VZLU AEROSPACE - Prague Science and Technology Park

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Park location on the map: <u>here</u>

Reg.nr.: 00010669 Director: JUDr. Petr Matoušek (<u>petr.matousek@vzlu.cz</u>)

Operating data of the park

Membership in STPA: YES State of the park: accredited Partner in project SPINNET: NO Launch day: 10.3. 2010

Founder(s): VZLU AEROSPACE Owner(s): VZLU AEROSPACE Operator(s): VZLU AEROSPACE

Type of entity: Joint stock company (JSC) **Criteria for acceptance of innovation firm:** individual

Description of the park

Introduction

Science and Technology Park VZLU AEROSPACE Prague is placed in Prague - Letnany near Metro station named Letnany (C line) and near PVA - Prague Exhibition Centre. Founder, owner and operator of the Park is VZLU AEROSPACE, a.s. The Park is a part of regional inovative infrastructures and plays active role in development of knowledge economy and industry with main focus on Aerospace, Defence and Security. Innovative neighborhood is also suitable for automotive industry, railway industry, power engineering and civil engineering. In the Park there are available several spaces for wide range of activities - offices, laboratories, workshops and stores. The Park offers a lot of services which are needed by innovative companies, e.g. consulting in R&D, consulting in industrial property rights, support of R&D results transfer, education, information technology as well as consulting in law or economics, etc. Available are also conference and meeting rooms with capacity up to 60 seats, completely equipped with presentation technology. Inovative business is supported also in form of science and technical workshops (e.g. aerodynamics, composites, strength and durabiloty of structures) which are focused on transfer of knowledge. The Park accomplished number of a succesful transfers of technology, e.g. infusion technology for manufaturing of composite structures (multiply), technology of friction stir welding, algorithms for aerodynamics calculations etc. The newly opened building C3T - Czech Centre for Competitive Technology serves both VZLU AEROSPACE and innovative companies, as well as innovative companies that have special infrastructure requirements, especially in fields focused on space technology.

In 2024, VZLU AEROSPACE opened a new satellite operation center here. In the future, VZLU satellites and satellites of other entities will be controlled here.

Description of technology transfer

VZLUSAT-1 a Czech nanosatellite of a CubeSat Application of composite technology for aircraft propellers manufactures A true innovation in batteries – efficient energy storage Bonding technology of PTFE sealing into suction pipeline of aerial engine Technology of preparation and application of paint systems containing MWCNT

Innovative entrepreneurship training

Organization of excursions and opponency of projects

Advisory services

technological advisory, patent advisory, certification advisory, financing advisory, legal advisory, education (courses for enterpreneurs), secretarial services, telephone exchange, telephone, fax, text processing, reception, conference space, computer for technical usage, workshops, laboratories

Innovation infrastructure

The science and technology park of VZLU AEROSPACE is a part of regional inovative infrastructures and plays active role in development of knowledge economy and industry with main focus on Aerospace, Defence and Security. Innovative neighborhood is also suitable for automotive industry, railway industry, power engineering and civil engineering.

Cooperation with universities

The Czech Technical University in Prague Brno university of technology University of Chemistry and Technology Prague

Services provided to innovation companies

by STP external Consultancy \checkmark business plans Ż technological advisory Z patent advisory Z certification advisory Z financing advisory \checkmark

accounting Ż legal advisory Z marketing advisory Ż education (courses for enterpreneurs) by STP external **Technical services V** secretarial services **V** telephone exchange **V** telephone, fax copy text processing **7** reception □ **√** buffet, cantine **7** conference space **7** computer for technical usage **V** workshops laboratories □ **√** access to data banks \checkmark exhibition space

by STP external Financing G equity □ credits □ ✓ subsidies □ ✓ other forms

Service expenses

STP service costs

only according to actual costs
only fixed payment tariff
fixed payment and additional charge for use
in lumps: rent, security, cleaning, phone, post

Oher costs (p.a.) acc. to usage fixed CZK/m2

heating

electricity ✓

others ダ

total

Rent (p.a.) CZK/m2

office space 3800

production space 1900

others 1000

Statistical data

innovation other institutions **TOTAL Companies** 8 65 5

STP

Land area

232981 m2

Built up park area

84130 m2

Utility area

31399 m2

- Rented area

29329 m2

= Remains for rent

 $2070\ m2$

Innovation companies

HE3DA s.r.o.

Reg.nr.: 28949935

HE3DA Ltd. is an innovator in applied research and commercialization of battery technologies. The company's 3D technology and Li-battery production processes are based on three dimensional electrodes using lithium nano-materials (patented HE3DA® technology).

Tel.: + 420 225 115 306 E-mail: <u>info@he3da.cz</u> WWW: <u>http://www.he3da.cz/</u> Technologies:

- 0200 Power engineering
- 0202 Power engineering, power electronics (other)
- 0204 Solar engineering
- 0206 Storage techniques
- 1104 Nanotechnology (other)

Branches:

- 29 Manufacture of machinery and equipment n.e.c.
- 31 Manufacture of electrical machinery and apparatus n.e.c.
- 73 Research and development

LPP Unmanned Systems

Reg.nr.: 05184410

LPP UAS develops modular unmanned aerial system, including its own drone family with autonomy functions for tactical missions. The system features MTS drone with launcher or booster, AI-based visual navigation for GNSS-denied areas, in-house autopilot, and target optical tracking. The company also produces warheads and offers a ground control station with planning software.

