10-11 NOVEMBER 2020

BRINGING TOGETHER THE CLUSTER COMMUNITY

Ecosystem session: Aerospace & Defence

Clusters strengthening ecosystems

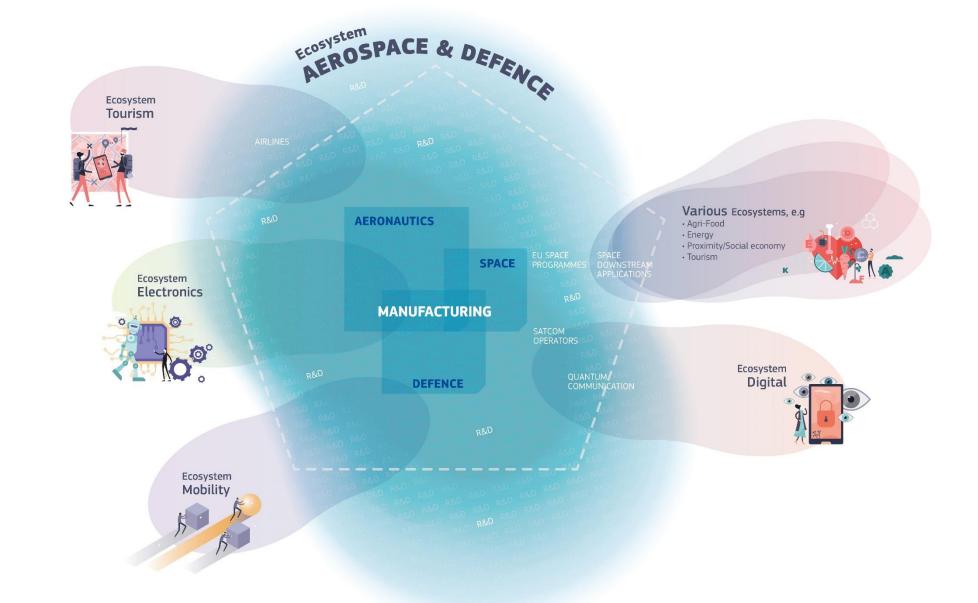






© Executive Agency for Small and Medium-sized Enterprises (EASME), 2016. Reproduction is authorised provided the source is acknowledged. The information and views set out in this presentation is those of the author(s) and do not necessarily reflect the official opinion of EASME, the European Commission or other European Institutions. EASME does not guarantee the accuracy of the data included in this presentation. Neither EASME, nor the Commission or any person acting on their behalf may be held responsible for the use which may be made of the information contained therein.





1.6% of EU value added Aerospace & Defence €376 bn in turnover ecosystem employees

ASD ecosystem: key characteristics

- Small in economic numbers
- Strategically important
- Globally competitive EU companies, with complex supply chains
- High-tech, R&D intensive

COVID-19 impact : commercial aeronautics

- Sudden and brutal collapse
 - > 16,500 of + 29,000 aircraft worldwide grounded
 - Airline bankruptcies
 - Air travel may not recover before 2024
 - Oblige reduction in production of aircraft to half
 - Major impact on entire ecosystem, loss of competencies, survival of EU companies, ability to manage green transition

COVID-19 impact : defence

- Reduction in defence spending in EU + reduction in export demand
- Significant impact on sales in 2020 of EU companies.
- Adverse impact on productivity, costs structure, competitiveness, innovation, technological edge, skills, private investment, and industrial performance/supply.

COVID-19 impact - Space

- 1.2 bn € reduction of revenues and 1.4 bn € reduction of backlog (2020).
- Extended effects over the next 5 years or more.
- Institutional customers (EU, ESA, national agencies) likely to maintain payment schedules despite production/delivery delays.
- Commercial and export customers (satellites): negatively impacted

Outlook – stakes: the industry views

- Competitiveness of the whole European Aerospace and Defence industry.
- Loss of engineering capacities risks to permanently endanger technological leadership.
- US and China are heavily supporting their industry (loans to airlines and industry, subsidies via space and defence budgets).
- Rapid resumption of commercial air traffic crucial for recovery not in view yet in EU.
- EU's strategic autonomy and resilience depends on this ecosystem => at stake.

