

KeyNote - The Earth Observation Programmes of ESA: Achievements, Evolutions, Challenges

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ESA's Earth Observation (EO) missions include highly innovative research missions, namely the Earth Explorers, as well as missions with partners, such as the Sentinel missions for the European Union under the Copernicus programme and the meteorological missions in low Earth orbit and geostationary orbit for Eumetsat. While these institutional satellites provide measurements advancing the state-of-the-art in their domains and require important steps in satellite engineering e.g. regarding to the data flow, there is also a paradigm shift towards enabling the commercial sector to complement the institutional market with small satellites that can be developed much faster at a fraction of cost, thus paving the way to constellations and providing added-value, e.g. With high temporal resolution observations. This presentation will address some challenges and needs for miniaturisation, higher integration and reduction of development time and cost in future spacecraft avionics, for which the SAVOIR system specification could be a great facilitator.