

# We Democratize Space Exploration.

We make space exploration affordable, sustainable and open.  
A global endeavor with European roots.

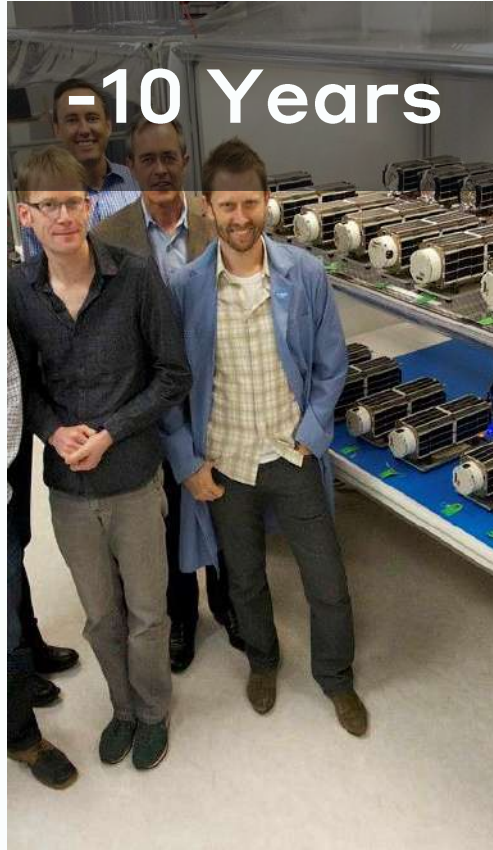


AFTER THE DISRUPTION OF LAUNCH SERVICES, EARTH OBSERVATION AND COMMUNICATION...

-15 Years



-10 Years



-5 Years



## Context

SPACE EXPLORATION IS THE NEXT SPACE ACTIVITY TO BE DISRUPTED.

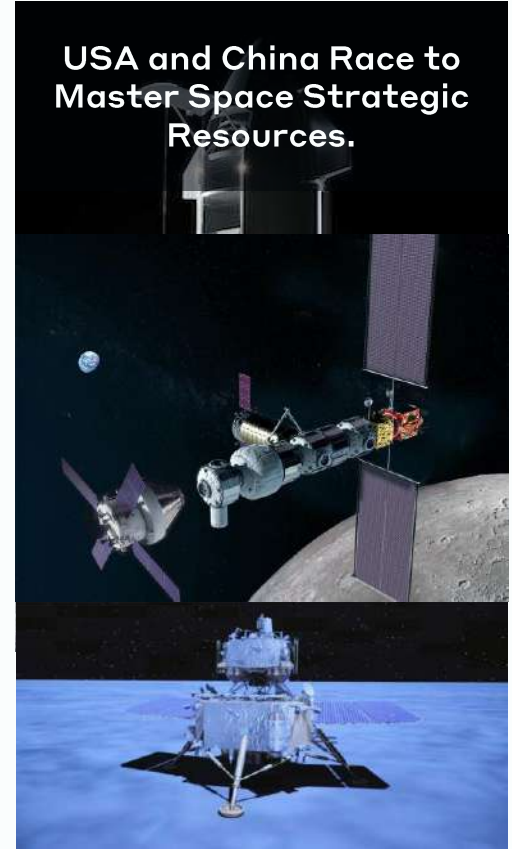
**Building Space  
Infrastructures Becomes  
Easier and Affordable.**



**In-Space Activities  
Commercialize.**

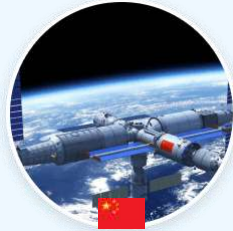


**USA and China Race to  
Master Space Strategic  
Resources.**

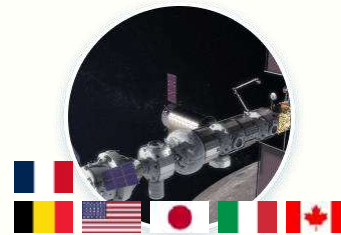


WITHIN THIS DECADE: LOW EARTH ORBIT PRIVATIZATION AND LUNAR CONQUEST.

LOW EARTH ORBIT



MOON



+400% Market Growth. Two-Digit Billion Market. Public & Private Clients.



## Problem

### SHORTAGE OF TRANSPORTATION VEHICLES SERVING SPACE EXPLORATION INFRASTRUCTURES.

#### LOW EARTH ORBIT



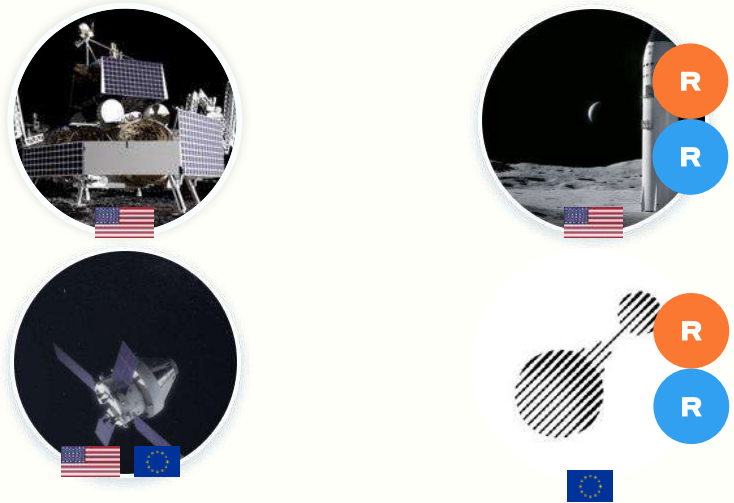
**Today** – Current solutions are expensive. Most of them come from incumbents and are not reusable.

**Tomorrow** – Starship is like a container ship, too large to serve space stations.

Reusable

Can be refueled in orbit

#### MOON



**Today** – Current solutions are expensive, mono-mission, not reusable, and cannot be refueled in orbit.

**Tomorrow** – Starship is like a container ship, too large to serve last mile delivery in the lunar ecosystem.

We ensure European access and complement Starship.

## Our Solution

NYX – ONE ARCHITECTURE, MULTIPLE DESTINATIONS, FLYING FROM 2024 ONWARDS.

### Nyx Earth

#### Affordable

Starting at 25% of the competition's price.

Launcher agnostic.

One core architecture.

#### Sustainable

Reusable.

Uses green propellants.

Can be refueled in orbit.

### Nyx Moon

#### Open

Open-Source Operating System.

Open Interfaces.

## Our Solution

OUR MODULARITY REDUCES OUR COSTS WHILE INCREASING RELIABILITY, AVAILABILITY AND TURNOVER.

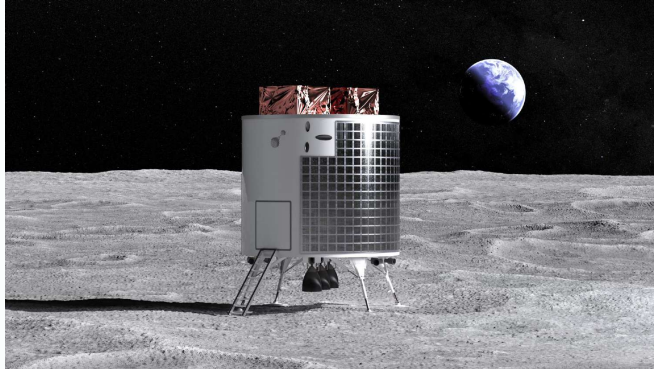


### Nyx Earth Missions

- Champagne: 6 months free flying around the Earth.
- DockMe: Resupplying Low Earth Orbit space stations.

### Nyx Moon Missions

- Voyager: To the Gateway (lunar station).
- Boomerang: to the Gateway & back to Earth.
- Loops: Moon – Gateway – Moon.



### Nyx Moon Missions

- Terminal Moon: from Low Earth Orbit to lunar surface.
- Hops: point to point at lunar surface.

### Return Capability Missions

- Champagne
- DockMe
- Boomerang





## WE MOVE FAST AND SIMPLE, AND ARE ON-TRACK CASH, PLANNING, COST & QUALITY

### Bikini

Ballistic Re-Entry Demonstrator.



— 2022

### Mission Possible

Functional Prototype Flying with Clients.



— 2024

### Nyx Earth

Maiden Flight 6 Months in Orbit and Back to Earth.



— 2026

### Nyx Moon

Maiden Flight to Lunar Surface.



— 2028

#### Nyx Earth & Moon tech feasibility is ensured.

- ✓ Designs of Nyx Earth & Moon validated (2 reviews passed).
- ✓ Design of the engine validated (1 review + 2 tests performed).
- ✓ Major production processes and vehicle shape validated.

#### Operational basis are ensured.

- ✓ Planning & costs confirmed.
- ✓ SpaceX launch contract signed.
- ✓ HR attractivity confirmed.

#### Commercial traction is proven.

- ✓ Pricing policy validated.
- ✓ First contracts for Mission Possible signed.
- ✓ Preliminary support from the agencies secured.

#### Main tech risks for Nyx Earth are de-risked.

- ✓ Re-entry: thermal protection, parachute opening, Guidance Navigation & Control S/W.
- ✓ Green propellants: 450N thruster tested.
- ✓ Huracan engine: propulsion system tested.
- ✓ Docking & de-orbitation burn tested on-ground

#### Development pace is confirmed.

#### Main commercial risks for Nyx Earth are de-risked.

- ✓ +10 million EUR down-payments for +80 million EUR contracts signed for Nyx Earth.
- ✓ +5 million EUR development contracts signed.

#### All tech risks for Nyx Earth v1.0 are de-risked.

- ✓ Maiden flight of Nyx Earth.
- ✓ Huracan engine qualified.

#### Development & scaling paces are confirmed

#### Commercial recurrence for Nyx Earth is proven.

- ✓ +250 million EUR contracts signed for Nyx Earth.
- ✓ +50 million EUR contracts signed for Nyx Moon.

#### Free Cash Flow positive.

#### All Tech risks for Nyx Earth all configurations and Nyx Moon major configurations are de-risked.

- ✓ Docking.
- ✓ Landing at lunar surface.

#### Scaling pace & reusability for all vehicles are confirmed.

- ✓ Reusability of Nyx Earth.
- ✓ Scaling of Nyx Moon.

#### Commercial recurrence is proven both for Nyx Earth and Nyx Moon.

- ✓ +500 million EUR signed contracts.

#### Profitability is recurring.

- ✓ 40% gross margin.

Seed

Series A

Series B

IPO



## Team Management

40 TEAM MEMBERS, +450 YEARS OF EXPERIENCE WITH COMPLEMENTARY BACKGROUNDS.



**Helene Huby**  
Co-Founder & CEO

VP Orion-ESM; VP Space Strategy; Program Manager; Head of Innovation at Airbus Defence & Space and ArianeGroup.

Co-Founder & Chair of The Karman Project. Founder & Chair of Urania Ventures.

Young Leader of the French American and of the French China Foundations.

ENS Paris, ENA, xMIT.



**Artur Koop**  
Co-Founder & COO

Lead Propulsion; Lead Avionics & Power; Lead Thermal of Orion-ESM at Airbus Defence & Space.

Co-Founder & Treasurer of The Karman Project.

Visiting researcher at NASA.

Technical University of Munich. Member of the WARR (Scientific Work Group of Rocketry and Space Flight).



**Jon Reijneveld**  
Co-Founder & Chief Engineer

Deputy Chief Engineer of Orion-ESM at Airbus Defence & Space.

System Engineer of EDRS (the first space-space laser communication relay) at Airbus Defence & Space.

Participant to NASA Academy program Research Associate at NASA Ames.

Technical University of Delft.



**Eric Miquel**  
Chief AIT

Head of Design to Manufacture at OneWeb Satellites.

FAL Project Manager & New Factory Implementation at OneWeb Satellites.

Head of Industrial Innovation, AIT Engineer at Matra, EADS and Airbus Defence & Space.



**Nils Bernhardt**  
Co-Founder & Lead Software

Senior DevOps Engineer for AirSense at Airbus.

Software Solutions Engineer for EDRS Ground Segment at Airbus Defence & Space.

Co-Founder WRAP (automated guidance car software).

Technical University of Munich.



**Sebastien Reichstadt**  
Co-Founder & Lead Propulsion

Rocket System Engine & Technology Coordinator at Reaction Engines.

Liquid Propulsion System Expert; Vulcain 2.1 Propulsion System Manager, ArianeGroup.

Upper- First-Stage Engine Design Engineer at SNECMA.

ESTACA, ONERA.



**Hannah Ashford**  
Lead Community

Director of Community & Partnership at Factory Berlin.

Head of Coworking & Community at The Place, Berlin.

Lawyer at McInnes Wilson Lawyers, Australia.

University of Queensland.



**Olivier Faure**  
Lead System

Lead Thermal Control, Structures & Life Support System; Technical Authority Life Support System, Orion-ESM, Airbus Defence & Space.

Ariane 5 Mission Analysis Engineer at ArianeGroup.

ISAE-Supaéro.



**Victor Ertl**  
Lead Business Development

Executive Assistant SVP Top Executive Management & Talent Acquisition at Airbus.

System Engineer at Airbus Defence & Space.

Co-Founder of "The Moon Race".

Technical University of Munich.



**Najwa Naimy**  
Lead Vehicle Design & Product Strategy

Program Manager for Multi-Launch Solutions at ArianeGroup.

Technical Leader for Future Launchers at ArianeGroup.

Structural Dynamics Engineer for Ariane 5 and Ariane 6 at ArianeGroup.

Ecole Centrale de Paris.



**Sonia Magniant**  
Lead Prototypes & Demonstrations

Launcher System Engineer, Liquid Propulsion Engineer at ArianeGroup.

Liquid Propulsion Engineer at Airbus Defence & Space.

Turbopump Design Engineer at SNECMA.

ISAE-Supaero.



**Thomas Nussmann**  
Lead Avionics & Power

Technical Authority Naval at iXblue.

Head of Power & Sequential Avionics Department; Avionics Technical Leader at ArianeGroup. ATV Qualification

Engineer at ArianeGroup.

ISAE-Supaero.

