

User Guide

Baltic Explorer v 1.0.0

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1. Baltic Explorer

Baltic Explorer is a web-map application that is designed for collaborative maritime spatial planning. With Baltic Explorer you can:

- Explore spatial data and maps of the Baltic Sea from multiple sources
- Draw and edit your own ideas and plans on a map
- Share your work with colleagues in multi-user workspaces
- Work locally or remotely on multiple devices

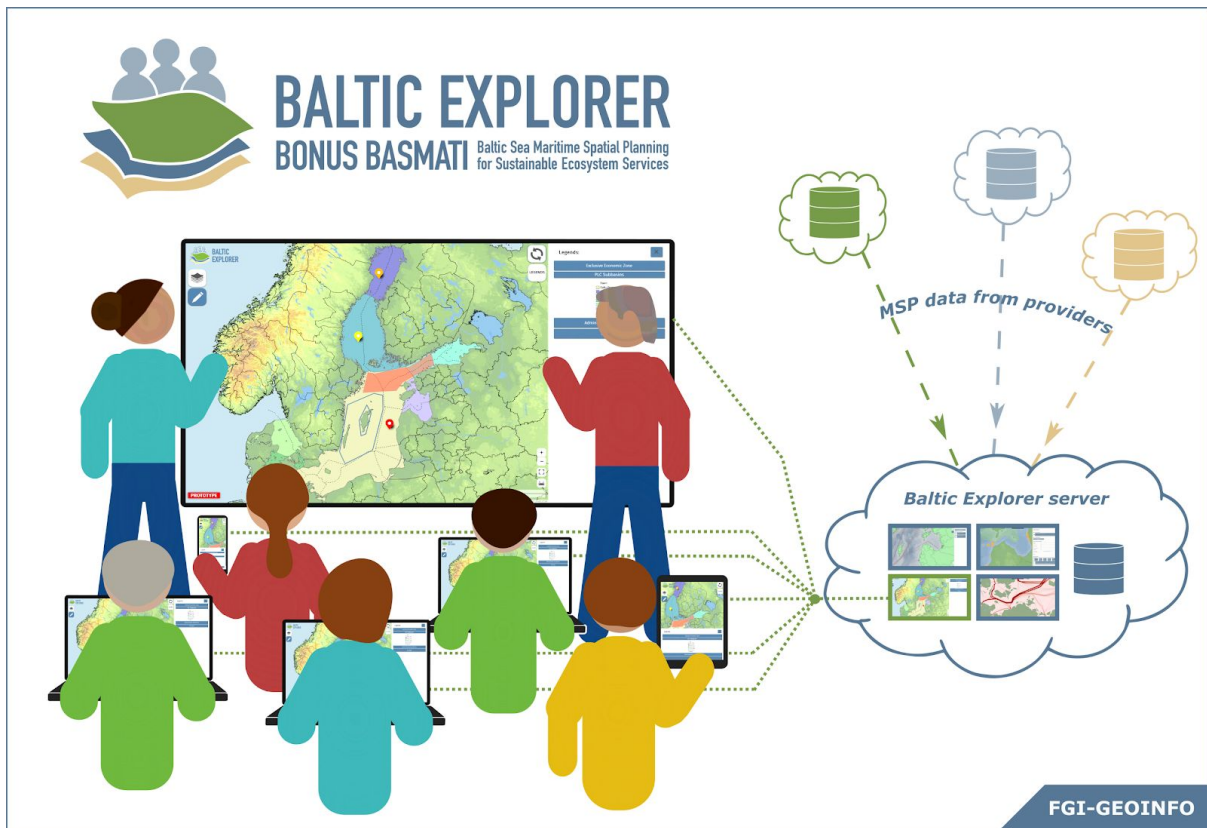


Figure 1. Baltic Explorer is a web map for collaborative maritime spatial planning.

2. Central concepts

2.1 Workspaces

The Baltic Explorer features multi-user workspaces where users can collaborate together in groups. When users draw or add new data to a workspace, once these changes have been saved and stored to the Baltic Explorer server, other users in the workspace can see the changes that have been made. Users who are already inside the workspace will see the changes when they use the sync button (see section 2.5 Sync, below).

2.2 Overlays

Baltic Explorer features overlay data layers from various sources that can be visualised on the map. These layers are not stored within the system. Instead Baltic Explorer provides quick access links to Web Map Service (WMS) layers that access the overlay data from the providers servers.

2.3 Features

Features are vector objects (points, polylines and polygons) that can be drawn on the map. Baltic Explorer enables features to be drawn, edited, imported and exported. Features may represent different real-world objects according to the user's needs. Features are stored in Feature layers.

2.4 Feature layers

Feature layers store features and help users to categorise and organise them. The default style of features drawn to each feature layer can be customised to help distinguish between different themes of data on the map.

2.6 Sync

Users can synchronize (sync) their workspace view which will refresh the workspace. All newly added and edited features by other users will be shown. Changes made by other users to the overlays will also be shown.

3. Users and user roles

Baltic Explorer can be used either by signing up for an account to become a user or anonymously. Signed up users and anonymous users can access and even edit workspaces that have been given these rights by the workspace owner. Only signed up users can become workspace owners and have their own feature layers in workspaces where they are an editor.

3.1 Workspace owner

When a user creates a new workspace, that user becomes the workspaces owner. Workspace owners have full access to all parts of their workspaces. They can also edit features and feature layers created by other users. This allows the owner to for example move features from any layer to another, delete any feature or layer and rename features. The workspace owner decides who can see, access and edit their workspace.

3.2 Editor

When editing rights within a workspace are set to “Only editors can edit”, only users that have been given the editor status in the workspace have the right to draw features and make changes to the workspace such as change the overlays. The workspace owner can assign new editors to a workspace from the workspace settings.

3.3 Anonymous user

Anonymous users can enter public workspaces and can even edit workspaces that are set to “Anyone can edit”. Anonymous users all edit the same feature layer. Multiple simultaneous edits on the layer will fail as the system cannot separate the anonymous users. It is encouraged that users sign up to a user account in Baltic Explorer, instead of using anonymous access to workspaces.

