

# Pivot into Space

Call 2 Launch  
25-October, 2023

Liz Griffiths, MAA Technology Manager, Pivot into Space Lead



# Pivot into Space – Programme Details



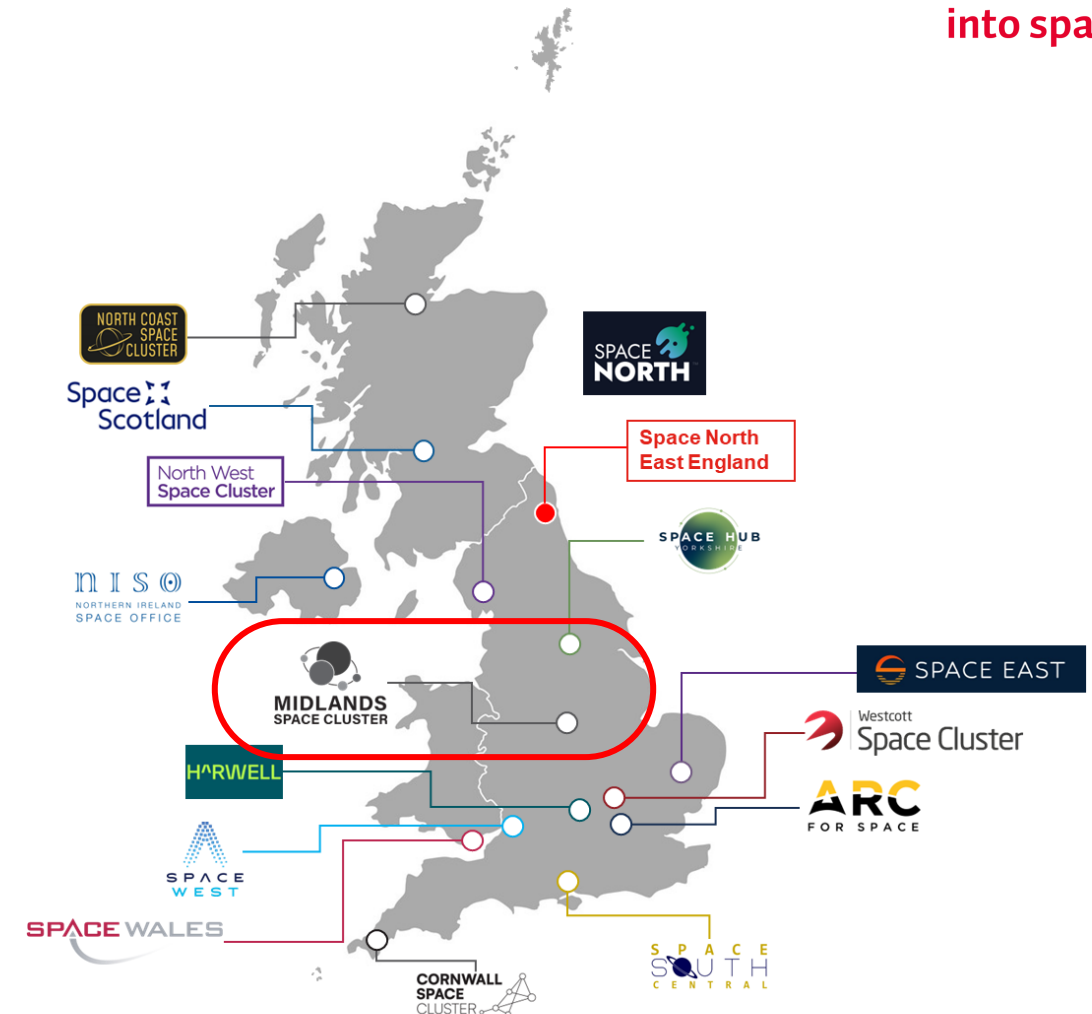
- What is Pivot into Space?
- What support is available
- Thoughts from a new space supplier
- Grant funding
- The application process
- Important Dates
- Q&A

