



HyImpulse

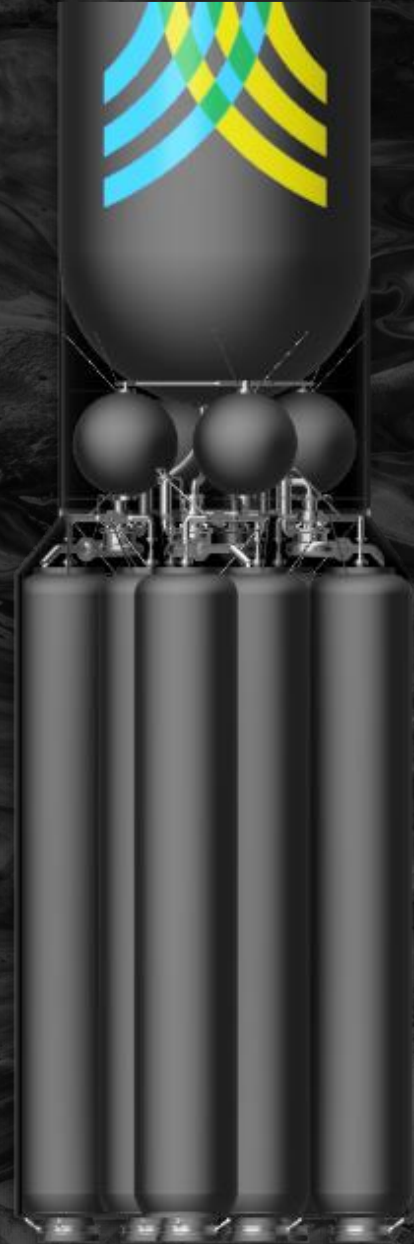


HyImpulse Technologies

Revolutionizing access to space.

March 2024

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»The HyImpulse paraffin propulsion is nothing less than a revolution in rocketry with global and historic impact!«

Virgil Labrador, Editor-in-chief, Satellite Markets and Research, USA

Europe has currently no own access to space at the verge of a global multi trillion € space industry

The European market is in need of multiple new domestic launch services for thousands of European satellites in development.

- Ariane 5 is retired
- Ariane 6 is heavily delayed without timeline and the first 20 launches are committed to the US
- Russia was a major partner and is no longer an option
- USA/SpaceX is the only reliable option for European space endeavors

Europe's access to space in jeopardy after Vega-C rocket failure



»Europe has no way to launch satellites into orbit«

Europe's independent access to space is at risk. Says space agency chief



»We are facing a crisis in the launcher sector«
»Now is the moment to really look at the way we want to build up the launcher system in the future«

Funding challenges are a threat to European access to space



» The constraints on Europe's access to space comes at a time when there is an exponential increase in the number of satellite launches globally.«

The success criteria for orbital launchers

Total costs are key



Payload requirements

The payload mass, volume and technical interfaces are a key criteria to pre-select a launcher

Launch Costs

The price per service & performance ratio into a target orbit decides on the commercial viability

Reliability

The reliability of a launcher is key for investors in the respective satellite project and for space insurances

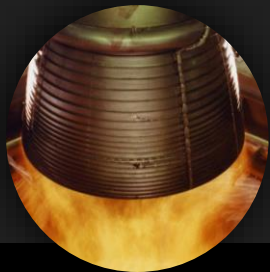
Regularity/Availability

The new space age will require airline-like regular and scheduled launch services

The HyImpulse story

We make small satellite launches simpler, cheaper and a commercial success

» We questioned standard rocket engines to find a new commercially and technically better propulsion by activating the massive energy in simple paraffin wax.«



2000's

Inspired by rocket engine tests at the DLR Lampoldshausen / [Germany's heritage Rocket test center]



2006

Start of the basic research projects with hybrids and paraffin as propellant



Video



2016

Our successful suborbital flight became student **world record** for hybrid rockets



