

OneGeology Europe

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Geological Information Systems and Maps

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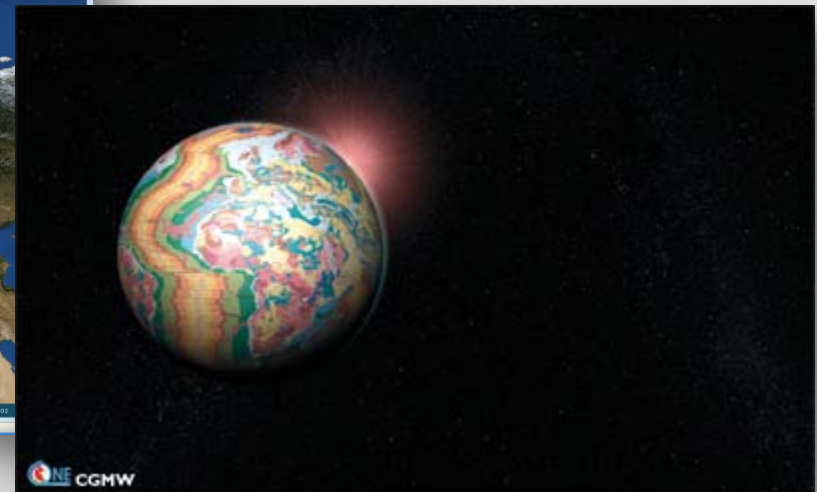
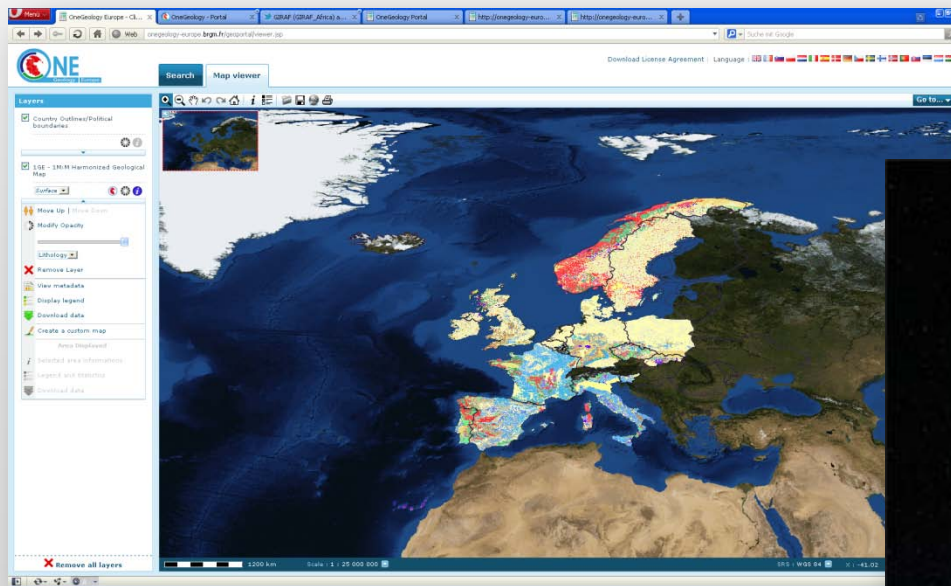
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OneGeology Europe