# What is Pivot into Space?



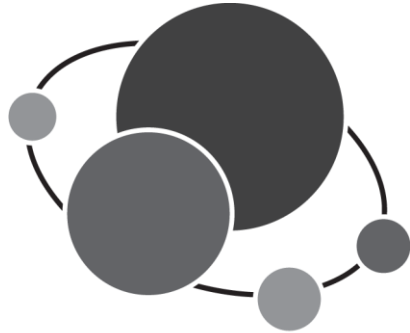
- £1.1M project, part funded by the UK Space Agency
- The project is being delivered by Midlands Aerospace Alliance
- Two-year project - runs to March 2025
- Cross-sector R&D programme to support innovative smaller companies diversify into upstream space markets\*
  - ( \* Space Manufacturing : the design, manufacture of spacecraft, payloads, systems, subsystems, and components, and the infrastructure required to launch and operate them from Earth)
- Designed to accelerate cross-sector innovation in Midlands Supply Chains

# Cluster Development



Satellite Applications Catapult 2023 v3.4  
Space Enterprise Community clusters: Subject to change

# Connecting the Opportunities



**MIDLANDS  
SPACE CLUSTER**

Supporting new and existing space  
capability



Supporting new entrants with existing  
non-space capability

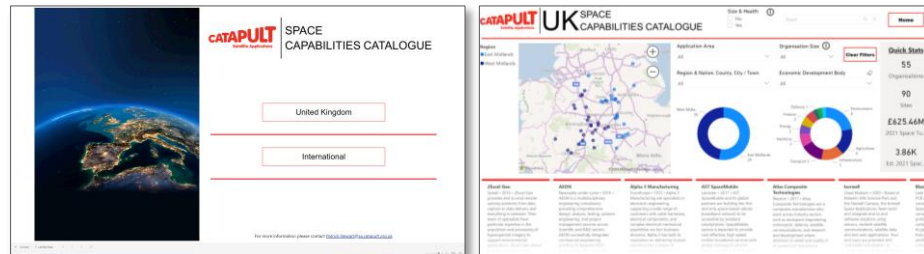
# Support available

- Capability mapping – technology and manufacturing readiness assessments
- Links to R&D assets
- Links to Customer requirements
- Innovation grant funding from £1000 to £50 000

# Engaging the Customer

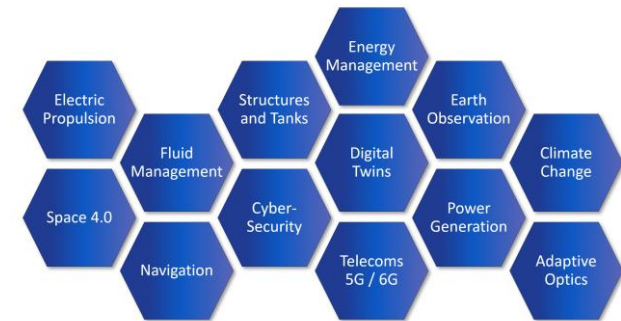
## Bottom-Up Approach

- Capability Assessment
- Catalogue your capabilities
- Add to the UK Space Capabilities Catalogue
- Highlight capabilities to the primes and tier ones



## Top-Down Approach

- Customer Engagement
- Establish prime requirements
- Launch a competition
  - £1K to £50K available per project
  - Up to 12 months in duration
- 10 projects available



# Pivot into Space

Grant Funding & how to apply





# Grant funding

- Innovation projects up to 10 months for Midlands companies
- Must have an application or potential application of the technology or innovation in the upstream space sector
- Must fit into one of the National Space Strategy Capability Goals
- Ideally should link to one of specified customer themes
- Grants of £1,000 to £50,000
- 40% intervention rate
- End user preferred but not essential
- Technology Manager support
- 2 stage application process

# Grant Funding – Eligible Spend


Typically includes :

- Labour costs
- Overheads
- Materials
  - Hardware
  - Software
  - Small items of research equipment
- Services provided by a 3<sup>rd</sup> party to the project
  - Consultancy
  - Machining of parts
- Travel and subsistence

# Project Application & Selection

- 2-stage process – Expression of Interest and Full Application
- Technology Manager support available to prepare applications
- Applications to be scored against marking sheet
- Final approval will take place at MAA Technology Development Group

Commercial-in-Confidence



**Expression of Interest – PIVOT into space**


Application Form for Grant Funding Support to  
Develop a Technology or Innovation from its Original Application  
to Potential Applications in the Space sector

