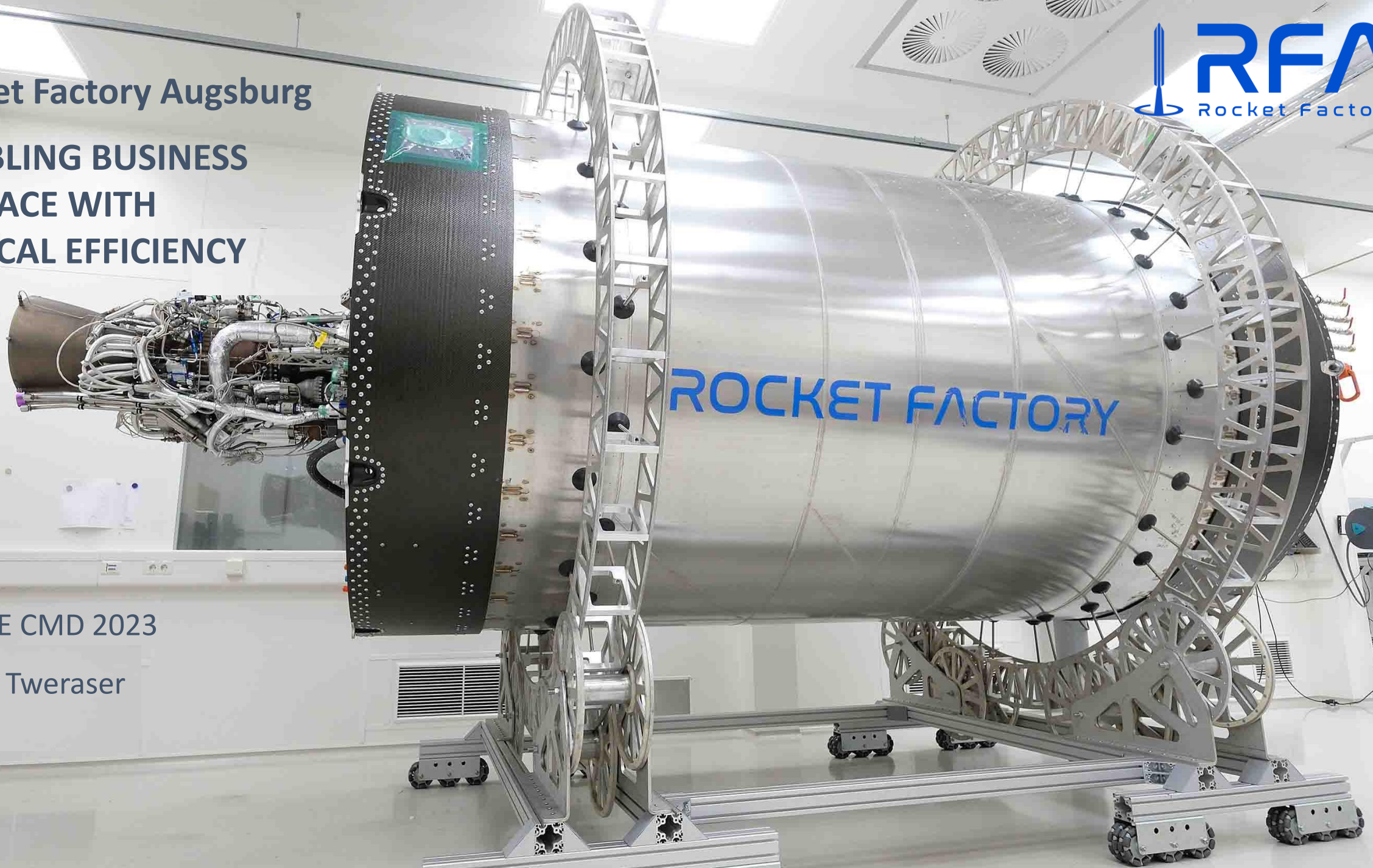


Rocket Factory Augsburg

ENABLING BUSINESS  
IN SPACE WITH  
RADICAL EFFICIENCY



OHB SE CMD 2023

Stefan Tweraser  
CEO





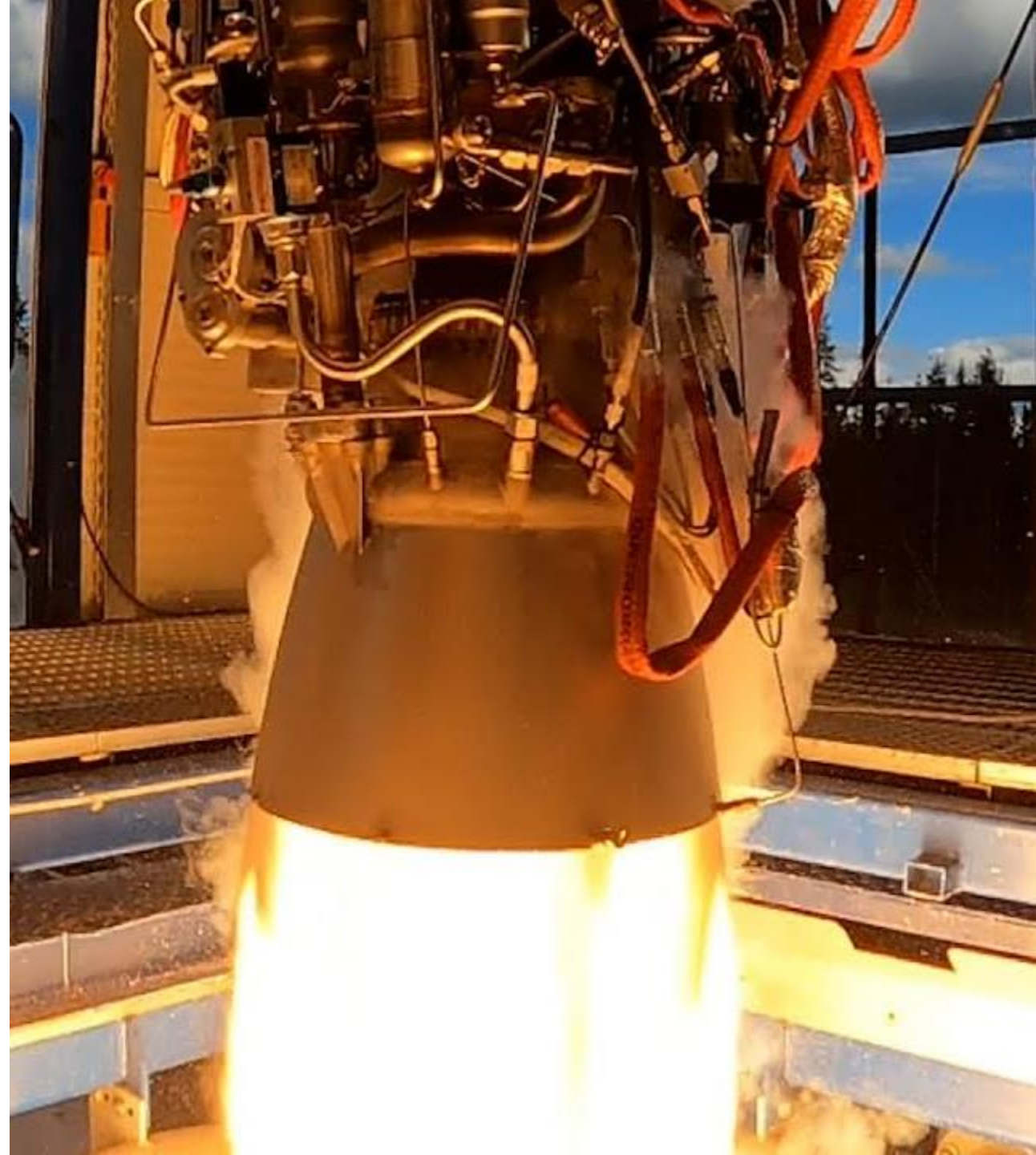
## Why we do what we do.

- Highly cost-efficient launcher to address bottleneck in most satellite business cases
- Smart in-space services to extend the lifetime of satellites in space
- Asset-light manufacturing approach, bringing mass-production concepts into space
- Leveraging OHB competences across entire space value chain
- MC22 decision (evaluate small launchers for ESA missions) confirms our strategy



# Helix: Staged Combustion made in Europe.

- Helix engine operated perfectly for a total duration of 74 seconds– including three complex ignition and shut-down sequences without the need to replace any components on the engine
- Production roll-out with focus on cost leadership in progress (‘Building rockets just like cars’)
- Leveraging MT-A know-how and resources in additive manufacturing
- Future testing more streamlined after RFA and DLR jointly aim for Helix engine test site in Germany

