

OES Web-GIS user manual

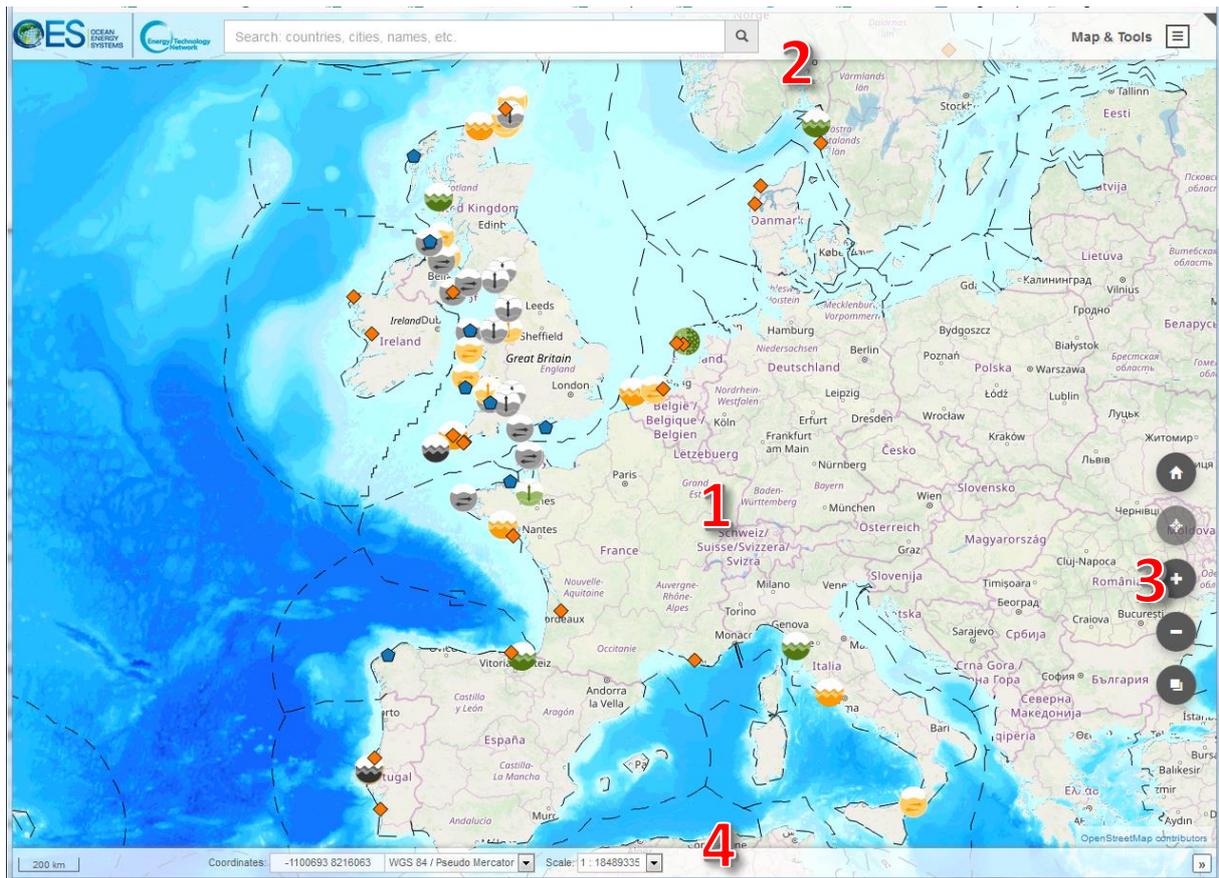
Contents

| | | |
|-----|--------------------------------------------|----|
| 1 | General | 2 |
| 2 | Map navigation..... | 2 |
| 2.1 | Mini map | 2 |
| 2.2 | Search for places | 3 |
| 2.3 | Change the map view | 3 |
| 2.4 | New map window..... | 3 |
| 2.5 | Full Screen | 4 |
| 3 | Map layers and legends..... | 4 |
| 3.1 | Change the background map | 4 |
| 3.2 | Switch map layers on or off..... | 5 |
| 3.3 | Transparency and order of map layers | 5 |
| 3.4 | Show map layer legend | 6 |
| 3.5 | Print map legend | 7 |
| 3.6 | Compare top layer..... | 8 |
| 3.7 | Import external map layers | 9 |
| 4 | Object information | 10 |
| 5 | Tools | 11 |
| 5.1 | Measuring..... | 11 |
| 5.2 | Redlining / drawing | 14 |
| 5.3 | Saving and sharing the map | 15 |
| 5.4 | Raster Export | 16 |
| 5.5 | Print maps | 17 |

1 General

The web-GIS' (web based Geographical Information System) user interface is divided into four areas:

- the map canvas in the center (1),
- the upper tool bar with the search box, the "Map & Tools" button and the full screen button (2),
- the buttons for zooming and switching the background maps (3)
- the lower tool bar with the spatial details of the map and the mini map button (4).



