# GEO label: The General Framework for Labeling and Certification

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The Group on Earth Observations (GEO) is coordinating efforts to build a Global Earth Observation System of Systems, or GEOSS. As part of a strategy to increase the involvement of the science and technology community in GEOSS, both as users and developers of GEOSS itself, GEO decided to develop a GEO label concept related to the scientific relevance, quality, acceptance and societal needs for services and data sets of GEOSS.

The development of a GEO label is included in the GEO work plan and several projects address the challenges of developing a GEO label concept. Within the different projects developing the GEO label, various perspectives and approaches are being applied. In order to arrive at a generally accepted GEO label concept, a common understanding and basic knowledge of labeling is necessary. Assessment of quality of internationally standardized Earth observation data products implies possible certification. A general understanding of the framework for international standards and certification will also contribute to a more coherent discussion and more efficient development of a GEO label.

We will describe the general labeling and certification framework emphasizing the relation to the three elements of the GEO label: quality, user acceptance and relevance. Based on a survey of international labels done by the EGIDA project, we have analyzed the legal framework and organization of labels and certification. We will discuss the frameworks for certification, user ratings, registration and analysis of user requirements. Quality assessment is a particular focus of the analysis and is based on the work done by the GeoViQua project.

A GEO label will function both as a data distribution strategy and as a general management system for data. Through a label users can compare different data sets and get access to more information about the relevant data, including quality. A label will provide traceability of data both in the interest of users as well as data providers; it will create trustworthiness; and it will stimulate increased production and sharing of data and services.

The survey of labeling and analysis with respect to certification, user ratings and user requirements management constitutes a useful input to the general discussion on data distribution and management of data.