

PRESS NOTE

Milan, 14 September 2015

Finmeccanica: technologies for the landscape's safeguard

- The Group presents at Expo its outstanding technology solutions for the study of landscape and its changes
- Fundamental support from COSMO-SkyMed satellites constellation to the Remote Sensing Special Plan for the monitoring of the areas under hydrogeological instability risk
- Systems allowing to detect ground's millimetric changes and to identify the exact composition of the materials observed also from Space

The landscape as collective heritage, key feature of every Country and important element for the individual and social welfare. A resource to be protected and exploited: these subjects will be discussed tomorrow at Expo 2015, during the conference "The Great Beauty of Italian Landscape: How it was, How it is and How it will be", promoted by CNR - Consiglio Nazionale delle Ricerche (National Research Council), where Finmeccanica will present examples of technology for the landscape's safeguard, namely the natural landscape as it is and how it has been modified by mankind in the course of time.

Finmeccanica, global player in the high technologies for aerospace, defence and security, produces leading-edge monitoring solutions for a sustainable development. Such solutions include both remote sensing and earth observation systems and the platforms using them, from satellites to aircraft and drones, up to data processing and to installation of control centres to plan interventions. In particular, remote sensing allows, through the use of non-invasive technologies such as radar interferometry, to detect ground deformations over wide area with millimetric precision, while hyperspectral imaging allows the acquisition of the 'spectral signature' of materials observed at a distance to identify their exact composition, and to acquire information to study the landscape.

The Remote Sensing Special Plan, promoted by the Italian Ministry of the Environment and Protection of Land and Sea, is the first example of application of the interferometric technique on a national scale for the monitoring of the areas under hydrogeological instability risk, through COSMO-SkyMed satellites, where the best competencies of Telespazio, Selex ES and Thales Alenia Space are concentrated.

Instead, hyperspectral cameras are used within the national research project SMAT - Sistema di Monitoraggio Avanzato del Territorio (Advanced Land Observation System) - for the development of technologies for the prevention and control of natural disasters such as floods, fires or landslides. The project represents the first example of use of the Finmeccanica Falco and Sky-Y drones for environmental applications.

Coasts' erosion level and pollution level monitoring to support emergency management, improvement and precision farming are other interesting areas of application for remote sensing, for which Finmeccanica has available leading-edge solutions, already used in France in order to optimise vineyards' productivity and quality. It is in fact possible, through the mapping of the agricultural areas achieved thanks to the satellite and hyperspectral data, to support agronomic interventions aimed at production optimisation and land safeguard. Finally, the interest is continuously increasing for tests and projects integrating data and images acquired with satellites and drones, equipped with sensors that allow monitoring and diagnosing the conservation state of monuments and archaeological sites, supporting the effective and timely planning of maintenance or recovery interventions.

Finmeccanica is Italy's leading manufacturer in the high technology sector and ranks among the top ten global players in Aerospace, Defence and Security. Listed on the Milan Stock Exchange (FNC IM; SIFI.MI), in 2014 Finmeccanica generated revenues of 14.6 billion Euro. With 273 locations and production facilities in 20 countries, Finmeccanica is a multinational and multicultural group which boasts a significant presence in four markets: Italy, the United Kingdom, the U.S. and Poland. Finmeccanica's core business activities are in the following sectors: Helicopters (AgustaWestland), Defence Electronics and Security (Selex ES, DRS Technologies), Aeronautics (Alenia Aermacchi). The company also has a significant position in Space (Telespazio, Thales Alenia Space), Defence Systems (OTO Melara, WASS, MBDA) and Transportation (Ansaldo STS, AnsaldoBreda).