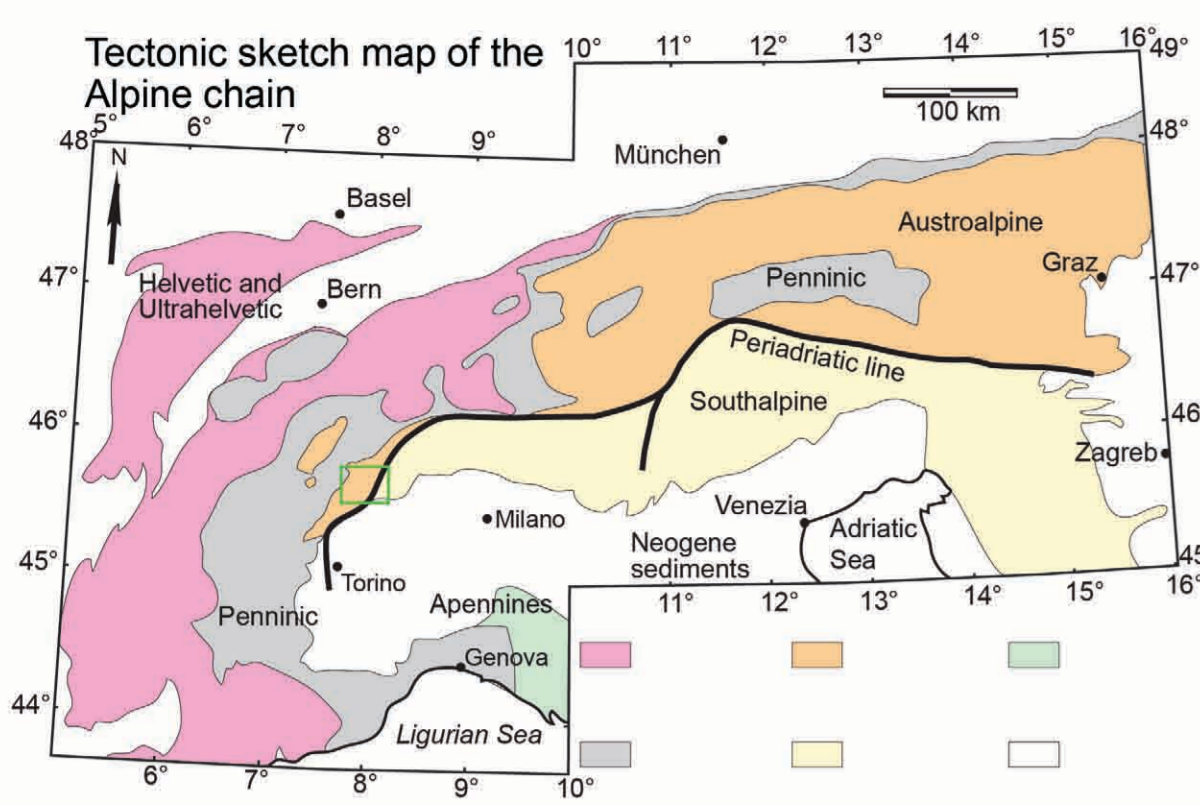


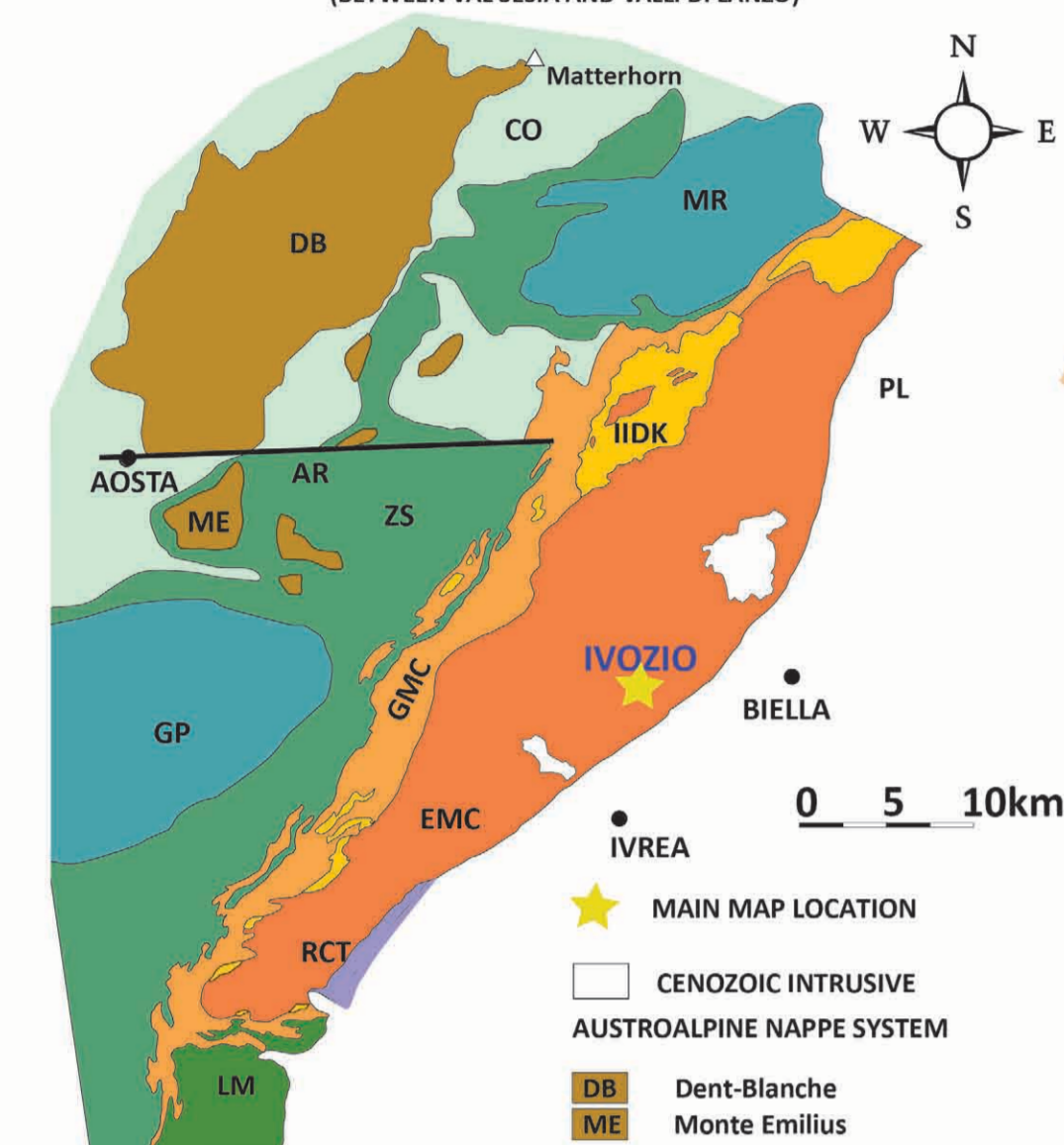
# Petro-structural map of the Ivozio gabbroic Complex (Sesia-Lanzo Zone, Western Alps)

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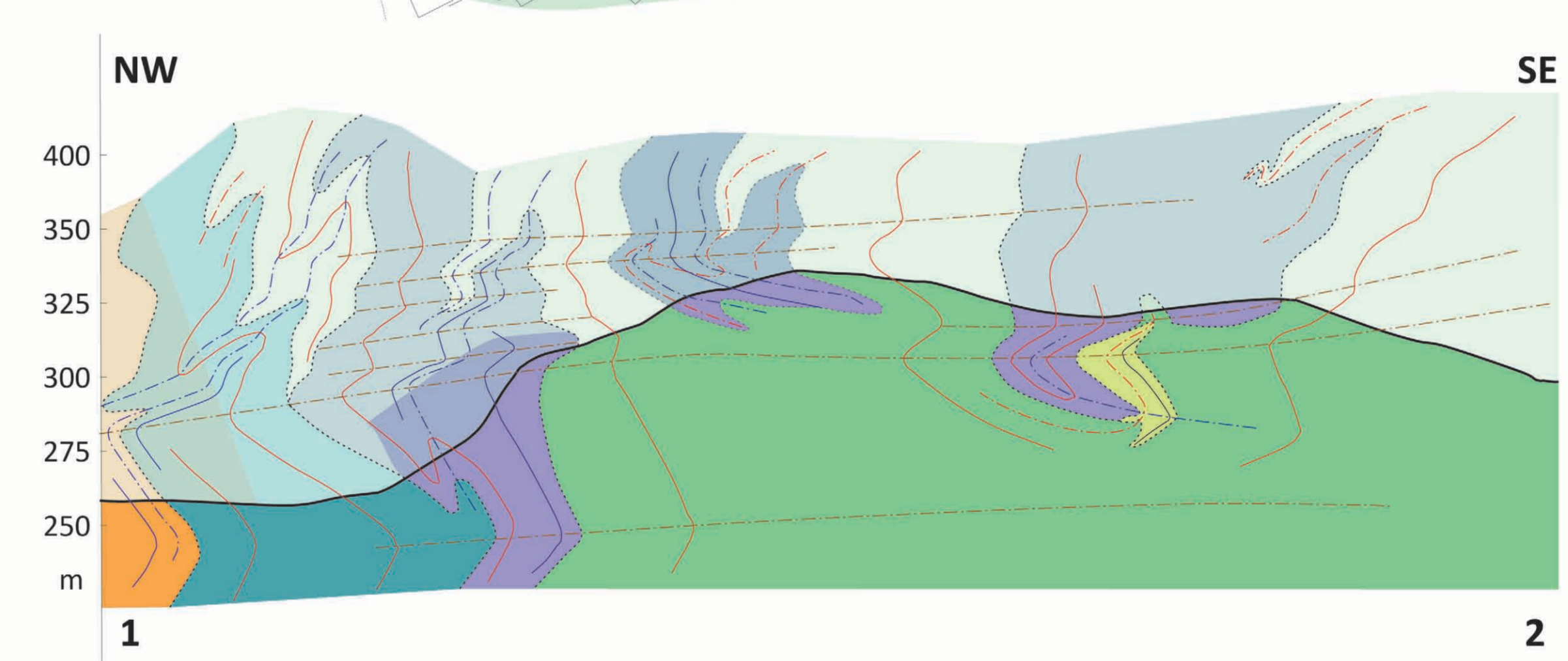
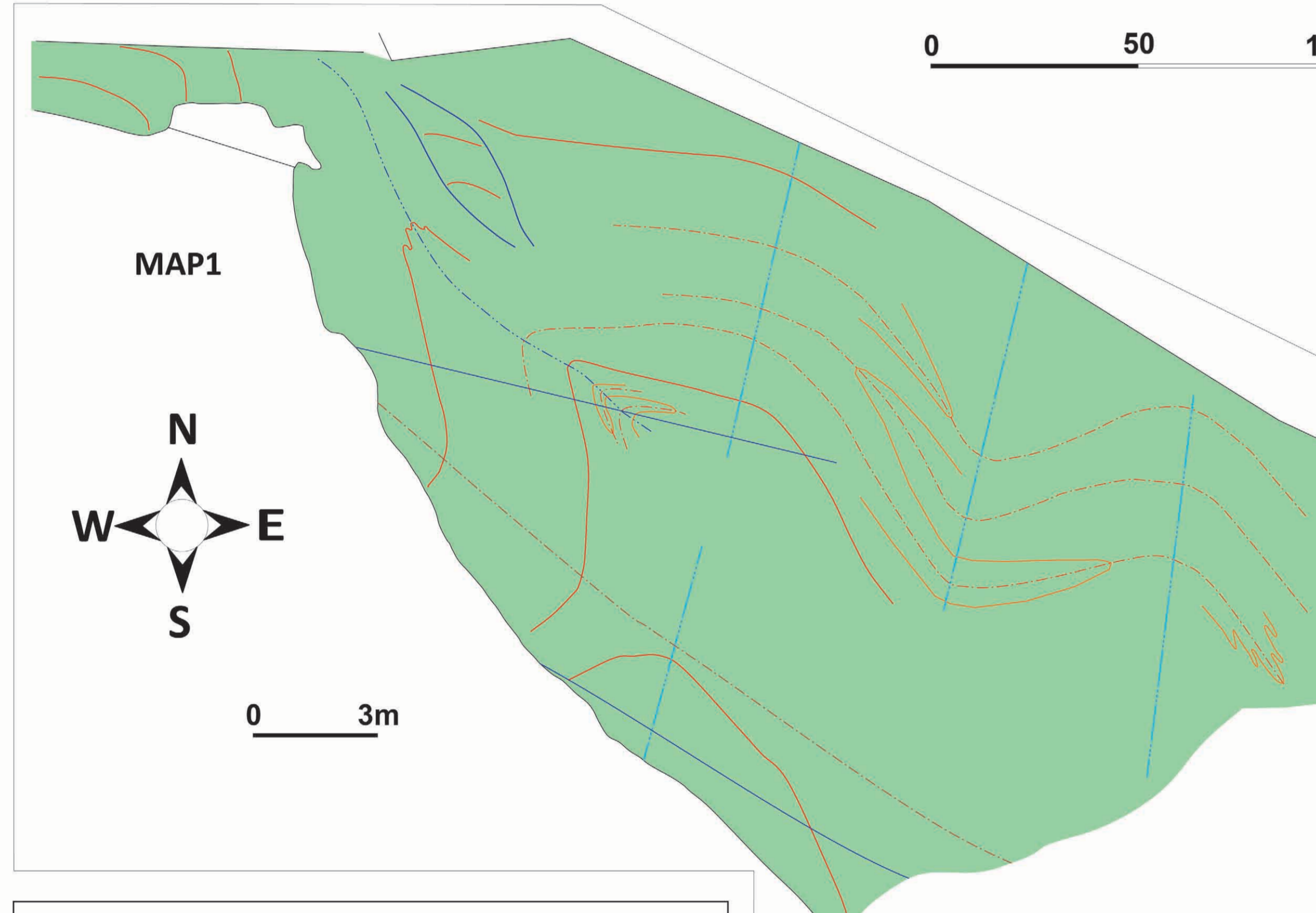
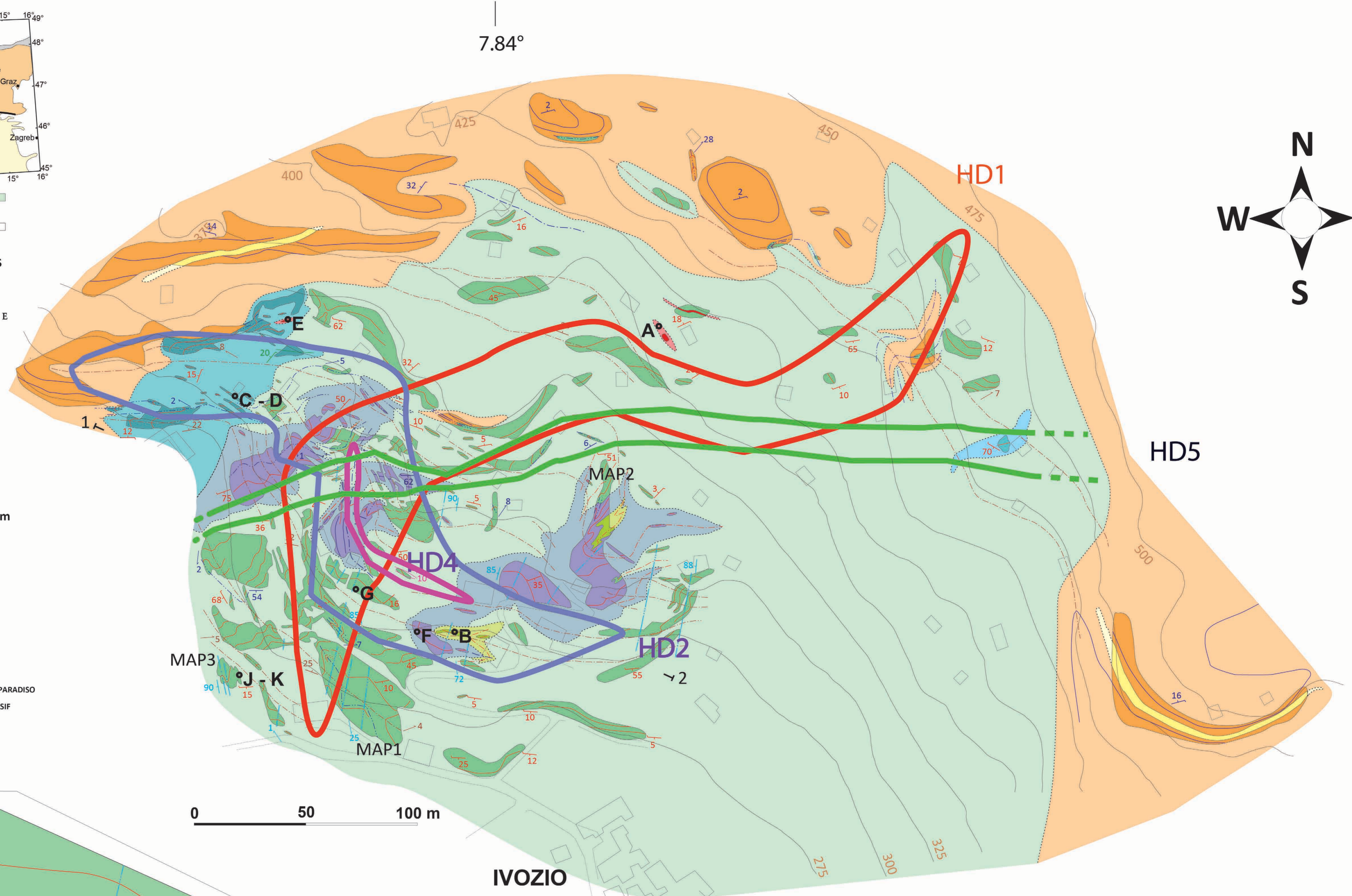
