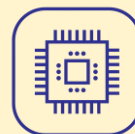




SCIENTIFIC
INSTRUMENTS



ELECTRONICS
COMPONENTS



ELECTRONICS
ASSEMBLY



SOFTWARE
DEVELOPMENT



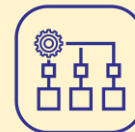
DEVELOPMENT
OF MATERIALS



DESIGN AND
SIMULATION



MECHANISM AND
STRUCTURES



SUBSYSTEM
INTEGRATION



TESTING

CZECH SPACE ALLIANCE



Industrial association of 20 members

5M

BD SENSORS[®]
Space CSRC

EGGO



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Aerospace

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Aerospace
member of
Czech Aerospace Systems

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STRATOSYST
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TECHNOLOGICAL
SERVICE

UNITES
Designed to test

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Goals and activities



- Presentation at national and international events
- Dialogue and relationship with space agencies
- Cooperation with similar associations
- Development of business relationships
- Presentation of interests to the national decision makers
- Cooperation with Ministry of Transport and other official entities in the formulation of Czech space policy
- Cooperation with academia
- Support of student activities

Collaboration on Czech Space Policy

- Drafting and commenting on the industry sections of the National Space Plan
- Participating in the Space Coordination Board of the Minister of Transport and chairing its Industry and Application Committee
- Consultation with delegation of Czech Republic into European Space Agency (ESA) and European union (EU)



Ministerstvo dopravy





Organizing and coorganizing industrial missions

Europe: UK, Spain, France,
Luxembourg, Italy

World: Brasil, Japan, Canada,
USA, Thailand



Participation at foreign visits and major events in Czech Republic

Agencies: ESA, ISRO, JAXA, GISTDA

Companies: Airbus Defence & Space, Thales Alenia Space

Events: Czech Space Week



Participation at international conferences, exhibitions and fairs



- International astronomical congress IAC, Japan
International Aerospace Exhibition
- EU Space Week, SpaceTech Expo Europe, ILA Berlin, Paris Space Week

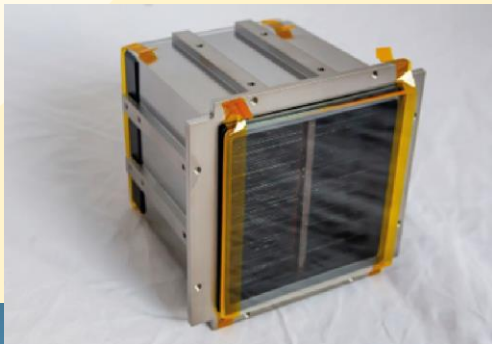
Members' technical capabilities

- **MAIT** – Frentech Aerospace, OHB Czechspace, SAB Aerospace, 5M
- **Design** – L.K. Engineering, OHB Czechspace, SAB Aerospace, Stratosyst
- **Manufacturing of structures and mechanisms** – Frentech Aerospace, 5M
- **Electronics** – egospace, Advacam, Kyocera AVX, BD Sensors, e.s.c. Aerospace, HULD, UNITES, TTS
- **G/S and flight Software** - egospace, Iguassu Software Systems, e.s.c. Aerospace, HULD
- **Material development** – TOSEDA, TTS, 5M
- **Scientific instruments** – Advacam, BBT Materials Processing, Rigaku Innovative Technologies
- **Testing** – egospace, EGGO Space, Frentech Aerospace, OHB Czechspace, TOSEDA, 5M
- **GSE** – egospace, TERMA, L.K. Engineering, OHB Czechspace, SAB Aerospace, UNITES



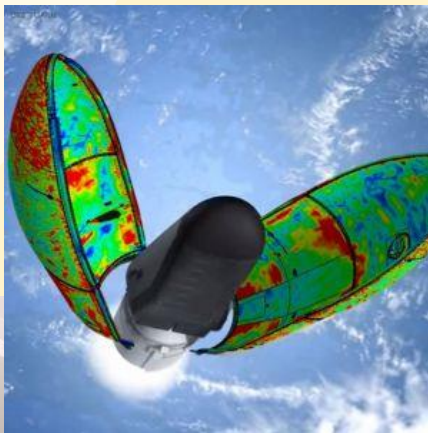
product portfolio → **Systems a subsystems**

- Platforms for satellites (built to spec)
- Launcher dispensers for multiple satellite launch
- Solar arrays
- Deployable booms
- Satellite radiation shielding
- Stratospheric balloons



product portfolio → **Components and assemblies**

- On-board Computers, avionics
- GNSS SW for navigation
- Sensors – radiation, moisture, temperature and pressure
- Electronics and harness
- X-ray and IR optics
- Supercapacitors and batteries
- Composite structures and assemblies
- Hinges for solar arrays end booms
- Landing legs
- Mechanisms for cargo doors
- MGSE and EGSE



product portfolio → Services

- **Design activities:** structural, thermal design, kinematics
- **Material development:** adhesives and composites
- **Qualification of materials**
- **Testing activities:** mechanical testing in relevant environment, TVC, precise measurements, molecular contamination, electrical tests etc.



Examples of space projects

Service module for Plato exoplanet observatory

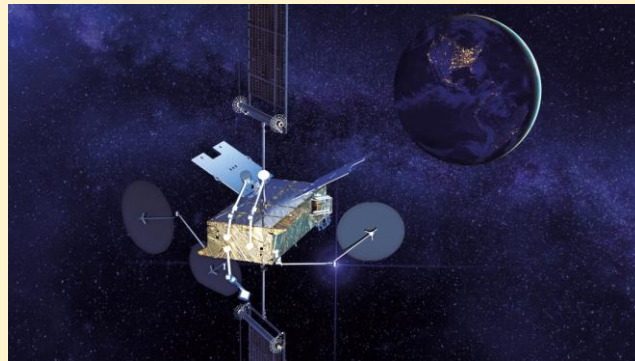
- **SAB Aerospace**, 5M, OHB Czechspace, VUT Brno, Frentech Aerospace → OHB-DE / ESA
- Design, manufacturing, AIT
- Contract 2018, PFM 2023



Examples of space projects

Flexible solar panels for Space Inspire communication satellites – mech. subsystem

- 5M, Frentech Aerospace, L.K. Engineering, BD Sensors, VZLÚ → TAS-FR / ESA
- Components design since 2013, subsystem development since 2019, ESA ARTES Novacom II



Customers and partners



一般社団法人 日本航空宇宙工業会
- The Society of Japanese Aerospace Companies -



SME4SPACE

CSA members' websites

company name	website	company name	website
5M	https://www.5m.cz/en	L.K.Engineering	https://www.lke.cz/en/
Advacam	https://advacam.com/	OHB Czechspace	https://www.ohb-czech.cz/
BBT Materials Processing	https://www.calomel.cz/	Rigaku Innovative Technologies Europe	https://www.rigaku.com/
BD Sensors	https://www.bdsensors.cz/en/	SAB Aerospace	https://www.sabaerospace.cz/en/
EGGO Space	https://www.eggo.cz/en/about-us/	Stratosyst	https://www.stratosyst.com/
e.s.c. Aerospace	https://www.esc-aerospace.com/	TERMA	https://www.terma.com/
Frentech Aerospace	https://frentech.eu/en/	Toseda	https://www.toseda.cz/en/
HULD	https://huld.io/	TTS	https://tts-co.eu/en/main/
Iguassu Software Systems	http://iguassu.cz/	Unites	https://unites-systems.com/
Kyocera AVX Components	https://www.kyocera-avx.cz/en		



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