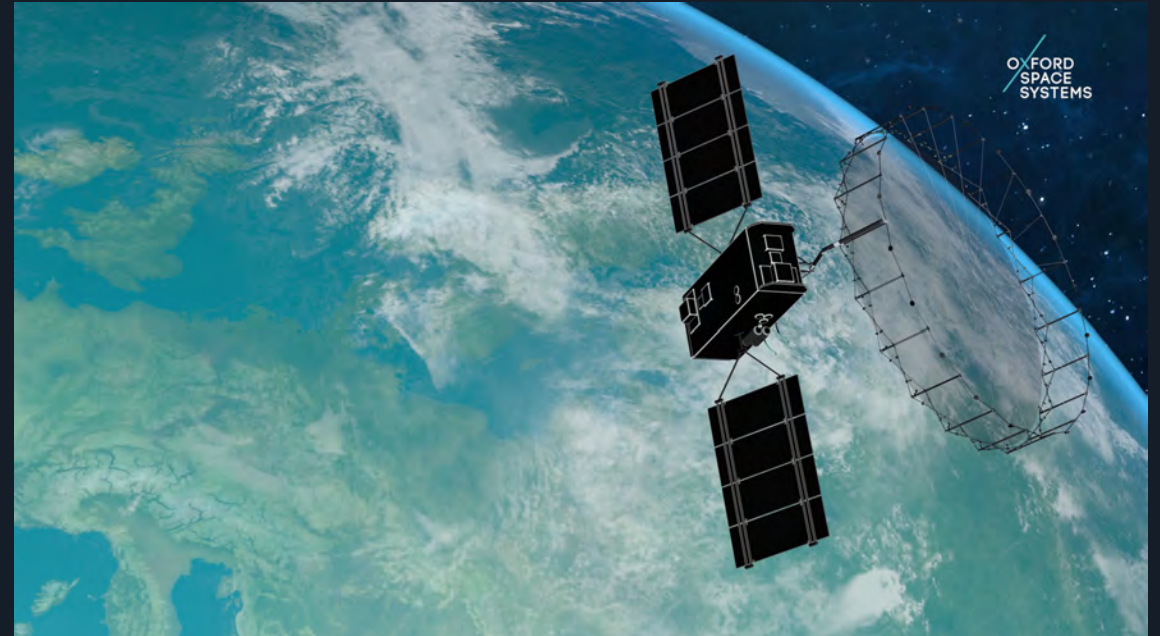
LEO-GEO/MEO data relay links

Q/V-band





# SMALLSAT DEPLOYABLE REFLECTOR ANTENNAS





# WRAPPED-RIB SAR ANTENNA MATURATION

BBs

DMs

EM

PFM

2020

2021

2022

2023

2024/25

TRL 3

TRL 4

TRL 5

TRL 6

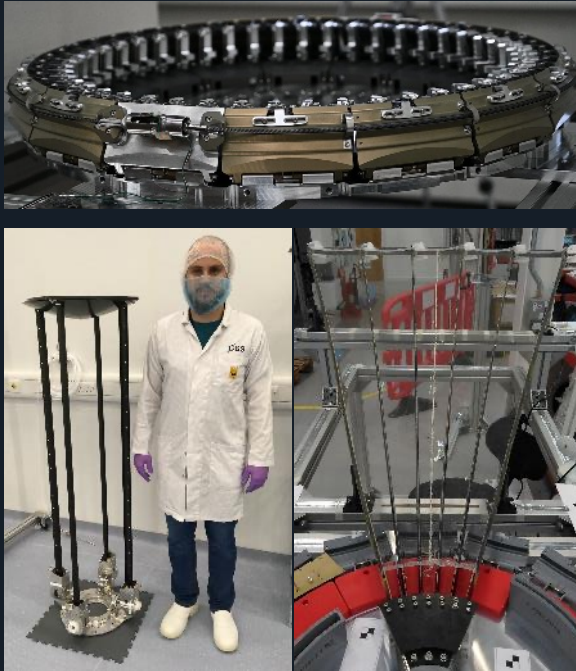
TRL 7

TRL 9

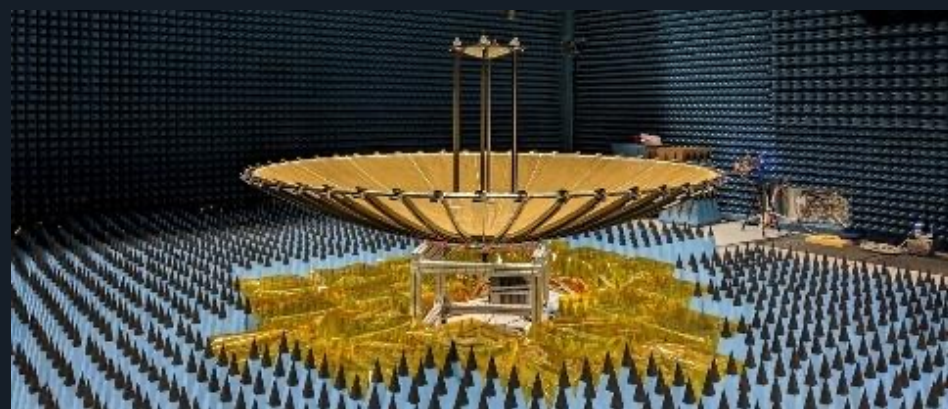
**Breadboards**  
to test concept  
functionality



Reduced & full-scale  
**Development Models**



**Engineering Model** reduced scale and full-scale tests



**Protoflight Model (PFM)**  
In-orbit Demo with SSTL

