
CIS2 Documentation

User manual

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INTRODUCTION

This User Guide proposes to describe the way the application should be used and all the functionalities that are available within the application.



Figure 1: *Main application page*

The first page, available at <https://cis2.eea.europa.eu/>, is the HomePage presented in *Figure 1*. The navigation menu is available on the top of the page and it can be used to navigate to the listing pages of Products, Requirements, Data, Data Providers, to make changes to the user's account or to consult an online help page.

DATABASE OBJECTS

The application holds the following main objects: Products, Requirements, Data, Data Provider. Those objects can have multiple relations between one another. Besides those objects, there are many picklists tables which hold various values to be used when defining an object.

2.1 Products

The screenshot shows the 'Products' listing page. At the top, there's a navigation bar with 'CIS2' and several menu items: 'Products' (selected), 'Requirements', 'Data', 'Data providers', 'Edit teammates', and 'Management'. On the right of the navigation bar, it says 'Hello, admin' and provides links for 'Help', 'Change password', 'Administration', and 'Logout'. Below the navigation bar, the page title 'Products' is displayed, along with a 'New product' button. A 'Filters' section contains dropdown menus for 'Service' (All), 'Entrusted Entity' (All), 'Component' (All), 'Group' (All), 'Status' (All), and 'Area' (All). Below the filters, there are buttons for 'Save as PDF' and 'Save as Excel'. The page indicates 'Showing 1 to 3 of 3 entries'. A search bar is present on the right. The main content is a table with the following data:

Name	Service	Entrusted entity	Component	Group	Status	Area
Product 1	Copernicus Service 1	EE1	Component 1	Product Group 1	Product Status 1	Area 1
Product 2	Copernicus Service 1	EE1	Component 1	Product Group 2	Product Status 2	Area 1
Product 3	Copernicus Service 1	EE1	Component 2	Product Group 1	Product Status 1	Area 2

At the bottom right of the table, there are 'Previous', '1', and 'Next' navigation links.

Figure 2: *Products listing page*

2.1.1 Listing products

Products listing page can be accessed from the link in the navigation bar. The listing can be filtered using the dropdown options or by searching the products by their names. The filtered table can be exported then as a PDF or Excel document.

2.1.2 Creating new products

A new product can be created by clicking the button “New product” from the listing page. The form must be completed respecting the validation constraints. A product can be added only by an **user with administration rights**.

2.1.3 Detail page of a product

A product’s detail page can be accessed by clicking on the product’s name in the listing table. All information concerning the product is displayed on this page. The table at the bottom of the page presents the requirements that product has a relation with. By clicking on the requirement name, the requirement detail page can be seen. This table can be filtered by searching the requirement’s name. It can also be exported as either PDF or Excel document.

Product details

[Edit product](#) [Delete product](#)

Name	Product 2
Acronym	P2
Description	<p>Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Felis eget nunc lobortis mattis aliquam faucibus. Diam quis enim lobortis scelerisque fermentum. Viverra ipsum nunc aliquet bibendum enim facilisis gravida neque convallis. A pellentesque sit amet porttitor eget dolor morbi. Etiam tempor orci eu lobortis elementum nibh tellus. Neque aliquam vestibulum morbi blandit cursus. Elit eget gravida cum sociis natoque penatibus et magnis dis. Nunc mi ipsum faucibus vitae aliquet nec ullamcorper sit amet. Auctor eu augue ut lectus.</p>
Note	
Status	Product Status 2
Group	Product Group 2
Area	Area 1
Component	Component 1 ⓘ
Service	Copernicus Service 1 ⓘ
Entrusted Entity	Entrusted Entity 1 ⓘ

Requirements

[Save as PDF](#) [Save as Excel](#)

Showing 1 to 1 of 1 entries

Search:

Show 10 rows ▼ entries

[Previous](#) [1](#) [Next](#)

UID ▲	Requirement ⬇	Level of definition ⬇	Relevant for ⬇	Criticality ⬇	Barriers	Note
2	Requirement 2	Definition level 2	Relevance	Criticality	Barrier 1	

[Previous](#) [1](#) [Next](#)

Figure 3: A product's detail page

2.1.4 Updating an existing product

A product can be edited by clicking on the “Edit Product” button from a product’s detail page. The form must again respect all validation constraints. A product can be updated only by an **user with administration rights**.

2.1.5 Deleting a product

A product can be deleted by clicking on the “Delete Product” button from a product’s detail page. Another button must be clicked then to accept this change. A product can be deleted only by an user with administration rights.

2.2 Requirement

Name	Dissemination	Quality Control Procedure	Group	Uncertainty	Update Frequency	Timeliness	Horizontal resolution	Vertical resolution	State
Requirement 1	Dissemination 1	Quality control procedure	Requirement Group	1m	1m	1m	1m	1m	valid
Requirement 2	Dissemination 1	Quality control procedure	Requirement Group	1m	1m	1m	1m	1m	draft
Requirement 3	Dissemination 1	Quality control procedure	Requirement Group	1m	1m	1m	1m	1m	draft

Figure 4: *Requirements listing page*

2.2.1 Listing requirements

Requirements listing page can be accessed from the link in the navigation bar. The listing can be filtered using the dropdown options or by searching the requirements by their names. The filtered table can be exported then as a PDF or Excel document. For metrics columns a legend explaining the values meaning can be accessed by hovering over the information button.