## 9 MONTHS FROM DESIGN TO MANUFACTURING TO TESTING OUR FIRST SPACECRAFT.

January 2022  
Award from ESA

February - March 2022  
Designs

April 2022  
Procurement

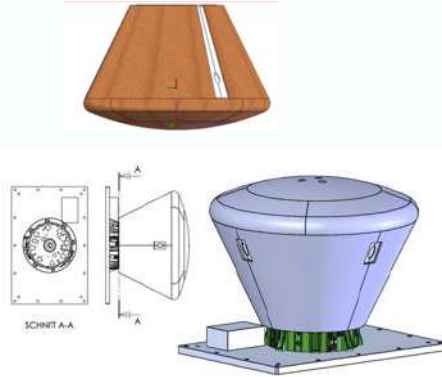
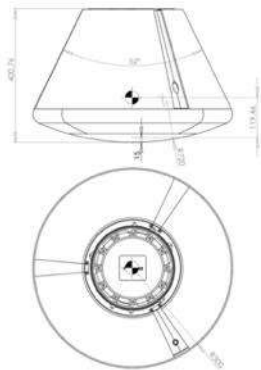
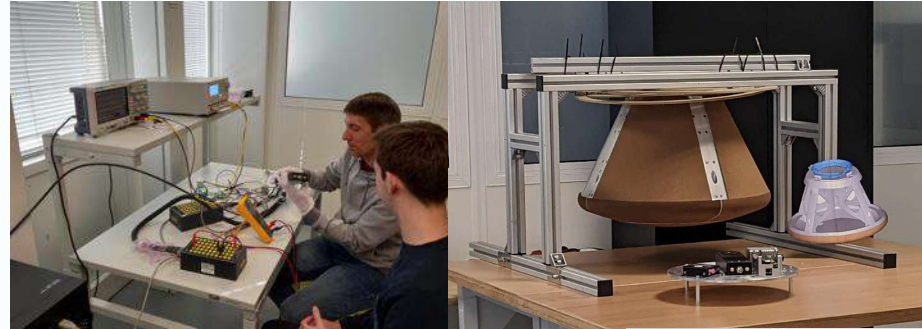
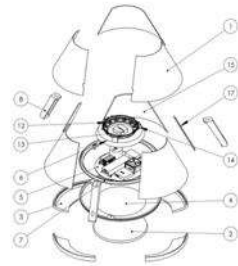
May - June 2022  
Manufacturing

July - August 2022  
AIT



STANDING & SUPPORT

**ESA selects payloads  
for Ariane 6 first flight**



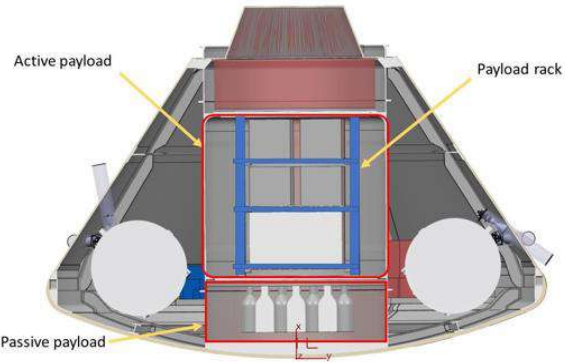
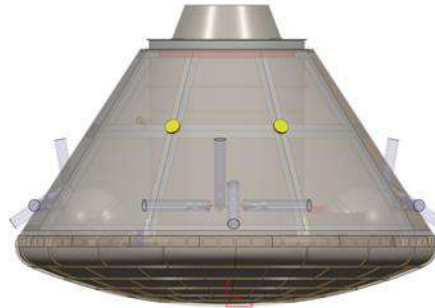
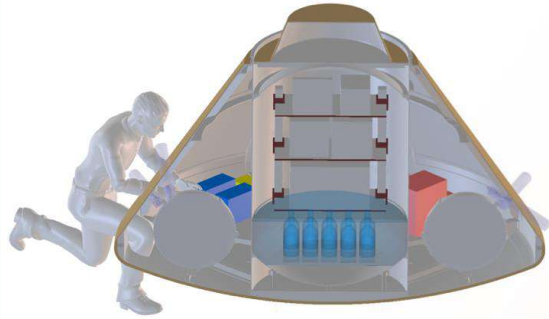
Bikini

OUR FIRST SPACECRAFT IS QUALIFIED.



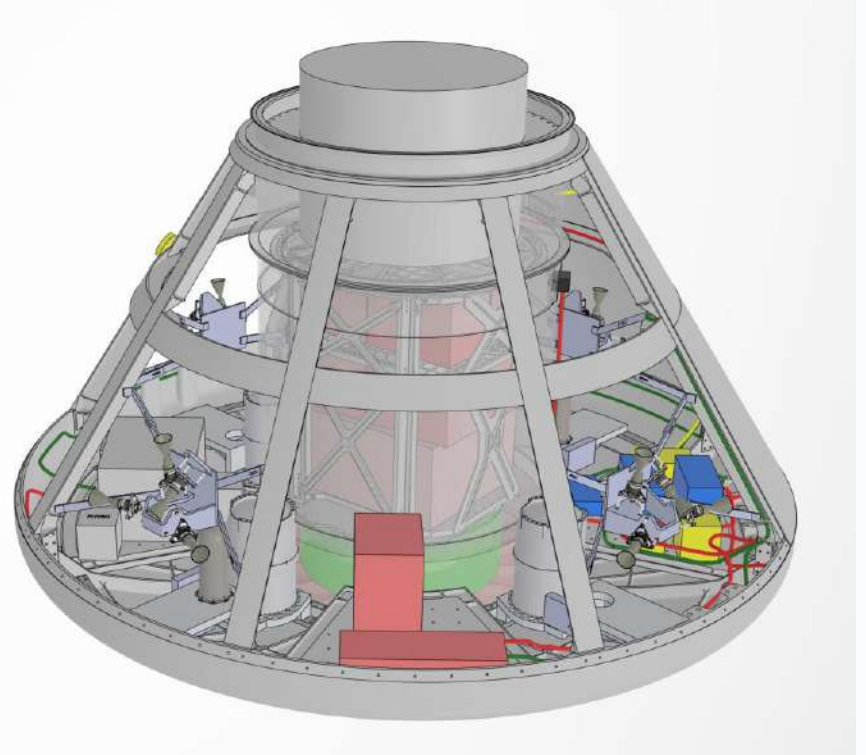
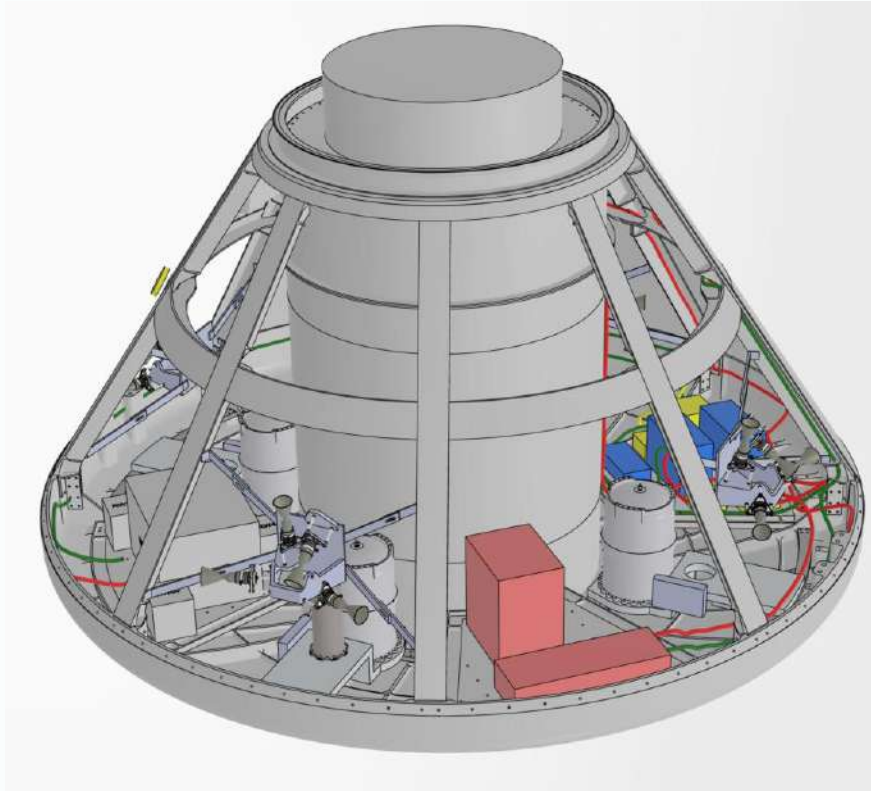


ON COST, ON SCHEDULE, ON QUALITY... AND WITH CLIENTS ON BOARD.

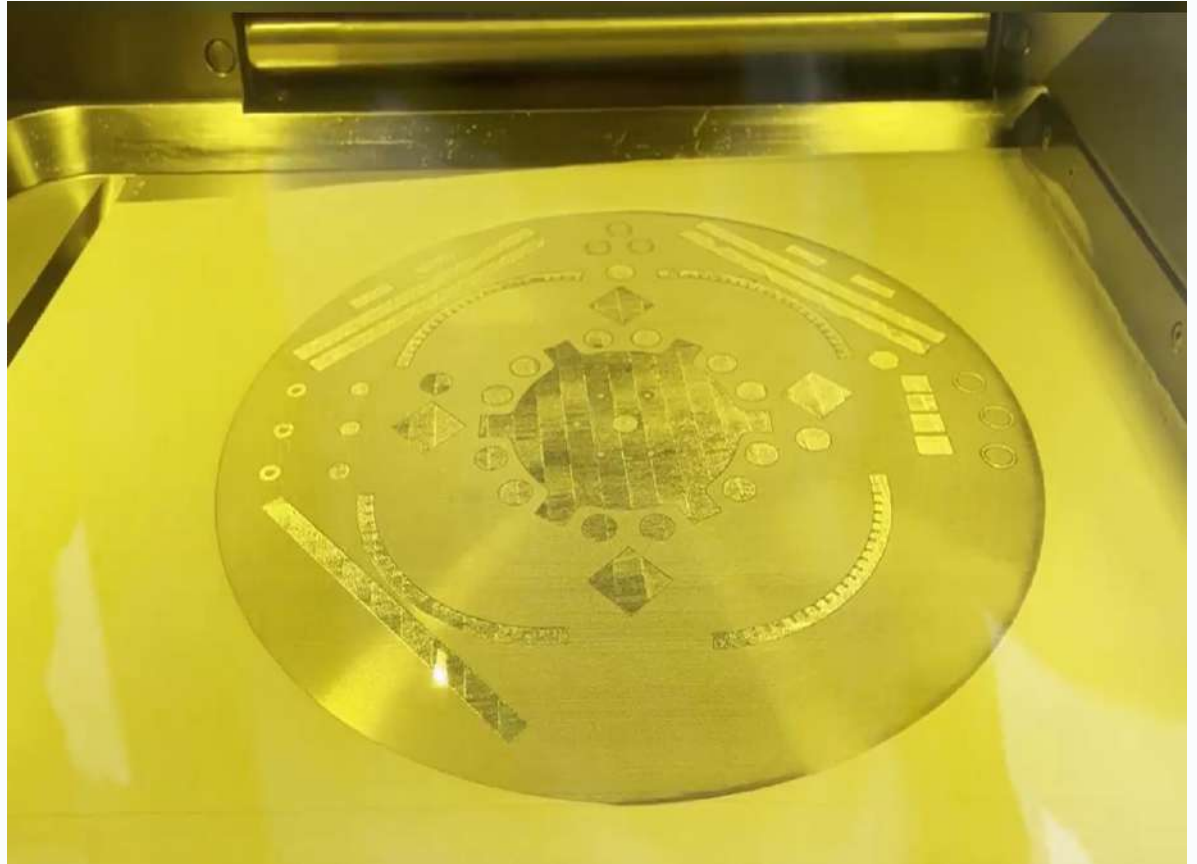


Mission Possible

DETAILED DESIGN PERFORMED; LONG LEAD ITEMS BOUGHT.



ENGINE PUMPS & INJECTORS TESTED + CHAMBER STARTED TO BE PRINTED.





IN LESS THAN 6 MONTHS, 85% OF THE MISSION POSSIBLE CAPACITY HAS BEEN PRE-BOOKED.

### 9 months after starting the sales...

**Commercial traction is above targets.**

100% of Mission Possible capacity pre-booked by clients.

Letters of Interest signed with Anchor Customers at highest level: ESA General Director, French Space Force Commander, etc.

Partnerships signed with space stations.

All key categories of clients are in the pipe.

**Development contracts represent an additional de-risking of the business plan.**

+ 75 million EUR development contracts in the pipe.

ESA is interested in co-funding the development by The Exploration Company of critical European affordable technologies (e.g., cryogenic orbital engine, Docking System).

ESA General Director has signed an LOI to manifest his support to The Exploration Company.

**AIRBUS**

**ORBITAL REEF**

**AXIOM SPACE**

**esa**

**DLR**

**CNES**

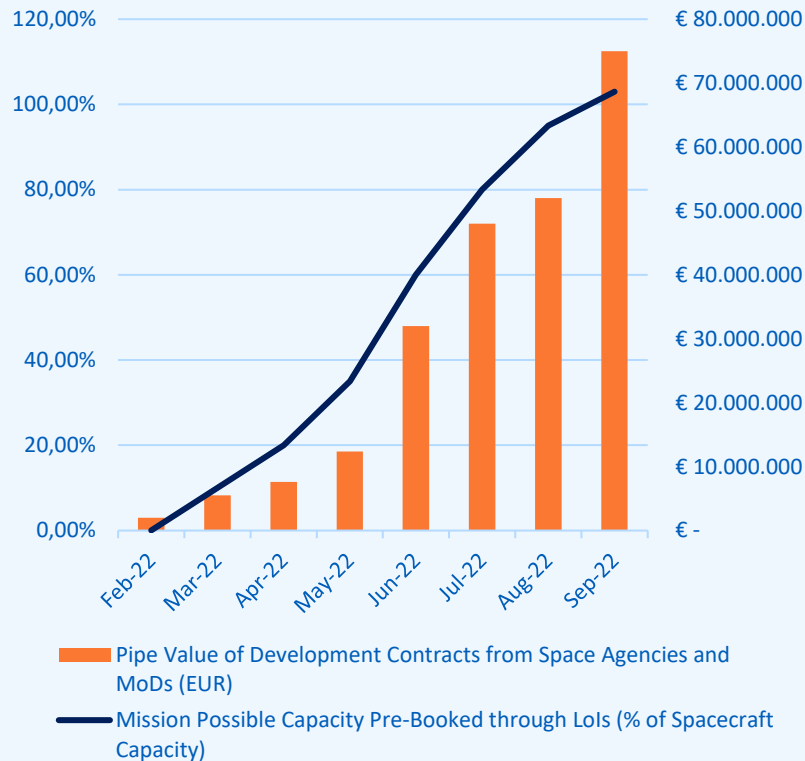
**Nanoracks**

**VOYAGER SPACE**

**HERMES PARIS**

**MINISTÈRE DES ARMÉES**

Contracts & LOIs Signed

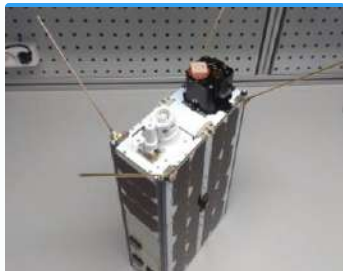


### OUR CUSTOMERS APPRECIATE NYX UNIQUE VALUE.



#### Space Cargo

Affordable, available (launcher agnostic), large return capability.



#### Space Demo

Long, affordable & back to Earth.



#### Space Lab

Long, affordable & back to Earth.



#### Space Emotions

Only capability worldwide.



#### Space Safety

Affordable and independent.

*"The Exploration Company can provide independent, sustainable and affordable logistic solution for space stations. This is critical for Europe. ESA wishes to collaborate with The Exploration Company, and to jointly explore new technologies and capabilities, as well as new types of partnerships."*

G. Naja, Director Commercialization, Industry & Procurement, ESA



*"The Exploration Company's team is credible. This is the reason why we have signed an LoI with them. We look forward to more competition to serve our private station, as well as alternative European players."*

C. Mowry, Chief Revenue Officer, Voyager



*"It is almost impossible to find available and affordable in-space testing capabilities. With Nyx, we can test our technology, for a fraction of the ISS cost, longer than on a rideshare mission, and – what is unique – we get it back."*

C. Figus, Head of Advanced Concepts & Robotics, Airbus



*"Nyx provides a unique capability to perform microgravity experiments: it bridges the gap between parabolic flights and the space station. It indeed offers a robotic, affordable and long-duration (several months) microgravity research platform."*

M. Kugel, CEO, Yuri



*"I am delighted to pioneer the future of travel with The Exploration Company. With Nyx our clients will get a first taste of space travels. It is also a great positioning for our company."*

C. Guilhamon, CEO, Voyage Privé



*"The Exploration Company, with its re-entry and space-based surveillance capabilities, is a strategic asset for Europe and can provide space-based defense services to other countries."*

General M. Friedling, former French Space Force Commander



### STRONG BACKING FROM ALL-OVER EUROPE.



Thierry Breton  
@ThierryBreton

Très heureux d'avoir échangé avec Hélène Huby, co-fondatrice de la startup spatiale The Exploration Company 🍷

L'Europe spatiale est très dynamique & innovante et les #startups y contribuent pleinement.