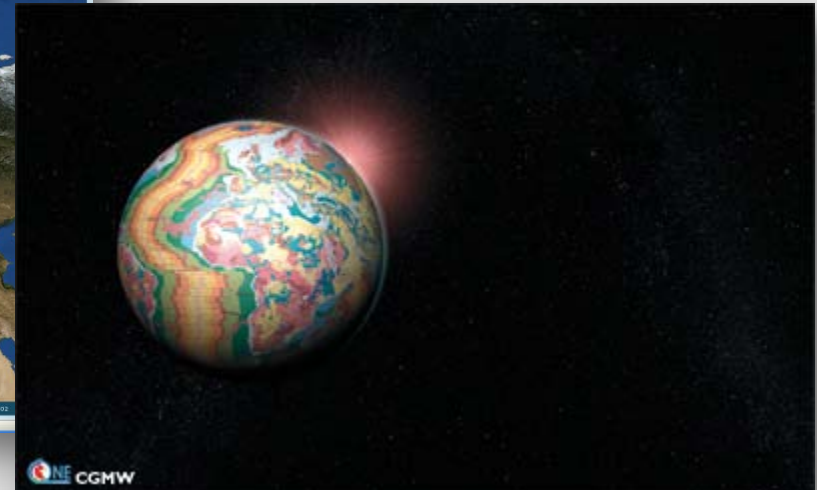
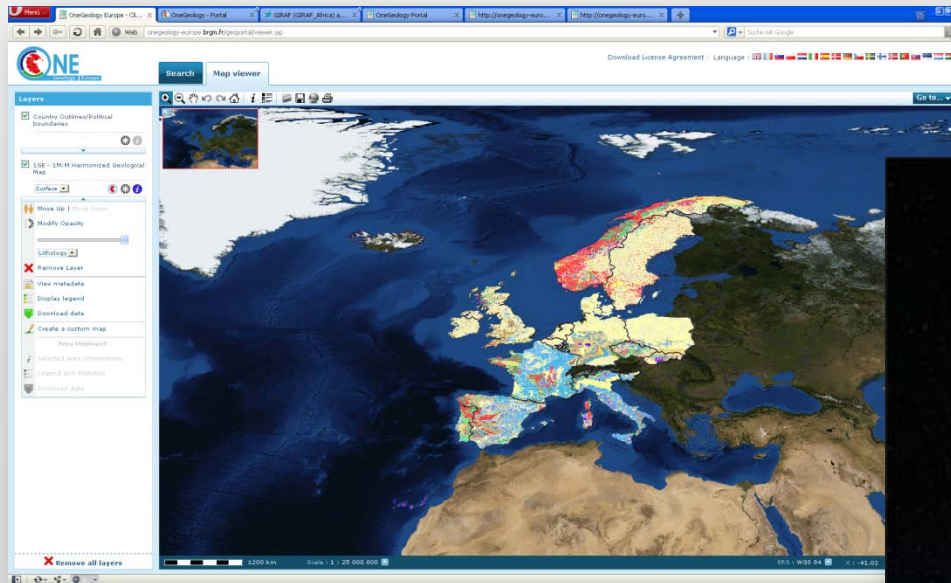
- Projektlaufzeit 2008 – 2010, Cofinanzierung im Rahmen von eContentPlus der Europäischen Kommission (EC)
- hervorgegangen aus der globalen Initiative **OneGEOLOGY**
- Zusammenarbeit mit den europäischen geologischen Diensten
- wesentlicher Beitrag (Geologie) für die INSPIRE Richtlinie,



OneGeology Europe



- Entwicklung von Systemen (Web Dienste) zum Austausch geologischer Informationen
- Harmonisiert, Multilingual, syntaktisch und semantisch Interoperabel
- BGR leitete das Arbeitspaket - **Generic Specification for Spatial Geological Data in Europe** - für die interoperable Bereitstellung und Harmonisierung geologischer Daten



1GE-Datenspezifikation

- Erstellen des Vokabular
 - + Einfache Listen, Anforderungen der Partner
 - + Bestehendes CGI Vokabular (Commission for Geoscience Information (IUGS Commission) mit Blick auf die 1GE Anforderungen validieren [Inhalt, Definitionen, Hierarchie, 14 FeatureTypes]
 - + Extraktion [Multihierarchie zu Monohierarchische Strukturen (Lithology)]
 - + Rückmeldung an die CGI

Table 5-16: The OneGeology-Europe structure types (mainly after CGI/GeoSciML). Sketches modified after ISO 7107