2.2.2 Creating new requirements

A new requirement can be created by clicking the button “New requirement” from the listing page. The form must be completed respecting the validation constraints. For requirement, a special validation is implemented. There must be no duplicated requirement. This means that in order to create a new requirement, it must have at least one field(except for its name) which is different from another requirement already in the database.

2.2.3 Cloning a requirement

The clone option can be used if a new requirement to be created is very similar to one existing already in the application. The cloning form can be accessed by going to the detail page of the similar requirement and clicking on the Clone button. The form will be completed with data from the similar requirement. However, in order to save the new requirement, at least one field must be changed (except the name field).

2.2.4 Detail page of a requirement

A requirement's detail page can be accessed by clicking on the requirement's name in the listing table. All information concerning the requirement is displayed on this page. The metrics information is explained when hovering over the values. There are two tables at the bottom of the page. Both tables can be filtered by name and then exported as PDF or as Excel.

The first table concerns the relation with products. All products with which the requirement has a relation with are listed in this table.

Products

Add requirement to product group
Add requirement to product

Save as PDF
Save as Excel

Showing 1 to 3 of 3 entries

Search:

Show
10 rows
entries

Previous
1
Next

Product	Level of definition	Relevant for	Criticality	Barriers	Note	
Product 1	Definition level 2	Relevance 1	Criticality 1	Barrier 1		
Product 2	Definition level 2	Relevance 1	Criticality 1	Barrier 1		
Product 3	Definition level 2	Relevance 1	Criticality 1	Barrier 1		

Previous
1
Next

Figure 5: Requirement Products relation table

Those relations must be unique, so between Product A and Requirement B there can be only a relation. There is an exception to this rule in case the Relevance parameter is different. There are two ways to add a new relation to products. First method is to click on the "Add requirement to product" button and then complete a form in which you select the product you want to use in that relation. The second method is to click on the "Add requirement to product group" button. In the form a product group can be selected. After form submission, relations will be created between the requirement and all the products that are in that product group. A relation will be created only if a relation does not exist between that product and that requirement, following the Relevance rule presented above. The relations can also be edited or deleted using the buttons attached to each row in the table.

The second table concerns the relation with data. All data with which the requirement has a relation with is listed in this table.

Similar to the products, new relations between the requirement and data can be created. There must be a unique relation between a requirement and a data. The relation can be edited or deleted using the buttons from the table.

Data

[Save as PDF](#)
[Save as Excel](#)

Showing 1 to 1 of 1 entries

Search: Show entries[Previous](#)[1](#)[Next](#)

Data ▲	Level of compliance ⇅	Note	Information costs	Handling costs
Data 1	Compliance level 1		✓	✓

[Previous](#)[1](#)[Next](#)

Figure 6: Requirement Data relation table

2.2.5 Updating an existing requirement

A requirement can be edited by clicking on the “Edit Requirement” button from a requirement’s detail page. The form must again respect all validation constraints, including the uniqueness of the requirements discussed in the Creating new requirements section.

2.2.6 Deleting a requirement

A requirement can be deleted by clicking on the “Delete Requirement” button from a requirement’s detail page. Another button must be clicked then to accept this change.

2.3 Data

Data

[New data](#)

Filters

Update Frequency: Area: Timeliness: Data Policy: Data type: Data format: Quality Control Procedure: Dissemination:

State:

[Save as PDF](#)
[Save as Excel](#)

Showing 1 to 3 of 3 entries

Search:

Show entries

[Previous](#)
[1](#)
[Next](#)

Name ▲	Update Frequency ⇅	Area ⇅	Timeliness ⇅	Data Policy ⇅	Data type ⇅	Data format ⇅	Quality Control Procedure ⇅	Dissemination ⇅	State ⇅
Data 1	Update frequency 1	Area 1	Timeliness 1	Data policy 1	Data type 1	Data format 1	Quality control procedure 1	Dissemination 1	draft
Data 2	Update frequency 1	Area 2	Timeliness 1	Data policy 1	Data type 1	Data format 1	Quality control procedure 1	Dissemination 1	draft
Data 3	Update frequency 1	Area 1	Timeliness 1	Data policy 1	Data type 1	Data format 1	Quality control procedure 1	Dissemination 1	draft

[Previous](#)
[1](#)
[Next](#)

Figure 7: Data Provider listing page

2.3.1 Listing data

Data listing page can be accessed from the link in the navigation bar. The listing can be filtered using the dropdown options or by searching data by its name. The filtered table can be exported then as a PDF or Excel document.