Ma priorité est de favoriser le développement des acteurs 🇪🇺 du #NewSpace.







## Bordeaux

Engineering : System, Propulsion, Thermal & Mechanics.


Production : Engine.



## Munich

Engineering : Software, Guidance, Navigation & Control, Avionics, Power.

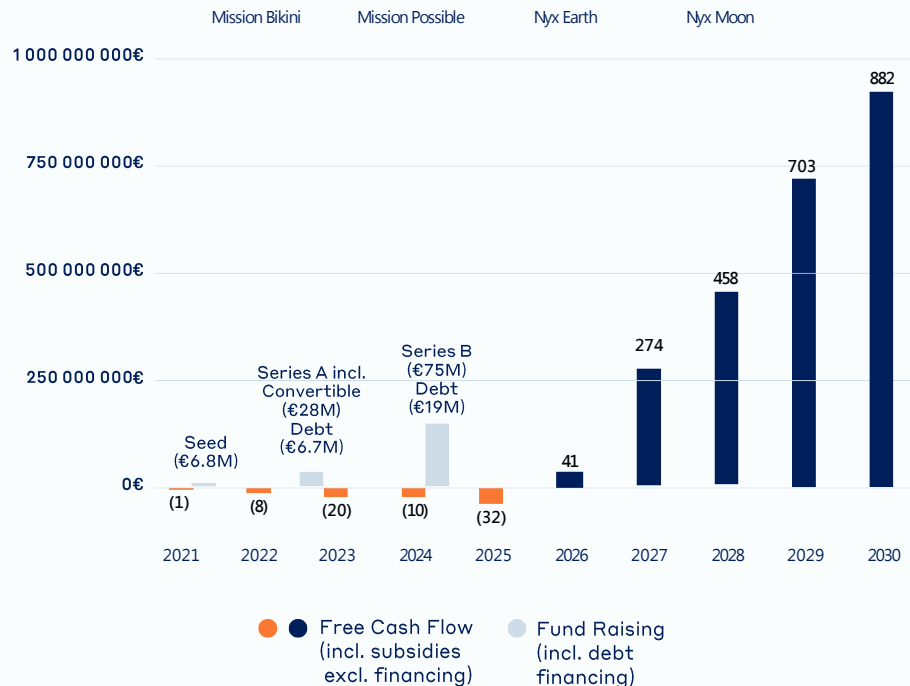
Production : Final Assembly Line.g : System, Propulsion, Thermal & Mechanics.



## Denver

We plan to open a subsidiary in the USA after Series A, to accelerate the sales and start building a presence in the American space ecosystem.

## OUR FUNDING STRATEGY IS DRIVEN BY SHORT TERM AND MEASURABLE MILESTONE SUCCESS.



The Exploration Company Cash Flows (2021-2030)

### Seed – H2-21 | 6.8 million EUR

- Team = 1.5 million EUR.
- VCs = Promus Ventures, Cherry Ventures, Vsquared = 5.3 million EUR.

### Pre-Series A – H1-22 | 5.5 million EUR

- Convertible for Families & Strategics = Dassault, Schindler, Schlumberger = 5.25 million EUR.

### Series A – H2-22 | 22.5 million EUR

#### Tech de-risking

- Bikini flown.
- Mission Possible flown.
- Flight & GNC software flown.
- Parachute flown.
- Huracan propulsion system hot-fired.
- 300-600 N green thrusters hot-fired and qualified.

#### Sales de-risking

- Sales growth +10 million EUR down-payments for +80 million EUR contracts signed.







### WE HAVE PASSED MAJOR DE-RISKING MILESTONES IN 12 MONTHS.

#### Team

40 people gathering +400 years of experience in space, mixing space veterans with young graduated engineers.

We attract talents: +2,500 applications received.

#### Execution

We are on-track on the planning, on-track on the cash, and on-track on the quality level expected.

We have secured SpaceX launch.

Our processes are industrial and digital: 80% of our documentation is produced automatically, using a technical configuration that we freeze and validate every 6 weeks.

#### Commercial Traction

100% of our Mission Possible that will fly in 2024 has been pre-booked by clients which come from Europe, America and Asia.

#### Technical Progress

We have delivered in Sep-2022 our re-entry demonstrator, qualified and ready for flight.

We have tested Huracan engine pumps and injector H/W.

We have passed Preliminary Requirement Review of Nyx Earth and Nyx Moon, System Requirement Review of Nyx Earth and Huracan engine. These reviews were chaired by Rudolf Schmidt who was General Inspector at ESA.

#### Fundraising

We have raised 12 million EUR, from tier-one space, deep tech and non-space VCs (Promus Ventures, Cherry Ventures and Vsquared) as well as from highly respected families and strategics: Dassault family, Jüly Fund, and Schlumberger.

#### Cooperation & Trust

We have built a trusted relationship with European Space Agency (ESA), Centre National d'Études Spatiales (CNES) and German Aerospace Center (DLR) and have received contracts from these partners.

We work together with Germany and France, together with startups and corporates.

# APPENDIX #1

Tech

## HIGH LEVEL DEVELOPMENT LOGIC.



2021

2022

2023

2024

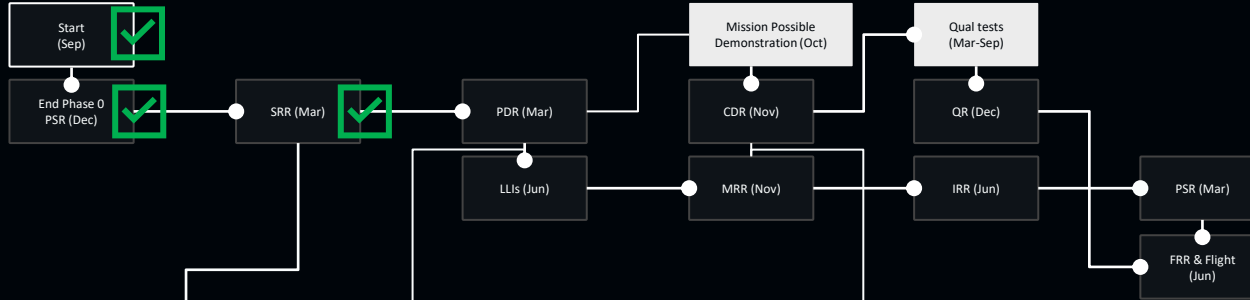
2025

2026

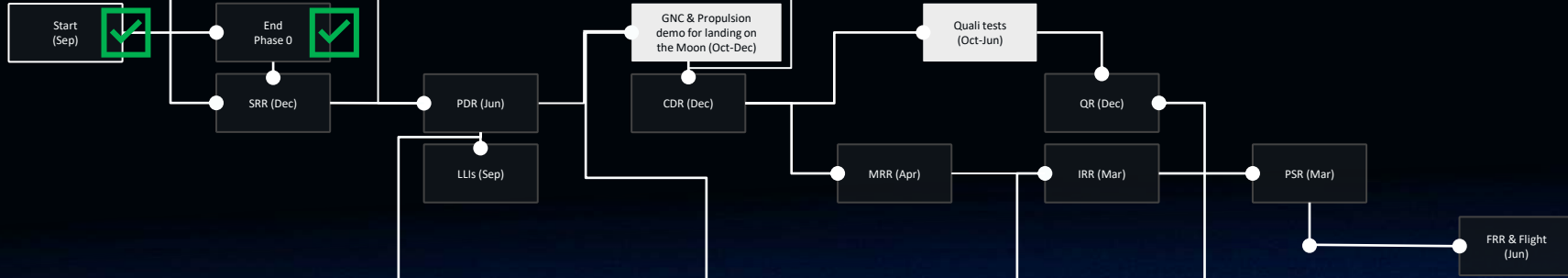
2027

2028

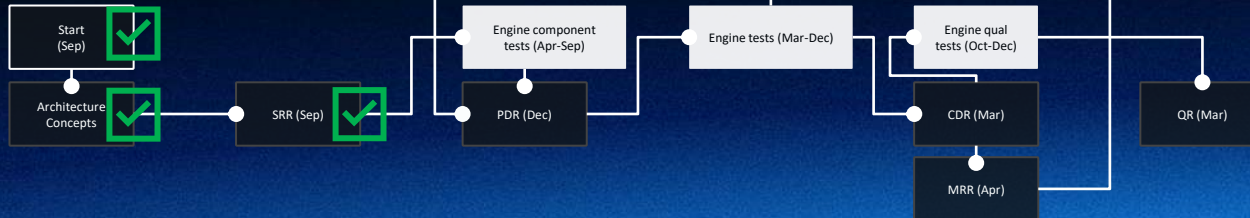
Nyx Earth



Nyx Moon



Huracan Engine

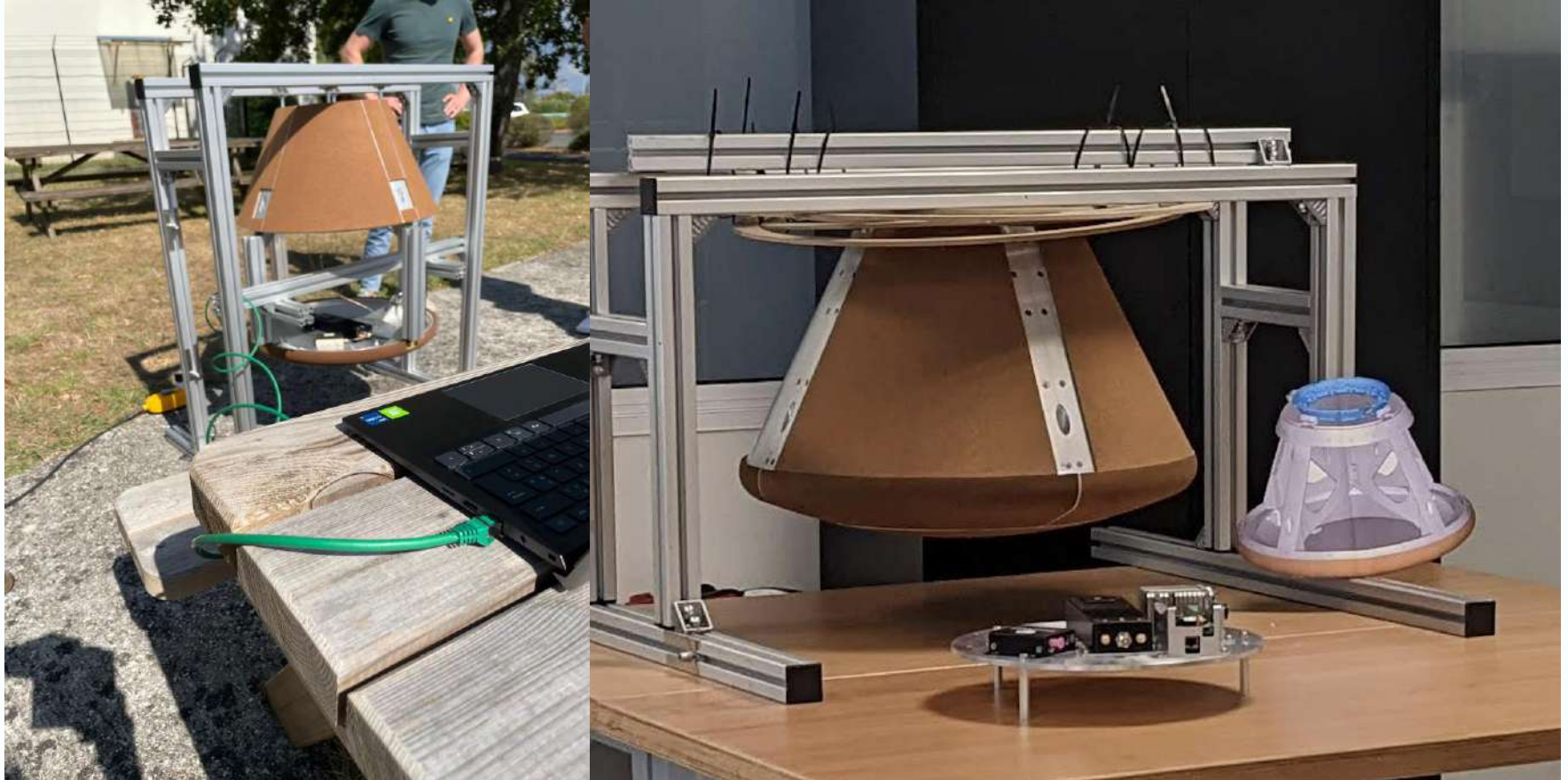








## BIKINI | SPACECRAFT IS FULLY ASSEMBLED AND ITS AVIONICS FULLY TESTED – AUGUST 2022.



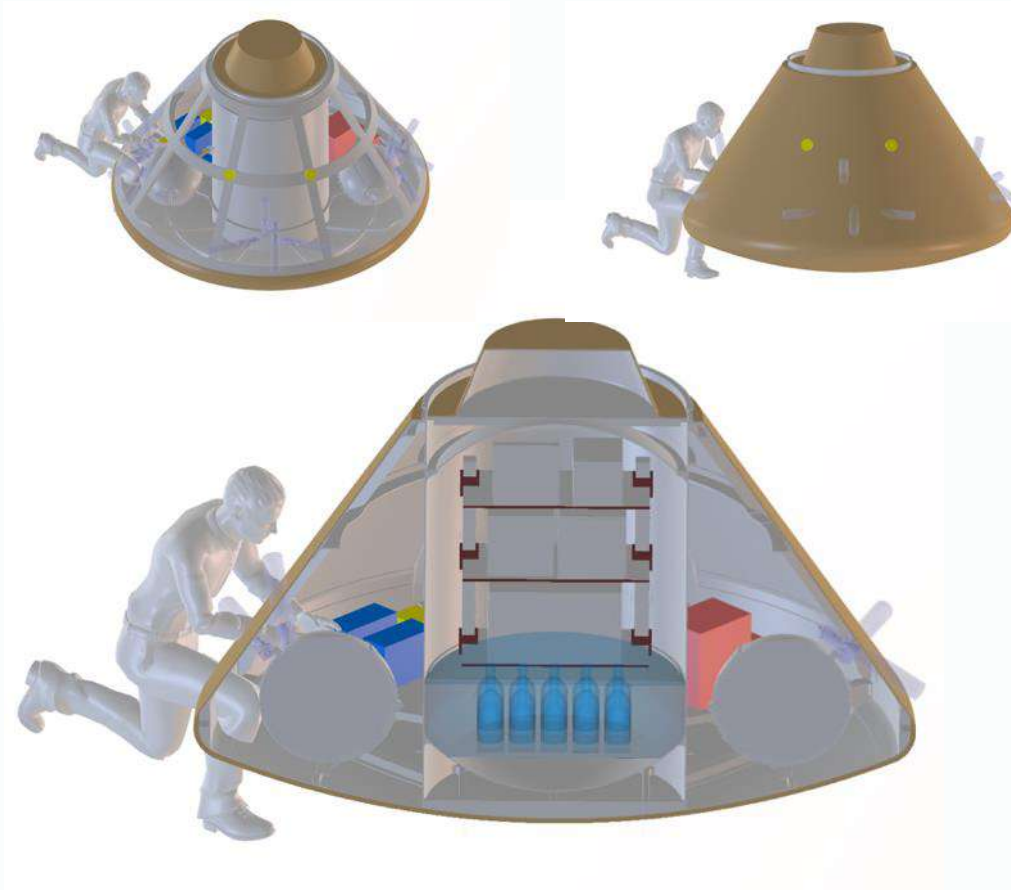


Bikini

BIKINI | SPACRAFT IS QUALIFIED AND READY TO FLY – SEPTEMBER 2022.

