ARACHNE

User Manual

Client application v1.1

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2 About Arachne

Arachne is a client-server application based on Vadis GET (Groups Exploration Tool) application, built as a data super-browser with advanced functionalities like dashboards and graphical representation of data interconnections.

Project ARACHNE aims at establishing a comprehensive and complete database of projects implemented under the Structural Funds in Europe and to enrich the data with publicly available information in order to identify, based on a set of risk indicators, the most risky projects.

2.1 Groups Exploration Tool

The Arachne project is built on top of the Groups Exploration Tool application from *Vadis s.a.*.

This tool was originally created to provide data exploration tools for the business, built on *Bureau Van Dijk* worldwide data service (*Orbis* database). It includes a wide range of publicly available data, plus additional data mining options developed by Vadis for the Arachne project (Vadis Predictive Indicators, Cluster Groups, Unique Person Identifier…). These will be described in chapter 4 of this manual.

3 Arachne overview

3.1 Getting started

3.1.1 Installing the client application

This section is dedicated to users who don't have the application pre-installed on their computer.

The application is delivered as a standard Windows installer composed of one executable file (setup.exe) and one Microsoft installer package (ArachneClientSetup.msi). To install the application, run setup.exe or install the .msi file directly and follow the instructions. Both files must be in the same directory for the installation to execute successfully. The installer will create appropriate shortcuts in your start menu and on your desktop. Note that installing the application may require administrator privileges.

Note: depending on your user rights and access policies, you may not be able to perform the installation by yourself. In that case, please contact your network administrator.

For more information about installing the application, please refer to the installation guide.

3.1.1.1 Requirements

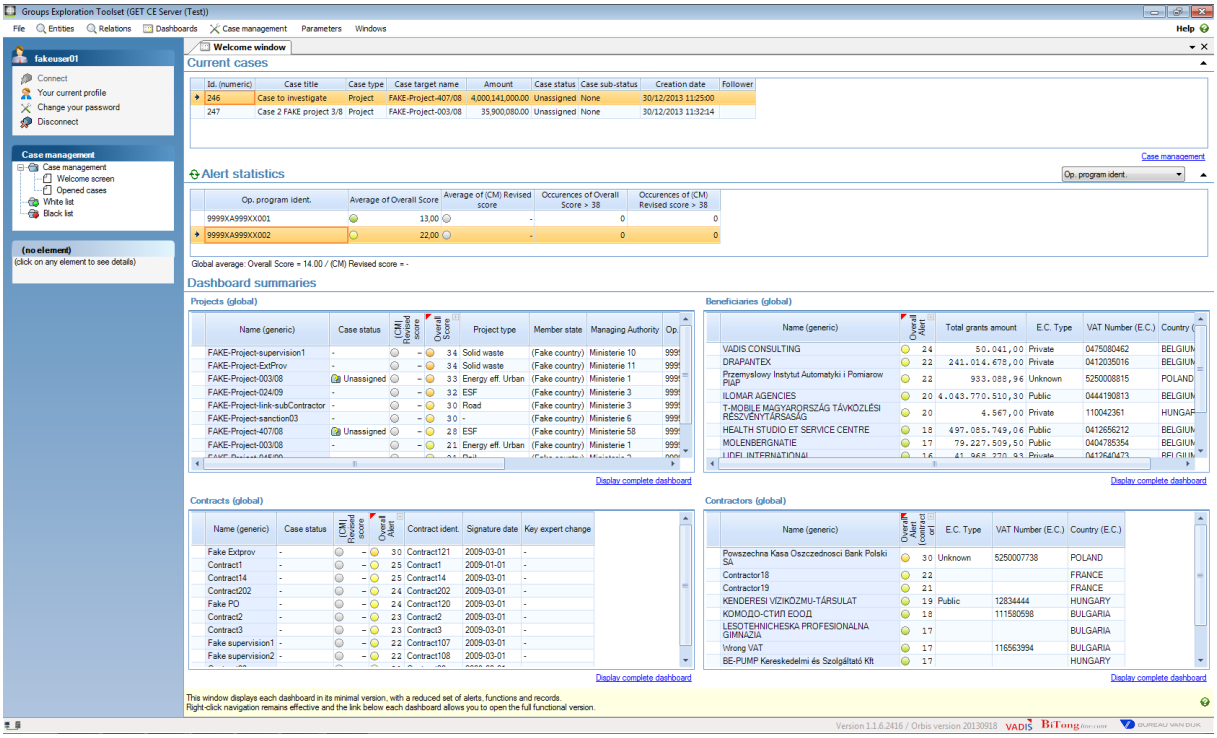
The following hardware and software are required to use the application in a proper way:

- Windows XP with SP1 or higher; Windows Vista; Windows 7.
- The Microsoft.NET framework 2.0 must be installed prior to application install. The installer will take care of this installation if it's missing on your computer.
- A working network connection and an internet connection that allows application to connect through *HTTPS* protocol.
- A screen resolution of at least 1680 x 1050 (use higher resolution for better user experience).

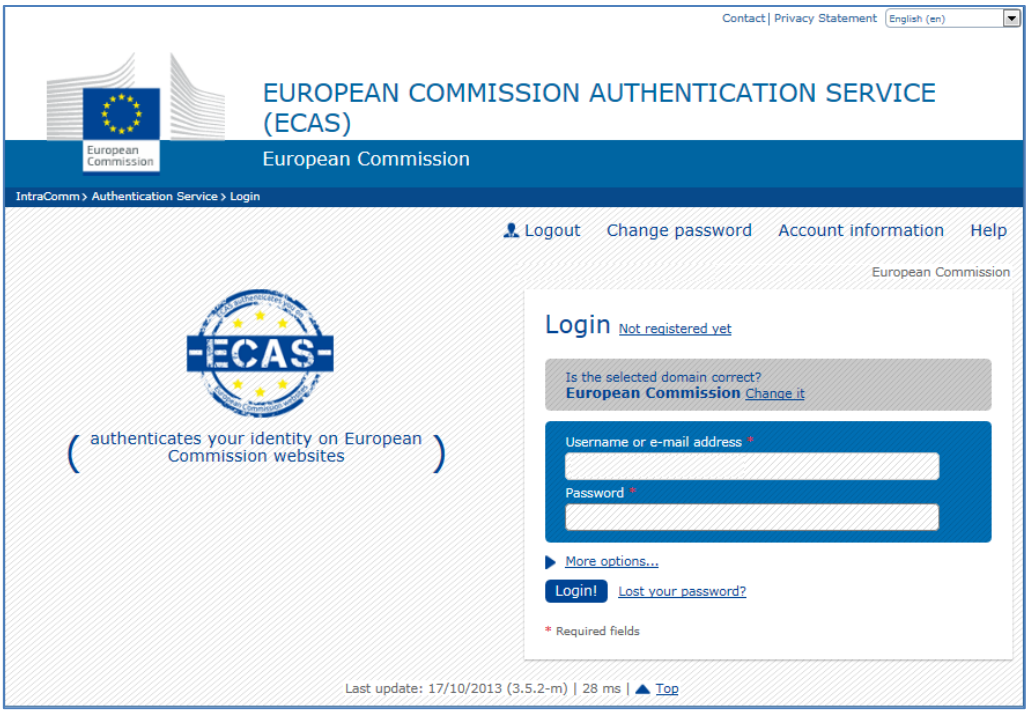
Note that the application is expected to be compatible with Windows 8, Windows 8.1 and all releases of Windows Server versions as from Windows Server 2003 (tests will be performed in the next coming weeks). This application runs on 32 and 64 bit platforms.

3.1.2 Running the client application

The application can be started either by the desktop icon (***ARACHNE Client***) or the startup menu, into ***Vadis s.a*** → ***GET Client application*** → ***ARACHNE Client***.



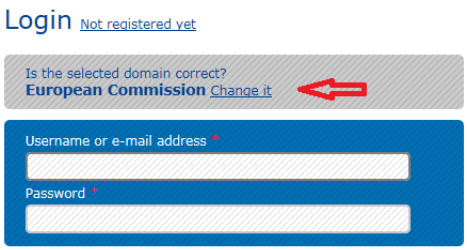
As this application is based on client-server architecture, it requires user authentication to connect to the server. The default user authentication is done through the standard **ECAS** authentication service in place at the European Commission. When the application starts, the ECAS login screen will ask you your ECAS user and password.



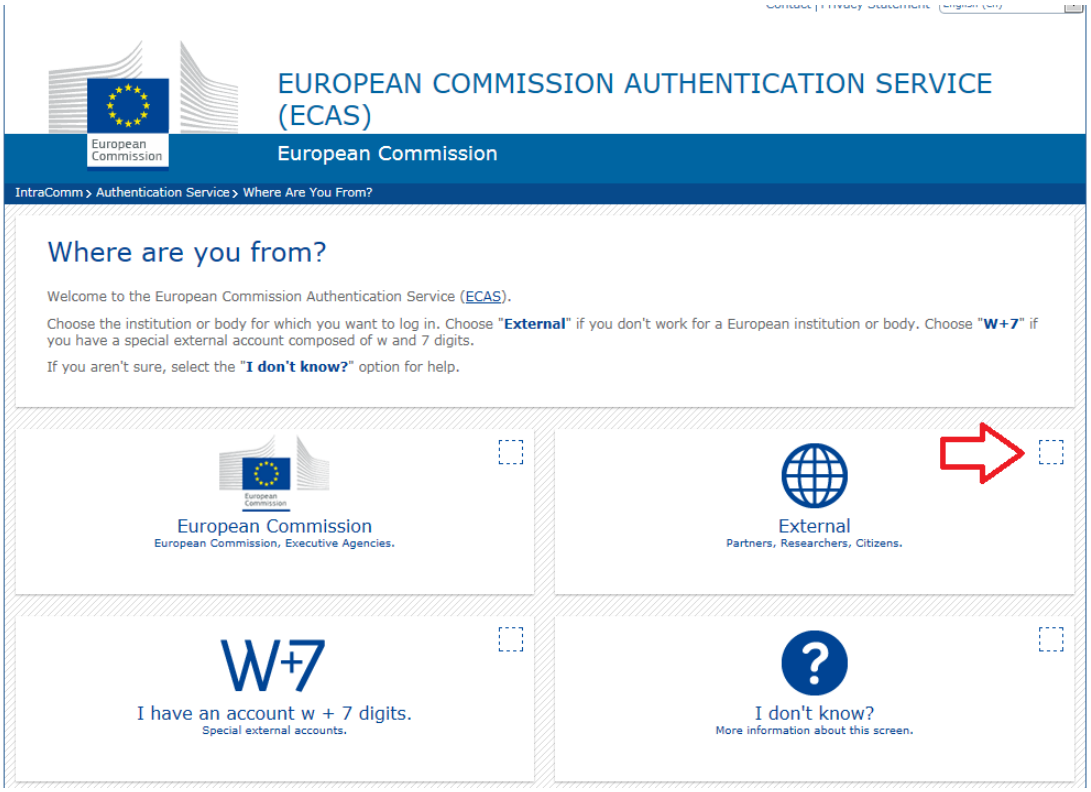
Remark: Check if the selected domain for which you have an account is correct.

- If you work with an EC account, the 'European Commission' domain should be active.
- If you work with an 'external' account, the 'External' domain should be active.

You can change the domain by clicking the 'Change it' option:

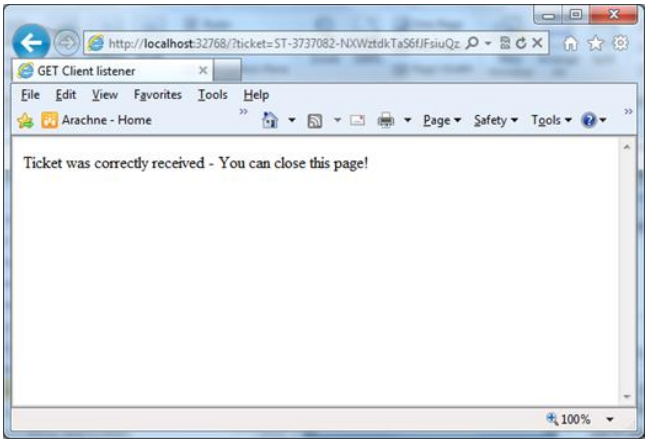


Where you can select the correct domain:



This action needs to be done only at the first logon.

After a correct ECAS authentication, the system will display the message that a correct ticket was received. This page may be closed.



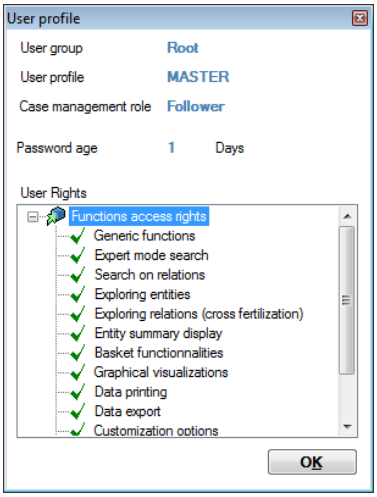
3.2 Arachne at a glance

This chapter will quickly guide you through the main screens and interfaces that are visible when the application starts.

3.2.1 Connecting to the application

When the application starts, it will automatically redirect you to the ECAS login page. If you are already authenticated with ECAS, the application will automatically proceed to your connection.

Once you are connected, you can see information about your user account and profile using the ***My profile*** option in the task pane, or via the menu ***File – Profile information***.