2 Map navigation

2.1 Mini map

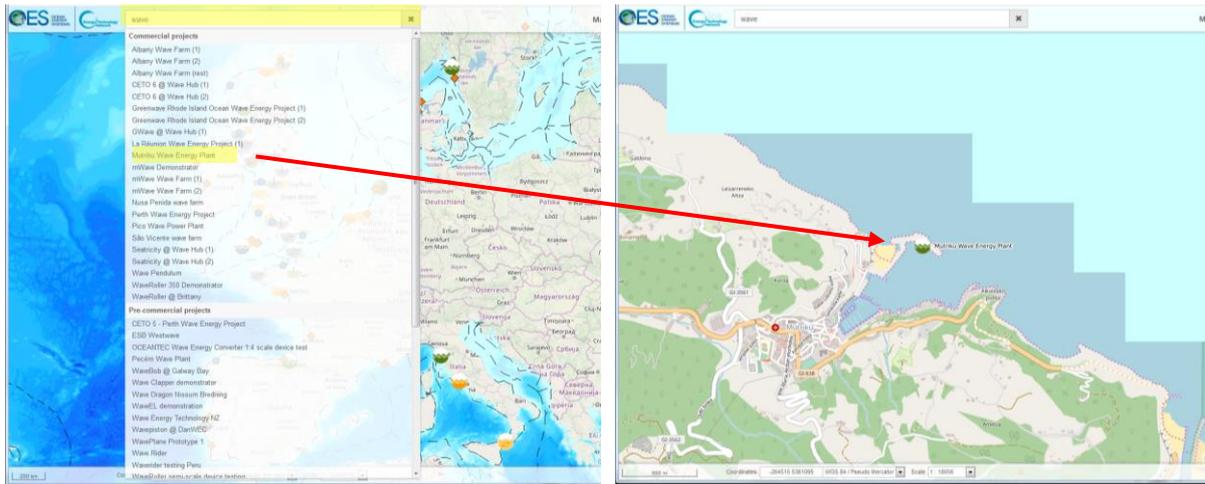
For better orientation in high zoom levels, click the button in the right corner of the lower tool bar to activate a mini map of the surrounding area.



2.2 Search for places

Entering a search term (or only part of it) in the search box in the upper tool bar will display all objects that match the search term. Click on an entry to jump and zoom to the respective object.

Currently marine energy projects, testing facilities, countries, and cities can be searched by their names.



2.3 Change the map view

Pan the map by clicking and dragging the mouse, or by swiping with one finger.

Zoom in or out of the map by using the mouse wheel or by pulling with two fingers. Use the plus or minus buttons (1) at the bottom right corner of the interface to for a step by step zoom.

Zoom directly to a specific section of the map by holding the shift key on the keyboard and pulling up a rectangle with the mouse.

Click / tap the home button [2] to reset the map view to the starting view.



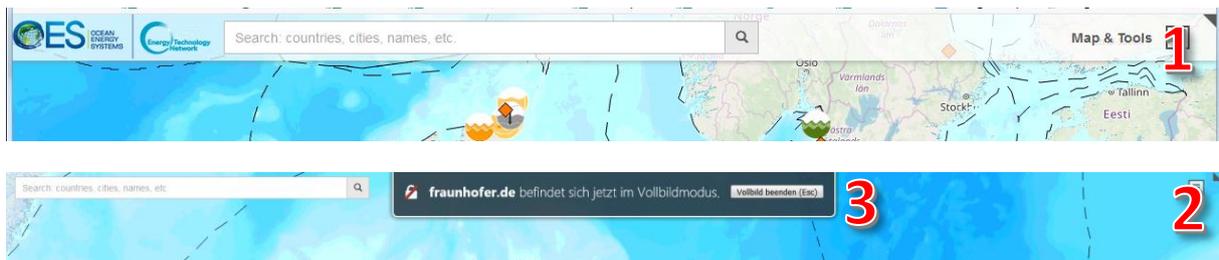
2.4 New map window

Click / tap on the OES logo   to open a new map window.

2.5 Full Screen

Click on the small triangle in the upper right corner (1) of the upper tool bar to open display the map in full screen mode.

Press the Esc key on the keyboard or click on the inverted small triangle in the upper right corner (2) to leave full screen mode. The third option is to move the mouse pointer to the upper edge of the map and then click on the appearing button (3). The displayed button may vary depending on the browser you are using.



3 Map layers and legends

3.1 Change the background map

Change the basic background map by clicking the according button in the lower right corner of the interface.

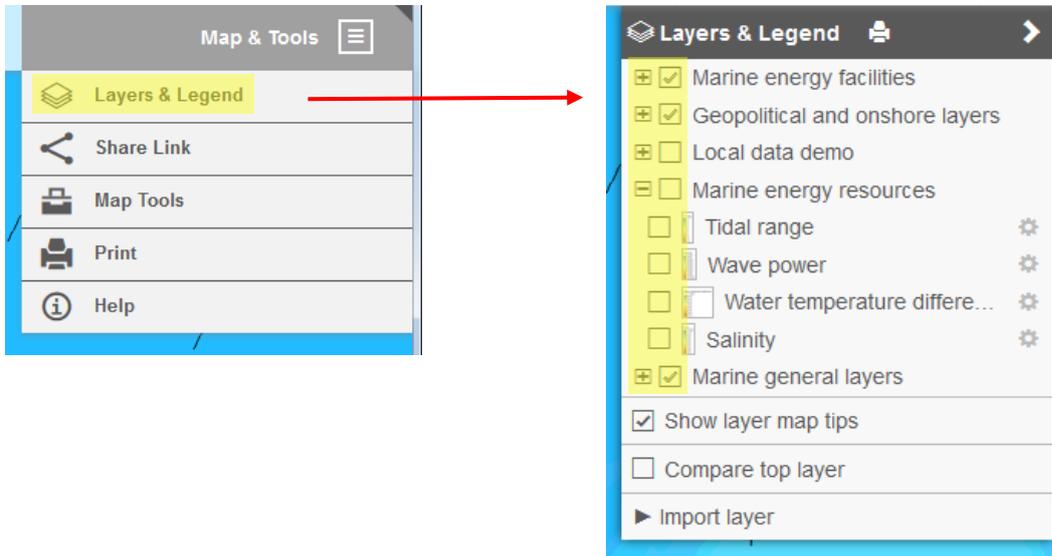
Currently there are three background maps available:

- No background,
- Open Street Map,
- Satellite view.



3.2 Switch map layers on or off

Switch available map layers on or off by opening the “Layer & Legend” menu and ticking the checkboxes next to the layers’ names.

