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HELIO - The Heliophysics Integrated Observatory

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HELIO, the Heliophysics Integrated Observatory, is a research infrastructure funded under Capacities programme of the EC's 7th Framework Programme (FP7). The project is creating a collaborative environment where scientists can discover, understand and model the connection between solar phenomena, interplanetary disturbances and their effects on the planets (esp. the Earth)

HELIO will provide integrated access to metadata from the domains that constitute heliophysics - solar, heliospheric, magnetospheric and ionospheric physics - in order to track phenomena as they propagate through inter planetary space and affect the planetary environments. It will provide services to locate and retrieve the desired observations and return them to the user.

HELIO is designed around a service-oriented architecture (SAO); many of the resources are being established as stand-alone services that support metadata curation and search, data location and retrievel, data processing and storage; it will be possible to use the services independently or bound into a system through a workflow capability. We will describe the architecture of HELIO report on the status of its development, including when individual services will become available and what their capabilities will be.

The project has a strong Networking component and through this we wish to involve other groups and individuals who can help us achieve our goals. One of the main ways that we will involve the community is through a series of Coordinated Data Analysis Workshops (CDAWs); we will describe the preparation for the first of these which will be held in November 2010.

The HELIO Consortium includes thirteen groups from the UK, France, Ireland, Italy, Switzerland, Spain and the US; the project started in June 2009 and has a duration of 36 months.