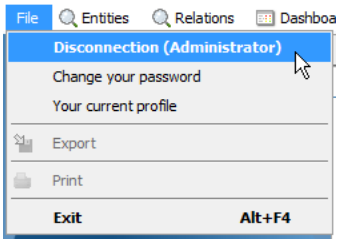


The user profile dialog contains the following information:

- Your user group (operational program, managing or other authority, etc…).
- Your user profile: the application may hold multiple user profiles with associated user rights. These rights apply to the software functionalities only, as your user group will fix the rights on the data.
- Your case management role in the case management system (see chapter 9 of this manual)
- Your password age (passwords expire after 90 days). Note that this information is not relevant for users using the ECAS authentication.
- The rights lists associated to your user profile: this list contains all functional modules and the indication about your access rights on them.

3.2.2 Disconnection from the system

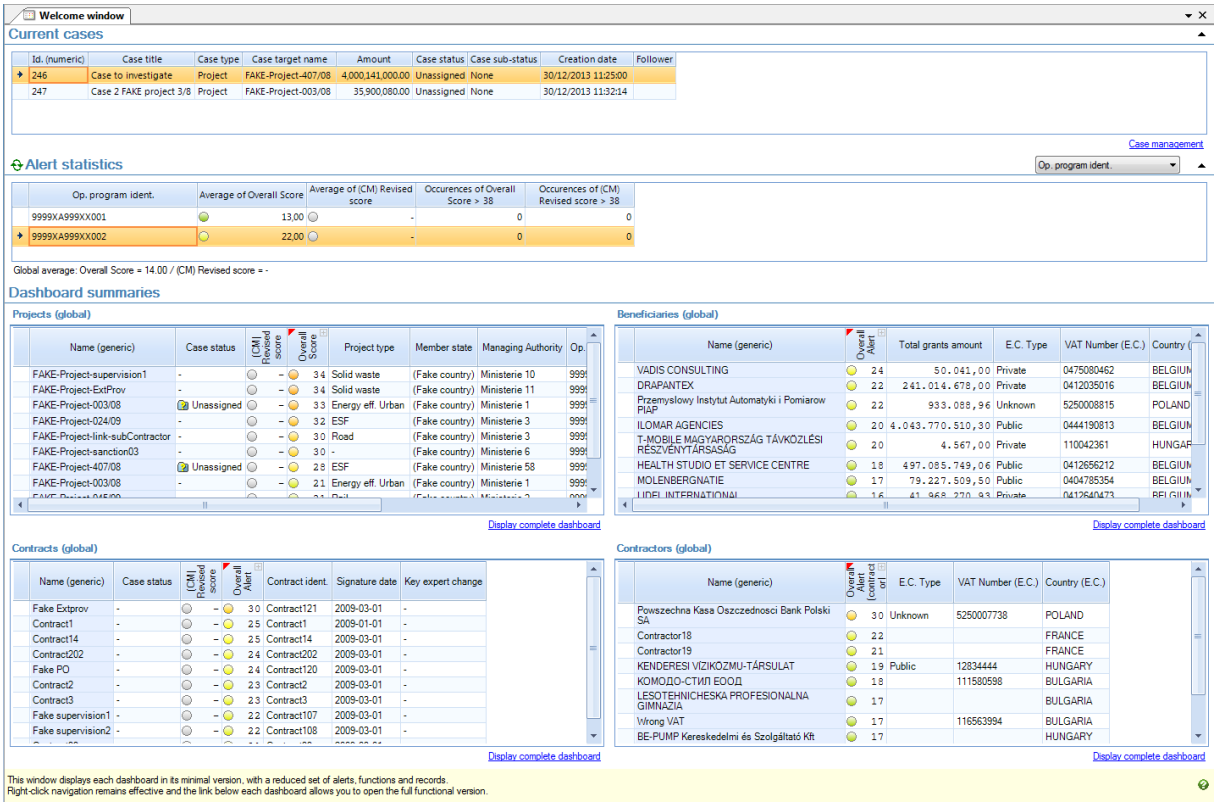
You can disconnect from the system either by closing the application (which implicitly disconnects you from the server) or via the menu ***File – Disconnection***.



Using the disconnection menu will keep the application running, allowing you to reconnect if needed, through the same menu.

3.2.3 Welcome screen

The welcome screen acts like a kind of cockpit in which different types of information are directly visible for the connected user. This information covers the *case management*, the *alert statistics* and the different *dashboards* used in the application.

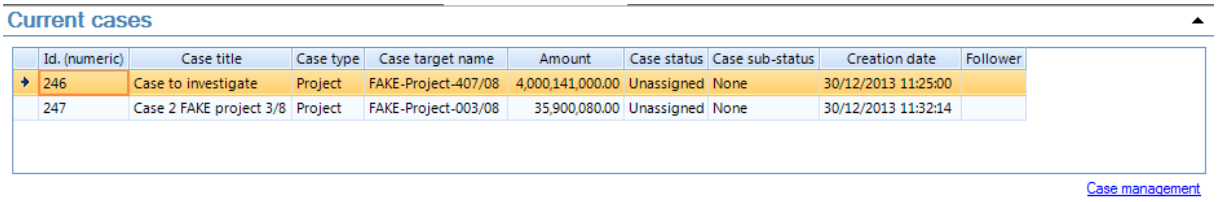


This screen is divided into three main sections: the case management (if applicable for the user) part on the top, the alert statistics on the middle and the dashboard summaries on the bottom.

Case management and alert statistics sections can be expanded/collapsed using the ▲ button on the right of each section title.

3.2.3.1 Current cases section

This section of the screen displays all cases related to the user's context[1] in the case management system. Cases can be double-clicked to get their details. Cases are sorted on their creation dates; the oldest ones appearing first. The case management section is only shown if the user has the necessary access rights.



This table displays the following information about the case the user is allowed to see:

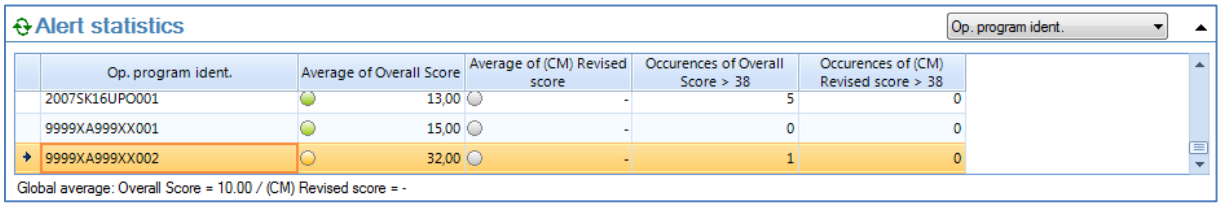
- Id is the identification number of the case, which is automatic generated.
- Case title is the user-defined title for the case.
- Case type: the entity type to which the case applies. The value can be either ***Project*** or ***Contract***.
- Case target name is the name of the project or contract concerned by the case.
- Amount is the total cost of the project or the contract amount.
- Case status and sub-status give the case current status in time (please see chapter 9 for more details about the different statuses)
- Creation date is the date and time when the case was created.
- Follower is the user assigned to this case.

The case management module can be accessed directly using the "Case management" link on the bottom right of the table or via the menu bar option "Case management".

Please read the case management chapter 9 for more information.

3.2.3.2 Alert statistics section

Depending on your user level[2], this part of the application displays average global alert value, and average revised alert values. See chapter 5.1 for more details about alerts.



[1] The user's context corresponds to the group it belongs and the access rights related to it (operational program, management authority, ..)

[2] The user level depends on your current user group and how it is located into the group hierarchy. It can be operational program, managing authority, audit authority, certification authority, Member State or DG.

The statistics contain the following elements:

- First column contains the aggregation criteria; it may be the operational program (as selected in the current example), the managing authority or the member state, depending on your user level.
- Second column contains the projects overall score average value inside the selected aggregation criteria.
- Third column contains the revised projects score average value inside the selected aggregation criteria. The revised score is the score assigned to closed project cases. This gives an idea about how the cases were resolved. Lower values mean cases were mostly resolved in a positive way as higher values demonstrate cases were flagged as more risky.
- Fourth and fifth columns contain respectively, for the overall score, and for the revised score, the number of items having a score over 38.

Changing the aggregation criteria can be done by using the combo box on the top right of the table.

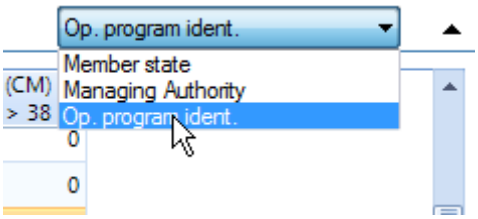
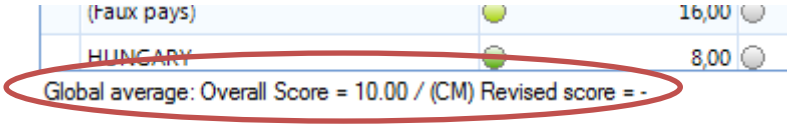


Figure 1 - Selecting aggregation criteria

The statistics can also be refreshed for the current selection, using the icon.

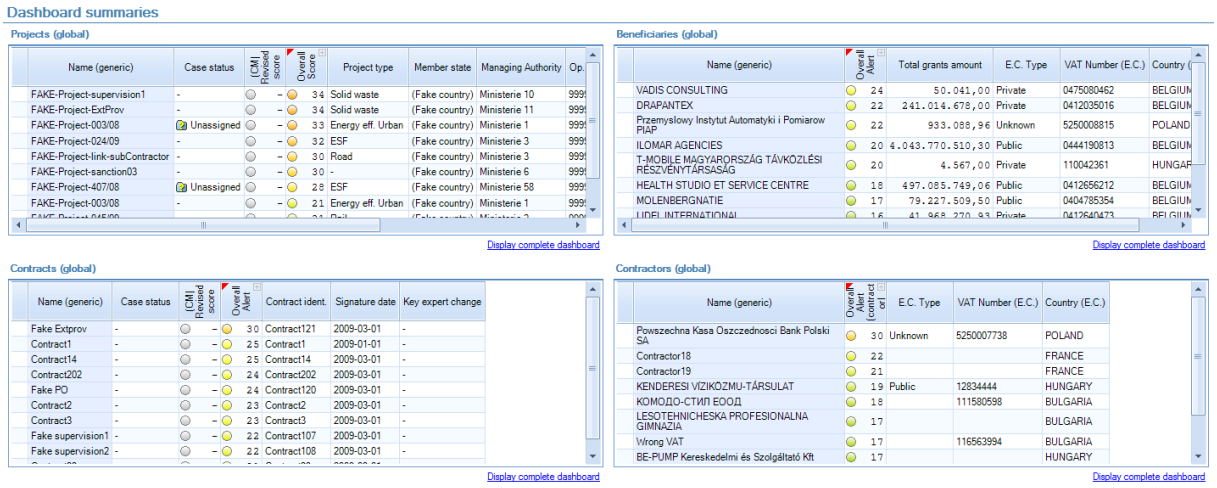
On the bottom left of the table, you also have the global project average values for the population corresponding to the user's context.



Double-clicking on a row in the table opens the dashboard window with its selection set to the selected aggregation criteria i.e. double clicking on a row with an operational program will show you the dashboard for this operational program.

3.2.3.3 Dashboard summaries section

Mini-dashboards are reduced versions of full dashboards available in the application – see chapter 5 for detailed information about dashboards. Columns cannot be customized in the mini-dashboards.



Mini dashboards display (for projects, contracts, beneficiaries and contractors) the entities having the highest global risk. Only entities you are authorized to access will be ranked. Each mini-dashboard has a link to the complete dashboard. Click on the link to open the full dashboard window.

Each mini dashboard displays the top 10 of highest overall score value. It only contains a reduced column set that cannot be customized: the overall score, the revised score for case-managed entities, and some specific columns for each kind of entity.