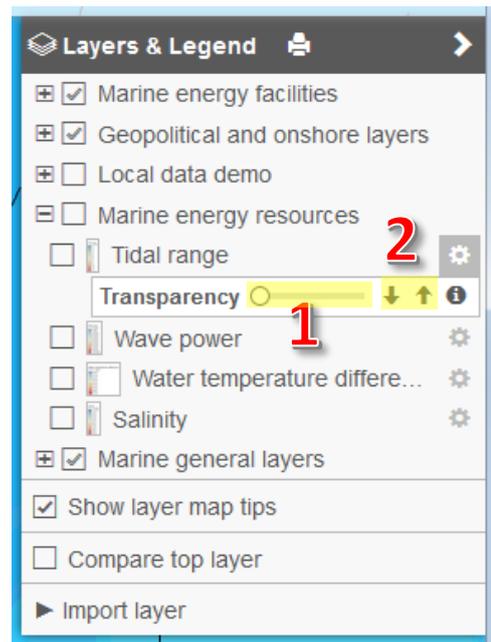


3.3 Transparency and order of map layers

Organize the map layers by clicking / tapping on the  icon next to a layer’s name.

Adjust transparency by moving the slider (1).

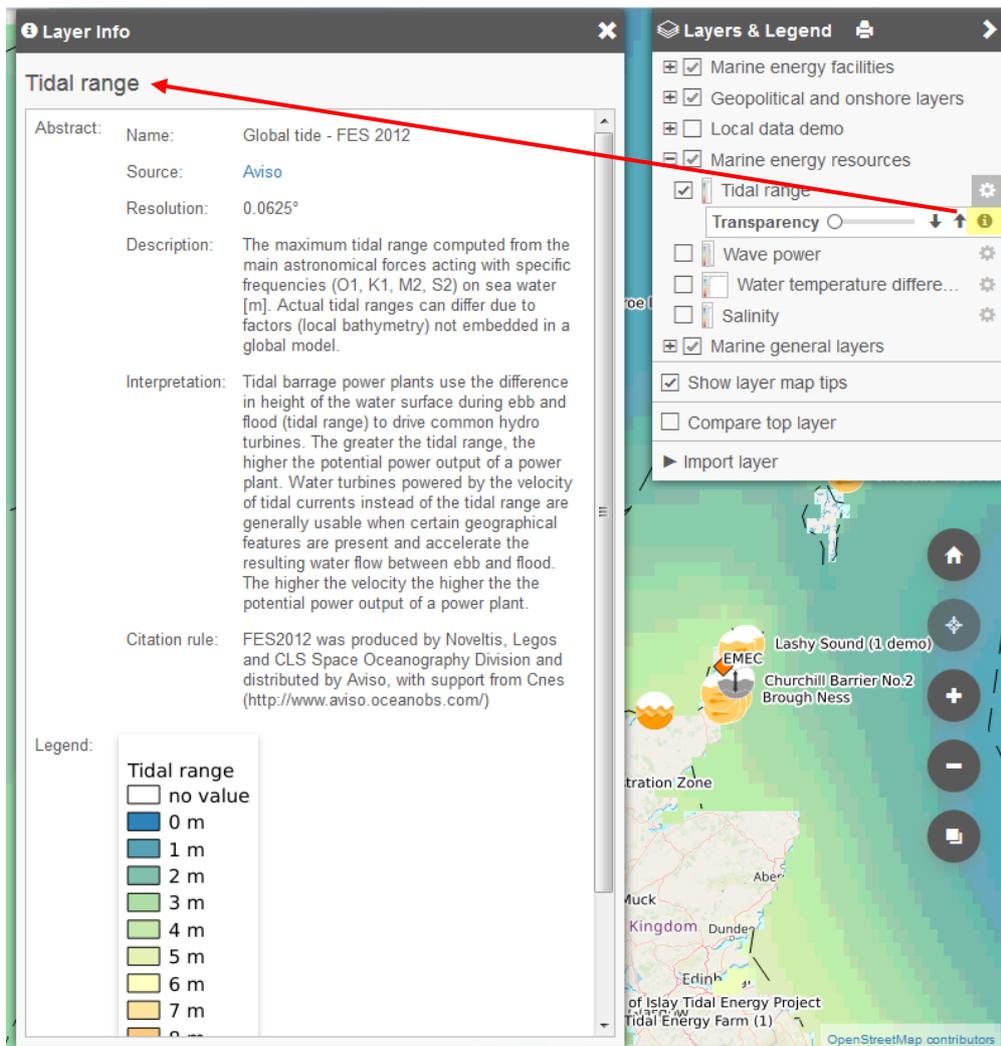
Change the display order by clicking / tapping on the arrow symbols (2). In order to compare a specific layer with all underlying layers using the “Compare top layer” tool (see Chapter 3.6), it needs to be moved to the very top of the “Layer & Legend” menu list.



3.4 Show map layer legend

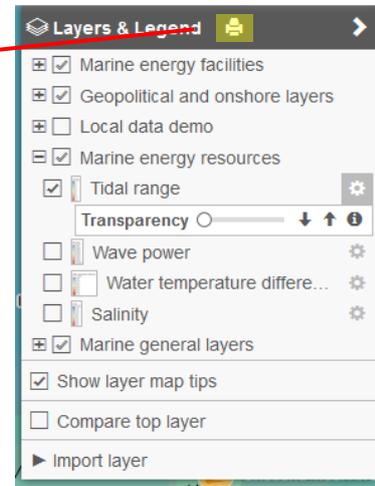
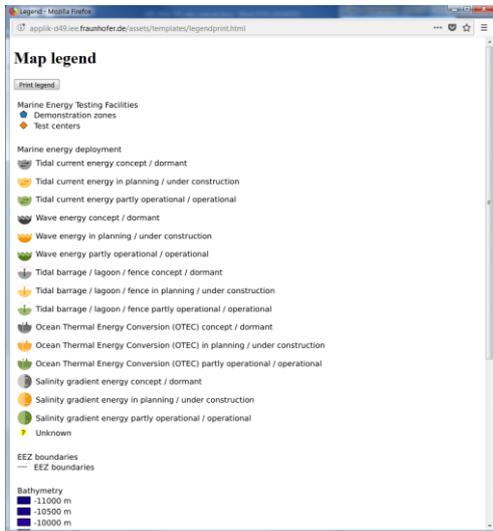
Organize the map layers by clicking / tapping on the  icon next to a layer's name.

