







Public Policy Living Laboratory

Turin 20th - 22th February 2018

The study visit will be focused on the advanced materials for aerospace applications. Aerospace is one of the most productive and high speciliased sector in Piemonte, confirming the regional vocation for technological innovation. Several regional players stand out both at the national and international level. Among them we will visit: **Thales Alenia Space** and **Altec**. Moreover we will be welcomed to **Politecnico di Torino** to visit the Mechanical and Aerospace Engineering Department and the **Turin Additive Lab**. Finally **Nimbus**, a SMEs specialised in unmanned aerial vehicles, will present its activity.















THALES ALENIA SPACE

Thales Alenia Space is a Joint Venture between Thales (67%) and Leonardo (33%). Combining 40 years of experience and a unique diversity of expertise, talents and cultures, Thales Alenia Space architects design and deliver high technology solutions for telecommunications,

navigation, Earth observation, environmental management, exploration, science and orbital infrastructures. https://www.thalesgroup.com/en/global/activities/space



ALTEC

ALTEC – Aerospace Logistics Technology Engineering Company – is the Italian center of excellence for the provision of engineering and logistics services to support operations and utilization of the International Space Station and the development and implementation of planetary

exploration missions. ALTEC is a public-private company owned by the major European space company, Thales Alenia Space and the Italian Space Agency, ASI. ALTEC is based in Turin and has liaison offices at NASA and ESA. ALTEC services ranging from engineering and logistics support, training of astronauts, to support experiments in biomedicine in particular, the processing of scientific data, the development and management of the ground segment of space programs and the promotion of space culture. https://www.altecspace.it/en/



POLITECNICO DI TORINO

The Politecnico di Torino was founded in 1859 as Technical School for Engineers and it became Regio Politecnico di Torino in 1906. It is Italy's oldest engineering university and one of Europe's leading technological institution.

Among its Departments, the one of Mechanical and Aerospace Engineering (DIMEAS) is the point of reference in Politecnico di Torino for the areas of knowledge that regard a broad spectrum of manufacturing activities which are typically associated with an advanced industrial society. These

activities cover classical and cutting-edge domains in the mechanical and aerospace fields. DIMEAS promotes, coordinates and manages basic and applied research, training, technology transfer and services to the local community regarding the automotive, aeronautical (fixed and rotary wing), rail, food and agricultural, textile and industrial plant sectors, which span the cutting-edge fields of space exploration, system engineering, new materials, micro and nano technologies, environmentally-friendly vehicles and aircraft, and biomedical engineering. Among the research areas of the Department: aeronautical systems and equipment; aerospace structures, materials; mechanics of materials; reliability, diagnostics and prognostics of mechanical and aerospace systems; space engineering and technology.









TURIN ADDITIVE LAB

In December 2016 Avio Aero and Politecnico di Torino decide to face together the challenges of tomorrow: lighter aircraft

engines and high performance additive technology. This through the creation of a new joint laboratory, the **Turin Additive Lab** (TAL). Goal is to lay the foundations for a long-term cooperation on strategic issues today for the aircraft industry. Innovation on new technologies such as additive manufacturing is nowadays strongly encouraged by the continuous interaction between universities and enterprises; opportunity to innovate, but also simultaneously discover and train young talents. With the **Turin Additive Lab**, located in the "Reseach Citadel" of Politecnico di Torino, the company and the University will share the most advanced technological scenarios, defining together the research priorities.



NIMBUS

Nimbus srl was founded in 2006 in Piedmont as a spin-off of A.R.I.S. spa, an entirely private company with over 50 years of activity. The company has invented, designed, constructed and get a certification for its aeronautical products. The company has equipped itself with an avionic laboratory, an engine test bench, a flight simulator, a production plant of over 1,000 sq meters and

highly qualified personnel such as mechanical, electronic and aeronautical engineers. Currently Nimbus produces two different models of unmanned aerial vehicles: the EOS Xi metaplane and the PPL 612 hexacopter.







PIEDMONT OVERVIEW

The region is in a central location between Northern Europe and the countries bordering the Mediterranean.