Add a new data

All fields marked with * are required.

This form has no mandatory fields! You can access the form with required validation [here](#).

Name*

Note

Figure 8: Datalisting page

2.3.2 Creating new data

A new data can be created by clicking the button “New data” from the listing page. The form which is initially accessed has no validation. This was decided in order to allow partial data to be created in the application. However, if the user is sure about the data that he wants to introduce, he should use the form provided in *Figure 8*. There is a special validation rule for this form: at least an inspire theme or an essential variable.

2.3.3 Cloning a data

The clone option can be used if the new data is very similar to one existing already in the application. The cloning form can be accessed by going to the detail page of the similar data and clicking on the Clone button. The form will be completed with data from the similar data.

Detail page of data A data’s detail page can be accessed by clicking on the data’s name in the listing table. All information concerning the data is displayed on this page. If that data is just partially completed, a warning message will be displayed on the top of the page with a link to the editing page with full validation(*Figure 9*).

There are two tables at the bottom of the page. Both tables can be filtered by name and then exported as PDF or as Excel.

The first table concerns the relation with data provider. All data providers with which the data has a relation with are listed in this table. Those relations must be unique, so between Data A and DataProvider B there can be only one

Data details

[Edit data](#)[Delete data](#)[Clone data](#)

Name	Data 1	
Note		
Update Frequency	Update frequency 1	
Area	Area 1	
Temporal	03 July 2018 - 03 July 2018	
Timeliness	Timeliness 1	
Data Policy	Data policy 1	
Data type	Data type 1	
Data format	Data format 1	
Quality Control Procedure	Quality control procedure 1	
Dissemination	Dissemination 1	
Inspire themes	Annex 1: Inspire theme 1	
Essential variables	Domain 1 - Component 1 - Parameter 1	
State	Draft	Mark as ready
Created by	, admin@email.com	

Figure 9: Data detail page

Data Providers

Save as PDF

Save as Excel

Showing 1 to 1 of 1 entries

Show 10 entries

Add data to data provider

Search:

Previous

1

Next

Data provider	Role	Is network	
Data Provider 1	Originator	⊘	<div>✎</div> <div>✖</div>

Previous

1

Next

Requirements

Save as PDF

Save as Excel

Showing 1 to 1 of 1 entries

Show 10 entries

Search:

Previous

1

Next

Requirement	Level of compliance	Note	Information costs	Handling costs
Requirement 1	Compliance level 1		✔	✔

Previous

1

Next

Figure 10: Data detail page relations

relation. By clicking on the button “Add data to data provider” and completing the form a new relation is added. The relation can be edited or deleted using the buttons from the table.

The second table concerns the relation with requirement. All requirements with which the data has a relation with is listed in this table. New relations can be created from requirement’ s page.

2.3.4 Updating an existing data

A data can be edited by clicking on the “Edit Data” button from a data’ s detail page. Similar to the creation of new data, there are two forms: one with validation and one without.

2.3.5 Deleting data

Data can be deleted by clicking on the “Delete Requirement” button from a requirement’ s detail page. Another button must be clicked then to accept this change.

2.4 Data provider

There are two types of data providers: data provider network and data provider. The data provider network can have other data providers or data provider networks as its members. This structure is defined as so to maintain a hierarchy between data providers.

2.4.1 Listing data provider

Data provider listing page can be accessed from the link in the navigation bar. The listing can be filtered using the dropdown options or by searching data by its name. The filtered table can be exported then as a PDF or Excel

Data providers New data provider New data provider network

Filters

Provider type: All Is network: All State: All

Save as PDF Save as Excel

Showing 1 to 3 of 3 entries

Show 10 rows entries

Search:

Previous 1 Next

Name	Acronym	Address	Phone	Email	Contact person	Provider type	Is network?	State
Data Provider 1	-	-	-	-	-	-	⊕	draft
Data Provider 2	DP2	Address 1	1234567890	dp2@email.com	Admin	Provider 1	⊖	draft
Data Provider 3	-	-	-	-	-	-	⊖	draft

Previous 1 Next

Figure 11: Data provider listing

document.

2.4.2 Creating a new data provider

A new data provider can be created by clicking the button “New data provider” from the listing page. A new data provider network can be created by clicking the button “New data provider network” from the listing page.

2.4.3 Detail page of data provider

A data provider’s detail page can be accessed by clicking on the data provider’s name in the listing table.

All information concerning the data provider is displayed on this page. There is a tables at the bottom of the page. It can be filtered by name and then exported as PDF or as Excel. **The table concerns the relation with data.** All data with which the data provider has a relation with is listed in this table.

2.4.4 Updating an existing data provider

A data provider can be edited by clicking on the “Edit Data Provider” button from a data provider’s detail page. Different forms are used for data provider/data provider network.

2.4.5 Edit network members

A data provider network can have members. Its members can be edited by clicking on the “Edit network members”. A network can’t be its own member.