Expression of Interest (EOI) Stage

dates

Call Announced    Deadline to submit outline    Projects selected to proceed

Commercial-in-Confidence




**Full Application Form – PIVOT into space**

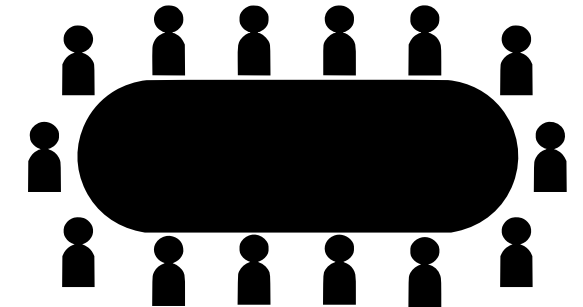
Application Form for Grant Funding Support to  
Develop a Technology or Innovation from its Original Application  
to Potential Applications in the Space sector


Full Proposal Stage


**Project Assessment Sheet**



Applicant		Grant Sought	£	Total Project Cost	£
General Comments					
Yes	No				
Item	New Technology / Process	Max Score	Assessed	Brief Comment	
1.1	Innovative technology / process	10			
1.2	Objectives, outcomes and deliverables	10			
1.3	Why is grant support needed?	5			
<b>Total</b>		25	0		







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# National Space Strategy Capability Goals



This latest document from HM Gov describes the strategy for developing resilient capabilities in:

- Space Domain Awareness
- Space transport
- In orbit services and manufacturing
- Earth Services
- Defence

Pillar Four: Developing Resilient Capabilities	27
Civil Space Capability Goals	29
Civil EO National Priorities	33
Defence Highly Assured Capabilities	36
Working with the Sector	38



Other useful documents:

[National space strategy - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/101421/national-space-strategy.pdf) (Sep 2021)

[The Case for Space - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/101421/the-case-for-space.pdf) (July 2023)

[Space Exploration: Technology Roadmap - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/101421/space-exploration-technology-roadmap.pdf) (July 2023)

Published July 2023

[National Space Strategy in Action - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/101421/national-space-strategy-in-action.pdf)

# UK Space Agency Space Exploration Technology Roadmap



A simplified list of the technologies recommended in the roadmap is below.

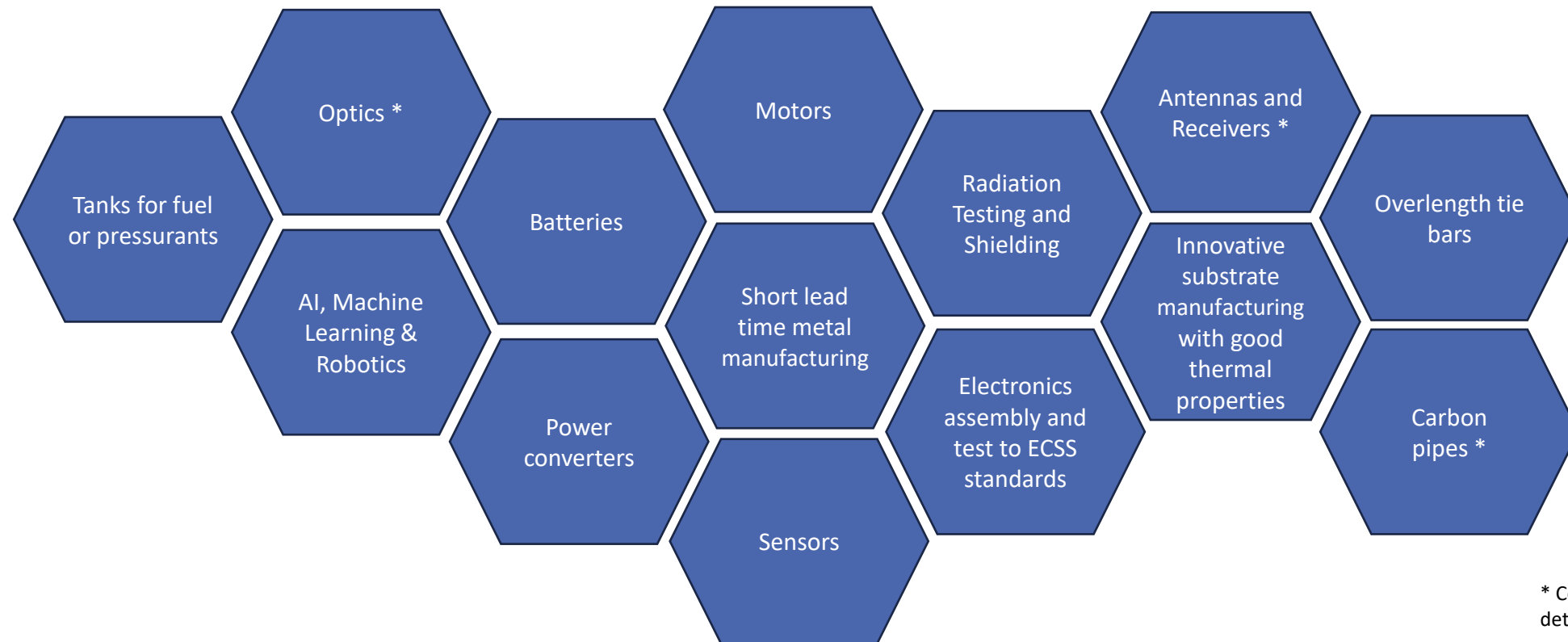
- Advanced Manufacturing
- Autonomy & Artificial Intelligence
- Communications & Mission Operations
- In Situ Resource Utilisation
- Life Support & Crew Performance
- Navigation & Sensing
- Propulsion
- Robotics
- Sample Curation
- Science Instrumentation
- Space Nuclear Power