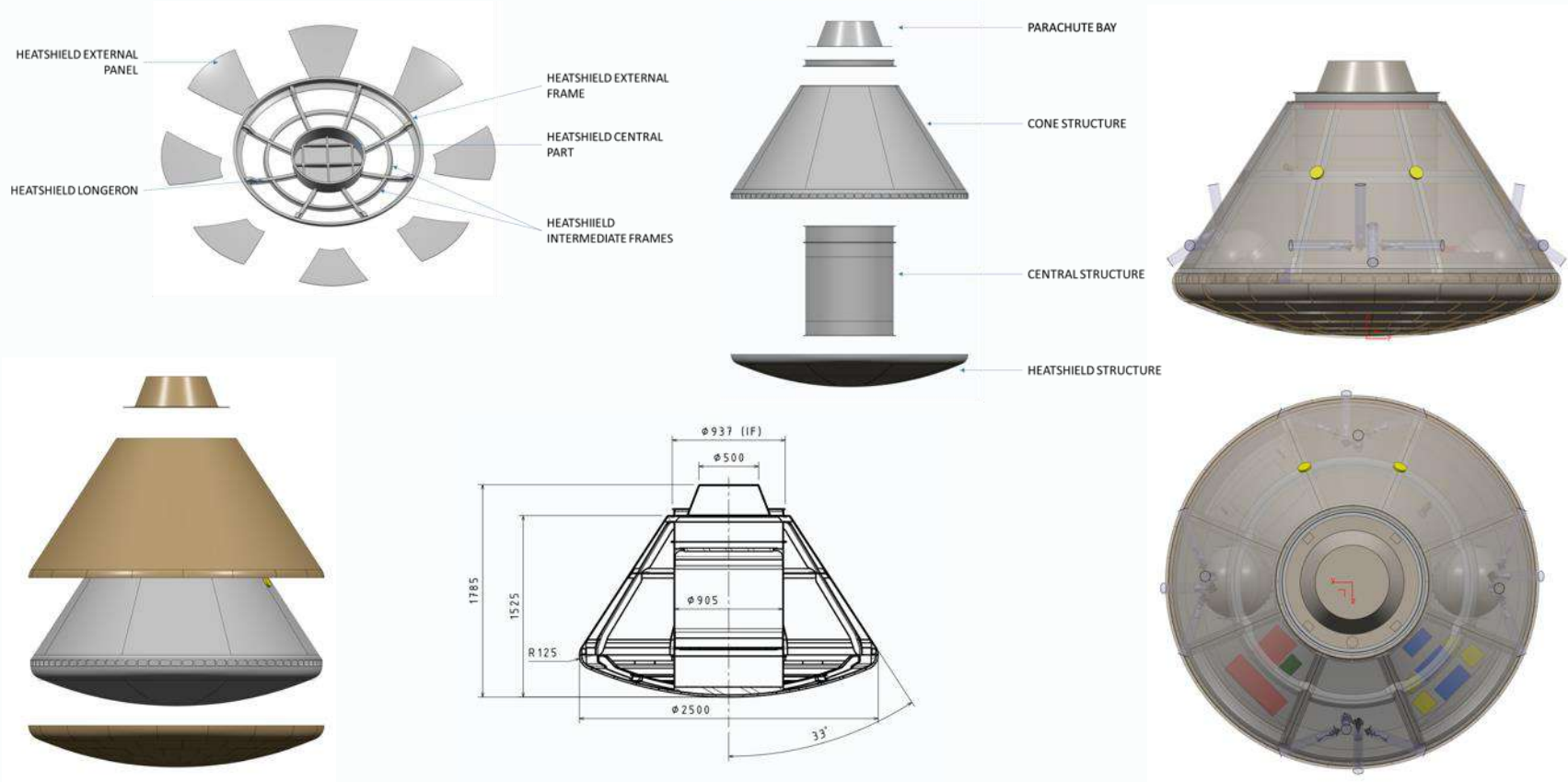


MISSION POSSIBLE | THE DESIGN IS ADVANCED ENOUGH TO ORDER THE LONG LEAD ITEMS.

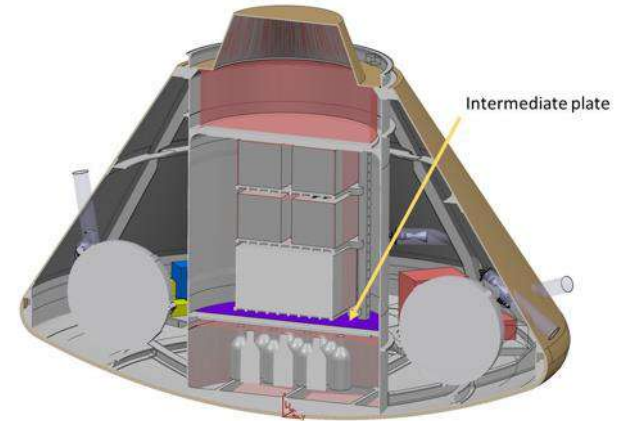
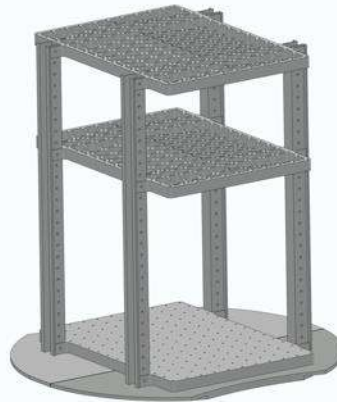
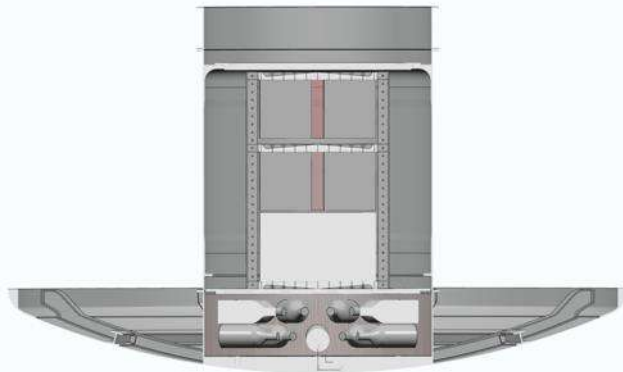
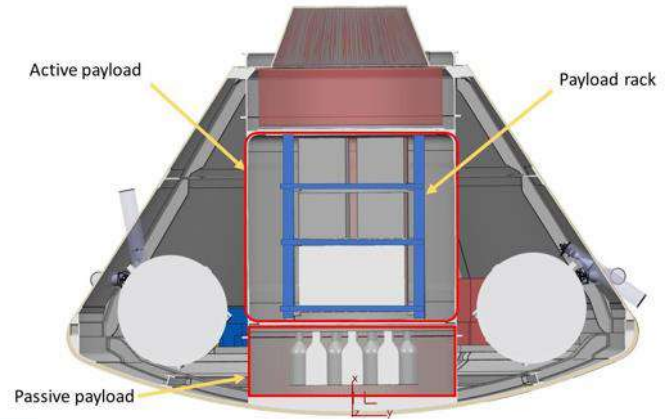
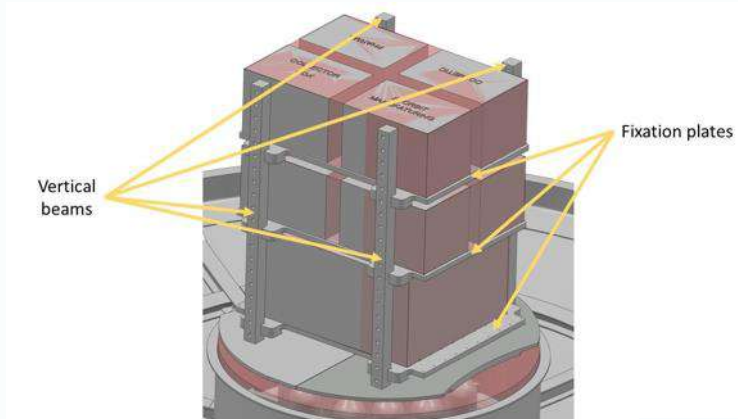




MISSION POSSIBLE | THE DEMONSTRATOR ENABLES US TO DE-RISK NYX EARTH MOST CRITICAL TECHNOLOGIES.

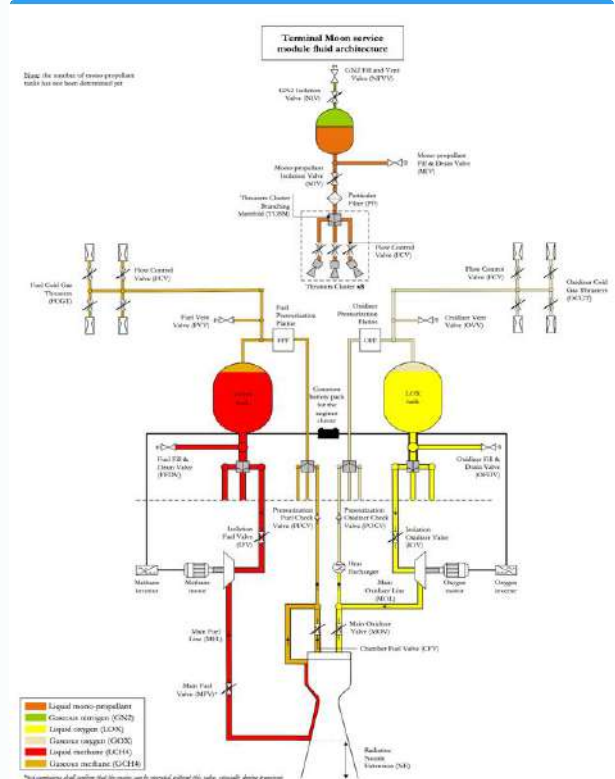


MISSION POSSIBLE | CLIENT ACCOMODATION PERFORMED AND USER MANUAL WRITTEN.





A black and white photograph showing a dark, heavily textured surface, likely a rock face or a piece of weathered wood. On the left side, there is a prominent, dark, elongated shadow or a deep crevice that tapers towards the bottom. The rest of the surface is covered in a complex pattern of small, light-colored spots and larger, darker patches, suggesting a rough, uneven texture. The lighting is dramatic, with strong highlights and deep shadows.





CLIMATE IMPACT | SPACE EXPLORATION IS ALSO FOR EARTH.



Surviving Lunar Night ↪ New tech for ultra-efficient batteries.



Using space resources ↪ New tech for producing green hydrogen.



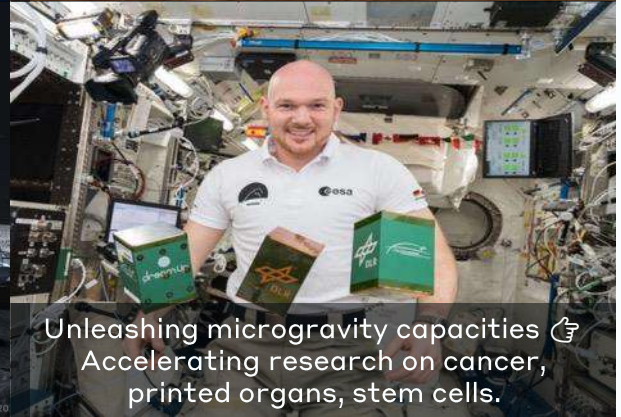
Developing faster rovers ↪ New tech for autonomous & frugal electric cars.



Traveling long distance & staying in space ↪ New tech for water management & recycling.



Starting life on the Moon and/or in lunar stations ↪ Efficient and frugal agriculture.



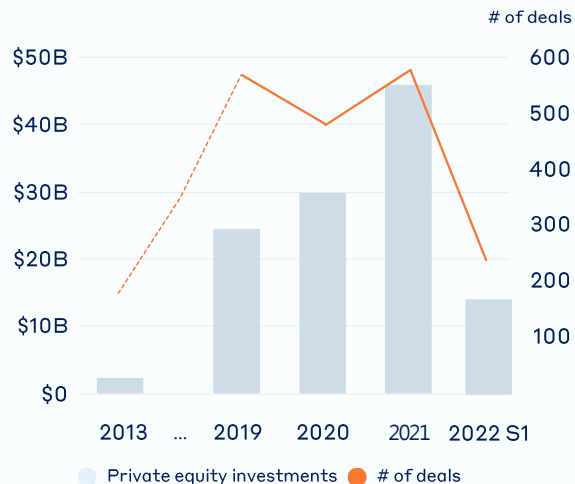
Unleashing microgravity capacities ↪ Accelerating research on cancer, printed organs, stem cells.



# APPENDIX #2

Market

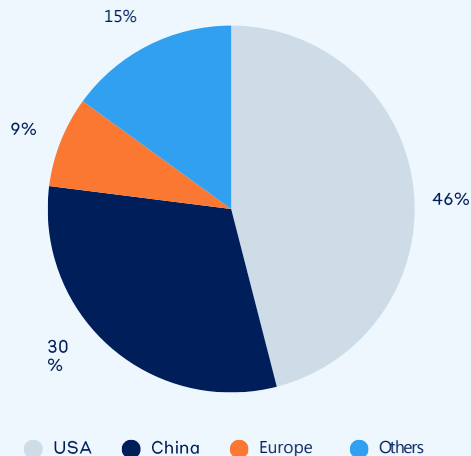
### INVESTMENT IN SPACE COMPANIES HIT A RECORD LEVEL WITH 46\$BN IN 2021 DRIVEN BY STRONG RETURNS.



#### Private Equity Investments over 2013 – 2022 H1 (USD)

Over 1,700 companies have been financed since 2012 through 4,500 rounds.

41% CAGR in Private Equity Investments over 2013-21 period.



#### Equity Investment by geography (Period 2013-2022-H1)

The US drive almost half of private investments in the space industry since 2013, while China represent a third of the total.

Europe (incl. UK) represents 9% of the total i.e., the same as Singapore or India.