For projects:

- Project type
- Member state
- Managing authority
- Project status
- Project cost

For contracts:

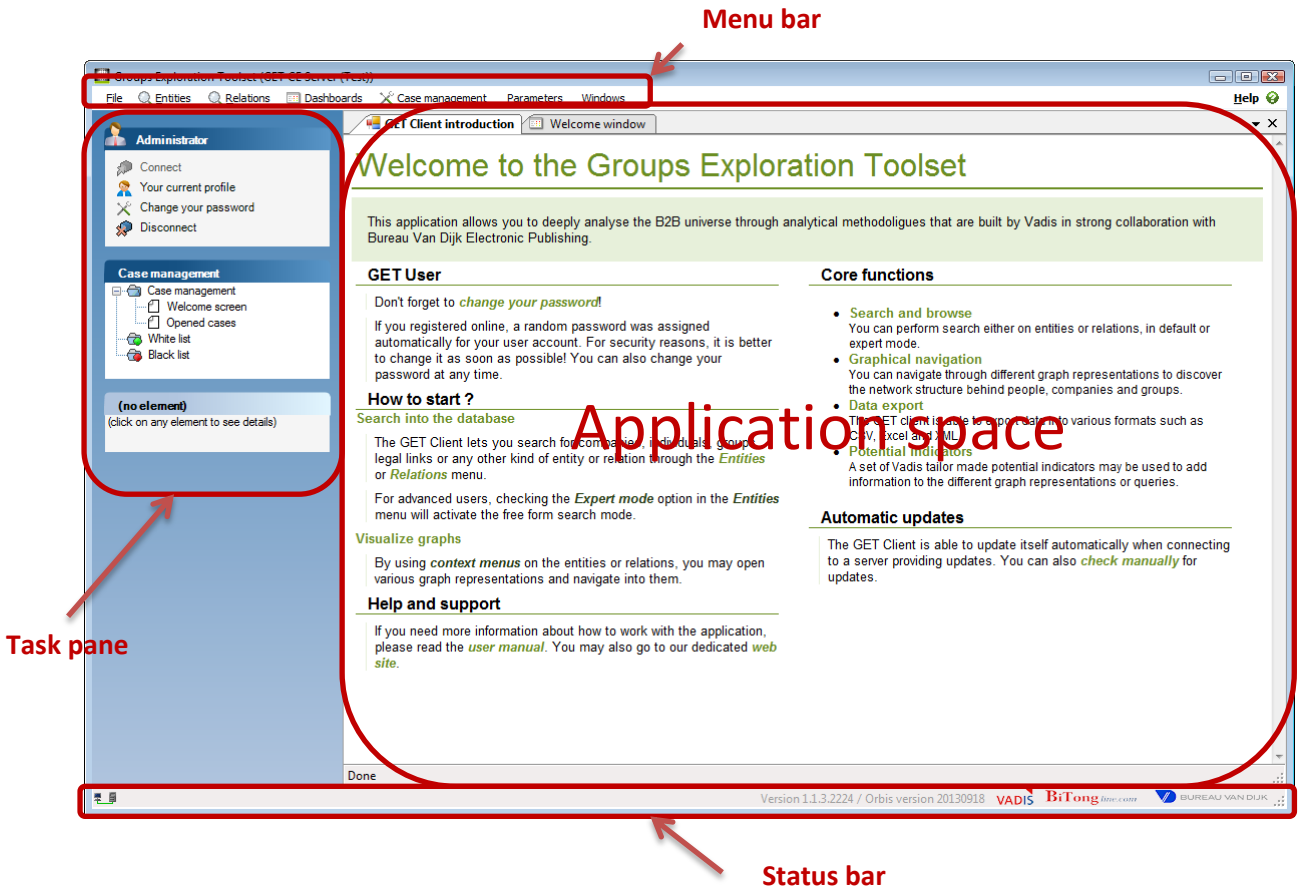
- Contract identifier
- Signature date
- Key expert change

For beneficiaries and contractors:

- Total grants amount
- Type
- VAT number
- Country

Each mini dashboard has similar functionalities as the complete dashboard, except for drilldown and expanding / collapsing alert details. Please refer to chapter 5 for more specific information about dashboards.

3.2.4 Arachne interface



The main application screen contains different functional blocks:

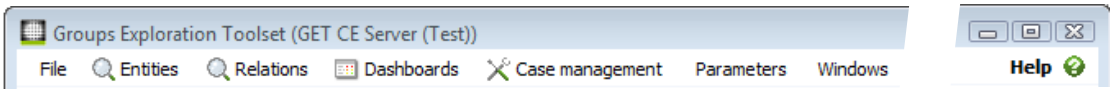
- The main application menu
- The task pane (on the left of the screen)
- The status bar (on the bottom of the screen)
- The application space.

In addition, extra windows such as basket (12.3.3) and graph legend (7) may be displayed on the right of the application.

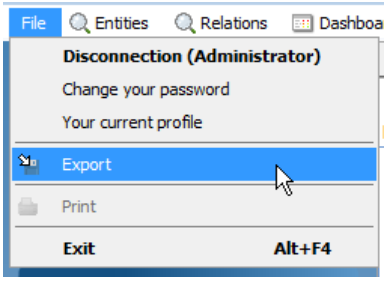
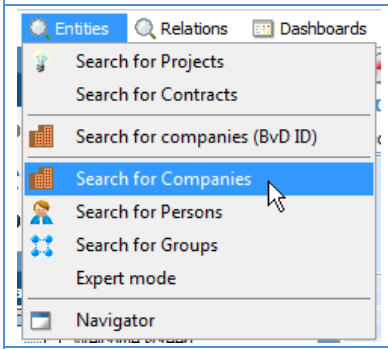
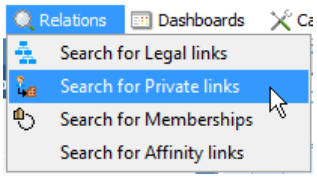
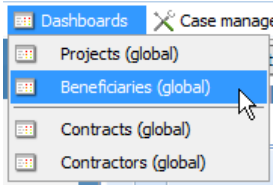
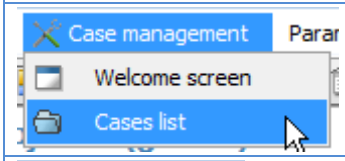
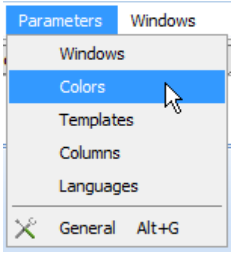
The user has the possibility to change the different elements location, by a simple drag and drop operation. This gives the users the ability to customize their work experience.

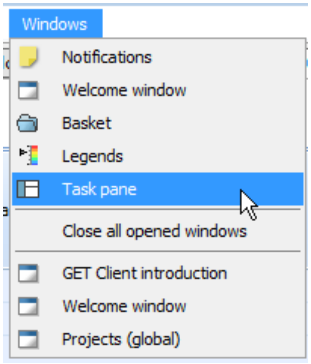
3.2.5 Menus and toolbars

3.2.5.1 Application main menu

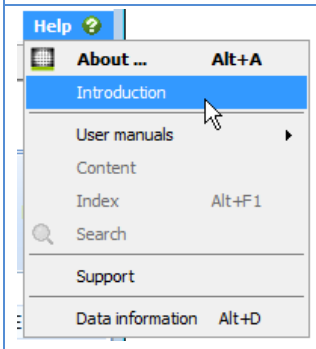


Menu descriptions

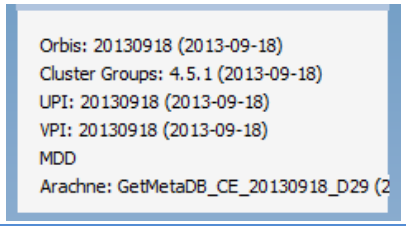
Screenshot	Description
	The ***File*** menu contains the connection / disconnection options, the export and print functions, and the password change option (only when logged with the internal authentication system – ECAS password change is not supported through the application).
	The ***Entities*** menu contains the different search forms available on entities: projects, contracts, companies, persons and groups. Some entities may have multiple forms available. Please refer to chapter 6.1 for more information about searches. The menu contains also the expert mode activation and the navigator, which will be described in the advanced features section.
	The ***Relations*** menu contains the different relation search forms available.
	The **Dashboards** menu contains the different dashboards defined for the European Commission: projects, beneficiaries, contracts and contractors. These menu options link to the full dashboard for each entity. Please refer to the chapter 5 for more details on dashboards.
	The ***Case management*** menu contains two options: the case management welcome screen (not the same as the application welcome window) and the user's case list.
	The ***Parameters*** menu contains the different parameters that can be adapted by the user. This covers the colors used in the application, the language (French and English are available), the columns used in search results and navigation tables, etc… Please refer to chapter 11 for more details.



The ***Windows*** menu contains options to enable / disable some interface components such as the welcome window, the basket window, the legends and the task pane. These options can be used to gain more application space if needed.
The "Close all opened window" closes all windows actually opened in the application space.
In addition, the list of currently opened windows is present in the menu for quick switch between them.



The ***Help*** menu contains the About option, the link to the user manuals present in the application folder, as well as other help links. The last option opens a data information panel in the task pane, which lists different release information about the current database.



3.2.5.2 Task pane

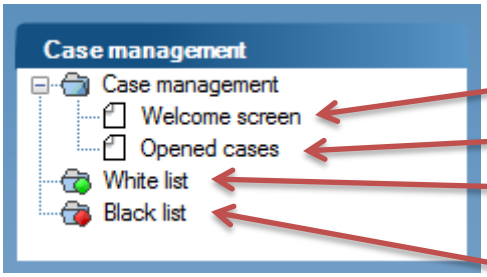
The task pane is the left-side part of the application screen and contains multiple functional blocks.

User information module

Your login name
Connect link
Your profile information
The password change option
Disconnect link

Note that the password change option won't be available when connected using the ECAS authentication.

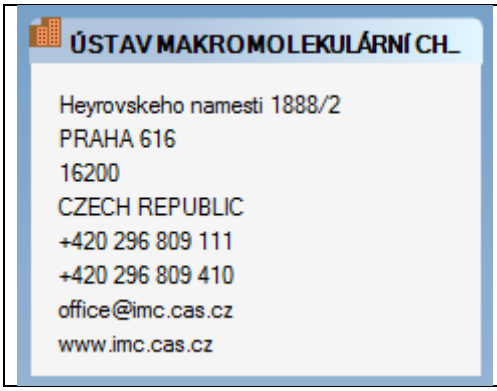
Case management module



Case management welcome screen
List of opened cases, based on user's context
List of white-listed cases, based on user's context
List of black-listed cases, based on user's context

This module is visible only for user having access to the case management, and lists quick links to important case management functions. Please refer to chapter 9 for more details about case management functions.

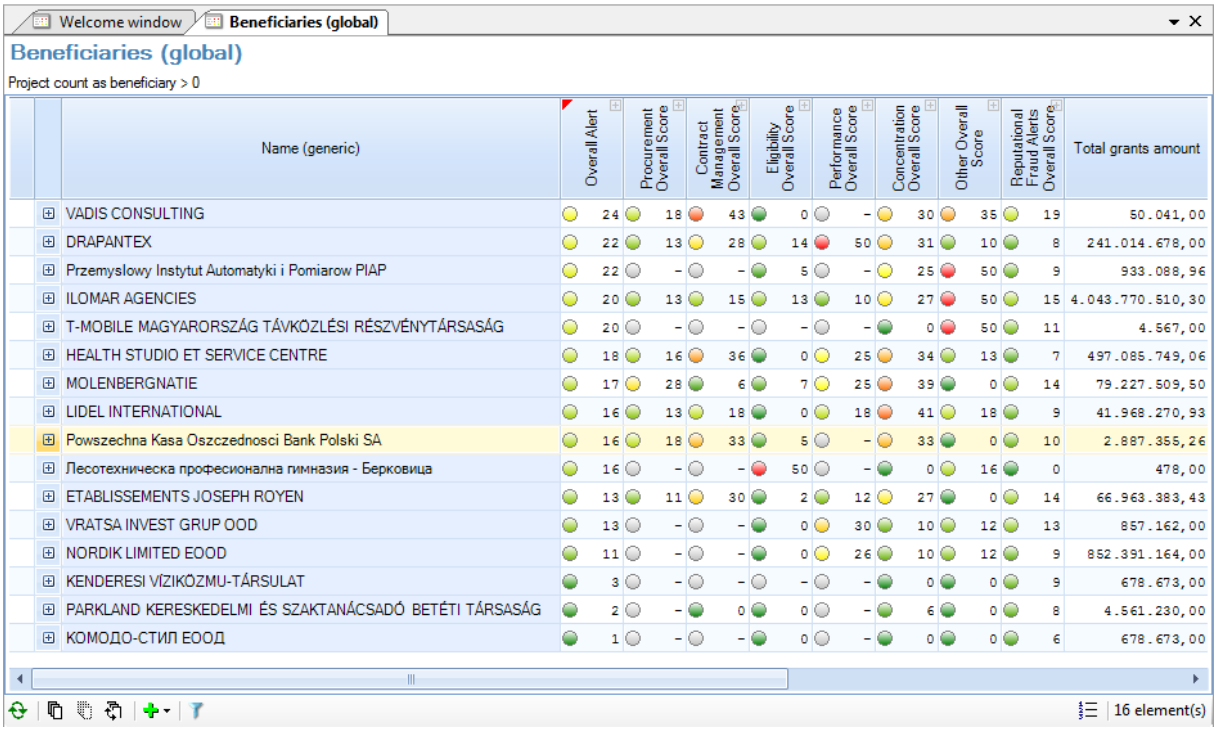
The details panel module



This panel, also called "business card", will give you instant information about the currently selected entity. This works for all application screens when an entity is selected, and displays a default set of properties for the selected entity.

