

Estonian Aviation Cluster:
**Promotion of networking and cooperation
in the Estonian aviation community and
involvement of financial support
for innovative projects**

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Facts about the Estonian Aviation Cluster

- Non-profit association
- Established – December 2018
- Consortium agreement between the members – January 2019
- Financing decision by Enterprise Estonia (EAS) – September 2019
- 30 members as of September 2023
- Member of
 - European Aerospace Cluster Partnership (EACP) and
 - European Clean Aviation Regional Ecosystem Stakeholder Group (ECARE SG)

Contacts

- Website – www.eac.ee
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Contract with the Enterprise Estonia (EAS)

- Project named „Estonian Aviation Cluster“
- Basic idea to promote the sectoral development
- Agreed objectives to be achieved in three domains:
 - Development projects
 - Joint marketing
 - Internationalisation
- Financial dimensions
 - Total cost of the project 1,2 M€,
 - Beneficiary's self-financing – min 0,6 M€ (membership fees and own contribution of members)
 - EAS grant – max 0,6 M€ (50% of eligible costs)
- Financial resources originate from EU Regional Development Funds (ERDF)



Six clusters joined EAS financing vehicle

- ICT
- Defence and Security
- Estonian Wooden Houses
- Connected Health
- Estonian Digital Construction
- Estonian Aviation



** Estonian mission at the EU Cluster Conference 2022, Prague*

Performance and output indicators of the Cluster project

- cumulative sales revenue of the cluster's partners
- added value per employee of the cluster's partners (average)
- number of supported partners belonging to growth areas
- volume of own income of the cluster
- number of cluster services and projects

These indicators are observed and measured during the financing period and two years after the end of the project

Cluster development activities



- Up to 15 development projects initially considered
- Just 5 got active:
 - Aviation industry development
 - Air cargo development
 - UAS and U-space implementation development project
 - WingOps software development project (CAMO support)
- Considered but not started:
 - MPL program development project
 - Value chain digitalization development project
- Coordination of development projects by EAC management – running in background and supporting members



Eesti
tuleviku heaks



Euroopa Liit
Euroopa
Regionaalarengu Fond

Joint marketing activities



- Joint participation in foreign fairs
- Conducting marketing events
- Ordering market studies and cost benefit analysis
- Coordination of marketing activities
- Creating value propositions



Eesti
tuleviku heaks



Euroopa Liit
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Internationalisation



- Strengthening international competitiveness through the development of the Estonian Aviation Cluster as a brand
- Developing cooperation with the European Aerospace Cluster Partnership
- Organising events introducing Estonian aviation



Estonian Aviation Cluster as a brand development



High-level strategy goals of the Estonian Aviation Cluster

Focussing on 4 domains in strategy planning:

- 1) the concept of smart mobility
- 2) sustainable energy solutions
- 3) competence centre for drone technology
- 4) promotion of MRO service providers

Strategy is crafted by the Council and approved by the General Assembly

Main strategic priorities in more detail

Redefine/update national SMART Mobility Concept



Objective: "Smart Mobility" is a win-win for:

- environment
- customers
- citizens
- economy
- connectivity

Means: Establish by 2030 a Regional Mobility fossil free
Ex: EU cities mission (launched Nov 2021)

Measures

- Self driving public transport
- Infrastructure for hydrogen propelled aircraft to boost current initiatives in this field
- Infrastructure for e-vehicles
- Connectivity within Estonia and to nearby hubs with electric/hydrogen propelled shuttle services by air

Project No. 1

Estonia: exporter of fossil-free energy!