Preliminary conclusions from stakeholder inputs

- Aerospace and defence ecosystem strongly affected by the COVID crisis
- Effects are likely to last several years
- Major effects are likely still to come (loss of demand, loss of skills)
- Risk for Europe to lose technological leadership in this strategic sector
- EU and MS need to join forces to tailor a toolbox for this ecosystem that is critical for EU strategic autonomy
- Dialogue with ASD Ecosystem to continue

Thank you

https://www.copernicus.eu/en/events/events/online-workshop-2-impact-covid-19-pandemic-eu-aerospace-and-defence-ecosystem



10-11 NOVEMBER 2020

BRINGING TOGETHER THE CLUSTER COMMUNITY

Krzysztof Krystowski – President of Silesian Aviation Cluster, Poland







© Executive Agency for Small and Medium-sized Enterprises (EASME), 2016. Reproduction is authorised provided the source is acknowledged. The information and views set out in this presentation is those of the author(s) and do not necessarily reflect the official opinion of EASME, the European Commission or other European Institutions. EASME does not guarantee the accuracy of the data included in this presentation. Neither EASME, nor the Commission or any person acting on their behalf may be held responsible for the use which may be made of the information contained therein.

10-11 NOVEMBER 2020

BRINGING TOGETHER THE CLUSTER COMMUNITY

ABOUT THE CLUSTER

www.aerosilesia.eu

We build an ecosystem between aviation industry companies and institutions having direct and indirect impact on the development of the industry, business environment institutions, financial institutions, science and R&D institutions.



Dominating industry: aviation



Strategic goal: knowledge transfer and the process of internationalization of entrepreneurs



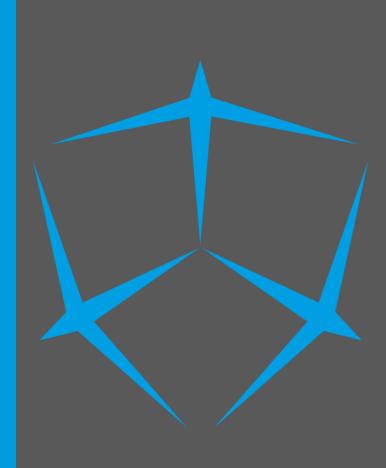
Over 80 companies, 3 Univeristies 5 R&D Centres



Over \$ 1 bn in sales revenues of members including over 60% export



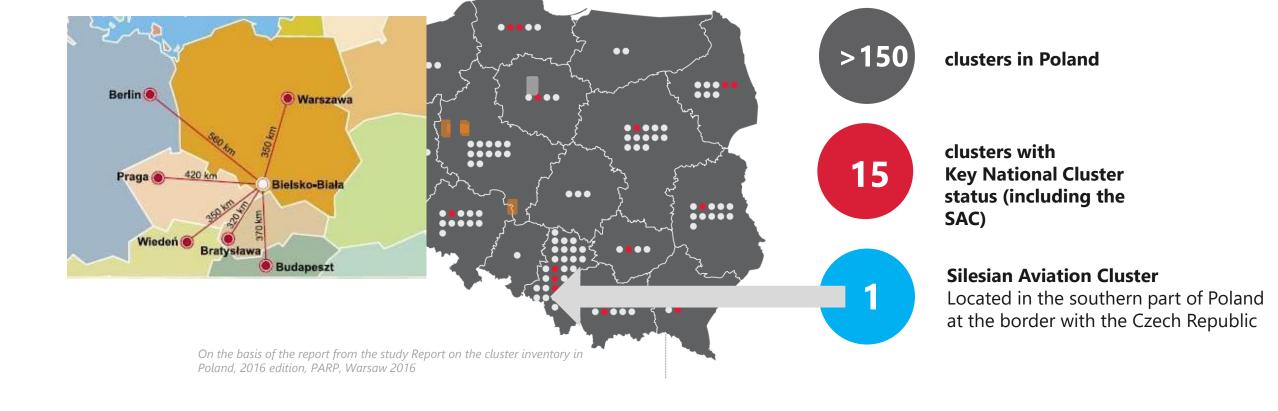
Almost 15 thou. employment in enterprises