Tel.: +420605 295 772 E-mail: <u>info@lpp-holding.com</u> WWW: <u>https://www.lpp-uas.com/</u>

Technologies: 0409 - Artificial intelligence 1402 - Aviation engineering 9011 - Software development

Branches: 62 - Air transport 73 - Research and development

NIMDA Co. Ltd. - organizační složka

Reg.nr.: 26718481 Development and manufacturing for military and defence

Josef Havlík Tel.: +420-225115419 Fax: +420-225115424 E-mail: <u>info@nimda.cz</u> WWW: <u>http://www.nimda.cz</u>

Technologies: 1404 - Rail- and road-traffic engineering 9000 - Hydraulics and Mechanics

Branches:

- $\mathbf{29}$ Manufacture of machinery and equipment n.e.c.
- 73 Research and development

Prusa Research s.r.o.

Reg.nr.: 24213705 The Czech Producer of 3D Printers.

E-mail: <u>info@prusa3d.cz</u> WWW: <u>http://www.prusa3d.cz</u>

Technologies: 0300 - Production and process engineering 9003 - Design 9007 - Fabrice from Plasticine 9011 - Software development

Branches: 73 - Research and development

SPEEL Praha, s.r.o.

Reg.nr.: 49703374 Research and development of avionics systems

Fax: +420-286923721 E-mail: <u>info@speel.cz</u> WWW: <u>http://www.speel.cz</u>

Technologies:

- 0801 Measurement and control
- 0900 Microelectronics
- 0904 Information storage technology
- 1000 Microsystems engineering
- 1402 Aviation engineering
- 1404 Rail- and road-traffic engineering
- 9900 Other

Branches:

- 31 Manufacture of electrical machinery and apparatus n.e.c.
- 62 Air transport
- 73 Research and development

Stellar Exploration, s.r.o.

Reg.nr.: 21718920

The company provides advanced finite element analysis (FEA) for space structures that ensures structural integrity and optimized performance in extreme environments. Simulations help predict the behavior of complex aircraft components, increasing safety and efficiency. It is engaged in the production of specialized antennas and related high-frequency electronics for spacecraft.

Tel.: +420 773 558 234 E-mail: <u>office@stellar-exploration.eu</u> WWW: https://www.stellar-exploration.eu/

Technologies: 0408 - Information management 1403 - Aerospace engineering 9011 - Software development

Branches: 62 - Air transport 73 - Research and development

Stratosyst s.r.o.

Reg.nr.: 08135738

There is an unused potential that stratosphere can provide us for exploring our universe because thick bottom atmosphere blocks out most of the infrared wavelengths. Currently the cost for obtaining infrared data is high becouse the only method is observation from satellites. Also, the number of orbital infrared observatories is low so this makes the procedure for obtaining customer-specific data is very time-consumig. The advantage of stratosphere observation by Stratosyst is that space sky can be observed for an extremely long period of time in conditions comparable to space satellites for a fraction of the cost. Moreover, the hardware will be recovered after the end of each mission. The prototype will be a fully functional infrared observatory which will stay in the stratosphere (higher than 20km) and maintain the position over extended period of time. Position of the platform will be feedback-controlled by GNSS data.

Martin Farkač Tel.: +420776355314 E-mail: <u>info@stratosyst.com</u> WWW: <u>http://www.stratosyst.com/</u>

Technologies: 0400 - Information and communications technology 9001 - Controlling Systems 9010 - Monitoring Systems

Branches:

72 - Computer and related activities73 - Research and development

93 - Other service activities

Subject:

ESTEC

Country: Netherlands Type of cooperation: common project

Description: Project AMBIC – The aim of the proposed mission is to build a constellation of microsatellites for the observation of the Earth for government purposes, demonstrating the real capabilities of the Czech Republic. Contact web: http://https://www.esa.int/About_Us/ESTEC Contact e-mail: stephane.combes@esa.int

Subject:

OFELIE

Country: France Type of cooperation: common project

Description:

The aim of the project is to develop a revolutionary, environmentally friendly open-fan propulsion technology for the SMR class of aircraft, which could reduce engine CO2 emissions by 20% and contribute to a 30% reduction in aircraft-level CO2 emissions. Define and demonstrate at TRL5 level an open fan architecture that achieves 20% CO2 savings and noise reduction. VZLÚ participates in the creation of the so-called open fan in the form of measuring and calculating the aerodynamic characteristics of the propeller and measuring the stability of the swirling flutter.

Subject: **AMBER**

Country: Italia Type of cooperation: common project

Description:

The project deals with the development of new propulsion systems, specifically the development of a hybrid-electric propulsion system for regional aircraft with the aim of decarbonizing them. VZLÚ participates in the delivery of a modified test stand (pylon) for hybrid electric units, including strength analysis, design and manufacture of the adapter and beam structure supporting the drive unit.

Subject: AI4HYDROP

Country: Norway Type of cooperation: common project

Description:

The goal of the project is to create a holistic dynamic AI-based framework for the safe operation of UAVs in urban and restricted areas by defining the procedures and required technologies. In the project, the VZLÚ addresses current issues of ATM in the field of technical specifications of drones, the effects of the surrounding environment (cities, controlled spaces and legislation) and the philosophy of automatic selection and approval of flight plans in operation based on knowledge from national projects VERTIMOVE and MiYa.

Subject: AREANA Country: Belgium Type of cooperation: common project

Description:

The project responds to the call for "synergies in aerospace research between Horizon Europe, AZE and national programmes" by providing advanced new approaches to support the European aerospace research ecosystem. It includes three interconnected but thematically distinct parts – synergies between European, national and regional research and innovation programs in the field of aviation, preparation for the upcoming Aerodays 2025 and, last but not least, VZLU activities within the AZEA alliance (Alliance for Zero Emissions Aviation), and this by carrying out mapping and analyses, including the identification of potential technological and administrative gaps in research, innovation and standardization.

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