Source: Space Capital, Crunchbase

#### Space Companies Performance until IPO in 2021-22

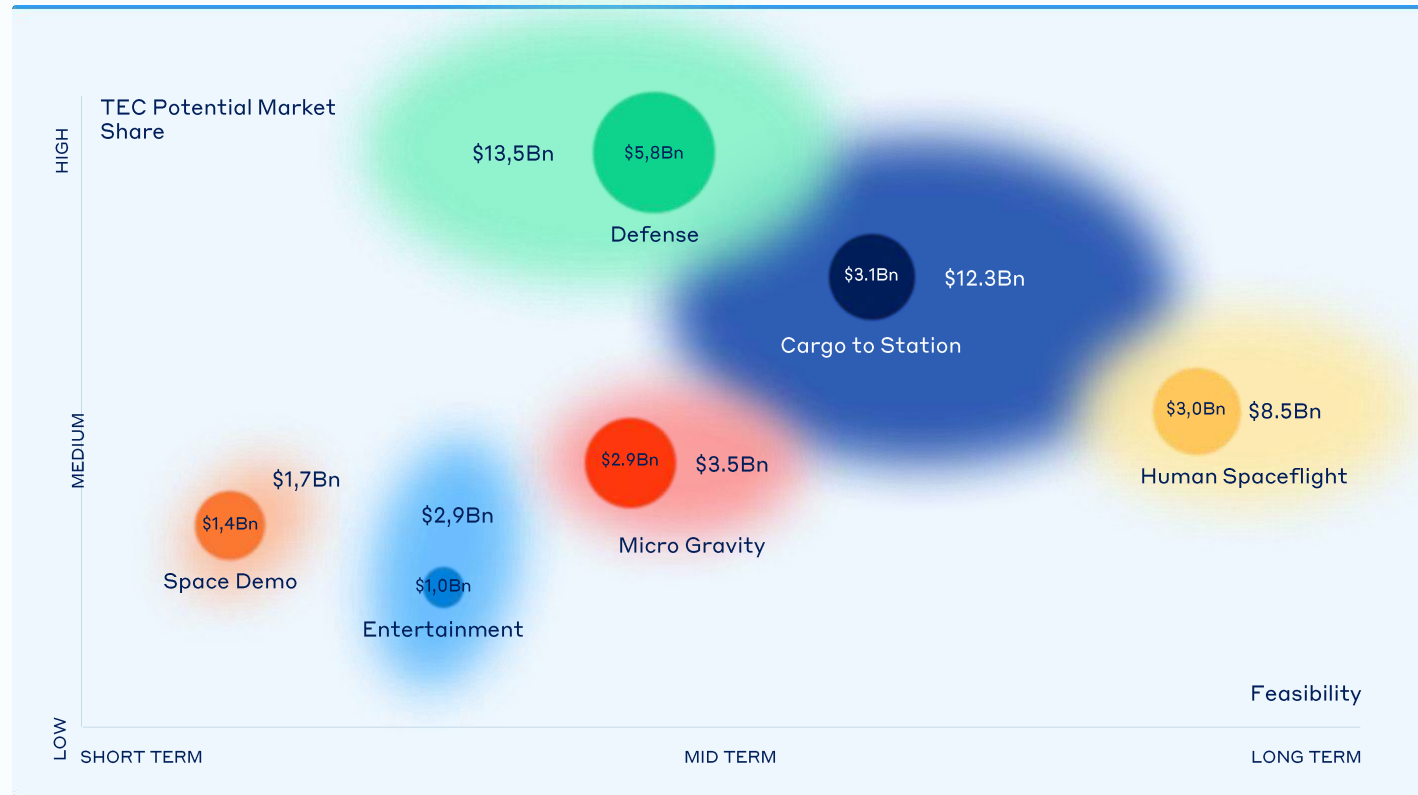
Company	Product	Total Funding (\$M)	IPO Market Cap (\$M)
AST SpaceMobile	Cellular broadband network	358	1 800
Astra Space	Small reusable rockets	300	2 100
Momentum	Last-mile satellite delivery	144	566
Spire Global	Satellites	488	1 600
Rocket Lab	Reusable rockets - satellites	709	4 800
Redwire Space	Space infrastructure	100	675
BlackSky	Satellite imaging	230	1 500
Planet	Satellite imaging	574	2 800
Virgin Orbit	Horizontal satellite launcher	110	3 200
D-Orbit	Last-mile satellite delivery	140	1 280
Satelogic	Satellite imaging	374	850

Space investments are characterized by high exit multiple.

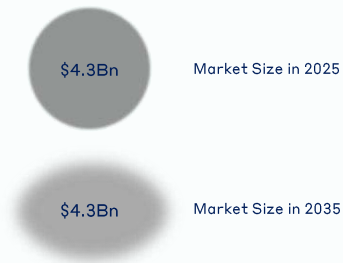
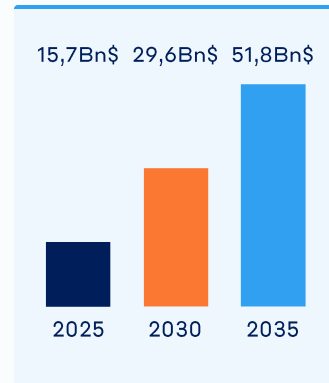
As most tech companies, space tech SPACs have recently corrected.

## SPACE EXPLORATION LEO MARKET.

Exploration LEO Market Potential By Segments (Period 2025 – 2035)

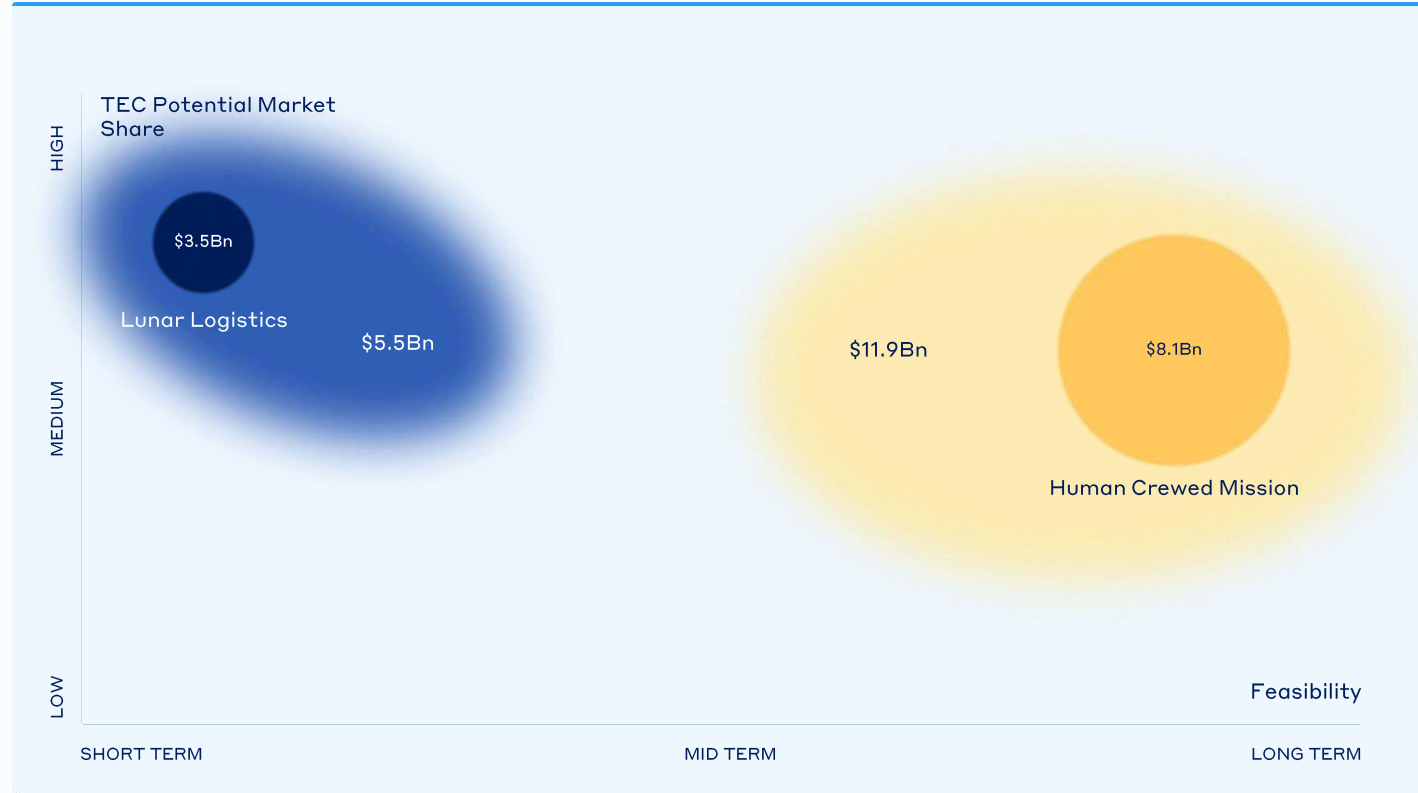


Exploration LEO Market Size



## SPACE EXPLORATION MOON MARKET.

Exploration Moon Market Potential By Segments (Period 2025 – 2035)



Exploration Moon Market Size



Market Size in 2025



Market Size in 2035



OUR TECHNOLOGY ENABLES US TO BE MORE AFFORDABLE, AVAILABLE AND SUSTAINABLE.



- Cryogenic Engine that Can Be Refueled in Space  
The propellant can in be made from space resources in the longer term, and the vehicle can be refueled in-situ.
- Reusable i.e., comes back to Earth and can be (partially) reused  
The vehicle comes back on Earth and can be reused.
- Modular design tackling both LEO and Moon  
One core vehicle design and specific tech bricks than can be added / remove depending on the mission
- Human Rated  
The design integrates already the potential to fly humans.
- Technology bricks with open standards & interfaces  
The design uses open standards and interfaces, and the Operating System is open source, to enable a community of space exploration users.



## OUR TECHNOLOGY ENABLES US TO BE MORE AFFORDABLE, AVAILABLE AND SUSTAINABLE.

Use Cases	Competitors	Key Differentiators
Space Cargo (LEO)	<p>Serving Space Stations</p> 	<p>More affordable than SNC, Boeing and Northrop Grumman: our design is simpler and our costs lower.</p> <p>Aim to be as good as Dragon (SpaceX) and complement Starship.</p>
Space Lab Space Emotions Space Demo	<p>Flying Experiments, Technologies or Entertainment in Space – and back to Earth</p> 	<p>Complement space stations because we fly shorter durations for lower prices.</p> <p>More affordable than other free-flying platforms because bigger.</p>
Space Surveillance	<p>Serving Military and Civil Safety Needs</p> 	<p>More affordable because we are reusable and have a start-up cost structure.</p> <p>European DNA &amp; Footprint.</p>
Space Cargo (Moon)	<p>Serving the Lunar Logistic Needs</p> 	<p>More affordable and can perform more missions (more destinations, more payload types, re-entry possible) than lunar landers like iSpace, Astrobotics.</p> <p>Complement SpaceX (Starship).</p>

# APPENDIX #3

Financials & Business Model

### THE EXPLORATION COMPANY HAS ALREADY TACKLED SIGNIFICANT RISK FACTOR.

#### MARKET

**Large, rapidly growing market**

Unprecedented commercial investment and government expenditures are driving rapid growth in the space exploration economy.

TAM forecast to reach \$40Bn by 2035 (\$70Bn including human space flights).

#### EXECUTION

**Founder-led team with space exploration outstanding track-record**

Experienced team who has worked several years together on the biggest and most complex European programs, while having in addition agile / startup best practices and mindset.

#### COMPETITION

**Uniquely positioned to capture share in the space exploration market**

The most affordable, available and sustainable solution worldwide.

European player which provides an alternative on the global market.

Complementary to SpaceX Starship.

#### FINANCIAL

**Attractive financial model with strong financial outlook as soon as first commercial flight**

Current booking for 2024 first demonstration flight at 80% thanks to long term partners including strategic ones.

Cash flow positive in 2026 with limited operating expenses resulting in forecasted 57% EBITDA margins.

#### SUSTAINABILITY

**Reusable, refuellable space vehicle**

Modular and reusable space exploration vehicle.

World premier large space vehicle using green propellants.

Refuellable cryogenic engine with higher level of performance.



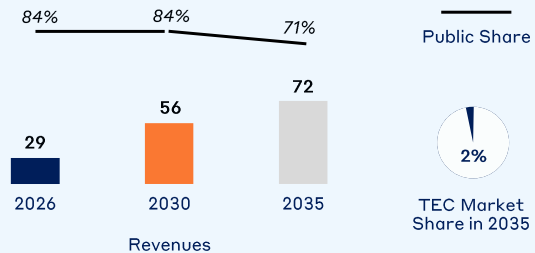


## GO TO MARKET STRATEGY STARTING SALES EARLY.

## Space Lab

2026

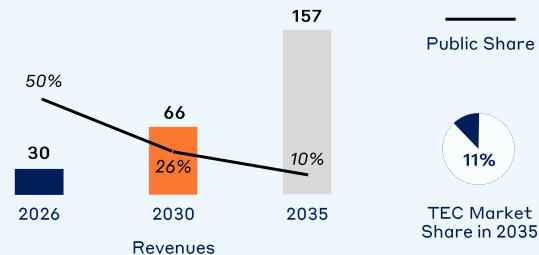
Leverage the unique conditions of microgravity to develop new technologies for a better and more sustainable life on Earth.



## Space Demo

2026

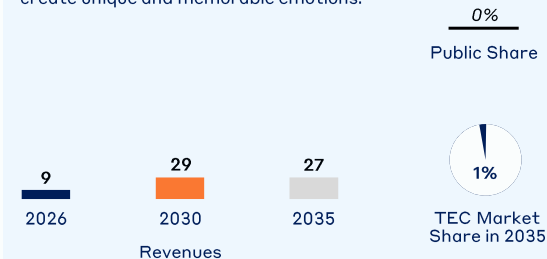
Test technologies in Low Earth Orbit for space needs,



## Space Emotions

2026

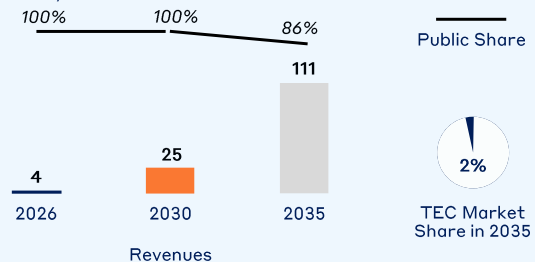
Leverage the beauty and the imaginative power of space to create unique and memorable emotions.



## Space Safety

2026

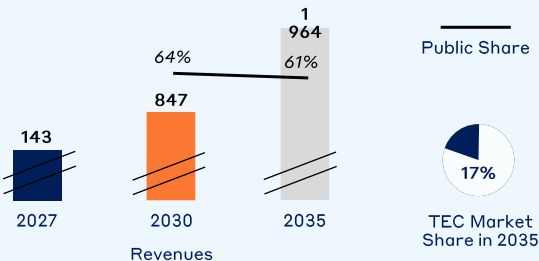
Ensure European Defense space autonomy and provide space safety services to other nations.



## Space Cargo

2027

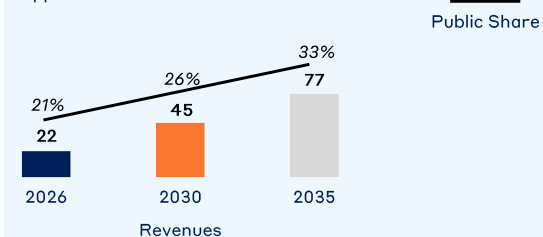
Supplying large space infrastructures with cargo and/or fuel.



## Space Store

2026

Access key technologies to enable space & non-space companies to develop their own space exploration applications.





# THE EXPLORATION COMPANY IMPLEMENTS A DE-RISKING APPROACH TO FLY AND GENERATE REVENUES FAST.

## 1 – Market

### Characteristics

From a one-digit billion public market to a triple-digit private & public market by 2040.

### Opportunities

Unique European alternative to US companies for LEO cargo, complementing SpaceX on the Moon. TAM of \$45Bn by 2035 and up to \$80Bn if human space flight capabilities.

### Risks

Delay in space exploration in case of an economic slowdown.

### Mitigation factors

Focus on LEO and delay on moon market missions.

## 2 – Sales

### Characteristics

A range of 6 use-cases thanks to 2 space vehicles and a space Store.

### Opportunities

Customers are eager to find alternative solutions, more affordable, available and sustainable. Pre-sales have started early-on, to understand pricing policy and customers value.

### Risks

Non space companies deciding to limit their space exploration investments in the next decade.

### Mitigation factors

Two third of TEC revenues are generated with public institutions.

## 3 – Technology

### Characteristics

Development of NYX (Earth & Moon), a modular and reusable space exploration vehicle.

### Opportunities

NYX stands as the unique reusable space exploration vehicle in Europe available in 2026.

### Risks

Severable key technologies (re-entry, GNC, docking, engine, ...) required.

### Mitigation factors

NYX modularity enables testing and technology de-risking in a phase-by-phase roadmap.

## 4 – Operation

### Characteristics

TEC has so far delivered on-cost, on-time, on-quality delivery, despite economic and political turnmoils.

### Opportunities

TEC is a reliable space startup, creating customer and supplier trust: hence, TEC can work with the best partners.

### Risks

Risks of delays, creating additional costs.

### Mitigation factors

Highly digital and solid processes as well as adamant program management limit mistakes and enable better anticipation.

## 5 – Profitability

### Characteristics

EBITDA margin should reach 57% in 2035.

### Opportunities

Financial profitability will provide the possibility to invest in human space flights organically.

### Risks

New Space competition will increase pressure on pricing and margin.

