

6.3 Kurzbericht DIMAAR



SGPK – Jahresprojekt 2013



Alfons
Berger

Lithologie Harmonisierung
Compilation
Interpretation



Ivan
Mercolli



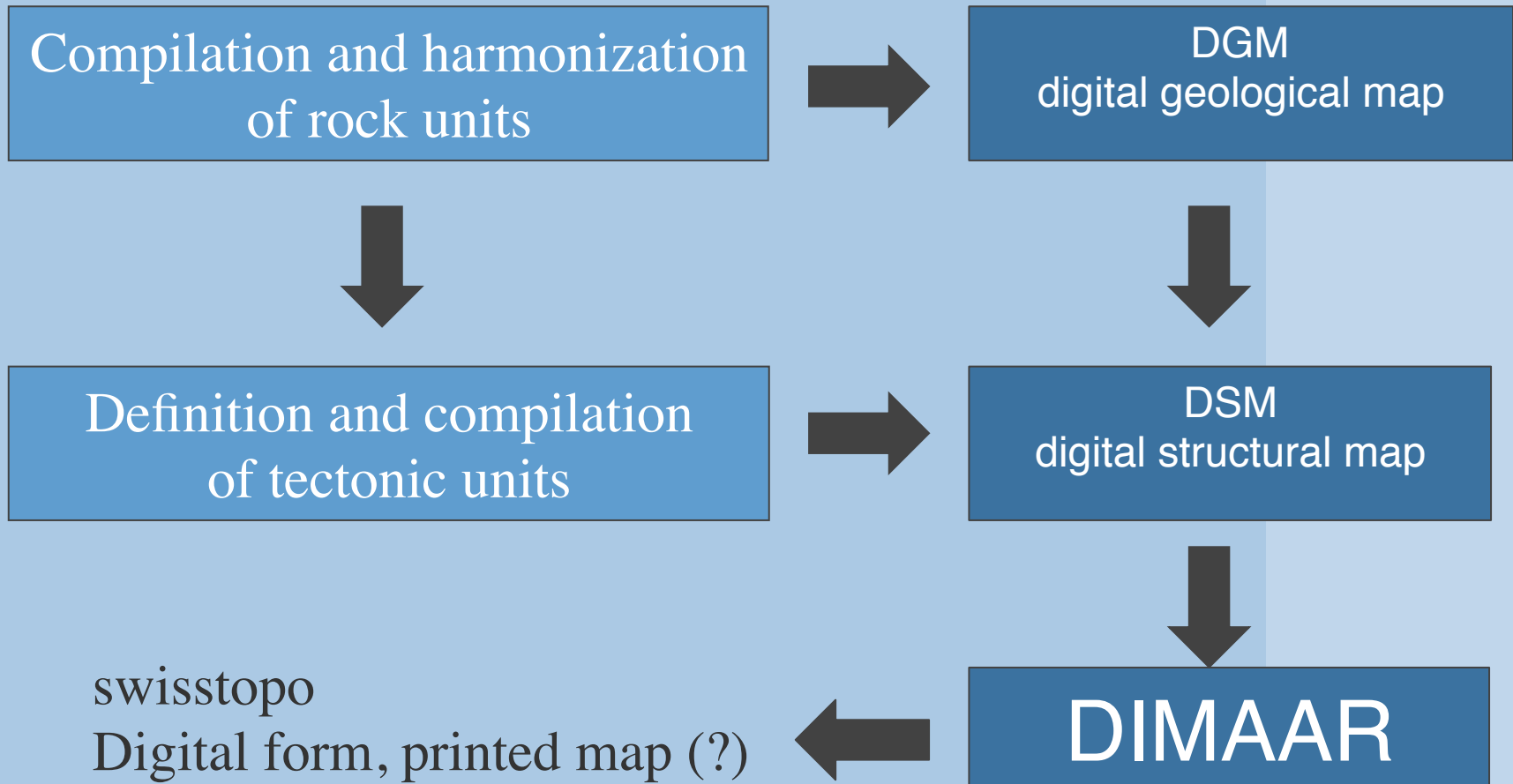
Antonia
Wicki

Harmonisierung
Polygone



Marco
Herwegh

Strukturen
Administration

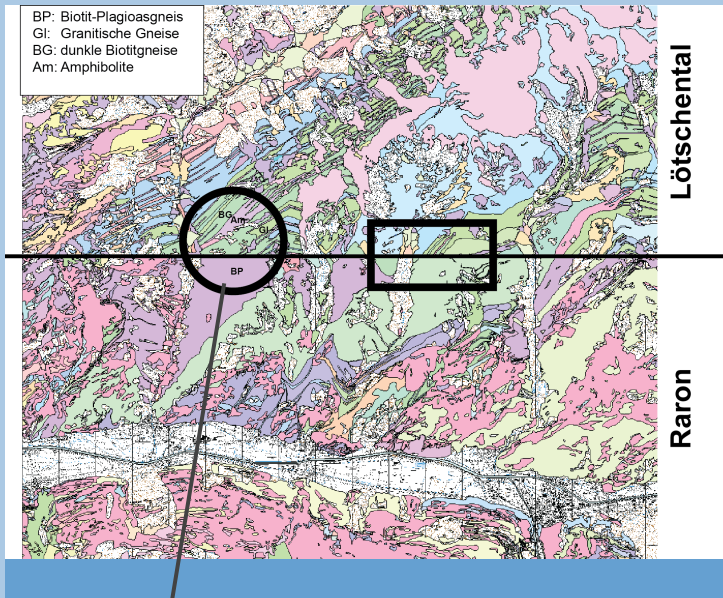


Bisheriges Vorgehen:

Harmonisierung innerhalb des GIS Datensatzes

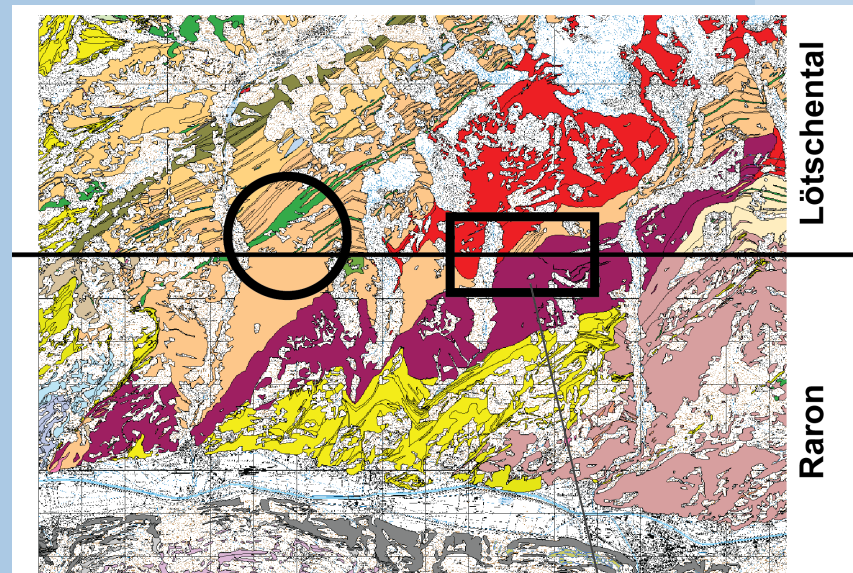
Beispiel Grenze Lötschental-Raron

Original Geocover



Verschiedener Stil der Kartierung

