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AMENDMENT 1
2019-09

Soil quality — Digital exchange of soil-related data

AMENDMENT 1

Qualité du sol — Échange numérique de données relatives au sol
AMENDEMENT 1

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This document was prepared by Technical Committee ISO/TC 190, *Soil quality*.

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ISO 28258:2013/Amd 1:2019

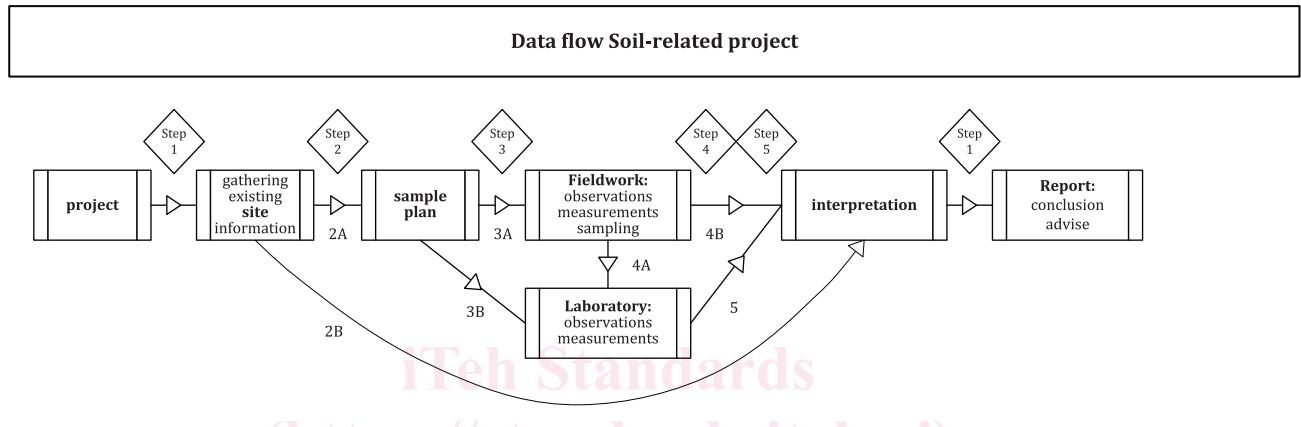
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Soil quality — Digital exchange of soil-related data

AMENDMENT 1

Introduction

Replace Figure 1 with the following one:



→ Data exchange can be analogue or digital, in maps, documents or as raw or processed data.

The boxes represent soil quality-related activities.
The arrows represent data exchange steps between the activities.

The figure shows that in a typical soil quality project there might easily be 9 main stages where data is exchanged or recorded.

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<https://standards.iteh.ai/catalog/standard/iso-28258-2013-amd-1-2019> Figure 1 — Common data exchanges in soil quality

Clause 1

Add the following paragraph at the end of the second paragraph:

"(Meta-)Data about the quality of soil information can be included according to ISO 19157."

Clause 3

At the end of definition 3.1, add the following note:

"Note 2 to entry: ISO 19156:2011 uses the term specimen for what is called a sample in soil science."

In Note 1 of 3.20, replace the term "profile information" by "soil profile information" as follows:

"Note 1 to entry: All types of plots only provide locality, but not soil information itself. For example, a borehole is the location where you gather the information to abstract a soil profile information from."

In 3.33, replace the term "profile" by "soil profile" in the definition, as follows:

"excavation prepared to carry out soil profile descriptions, sampling, and/or field tests"

4.1

In the first paragraph, replace the term “soil quality data” by “soil-related data” as follows:

“This International Standard is specifically made for the exchange of soil-related data. It does not deal with the nevertheless very common use and exchange data from other disciplines, like geotechnics, geo-information, or groundwater investigation and management.”

In the fourth paragraph, replace the term “soil quality data” by “soil-related data” as follows:

“If soil-related data defined according to this International Standard are combined with other kinds of data, the soil-related part shall be performed, using the XML namespace “ISO 28258”.”