### Mitigation factors

TEC develops in-house significantly differentiating technology bricks.

## 6 – Funding

### Characteristics

€20-25M investment to achieve mission possible in 2024.

### Opportunities

Opportunity to invest in a future multi-billion revenues company.

### Risks

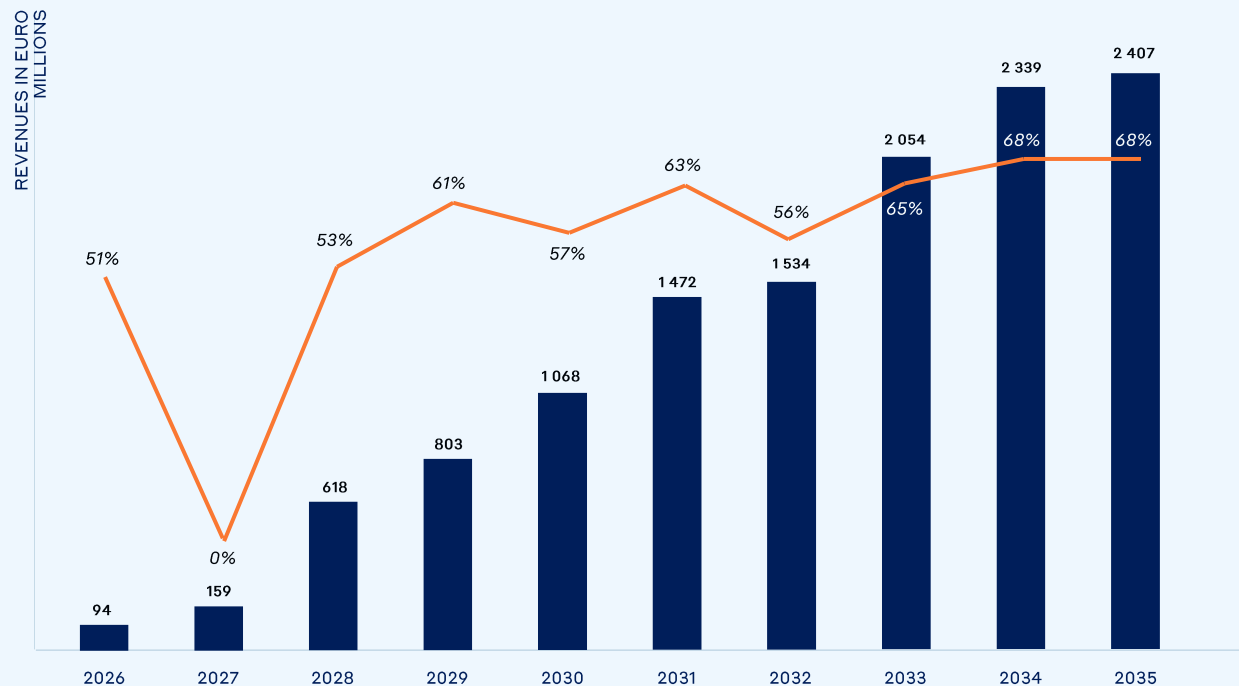
Increase in total financing needs due to materials and staff inflation costs, rising of interest rates or delays.

### Mitigation factors

TEC capitalization table is diversified including tier-one deep tech VCs and strategic companies and families.



## A BILLION-REVENUE COMPANY WITH AN EQUILIBRIATED MODEL BETWEEN PUBLIC AND PRIVATE CLIENTS.



## Commentary

First revenues are recognized in 2026 with NYX Earth maiden flight (first payments starting 2 years before at booking) while NYX Moon maiden flight revenues are recognized in 2028.

Revenues are mainly driven by Space Cargo use case thanks to the development of private stations in LEO as well as TEC serving ESA and NASA needs for Moon logistics.

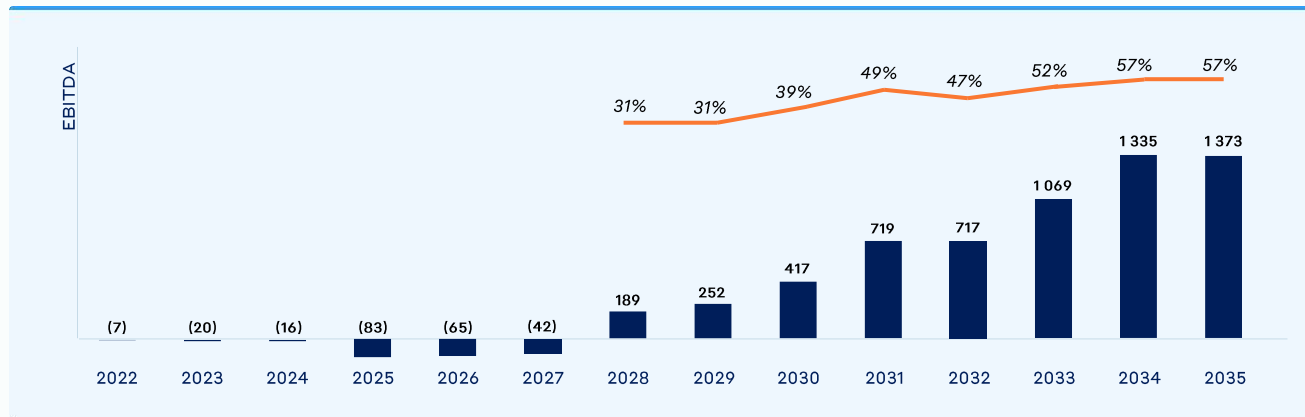
Revenues are generated equally between private and public institutions thanks to a use cases policy delivering services to each segment

The first €Bn revenues threshold is reached in 2030 thanks to a 43% CAGR on revenues during 2026-2035.





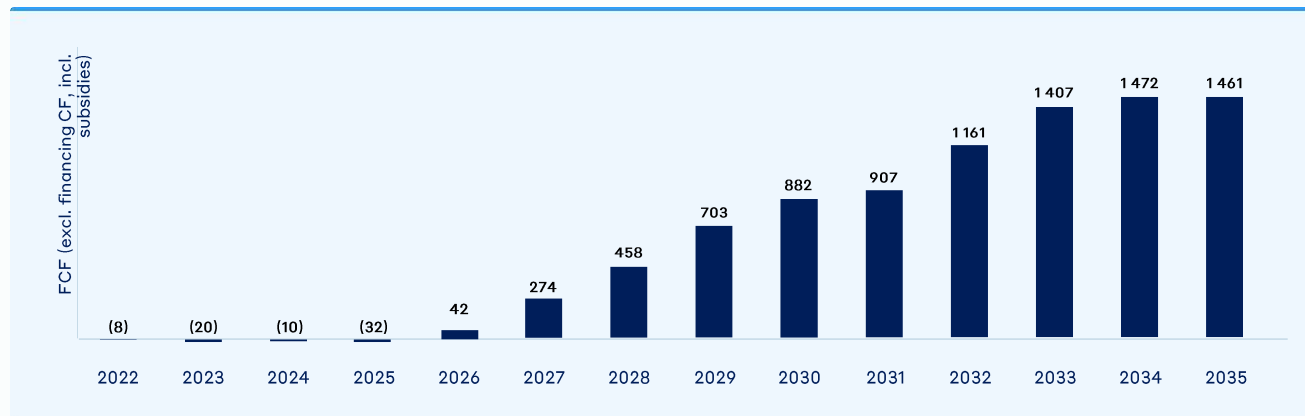
## A 57% EBITDA MARGIN BUSINESS REQUIRING €20-25M€ SERIES A FUNDING NEED TO ACHIEVE MISSION POSSIBLE.



Projected to achieve positive EBITDA by 2028 (revenue recognition at the mission delivery).

Major investments in 2025 and 2026 realized after Mission Possible success.

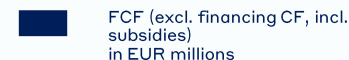
Learning curve, economies of scales, NYX Moon launching, and volume enable 57% margin at scale.



Positive free cash flow by Q3 2026.

Favorable working capital dynamics from customer pre-payments 12-18 months in advance.

Engine main investment period is 2022-26 while spacecraft functionalities are developed stepwise until 2030.



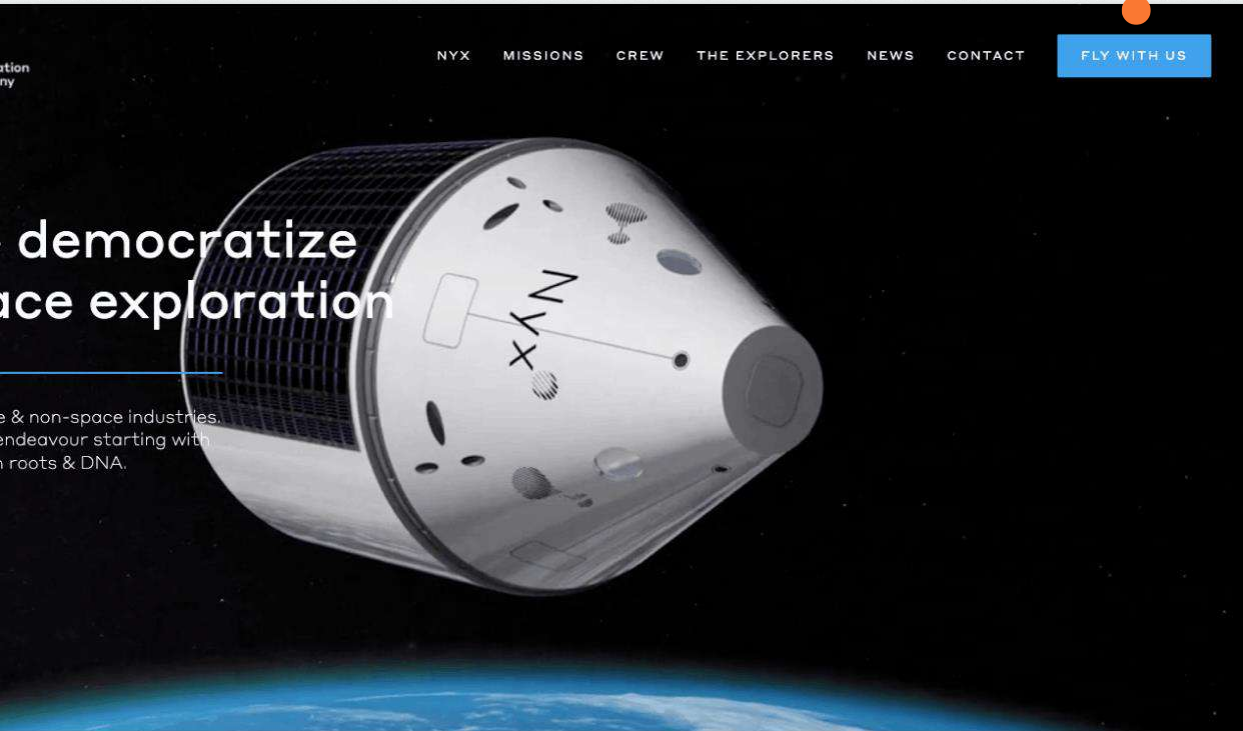


# APPENDIX #4

## Use Cases

## Commercial Traction

CLIENTS CAN BOOK ON-LINE.



In-orbit demonstration <a href="#">SELECT</a>	Microgravity experiment <a href="#">SELECT</a>	Resupply space stations <a href="#">SELECT</a>
Manufacturing new products <a href="#">SELECT</a>	Entertainment & product placement <a href="#">SELECT</a>	Security <a href="#">SELECT</a>
Education <a href="#">SELECT</a>	Space travel <a href="#">SOON</a>	Other <a href="#">SELECT</a>

Name\*  
John Cooper

Organization\*  
Public organization, Company name...

Email\*  
cooper@interstellar.space

Your Pre-Booking Requirements  
These questions are optional, if you don't know your payload needs yet, you can skip these questions.

Mass in kilogram  
Volume in m³

Other Requirements  
E.g. Environmental conditions, specific resources required, etc.

## Use Cases

### SPACE CARGO

Logos on this slide are selected companies from the pipe.



Supplying large space infrastructures with cargo and/or fuel.



### Industry Key Benefits:

European access to critical international space infrastructure with the possibility for Europe and NASA to partner / barter.  
Capacity in the longer run, for Europe, to have its own defense infrastructure and/or to participate in the space refueling market.

Bringing Cargo to the lunar orbit and to the Moon with a unique hopping and last-mile delivery capability.

Bringing lunar samples / cargo back to the Gateway and/or the Earth.

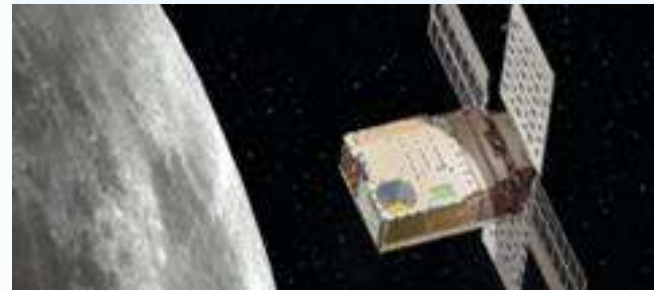
Space Cargo | Bringing cargo to lunar surface to contribute to setup a sustainable human presence.



Space Cargo | Resupply Lunar Gateway.



Space Cargo | Launching Satellites in Lunar Orbit.



Space Cargo | Hopping on the Moon to bring fast cargo from one place to another (complementing SpaceX).



## Industry Key Benefits:

50% cheaper access to the Moon than same vehicle category. Unique capability to hop on the Moon. European access to the Moon, at technology market standard, with the capability for Europe and NASA to partner / barter. Unique Space Store which enables others to use space technologies with standard and open interfaces.



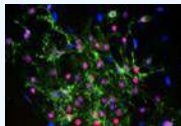
Leverage the unique conditions of microgravity to develop new technologies for a better and more sustainable life on Earth:

Life Science  
Materials  
Climate Change

### Pharmaceuticals | Regenerative Medicine

Microgravity accelerates Stem Cells growth, and increases their survival capabilities. It also provides a better environment for 3D print tissues.

E.g.: Cardiomyocytes cultured in microgravity have higher proliferation and survival relative to 1G control samples.



### Pharmaceuticals | Anti-Ageing Medicines

Microgravity accelerates aging; it offers a perfect environment to test faster anti-aging drugs as well as to better understand aging process.

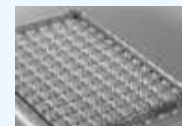
E.g.: drug efficacy against sarcopenia can be measured significantly faster in space as on the Earth.



### Pharmaceuticals | Protein Crystallization

Microgravity enables larger and higher quality protein crystals which are the core material used by the industry to understand the relationships of drugs and their targets.

E.g.: Eli Lilly has crystallized in  $\mu$ gravity a protein involved in several cancers, with a compound that could be used as treatment.



### Life Science | Plants Resilient to Climate Change

Plants exposed to gravity grow faster with less water and more difficult thermal conditions.

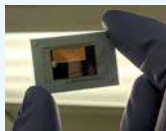
E.g.: wine sarments and algae cultivated on the ISS went back to Earth growing faster while needing less water.



### Electronics | Test in Extreme Environment

Microgravity enables to test fast electronics in extreme environments.

E.g.: Ozark Integrated Circuits has tested its new semiconductor onboard ISS to check its fit for hostile environments, especially w.r.t. the entire UV spectrum.



### Materials | Manufacturing

Manufacturing of materials and other products that is not possible under the influence of gravity: alloys, membranes, retinal implants, hyper-efficient optic fiber, etc.

E.g.: the startup Cemvita uses  $\mu$ gravity in the ISS to manufacture a prototype of its CO<sub>2</sub> capture membrane (to be used on Earth).



### Material | Combustion

Manufacturing of materials and other products that is not possible under the influence of gravity.