2.4.6 Deleting data provider

A data provider can be deleted by clicking on the “Delete Data provider” button from a data provider’s detail page. Another button must be clicked then to accept this change.

There are multiple types of users in the application:

Administrator

The administrator can modify everything in the application, without restriction. This type of user also has access to an administrative panel.

Picklists Editor

This user role allows a user to access a filtered version of the administrative panel, for modifying the picklists. This user is only allowed to add/edit the picklists.

Product Editor

This user role allows a user to add or edit the products, similar to the way requirements, data and data providers are edited.

Regular Users

The user is restricted from accessing the administration section, the management section and create, update or delete any products.

The users have permission to edit or delete an object if they are the owner of it. Being the owner of an object means that the object was created by that specific user.

Read-Only User

The read-only user is a user that is included in the Read-only Group. This type of user can only view the objects and create and download reports, but they cannot add, edit or delete any information in the application.

3.1 User Teams

A user can add other users to his team. Adding a user to one's team gives that user permission to edit or delete all objects created by that user. Once a user A adds another user B to his team, the user B will also have user A in their team. A user can edit their teammates by accessing the edit teammates form from the navigation menu. Once a user sends a teammate request, the other user will receive an email containing a link. Only after the link is clicked, the two users will become teammates. (*Figure 12*)

The screenshot shows the 'Edit your teammates' interface. At the top is a navigation bar with tabs: Products, Requirements, Data, Data providers, Edit teammates (active), Management, About, and Reports. On the right side of the bar are links: Hello, copernicus, Help, Change password, Administration, and a user icon. Below the navigation bar, the main heading is 'Edit your teammates' with a subtext: 'The users you add in this list will be able to edit/delete the objects you created.' The section 'Your teammates:' displays a list with one entry: 'User1 , test@mail.com' with a blue 'x' icon for removal. Below this is a label 'Select users you want to send a teammate request to' followed by a search input field containing 'User2'. At the bottom are 'Save' and 'Cancel' buttons.

Products Requirements Data Data providers **Edit teammates** Management About Reports

Hello, copernicus Help Change password Administration L

Edit your teammates

The users you add in this list will be able to edit/delete the objects you created.

Your teammates: User1 , test@mail.com ✕

Select users you want to send a teammate request to

User2

Save Cancel

Figure 12: *Teammates editing form*

VALIDATION WORKFLOW

Requirement, Data and Data Provider are all passing through a validation workflow.

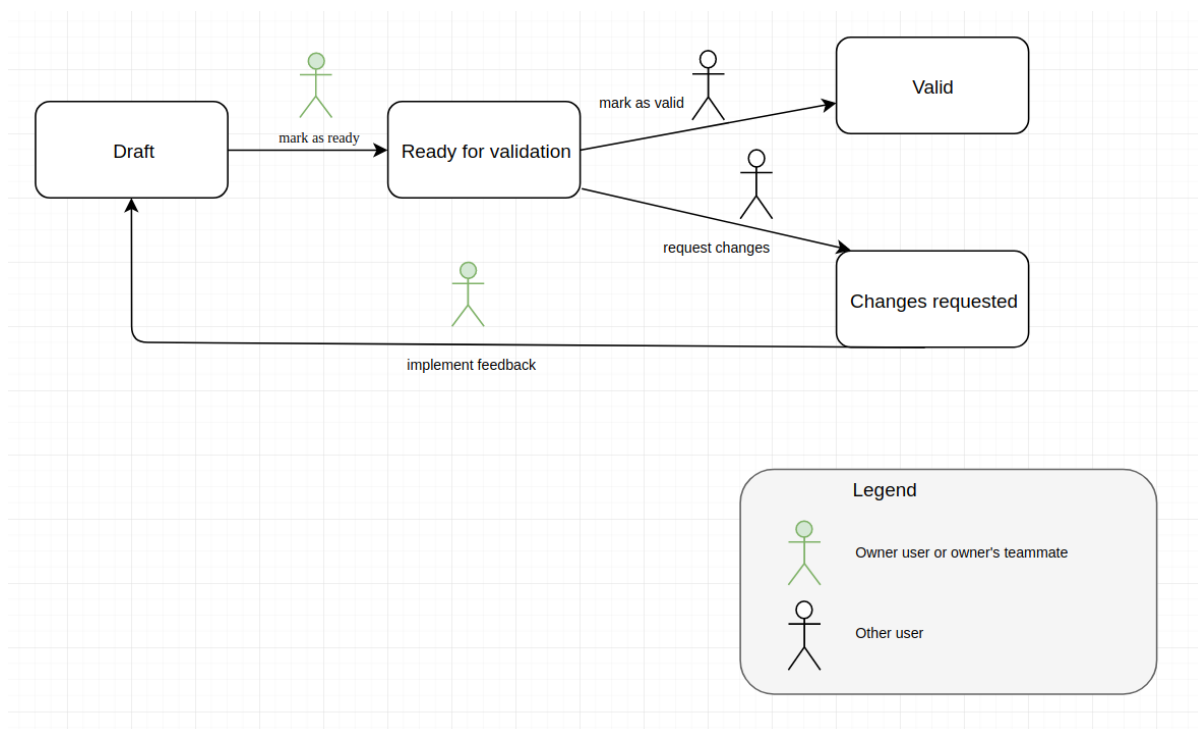


Figure 13: *Workflow for Requirement, Data, Data Provider*

4.1 States

Draft

This is the state that the object has on its creation. In this state the object and its relations are editable. The owner or one of their teammates can mark as ready the object.