By clicking / tapping on the  icon, the legend of the corresponding map layer is displayed together with several meta information. The legend is also displayed when pointing at the miniature legend icon next to the layer's name.



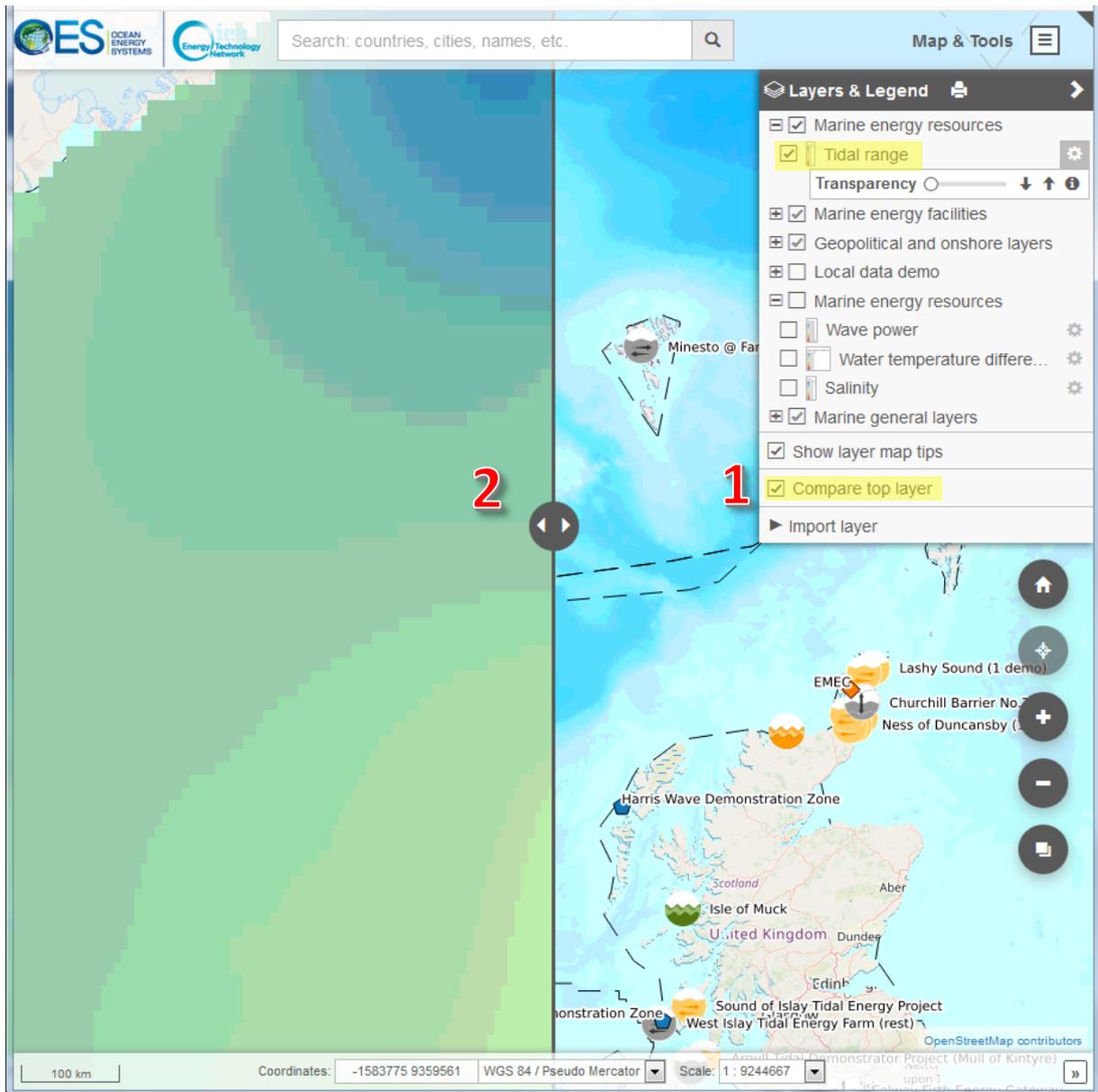
3.5 Print map legend

Click the printer button in the “Layers & Legend” menu to display the map legends of all activated layers in a separate browser window.



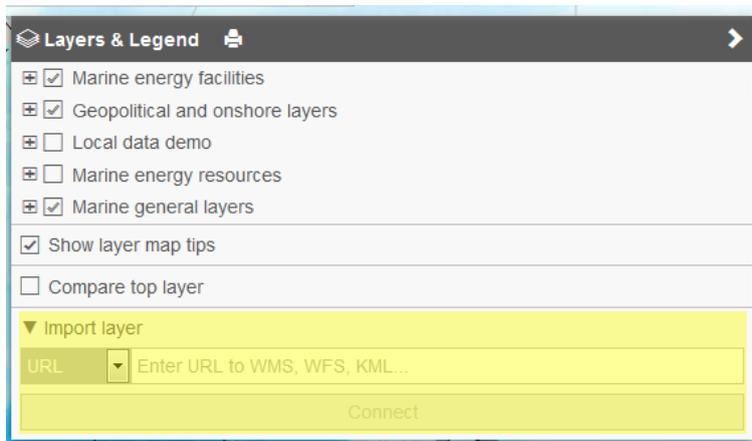
3.6 Compare top layer

The uppermost map layer can be dynamically compared with all of the underlying map layers by toggling the “Compare top layer” tool (1) and using the slider (2). See Chapter 3.3 for instructions how to change the layer order to make a desired layer the uppermost layer.



3.7 Import external map layers

Use "Import layer" to add third party layers to the "Layers & Legend" menu. Layers can be added from appropriate WMS and WFS web services as well as KML files.