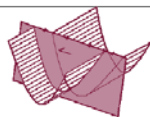


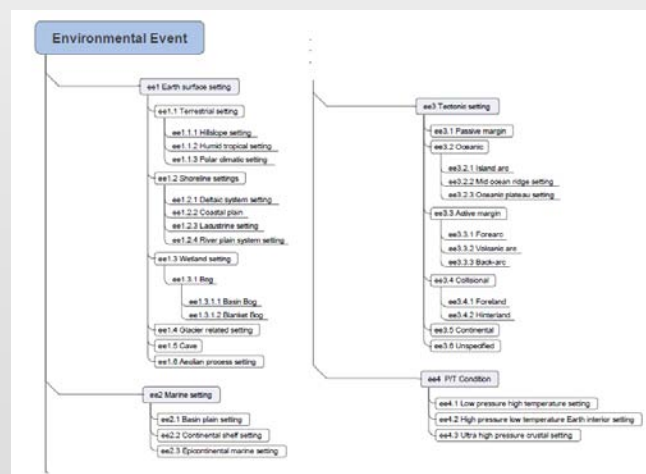
OneGeology-EuropeID	Term	Definitions	In GeoSciML URL: http://www.onegeology.com/onegeology/GeoSciML/Tags/vocabulary_200811/
f	Fault	A discrete surface or zone of discrete surfaces separating rock masses across which one mass has slid past the other. (fault sense geo). (Hauendorf et al. (2005), p. 139)	
ft1	Strike slip Fault	 The net slip of the fault (slip vector) is parallel to the strike of the fault.	3.1 FaultMovementSense200811.xls
ft1	left sinistral	 Left-lateral separation sense; in plan view, the side opposite the observer appears displaced to the left.	02 FaultMovementType200811.xls
ft1.2	right sinistral	 Right-lateral separation sense; in plan view, the side opposite the observer appears displaced to the right.	01 FaultMovementType200811.xls

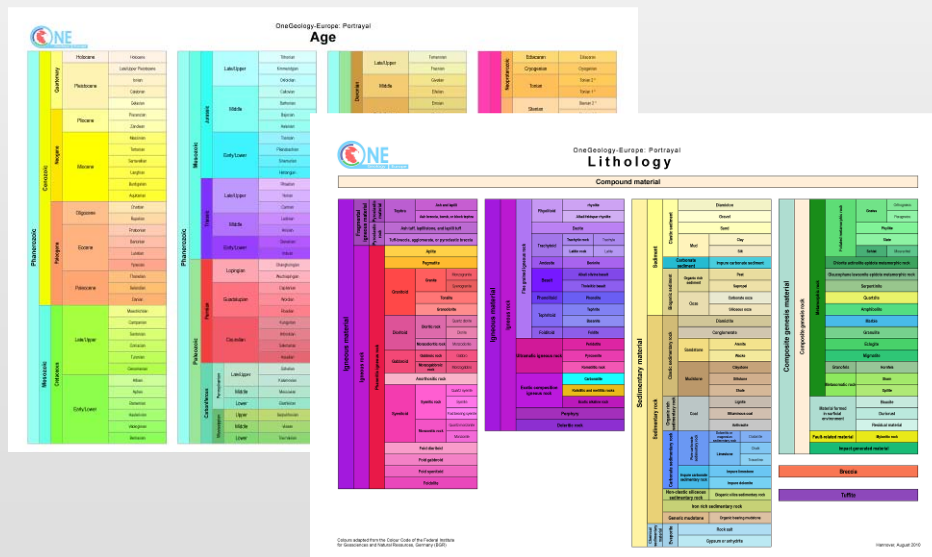
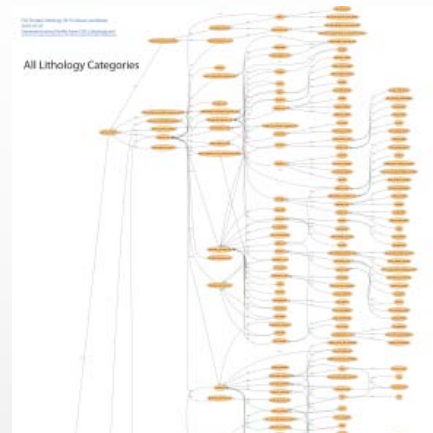
Table 5-4: The OneGeology-Europe volcanic rock specification