1.202 towns and 8 main cities: Alessandria, Asti, Biella, Cuneo, Novara, Vercelli, Verbania and Torino.

With 4.4 million inhabitants and an economic structure comprising 439.000 companies, Piemonte produces 7.8% of Italy's national wealth and its production system has reached high levels of excellence and tertiary sector expansion.

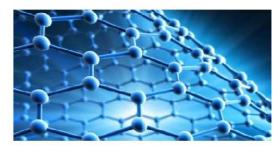
It is a historic hub for major technological innovations, from the electric engine, cinema and radio in the 19th century to the MP3 file format in the software industry, and the common rail for diesel engines in the automotive industry. In the last decades Piemonte focuses on R&D&I activities and invests in strategic sectors: automotive and sustainable mobility, energy and clean technologies, green chemistry and advanced materials, smart products and manufacturing, aerospace.



New technologies are developed with the backing of major companies, as well as small and medium sized enterprises. In Piemonte SMEs play a vital role in the economic and social make-up of the region.

Piemonte was the first Italian region to formally establish innovation hubs as new industrial policy tools to support the innovative skills and competitiveness of regional research system players. Currently there are 7

innovation clusters 1. Smart Products and Manufacturing; 2. Green Chemistry and Advanced materials; 3. Energy and Clean Technology; 4. ICT; 5. Agrifood; 6. Textile; 7. Life Sciences. Their objective is to boost innovation by promoting intensive interaction, common use of installations and exchange of knowledge and experiences, as well as effectively contributing to transferring technologies, networking and disseminating information between hub members. In Piedmont, the aerospace sector is one of the productive and scientific excellences. It is also Italy's largest aerospace



cluster, with more than 15,000 employees working for 400 different companies, accounting for more than half of the industry's € 6.6 billion annual turnover. Several regional players stand out both at the national and international level: Alenia Aeronautica, Thales Alenia Space, GE Avio Aero, Altec etc.

Attention to technological innovation is constant. Thanks to the presence of the Politecnico di Torino – whose activity in the sector is of great relevance in terms of engineering training and research & development – and of other specialized research centers, Piedmont provides the necessary support to design and R&D activities to sustain businesses.









THE HISTORY OF TURIN



As all other great European capitals, Torino is a result of the stratification of cultures, people and civilisations. city is disseminated with The testimonials of the past that tell of a history that began over 2000 years ago: the oldest documents mention a small village at the foot of the Alps called Taurasia, a small settlement populated by the "taurine" tribe, descendants of the union of the Gauls and Celtic-Ligures that was

destroyed by Hannibal in 218 B.C. It was a military citadel during Roman times and in 28 B.C., under Augustus, it was given the name Augusta Taurinorum. In the course of centuries Torino was under the dominium of the Franks and Lombards.

In 1280 the House of Savoy conquered Torino. Under their reign, the city experienced one of the most important transformations of its history. In 1563, the Savoy transferred their capital from Chambéry to Torino and called the finest architects of the times: from Ascanio Vitozzi to Amedeo and Carlo di Castellamonte, from Guarino Guarini to Filippo Juvarra. Thanks to their talent and creative genius, the city was transformed into one of the major capitals of the Baroque era. Torino acquired a style, charm and elegance all its own that has been one of its distinctive features for centuries.



Torino took on an importance from a religious viewpoint as well, in particular from 1578, the year in which the Duke Emanuele Filiberto definitively transferred the Holy Shroud from Chambéry. Tradition would have it that the body of Jesus Christ was wrapped in this shroud. The Torino of the House of Savov was also a cultural centre filled with activities. The University, founded in 1404, attracted brilliant minds from all over Europe: Erasmus of Rotterdam, one of the geniuses of Renaissance Humanism, graduated from this University.