A) WMS / WFS import

Select the option «URL» and enter the address of the desired web service. Click "Connect" to request and list all layers available from the web service. Click on a layer from the list to add it to the map as uppermost layer.

If a web service is failing to respond, it may not be appropriately configured to communicate with the web-GIS.

B) KML import

KML files can be integrated either by entering a URL address ("URL" selection option) or by uploading a locally saved file ("Local file" selection option).

Once added, a layer can be removed by clicking the according  icon.

4 Object information

Display information on map objects and specific spots on the map canvas by pointing at or clicking / tapping at a desired location. If several map layers overlap each other, all active layers are queried at the respective location.

Select multiple objects by holding the Ctrl key on the key board and clicking / tapping at desired locations.

Feature Info

Marine energy deployment: Sotenäs Project (1)

| | |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Status | fully operational |
| Name | Sotenäs Project (1) |
| Phase | 1 |
| Country | Sweden |
| Sea | Skagerrak |
| Region | northwest of Kungshamn / Smögen |
| Latitude (° N) | 58.679 |
| Longitude (° E) | 11.146 |
| Capacity [MW] | 3 |
| Energy source | marine energy (wave) |
| Number of converters | 36 |
| (Estimated) begin of construction | 01.01.2013 |
| (Estimated) commissioning | 28.02.2017 |
| (Estimated) decommissioning | |
| Converter manufacturer | Seabased |
| Converter type | WEC S2.7 |
| Converter working principle | Point Absorber |
| Converter capacity [MW] | 0.083 |
| Website | http://www.seabased.com/en/projects/sotenas-wave-pover |

Bathymetry: 1240497, 8110810

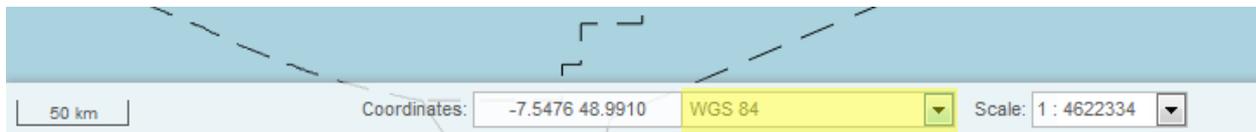
| | |
|--------|----------|
| Band 1 | -30.0867 |
|--------|----------|

Export

10 km Coordinates: 1248293 8159118 WGS 84 / Pseudo Mercator Scale: 1 : 577792

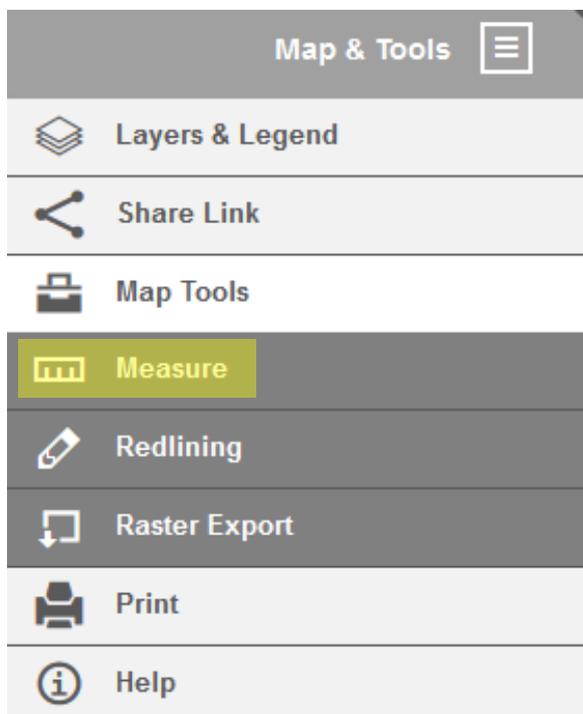
5 Tools

You may want to choose the “WGS 84” coordinate reference system from the drop down menu at the bottom tool bar in order to display measured values in degrees. This is particularly useful for “Position” and “Bearing” measurements. Selecting the “WGS 84 / Pseudo Mercator” coordinate reference system will result in values being measured in meters relative to the reference system’s origin.