OneGeology-EuropeID	OneGeology-Europe Term	1G-E Subtype of	Term Definition	Reference	urn:ogci:classifScheme:CGI:SimpleLithology
v	Volcanic rock	igneous rock	Aphanitic or porphyritic igneous rock composed of greater than 10 percent groundmass, in which most of the crystals cannot be distinguished with the unaided eye; grain size is typically less than 1mm. Igneous rocks with 'exotic' composition are excluded from this concept.	Gillespie & Styles 1999; LeMaitre et al. 2002	fine_grained_igneous_rock
v1	Fragmental igneous rock	Volcanic rock	Igneous rock in which greater than 75 percent of the rock consists of fragments produced as a result of igneous rock-forming process. Includes pyroclastic rocks, autobreccia associated with lava flows and intrusive breccias. Excludes deposits reworked by epiplastic processes.	CGI/GeoSciML 200811	fragmental_igneous_rock
v1.1	Tuffite	Fragmental igneous rock	A term used in the pyroclastic classification for rocks consisting of mixtures of pyroclasts and epiclasts.	LeMaitre et al. 2002, p. 152	proposed amendments to GeoSciML
v1.2	Pyroclastic material	Fragmental igneous rock	Fragmental igneous material that consists of more than 75 percent of particles formed by disruption as a direct result of volcanic action.	CGI/GeoSciML 200811	pyroclastic_material
v1.2.1	Ash tuff, lapillistone, and lapilli tuff	Pyroclastic material	Pyroclastic rock in which less than 25 percent of rock by volume are more than 64 mm in longest diameter. Includes tuff, lapilli tuff, and lapillistone.	CGI/GeoSciML 200811	ash_tuff_lapillistone_and_lapilli_tuff
v1.3	Pyroclastic rock	Fragmental igneous rock	Fragmental igneous rock that consists of greater than 75 percent fragments produced as a direct result of eruption or extrusion of magma from within the earth onto its surface. Includes autobreccia associated with lava flows and excludes deposits reworked by epiplastic processes.	CGI/GeoSciML 200811	pyroclastic_rock
v1.3.1	Tuff	Pyroclastic rock	Now defined in the pyroclastic classification as a pyroclastic rock in which ash > 75%. The term is synonymous with ash tuff	Le Maitre et al. 2002, p. 152	proposed amendments to GeoSciML



1GE-Datenspezifikation

- Methodisches Reglement
 - + Gemeinsames Modell (GeoSciML)
 - + Gemeinsames Vokabular und Definitionen
 - + Einheitliche Darstellung (portrayal rules)
- Erarbeitet durch ein internationales Team unter Federführung der BGR



OneGeology-Europe WP3 Data Portrayal 1GE_ContactType and 1GE_FaultType

OneGeology-Europe - Portrayal of Contacts and Structure/Fault Types

OneGeology-Europe: Contact Types and their Portrayal Rules

OneGeology-EuropeID	OneGeology-Europe Term (mainly after UCA/GeoSciML)	Draw annotation	Symbol [w = line width in pixel]	R	G	B
ctf1	contact			195	195	195
ctf.1	hologenic contact			195	195	195
ctf.1.1	volcanic subvolcanic zone boundary	Dotted line on the inside of the structure. For cartographers: The line should be drawn so that the dotted line is to the right in the drawing direction.		0	0	0
ctf.1.2	impact structure boundary	Ticks on the inside of the structure. For cartographers: The line should be drawn so that the ticks are to the right in the drawing direction.		0	0	0
ctf.2	glacial stationary line			227	229	224