Ready for validation

In this state the object and its relations cannot be edited. A user different from the owner or their teammates can either mark as valid the object and end the workflow or request changes if that user considers that there is missing information.

Changes requested

In this state the object and its relations cannot be edited. The owner or one of their teammates can get the object back to the draft state.

When an object's state is changed into "changes requested", the user requesting the changes can complete a feedback field in which they inform the owner of the object about the changes that should be made (*Figure 14*). The owner receives an e-mail that their object has requests for changes, the user that made those requests and what changes the user requested (from the feedback field). The users in the application can see this feedback when the object is in state "Changes requested" or "Draft" on the detail page of the object (*Figure 15*)

Test Data 1

Mark data as changes

Feedback *(use this field to inform the owner of the changes that should be made)

Feedback example for request changes.

Accept

Cancel

Figure 14: *Request changes feedback field example*

Valid

In this state the object and its relations cannot be edited. The workflow has ended and the object cannot be modified anymore.

4.2 Requirement validation

A requirement will go through the workflow together with its relations. Its relations the links to products and the links to data. The relations will always be in the same state as the requirement.

4.3 Data validation

Data will go through the workflow together with its relations. Its relations the links to data providers. The relations will always be in the same state as the data.

4.4 Data provider validation

A requirement will go through the workflow together with its relations. Its relations the links to products and the links to data. The relations will always be in the same state as the requirement.

Data details

[Clone data](#)

Name	Test Data 1
Note	
Update Frequency ?	-
Area ?	-
Temporal	-
Timeliness ?	-
Data Policy ?	-
Data type ?	-
Data format ?	-
Quality Control Procedure ?	-
Dissemination ?	-
Geographical Coverage ?	
Status ?	-
State	Changes requested

Feedback:
Feedback example for request changes.

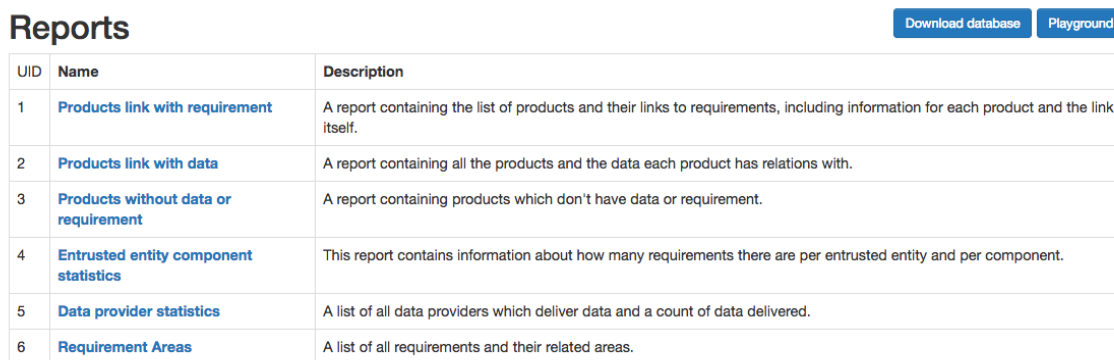
Figure 15: Example of display of a feedback left by a user

REPORTS

For exporting data in various formats, reports have been added to the application. The reports are generated by database queries. Those queries are established and implemented, so for any new report a request to the developing team must be made. The reports can be accessed by clicking on the “Reports” tab from the navigation menu.

5.1 Reports list

The reports’ list can be accessed by clicking on the “Reports” tab from the navigation menu. This page consists from a list with all the reports defined in the application. Each report is defined by a name and contains a short description which describes what the report contains. An example of this page is available in *Figure 16* .



Reports			Download database	Playground
UID	Name	Description		
1	Products link with requirement	A report containing the list of products and their links to requirements, including information for each product and the link itself.		
2	Products link with data	A report containing all the products and the data each product has relations with.		
3	Products without data or requirement	A report containing products which don't have data or requirement.		
4	Entrusted entity component statistics	This report contains information about how many requirements there are per entrusted entity and per component.		
5	Data provider statistics	A list of all data providers which deliver data and a count of data delivered.		
6	Requirement Areas	A list of all requirements and their related areas.		

Figure 16: Reports list page

5.2 Database download

A database dump can be downloaded from the Reports’ list page by clicking on the “Database download” button. This dump can then be used to manipulate the data with specialized tools.