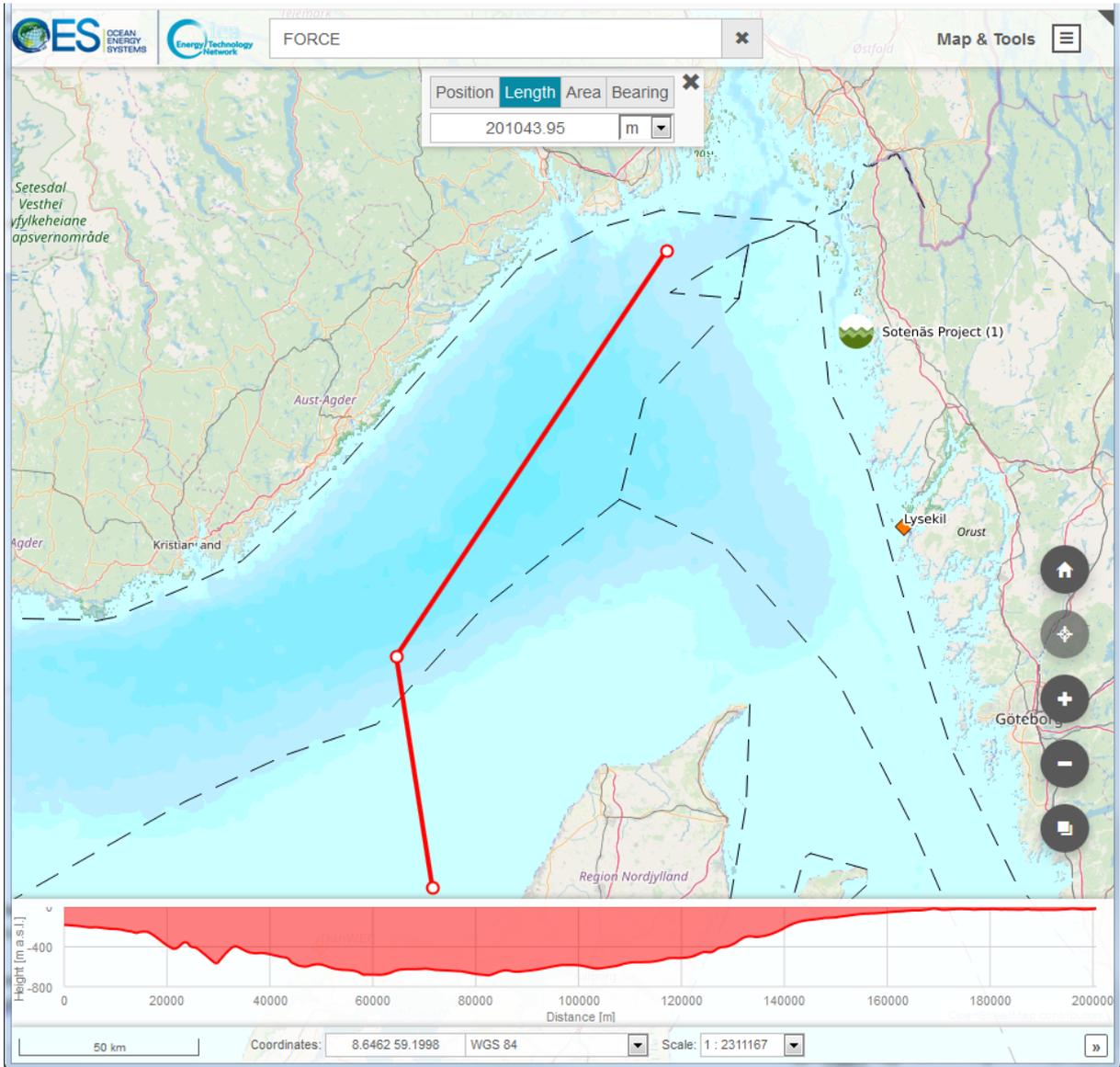


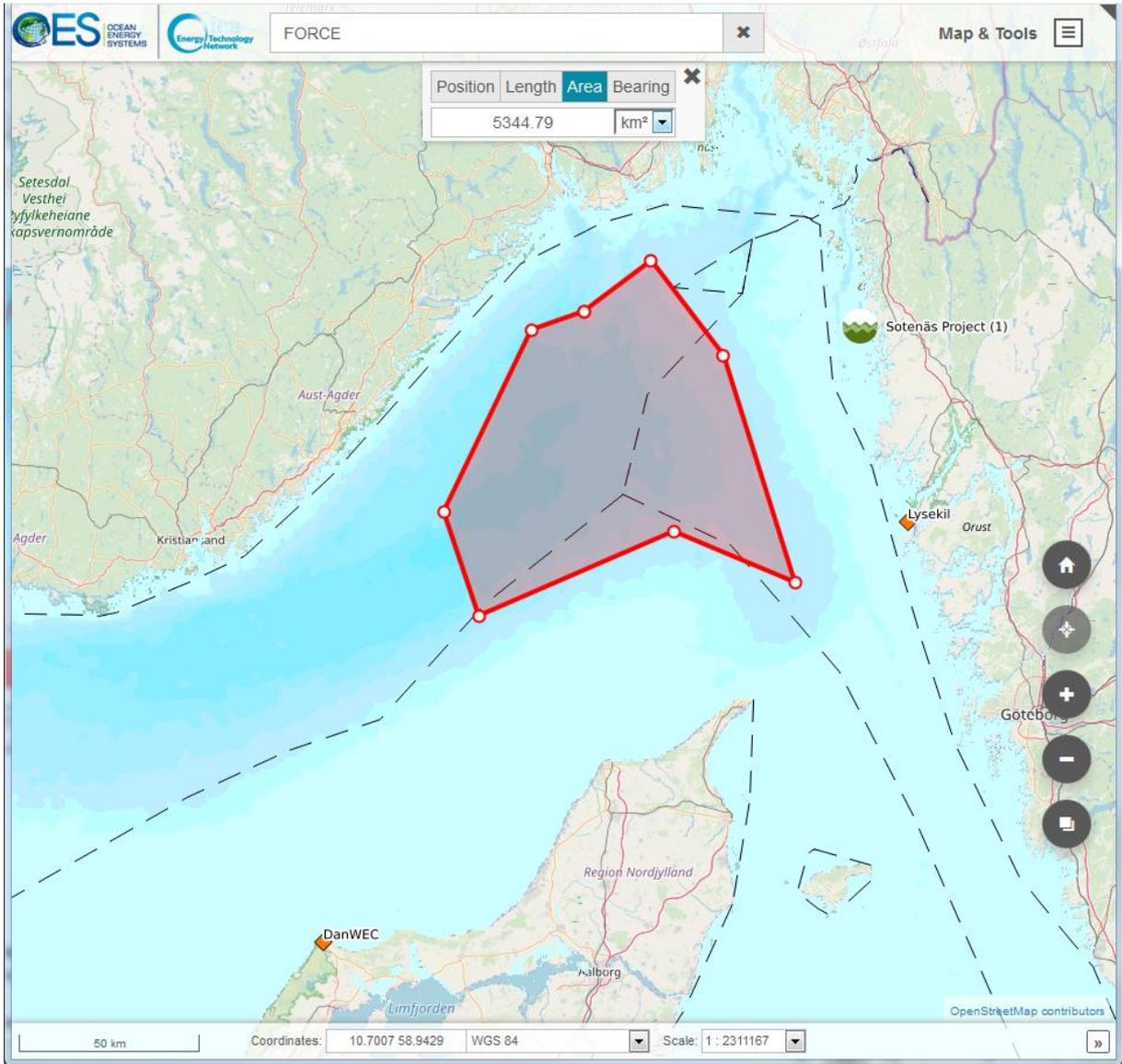
5.1 Measuring

Activate the measuring tool in the "Tools" menu.



