



HR Wallingford  
*Working with water*

# project

## ARION: An advanced lightweight architecture for accessing scientific collections

client European Commission

location Non-site specific

year 2001-2004

ARION provided a new generation of Internet services for the searching and retrieval of digital scientific collections that resided within research and consultancy organizations. ARION built on the findings of previous studies in this area and consolidated the work of international interoperability standard development to provide a system that is complementary to established scientific practices in these organisations.

Scientific data and programs have long been treated as 'private' resources to be used only by the people/organisation who created/developed them. This 'private ownership' however is usually a situation arising from inaction rather than from policies restricting data use. Data and models are uniquely collected/developed as part of a scientific study, but post-study it is not a priori clear what should happen to the data used. In the absence of a suitable infrastructure, valuable and unique scientific data and models are 'lost', retained without formal cataloguing on locally networked storage.



ARION improved quality control through formal documentation of the workflow used to produce data and also the execution of workflows to produce data on demand. This is combined with new approaches using ontologies and hierarchical metadata for ultra-precise data searching and cataloguing.

ARION was undertaken by a pan-European Consortium of systems and information specialists working with small and large holders of scientific data collections.