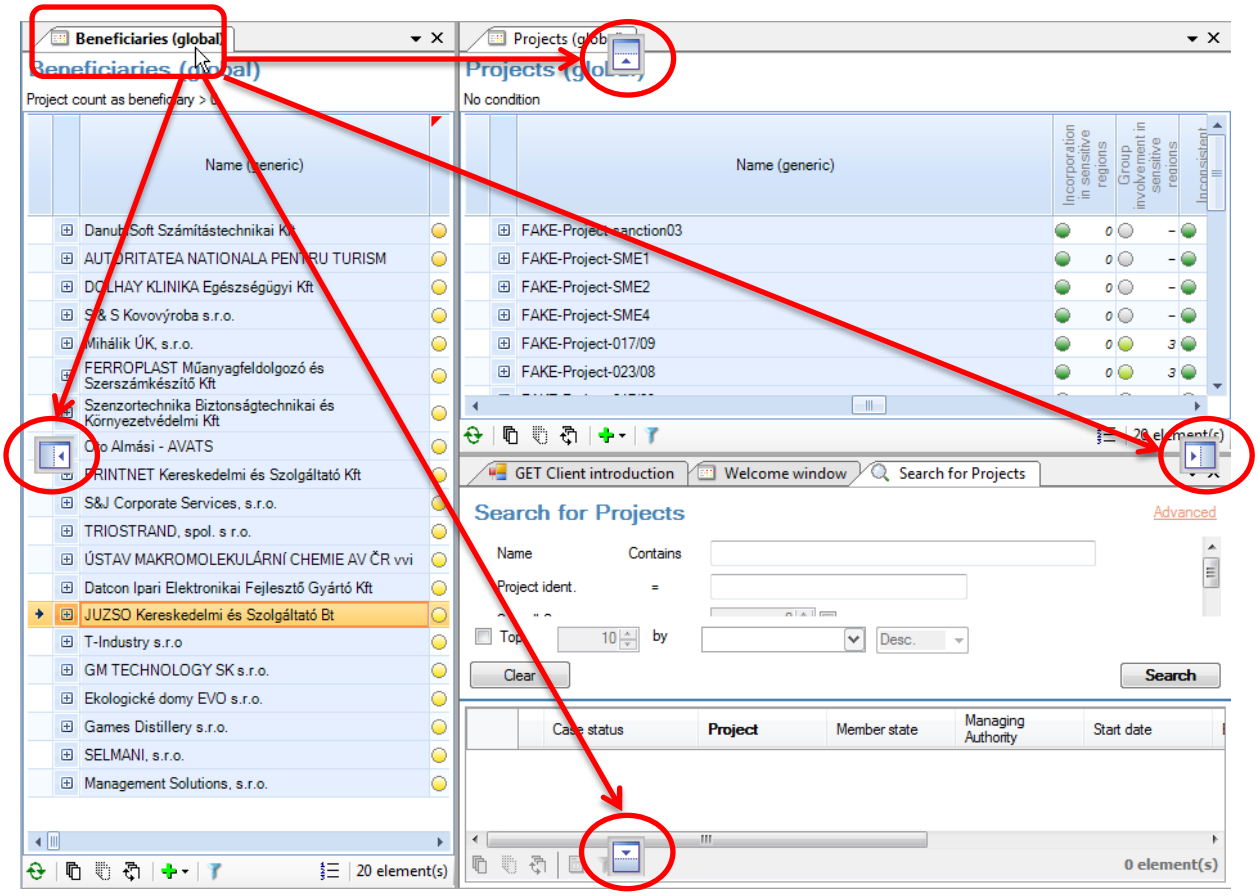
These properties are customizable using the ***Parameters*** →***Columns*** menu, then selecting ***For details panel*** option (See chapter 11 for more details)

3.2.5.3 Application space



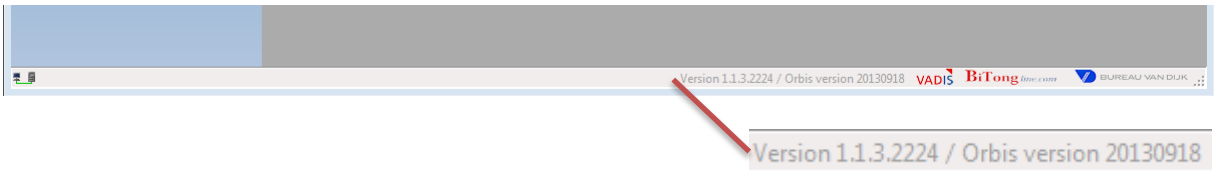
Name (generic)	Overall Alert	Procurement Overall Score	Contract Management Overall Score	Eligibility Overall Score	Performance Overall Score	Concentration Overall Score	Other Overall Score	Reputational Fraud Alerts Overall Score	Total grants amount
VADIS CONSULTING	24	18	43	0	-	30	35	19	50.041,00
DRAPANTEX	22	13	28	14	50	31	10	8	241.014.678,00
Przemyslowy Instytut Automatyki i Pomiarow PIAP	22	-	-	5	-	25	50	9	933.088,96
ILOMAR AGENCIES	20	13	15	13	10	27	50	15	4.043.770.510,30
T-MOBILE MAGYARORSZÁG TÁVKÖZLÉSI RÉSZVÉNYTÁRSASÁG	20	-	-	-	-	0	50	11	4.567,00
HEALTH STUDIO ET SERVICE CENTRE	18	16	36	0	25	34	13	7	497.085.749,06
MOLENBERGNATIE	17	28	6	7	25	39	0	14	79.227.509,50
LIDEL INTERNATIONAL	16	13	18	0	18	41	18	9	41.968.270,93
Powszechna Kasa Oszczednosci Bank Polski SA	16	18	33	5	-	33	0	10	2.887.355,26
Лесотехническа професионална гимназия - Берковица	16	-	-	50	-	0	16	0	478,00
ETABLISSEMENTS JOSEPH ROYEN	13	11	30	2	12	27	0	14	66.963.383,43
VRATSA INVEST GRUP OOD	13	-	-	0	30	10	12	13	857.162,00
NORDIK LIMITED EOOD	11	-	-	0	26	10	12	9	852.391.164,00
KENDERESI VÍZIKÖZMU-TÁRSULAT	3	-	-	-	-	0	0	9	678.673,00
PARKLAND KERESKEDELMI ÉS SZAKTANÁCSADÓ BETÉTI TÁRSASÁG	2	-	0	0	-	6	0	8	4.561.230,00
КОМОДО-СТИЛ ЕООД	1	-	-	0	-	0	0	6	678.673,00

The application space can hold multiple opened windows. By default, these windows appear as tabbed windows, but they can also be positioned manually at user's will, by a simple drag and drop operation.



3.2.5.4 Status bar

The status bar on the bottom of the application will give various information about tasks and processes running in the background.



It also shows the current application version and data version. The data version references the *Orbis* (external data) publication date, using *yyyymmdd* date format (year, month, day). The application version and *Orbis* version should always be mentioned when reporting problems or issues.

4 Understanding the concepts

4.1 Arachne data

The data available in the application come from multiple sources that are aggregated in order to give the user a complete and accurate view of what's happening in its "universe". These data sources are:

- Member States data about projects, contracts, beneficiaries and contractors. These are called ***internal data***.
- Publicly available information about companies and their board members
    - General information (address, phone, web site ...)
    - Financial information coming from published balance sheets
    - Ownership information between companies
    - Ownership and functional relationships between companies and individuals
    - Global PEP[3] lists
    - Global sanction lists
    - Global enforcement lists
    - Global adverse media lists

  These are called ***external data***. There are also referenced as ***Orbis*** and/or ***WorldCompliance*** data in the manual or the application (*Orbis* and *WorldCompliance* are the original data source names).
- Vadis specific indicators based on predictive modeling. These indicators are considered to be external data as well (See chapter 14.2 about *Vadis Predictive Indicators*)

All these sources are bound and processed together in a single database, to allow the application to browse, search and perform advanced operations.

4.2 Data refresh

4.2.1 Weekly schedule and data refresh cycle

The following weekly schedule for data refreshes has been decided:

- The Member States are able to upload new data on SFC 2007 until each **Monday 2pm** for a release run the current week. After that time, files will not be lost but used for the release of the following week.
- The data validation, enrichment and risk calculation processes are running as of Monday 2pm and the results will be available in Arachne as of Friday morning.

The refresh of the Orbis database will be done quarterly (every three months). The refresh is planned in the third week of January, April, July and October. In exceptional cases this refresh might be delayed by a few weeks.

As WorldCompliance data is related to Orbis, the refresh cycle of WorldCompliance is synchronized with the refresh cycle of Orbis.

[3] PEP: Politically exposed persons.

All amounts in Arachne are expressed in Euro. Amounts provided by the Managing Authorities in local currency will be converted to EUR when the data is uploaded in Arachne (Monday 2PM).

The currency rate which will be used is the currency rate which is published by DG BUDG in the beginning of each month (see http://ec.europa.eu/budget/contracts_grants/info_contracts/inforeuro/inforeuro_en.cfm).

4.2.2 New data deliveries impact

Alerts are computed on different levels. For instance, many of them depend on ratio deviation related to peer groups. Hence, it is possible to see that alert values differ from one data delivery to another, due to the following reasons:

- Another Operational Program or Member State has provided new data and peer group thresholds have changed: peer groups are not always based on Operational Programs, but also on sector, project type, or country.
- Currency rates updates can have an impact on thresholds or values.
- The matching between the given company (Beneficiary, Contractor or SubContractor) and an Orbis company has changed, because of updated info.
- Orbis or WorldCompliance refresh, and thresholds or values may have change.

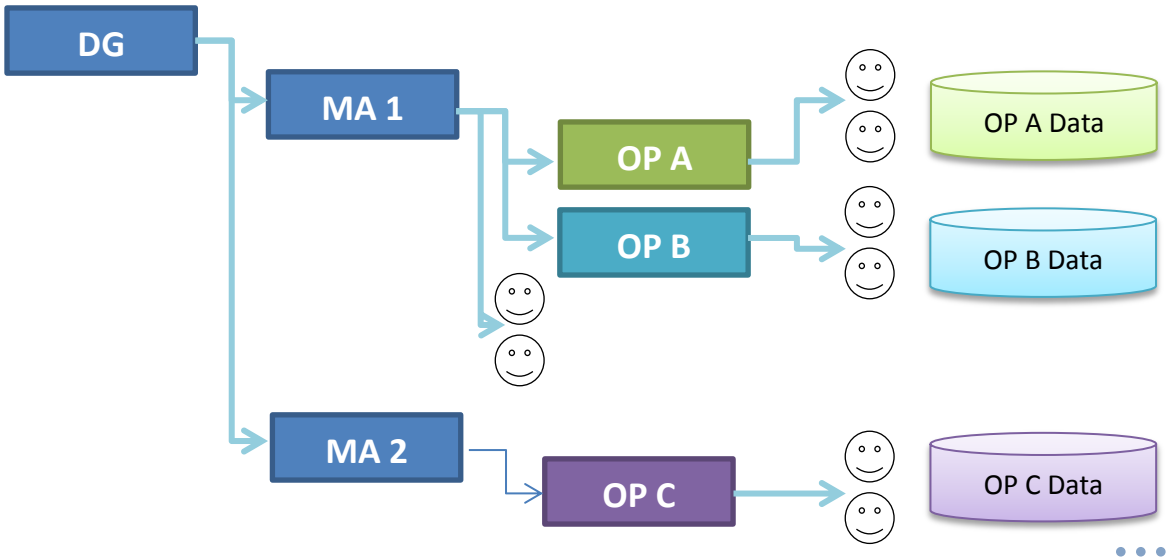
4.3 Data licensing

All external data is subject to a limited usage license. Because of this license, which works with a maximum number of concurrent users (seats), it may happen that the licensing system doesn't allow the current user to see external data. This lack of visibility doesn't prevent the application from running correctly, but all external data won't be visible until a seat becomes available. Please refer to chapter 12.5 for more information about the licensing system.

4.4 Authentication and data isolation

The Arachne application provides data isolation mechanisms based on user management and authentication system. This isolation prevents users to see information to which they have no access i.e. users from one operational program cannot see information from another operational program.

This isolation is based on how the user groups are defined in the user management system. Groups can be represented as a tree-like structure.



The internal data are always related to a given operational program, which is represented by a corresponding user group in the user management system. This prevents users from one operational program to access data from another one.

As the groups represent the European Commission structure, data access rights are inherited from the children to the parents: in our graphical example, this means that users of **MA 1** can access data from **OP A** and **OP B** but won't be able to access data from **OP C**.

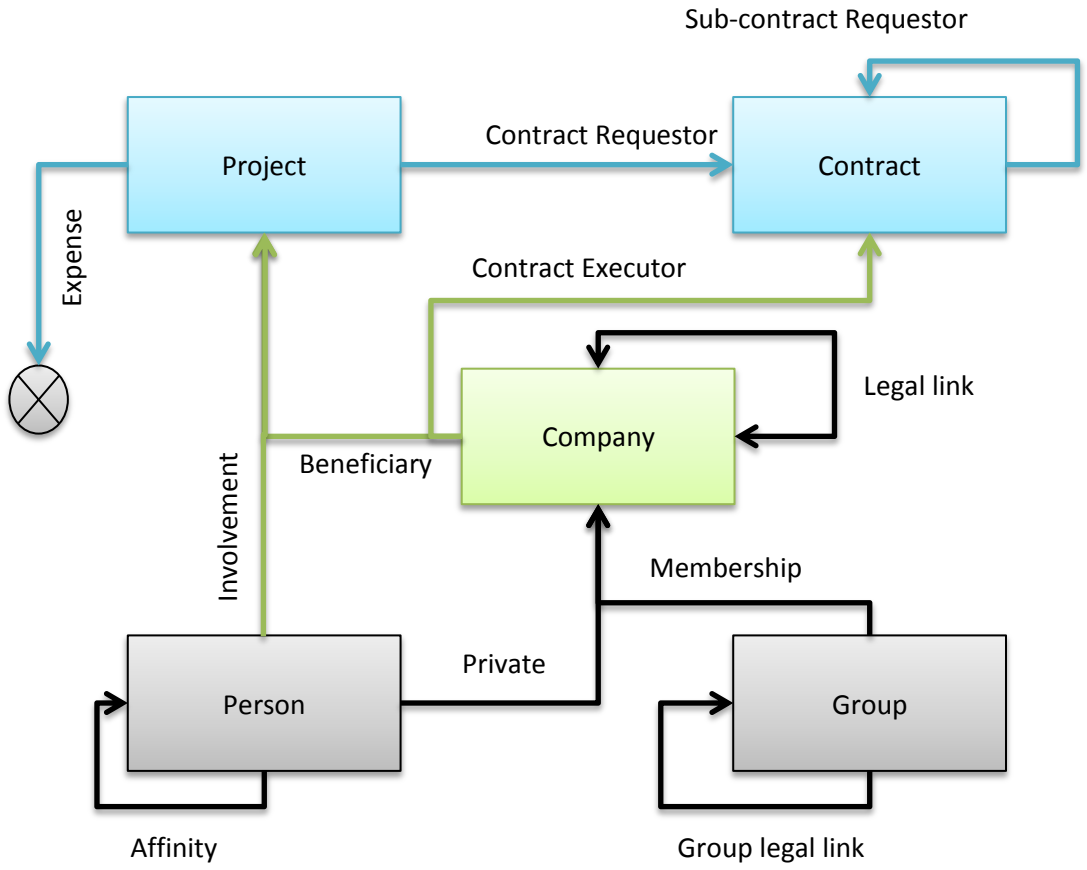
4.5 Entity-relationship diagram

The application is based on an entity-relationship diagram, reflecting the real world organization between the different kinds of data available in the system. This diagram is built from multiple data-sources. For a clear comprehension, the following color code will be used:

Entities or relations containing E.C. / Member state data (also called internal data).