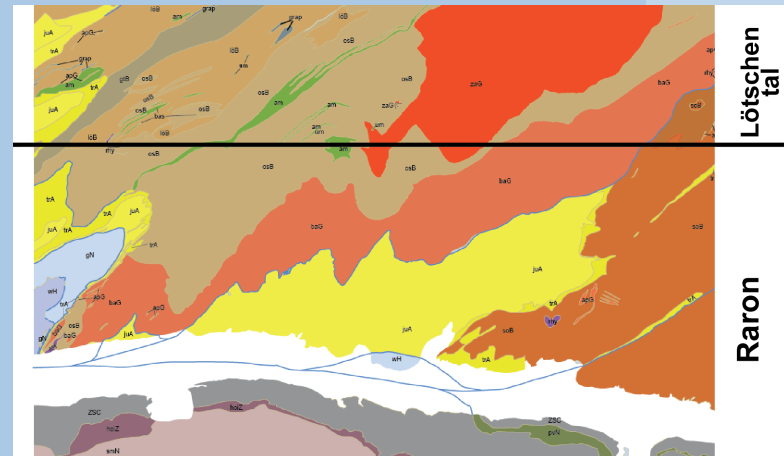
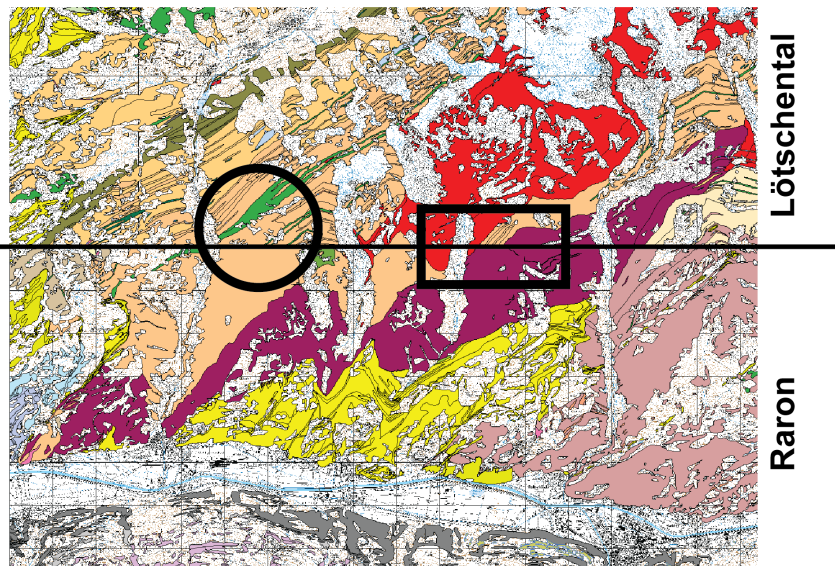
“harmonisierte Version”



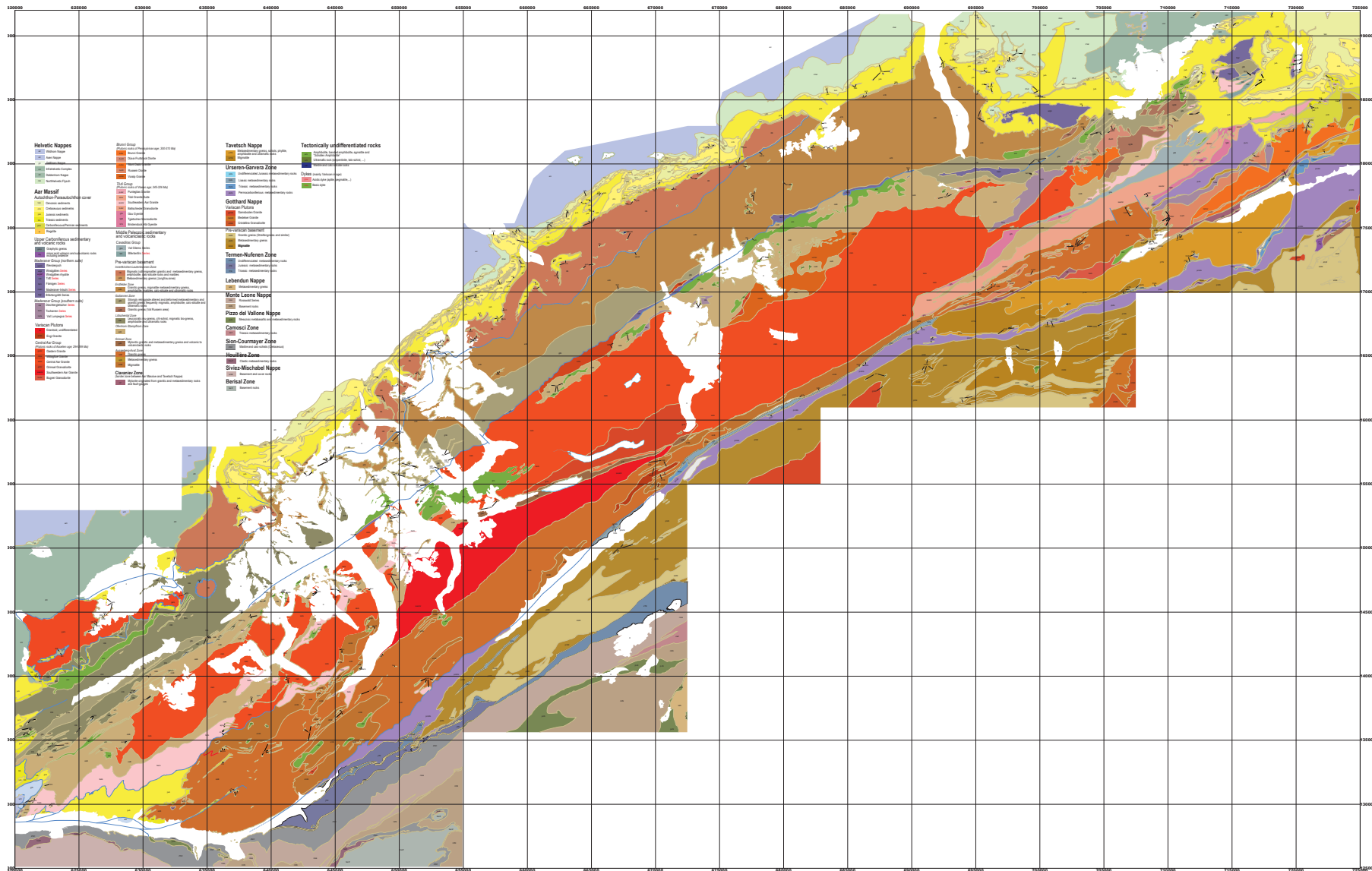
“Blatt Verwerfungen”