In the last paragraph but one, replace the term “soil quality data” by “soil-related data” and the term “soil quality information” by “soil-related information” as follows:

“Clause 5 provides the information model for the exchange of soil-related data used in this International Standard. All soil-related information shall (eventually) refer to a specific place (point, location, mapping unit) in or under the surface of the earth. For all geographical information, the ISO 19100 family of International Standards is used.”

4.2

Replace the title “Requirements worked out” by “Provisions for flexible adaptation”.

Replace the first paragraph with the following:

“This International Standard requires that the exchange of soil-related data uses an information model based on ISO 19156. The general model of ISO 19156 is adapted to soil-related data; maintaining flexibility as regards the attribute parameters.”

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5.1

Replace Figure 2 with the following one:

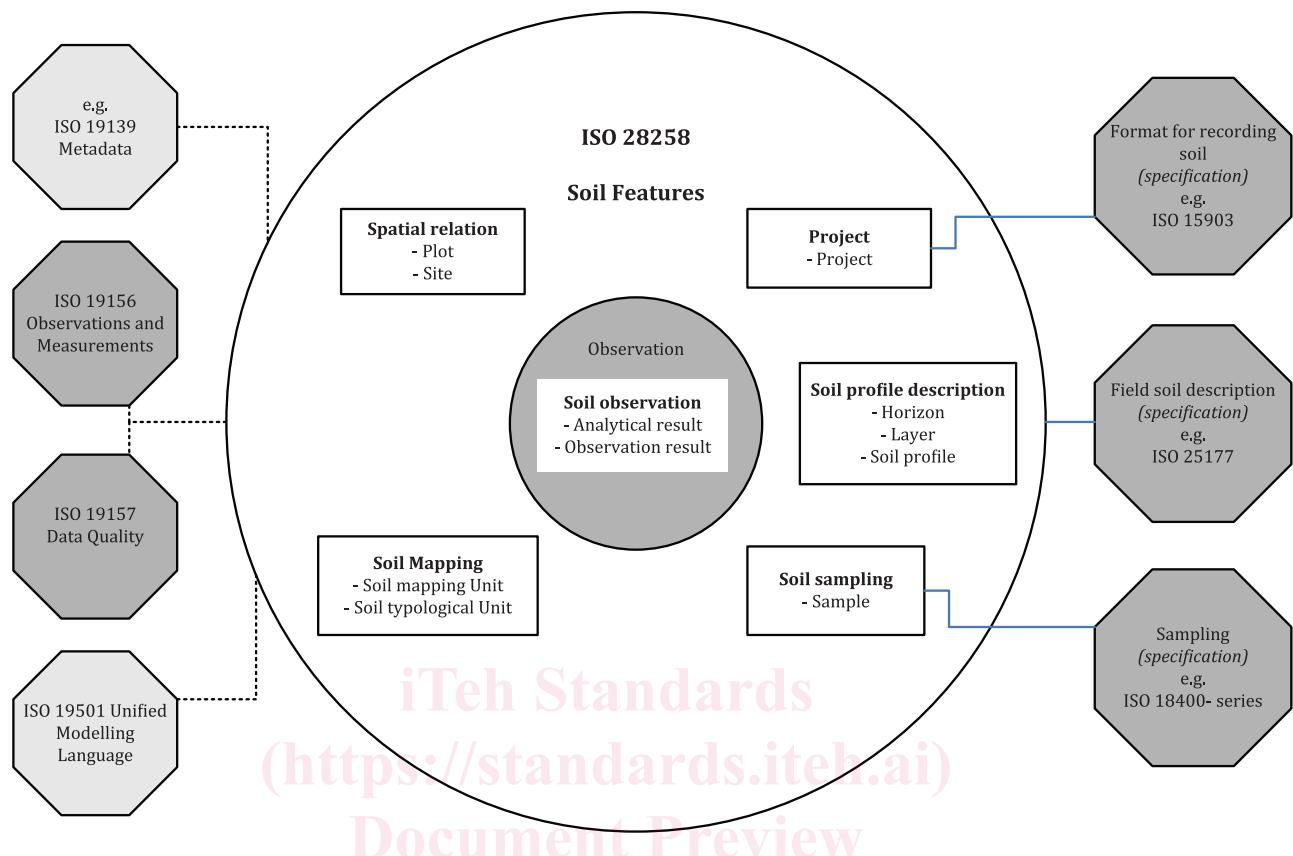


Figure 2 — Inner structure of soil information and its setting within other standards