2018

Formation of HyImpulse, privately funded



Today

Growth to 60 employees with one reputable key investor from the industry



Video

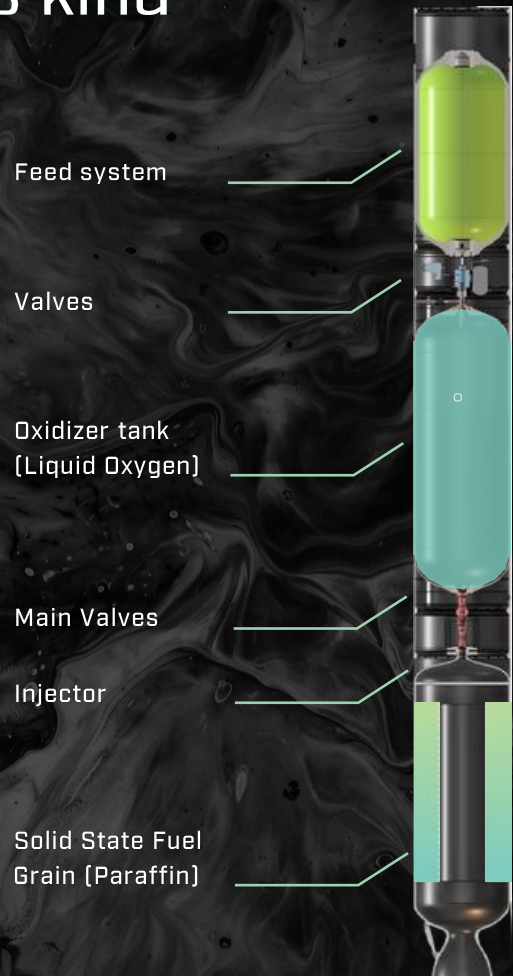


2026

Competitive and sustainable access to space for global applications

The HyImpulse hybrid rocket engine

First of its kind



Unique in-house created wax fuel delivers the safest and highest performance in the world for hybrid rocket engines.

The HyImpulse paraffin propellant is much safer and cheaper than kerosene at same performance.

[Kerosene is mostly used by traditional Launchers like Falcon and Atlas]