Entities or relations containing a mix of internal and external data.

Entities or relations containing only external data.



4.5.1 Entities

Entity	Description
Project	The *Project* entity represents a single E.C. project. A project is linked to one beneficiary and multiple contractors via the *Beneficiary* relation. It is also linked to contracts via the *Contract requestor* relation and to persons via the *Involvement* relation.
Contract	The *Contract* entity represents a contract passed by a company (beneficiary, contractor or sub-contractor) for a given project. The contract is linked to the project via the *Contract requestor* relation, and to the company via the *Contract executor* relation.
Company	The *Company* entity contains mixed information coming from E.C. data (beneficiary, contractor and sub-contractor information) and public data (financial and scores). Companies are linked to projects via the Beneficiary relation. They are linked to contracts via the Contract executor relation. In addition, companies are linked together via the Legal link relation, to groups via the Membership relation and to persons via the Private relation. These three relations come from the public data.
Person	The *Person* entity represents either individuals or corporations. The persons are linked to projects through the *Involvement* relation. Persons are also linked to companies through the *Private* relation and between each other via the *Affinity* relation.
Group	The Group entity represents a set of companies strongly linked together via the Legal link relation (see cluster groups 4.6.2 for more details). Groups are linked to companies via the Membership relation and between each other via the Group legal link relation.

4.5.2 Relations

Relation	Description
Beneficiary	The *Beneficiary* relation links projects and companies together. At least one relationship must exist between a project and its beneficiary company. In fact, this link is not only about beneficiary but about any kind of link occurring between projects and companies: • Beneficiary (1 per project) • Contractors and subcontractors • Partners • Consortium members
Involvement	The *Involvement* relation links persons to projects. The link is qualified by an involvement role which can be: • Contact person • Financial manager • Official representative • Project manager • Representative

Expense	The *Expense* relation is only linked to projects. Each relation matches a single expense row for the related project. The link is mainly qualified by the expense type and amount.
Contract executor	The *Contract executor* relation links contracts to the companies executing them. At least one relationship must exist between a contract and its main contractor. The link is qualified by a role which can be: • Beneficiary • Consortium member • Contractor • Sub-contractor • Project partner
Contract requestor	The *Contract requestor* relation links contracts to the projects requesting them. This is an unqualified link.
Sub-contract requestor	The *Sub-contract requestor* relation links contracts together in a directed manner. This is an unqualified link.
Legal link	The *Legal link* relation links companies together in a directed manner, symbolizing the ownership of one company by another. This link is qualified by the participation rate (percentage).
Private	The *Private* relation links persons to companies; the link is qualified by the role, or position of the person into the company.
Membership	The *Membership* relation links companies to their group(s). One company may be linked to no group, one group, or two groups. In this latest case, one group is qualified as the *standard* group and the second one as the *investment* group.
Affinity	The *Affinity* relation links person together. See more details in the dedicated chapter 4.6.3.
Group legal link	The Group legal link relation links groups together by aggregating legal links between companies of those groups.

4.6 External data

The goal of this chapter is to present the different concepts found in the external data.

4.6.1 Companies and legal links

Companies and legal links are provided by an external data provider which collects public data about them on a worldwide scale. The information related to companies is mostly financial, and based on officially published balance sheets. The legal links also come from this source and represent the entire shareholder to subsidiary relationships.

These data constitute a network containing about 110 million companies and 12 million legal links. Note that smaller companies do not have any shareholder or subsidiary. Only medium or big companies are owned by or own other ones.

4.6.2 Groups, memberships and group legal links

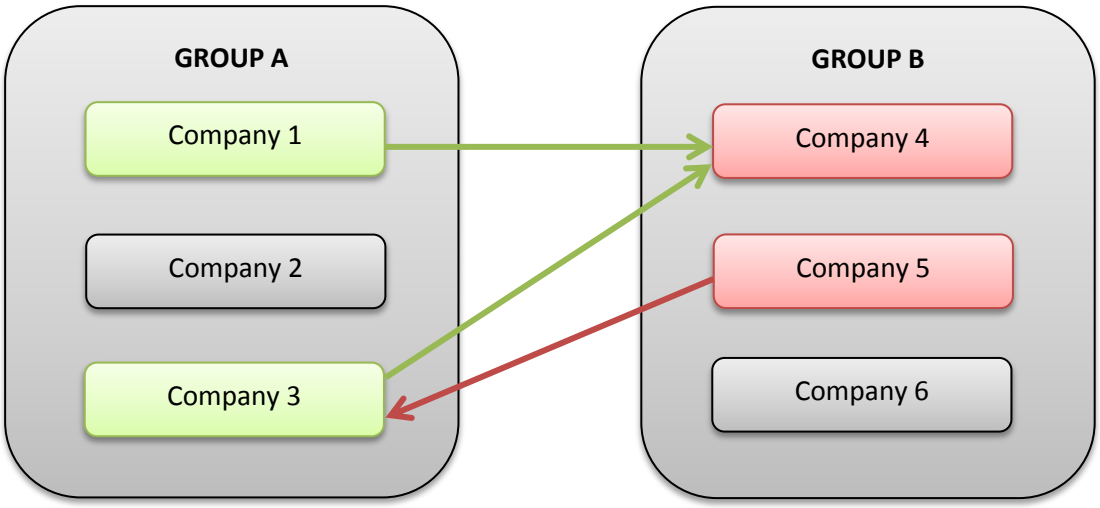
The network composed of companies and legal links is processed by a clustering algorithm (developed by Vadis) to discover sets of strongly linked companies. The idea behind this clustering is

to try to match the reality of big international or national groups such as Texaco (oil), LVMH (luxury products), Carrefour (supermarkets) and others.

Once this clustering is done, it gives the definition of the various groups in the system.

From there, companies belonging to these groups are linked to them through the *membership* relation. These memberships give the ability to detect common shareholders or subsidiaries, main shareholder of a group, as well as various group indicators.

Finally, groups are linked together using the *group legal links*. These links are aggregations of legal links existing between companies of two given groups.



In this example, companies 1 and 3 from group A own shares in company 4 of group B, but these shares are not high enough to make the company 4 belong to group A (participation rates are commonly between 0.01% and 10%). In the same way, company 5 owns shares of company 3.

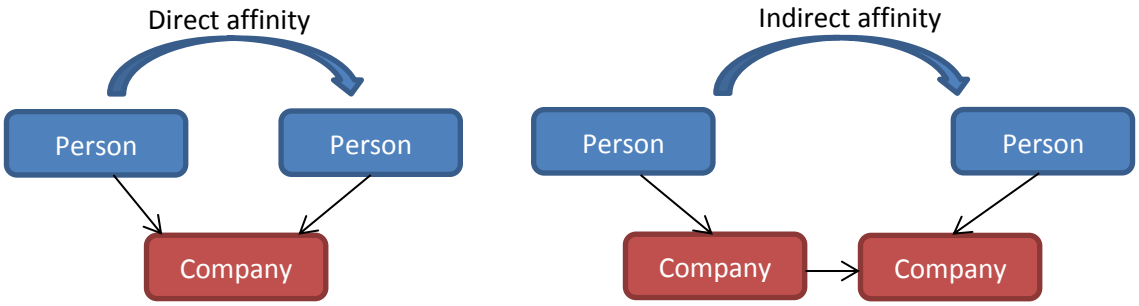
Once aggregated, these so called weak links give a global relation between group A and group B.

The group legal link direction and weight depend on the number, weights and directions of all aggregated legal links.

4.6.3 Affinities

Affinities are relationships between people that are computed based on private relations and legal links. The idea is to create an "affinity" between two individuals when these individuals have a function in the same company, or have a function in directly related companies.

We distinguish direct affinities and indirect affinities.



4.6.4 Vadis Predictive Indicators

In addition to the external data, the application provides two indicators built on predictive modeling techniques. These indicators, called Vadis Predictive Indicators or VPI, are only available for companies. The two indicators are:

- ***VPI P2B Bankruptcy***: predicts the risk for a company to go bankrupt
- ***VPI P2B Sold:*** predicts the risk for a company to be sold/bought by another.

More information about the scores can be found in chapter 14.2 of this manual.

5 Dashboards

The dashboard function summarizes the critical information for projects, beneficiaries, contracts and contractors in a compact, visual and interactive way. Its target is to focus the user's attention on high risk indicators.

The dashboards can be accessed either by the application main menu or the welcome window's mini-dashboards.

A dashboard displays a given top number of elements ordered by highest *alert* value, for a given *focus*. An alert is a property whose value is defined between 0 and a maximum. The maximum value represents the highest risk or propensity for the alert. A *focus* is a set of selection criteria used to limit the scope of the displayed dashboard.

5.1 Understanding alerts

The ***alerts***, also called *risk indicator score*s, give an evaluation value for different audit criteria applied on projects, contracts, beneficiaries and contractors. These alerts vary between 0 and a predefined maximum value which represents the highest risk level.

The risk score of a beneficiary is the weighted average of the risk scores of its projects. The risk score of a contractor is the weighted average of its contracts.

5.1.1 Alerts organization

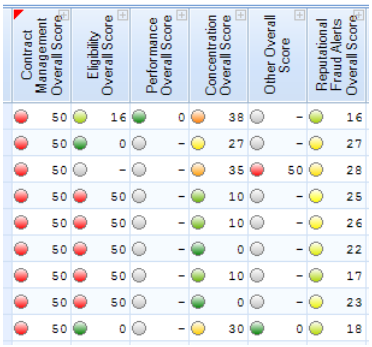
For a better understandability, alerts are grouped in categories, represented by one *categorical alert* which aggregates its *individual alert* values. On top of them, the *overall alert* aggregates all *categorical alerts* into a single value.

Overall alert		
	Categorical alert	
		Individual alert
		Individual alert
	Categorical alert	
		Individual alert
		Individual alert

Here's a matrix representing the different categorical alerts and their availabilities for the different entities.

	Projects	***Contracts***	***Beneficiaries***	***Contractors***
Procurement	Y	Y	Y	Y
Contract management	Y	Y	Y	Y
Eligibility	Y	Y	Y	Y
Performance	Y	N	Y	N
Concentration	Y	Y	Y	Y
Reputational & Fraud	Y	Y	Y	Y
Other	Y	N	Y	N

Each alert is represented by a numerical value and a LED style indicator which goes from **green** (no risk) to **red** (highest risk).

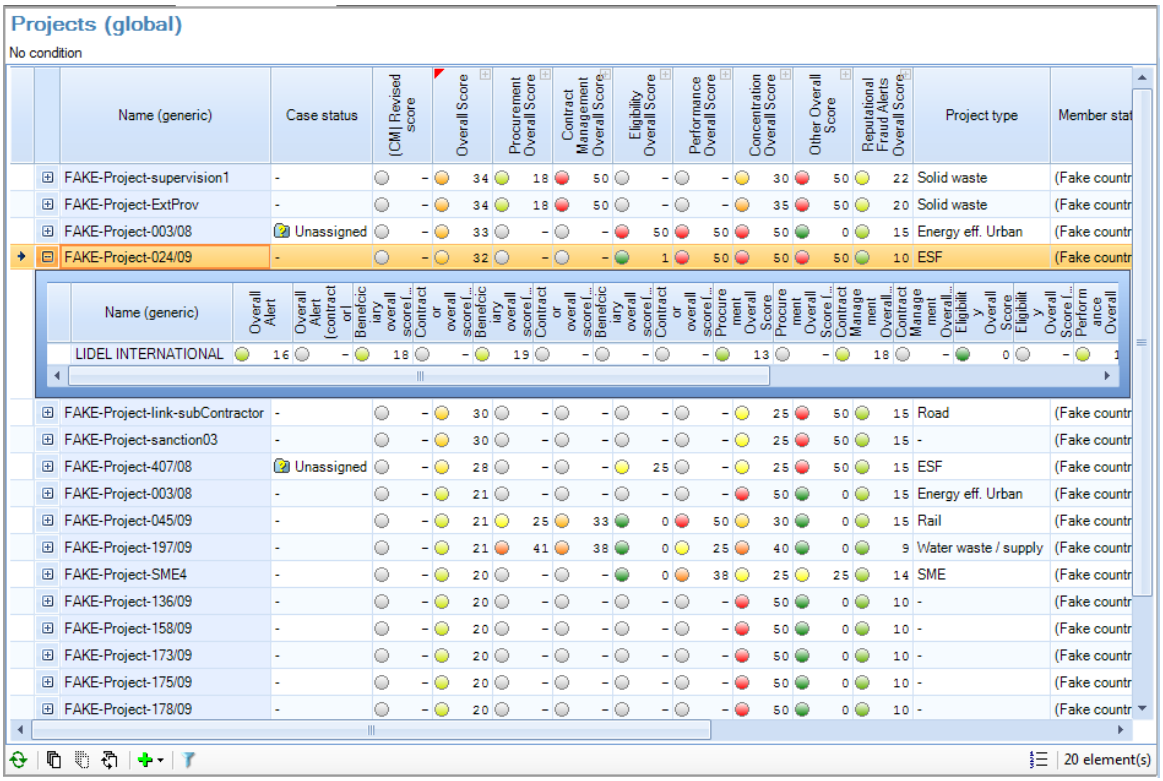


Missing alerts are represented by a – (minus) sign, and a grey LED representation. It means that:

- the alert is out of scope for the project/contract;
- Or the data required to calculate the alert are not provided to Arachne;
- Or not all data (internal and/or external) are available to calculate the alert.

