Information model for digital exchange of soil-related data – potential modifications on ISO 28258

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ABSTRACT

The International Standard ISO 28258 "Digital exchange of soil-related data" provides an information model that describes the organization of soil data to facilitate data transfer between data producers, holders and users. The data model contains a fixed set of "core" soil feature types, data types and properties, whereas its customization is on the data provider level, e.g. by adding user-specific properties. Rules for encoding these information are given by a customized XML-based format (called "SoilML"). Some technical shortcomings are currently under consideration in the ISO working group.

Directly after publication of ISO 28258 in 2013, also several conceptual and implementation issues concerning the information model had been identified, such as renaming of feature types, modification of data types, and enhancement of definitions or addition of super-classes are part of the current revision process. Conceptual changes for the current ISO data model that are compatible with the Australian/New Zealand soil data model ANZSoilML and the EU INSPIRE Data Specifications Soil are also discussed. The concept of a model with a limited set of properties that can be extended by the data provider should remain unaffected.

This presentation aims to introduce and comment on the current ISO soil information model and the proposed modifications. Moreover, we want to discuss these adjustments with respect to enhanced applicability of this International Standard.