4. Using Baltic Explorer

4.1 Home page

When entering the Baltic Explorer web-map application users are greeted with the Baltic Explorer home page, Figure 2. From the home page menu (top) users can access workspaces or go the BONUS BASMATI home page, for more information about Baltic Explorer and the BONUS BASMATI project. Users can access existing workspaces from the Public workspaces or My workspaces. Logged in users can also create new workspaces from the home page. Creating a new workspace will take the user straight to the workspaces map interface. Under the home page menu is the user login management (top right). Users can sign up for an account or log in if they already have a Baltic Explorer account.



BALTIC EXPLORER

BONUS BASMATI

Baltic Sea Maritime Spatial Planning
for Sustainable Ecosystem Services

ABOUT BALTIC EXPLORER



- Explore spatial data and maps of the Baltic Sea
- Collaborate on a shared map workspace
- Draw and edit shared features on the map
- Work together and apart on multiple devices

DIVE INTO BALTIC EXPLORER

[Play in the Sandbox](#)[Public Workspaces](#)[My Workspaces](#)[New Workspace](#)

Figure 2. Public workspaces, my workspaces, the Sandbox and new workspaces are accessed from the Baltic Explorer home page. Signing up and login in is also accessed from the home page.

4.2 Creating an account

New users are encouraged to create an account before accessing workspaces. An user account will enable users to create their own workspaces. Workspaces created by others may also require the user to be listed as an editor, to allow the user to work within the workspace. Access to workspaces can also be given to just certain users.

To create an account, users need to press the Sign up button in the login management (top right). Baltic Explorer will ask the user to enter a username and password. Beyond the username and password no additional information about registered users is stored.

Username are unique, therefore when attempting to create a username that is already taken the user is asked for another username.

As creating a Baltic Explorer user account does not require an email address, there is no way of retrieving a forgotten username or password.

4.3 Accessing workspaces

Users access workspaces by first entering the workspace pages from the home page (top), either by pressing the Public workspaces or My workspaces buttons, Figure 3. Users can also access a Sandbox workspace where anyone can edit and try out the system (top). Public workspaces are workspaces that anyone can access and view what has been done within them. Public workspaces can have either restricted edit rights, or they can be free for anyone to edit in. My workspaces contains workspaces where the user is listed as either the owner of the workspace or an editor. Users have the right to view these workspaces and depending on the workspace settings also have the right to edit the workspace.

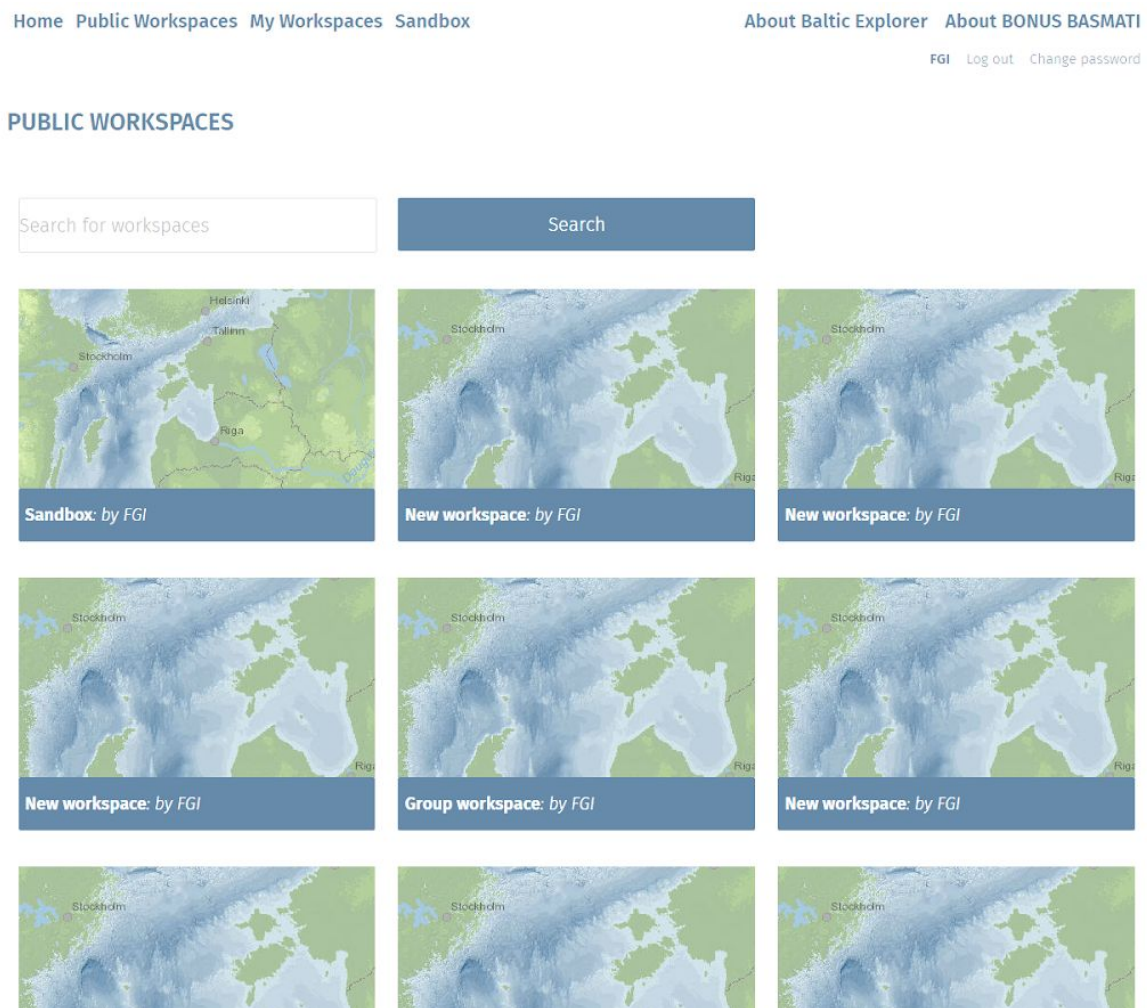


Figure 3. Workspace selection page lists workspaces.