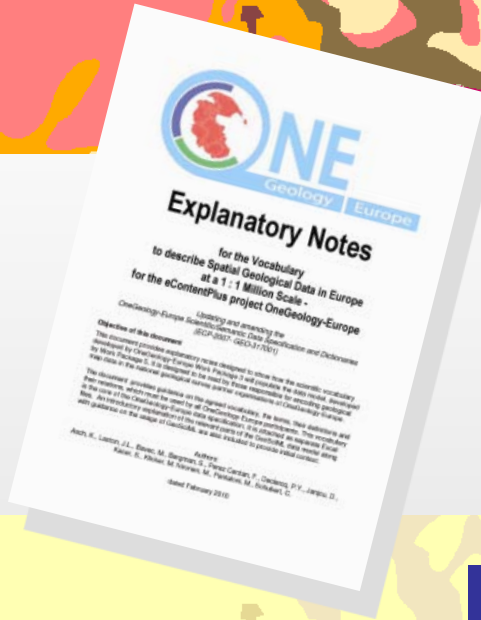
1GE Mapping / Harmonisierung

Datenspezifikation
als Regelwerk

Transformation des
'Ursprungs' (Datenmodell/-
satzes) mittels
Überführungsregeln in 'Ziel'-
Datenmodell/-satz

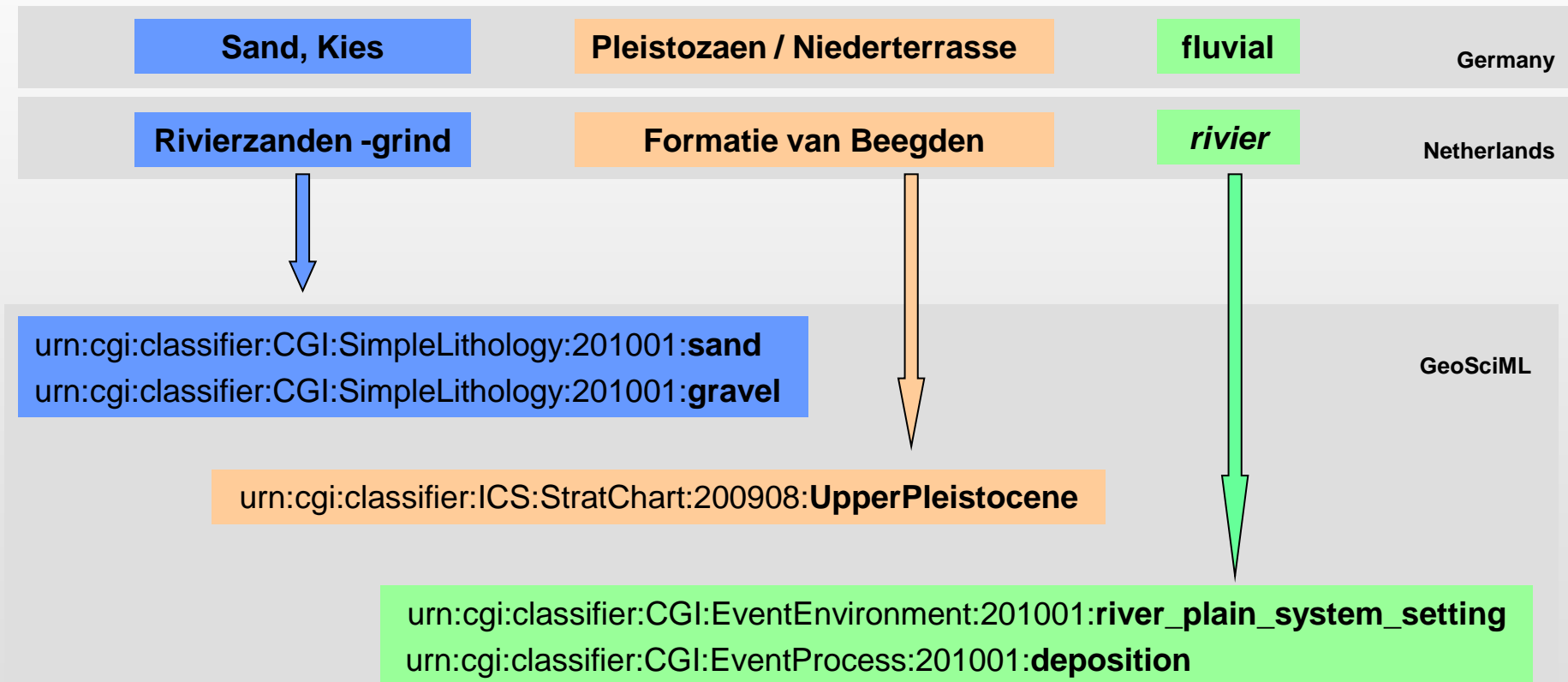
'transformierter' Datensatz
als Instanz

'harmonisierter' Datensatz
als Instanz



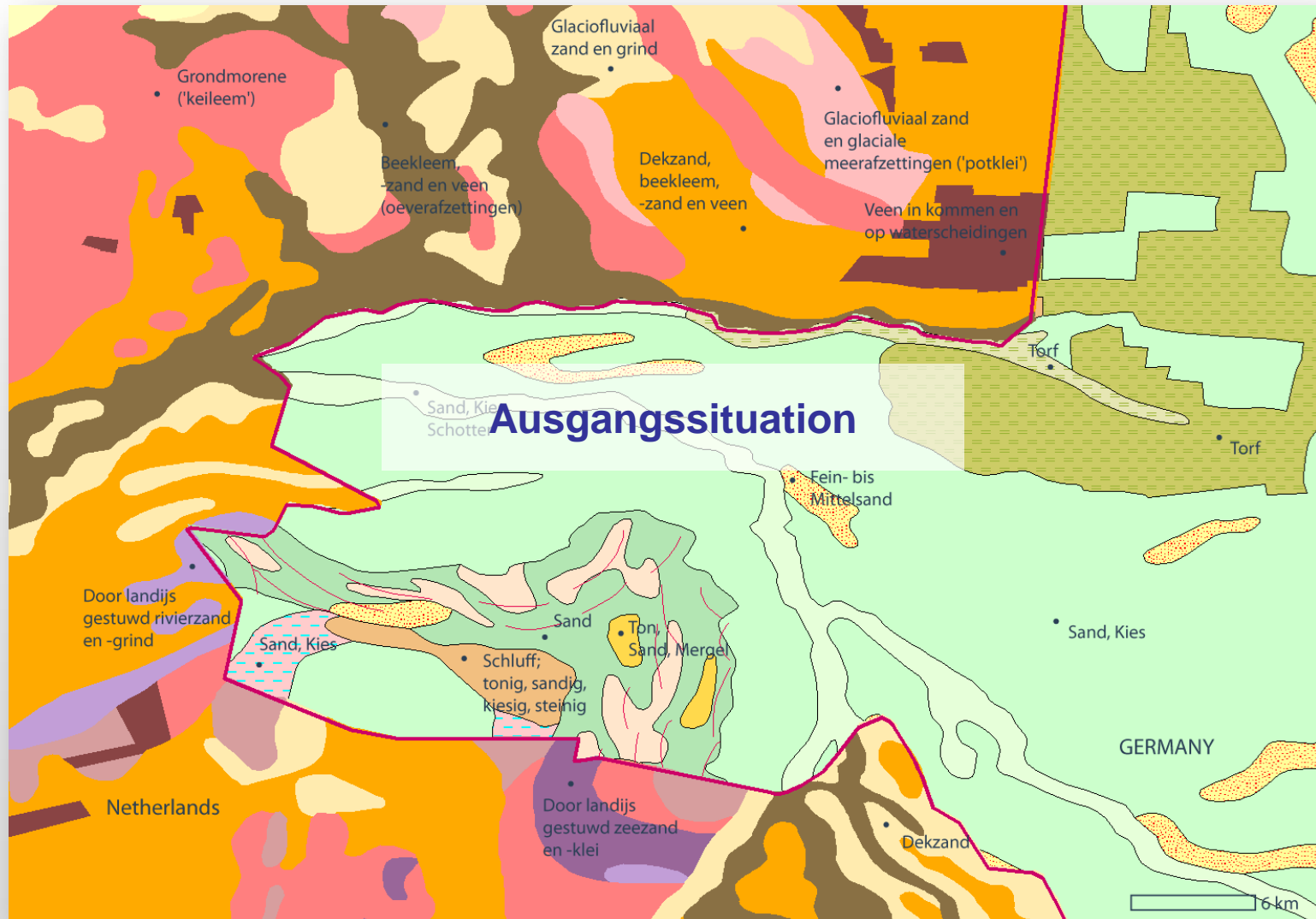
1GE- Mapping

Mapping Prozess für die Lithologie, des Alters und Genese