E.g.: fires studied in  $\mu$ gravity to better understand hot gases propagation and what kind of confinement materials and gap spaces to implement on Earth.



## Industry Key Benefits:

Higher innovation (new drugs, materials, etc.) and faster testing / research platform than on Earth.

10% of the ISS price for pressurized payloads; 50% of the ISS price for unpressurized payloads; 10% of the ISS time. 100% confidential environment.

Testing technologies in Low-Earth orbit for space needs:  
To demonstrate them in-orbit.  
To prepare sustainable settlement on the Moon and then Mars.

#### Space Agencies & Companies | In-Orbit Demonstration of New Space Technologies.

Demonstrate new electrical thrusters, in-orbit 3D printing, in-orbit refueling, etc.

E.g.: Orbit Fab successfully completed the first test of its Furphy tanker on the ISS, demonstrating its ability to transfer propellant between two small satellites.



#### Energy | Testing in Low Earth Orbit before going to Moon and later Mars.

E.g. Testing Oil & Gas sensors before sending them to the Moon to explore lunar surface and drill water. Testing energy storage radiation-tolerant solutions for surviving lunar night, etc.



#### Electronics | Testing On-The-Shelf Earth

Technologies to Check if They Can Be Used in Space, hence Minimizing Costs & Maximizing Efficiency.

E.g.: Hewlett Packard has tested on board the ISS an on-the-shelf supercomputer to develop affordable supercomputers for space usages.



#### Life Science | Prepare Plants and Smart

Habitats for Growing Vegetables on Moon, Mars and onboard Spaceships.

E.g.: Growing plants in microgravity to simulate Moon and Mars environment and impact on plant growth, as well as to prepare for long trips in space.



#### Construction & Manufacturing | Testing 3D-Printing in Different Gravity Environment and Different Materials before going to Moon and later Mars.

E.g.: the 3D-printer on-board ISS recycles plastic waste into high-quality 3D-printing material. Such experiments can prepare for 3D-printing habitats and/or repair pieces on Moon / Mars.



### Industry Key Benefits:

Fast & affordable test & innovation platform to participate to space exploration race and/or maintain space competitiveness.  
10% (resp. 50%) of the ISS price for commercial pressurized (resp. unpressurized) payloads; 10% of the ISS time. Private and 100% confidential.

Leveraging the beauty and the imaginative power of space to create unique and memorable emotions.

Movies | Tom Cruise prepares a movie in space.



Luxury | Reinhard Furrer's Sinn 140, named after the German astronaut who was wearing one into space.



Advertisement | Toshiba uses space to promote its Regza HD TVs - "armchair viewing redefined".



Fashion | Adidas Ultra Boost 20 - Goodbye Gravity - Tested on the ISS.

<https://www.youtube.com/watch?v=eVbMtLCc8GI>



Wine & Spirits | Bottle of wine that went to space for one year to be sold 1 MEUR in auctions.



## Industry Key Benefits:

Access to space for luxury, fashion, entertainment (very difficult in the ISS).  
5-10% of the price & time needed for ISS commercial ventures.

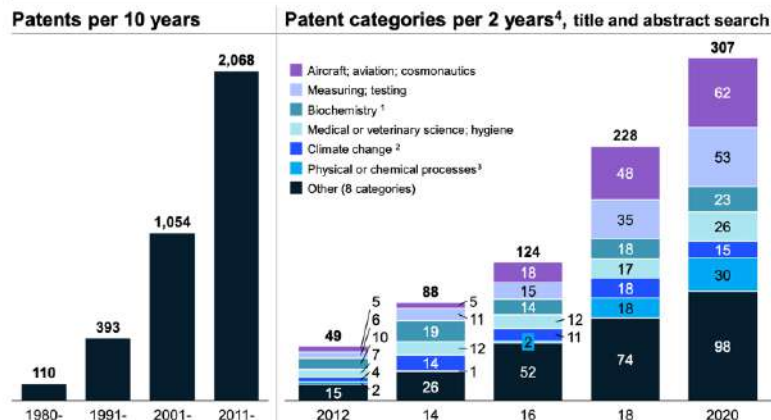
## THERE IS A SIGNIFICANT GROWTH OF MICROGRAVITY PATENT.

McKinsey  
& Company

We have joined forces with McKinsey who has worked 6 months pro bono for study together with us microgravity market.

Main takeaways are that pharma, cosmetics, semi-conductors and agriculture are the most promising areas of commercial business.

## Microgravity-related patents have increasingly grown, at around 23% p.a.



- Also includes beer; spirits; wine; vinegar; microbiology; enzymology; mutation or genetic engineering
- In full this reads technologies or applications for mitigation or adaptation against climate change
- Includes space-related in general
- The categorization only includes patents with microgravity (or synonyms) in its title or abstract; also some patents are assigned more than one category or none, but in non-significant numbers

Source: Patents identified through Spark Beyond

The increased growth from 2012 onwards could possibly be attributed to more projects being flown to the ISS after the first successful docking of a commercial spacecraft (Dragon cargo capsule)

Some categories manifest exponential growth more (e.g., aviation, testing and physical/chemical processes) than others (e.g., biochemistry, medical)

McKinsey & Company 14





# THE LARGEST POTENTIAL FOR MICROGRAVITY USE CASES IS IN THE PHARMA INDUSTRY.

McKinsey  
& Company

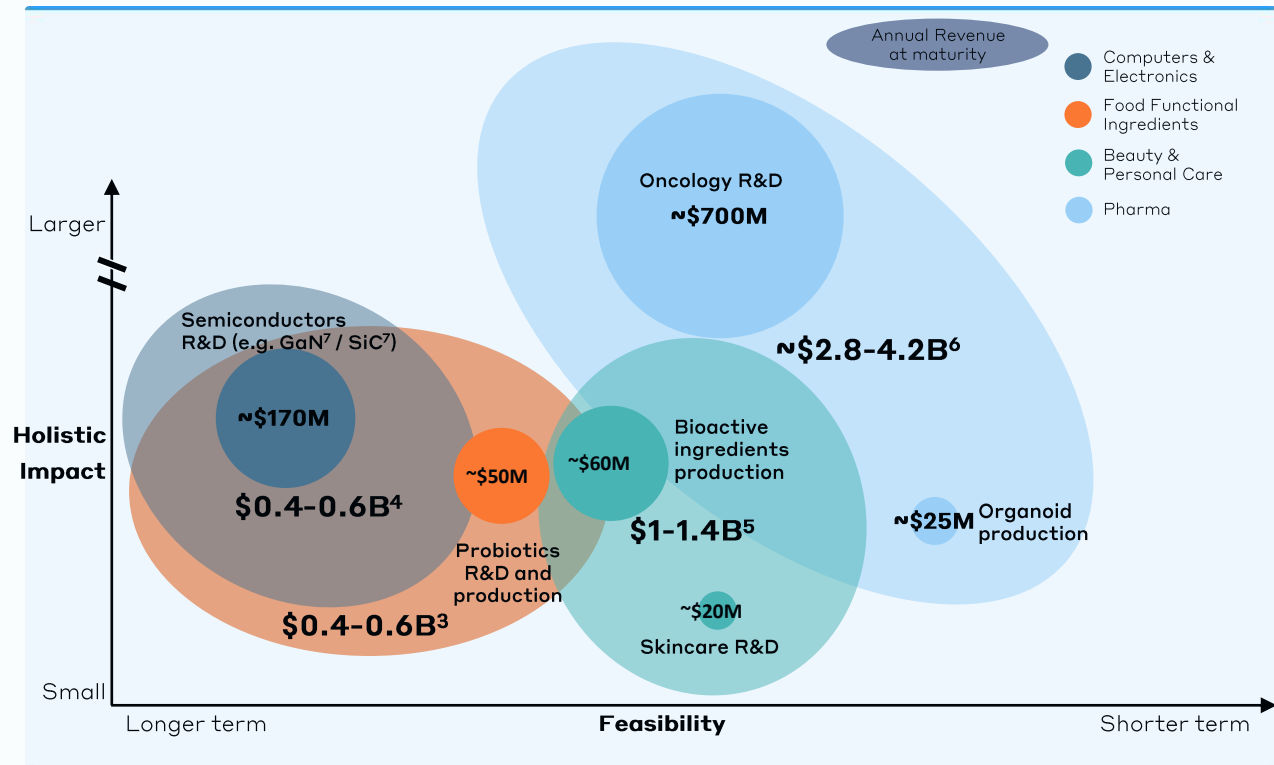


## Methodology Holistic impact

- Business opportunity<sup>1</sup>
- Societal and environmental factors<sup>2</sup>
- Capability development<sup>2</sup>

## Feasibility<sup>2</sup>

- Capabilities (Tech, Human)
- Setup and conditions
- Regulations



1. All estimations based on 2025 earth market

2. Estimation based on current state-of-science and technology

3. Extrapolation based on capturable CMO (contract manufacturing organization) market and nutraceuticals portion of food functional ingredients market

4. Extrapolation based on R&D spend along value chain in semiconductors by player archetype and portion of semiconductors in computer and electronic products

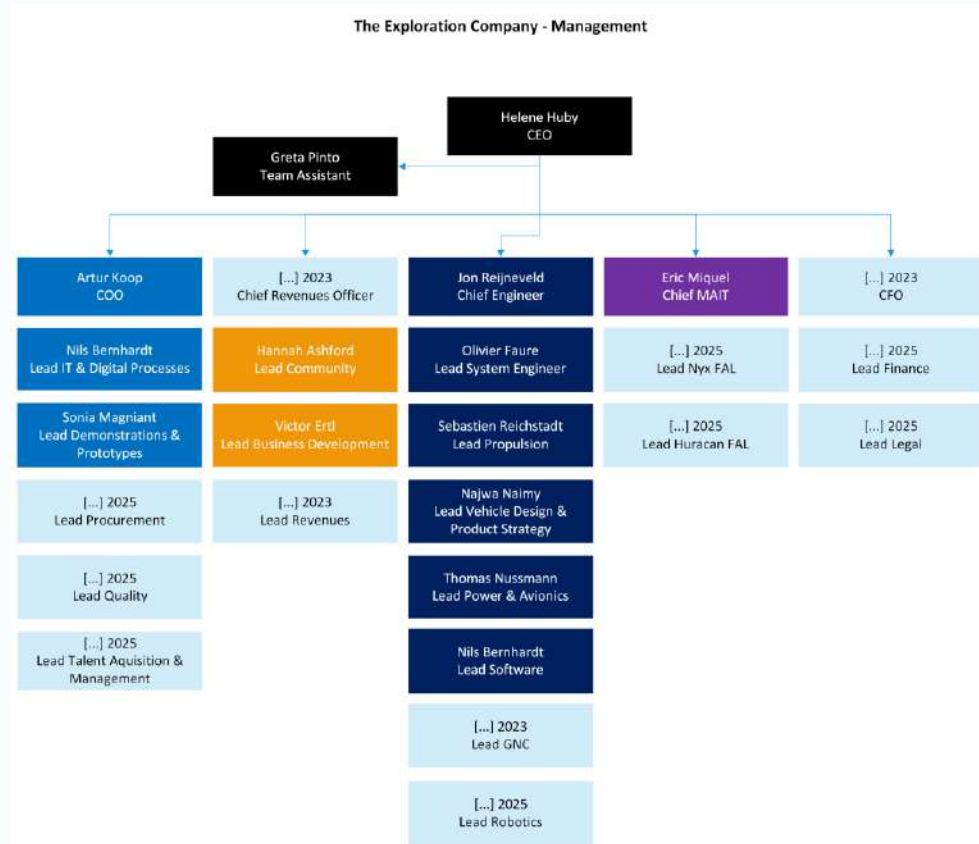
5. Extrapolation based on capturable CMO market for production and skin care portion of the Beauty and Personal Care market excl. fragrances

6. Extrapolation based on capturable CRO (contract research organization) market and oncology therapeutic area portion of pharma market

7. GaN: Gallium Nitride; SiC: Silicon Carbide

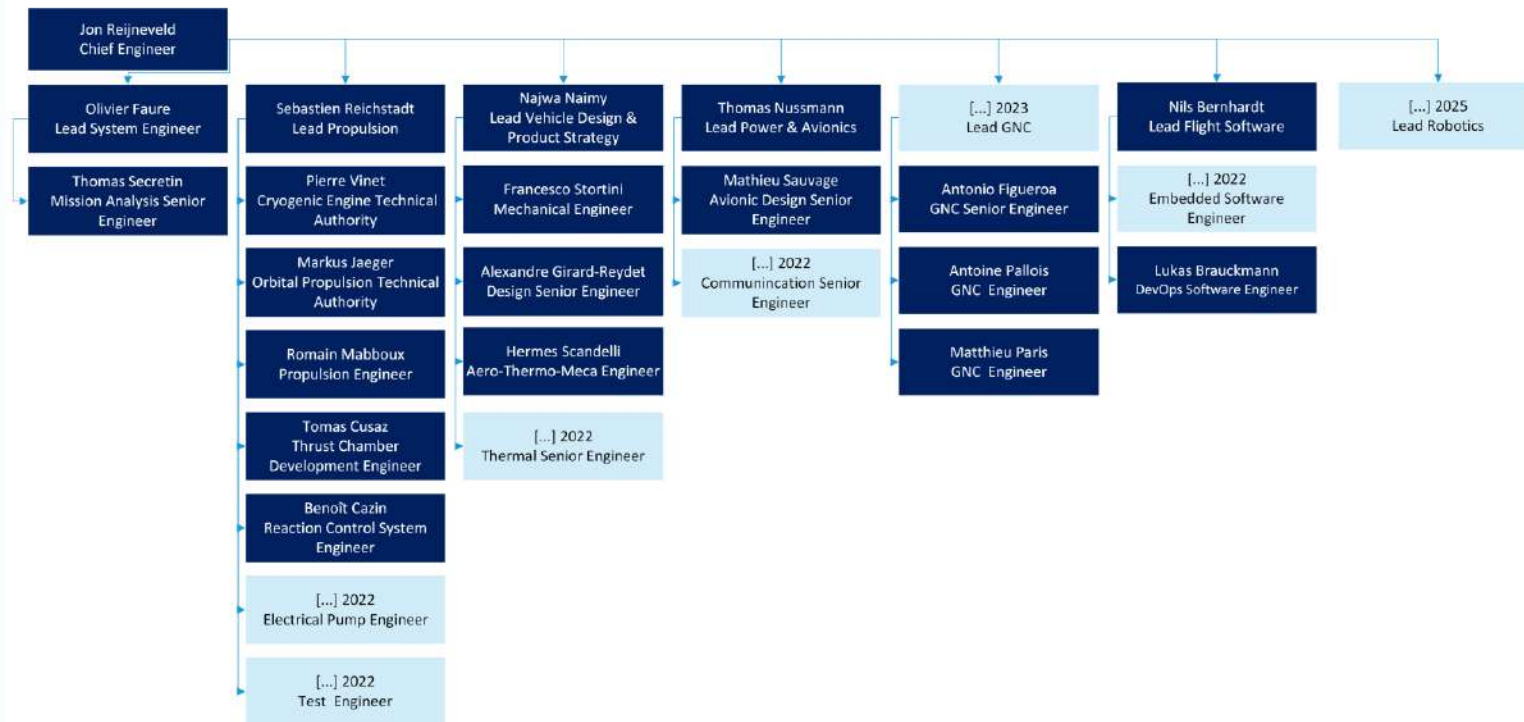
# APPENDIX #5

Team





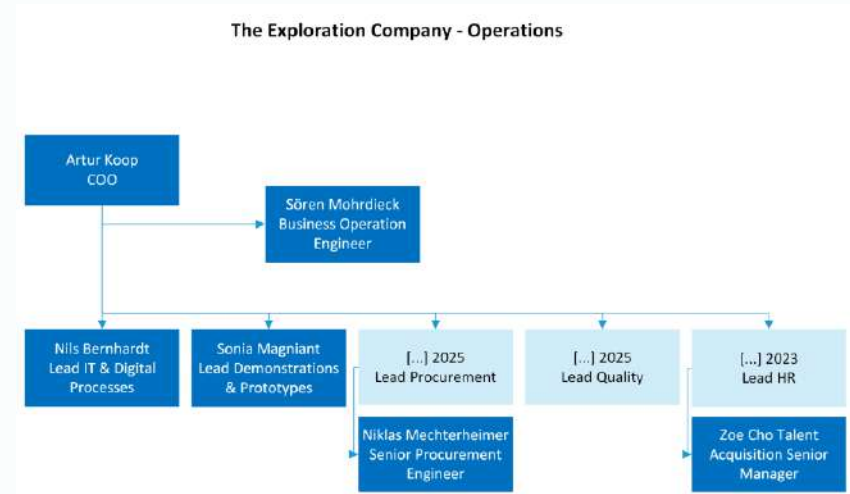
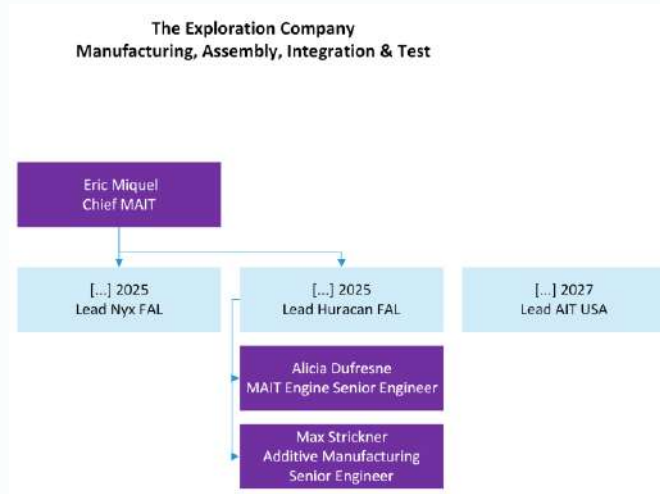
## The Exploration Company - Engineering