4.4 Making sense of the map user interface

Baltic Explorer workspaces have map based user interfaces, Figure 4. Users can pan and zoom the map with the mouse control, or by tapping and dragging the screen if working with a touchscreen, also zoom buttons are available (bottom right).

The Baltic Explorer UI consists of buttons and panels. Buttons related to editing are on the left and buttons related to syncing are on the right. Panels are opened on the right side of the map view or below the map when using Baltic Explorer on small screen sizes. Dark colored panel backgrounds indicate that the workspace will be edited and prompts the save button (top right). Light colored panel backgrounds indicate that the workspace will not be edited.

The left side menu has the Baltic Explorer button, the data panel button and the edit features button. When pressing on the edit features button, Baltic Explorer will enter editing mode, and the feature panel will expand to include controls for drawing new features and accessing the Feature management panel. See section 4.9 for more details.

The top-right menu features the sync button, and when there is something to save, the save button, as well as a legend panel button when overlays are added to the map. Syncing is required to see edits made by other users. The legend panel button will open a panel that displays the legends of all overlays that have been added to the map.

When users make certain actions in Baltic Explorer, the system may provide some information in an info bar in the middle of the top edge of the UI. The info bar will disappear on its own after a few seconds. It can also be closed by pressing the X on the right side of the bar. The lower-right corner of the map features the zoom controls, the measure tool, a scale bar and credits for data that is displayed on the map.

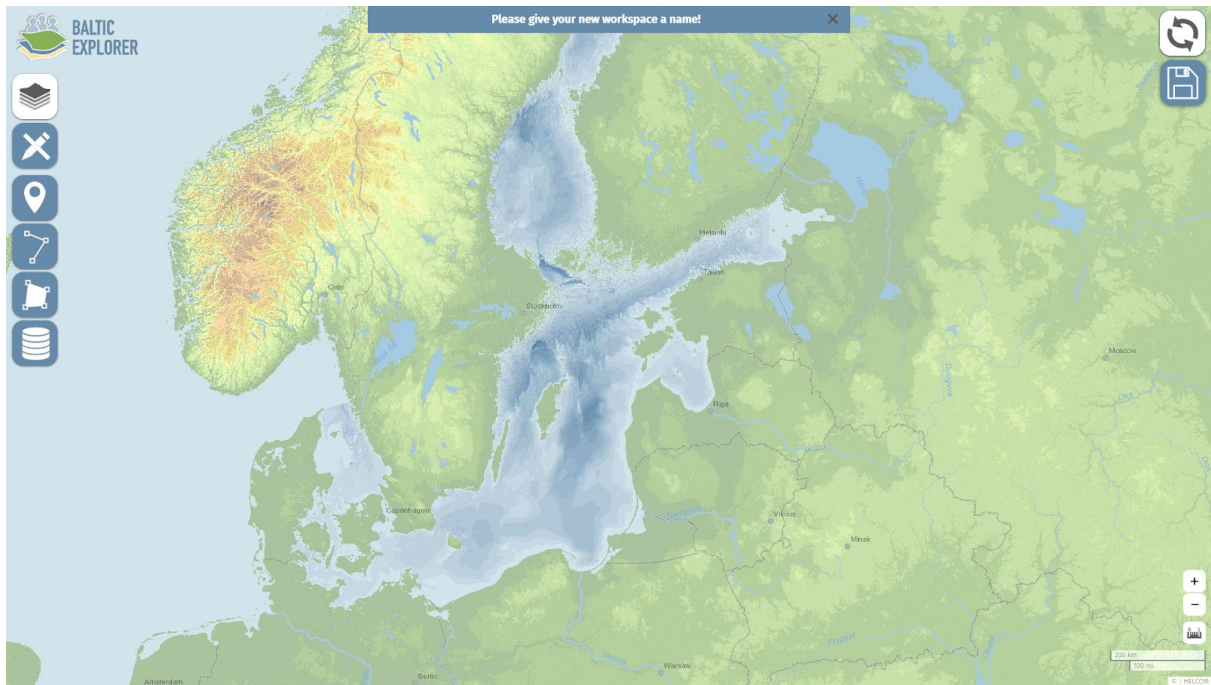


Figure 4. The Baltic Explorer user interface. 1) Baltic Explorer button, 2) data panel, 3) edit features, 4) draw features, 5) manage data layers, 6) info bar, 7) sync, 8) save, 9) zoom, measure tool, scale bar and credits.

4.5 Main panel

When opening the main panel by pressing the Baltic Explorer button (top-left), users will first see the info panel, Figure 5. The info panel provides basic information about Baltic Explorer, and enables users to access the user guide, home page, summary of the workspace, and for the owner workspace management.