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TECTONIC OUTLINE OF THE INTERNAL WESTERN ALPS (BETWEEN VAL SESIA AND VALLI DI LANZO)



- MAIN MAP LOCATION**
- CENOZOIC INTRUSIVE**
- AUSTROALPINE NAPPE SYSTEM**
- DB Dent-Blanche Klippe
  - ME Monte Emilius
  - EMC EMC
  - GMC GMC
  - RCT RCT
  - IIDK IIDK
- PENNINE UNITS**
- DM GP DORA MAIRA and GRAN PARADISO
  - LM ULTRAMAFIC LANZO MASSIF
  - CO COMBIN NAPPE
  - ZS ZERMATT-SAAS ZONE
- Other units:**
- AR Aosta-Ranzola Fault
  - CO Combin Zone
  - DB Dent-Blanche Klippe
  - GP Gran Paradiso Massif
  - ME Monte Emilius Klippe
  - MR Monte Rosa Massif
  - EMC Eclogitic Micaschist Complex
  - GMC Gneiss Minuti Complex
  - RCT Rocca Canavese Thrust Sheet
  - IIDK II Zona Diorito-Kinzigtica



- SAMPLES**
- A = serpentinite
  - B = Qz-bearing eclogite
  - C = Zo-rich layers in Zo-Amp-bearing eclogites
  - D = Amp-rich layers in Zo-Amp-bearing eclogites
  - E = Diopside
  - F = Zo-bearing eclogite
  - G = Amp-bearing eclogite
  - J = Amp-rich layers in Amp-bearing eclogite
  - K = Grt-rich layers in Amp-bearing eclogite

- Ivozio metagabbroic Complex**
- Amphibole-bearing eclogite. Medium- to fine-grained blue-green Amp and Grt eclogites with minor Omp, Wm (Ph or Pg) and Zo, recording a massive up to 10-cm-spaced S1 foliation, marked by Grt trails and alternating Amp-rich/poor layers.
