

PRESENTAZIONE PARTNER / AVIATION



Deep Blue

Research and Consultancy



Who we are

Deep Blue is a Human Factors, Safety and Security consultancy providing solutions to organisations operating in safety-critical sectors, such as transport, healthcare, security, ICT and manufacturing.

- Deep Blue was founded in 2001 in Rome, Italy.
- Deep Blue employs ~ 50 qualified and young staff members (more than 30% with PhD) plus a large network of professionals.
- Deep Blue owns 70% equity of an innovative start-up focused on safety of drone operations.
- Over 100 EU-funded R&D projects since 2001 (~ 35 ongoing).
- 1st Small Medium Enterprise in Italy and 4th at EU level in research projects.
- 1st Small Medium Enterprise at EU level in the Aviation sector.
- Established supplier of Human Factors services to major organisations in the aviation sector.



Main activities and Sectors

Main activities

- Public Funding Schemes: EU Commission (Horizon Europe, Erasmus+, LIFE), Single European Sky, Aviation Agencies (EASA, Eurocontrol), MISE, MIUR.
- Work for: large companies, international organisations like EASA, Eurocontrol, European Space Agency, World Food Program
- Training courses for Eurocontrol, IATA, JAA, ESA.

Industrial sectors

- Transport: ATM, aviation, railway, multi-modal, space
- Manufacturing
- Healthcare
- Secure Societies
- Energy and Environment



Internship Topics

- Human Centric AI in aviation
- Data-driven Aviation Safety Performance Monitoring
- Machine Learning techniques in support to Safety reporting analysis
- Data decontextualization and anonymisation to enable sharing of sensitive Safety data
- Cyber-security risk assessment of innovative solutions and tools in ATM

Thank you for your attention

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Leonardo Aircraft

Introduzione all'azienda

Torino

18 Maggio 2022



Electronics



Helicopters



Aircraft



Cyber &
Security



Space



Unmanned
Systems



Aerostructures

Leonardo Group

Leonardo is a global company in the Aerospace, Defence and Security sector with an integrated offer of high-tech solutions for both military requirements and civil applications.

TOTAL WORKFORCE (2020)



49,882



Helicopters

Helicopters Division
Kopter (100%)



Defence Electronics & Security

Electronics Division
Cyber Security Division
Leonardo DRS (100%)
Vitrociset (100%)
Elettronica (31.33%)
MBDA* (25%)



Aeronautics

Aircraft Division
Aerostructures Division
ATR* (50%)



Space

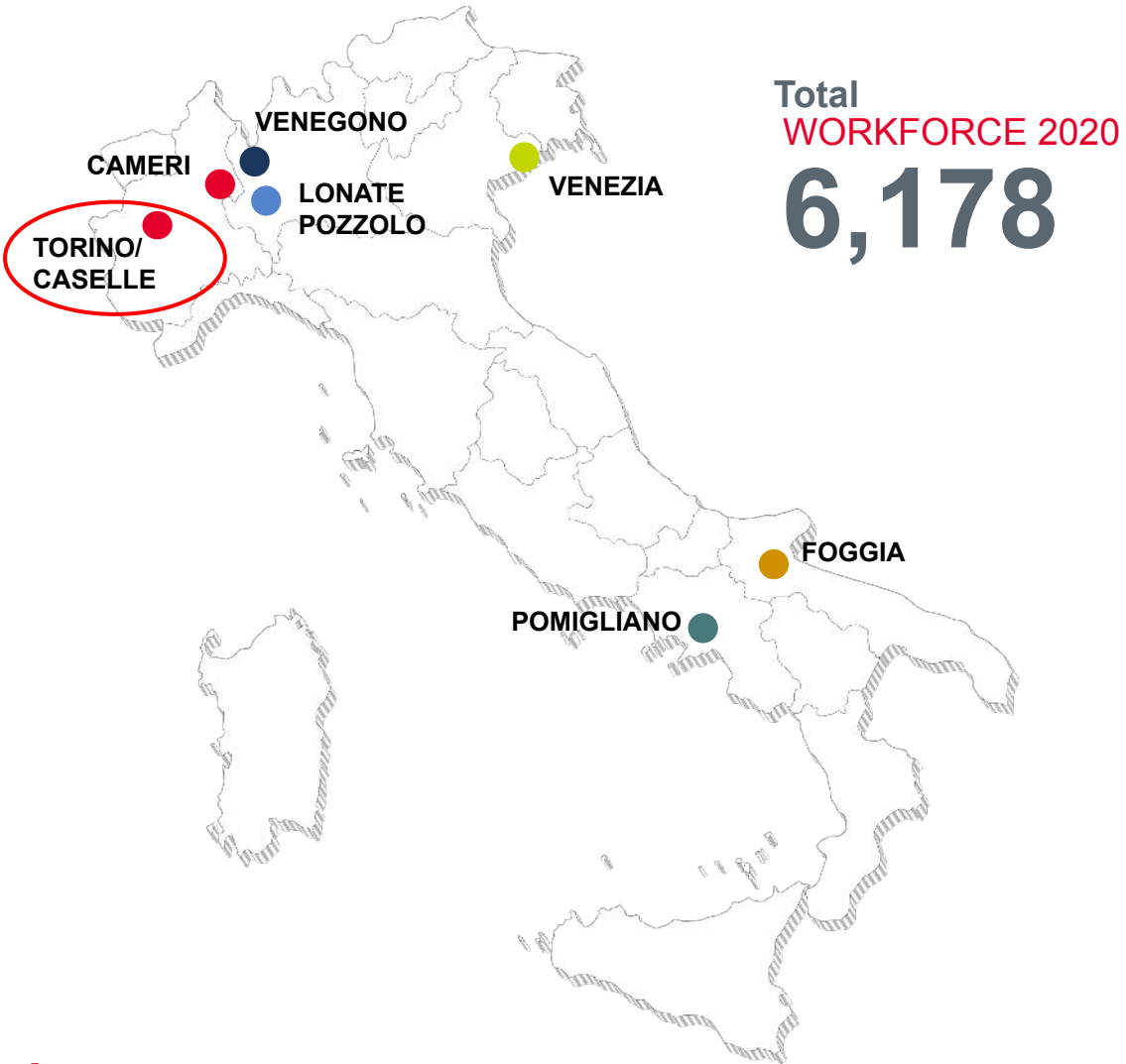
Telespazio* (67%)
Thales Alenia Space* (33%)
AVIO (29.63%)