10-11 NOVEMBER 2020

BRINGING TOGETHER THE CLUSTER COMMUNITY

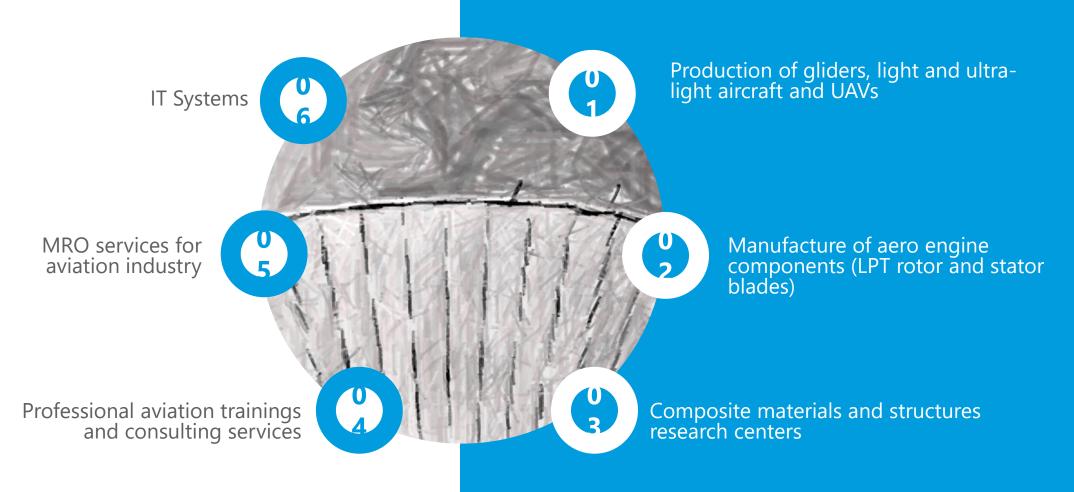
SILESIAN AVIATION CLUSTER AS THE ONE OF KEY CLUSTERS IN POLAND



10-11 NOVEMBER 2020

BRINGING TOGETHER THE CLUSTER COMMUNITY

CLUSTER COMPETENCIES



10-11 NOVEMBER 2020

BRINGING TOGETHER THE CLUSTER COMMUNITY

Aerospace Technology Park



Establishing a Tech – Park for aviation and automotive suppliers, consists of manugacturing plants, equipment and the small airport with the 1.000 m run way for business jets.



2006 - 2015

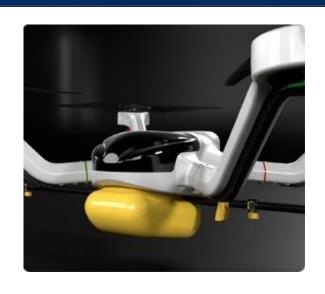
Financial support value: > 40 mln PLN (9 mln EURO)



Contract no. PIOR.02.03.03-24-0001/17-00 within the framework of **Operational Programme Innovative Economy** 2007-2013