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5.2.1 d), e) and f)

Replace the term “SF_Process” by “OM_Process” and the term “Profile” by “SoilProfile” as follows:

- "d) The OM_Process is restricted to *PreparationProcess*."
- "e) FeatureType of Observation:featureOfInterest is restricted to *Site*, *Plot*, *SoilProfile*, *ProfileElement*, and *SoilSpecimen* including all their subclasses. It means that only properties of these feature types may be observed."
- "f) FeatureType of SF_SamplingFeature: *sampledFeature* is restricted to *Site*, *Plot*, *SoilProfile*, and *ProfileElement* including all their subtypes."

5.2.3

In Tables 1 and 2, replace the term “Profile” by “SoilProfile”.

Replace the last paragraph with the following:

"An observation may be done only on observable properties of any feature of interest; however, features of interest are restricted to Site, Plot, SoilProfile, ProfileElement (i. e. Layer and Horizon), and SoilSpecimen, including all their subtypes. General observable properties introduced by this model are listed in Table 2. Additional observable properties may be introduced by a data provider."

Any other properties introduced by this model except for those listed in Table 2 are considered to be exact."

5.3

Replace Figure 3 with the following one:

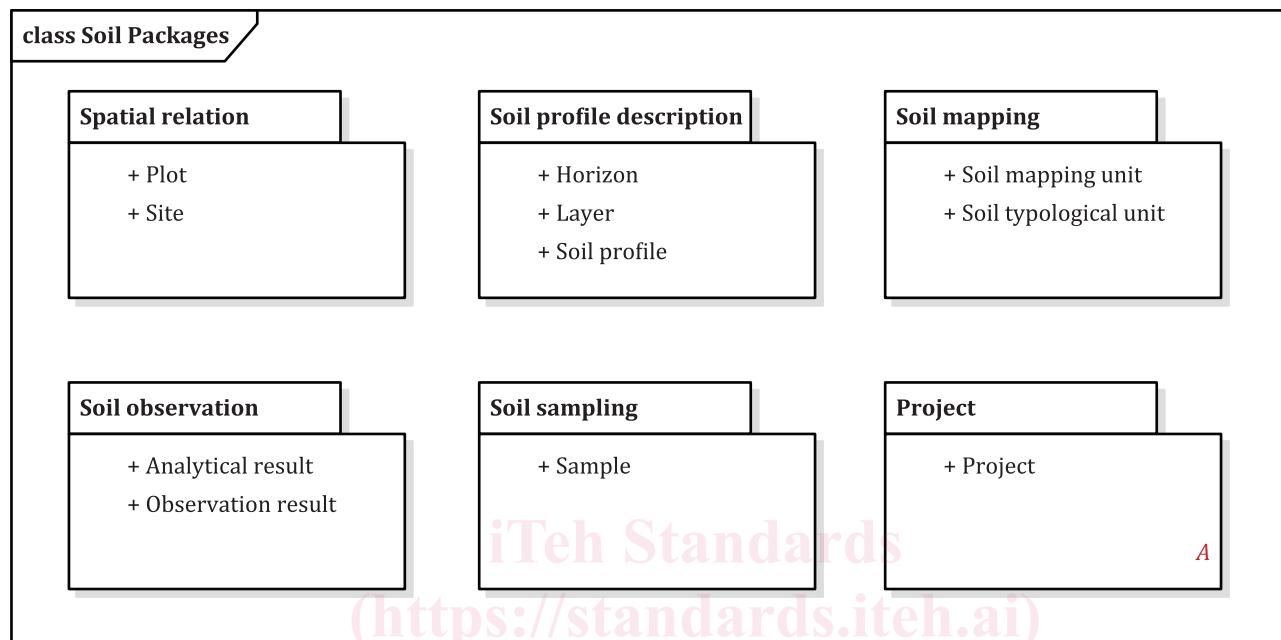


Figure 3 — General SoilQuality packages

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5.4

Replace Figure 4 with the following one:

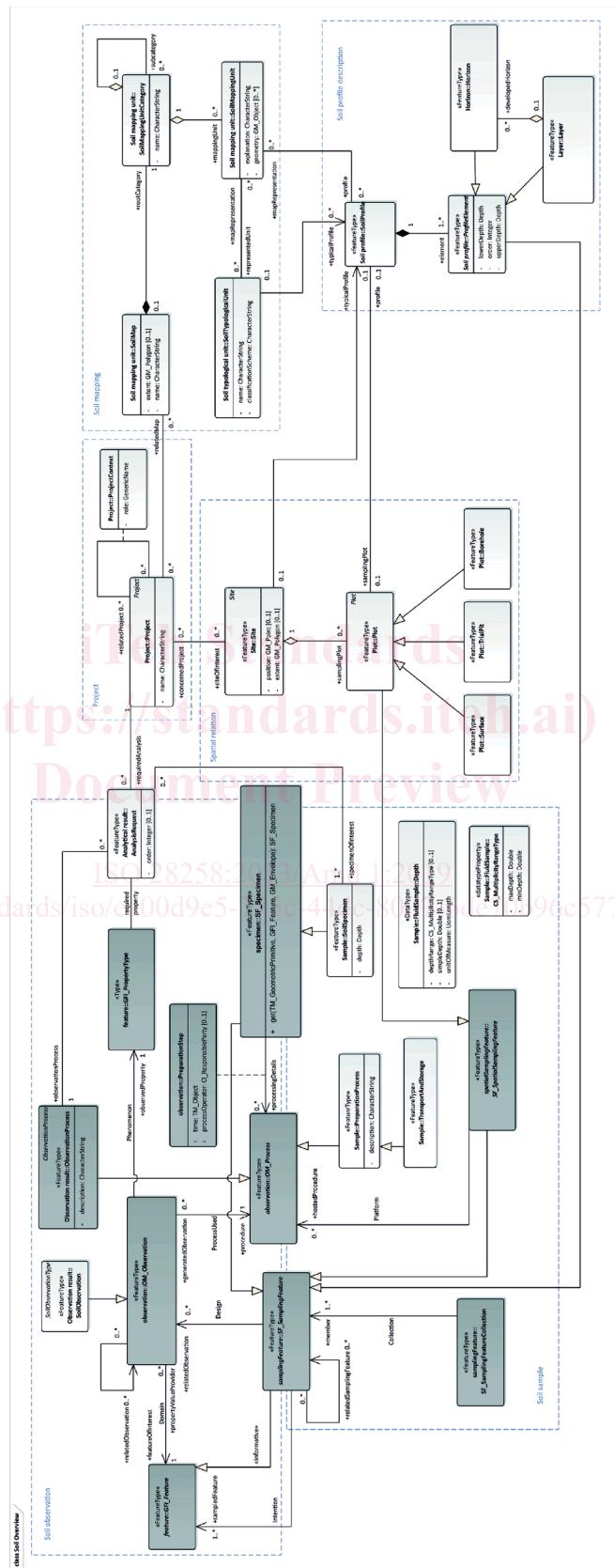


Figure 4 — Overview of sub-models (see Figures 5 to 10 for details)

6.1

Replace Figure 5 with the figure one:

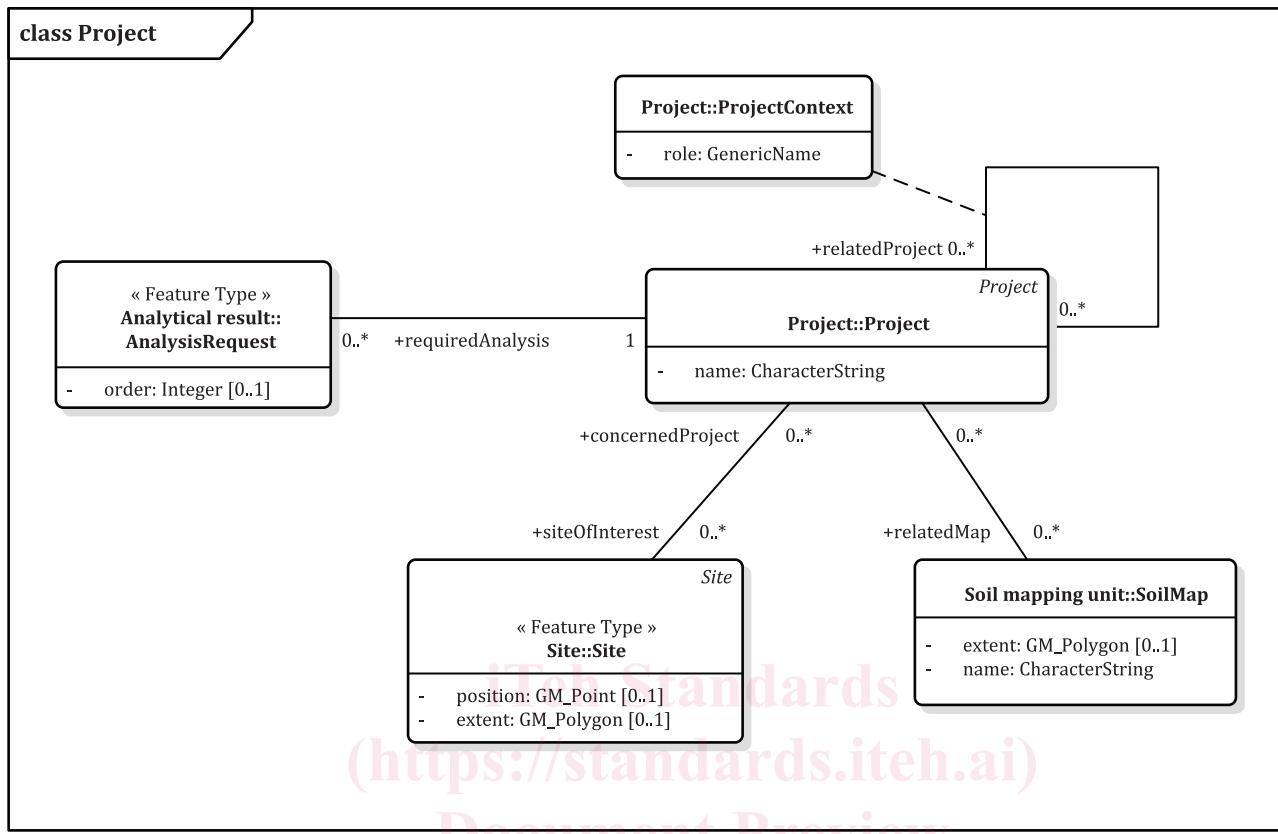


Figure 5 — Details — Project

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6.2

Replace Figure 6 with the following one:

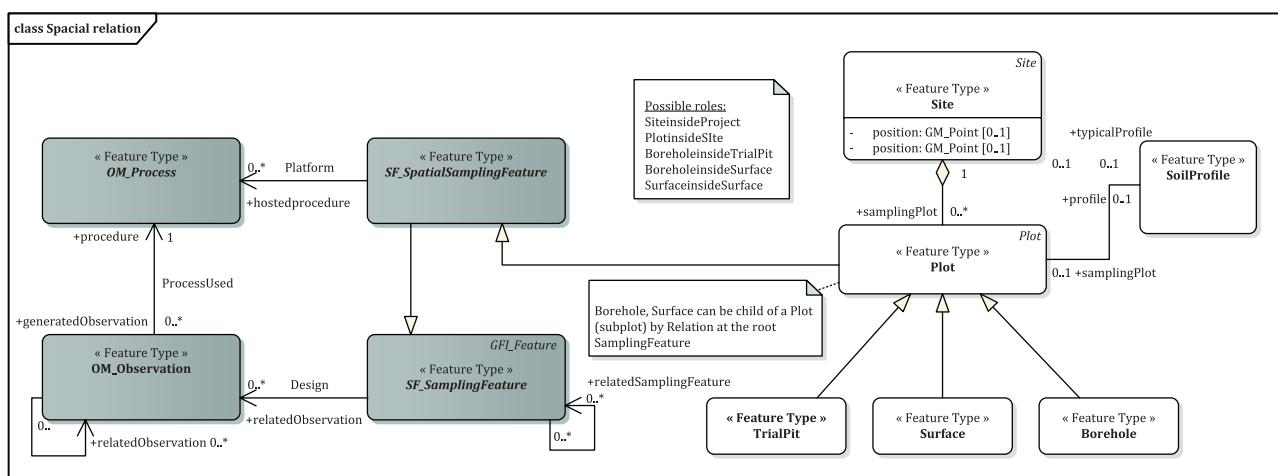


Figure 6 — Details — Spatial relation

6.5

Add the following Note at the end of the last paragraph:

"NOTE The attribute *extent* of the feature *SoilMap* describes the spatial (geographic) extent of the complete soil map. ISO 19107 refers to this as *envelope*."

In Table 5, add the following new row:

SoilMappingUnit	geometry	attribute	GM_Object	0..*
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after this existing row:

SoilMappingUnit	explanation	attribute	CharacterString	1
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Replace Figure 7 with the following one:

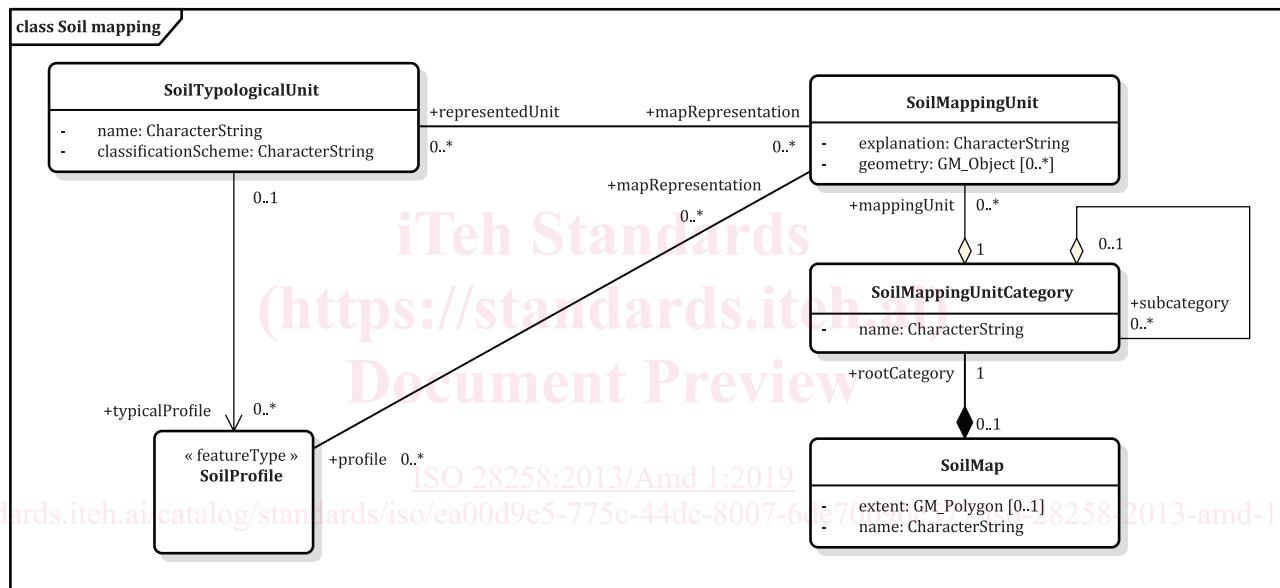


Figure 7 — Details — Soil mapping