My original review was quite favourable because of the innovative way to delimit plains and mountains and how the problem of the size of moving windows (NAW) in neighbourhood analysis had been tackled. I commented that the calculated units did not represent landforms in my opinion, but rather slope and elevation classes within the three broad landform categories: plains, hills and mountains. This point of view is not shared by the authors, but for me it is fundamental as I show in the figure below.

The problem of mountain valleys classified as low hills persists, and some 'landform' categories regroup fundamentally different (convex - such as ridges - and concave - such as valleys -) topographical shapes. The morphological aspect of the 'landforms' is therefore not adequately captured in this classification, which basically represents units separating plains from hills (problematic, see below) and mountains, combined with slope and elevation classes. By focusing on the high precision of the result through the use of high resolution DTM, the product is of high precision of the mapping units but low accuracy of their classification in terms of landform. It would have been a good thing to validate the proposed landform classification with a number of experts, for example by extracting classified GBLU terrain units of a representative sample of small areas (e.g. 50 * 50 km, like in the figure shown below) and asking whether the proposed units resonated with their understanding of the landscape.

While acknowledging that the macro delimitation between plains and mountains (L1) is useful and based on an original approach, I doubt, as claimed, that anyone wishing to study erosion, microclimate or ecological zones locally or regionally would use the GBLU for these purposes, but rather stick to a DTM and derived measures such as ruggedness, slope, orientation etc.

The proposed solutions to the concerns I advanced in my first reviews are purely cosmetic and do not address them fundamentally. I don't think for example that renaming 'mountain' to 'mountain slope' addresses the fact that the mapped units do not represent landforms. If you take a DTM and colour the elevation zones, the patterns you get are almost identical to the units of the GBLU. I don't see a clear advantage of using the GBLU over DTMs and elevation zones.

I am a bit challenged by the fact that the authors present a global landform map, but are fine with classifying a valley(floor) as a hill and then leave it up to the discretion of the users to reclassify their product to identify the actual landforms (such as valleys) they are interested in. If you look at the product and its classifications in a mountain region such as the Alps, the sequence of 'landforms' as one goes from low (valley bottom) to high (mountain peak) is: 1.0.1. (which does not figure in the legend, but I suppose it is 1.1.1.) low altitude plain (which would actually correspond to valley floor), 2.1.1., low altitude hill (which would actually correspond to valley or lower foot slope, depending on the width of the valley), 2.2.1. low altitude low relief mountain slope, 2.2.2. middle altitude low relief mountain slope, 2.3.2., 2.4.2., 2.5.2. and 2.5.3. These last classes mainly represent different elevation and slope classes on the slopes of a large mountain.
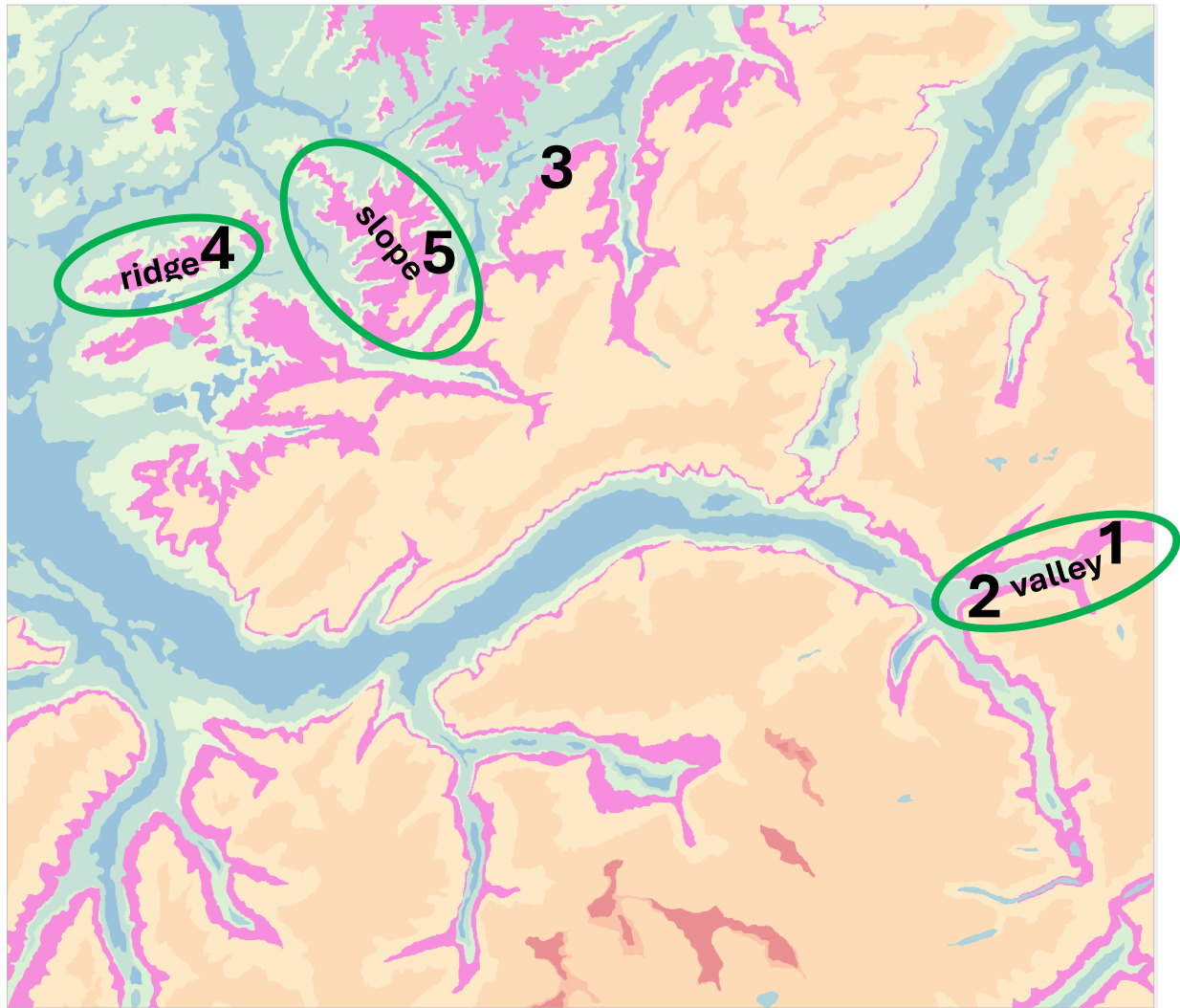
This figure from the Alps illustrates what is problematic from my point of view with the 'landform' classification proposed in the GBLU. The landform class 2.2.2. 'Middle-altitude low-relief mountain slope', highlighted in purple, identifies lower slopes or valley bottoms (concave shapes) in the Alps while it identifies ridges (convex shapes) in the alpine foreland. Then, there is an intermediate case where 2.2.2. seems to correspond to mid-slopes of ridges. Ontologically, morphologically, visually and genetically these landforms have very little in common, apart from a certain elevation and slope class. Basically, depending on where you look on the map class 2.2.2. is either a high mountain valley floor (1), a high mountain valley slope (2), a high mountain foot slope (3), a low mountain crest or ridge (4), or a low mountain slope (5).

I still like the innovations introduced to map plains and rugged terrain in great detail but I object to the presenting product's map units as representing landforms.