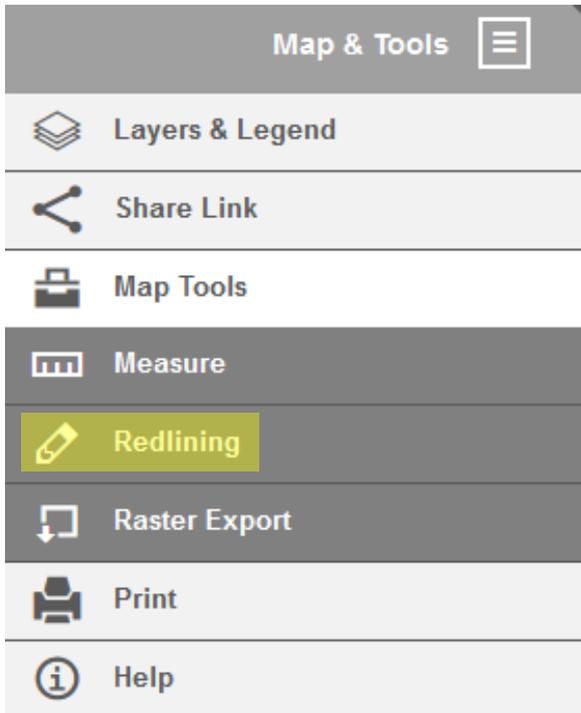
- Position: Click at any point of the map to display its coordinates.
- Length: Measure the length along a path of multiple waypoints. The first mouse click defines the starting waypoint. Click on a desired location to add the next waypoint. Double-click to set the final waypoint. Upon completion, the water depth profile along the waypoints is displayed.
- Area: Measure the area of a polygon using the same technique as with “length”. Click on the starting point to close the polygon.
- Bearing: Measure the azimuth direction between two points by clicking twice on the desired locations.



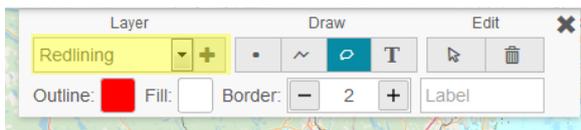


5.2 Redlining / drawing

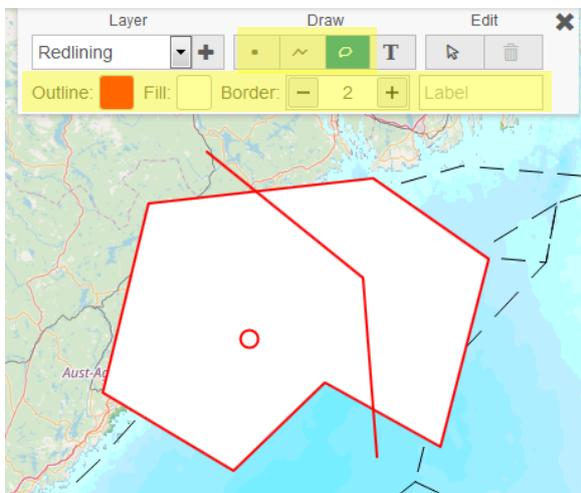
Drawing layers appear in the “Layers & Legend” menu just as normal layers. A drawing layer can be removed using the trash can icon next to the layer’s name. Drawing objects are included in the exported raster image files (see Chapter 5.4) and the PDF print outs (see Chapter 5.5). Created drawing layers are “stored” when creating a permanent map link using the “Share Link” tool (see Chapter 5.3).



Activate the Redlining tool in the "Map Tools" submenu.

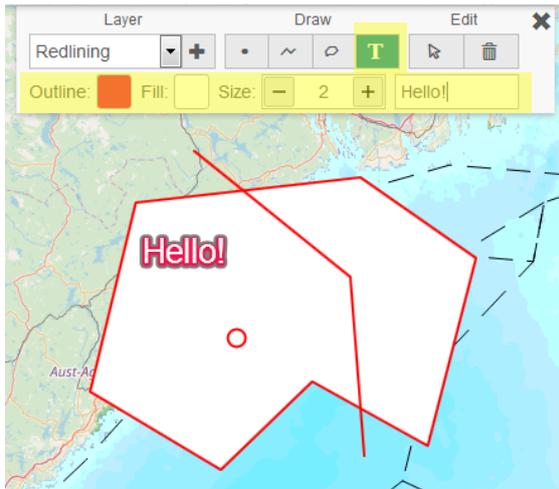


A temporary layer named “Redlining” is automatically created. It includes the drawings and texts created with the Redlining tool. Click on the + button to create additional redlining layers and use the drop down menu to switch between them.



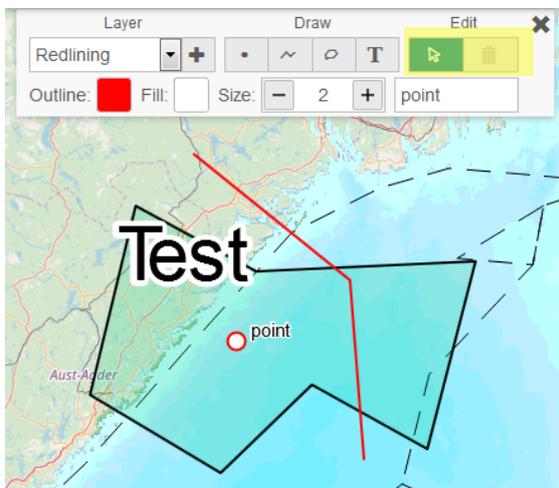
Draw points, lines and polygons onto the layer by using the appropriate buttons. With a mouse click the points are set and by double-clicking the line or area drawing is completed. Polylines and polygons can be revised by clicking on a line section and moving the new point to the desired position.

Adjust border thickness, color and transparency settings and add a label if desired.



Add text anywhere on the map by clicking on the T icon, typing in any text and then clicking on the map.