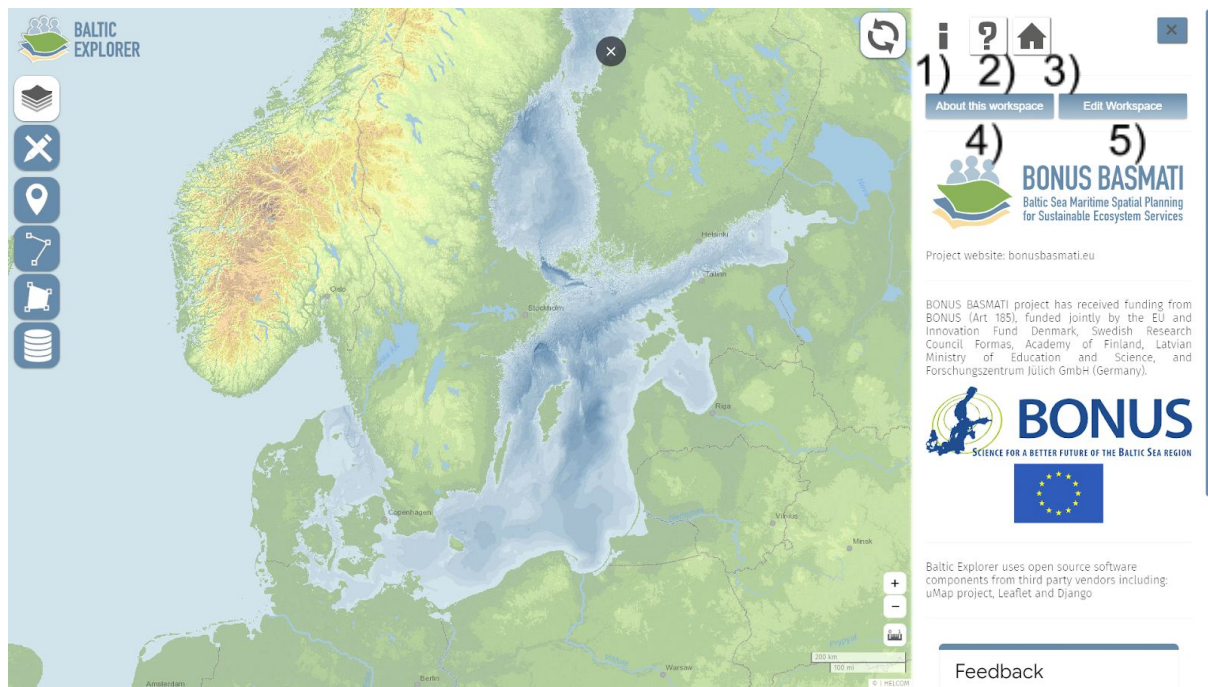


Figure 5. The main panel offers general information for everyone and workspace management for the owner of the workspace.

4.6 Workspace management

Workspace management can be accessed by pressing the Baltic Explorer button and then from the main panel the Edit workspace button. Workspace management is available to workspace owners only, Figure 6. From the workspace management panel, the workspace owner can edit the name and description of the workspace, edit the default map view by limiting the map bounds, control UI elements, restrict access and editing of the workspace, add editor users to the workspace.

Through advanced actions the owner can delete or clone the workspace. Cloning the workspace will create an exact replica of the current workspace and open it. The owner can also delete, download and import vector data. Downloading the data can be done in the following standard formats: *geojson*, *gpx*, *kml*, and in the Baltic Explorer full map format, which is the same as cloning the workspace but just having it in a file format. The full map file can be uploaded to replace a workspace. Importing data can be done in the following standard formats: *geojson*, *csv*, *gpx*, *kml*, *osm*, *georss* and in the Baltic Explorer full map format.



Figure 6. The owner of the workspace can edit workspace settings, such as, visibility of the workspace and who can edit the workspace.

The owner can edit all the workspace settings: visibility, editing and editors, Figure 7. Visibility: public, hidden (default) or private controls who can see the workspace. Editing: everyone, editors (default) or owner controls which user groups can edit the workspace. Editors list: owner (default) controls which users are editors of the workspace. To add an editor the owner can start to type the name of the editor and select the editor from the appeared list below. The workspace must be saved to apply the changes. The workspace will appear in the selected users My Workspaces page list.



Figure 7. Setting a workspace public but only editable by editors allows everyone to see the workspace but only selected users to edit.

4.7 Browsing and controlling data in the data panel

The data panel, accessed by pressing the data button (top left) lists the features that have been drawn or imported to the map as well as the overlays that have been added, Figure 8. In addition, users can access the Background maps panel where they can change the workspace background map.

Features are organised according to the feature layers that they are part of. Feature layers can be hidden and zoomed to from the panel. Users can also edit or delete feature layers that are assigned to the user. Workspace owners can edit and delete any feature or layer. In addition, users can press the features to zoom to them, or if created by them access the feature edit menu from the pencil symbol.

In the data panel, users can also press on and off overlays that are on the map. Users can also change the opacity and view the legend of overlays by pressing on the overlay buttons in the panel. The order of the overlays can be changed by dragging the overlay over or under another overlay. From the data panel users can also access Overlay management panel.

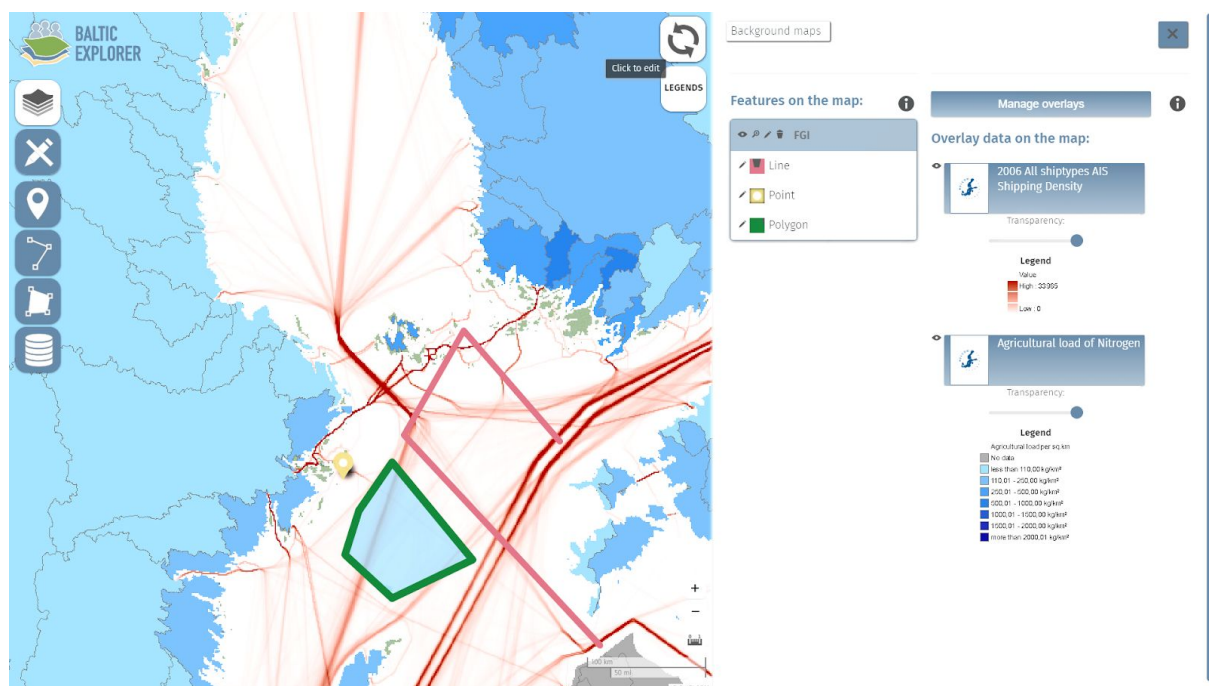


Figure 8. Background maps, map features and overlay management are accessed from the Data panel.

