



## **Emerging standards in vocabulary server access methods**

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The European Union FP7 project NETMAR aims to produce a prototype European Marine Information System for searching, downloading and integrating satellite, in situ and model data from ocean and coastal areas. This pilot system will be underpinned by a semantic framework for marine data services, backed by a multilingual and multidomain ontology enabling searches across human languages and application domains. NETMAR will advance ontologies for environmental information systems by developing an interconnected network of ontologies for marine environmental data products and services, which support dynamic search, access and chaining of web services by a semantic framework. This means semantic relationships will be built between existing ontologies to facilitate use across domains and offering smart discovery of products and services.

A number of existing, relevant semantic resources were identified and a survey of both their content and access available to the semantic resource was conducted. Although often developed in isolation, where an application programming interface (API) exists to provide access to these resources there are often similarities between the methods available in the API. This survey was conducted in order to assess the addressing of concepts for the building of relationships between semantic resources.

We present here the results of this survey of API access methods for vocabulary servers. The access methods available from the various APIs are normalised depending on their function for the sake of comparison. The normalised methods which are delivered by multiple APIs are recognised as forming the basis of an emerging standard in the access methods available for vocabulary servers.