5.2 Projects dashboard

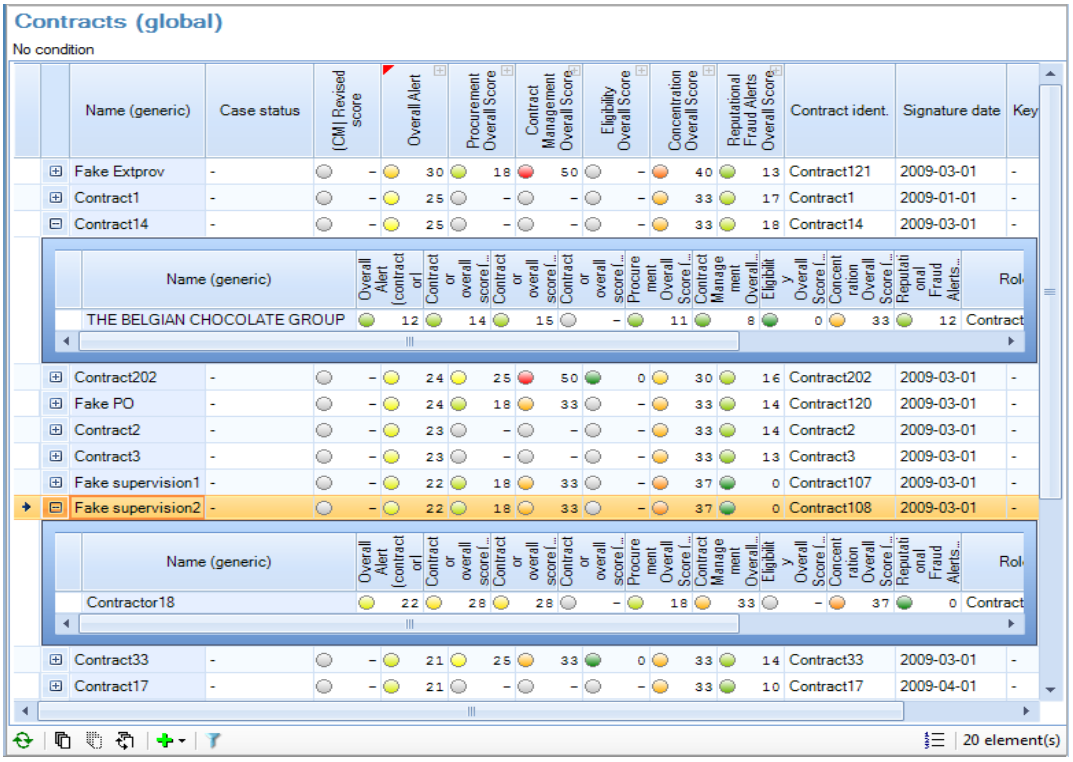
The projects dashboard focuses on the E.C. projects and their beneficiaries / contractors.



Each project row can be expanded to explore the alert values relative to its beneficiary and contractors. In the sub-table, only categorical alerts are visible.

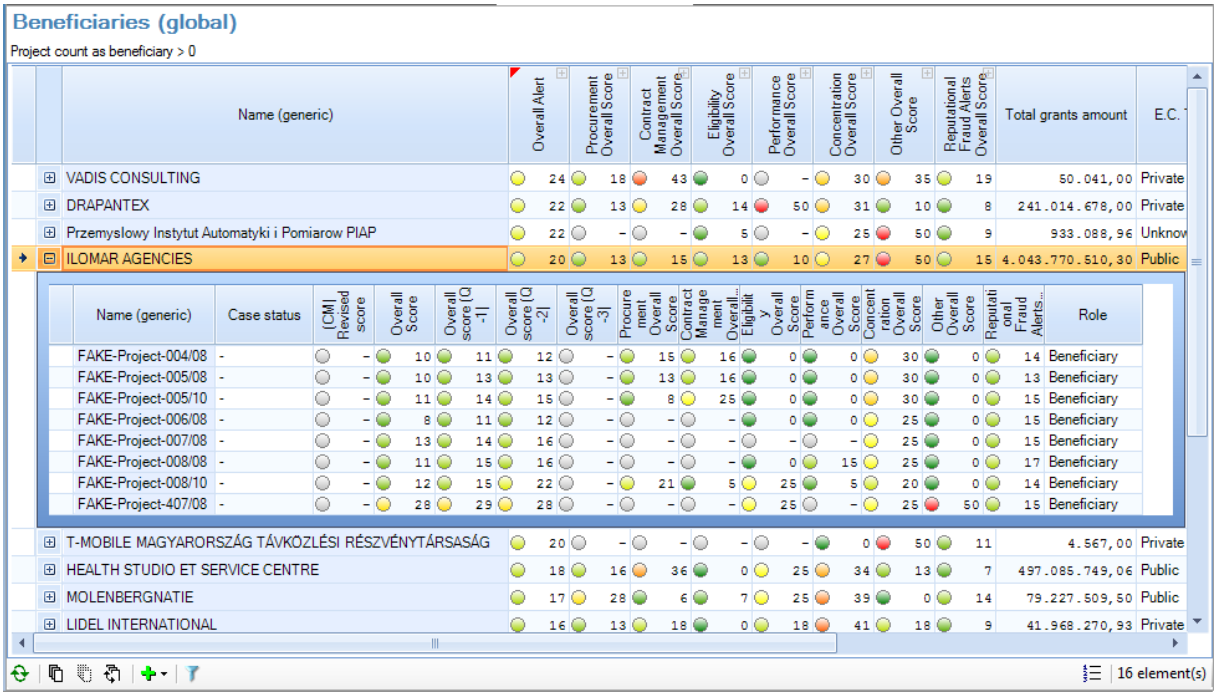
5.3 Contracts dashboard

The contracts dashboard focuses on contracts and the linked contractors.



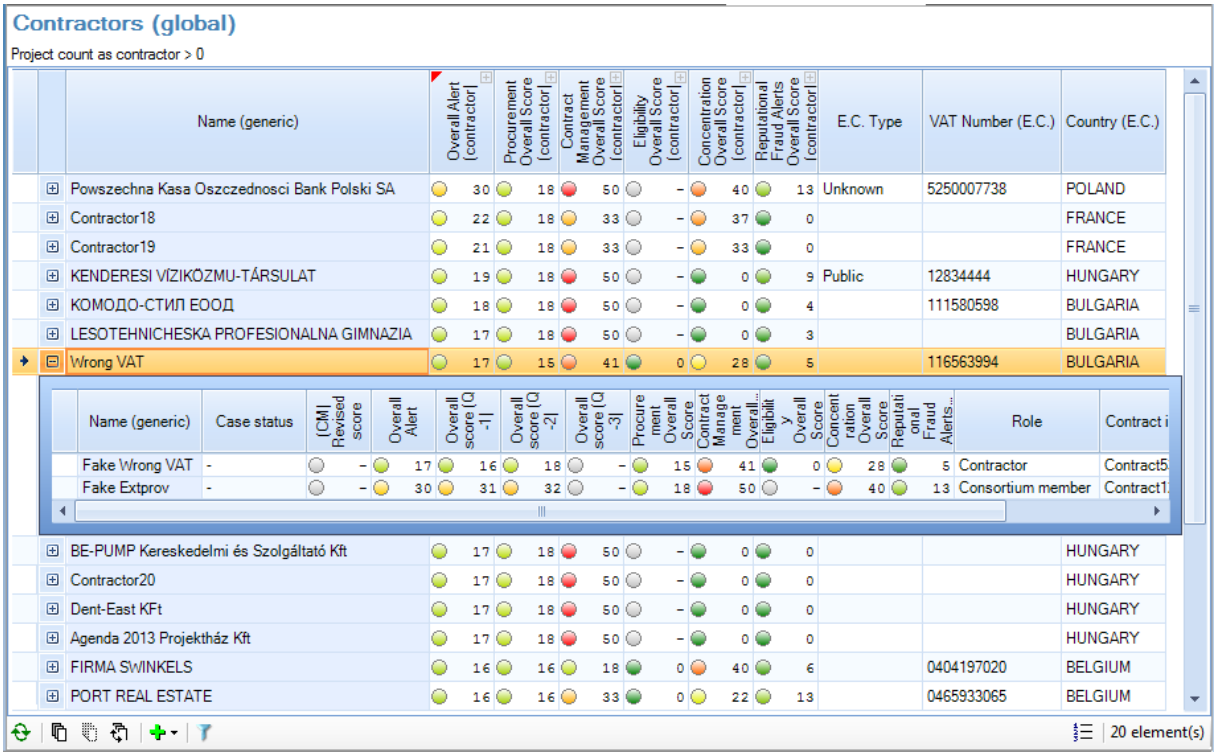
5.4 Beneficiaries dashboard

The beneficiaries dashboard focuses on the project beneficiaries and their respective projects. By expanding the row you can directly see beneficiaries involved in multiple projects.



5.5 Contractors dashboard

The contractors dashboard focuses on contractor companies and the related contracts.



5.6 Dashboards options and features

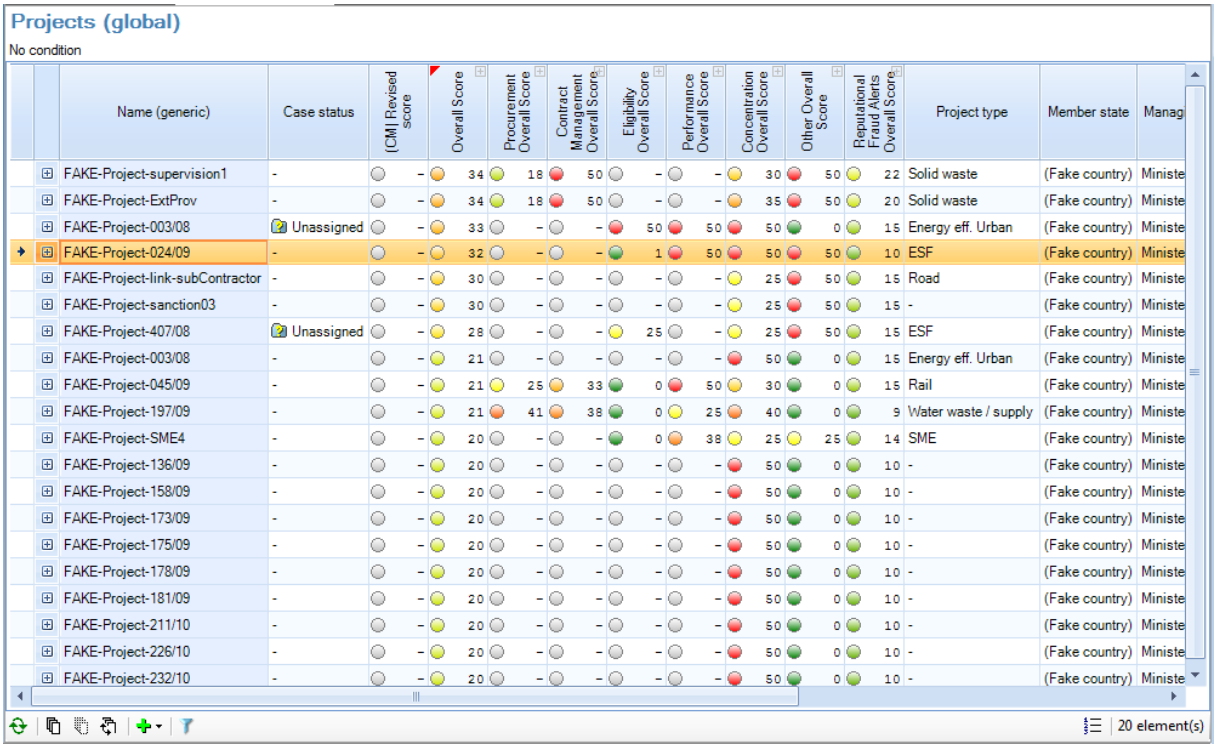
The options we'll explore in this chapter allow the user to focus on the most relevant information by advanced filtering and navigation options:

- Varying the number of visible records in the dashboard
- Expanding and collapsing categorical alerts
- Sorting and grouping
- Viewing alert details
- Expanding and collapsing related entities
- Filtering the dashboard content to refine the selection

Note: For this chapter, we'll take the projects dashboard as an example. All the listed options and features are also available in the same way in other dashboards.