“harmonisierte Version”

abgedeckte Karte



Stand der Karte Oktober 2014



Legende

Helvetic Nappes

wh	Wildhorn Nappe
ax	Axen Nappe
g	Gellihorn Nappe
inf	Infrahelvetic Complex
dh	Doldenhorn Nappe
nhel	Northhelvetic Flysch

Aar Massif

Autochthon-Paraautochthon cover

taA	Cenozoic sediments
crA	Cretaceous sediments
juA	Jurassic sediments
trA	Triassic sediments
pcA	Carboniferous/Permian sediments
w	Regolite

Late to post Variscan sedimentary and volcanic rocks

grap	Graphitic gneiss
rhy	minor acid volcanic and subvolcanic rocks including andesite

Maderanertal Group (northern suite)

wend	Wendenjoch Fm
wigA	Windgällen Fm
wigB	Windgällen rhyolite
trf	Trift Fm
fem	Färnigen Fm
msan	Intschi Fm
bigr	Bifertengrätli Fm

Maderanertal Group (southern suite)

die	Diechtalgletscher Fm
tsch	Tscharren Fm
luda	Val Lumpeгна Fm

Variscan Plutons

Undated bodies

g	Granitoid, undifferentiated
erGr	Engi Granite

Göschenen Group (Plutonic rocks of Asselien age; 294-299 Ma)

gaGr	Gastern Granite
mtGr	Mittagflue Granite
zaGr	Central Aar Granite
grGr	Grimsel Granodiorite
swaGr	Southwestern Aar Granite
buGr	Bugnei Granodiorite

Brunnital Group (Plutonic rocks of Pennsylvanian age; 300-310 Ma)

brGr	Brunni Granite
dusiD	Düssi-Frutstock Diorite
mdGr	Munt Dado Granite
rusD	Russein Diorite
vorGr	Voralp Granite

Rötifirn Group (Plutonic rocks of Viséan age; 345-326 Ma)

puGr	Punteglias Granite
toGr	Tödi Granite Suite
seaGr	Southeastern Aar Granite
baGr	Baltschieder Granodiorite
giS	Giuv Syenite
tgM	Tgietschen Monzodiorite
brS	Bristenstock Hbl-Syenite

Early to Middle Variscan sedimentary and volcanoclastic rocks

Cavadiras Group

glie	Val Gliems Fm
bifl	Bifertenfirn Fm

Pre-Variscan Basement

Innertkirchen-Lauterbrunnen Zone

ib	Innertkirchen-Kristallin: Migmatitic (cld-migmatite) granitic and metasedimentary gneiss, amphibolite, calc-silicate rocks and marbles
piB	Hick Fm: Metasedimentary gneiss (Jungfrau area)