## MAIT, OPERATIONS, SALES & MARKETING



### The Exploration Company Sales & Contracts



## OUR STRATEGIC ADVISORS HAVE INVESTED IN OUR COMPANY AND OPEN DOORS TO CUSTOMERS.



**Patricia Barbizet**  
Luxury & Arts

Patricia Barbizet was the CEO of Artemis and the Vice-Chairwoman of the Board of Directors of Kering. She was CEO and Chairwoman of Christie's International from 2014 to 2016.

She has served on many Boards of Directors of CAC 40 companies and is currently Board Member of Total, AXA and Pernod Ricard.

She has worked with Helene since 2016.



**Christian Dargnat**  
Finance

Christian was CEO of BNP Paribas Asset Management and CIO of BNP Paribas Investment Partners. He was the President of the European Fund & Asset Management Association (EFAMA).

Christian is Treasurer of En Marche! and he has founded Alphe Consulting, an M&A and advisory firm.



**Jean-Jacques Dordain**  
Space

Jean-Jacques was the General Director of the European Space Agency for three successive mandates. Under his leadership, critical development and missions were successfully performed: Ariane 5, ATV, Rosetta, etc.

He advises space tech startups, companies and agencies.

He has worked with Helene since 2016.



**Hans Königsmann**  
Tech Review Board Member

Hans was the fourth technical employee of SpaceX. He participated to all programs, first leading the avionics team of SpaceX, to become VP Mission Insurance, the highest technical responsibility after the CTO/CEO Elon Musk.

He retired from SpaceX in Summer 2021 and is advising curated companies.

He is a graduate of the Technical University of Berlin and has a PhD from the University of Bremen.



**Martin Hofmann**  
Industries

Martin was EVP and Group CIO of Volkswagen for many years. He pushed Volkswagen's digitalization and led the move towards agile software development and exponential technologies like AI and Quantum Computing.

He is currently with Salesforce as an advisor to their most strategic customers and an industry advisor of Lakestar Ventures.



**André Lanata**  
Defense

After an operational military career, André joined the Ministries of the Armed Forces on strategic and prospective missions, before becoming in 2015 the Chief of Staff of the Air and Space Force.

André was the Supreme Allied Commander for Transformation at NATO from 2018 to October 2021 when he retired.



**Marcel Reichart**  
Entertainment & Medias

Marcel was EVP Digital and Partnerships at Bertelsmann and co-founded DLD Conferences.

Marcel is currently a co-founder of CultureWorks, a Board Member of BBTv as well as advisor and investor of creative, technology and growth businesses.

He has worked with Helene since 2018.



**Philippe Watillon**  
Senior Technical Advisor

Philippe was the CTO of Space Exploration at Airbus Defence & Space.

He was Head of Quality at ArianeGroup. He also led the first European controlled re-entry vehicle (ARD) at the European Space Agency.

He is a Member of the European Aerospace Academy.

He has worked with Helene, Johannes and Artur since 2016.

### Strategic Advisors

### Tech Advisors

# APPENDIX 6

Awards & Communication.

### WE HAVE RECEIVED 6 AWARDS IN 12 MONTHS.

Jul-22 | Euroconsult

5 space tech startups selected worldwide every year.

May-22 | AWS Accelerator

10 space tech startups selected worldwide every year.

Apr-22 | Space Award La Tribune

1 person / company selected in Europe every year for his/her/its outstanding contribution to space exploration.

Feb-22 | ESA Payload for Ariane 6

7 payloads selected among Europe.

Sep-21 | Tech the Moon

Acceleration program by CNES. 5 French startups selected every year.

Jul-21 | ESA BIC Bavaria

5 European startups selected every 6-months.

AWS Public Sector Blog

### AWS announces the 10 startups selected for the 2022 AWS Space Accelerator

by Clint Crosier | on 24 MAY 2022 | in Aerospace & Satellite, Announcements, Public Sector, Startup | Permalink | Comments | Share





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2268	2269
2270	2271
2272	2273
2274	2275
2276	2277
2278	2279
2280	2281
2282	2283
2284	2285
2286	2287
2288	2289
2290	2291
2292	



# APPENDIX #7

Operations

## WORKING CYCLES

## Objectives

Same technical baseline known by every participants.

On time, on cost, on quality.

Team cohesion around the same priorities in case of conflicts of priorities.

## Cycles

## 1-Week Cycle (cf. table)

- 15' lean check-in almost every day
- Planning – milestones achieved v/s planned.
- Engineering coordination.
- Business & Operations coordination.
- HR – team members hired v/s planned.
- Sales – contract amount signed v/s planned.

## 2-Week Cycle

Sprints & priorities alignment.

Co-engineering session when we discuss the tech baseline.

**6-Week Cycle = we gather all Chiefs & Leads for a 3-day in person meeting; the week after, we have the Board of Director. In both cases, we check:**

- Cash.
- Cost models.
- Risks.
- Yearly roadmap.
- Co-engineering session when we freeze the tech baseline for the next 6 weeks.

## Quarterly-Cycle

- Update Yearly Budget;
- Update Yearly Resources Plan.

Monday	Tuesday	Wednesday	Thursday	Friday
Free Office	Office BOD / MUC	Office BOD / MUC	Office BOD / MUC	Free Office
<ul style="list-style-type: none"> <li>• Team check-in.</li> <li>• HR</li> <li>• Sales</li> <li>• Lead Prioritisation Meeting (bi-weekly).</li> <li>• Team scrum meetings (bi-weekly).</li> </ul>	<ul style="list-style-type: none"> <li>• All-hands check-in.</li> <li>• Business &amp; Operations Weekly</li> <li>• Lead scrum meeting.</li> <li>• Engineering Weekly.</li> </ul>	<ul style="list-style-type: none"> <li>• Team check-in.</li> <li>• Programmatic Check Point Bikini (planning).</li> <li>• Programmatic Check Point Mission Possible (planning).</li> </ul>	<ul style="list-style-type: none"> <li>• Team check-in.</li> <li>• Co-Engineering Session (bi-weekly).</li> </ul>	Objective = No meeting.

## TALENT ACQUISITION &amp; DEVELOPMENT

**Demanding Interview Process**

Cf. graph.

**Gross Salary Grid:**

- Chief = ~125k EUR
- Lead = ~100k EUR
- Technical Authority = ~120k EUR
- Senior Engineer = ~80k EUR
- Engineer = ~57.5k EUR
- Technical Engineer = ~45k EUR

**Yearly Review Process:**

We perform yearly reviews up- and downwards supported by digital tools.

**Values Check**

We have defined together a set of values, and we measure each quarter how the whole company is acting in view of these via an anonymous digital questionnaire.

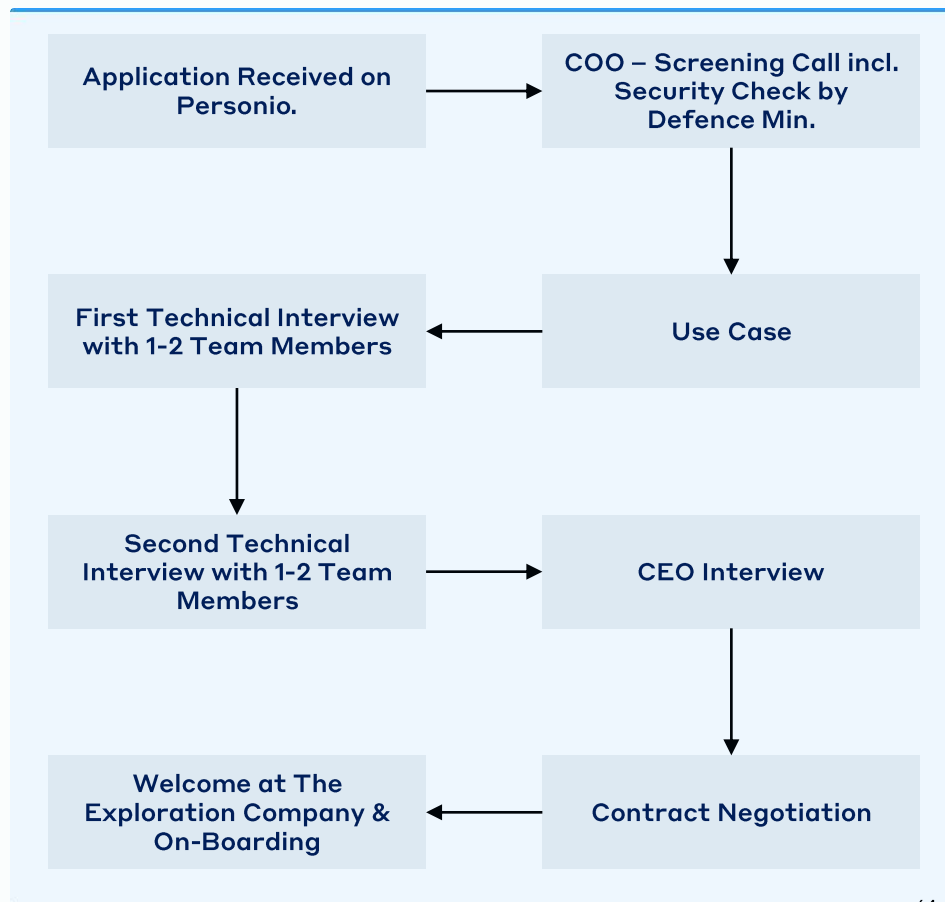
We implement measures to improve if needed.

1,800

Applications received  
since September 2021

0

People who decided to leave  
The Exploration Company





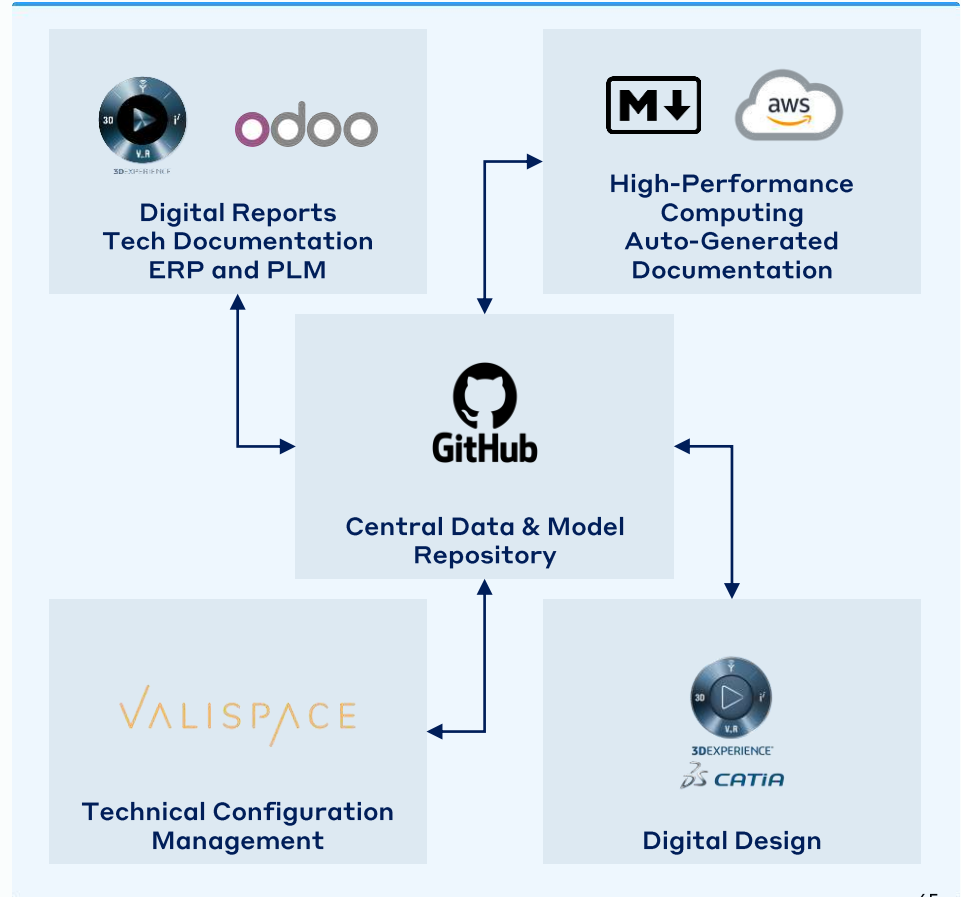
### OUR IT ARCHITECTURE IS DESIGNED FOR HIGH-EFFICIENCY SCALING.

80% of our documentation is produced automatically thanks to the inter-operability of our data base (cf. graph).

The main software used in daily operations are:

- Cooperation: MS Teams; Sharepoint
- ERP: Odoo for invoicing, RFI/RFQ campaigns, subcontractor database
- PLM = 3DS
- Finance: Moss for virtual and physical credit cards
- Schedule & Sprints: Monday.com for scheduling and sprint planning. MS project for detailed project planning (connected with Monday.com).
- Documentation: Confluence for vehicle description and requirements (linked to Valispace) and for MoMs.
- People / HR: Personio.

We use specific software per tech competence area. Data are gathered in GitHub and linked to Valispace to ensure system technical consistency.





### WE ARE A CREDIBLE AND SOUGHT-AFTER INDUSTRIAL PARTNER.

**We are on time, on cost, on quality on:**

**Bikini.  
Mission Possible.  
Nyx Earth.  
Nyx Moon.**

**We have built industrial and operational credibility:**

We bid together with Blue Origin on ESA Post-ISS Invitation to Tender, and we are partnering with ArianeGroup, Airbus and OHB on other bids.

We have signed SpaceX contract for Mission Possible, in a context when there is launcher scarcity.

Suppliers want to work with The Exploration Company: +100 suppliers have answered to our RFIs, and they communicate about our cooperation.