5.6.1 Dashboard description

Dashboard contents



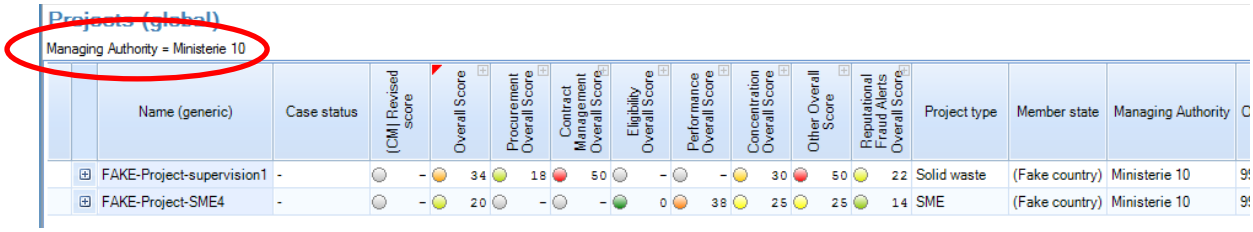
The table element displays the first *N* entities corresponding to the selection, ordered by the "overall score" property by default, in descending order (so in our example the dashboard presents the top 20 highest overall scores).

Two kinds of columns are visible in the dashboard: standard columns and alert columns. You can easily identify alert columns by the fact they have vertical text in the header and the cells contain colorized LED style indicators.

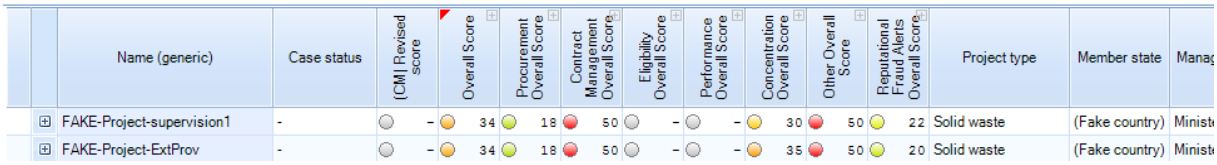
Only when corresponding entities are used in the case management, a dedicated column called ***case status*** is displayed. On case managed entities, an additional ***revised case status*** appears.

Header zone

The header element contains the dashboard selection criteria, i.e., which are the conditions used to select items to display.



The table headers (columns) represent different entity properties, which can be standard properties (text, amount, flag …) and so called alert properties (numerical properties within a well-defined range of values).



	Name (generic)	Case status	(CM) Revised score	Overall Score	Procurement Overall Score	Contract Management Overall Score	Eligibility Overall Score	Performance Overall Score	Concentration Overall Score	Other Overall Score	Reputational Fraud Alerts Overall Score	Project type	Member state	Manag
⊞	FAKE-Project-supervision1	-	-	34	18	50	-	-	30	50	22	Solid waste	(Fake country)	Ministr
⊞	FAKE-Project-ExtProv	-	-	34	18	50	-	-	35	50	20	Solid waste	(Fake country)	Ministr

Standard columns can be re-ordered using drag and drop. However, alert columns cannot be moved.

Standard columns have their header text displayed horizontally and no other symbol. User can click with the left mouse button on the header cell to sort the current elements present in the dashboard. Sorting is limited to one column only, it is not possible to sort on multiple columns at the same time (see chapter 5.6.4 for more details).

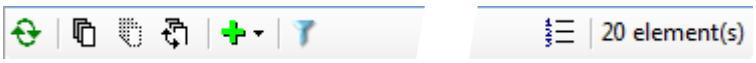
Alert categories

Alerts are grouped (aggregated) into alert categories. The dashboard screen offers the ability to expand and collapse these categorical alerts to display the individual alerts (see chapter 5.6.3).

The alert selection indicator (red triangle on the cell upper left corner) indicates which current alert category is used by the dashboard selection.

Dashboard toolbar

A dedicated dashboard toolbar is present on the bottom of the dashboard screen

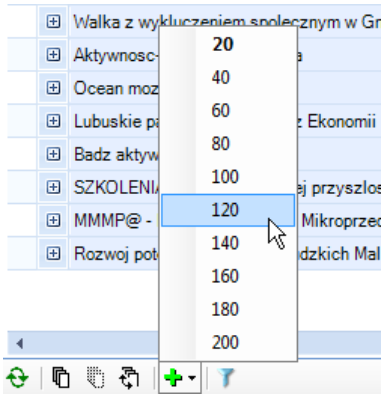


This toolbar contains the following elements:

	Refresh button - when clicked, the current selection is reloaded
	Select all – Selects all items present in the dashboard. Note: this is only selecting the root items. Items present in sub-dashboards are not selected. Selection is used when using the export feature from the file menu.
	Invert selection.
	Unselect all or clear the current selection of projects.
	Changes number of items present in the dashboard (see chapter 5.6.2)
	Enables or disables filtering options visibility (see chapter 5.6.7)
	Grouping – shows or hides the grouping panel on the top of the dashboard table (see chapter 5.6.4)

5.6.2 Varying the number of visible records on the dashboard

By using the dedicated toolbar button, the number of items present in the dashboard can be changed according to the user's needs.

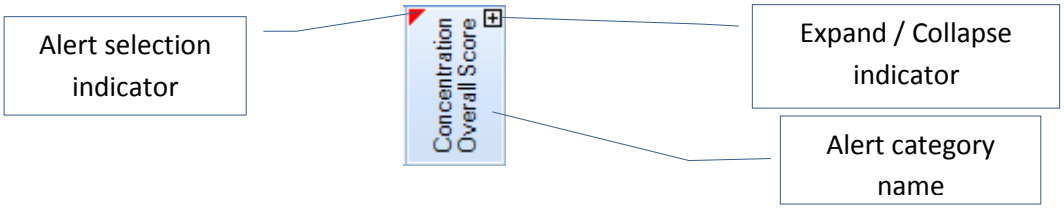


By default, this value is set to 20. It can be set up to 200 items.

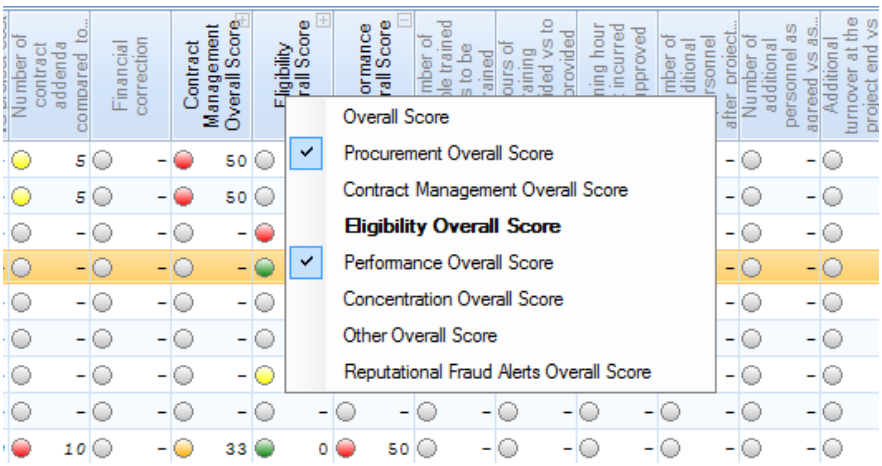
Warning: incrementing this value will impact the performance of the system.

5.6.3 Expanding and collapsing categorical alerts

When you left click on an alert category column which is not active, the alert category becomes active and the dashboard is refreshed according to the new alert.

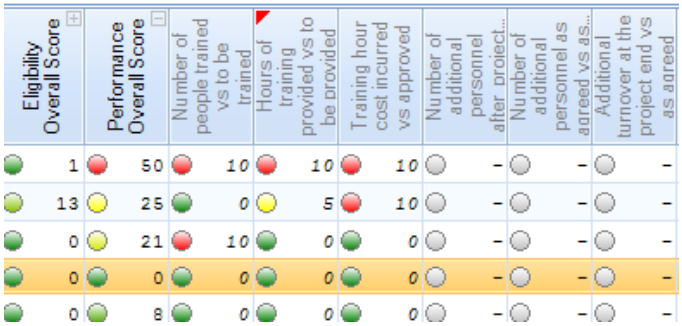


The [+] / [-] symbol on the top right corner of the cell defines which categorized alert is expanded or collapsed. Expanding or collapsing categorical alerts can be done with a ***Shift+Click*** on the header cell. The same option can be achieved via the context menu on the alert category cells by clicking the right mouse button in the header of the column:



The context menu lists all alert categories, with the selected column in bold. Clicking on a menu option will expand or collapse the selected category.

Alerts details are shown in grey text instead of black text and don't have an expand/collapse symbol. When the context menus are re-opened, checked items correspond to the expanded columns. Note that alerts behave exactly like alerts categories when you click on them: the selected alert is used for the dashboard selection, rows are re-queried.



Eligibility Overall Score	Performance Overall Score	Number of people trained vs to be trained	Hours of training provided vs to be provided	Training hour cost incurred vs approved	Number of additional personnel after project...	Number of additional personnel as agreed vs as...	Additional turnover at the project end vs as agreed
1	50	10	10	10	-	-	-
13	25	0	5	10	-	-	-
0	21	10	0	0	-	-	-
0	0	0	0	0	-	-	-
0	8	0	0	0	-	-	-

5.6.4 Sorting and grouping

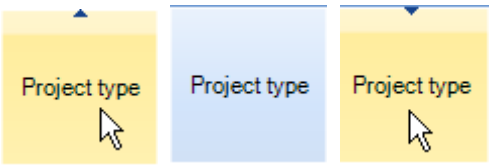
Sorting will change by single-left-clicking on the column headers present in the dashboard by re-querying the information based on the selected alert. There are two different sorting behaviors, depending on the kind of column you click:

Sorting on alerts

By clicking on a particular alert header, the selection indicator (red triangle) will appear on the selected alert. This action changes the selected alert for the whole dashboard. This re-executes the current selection using the selected alert for the top selection; it is always sorted on descending order as it is the dashboard behavior.

Sorting on standard columns

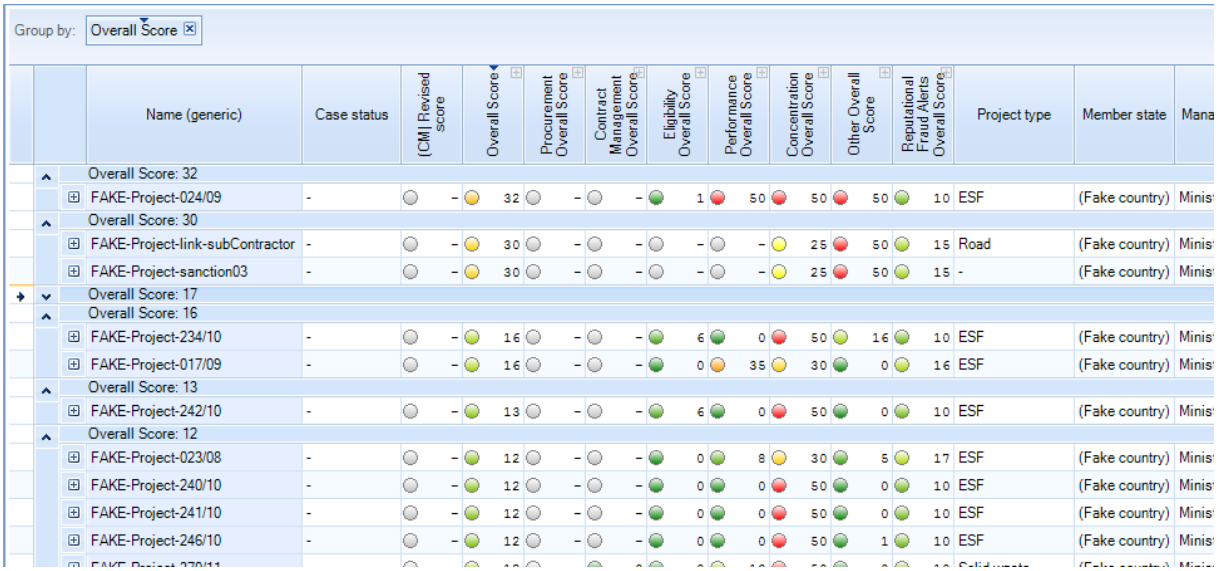
By clicking on the header of a standard column, the sort occurs locally on the displayed record. This sort operation is applied on currently displayed data, no re-query operation is performed in this case.



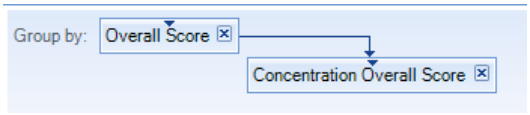
Subsequent clicks will change the ascending / descending option. When used, a small arrow on the top of the cell indicates the current option.

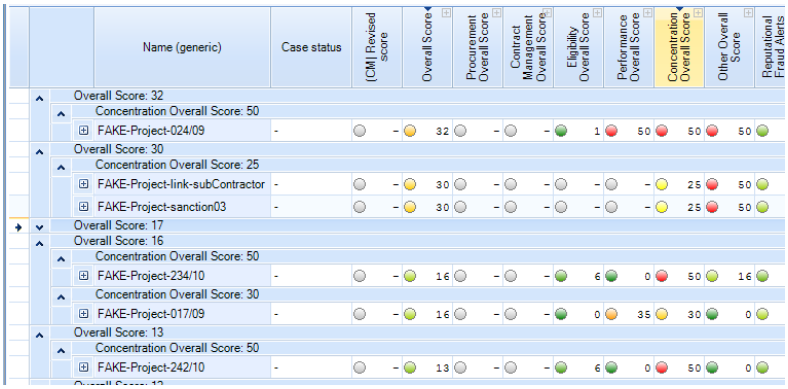
Grouping

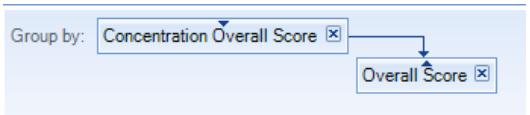
When the grouping bar is activated using the button in the tool bar, a simple column drag and drop allows the user grouping rows by the selected column. Grouping can also be done on multiple columns. The grouping option applies only on currently displayed data. No re-query operation is performed in this case.