1GE - Harmonisierungsprozess

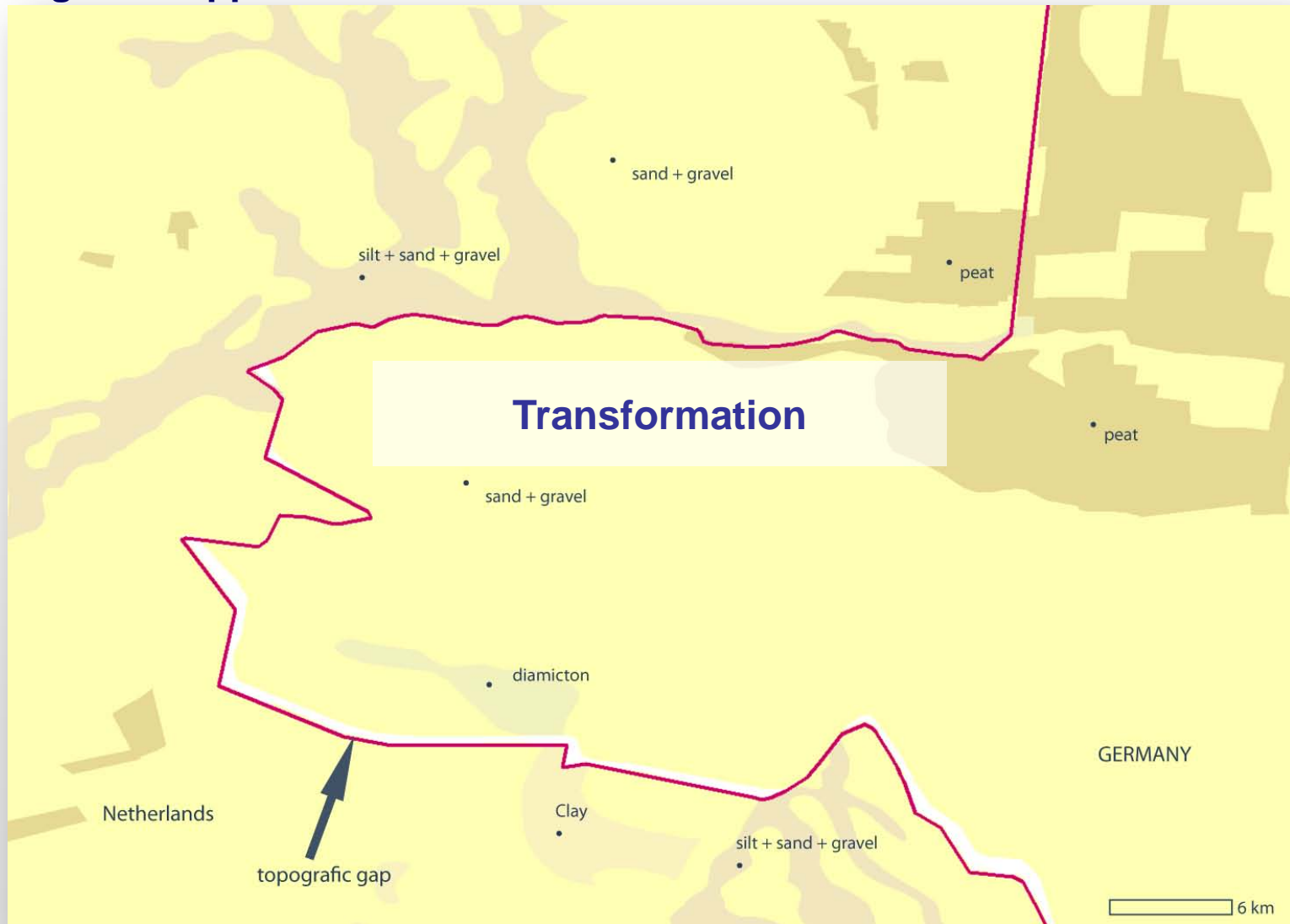
Region: Meppen/Ems



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1GE - Harmonisierungsprozess

Region: Meppen/Ems

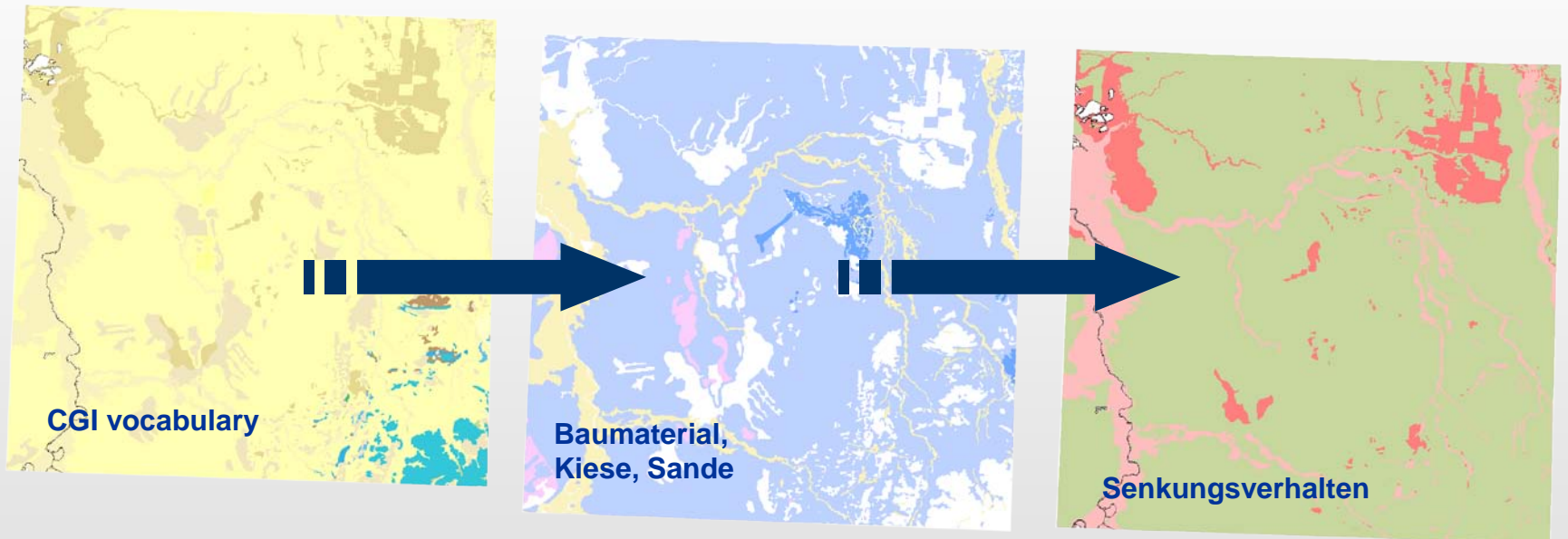


1GE - Harmonisierungsprozess

Region: Meppen/Ems



1GE - UseCases



Lingen/Ems 1:200.000; Germany/Netherlands

<http://www.onegeology.org/>
<http://www.onegeology-europe.org/>
<http://onegeology-europe.brgm.fr/geoportal/viewer.jsp>