

## PIEDMONT AEROSPACE CLUSTER



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The Piedmont Aerospace Cluster (DAP) is a no-profit association established in 2019 to ensure continuity of the previous Committee.

Since 2005, the Committee involved all relevant stakeholders with the aim to enhance the competitiveness of Piedmont's aerospace industry guaranteeing coordination and long-term vision for public and private investment in technological innovation.

The Cluster is one of the founders of the National Aerospace Technology Cluster (CTNA), which federates Italy's leading aerospace hubs and brings together all the key players in the national aerospace system.

**The DAP** is an integrated system of companies, universities and research centers with technological capabilities and cutting-edge scientific skills. Public entities and trade associations are also members to ensure effective coordination of Cluster support and promotion policies



Piedmont has the highest concentration of Italian aerospace activities, confirming the regional vocation for technological innovation, thanks to the synergy between large companies, SMEs, research centres and universities, that has made a decisive contribution to positioning the region among the leading clusters not only in Europe but also worldwide in a sector characterized by a high level of innovation and research.

The region offers a complete pipeline of skills and qualifications, highlevel manufacturing, processes and service companies, cooperation with universities and the R&D network,unique products and engineering know-how, educational & training system and an organised supply chain.





## AEROSPACE IN PIEDMONT

In Piedmont, the aerospace sector is one of the productive and scientific excellences and it can boast a complete pipeline of skills and qualifications, high-level manufacturing, processes and service companies.

Facts and figures about the aerospace sector in Piedmont,

more than 350 companies.

Piedmont exports are mainly directed to the

USA (30%), Germany (25%) and the UK (17%)

100% of the Space production of the big players goes to

the United States while **85%** of aeronautics production

goes to to the United States, Europe, Southeast Asia and

the Middle East.



## OUR MISSION

Our mission is to support and expand the excellence of the Piedmont system by:

Providing a united and identifiable collective identity

Being the interface with institutions and third parties

Sharing technological scenarios and stimulate the aggregation and development of integrated projects

Fostering innovation and promoting support for research programs, especially towards SMEs





## THE CHALLENGES: SPACE AND NEW SPACE ECONOMY

Piedmont is where new technologies are developed for the exploration of Moon, Mars and Deep Space.

Here, more than 50% of the habitable modules of the International Space Station have been built, including the pressurized commercial transport systems Cygnus/PCM.

In the next future, Piedmont will lead European companies in the development of the Lunar Orbital Platform-Gateway, a project promoted by NASA, ESA, Roscosmos, JAXA and CSA. After leading ExoMars 2016, Piedmont's industry is working on the next mission to explore Mars. Piedmont's contribution to the Space Systems includes: the thermofluidic equipment for cooling and air conditioning, belts and load containment solutions in the pressurized systems of logistic transport, structural components for pressurized modules and satellites.

As the aviation sector rebounds from the worst crisis in its history, the Green Deal push towards the third era of air transport, with the aim to achieve net-zero carbon emissions by 2050. The challenge is balancing growth in connectivity to provide an efficient mobility service to the society with a comprehensive global response to the climate emergency

This goal is ambitious and it will require coordinated efforts within the aviation ecosystem including industry, research center and academia, with a shift in traditional paradigms, exploiting technology innovation and disruptive concepts that would likely change the sector value chain.

Last but not least, Piedmont is at the forefront of the New Space Economy, from Space tourism to new satellite applications thanks to the presence of large international players, technological companies and a propensity for innovation and hybridization.



# All fields of production and services are represented

- Aerostructured, components, system 4
- Propulsion sustems and components
- Interior equipment and furnishing 4
  - Landing systems 4
- Electrical / electronic components 4
  - Avionics 4
- Machinery, tools and mechatronics 4
- Special processes and materials
  - Testing and certification 4
    - Space System 4
      - Platform ◀
      - Playload 4
- Ground systems and equipment 4
  - UAV/UAS/OPV 4
    - MRO **(**



## A COMPETITIVE ENVIRONMENT



The five regional big players head the development and production of avionic and electronic systems, radar, flight simulators, space propellers, scientific satellite systems and space infrastructure, aeronautic propellers, actuation systems, aircraft and aircraft sections: their work ranges from civil transport to scientific applications, from telecommunications to defence.

Alongside the major enterprises, a group of SMEs is specialised in the production of parts, components or entire systems for the aeronautical and space sectors. To top up this range of capabilities, in the last years Piedmont has been developing a unique know-how in the additive manufacturing, the productive process depositing successive layers of powder and then fusing them to form objects based on 3D models.