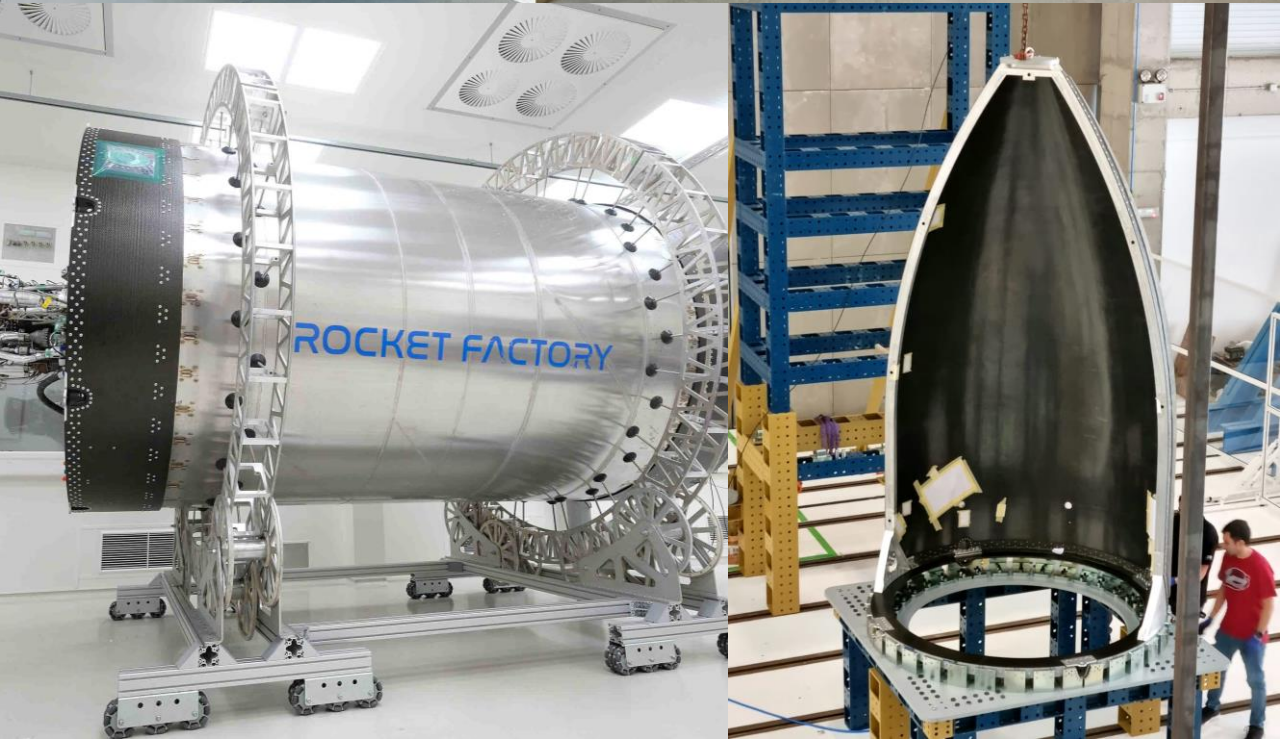






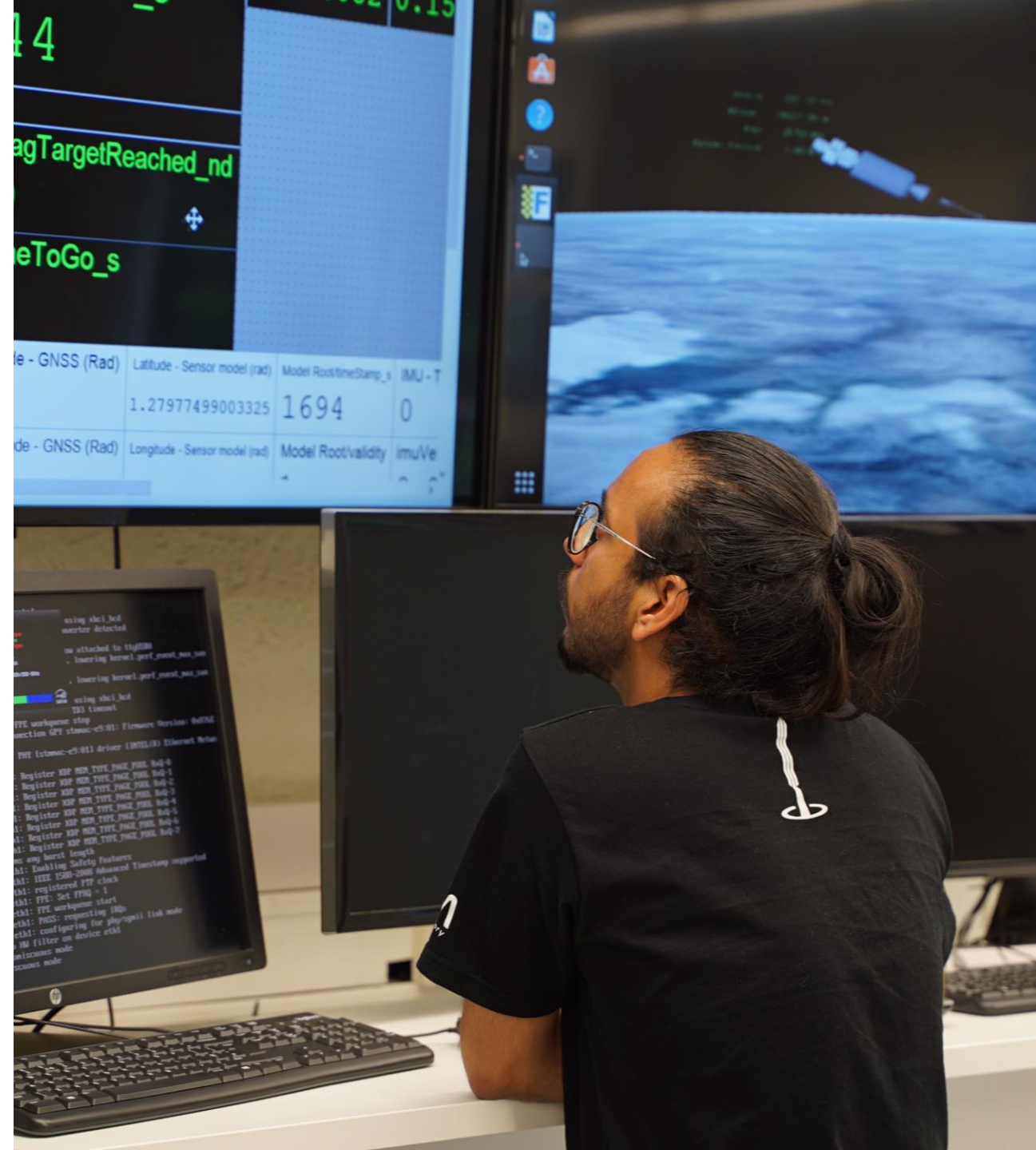
## Structures ready for flight.

- Stainless steel tank structures for 1<sup>st</sup> and 2<sup>nd</sup> stage pressure tested and qualified
- Focus on cost-leadership (by applying manufacturing know-how from beverage industry)
- Composite structures for interstages (e.g. between 1<sup>st</sup> and 2<sup>nd</sup> stage) as well as fairings in final production



# GNC software 'flies' multiple missions per day.

- RFA avionics in-house developed code modelled after Space Shuttle logic
- GNC excellence leveraged to 'compensate' for higher structure tolerances to achieve cost leadership
- Comprehensive HIL setup (Hardware in a Loop) used to evaluate overall system performance and to simulate launch and flight scenarios (weather, engine performance, payloads, anomalies, ...)







## Ground systems made massive progress.

- Rocket Factory Augsburg's first launch to take place from SaxaVord Spaceport, UK
- Launch table already erected on site, application for launch license in process
- Groundbreaking modular design contributes to cost leadership and geo flexibility
- RFA also has launch site agreements with Southern Launch, Australia and Kourou, French Guiana (wip)

# Customer confirms fit to market.

- RFA wins 11 million Euros in the DLR microlauncher competition
- Fully booked! DLR selects seven customers for RFA's inaugural flight
- Multiple launch contracts for future missions signed – total contract volume > EUR 50m, total pipeline volume > EUR 500m
- Promising large-scale institutional projects on European level (Galileo, NAOS, ESA Boost, ...)







# Rocket Factory Augsburg is ready for our first launch campaign in 2023.

- ✓ Propulsion
- ✓ Structures
- ✓ Avionics
- ✓ Ground systems
- ✓ Institutional support
- ✓ Customers