



Scientific results and achievements of ESA's SEOM Programme

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The ESA 's Scientific Exploitation of Operational Missions programme element launched in 2013 aimed at responding to the needs and requirements of the EO scientific community in terms of new methods, novel products, advance training and open science tools to maximise the scientific impact of operational missions, with special attention to the Sentinels.

The programme has been articulated along four main action lines:

1. RESEARCH and DEVELOPMENT STUDIES:

Stimulating the development and validation of advanced EO methods and observation strategies that will enable scientific exploitation of the continued observations and innovative features of operational EO missions following ERS and ENVISAT, notably the Sentinels

2. SCIENTIFIC TOOLBOXES DEVELOPMENT:

Developing, validating and maintaining open-source, multi-mission, scientific software toolboxes that will apply leading-edge, advanced EO retrieval techniques to new data coming from future operational EO systems, and make these research tools freely available to scientists worldwide

3. USERS' CONSULTATIONS:

Organising a series of international thematic workshop for science users consultation, gathering science users feedback and insuring high quality scientific publications.

4. TRAINING NEXT GENERATION SCIENTISTS:

Fostering the emergence of the next generation of European EO scientists by organizing a multi-year programme of advanced international training courses, summer schools and educational materials, covering all the relevant EO specialist domains as well as emerging cross-disciplinary research fields

5. PROMOTING SCIENCE DATA USE AND RESULTS:

Promoting widespread scientific use of data freely available from forthcoming European (ESA and non-ESA) operational EO missions, by the international science community at large. Ensuring a responsive ESA channel through which EO scientists can make regular, timely, high-quality scientific publications.

This paper will provide an overview of the main scientific results and achievements of the programme in the last 5 years as well as an outline of the future plans of ESA to support the scientific exploitation of the Sentinel missions.