* Joint ventures | % Leonardo's share



Leonardo Aircraft Division (LAD)

Italian Sites



Main Programs/Products

INTERNATIONAL COLLABORATIONS - **EUROFIGHTER** - **TORNADO** - **JSF**



MILITARY AIRLIFTERS - **C-27J**



TRAINING/COMBAT SYSTEMS - **M-345** - **M-346AJT** - **M-346FA**



CIVIL PROGRAMMES - **Falcon 2000** - **Nacelles**



MARITIME PATROL - **ATR 42/72 MP** - **ATR 72 ASW**



UNMANNED - **EURO MALE RPAS**



Leonardo Aircraft Division Research & Development

SESAR2020 European civil programmes



Avionics/HMI technologies development for Regional, Military and Unmanned A/C operations in the future European Air Traffic Management (ATM) and the associated operational procedures

In partnership with:



Other National and European players

Clean Sky 2 European civil programmes



Advanced technological solutions for competitive turboprop regional A/C, including more efficient aerodynamic configuration, weight, fuel consumption, noise and pollutant emissions (CO2, NOx) reduction, low cost manufacturing processes

In partnership with:



Core Partners:



Leonardo Aircraft Division Research & Development

National/Regional civil research programme



Development & enhancement of technological capabilities about low cost composite materials, innovative product development & production processes and technologies and methods for hybrid-electric propulsion in cooperation with Regional and National SME, Research Centers and University

In partnership with:



European financed civil research programme



Enabling technologies maturation: ice prediction, prevention and detection technologies, new materials for fire cabin mitigation, new thermoplastic material for automated manufacturing, in cooperation / risk sharing with main European partners for future regional A/C & aerostructures

In partnership with:



European and national defence research



Enabling technologies maturation: low observability, autonomy, range, endurance, weapon integration, self protection unmanned aircraft insertion into non-segregated airspace, structural health monitoring, digitalization, Live-Virtual-Constructive, virtual verification and validation, virtual reality for logistic support (training, maintenance)

In partnership with:



Other National and European players

Leonardo Aircraft Division Customer Support, Service & Training

INTEGRATED LOGISTIC SUPPORT	MAINTENANCE, REPAIR & OVERHAUL	TECHNICAL ASSISTANCE	TRAINING	GROUND BASED TRAINING SYSTEMS	CUSTOMER RELATIONSHIP
					
Logistic Engineering is an integrated and iterative process for developing effective support solutions. Logistic Support Analysis, Reliability & Maintainability Engineering, Maintenance Planning & Supportability, Supply Support, Ground Support and Test Equipment Design and Support, Logistics, Technical Publication, ...	Logistic Engineering & Logistic Support for Customer assets optimization. Spare parts and Ground Support Equipment Provisioning. Repair, Overhaul and Modification of Aircraft Items and GSEs. Material Support Services (Essential on-site stock; Pool Access & Logistic HUBs, Repair & Overhaul, On-site Logistic Assistance, GSEs Maintenance)	Wide Operative and Technical Support. This includes: Defect Investigation; In-Service Data collection and configuration management; Query Answering; Repair Scheme; Technical Modification: Field Services (Technical, Logistic & Maintenance) support at Customer Base	Pilots and Maintainers training courses. The courses enable operators to use their aircraft in the most effective way, helping Customers to achieve and sustain the fleet operational capability. The courses can be held on company plants or directly at Customer facilities, taking advantage of the latest training devices	Over 50 years of experience in this field. The product portfolio comprising: Interactive Courseware, Flight Training Devices, Full Mission Simulators, Mission Planning & Debriefing Systems (Ground Based Training System)	The CSST is committed to develop valued long-term relationships with Customers, providing a strong support to the Client, using technical expertise. The CSST manages a WEB portal designed to provide services to the Customer and facilitating information exchange with maximum information security





WPWEB

WPWEB via Livorno 60 - 10144 Turin Italy

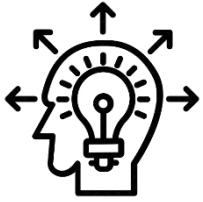
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Autonomous robotic systems



WPWEB is an Italian innovative SME.

In collaboration with Italian and European research centers, WPWEB experiments and designs autonomous robotic systems for the **collection of data in the explored environment.**



WPWEB has the broader goal of implementing autonomous systems that allow for improved security in critical environments, where advanced capabilities increase the awareness of the environment in which the system operates.

Research projects

The **PLUTO project** was developed in response to a challenge proposed by the French railway company (SNCF) and aims to autonomously inspect a railway tunnel in order to identify possible areas that need maintenance.



The **SEI project** is aimed at experimenting with the integrated use of data acquired through UAV sensors and systems during the preflight inspection of aircraft in the airports. The project is based on a **patent** owned by WPWEB.

WpWeb is the lead partner for the **ARS (Autonomous Remote Sensing) Project**: a UAV system was created for the autonomous inspection of confined spaces. The project was carried out in collaboration with IREN