4.8 Managing overlays

The Overlay management panel lists all the overlays that are available in the Baltic Explorer, Figure 9. Overlay management panel is opened by pressing the data button (top left) and pressing the Manage overlays button from the data panel. The data in the overlay panel is

organised according to the data providers. Each provider defines their own categorisation, and the data is further organised according to these categories. To help users find datasets easier among the more than thousand overlays, there is a search function that will search data from all overlay data in Baltic Explorer.

Overlays are selected to be visualised on the map by pressing on the overlays. This will move the overlay to the top of the overlay panel and also show it on the data panel. Pressing the overlay that is on the top of the overlay panel will remove the overlay from the map, the data panel and the overlay panel. The removed overlay will return to it's category in the overlay panel.

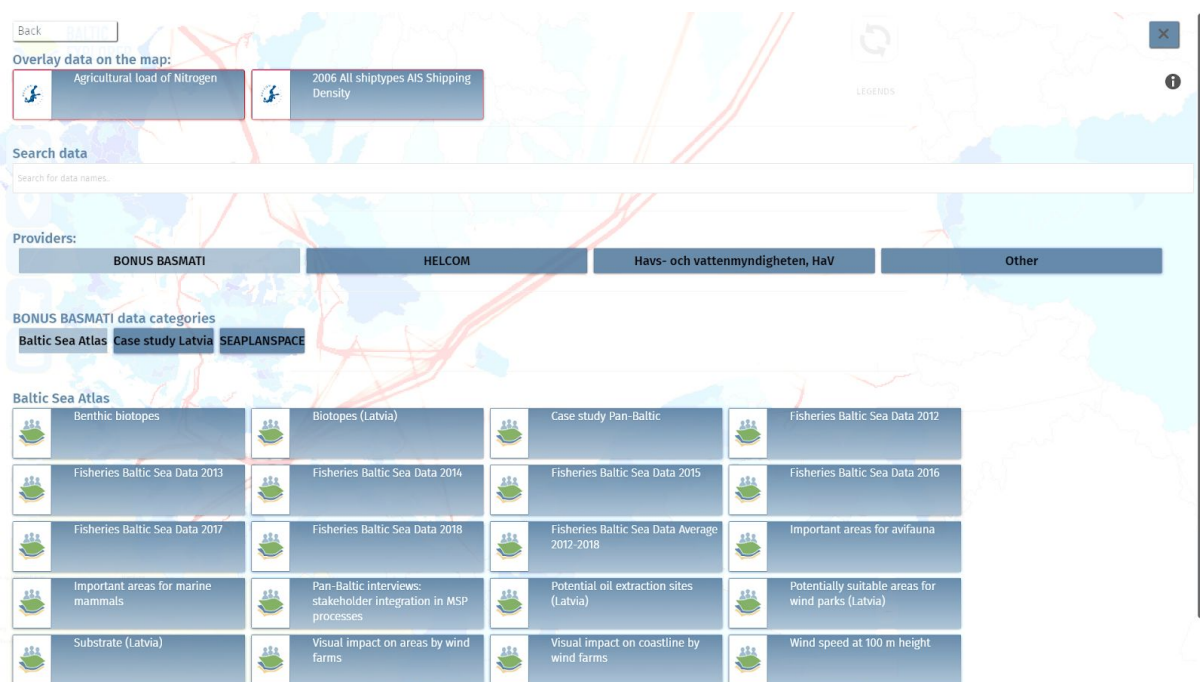


Figure 9. Overlay management panel categorizes more than a thousand overlays ready to be selected to be displayed on the map.

4.9 Drawing and editing features

Users that are allowed to edit in a workspace can draw points, polylines and polygons on the map. Pressing the pencil button will open the drawing menu and from there the desired feature type can be selected. Place the point or starting node of a line or polygon by pressing the desired location on the map. Polylines and polygons may have any number of nodes. A new node is drawn by pressing on the map again. To finish drawing a polyline or a polygon, press a second time on the last node.

When a feature is finished, the feature editing panel will open automatically. From here, users can select the layer for the feature, give the feature a name and description, enter comments about the feature and change its style, Figure 10.