Objective: Estonia to decarbonise own aviation sector by 2030 and become exporter of SAF

Means: National policy to create plants which function with green electricity

- Build plants in Ida-Viru using currently exported wood pellets as source for green carbon
- Chemical industry there to go from shale oil to SAF
- Production to exceed EU mandated appr. 4.000 tonnes of SAF by 2030
- Funding: EU Just Transition Fund, EIB, private investors
- Government involvement to ensure national needs are met before exporting
- Extensive Feasibility Study

Measures

- Supportive legislation to reduce barriers to access R & D funds
- National focus on establishing ecosystem
- Support for start-ups
- Inclusion of other stakeholders (e.g. Travel agencies to include sustainable fuels in packages)
- Establish airport Riga and Helsinki as key partners

Project No. 2

Develop a Competence Centre for Drone Technology based in Estonia (2023)



Objective: Increase international visibility and focus of Aviation Academy to attract job in Estonia's key areas of competence; innovation

Means: In sync with Ministry of Education targeted cooperation universities globally

Measures:

- Empower competent authority to increase manpower and to draft appropriate legislation
- Develop partnerships (ex. "Hydrogen Valley")
- Analyse standards and monitor trends
- Bundle experience gained in drone technology

Project No. 3

Promote Estonia-based MRO service providers

Objective:

- Support the growth of Estonian MRO companies in existing and emerging aviation markets by building upon their capability to innovate (e.g. 3D printers)

Means: Round-table "Malta" Model as benchmark

Measures:

- Identify international market niches with potential for Estonian companies
- Attract EU R & D and participation in projects

Project No. 4

Lessons learnt / Way ahead 1/3:

Considered important for Cluster members to deal with

- Collective representation of the aviation sector, for example:
 - legislative initiatives with Government
 - communications with Transport Administration, EASA and IASA audits
 - digitalisation and green revolution issues
 - OSKA programme of Estonian Qualification Authority and sectoral personnel needs
 - international networking with aviation clusters – European Aerospace Cluster Partnership
 - introducing business opportunities in aviation industry to non-aviation companies and
 - any other business initiated by Cluster members

- National climate goals vs. corporate capacity of climate neutrality
(initiative of Estonian transport sector companies Rohetiiger/Green Tiger)

- The opportunities in hydrogen technology

- Closer cooperation with Estonian defence industry

Lessons learnt / Way ahead 2/3: **Improving daily management of the Cluster**

Expanding of the Management Board, bringing the representatives of cluster members more actively into the organization and management of daily activities, resulting in:

- management, risks and responsibilities of the cluster are divided into the hands of a wider circle of persons (and organisations themselves)
 - sectoral competences will be introduced for managing the daily work of the cluster
 - cooperation between cluster companies will be improved
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- opportunity for cost-saving

Lessons learnt / Way ahead 3/3: **Working with ongoing development projects**

- Innovative Air Mobility (IAM) projects
 - Tartu U-space „sandbox“ testbed
 - CACTUS project to develop a concept <https://www.anratechnologies.com/home/management/estonia-u-space-sandbox-preparing-for-take-off/>
 - Coordinating between the UAS industry stakeholders and national aviation authorities to advance regulatory changes and U-space implementation
- Entrepreneurial environment for air transport industry
 - Air cargo capacity at Tallinn Airport
 - Industry development
 - MRO and ICT companies



Members of Estonian Aviation Cluster as of August 2023

AIRPORT and ACCOMPANYING ACTIVITIES

Tallinna Airport

Estonian ANS

Flyer Holding

AIRLINES

Diamond Sky

FortAero

Nordic Aviation Group/ Xfly

AIR CARGO

Ospentos International

MRO COMPANIES

Magnetic Group

Nordic Aircraft Service

INDUSTRY

Nordic Custom

SERVICE PROVIDERS

Auve Tech

Estonian Aviation Fuelling Services

Transportation Asset Management

ITC SERVICES

Adacel Technologies Estonia

Axinom Estonia

Feeport

Helmes

Q-step Logiciel

SkySelect

TrackDeep

EDUCATION

Pakker Avio

Piloodikool

Estonian Aviation Academy*

Estonian Aviation Museum*

Tallinn University of Technology*

UNMANNED AIRCRAFT SYSTEMS

Hepta Group Airborne

KrattWorks

SKYCORP

Threod Systems

Estonian Unmanned Aviation Cluster*

* associated members



Photo by Maiken Kull

Happy take-offs!