Roadmap published 20 July 2023:

[Space Exploration: Technology Roadmap - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/115426/space-exploration-technology-roadmap.pdf)

# Customer Technology Themes – Call 2

- Following engagements with 8 potential customers, we are highlighting the following themes in Call 2. Alignment to these topics is **not** essential to make an application.

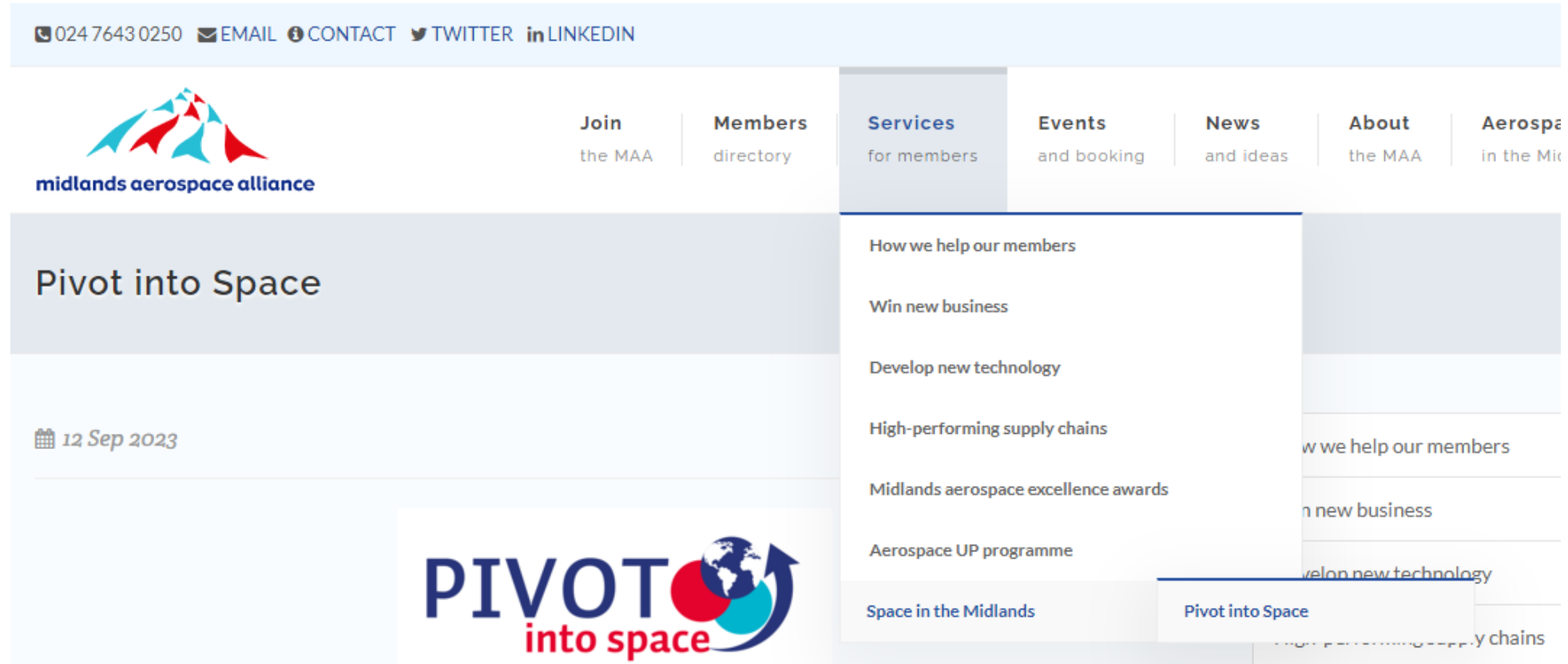


\* Contact us for more details

# Important Dates – Call 2

- Call Announced : **25-Oct-23**
- Deadline to submit Expression of Interest : **08-Dec-23**
- Projects selected to proceed to full proposal stage : **22-Dec-23**
- Deadline for full proposal stage : **19-Jan-24**
- Grant funding awarded from **09-Feb-24**
- Max 10 months project
- Subsequent calls to follow depending on remaining budget

# How to find out more and apply



[Midlands Aerospace Alliance - Space in the Midlands](#)

[Midlands Aerospace Alliance - Pivot into Space](#)



# How to apply



Pivot into Space is an R&D programme that will support small innovative engineering companies across the Midlands to pivot their technologies and capabilities into the UK's growing space markets.

## Support Available

- Capability mapping – technology and manufacturing readiness assessments
- Links to R&D assets
- Links to customer requirements
- Innovation grant funding from £1,000 to £50,000

## Grant Funding Key Dates

- Applications open: 13 September
- Deadline to submit Expression of Interest: 13 October
- Projects selected to proceed to full proposal stage: 27 October
- Deadline for full proposal stage: 10 November
- Grant funding awarded from 30 November

## Expression of Interest

The Expression of Interest (EOI) stage requires provisional information about the proposed project to enable the selection of those projects which will be invited to submit a full proposal. The form can be downloaded [here](#). We encourage companies to discuss their application with us before applying.