The Savoy reign was interrupted in 1798 when Napoleon's troops occupied the city and forced Carlo Emanuele IV to abdicate and move to Sardinia. Piemonte became a part of France. The Congress of Vienna returned Torino to the Savoy in 1814. After the concession of the Albertine Statute by King Carlo Alberto it was with the ascent on the throne of Vittorio Emanuele II, along with the work of Camillo Benso Conte di Cavour, that the city became protagonist of national history, leading the process that will result in the Unification of Italy. In 1861, Torino became the first capital of the Kingdom of Italy. The first Parliament was installed at Palazzo Carignano. In the years following the Unification, even after the capital's transfer to Florence, the city defined the industrial



component of her identity more and more clearly. The first manufacturing industries were founded as well as the development of the art of chocolate making.

This process culminated in 1899 with the founding of FIAT - Fabbrica Italiana Automobili Torino (Italian Automobile Factory Torino) - by the hand of (among others) Senator Giovanni Agnelli.

Italian cinema was born and developed here. Torino host also the Egyptian Museum which is the world's oldest Egyptian museum (founded in 1824), it ranks second only to Cairo.



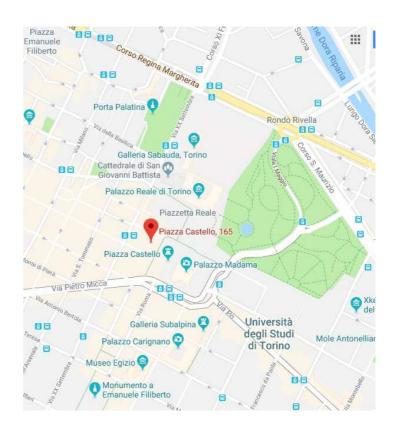






THE LOCATION OF MEETINGS

20th February 2018 Regione Piemonte Piazza Castello 165 - Torino



22nd February 2018 Circolo dei Lettori Via Giambattista Bogino 9 – Torino









ACCOMMODATION

4 Star Hotels

TOWN HOUSE 70

Via XX Settembre 70 - 10121 Torino Telephone: +39.011.19700003 http://70.townhousehotels.com/eng/



GRAND HOTEL SITEA

Via Carlo Alberto 35 - 10123 Torino Telephone: +39.011.5170171 http://grandhotelsitea.it/



HOTEL CONCORD

Via Lagrange 47 – 10123 Torino Telephone: +39.5176756 https://www.hotelconcordtorino.com/



NH COLLECTION PIAZZA CARLINA

Piazza Carlo Emanuele II, 15 – 10123 Torino Telephone: +39.011.8601611 https://www.nh-collection.com/hotel/nh-collection-torino-piazzacarlina



VICTORIA

Via Nino Costa 4 - 10123 Torino Telephone:+39.011.5611909 http://www.hotelvictoria-torino.com/









ACCOMMODATION

3 Star Hotels

Hotel Gran Mogol

Via Guarini, 2 – 10123 Torino
Telephone: +39.011.5612120
http://www.granmogol.bqhotel.it/ita/hotel-torino-centro.php



Le Petit Hotel

Via S. Francesco d'Assisi, 21 – 10121 Torino Telephone: +39.011.5612626 https://www.lepetithotel.it/



Hotel Adalesia

Via XX Settembre, 7/A - 10121 Torino Telephone: +39.011.545361 http://www.hoteladalesia.it/



Hotel Dock Milano

Via Cernaia, 46 – 10121 Torino Telephone: +39.011.5622622 http://www.hoteldockmilano.it/









PUBLIC TRANSPORT

GTT

Urban network maps, journey planner etc. http://www.gtt.to.it/cms/en/



FROM / TO TURIN AIRPORT

BY BUS

http://www.aeroportoditorino.it/en/tomove/parking-transport/by-bus

BY TRAIN

http://www.aeroportoditorino.it/en/tomove/parking-transport/by-train



MAIN RAILWAY STATIONS

Torino Porta Nuova: Corso Vittorio Emanuele II n. 58, Torino

Torino Porta Susa: Corso Bolzano, Torino









ITALIAN RAILWAY COMPANIES

Trenitalia

http://www.trenitalia.com/tcom-en



Nuovo trasporto viaggiatori

http://www.italotreno.it/en



TOURIST INFORMATION OFFICE AND FACILITIES

https://www.turismotorino.org/en

