Under Development

CREATE YOUR OWN MAP

This chapter presents how a new layer can be calculated and how a proper map can be generated.

Calculate a new layer Now Ms. Curious wants to create her own new layer. Chapter 4.2 already gives an overview of the “Calculate” tool. The basic data she needs is offered within the WebGIS, but she would like to compare and calculate the average of wind power density for two different municipalities: Brunico/Bruneck and Cortina d’Ampezzo. Therefore Ms. Curious activates the layer “Power-Density at a height of 50 m” in the content tree. She also starts the “Calculate” tool. Ms. Curious deletes the example expression. She drags and drops the layer into the calculation field. Then she sets the required operation “av()” - average for pixel values per LAU unit and clicks “Validate” to prove a successful syntax. All possible mathematical operations and their explanations are listed here. Statistical parameters are generated when a correct validation has been proven. Ms. Curious decides on a blue colour ramp, the outline width and outline colour. Also a new label is typed into the corresponding field. By clicking on “Create layer”, the new layer appears and is listed in the layer list. Now she can continue with further styling of the map. Ms. Curious uses the municipality search window and searches for “Bruneck”. By clicking on the polygon of this municipality she finds out that the average power density at a height of 50 m is 128,67 W/m² for the whole municipality. To compare, she searches for the municipality of Cortina d’Ampezzo, where the average power density at a height of 50 m is 405,57 W/m² for the whole municipality. Ms. Curious finds out that the average power density is higher for Cortina d’Ampezzo than for Bruneck. She gets the idea that this wind power could be used for generating energy. She plans to share this information with relevant stakeholders and companies, so it can be used perhaps for the evaluation and planning of a potential wind park in the municipality.

Style your new map: The listed layers, which are required for Ms. Curious map, can be further edited to create a corresponding map.

- Change background map: Ms. Curious is not really satisfied with the background map. She wants to try some alternatives. She can change the background map by clicking on the “Background” drop down menu located in the upper right corner of the website. She has to decide which of these options best supports her layers and which of these help her with the orientation. Afterwards she zooms to the extent of her interest: Cortina d’Ampezzo.
- Change transparency of the layer: Ms. Curious wants to see her generated layer, the background map, the name labels for the municipalities and the ski resorts in one single map. She activates the following layers: Av_power_dens_50, LAU – Labels (Political-Geographical Boundaries → Administrative Units) and Ski Resorts (Ski Resorts → Open Ski Map) –by clicking on the layer name. For visibility purposes, Ms. Curious wants to see the background map through the resulting datasets. Therefore, she needs to change the transparency of the layer “av_power_dens_50”. She changes the transparency by moving the slider between 0 % and 100 % invisibility in the layer properties below the menu tree. Ms. Curious prefers to see the LAU labels in solid colours in the front of all other layers. This can be done by setting the transparency of the main presented layer to 0 %. Next, she adjusts the transparency of the ski resorts layer to about 50 % and the transparency of her own calculated layer to about 30 %. In the background she uses the OSM Stamen Terrain. The order in which the selected layers appear in the map and in the layer properties, depends on the order in which Ms. Curious activates the single layers in the Smart Altitude WebGIS. The last selected layer is located at the top of the layer properties list.
- Change order of the layer: Ms. Curious wants to have the LAU labels at the top of her layers.

Then she wants to see the ski resorts. To do so, she changes the order using the arrows on the right hand side of the layers in the layer properties. Clicking on an upward arrow brings the layer one level higher. Clicking the downward arrow brings a layer one level lower. Ms. Curious changes the order until she has her desired sequence. Additionally, she sets the transparencies by moving the slider. Ms. Curious now has a first impression of the average power density of Cortina d'Ampezzo and the surrounding municipalities. She can open the "Parameter metadata" through the "i" icon to see the legend and the unit of the new layer. The unit is "W/m²" and the map shows that this municipality has a quite high potential of power density at a height of 50 m.