Adjust size, color and transparency settings as desired.

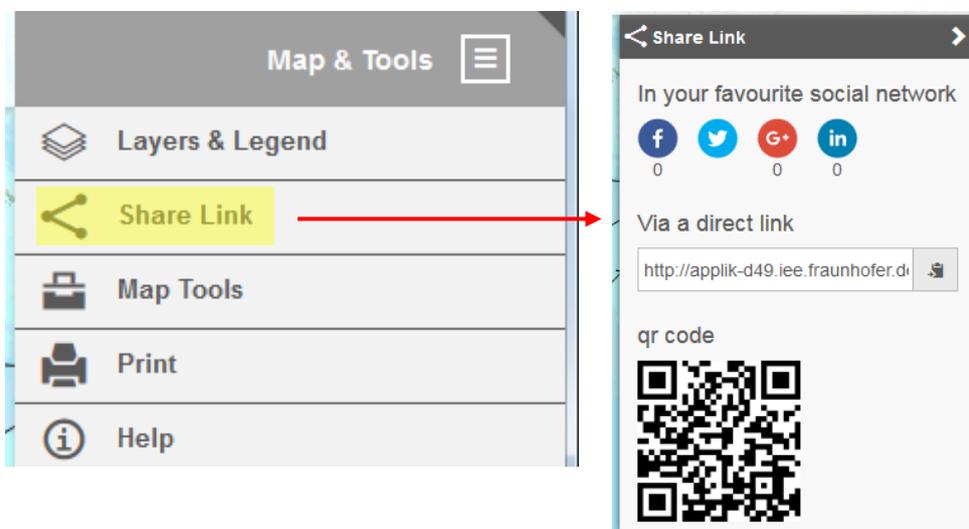


Use the arrow icon to select any drawn or text object and edit their properties.

Use the trash can icon to remove any selected drawn or text object.

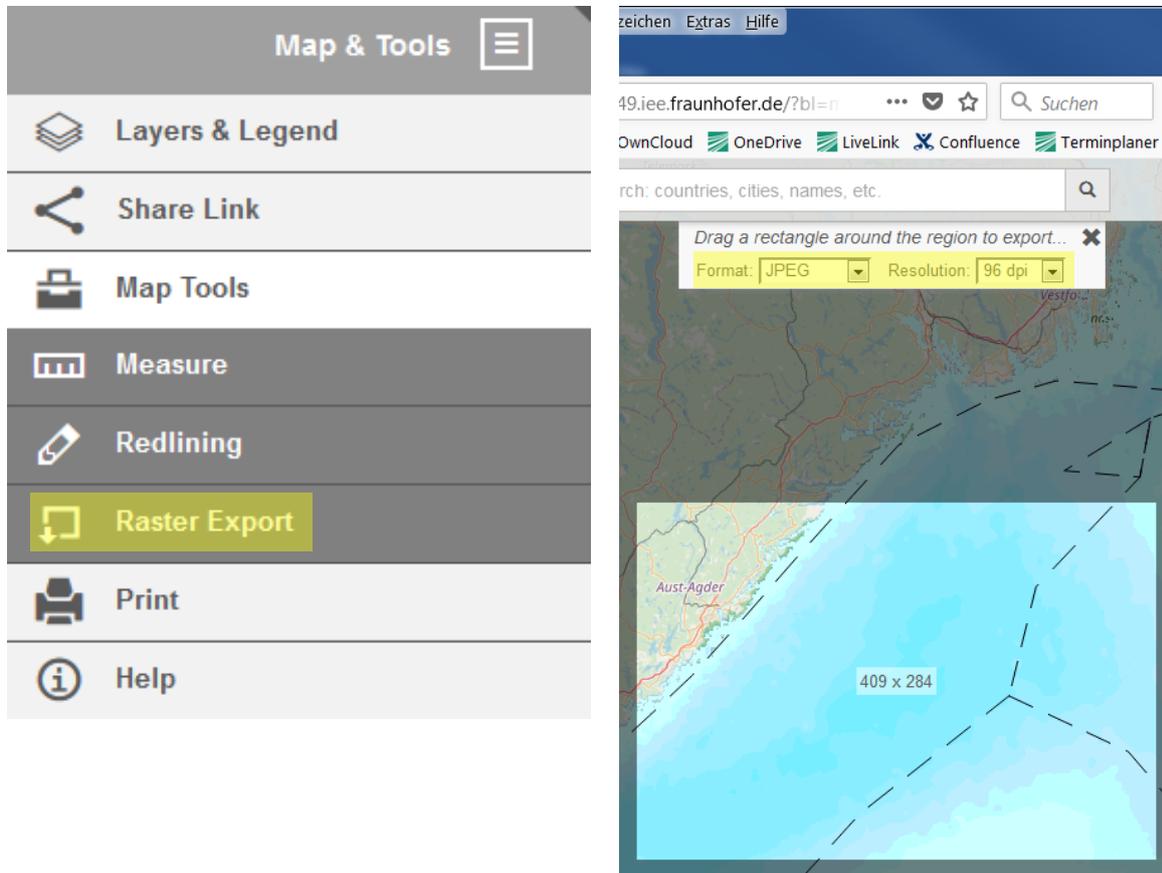
5.3 Saving and sharing the map

Via the tool menu "Share Link", the currently displayed map can be copied, saved and forwarded as a link. The link stores the layer configuration (transparency and order), external layers, and drawing objects.



5.4 Raster Export

Use the “Raster Export” tool to save a snapshot of a map section as PNG or JPEG raster image file. Activate the tool, select the desired file format and resolution and pull up a rectangle from top left to bottom right with the mouse. The image’s pixel size is displayed continuously. The selected section is loaded in a new browser window and can be reused and saved from there.



5.5 Print maps

Use the “Print” tool to save the current map section as PDF file. Activate the tool and select a layout from the drop down menu. Adjust scale, resolution and rotation of the map as desired. Click the print button to generate a PDF file.