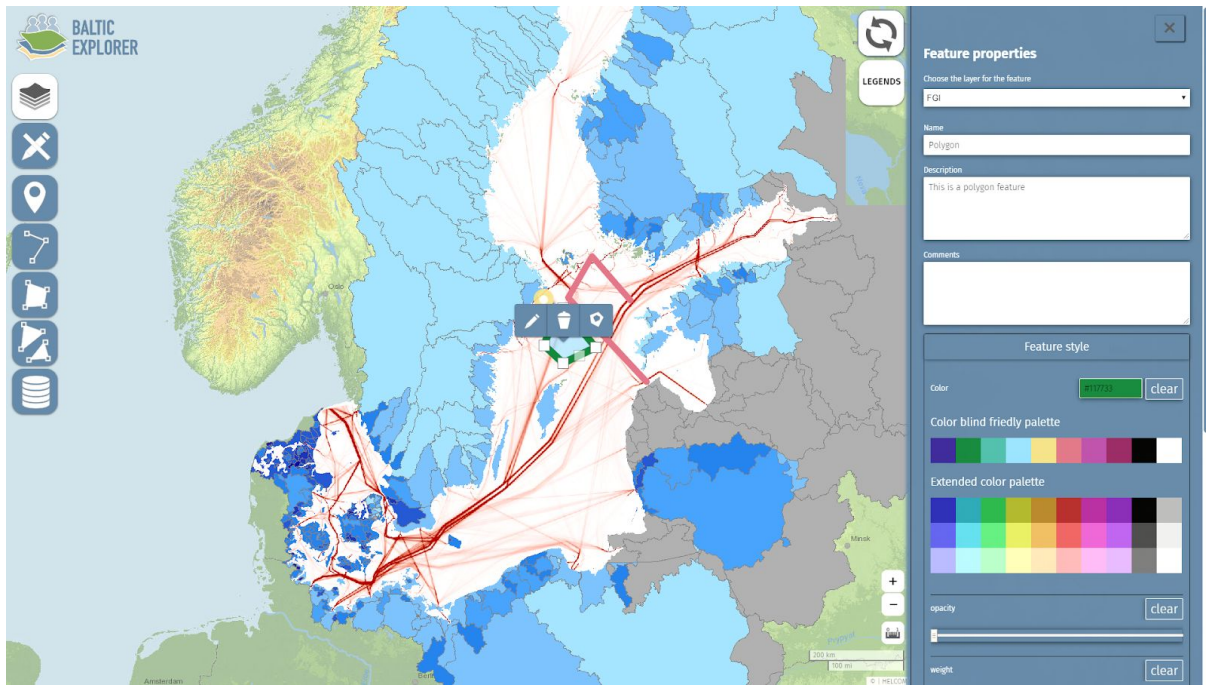


Figure 10. Drawn and edited features can be shared to others by saving the workspace. Pressing sync will show what others have created and edited.

4.10 Managing feature layers

The feature layer management panel enables users to hide, add, edit and remove feature layers Figure 11. The order of the layers can be changed by dragging the feature layer above or under another feature layer.

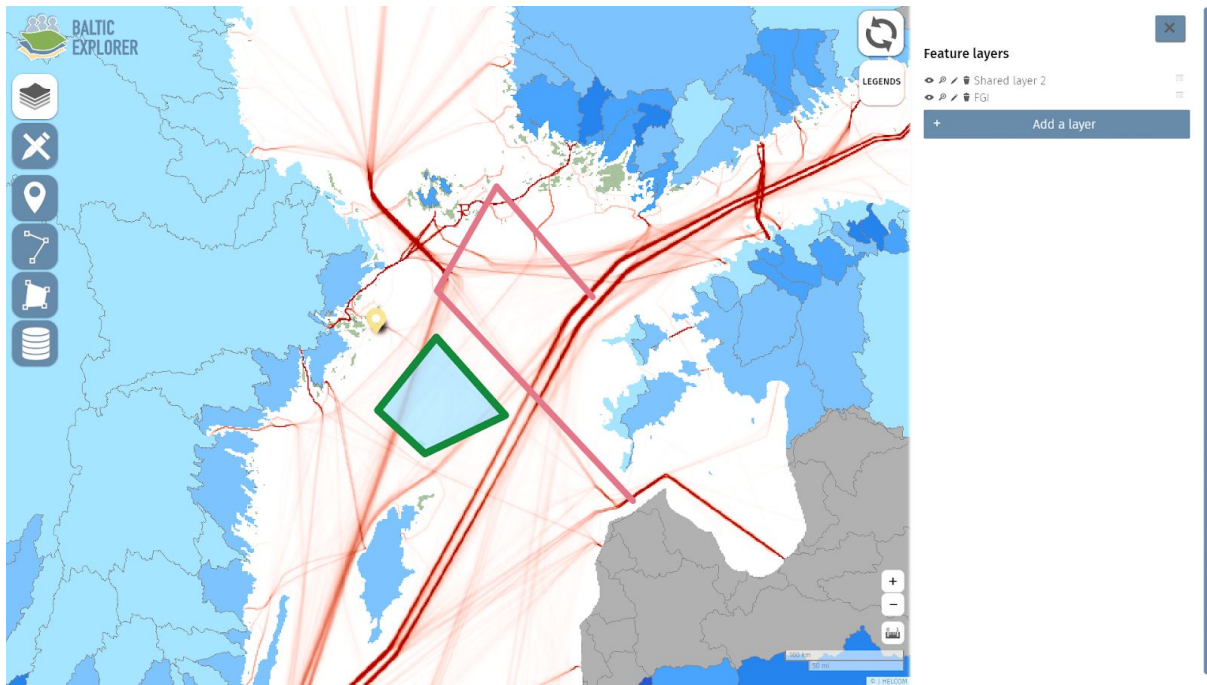


Figure 11. The feature layer management panel enables users to hide, add, edit and remove feature layers.

New feature layers are named after the user who creates them. The description enables users to describe their layers differently, and enables distinction between feature layers with the same name. The description is displayed with the name of the layer when drawing new features, as well as in the Browse data and Feature layer management panels. Feature layers can be given default styles that will apply to all new features drawn to that layer, Figure 12.