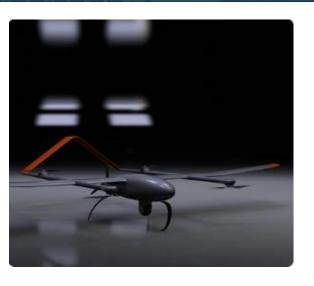
10-11 NOVEMBER 2020

BRINGING TOGETHER THE CLUSTER COMMUNITY





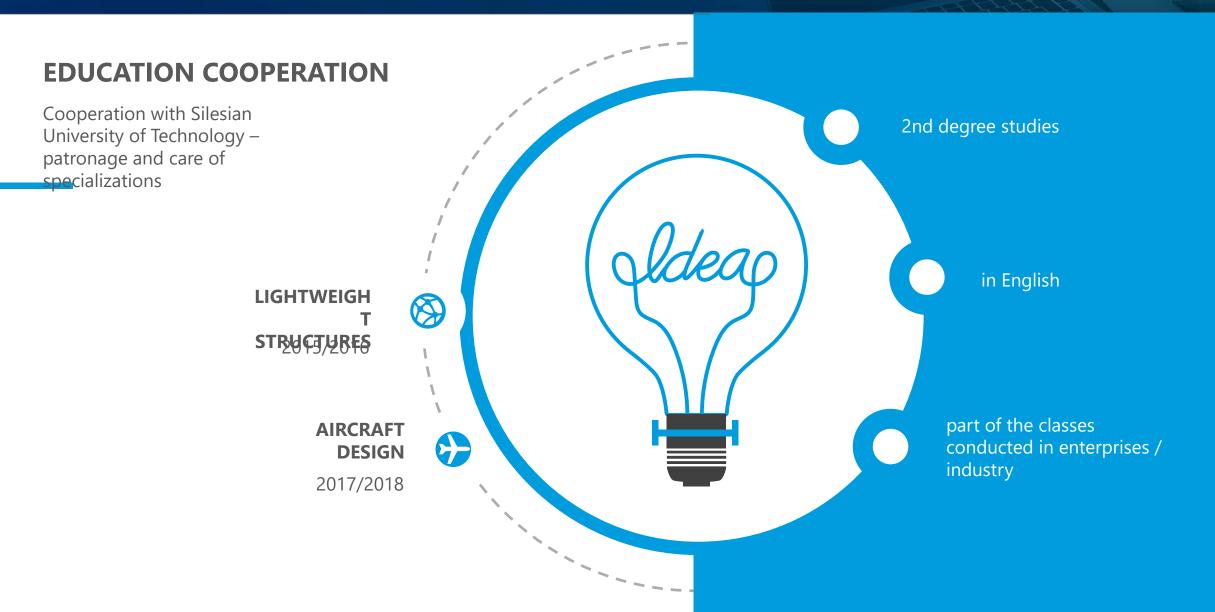




- 10 members of the cluster are involved in production, design and operating and training related to UAVs, including the biggest Polish producers of drones for Polish Army:
 - FlyTronic
 - WZL2 form PGZ Group (the biggest Polish defence group)
 - Asseco the biggest Polish IT integrator (interested in development of drone software)
- We will be involved (after initial agreement) in the "piloting project" of drones usage over urban area together with Silesian Metroplitan Authority and Polish Civil Authority. Real use of drones in city area.
- Our memebers are already involved in the biggest development project for UAVs for Polish Army, with the budget around 200m. Euro
- FlyTronic has sold their mini UAV FlyEye, not only to Polish Army, but also for export markets (including Ukraine)
- Our memebers are realising now few RDT projects to develop new UAV's solutions, including software, hardware etc.

10-11 NOVEMBER 2020

BRINGING TOGETHER THE CLUSTER COMMUNITY



10-11 NOVEMBER 2020

BRINGING TOGETHER THE CLUSTER COMMUNITY

R&D activities – main centers

Śląskie Centrum Naukowo – Technologiczne Spółka z o.o. (Silesian Science and Technology Centre of Aviation Industry)



Composite stru

Composite structures manufacturing

O

Large-dimension machining service

O

Vibration, ageing, material or resonant fatique tests

Q

High-speed camera monitoring

O

Active thermography

Instytut Lotnictwa (Institute of Aviation)



Q

Composite technologies



Design and testing of aviation structures



The space technologies



Aero and missile engines,



Application of micro- and nanotechnology.

Laboratorium Badań Napędów Lotniczych "Polonia Aero" Sp. z o.o.

(Cold Flow Turbine Test Facility)





Tests of new generation aero engine turbines



Test of demonstrators of technologies used in aero engines

10-11 NOVEMBER 2020 BRINGING TO

BRINGING TOGETHER THE CLUSTER COMMUNITY

INTERNATIONAL ACTIVITY 2017-2021

- 3 contracts within Smart Growth Operational Programme 2014-2020 concerning international activation of Silesian Aviation
 Cluster fot cluster members:
 - Participation already in over 30 Exhibitions,
 - Over 20 study visits and business missions to 20 countries (including: US, Japan, China, Canada, France, Germany, UK, Italy, Thailand, Brasil).
 - Partnership with Clusters in the world
- Silesian Aviation Cluster is in the proces to join European Aviation Clusters Platform
- One of the founders of European UAS Clusters Alliance





for your attention!







SILESIAN AVIATION CLUSTER

Ul. Stefana Kóski 43 43-512 Kaniów biuro@aerosilesia.eu

www.aerosilesia.eu