  - Zoisite-bearing eclogite. Medium- to coarse-grained Zo, Wm, Omp, Ky Lws eclogites with minor blue or blue-green Amp, Grt and Wm, recording 10-cm to cm-spaced S1 foliation marked by isoriented Zo, Wm and Amp. Minor volumes show S2 mm-spaced foliation marked by Omp, Wm and Zo wrapping Lws square-shaped porphyroblasts.
  - Amphibole-epidote-bearing eclogite. Medium- to coarse-grained blue-green Amp, Ep and Grt eclogites with minor Wm and Omp, mainly showing cm- to mm-spaced S1 foliation marked by blue-green Amp, Ep and Wm, overgrown by randomly oriented coarse-grained Omp.
  - Quartz-rich eclogite. Coarse-grained Zo, Omp and Qz eclogite with minor Wm and blue Amp, mainly showing a discontinuous 10-cm-spaced S1 foliation marked by Wm, Zo and Amp.
  - Chlorite-amphibolite. Medium- to fine-grained blue-green Amp and Chl amphibolites with minor Omp, Ep and Wm, mainly showing a cm-spaced S1 foliation marked by Amp, Chl, Ep and Wm SPO.
  - Ultramafic rocks. Medium- to fine-grained metaclinopyroxenites and Ol-bearing Atg-serpentinites with minor Tr and Chl. Metaclinopyroxenites showing a 10-cm-spaced S2 foliation marked by Chl, Tr and Di. Atg-serpentinites showing a mm-spaced foliation marked by Atg, Tr and Chl.
- Eclogitic Micaschist Complex**
- Medium- to coarse-grained Jd, Wm and Qtz metagranitoid, mainly showing a spaced discontinuous foliation, marked by Wm SPO and Qz elongated domains with Jd porphyroblasts.
  - Fine-grained Qz, Wm, Grt, Gln and Omp micaschist, with a penetrative mm-spaced S2 foliation marked by Wm, Gln and Omp SPO, and relics of S1 mm-spaced foliation.
- Veins**
- Grt-bearing veins
  - Omp-bearing veins
  - Gln-bearing veins
  - Zo-bearing veins
- High strain Domain boundaries**
- HD1
  - HD2
  - HD4
  - HD5
- Mineral abbreviations**
- Amp = amphibole
  - Atg = antigorite
  - Chl = chlorite
  - Di = diopside
  - Gln = glaucophane
  - Grt = garnet
  - Jd = jadeite
  - Ky = kyanite
  - Lws = lawsonite
  - Omp = omphacite
  - Pg = paragonite
  - Ph = phengite
  - Qz = quartz
  - Tr = tremolite
  - Wm = white mica
  - Zo = zoisite

- LEGEND**
- Metamorphic foliations and axial plane trajectories**
- S1 foliation defined by blue-Amp, Wm, Zo/Ep and Grt trails.
  - S2 foliation defined by blue-Amp, Omp, Wm, Zo/Ep and Grt.
  - S4 mylonitic foliation with Gln, Ep and Wm.
  - S5 mylonitic foliation with Chl, Act, Ab, Wm and Ep.
  - D1AP: axial plane trajectory to D1 fold systems.
  - D2AP: axial plane trajectory to D2 fold systems.
  - D3AP: axial plane trajectory to D4 fold systems.
  - D5AP: axial plane trajectory to D6 fold systems.
  - Fold axes attitude (D1, D2, D3 and D5)
  - Axial plane attitude (D2, D3 and D5)
  - Foliation attitude (S1, S2, S4 and S5)
- \*A-K sample location
- 1 2 trace of the geological cross-section
- light color interpretative, dark color objective