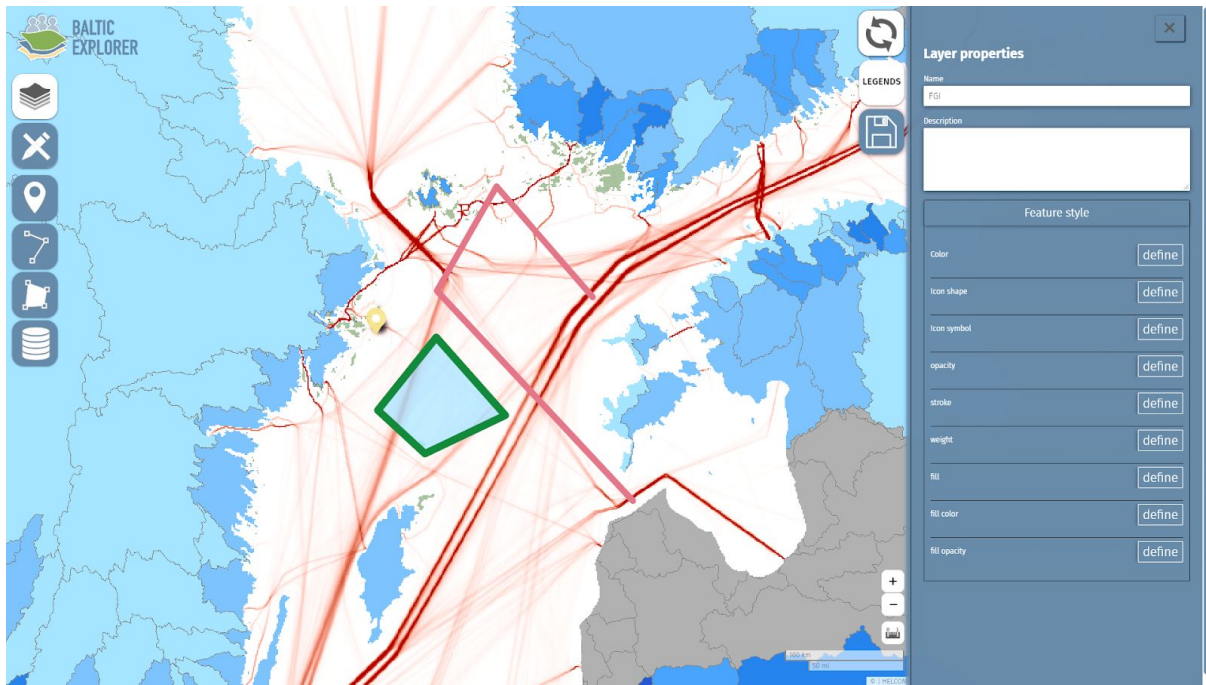


Figure 12. Editing feature layer properties panel allows users to customize their layer.

The workspace owner can give feature layers any name and therefore create or rename layers to make them editable by other users, Figure 12. To give rights to a layer for another user, the owner can rename the layer with the user's username by pressing the pencil button next to the feature layer and renaming the layer.

4.11 Saving and syncing the workspace

The workspace is a shared environment that can have multiple users adding and editing features simultaneously. Pressing the sync button will refresh the user workspace and show all the features created and edited since the last sync. Pressing the save button will save and share any features created or edited by the user to the workspace for others to see (when they sync their workspace view). If the save button is not pressed and the user leaves the workspace the changes will not be saved. The user is prompted to confirm this action.

The workspace view of a user can be different depending on when the user has last synced their workspace view Figure 13. Usually it is advised to get into the habit of saving and syncing after each addition or edit. It is also advised to add and edit features in small increments. For example, if a user has to edit 30 features on the map, saving and syncing after each edit is advised for two reasons. First, this will keep all other users updated on what the user is doing and second, this will keep the user editing updated on what others have done. However, if the situation requires, a user can withhold saving or syncing the workspace until they are ready to share their additions and edits.

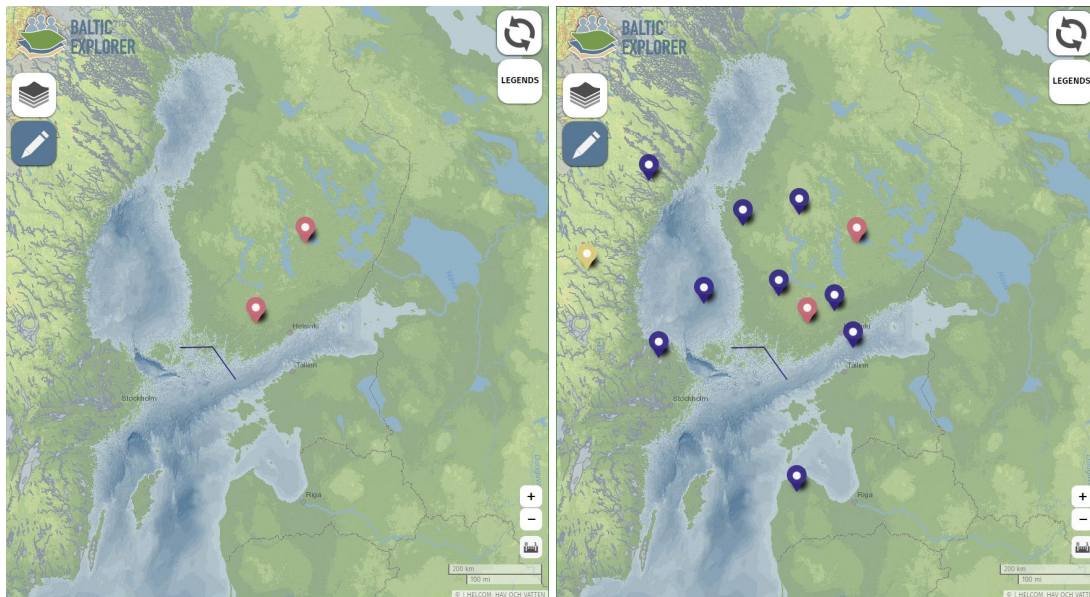


Figure 13. The same workspace where the first user has not synced their view while the second user has been keeping their view updated.

4.12 Measure tool

Baltic Explorer features a measure tool that enables users to measure distances on the map, the length of a line feature, or the area of a polygon, Figure 14 and Figure 15. Select the measure tool and desired unit (kilometres, miles, nautical miles). Press the map to start measuring, or hover over a feature on the map to display its length or area. Measured distances can go through multiple nodes that change the angle of the measured line. Make a new node by pressing on the map after creating the initial starting point. Stop measuring by pressing on the last node a second time. Measurements are not stored in Baltic Explorer.

