

IAF EARTH OBSERVATION SYMPOSIUM (B1)
Earth Observation Applications, Societal Challenges and Economic Benefits (5)

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CHALLENGES AND BENEFITS OF SPACE TECHNOLOGIES APPLICATION IN THE
INTEGRATED MARITIME SURVEILLANCE: THE EUCISE2020 PROJECT

Abstract

Since 2010, the European Union launched the IMP - Integrated Maritime Policy, to promote a sustainable growth, the Blue Growth Strategy, in the marine and maritime sectors. A pillar of the IMP is the common environment of Integrated Maritime Surveillance to improve the exchange of information among the national authorities of the operational sectors involved. CISE (Common Information Sharing Environment) is a fundamental pillar of the European IMP and an element of the Action Plan of the European Maritime Security Strategy. It represents the collaborative environment on a voluntary basis among the Member States of the European Union, to achieve "a more interoperable surveillance system to bring together existing monitoring and tracking systems used for maritime safety and security, protection of the marine environment, fisheries control, control of external borders and other law enforcement activities". CISE implements a decentralized European environment of informative cooperation among all user communities, both civilian and military, at cross-sectoral and cross-border level, including EU agencies, developing an interoperable and information-sharing network powered by information flows coming from National and European information systems in force. EUCISE2020 is a Security Research project of the European Seventh Framework Program and represents an important milestone in the roadmap for the implementation of CISE. Its main objective is to support the European capability of Maritime Situational Awareness. EUCISE2020 is coordinated by the Italian Space Agency (ASI) and involves 39 partners including maritime authorities, universities, research centers and oceanographic institutes of 15 different European countries at European level; partners represent over 60 European maritime authorities belonging to all user communities. The EUCISE2020 network has been operational since mid-2018, experimenting and validating the CISE concept in a real operating environment, under realistic operational conditions, in accordance with the defined use cases as reference scenarios. In that context, a number of satellite data of the Italian COSMO-SkyMed constellation have been made available as added value services, in order to test the enhanced level of integration among maritime surveillance and in-situ systems. Indeed, EU Agencies dealing with maritime surveillance expect strong benefits from examining space inputs and by correlating them with Maritime Surveillance not-space in situ assets aiming to improve their knowledge in the maritime domain awareness. This paper aims to investigate and describe the advantages and the capabilities that can be reached with an integrated use of currently in-orbit Earth Observation Systems, with traditional existing systems for the specific application of Maritime Surveillance.