

## International Living with a Star: Outline of Program and update of European Plans

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As the name implies, the International Living With a Star (ILWS) Program partially builds on the framework of the NASA LWS (Living With a Star) program, however, its scientific goals are defined in a wider sense and consequently it aims to include international solar, heliospheric and solar-terrestrial missions of both applied and fundamental scientific character. The ILWS approach starts with the intention to “study the Sun-Earth system as a coupled entity”, an enterprise that cannot be undertaken by one space agency alone. The primary science aim of the ILWS is to elucidate the wealth of microphysical plasma processes in the Sun-Earth system, with the special aim to identify those, which have macro-physical effects (through cross-scale coupling) on the scale of an entire planet. ILWS’ ultimate goal will be to increase our understanding of how the variability of the sun affects the terrestrial and other planetary environments both in the short and long term, and in particular how man and society may be affected by Solar variability and its consequences. ILWS is designed to follow the successful cooperation in the International Solar Terrestrial Physics (ISTP) programme, which involved coordination of space efforts from Europe, Japan, Soviet Union/Russia, and the United States, and it aims to recognise the multiplicity of potential data sources whilst federating world space agency efforts effectively. Within ILWS even smaller national space programs can provide missions capable of providing key parameters in certain regions.

ILWS will have four major components: a series of international solar, heliospheric, and solar-terrestrial space missions to be developed and launched over the next decade, a complementary data analysis and modelling program, a Space Environment Test-bed program, and close partnership between national and international space agencies.

The symposium invites contributions in the form of programmatic, scientific or technical reports in the following realms of importance for ILWS:

- ILWS Space Flight Missions to be launched within the next decade
- Mission payloads or subsystems
- Additional data sources supporting ILWS flight missions (e.g. sounding rockets, balloons, or ground-based instrument networks)
- Models and theory of relevance for ILWS
- New methods of coordinated data dissemination and value adding data systems
- End user aspects and relations to space weather initiatives.

In particular, we will summarise the present plans for European contributions to ILWS, following a recent strategic meeting of the European Space Agencies and science community involved in ILWS.