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Data Curation for the Exploitation of Large Earth Observation Products Databases - The MEA system

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National Space Agencies under the umbrella of the European Space Agency are performing a strong activity to handle and provide solutions to Big Data and related knowledge (metadata, software tools and services) management and exploitation. The continuously increasing amount of long-term and of historic data in EO facilities in the form of online datasets and archives, the incoming satellite observation platforms that will generate an impressive amount of new data and the new EU approach on the data distribution policy make necessary to address technologies for the long-term management of these data sets, including their consolidation, preservation, distribution, continuation and curation across multiple missions. The management of long EO data time series of continuing or historic missions - with more than 20 years of data available already today - requires technical solutions and technologies which differ considerably from the ones exploited by existing systems. Several tools, both open source and commercial, are already providing technologies to handle data and metadata preparation, access and visualization via OGC standard interfaces. This study aims at describing the Multi-sensor Evolution Analysis (MEA) system and the Data Curation concept as approached and implemented within the ASIM and EarthServer projects, funded by the European Space Agency and the European Commission, respectively.