## AREAS OF ACTION



### Internationalization

Increase networking capacity
Develop collaboration with European clusters
Strengthen the position of SMEs on the international market



#### **Skill and Education**

Support upgrading of skills and continuous learning processes Promote education in engineering and aerospace sector Supply specific technical contents through webinar and seminar



### Innovation and supply chain

Promote knowledge sharing between cluster's members Improve relationships between SMEs and prime contractors Define technological roadmaps and share challenges and opportunities



### **Networking and Communication**

Participate in national and international networks and associations Promote the collective identity of the aerospace cluster Increase visibility and competitiveness of SMEs on the global market Share news, insights, events





## INTERNATIONALIZATION

Participation in the Commission Expert Group on policies and programmes relevant to EU Space, Defence and Aeronautics industry

Training and coaching for cluster's members in order to promote their participation in European Research and Technological Development programmes

Continuous updating on financing opportunities (both calls for projects and tenders) at European level

Collaboration with international networks, such as EEN - Enterprise Europe Network and NEREUS, thanks to the support of institutional cluster members

Collaboration with institutional cluster members for the organization of the international B2B event Aerospace and Defence Meetings



## GOVERNANCE PIEDMONT AEROSPACE CLUSTER

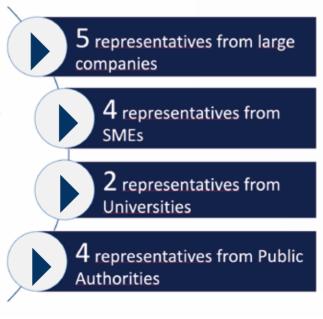
### **General Assembly**

- representative from each Member
- approves the operational plan and budget
- > approves the admission of new members

### **Governing Body**

15 representatives

 elaborates the operational plan and budget and coordinates its implementation

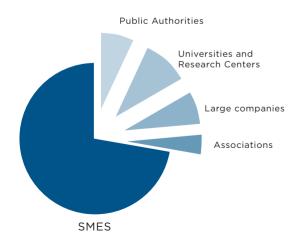




## MEMBFRS



SMFs associated to Piedmont Aerospace Cluster are active both in the aeronautical and space sector; many of them are not focused only on the aerospace but also on automotive and mechanical engineering; some of them are part of large international groups, such as Teseo, part of the Eiffage Group, or ALTEC, which is a public-private company owned by the major European space company, Thales Alenia Space and the Italian Space Agency.



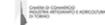
### **INSTITUTIONAL BODIES**











### TRADE ASSOCIATIONS







### **EDUCATION AND RESEARCH INSTITUTIONS**















### **KEY PLAYERS**











### **OTHER COMPANIES**















COPTIMAD























pininfanina

















































### **APPLICATIONS FOR ASSOCIATION**









### NETWORKING

Agreement with regional incubators i3P. Enne3. 2i3T. ESA BIC Turin: Piedmont Aerospace Cluster guarantees FREE membership for the first two years for startups incubated











Collaboration whit CFIP in the organization of Aerospace Defense Meetings. the international business convention for the aerospace and defense industry, organized in Turin, and more generally for the internationalization of the regional aerospace system



Membership in aicq, an association that spreads the Culture of Quality in Italy: its offers opportunities for our members to access specific training, events, knowledge

DAP IS MEMBER OF AND/OR PARTICIPATE IN MANY NATIONAL AND INTERNATIONAL NETWORKS AND ASSOCIATIONS. BOTH DIRECTLY AND THROUGH INDUSTRIAL AND INSTITUTIONAL CLUSTER'S MEMBERS



Piedmont Aerospace Cluster, on behalf of Piedmont Region, is member of the NEREUS network and participates in the most relevant european initiatives, such as ACARE, Sesar, Clean Skv. ASD.

Piedmont Aerospace Cluster's public ID number in the Transparency Register is: 220569343143-76



Piedmont Aerospace Cluster was one of the founders of CTNA, the national aerospace cluster, gathering all the main players in the national aerospace system: large, medium and small companies, research centers and universities, national institutions, national agencies and platforms, and regional clusters. The CTNA Strategic Plan is in line with and agrees with European aerospace policies. with particular reference to HORIZON 2020.



Piedmont Aerospace Cluster cooperates with regional entities working in the field of innovation, such as the MTCC, Torino City Lab, innovation clusters.



