

Finmeccanica technologies in the fight against climate change

- **Finmeccanica has been at the forefront of satellite observation technology for over 30 years**
- **Satellites, drones and control centres support the monitoring of and response to calamities**
- **Finmeccanica plays a key role in climate change research and has significant experience in the field**

On the 12th April, Finmeccanica will take part in the UN's conference, titled "Fighting climate change: sharing Italy's technologies". The company will present its technologies and their applications in tackling the causes of climate change and preventing its harmful consequences. The event, organised by the Permanent Mission of Italy to the UN in New York, will offer an overview of cutting-edge Italian solutions to climate change issues. Finmeccanica, which recently announced that it will be changing its name to "Leonardo", will be represented by Luigi Pasquali, Director of the company's Space Sector.

Finmeccanica's technologies watch and measure the impact of climate change on territories. By doing so, the company can support the analysis of the causes and effects of climate change and help determine the remedial actions required. Finmeccanica's activities in this field include the analysis of climate context and data, the assessment of the risk and extent of damage caused by crisis situations, and the support to emergency-response operations. Products include satellite systems for Earth observation and geo-location based on radar, optical and aerial data provision, safe communication systems, aircraft, helicopters and remotely-piloted air vehicles.

Notably, satellite systems (a field in which the company has been a leader in for over 30 years) make it possible to carry out accurate measurements of changes in climate and other environmental areas of interest. Such satellites can be used to measure the temperature of the land and oceans and to monitor areas at strong hydro-geological risk, as well as monitoring the regenerative cycle of natural resources and food production, air and water quality and the evolution of glaciers and polar areas.

Finmeccanica plays a leading role in the most significant international space programmes for Earth observation, including COSMO-SkyMed and Copernicus, and is involved in the development of future missions.

Note:

Following the process of the reorganisation of the **Finmeccanica** Group's companies, it should be noted that from January 1st 2016: the "Helicopter Division" has absorbed the activities of AgustaWestland; the "Aircraft Division" has absorbed part of the activities of Alenia Aermacchi; the "Aero-structures Division" has absorbed part of the activities of Alenia Aermacchi; the "Airborne & Space Systems Division" has absorbed part of the activities of Selex ES; the "Land & Naval Defence Electronics Division" has absorbed part of the activities of Selex ES; the "Security & Information Systems Division" has absorbed part of the activities of Selex ES; the "Defence Systems Division" has absorbed the activities of OTO Melara and WASS.

Finmeccanica is among the top ten global players in Aerospace, Defence and Security and Italy's main industrial company. As a single entity from January 2016, organised into business Divisions (Helicopters; Aircraft; Aero-structures; Airborne & Space Systems; Land & Naval Defence Electronics; Defence Systems; Security & Information Systems), Finmeccanica operates in the most competitive international markets by leveraging its areas of technology and product leadership. Listed on the Milan Stock Exchange (FNC IM; SIFI.MI), at 31 December 2014, Finmeccanica recorded restated consolidated revenues of 12.8 billion Euros and has a significant industrial presence in Italy, the UK and the U.S.

Notes for editors:

Finmeccanica plays a primary role in the COSMO-SkyMed programme (funded by the Italian Space Agency (ASI), The Defence Ministry and the Ministry for Education, University and Research) in the construction of the mission's satellites and on-board sensors as well as in monitoring and control activities. Finmeccanica, through e-GEOS (a Telespazio and ASI company) is also responsible for the acquisition, processing and distribution of the COSMO-SkyMed constellation's global satellite data. This data provides fundamental information for the study and monitoring of the environment, with a special focus on the prevention, monitoring and management of natural and anthropic risks.

The European Copernicus programme is a concrete example of Finmeccanica's technologies being employed to monitor the environment and mitigate the effects of climate change, contributing to the management of humanitarian emergencies and natural disasters and improving the safety of populations. In two example applications, the company's SLSTR radiometer precisely measures the temperature of land and water from a height of 800km, while the Copernicus Emergency Management Service, guided by e-GEOS, has been active since 2012, promptly supplying maps of damage caused by calamities.

A key player in a number of other Earth observation programmes, Finmeccanica will also support the European Space Agency and EUMETSAT in implementing the Meteosat Third Generation and MetOp Second Generation programmes, supplying electro-optical instruments for short and long-term weather forecasts and for research on climate change.

The data collected by satellites can be fed into central control centres that also gather complementary information from airborne and land-based sensors and systems, allowing for data-mining and further analysis.

Finmeccanica's City-OS platform helps to forecast crises by isolating, in real time, the most appropriate information for emergency management. This information is selected by the platform from a number of diverse sources including sensors, satellites and networks.

Remotely-piloted air vehicles are also an ideal tool during emergencies to protect first-responders, carrying out prompt and persistent monitoring and collecting useful images and data to plan the required actions. Systematic use of these vehicles also makes it possible to obtain useful information for prevention activities.

In the Piedmont region, the national SMAT (Advanced Territorial Monitoring System) research project is conducted via the use of remotely-piloted systems with the aim of developing and testing technologies for monitoring and preventing floods, fires and landslides.

Finmeccanica has also designed the Civil Protection's IT platform for managing natural disasters and emergencies in the territory.