Erstfelder Zone

erB	Erstfelder gneiss: Granitic gneiss, migmatite metasedimentary gneiss, amphibolite, marbles, calc-silicate and ultramafic rocks
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Ferden-Hüfi Zone

grB	Guttannen Fm: Strongly retrograde altered and deformed metasedimentary and granitic gneiss frequently migmatitic, amphibolite, calc-silicate and ultramafic rocks
ogB	Tschingel Fm: Granitic gneiss (Val Russein area)
lgB	Lötschental Fm: Leucocratic mu-gneiss, chl-schist, migmatitic bio-gneiss, amphibolite and ultramafic rocks

Sustenhorn Zone

oeB	Ofenhorn-Stamphorn Fm
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Oberaar-Furka Zone

grB	Grimsel Fm: Mylonitic granitic and metasedimentary gneiss and volcanic to volcanoclastic rocks
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Ausserberg-Avat Zone

acB	Granitic gneiss
spB	Metasedimentary gneiss
anB	Migmatite

Clavaniev Zone

(border zone between Aar Massif and Tavetsch Nappe)

cZ	Mylonite originated from granitic and metasedimentary rocks and fault-gauges
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Tavetsch Nappe

pTN	Metasedimentary gneiss, schists, phyllite, amphibolite and ultramafic rocks
mtTN	Migmatite

Urseren-Garvera Zone

JUG	Undifferentiated Jurassic metasedimentary rocks
ljUG	Liassic metasedimentary rocks
trUG	Triassic metasedimentary rocks
pUG	Permocarboniferous metasedimentary rocks

Gotthard Nappe

Variscan Plutons

Lavaz Group

gaGN	Gamsboden Granite
meGN	Medels Granite
crGN	Cristallina Granodiorite

Pre-variscan basement

Cadlimo Group

sgN	Granitic gneiss (Streifengneiss and similar)
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Nalps Group

pgN	Metasedimentary gneiss
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Curnera Group

mgN	Migmatite
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Termen-Nufenen Zone

zTN	Undifferentiated metasedimentary rocks
JTN	Jurassic metasedimentary rocks
ITN	Triassic metasedimentary rocks

Lebedun Nappe

leN	Metasedimentary gneiss
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Monte Leone Nappe

ross	Rosswald Series
meN	Basement rocks

Pizzo del Vallone Nappe

pvN	Mesozoic metabasaltic and metasedimentary rocks
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Camosci Zone

caZ	Triassic metasedimentary rocks
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Sion-Courmayer Zone

ZSC	Marble and calc-schists (Cretaceous)
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Houillère Zone

houZ	Clastic metasedimentary rocks
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Siviez-Mischabel Nappe

smN	Basement and cover rocks
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Berisal Zone

berZ	Basement rocks
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Tectonically undifferentiated rocks

