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# The data and services centre for Solid Earth ForM@Ter within the national research infrastructure.

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## Résumé

To facilitate the use of satellite and in situ Earth's observation data, a French research infrastructure is currently under construction. It aims to provide data and products from each physical Earth's compartments in order to answer to the main questions that the Earth's system is facing. This new infrastructure federates four centres: AERIS (atmosphere), ForM@Ter (solid Earth), ODATIS (ocean) and THEIA (land surfaces). Each centre should provide on one hand, a national cooperative platform to facilitate data access, and on the other hand processing tools and value-added products with support for non-expert users. The first ForM@Ter target focuses on surface deformation from SAR and optical imagery data. The associated services are implemented considering the needs expressed by the French scientific community to support the use of the huge data volumes like those provided by Sentinel missions.

Within this context, we present the Ground Deformation Monitoring (GDM) service which is developed for scientific and private users to facilitate exploitation of radar and optical data for ground motion monitoring applications. This service aims to offer, among others, on demand processing of interferograms in the framework of the ESFRI EPOS research infrastructure implementation. Besides, we are also currently assessing a task management environment, in the framework of a national French excellence program (ETALAB), in order to be able to set up services addressing several data bases, computing centers or product centers without additional complexity for the user. Finally, a massive processing radar data service is also being implemented with the objective to provide displacement map time series over large areas. It will be established using MUSCATE (multi-satellite, multi-sensor, for multi-temporal data), a CNES computing infrastructure.

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