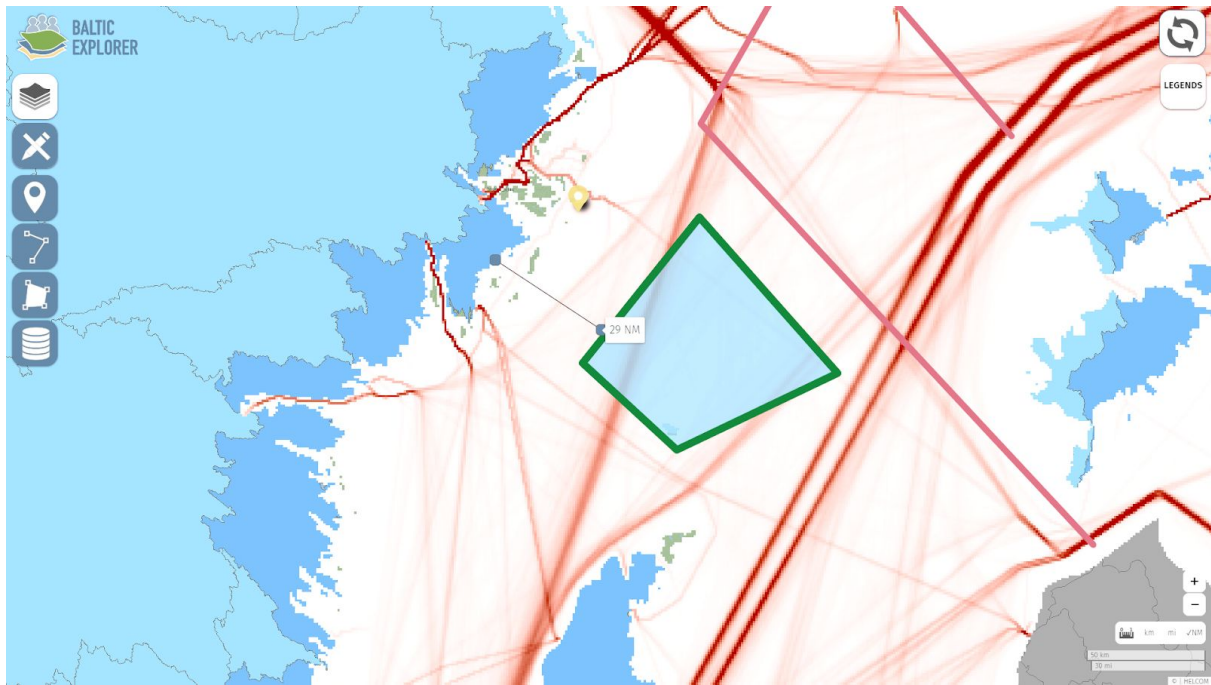


Figure 14. Measurement tool button is on the bottom right.

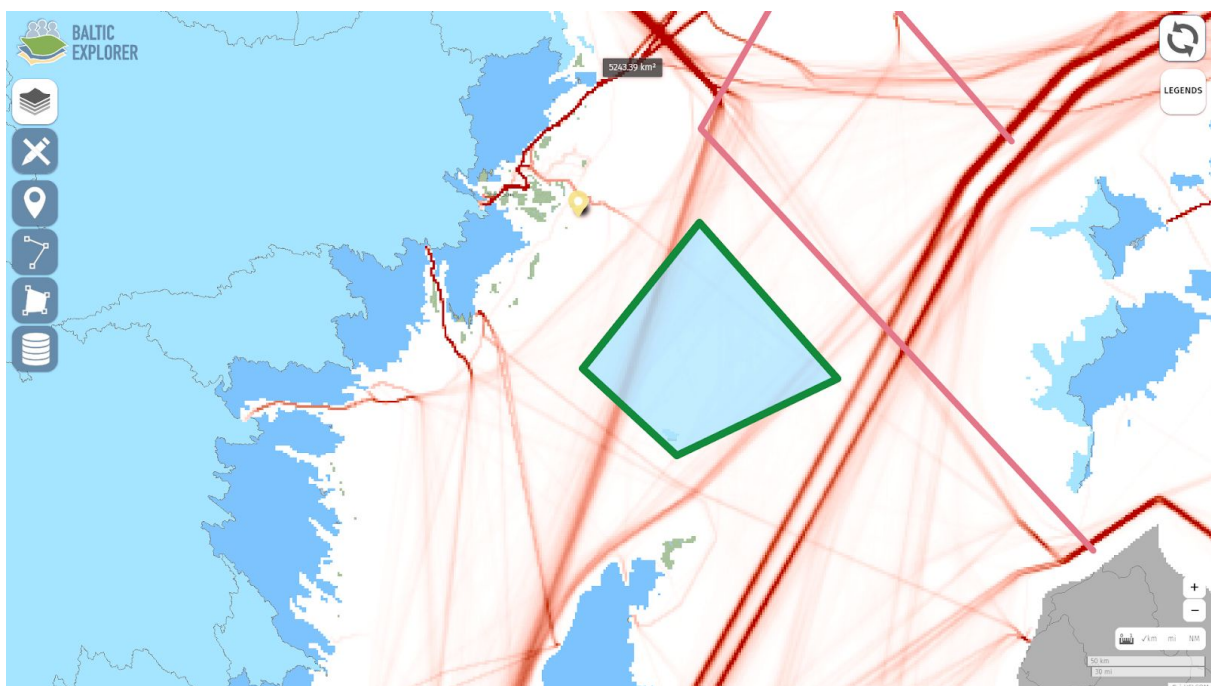


Figure 15. Measuring length of line features or area of polygon features

5. Baltic Explorer system requirements

Baltic Explorer runs on web browsers that support javascript. Currently Baltic Explorer supports the Chrome and Firefox browsers. Other browsers may or may not work.

The user interface supports a variety of screen sizes, including typical sized mobile phone, tablet, laptop, desktop and large touch screens. However, when using a touchscreen some features that require hover are lost.

6. Troubleshooting

6.1 The background maps are not visible / Overlays do not appear on the map

The Baltic Explorer relies on background maps and overlay data from external providers. These maps and data are loaded from the provider's databases. If the background maps or overlays are not loaded or the maps are slow to load, there might be an issue in the connection to those databases. Try switching to another background map in the background maps panel.

6.2 Not able to see the edit button

Check that you are logged in. Check if the workspace is listed in "My workspaces". If it is not visible there, you have not been given editor rights by the workspace owner.

6.3 Not able to save a new workspace

Check that you are logged in to Baltic Explorer.

6.4 Baltic Explorer runs slow

The performance of Baltic Explorer can be slowed by numerous issues, including a slow network connection, server issues, too much data on the map etc. Users can try to increase performance by hiding feature layers from the map, or removing overlays. It is also worth to check your network connection, in case it is having issues.

If too many overlays cause issues, users can remove overlays from the map and restrain from saving the changes. This way the overlays will remain on the map for other users.

6.5 The edges of map tiles are visible

To solve this issues, set you browser zoom level to 100%.

6.6 I have forgotten my username or password

Contact Baltic Explorer administration or create a new account.