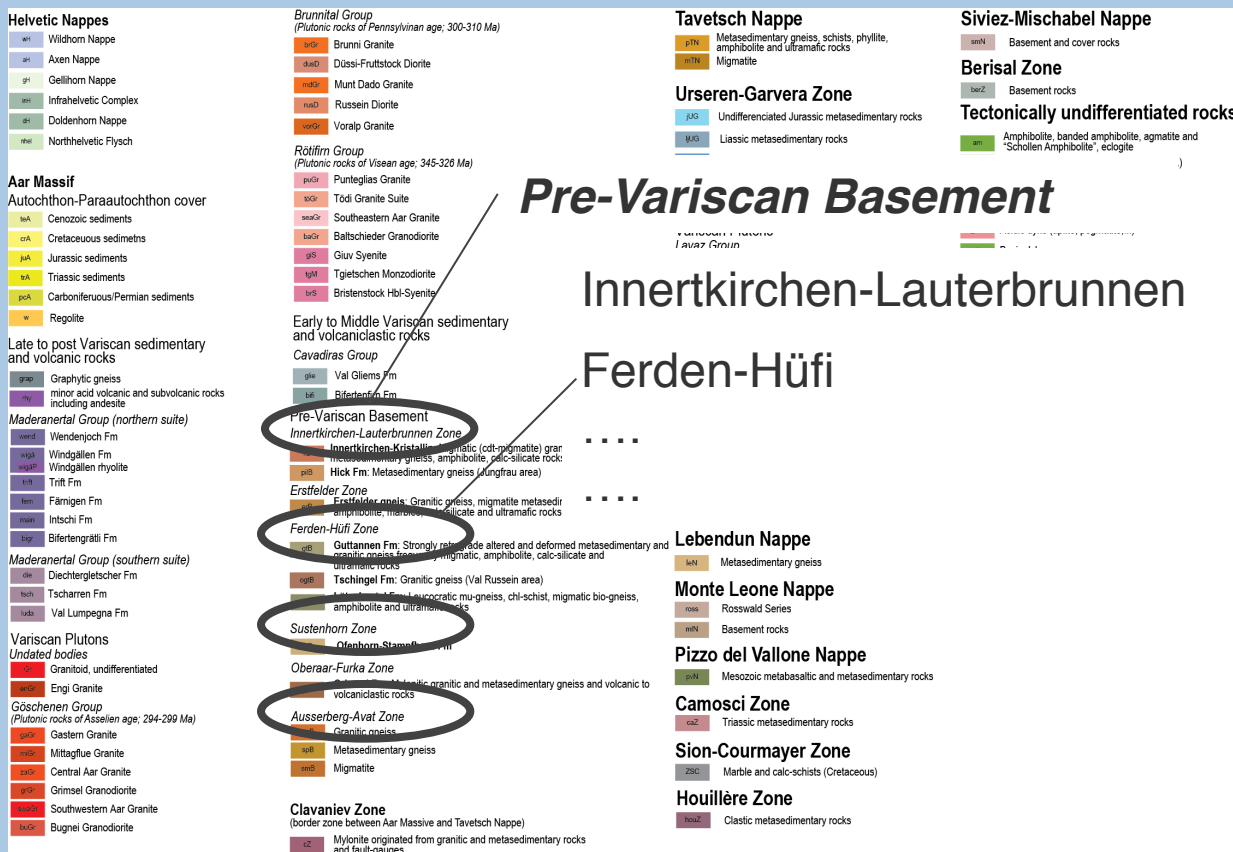
am	Amphibolite, banded amphibolite, agmatite and 'Schollen Amphibolite', eclogite
um	Ultramafic rock (serpentine, talc-schist, ...)
ms	Marble and calc-silicate rocks

Dykes (mainly Variscan in age)

gCa	Acidic dyke (aplite, pegmatite,...)
ba	Basic dyke

Hierarchie der Einheiten

Beispiel: "Pre-Variscan basement"



Hierarchie der Einheiten

Tect. unit 1	Supergroup	Group	Formation
Aar-massif	Pre variscan basement	Erstfelder Zone	Erstfelder Gneis
Aar-massif	Late-post Variscan volcanic and sedimentary rocks	Maderanertal Group	Trift Formation
.....			

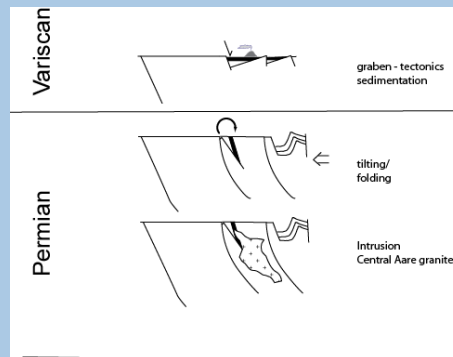
Ausblick:

- Kartenprojekt beenden
=> Gotthard-Decke soll auch integriert werden.
- Profile konstruieren: (1) km-scale; (2) lithospheric scale
- Erläuterungen zu den neu gewonnen Erkenntnissen
- Karte der veröffentlichen (Druck 1: 100'000, digital?)

Anwendungen:

- Gliederung der Geologie
- Bessere Rekonstruktion der geologischen geschichte:

Zum Beispiel Entwicklung der Madernertal Gruppe:



- Verknüpfung der Karte mit rezenten geologischen Prozessen (Erdbeben, Naturgefahren)
- Hilfe für andere Projekte, i. B.: NFP70