5.3 Playground

This can be accessed by clicking on the “Playground” button from the Reports’ detail page. The playground can be used by specialized users to write SQL queries to obtain their own reports. A request must be made to the developers to access this part of the application.

5.4 Report detail page

On the report detail page has the name and description on the top part. After those there is a single tab, named “Pivot”.

5.5 Pivot

A loading animation will be displayed until the pivot table loads. The available columns are displayed on the top of this table or on the left side, depending on the report.

Those columns can then be dragged under the area surrounded by a blue border in the Figure below. The columns will appear in the preview section in the order they were introduced. They can be rearranged to fit the user’s need. The data displayed in each column is arranged in alphabetical order. The preview shows the user how the exported PDF/Excel file will look like. The pivot table can be exported in HTML, PDF or Excel format. (*Figure 17* and *Figure 18*) .

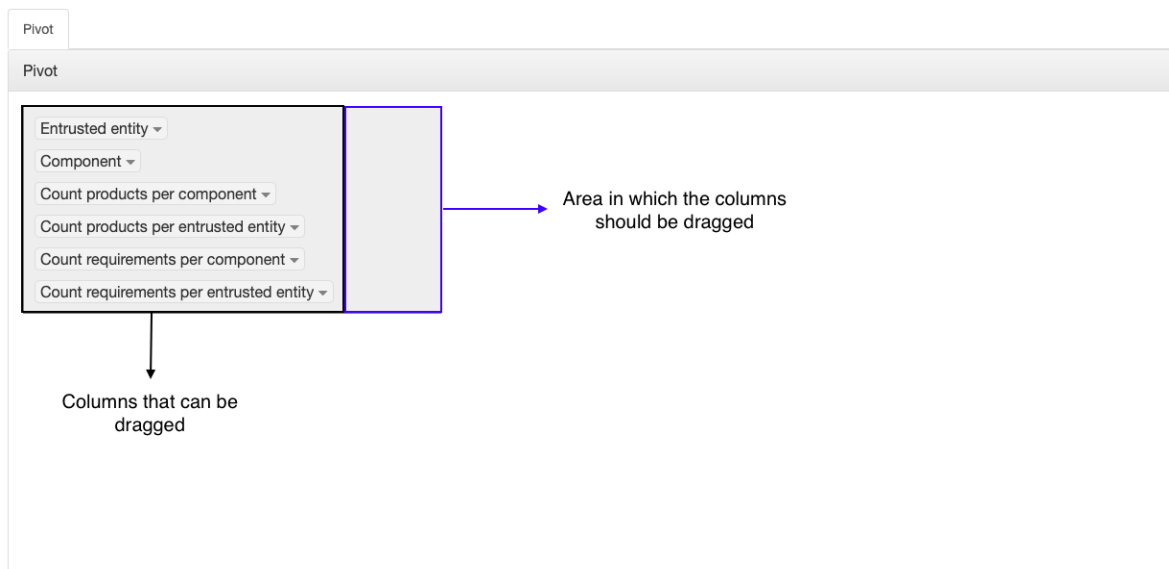


Figure 17: Report pivot - before dragging columns

5.6 Filtering data in Pivot

The data in the table can also filtered by clicking on the arrow next to the column name (*Figure 19*).

5.7 Special reports

The special reports are spreadsheet files that have unmerged cells and can be filtered afterwards with specialized tools. Those reports can be found on the Report’s list page, on the top of the page. For each report there is a description explaining what type of data each report contains.