## Projects will be judged against the following criteria:

Projects ...

- Must have an application or potential application of the technology or innovation in the upstream space sector - the design, manufacture of spacecraft, payloads, systems, subsystems, and components, and the infrastructure required to launch and

## Midlands Aerospace Alliance - Pivot into Space

Download EOI form from webpage

We encourage companies to discuss their applications with us before applying

E-mail your application to  
[info@midlandsaerospace.org.uk](mailto:info@midlandsaerospace.org.uk)

# Stay in touch



The Midlands Aerospace Alliance is pleased to be working with the UK Space Agency and other stakeholders to support the space sector in our region.

In the last decade, space has transformed into one of the UK's fastest growing and most promising sectors. Trebling in size since 2010 the UK space industry now employs close to 42,000 people and across the country and generates an income of nearly £15 billion every year.

Activity is now under way on two new programmes of work: Midlands Space Cluster and Pivot into Space.

The Midlands Space Cluster project will support new and existing capability in the region, whilst Pivot into Space will offer innovation grants to 10 new-entrants looking to transition into the sector. The first call for Pivot into Space project applications will be in Autumn 2023.

If you want to hear more as these programmes develop, please [give us your contact details here](#) or get in touch with either of our team leads directly:

- Frank McQuade: Midlands Space Cluster Manager - [Frank.McQuade@Midlandsaerospace.org.uk](mailto:Frank.McQuade@Midlandsaerospace.org.uk)
- Liz Griffiths: Pivot into Space Manager - [Liz.Griffiths@Midlandsaerospace.org.uk](mailto:Liz.Griffiths@Midlandsaerospace.org.uk)

Space industry expert Frank McQuade has prepared this [background briefing document](#).