The HyImpulse hybrid rocket engine

Major benefits



Safe and reliable

can never undergo catastrophic failure



Simple

easy to produce in series at highest quality



Low cost – high performance

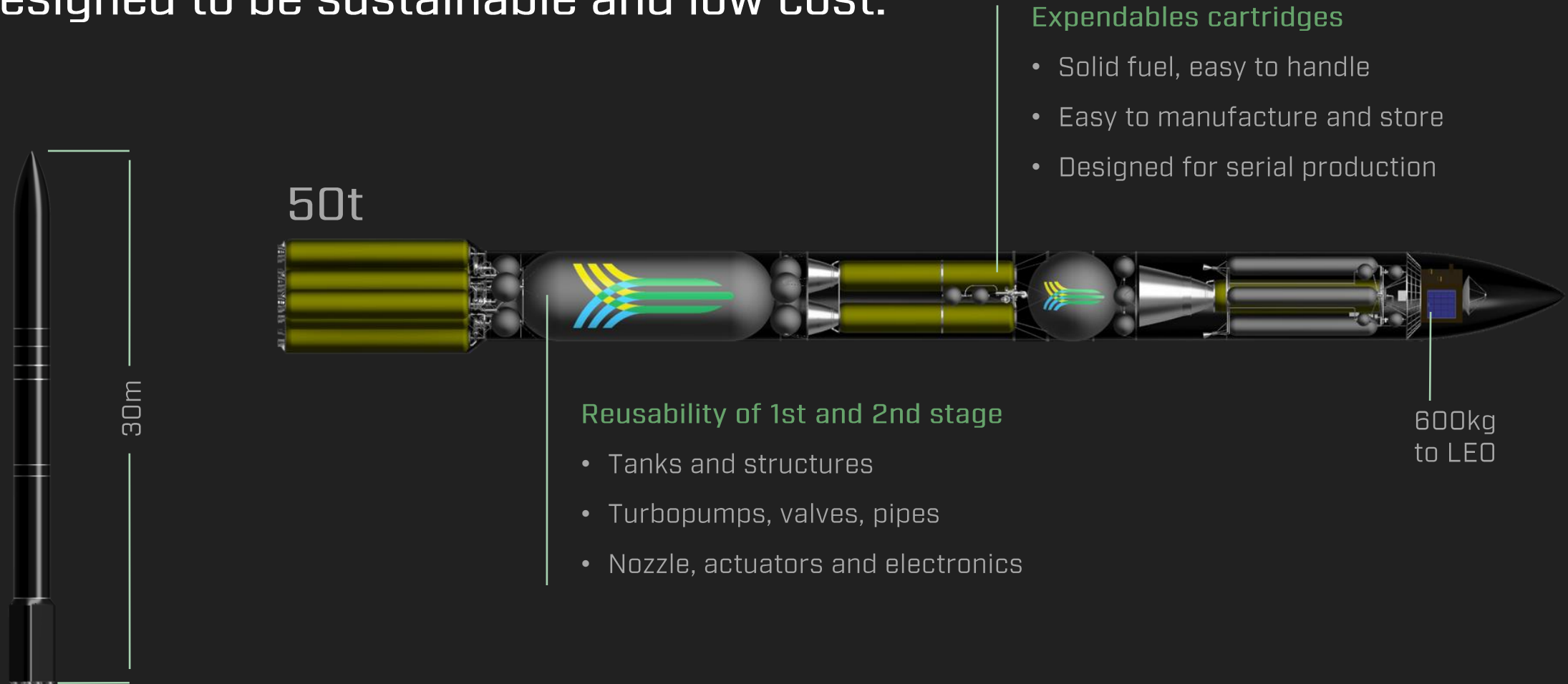
less parts, complex chemical combustion



Company IP / trade secret: proprietary combustion process, fuel and additives

The SL1 Orbital Launcher

Powered by disruptive technology.
Designed to be sustainable and low cost.



Very capital efficient development achieved global industry attention

Reaching all technical milestones including first launch with efficient resource use: ~20m€



HyImpulse SR75 Test Rocket with 75kN Paraffin Rocket Engine



Hundreds of engine tests

Hybrid rocket motor with high Isp like liquid
10 kN to 75 kN thrust



Traction: > 100 Mio. € order book

Sat Operators, DLR, ESA



1st test rocket launch (sub-orbital)

in April/May 2024



Extensively tested & market ready

Paraffin based hybrid propulsion

Launches ahead Current timing



April/May 24	2025 / 2026
Test Launcher SR75 [suborbital]	Small Launcher SL 1 [orbital]
2.5 t, 12 m	50 t, 32 m
250kg to SO 150km	600 kg to LEO
Rocket ready since Q4 2023	
Launch Site in Australia under preparation	

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Dr. Robert Habeck, Vice Chancellor of Germany, Federal Minister for Economic Affairs and Climate Action visiting HyImpulse in July 2023

Political support

Due to multiple global crisis and the potential for the German economy, space has received highest attention and support by the German and European government.

HyImpulse is expecting further funding and government contracts for civil, security and defense applications over the coming years.



The team

Experience, commitment & a world record

Dr. Mario Kobald
Founder | CEO

- 17+ years of experience in hybrid rockets
- 6 Years Company Leadership

Ulrich Fischer
Founder | CTO

- 10+ years experience in hybrid rockets
- 6 years leadership in Rocket engineering, structures and rocket systems



Dr. Christian Schmierer
Founder | Co-CEO |
acting CFO

- 10+ years experience in hybrid rockets
- 6 years Company Leadership and CFO

Konstantin Tomilin
Founder | COO

- 10+ years experience in hybrid rockets
- 6 years leadership in space components production

60 experts, 15 nations,
3 locations in 2 countries
GER & UK



Europe's first Type 5 (all composite) Liquid Oxygen Flight Tank

- New Design, completely developed in-house in cooperation with Adamant Composites Ltd in Patras
- First Tank only produced in CFRP to be compatible with liquid oxygen in Europe



Possible Cooperation and Subsidiary in Greece

- Development and production of SR75 & SL1 components: Engines, Structures, Avionics, Testing (engines, structures, stages)
- Launching of SR75 rockets and derived applications: Booster, Hypersonic test, reentry test, detection & tracking tests etc.



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