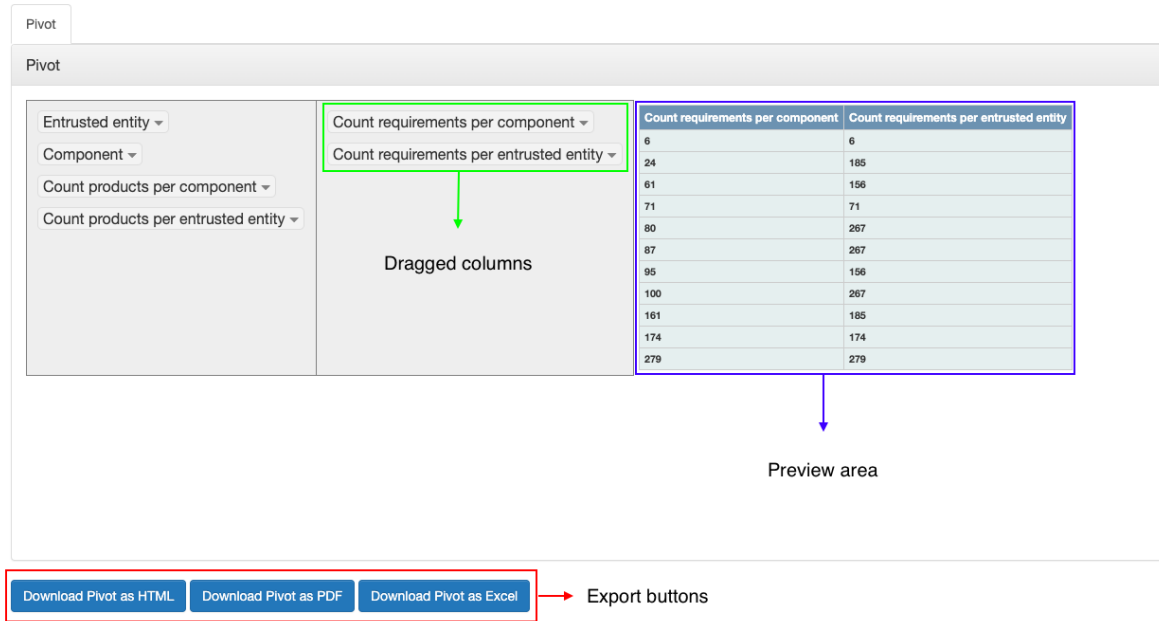


Figure 18: Report pivot - after dragging columns

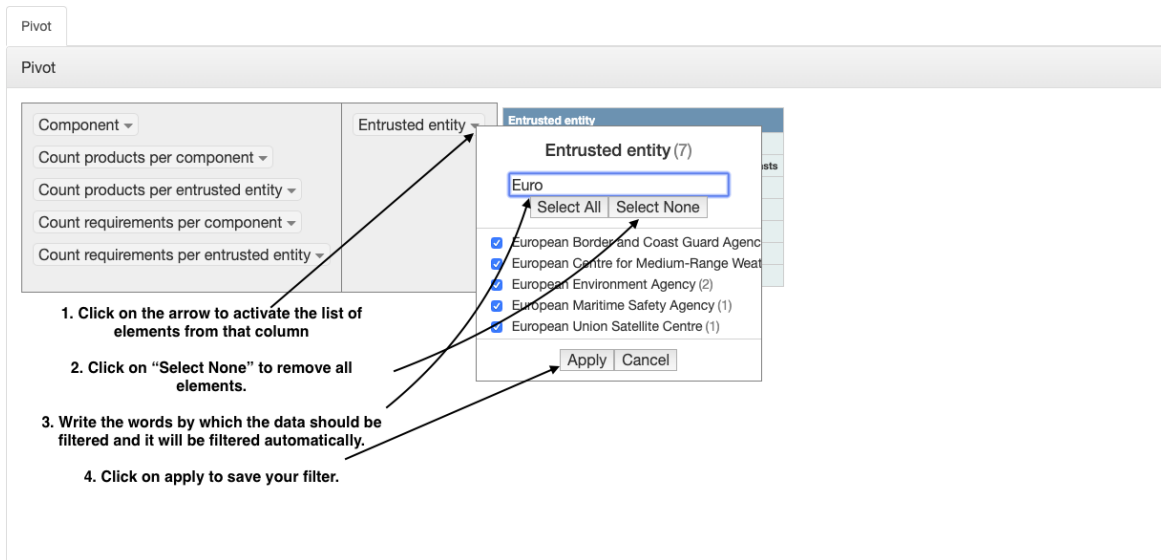


Figure 19: Report pivot - filter the data in the table

Reports

[Download database](#)[Playground](#)

Special reports:

Those reports are exported as spreadsheet files with unmerged cells that can be filtered afterwards with specialized tools.

1. This report contains all relevant columns from products, requirements, data and data requirements for the following services:

- a) Copernicus Emergency Management Service
- b) Copernicus Land Monitoring Service
- c) Copernicus Security Service

[Download Excel](#)

2. This report contains all relevant columns from products, requirements, data and data requirements for the following services:

- a) Copernicus Atmosphere Monitoring Service
- b) Copernicus Marine Environment Monitoring Service
- c) Copernicus Climate Change Service

[Download Excel](#)

Figure 20: *Special reports*

ADMINISTRATION

Requirement, Data and Data Provider are all passing through a validation workflow.