Supporting new and existing space capability



Supporting new entrants with existing non-space capability

Give us your contact details to be the first to hear about anything new in the Midlands Space Cluster or Pivot into Space

Liz Griffiths: Pivot into Space Manager -  
[Liz.Griffiths@Midlandsaerospace.org.uk](mailto:Liz.Griffiths@Midlandsaerospace.org.uk)

Frank McQuade: Midlands Space Cluster Manager –  
[Frank.McQuade@Midlandsaerospace.org.uk](mailto:Frank.McQuade@Midlandsaerospace.org.uk)

[Midlands Aerospace Alliance - Space in the Midlands](#)

# thank you

Liz Griffiths  
October 2023

Contact : [liz.Griffiths@midlandsaerospace.org.uk](mailto:liz.Griffiths@midlandsaerospace.org.uk)



# Pivot into Space

## Background Slides



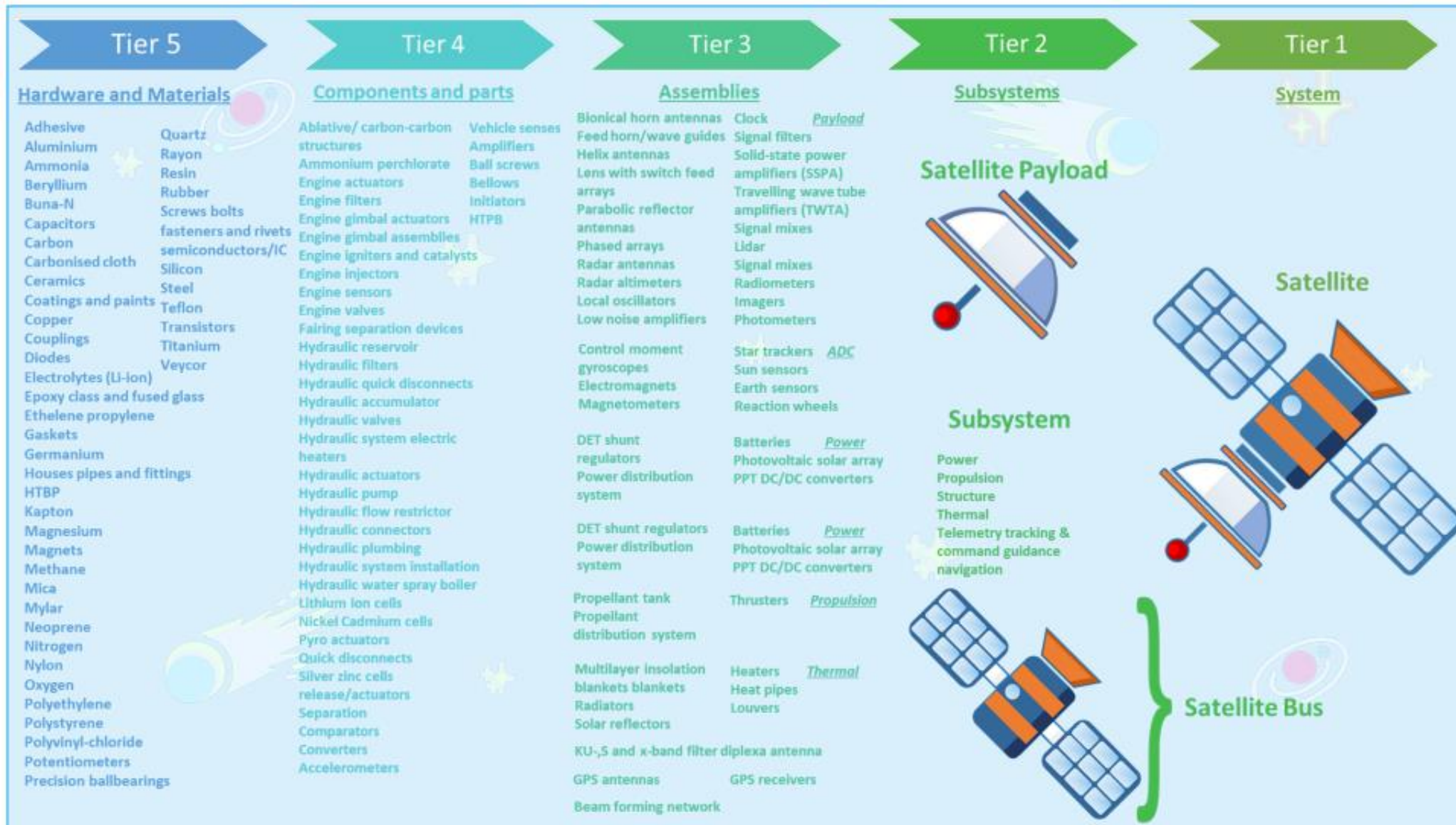


Image borrowed from CityREDI with thanks



**Figure 2:** List of 'hardware and materials', 'component and parts', 'assemblies', 'sub-systems' and 'systems' for the manufacturing of satellites.

