

At the occasion of the 30th ESA Antenna Workshop the Agency and a team of European developers will be pleased to present the European Antenna Modelling Library, an open antenna modelling platform arranged around a common language for data exchange and aimed at providing a consolidated set of algorithms and tools for space antenna design.

We would wholeheartedly welcome your attendance to the

Electromagnetic Data Exchange Roundtable.

The Electromagnetic Data Exchange is the backbone of the Library allowing interchange of data among its different components.

The objective is to bring together antenna engineers, tool developers and modelling experts to openly discuss this interoperability tool and initiatives to widen its use.

The meeting will take place in the afternoon of Tuesday, May 27, after the conclusion of the oral sessions of the Workshop.

The European Antenna Modelling Library intended as an engineering platform that combines consolidated antenna algorithms and design tools from different sources to offer the capabilities required for space antenna engineering, across the whole antenna development cycle, from early mission feasibility studies in Phase 0/A to the final performance verification steps in late Phase C/D and E.

The Library development has been organised around two parallel pillars: the Library infrastructure and the design tools. The first element is aimed at improving concurrent use of the others in antenna design.

- The first available element of the infrastructure is the Electromagnetic Data Exchange language, or EDX, developed in cooperation with the Antenna Centre of Excellence (a Network of Excellence funded under the 6th EU Framework Programme). Today it is mature for use within a much wider community, with the aim of broadening the base of contributors to the second Library pillar: the design tools.
- The Library currently covers a wide range of space applications and antenna types, supporting the full antenna development cycle, although admittedly with some limitations in the early and late phases. Furthermore many specific issues in the design of reflector and array antennas, TT&C antenna systems, reflect-arrays, radiating elements and antenna farms are yet to be solved. The challenge ahead is to bring those solutions to space antenna engineers and the Agency intention is to do so by extending the reach of the European Antenna Modelling Library ensuring that the best solutions available in Europe become part of it.