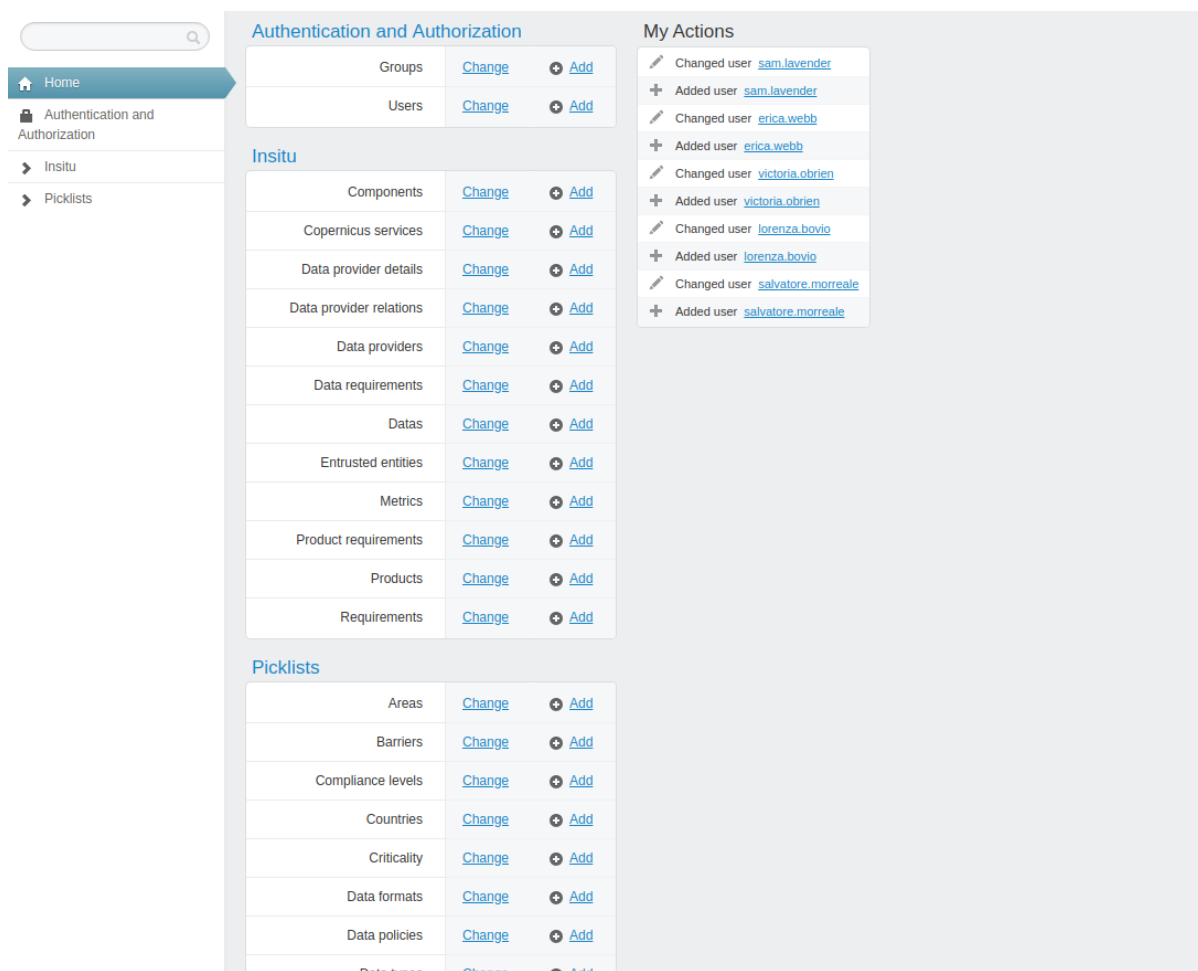


Figure 21: Administrator panel

The administration panel can be accessed only by a user who has administration rights. Here, all objects, relations and picklists values can be modified without constraints.

HELP PAGE

The help page describes each value in the dropdowns used to fill the objects. The help page can be accessed from the navigation menu by clicking “Help”. In the forms, the dropdown fields have attached a question mark. By clicking on that question mark you will access the help page.

Barrier

High level barriers used to illustrate the main reasons why a given in situ data requirement cannot be met for the product in question.

name	description
Barrier 1	Description.
Barrier 2	Description.
Barrier 3	Description.
Barrier 4	Description
Barrier 5	Description.

Figure 22: *An example table from help page*

For Example, in *Figure 22* is one of the tables available on the Help page. Under the table title there is a small description of that field's purpose. In the table there is the name of each value and the description of what that value represents.

MANAGEMENT

The screenshot displays the 'Management' section of a web application. At the top, a horizontal navigation bar contains several tabs: 'Products', 'Requirements', 'Data', 'Data providers', 'Edit teammates', and 'Management'. The 'Management' tab is currently selected and highlighted. Below the navigation bar, the main heading reads 'Manage picklists and products'. This heading is followed by two distinct sections: 'Export picklists' and 'Import picklists'. The 'Export picklists' section includes a blue button labeled 'Download all picklists'. The 'Import picklists' section features a 'Workbook' label, a 'Choose File' button, the text 'No file chosen', and a blue 'Import data' button. These same elements are repeated for 'Export products' and 'Import products' sections below. The 'Export products' section has a 'Download all products' button, while the 'Import products' section also includes a 'Workbook' label, a 'Choose File' button, 'No file chosen' text, and an 'Import data' button.

Figure 23: *Management section*

The management section is accessible only to a user with administration rights. This section can be used to export all picklists or all products as an excel document. In order to import picklists or products, the user must first export them, edit the exported spreadsheet and then import it.

LOGGING ACTIONS

All editing actions done by users are logged in a log file. That includes: editing, adding or deleting any object from the application will be stored. The log gives informations about the user, the action the user made and the object that was accessed.

SOFT DELETION

The objects and relations are never deleted. They are instead marked as “deleted”. The objects can be permanently deleted only by accessing the database directly.