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The Eoalpine High Pressure Belt west of the Tauern Window

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Eclogites in the Texel Unit (Eastern Alps; South Tyrol, Italy) represent the westernmost outcrops of the E-W striking Eoalpine High Pressure Belt (EHB), a key feature of the Eastern Alps. The EHB forms part of a Cretaceous intra-continental, south(east) dipping subduction/collision zone as visible east of the Tauern window. West of the Tauern window the same nappe stack displays a northwest dip giving rise for discussion on the general setting.

Based on own observations and literature data we present a new and coherent tectonic model for the eastern end of the EHB: Despite at present the major structures dip to northwest the subduction was originally directed to south(east). Due to the special situation of this area at the tip of the Southalpine indenter the originally south(east) dipping structures became overturned and former thrusts appear as normal faults (e.g. Schneeberg fault zone) while former normal faults presently display thrust geometries (e.g. Jaufen fault).

Two crustal-scale cross-sections together with an evolution model are presented to illustrate the model.