**Author:** Alice Pugh, adapted diagram from Bryce Space.



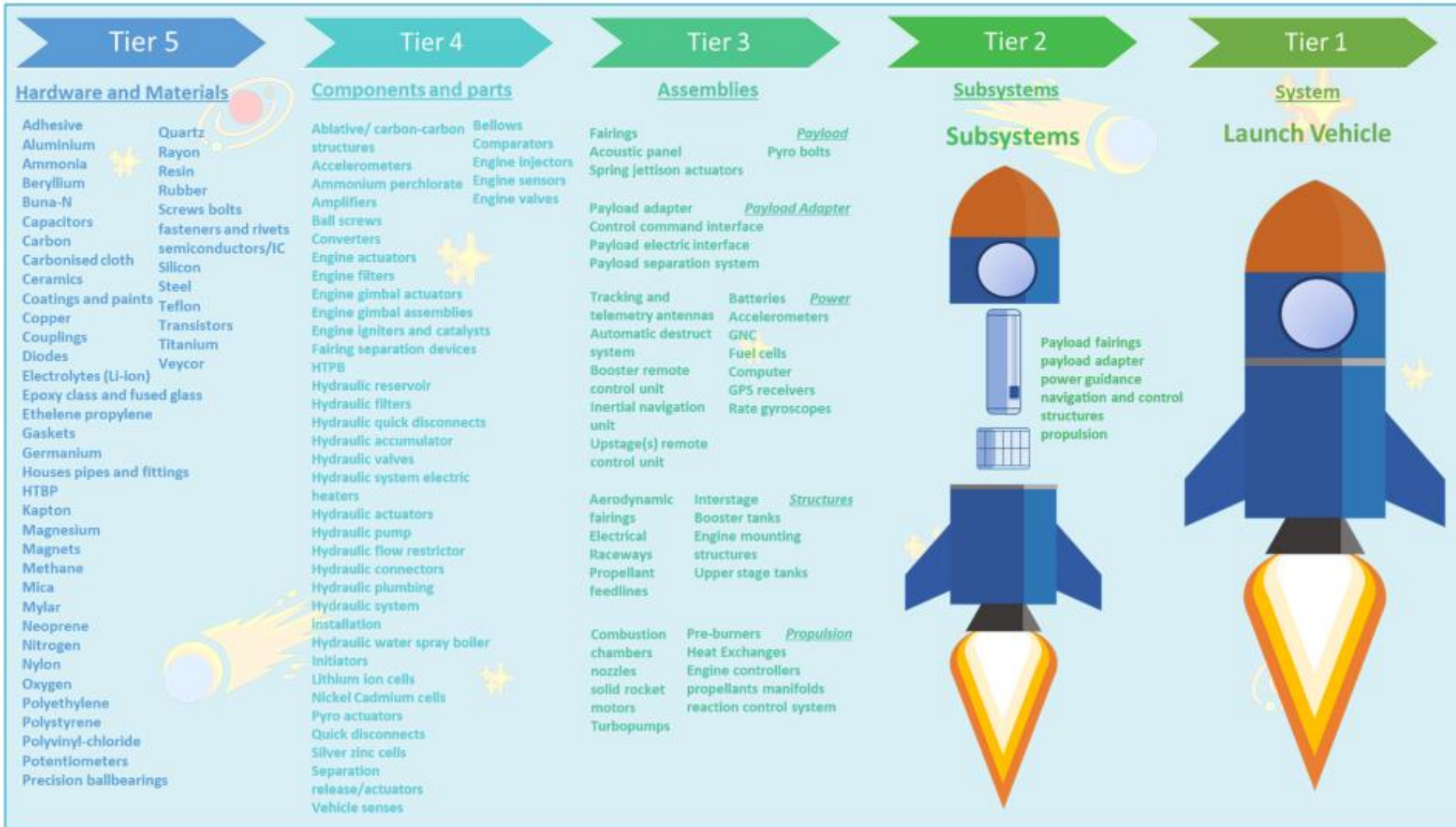


Image borrowed from CityREDI with thanks



**Figure 3:** List of 'hardware and materials', 'component and parts', 'assemblies', 'sub-sytems' and 'systems' for the manufacturing of launch vehicles.

**Author:** Alice Pugh, adapted diagram from Bryce Space.