

## **EMBRACE: Building interoperable services for biology**

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The EMBRACE project is a network of European partners providing public access to data and bioinformatics analysis tools using web services and grid technologies. Several hundred services are available for the core public data resources and the most commonly used tools for nucleotide and protein sequence analysis, three dimensional structure and imaging, gene expression, and many other biological data types. The service interfaces are defined by a common set of standards, layered over a heterogeneous set of implementation technologies. The choice of client applications is broad, from simple Perl scripts to the Taverna workbench. EMBRACE includes the collecting and analysing of a set of use cases and the distribution of workflows to demonstrate the application of services to the solution of biological problems by non-expert users. The EMBRACE registry provides a search interface to the services, quality control for service availability and operation, and consistent service metadata using a prototype ontology of biological data types and algorithms.