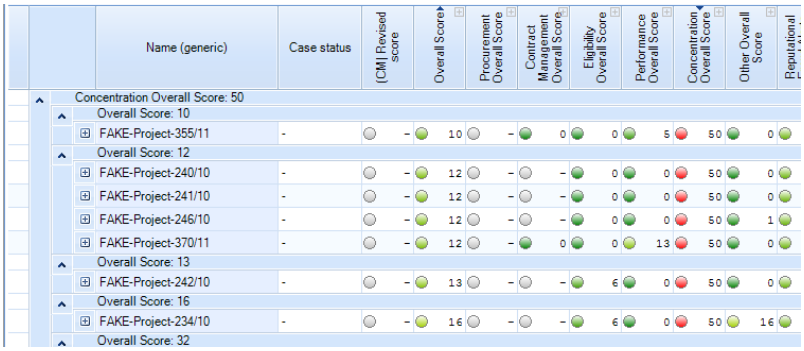


User can change the sort order by clicking on elements in the group panel. Elements can also be re-arranged by moving them. The [X] button in a group item removed the item.





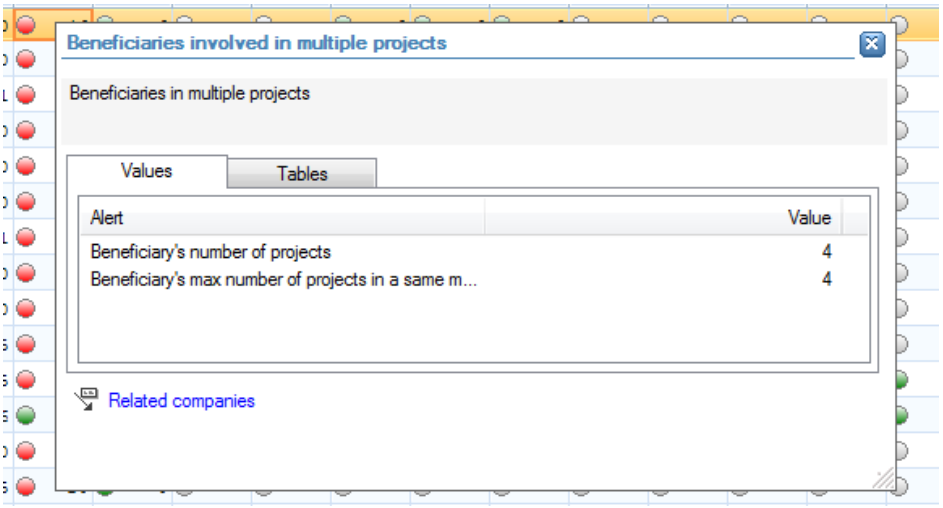




5.6.5 Viewing alert details

This function is only available on individual risk indicator alerts using the right mouse click. It displays a dedicated dialog giving extra info on the elements implied in the alert computation, as well as clickable links giving an extra context to the alert.

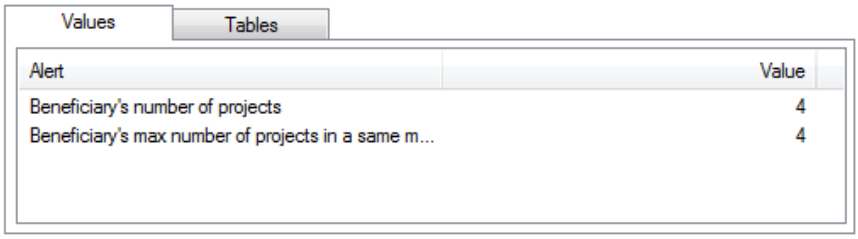
Alert details are only available on projects and contracts, as alerts at company level (Beneficiary or contractor) are aggregated alerts.



The alert details window can be dragged by maintaining mouse click on the title bar. The window can be resized by clicking and dragging the bottom right corner.

Each individual alert has its own extra information, which can contain three types of information:

Values

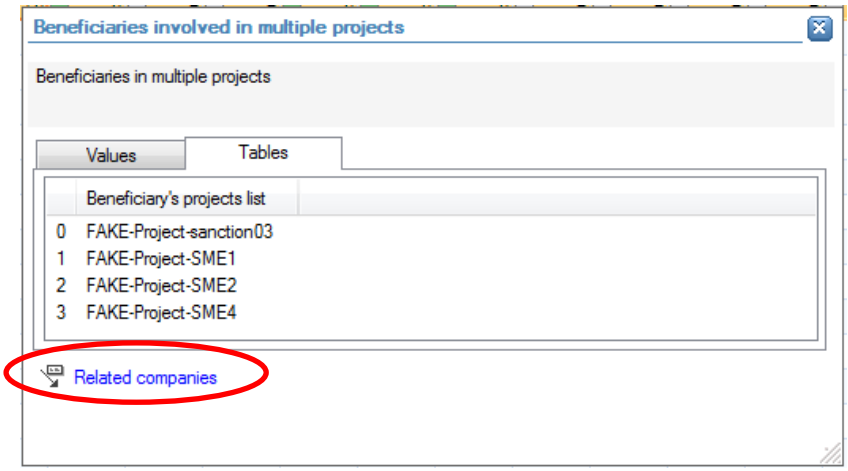


The values are present in a simple name / value table and are global values used to compute the alert.

Table information

The table information is a multi-occurrences multi-value information, displayed as a table.

References



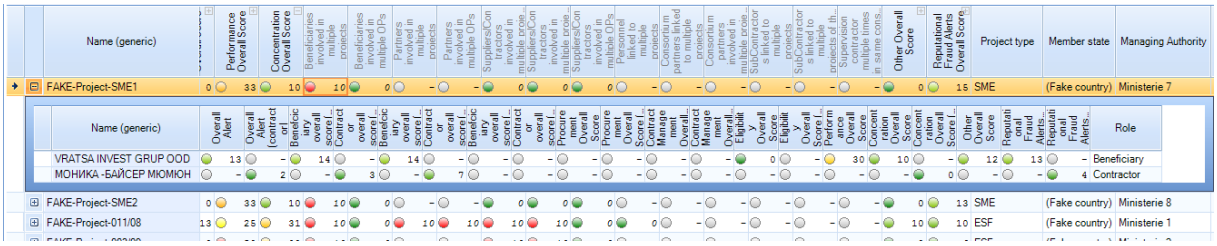
References are links to other application functions giving some context information about the alert i.e. neighborhood, graph or world compliance information related to the alert.

References can be of multiple types:

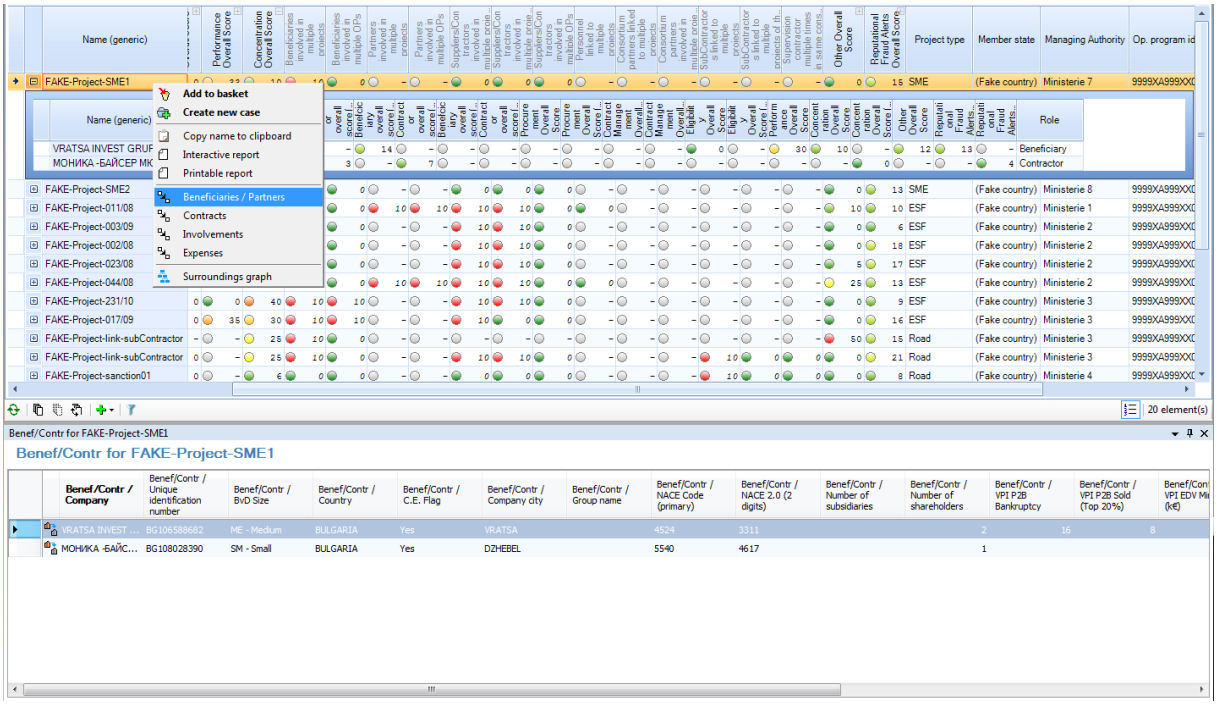
- ***Neighborhood***: displays a list of related entities.
- ***World compliance references***: refers to the external *World Compliance* data.
- ***Path graphs***: on some kind of alerts, some references to a shortest path graph may appear.

5.6.6 Expanding and collapsing related entities

The dashboard screen also has the capability to display embedded relationship navigation from one entity to another based on a given relation type (e.g. a dashboard displaying a project allows the user to drill down to the related beneficiary). The overview of related entities can be displayed by expanding the project using the "+" sign on the dashboard level.



The results of expansion are quite similar, in terms of navigation, to the context menu accessible via a right click on a project and the selection of Beneficiaries.

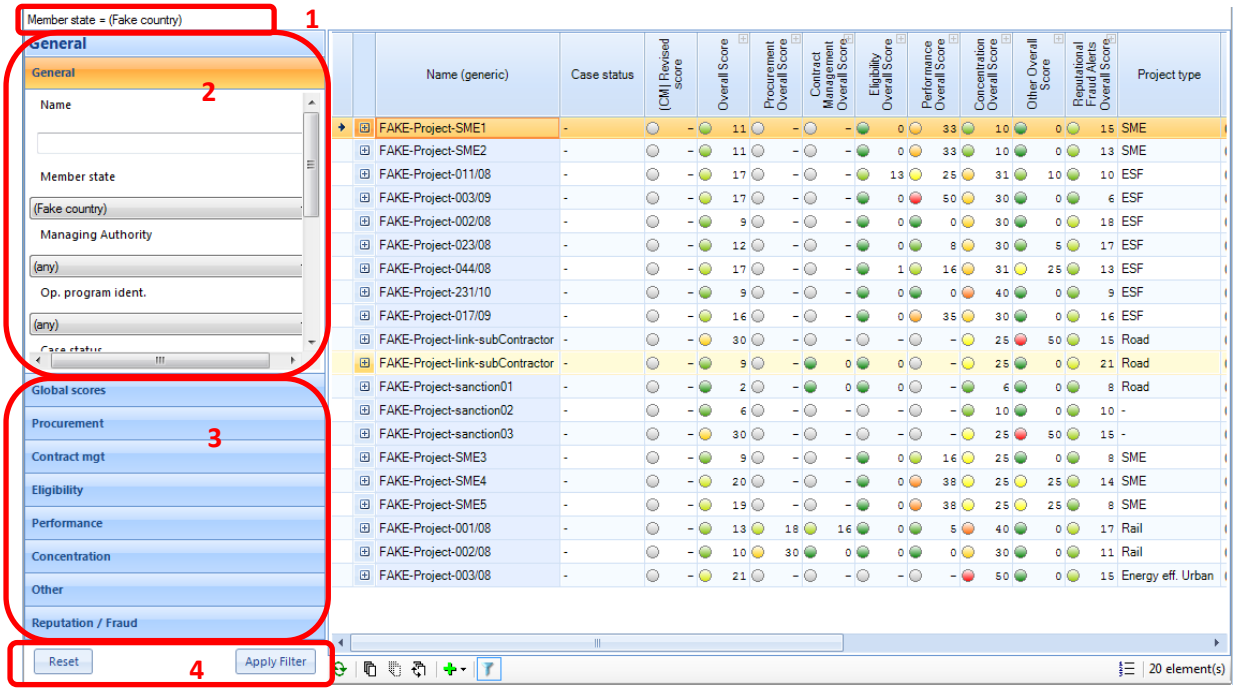


The main difference resides in the displayed properties.

5.6.7 Filtering

Filtering options give the ability to refine the dashboard focus according to a wide set of standard properties or alerts.

Showing the filters is done by clicking on the button in the toolbar.

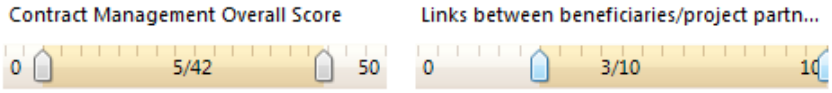


1. **Filter selection criteria:** displays the current selection criteria as a text.
2. **Filter elements**: Different kinds of options appear to determine filter values: text boxes allow text encoding, combo boxes allow to pick a choice into a given list, value pickers allow to

enter min/max values and range selectors allow the selection of a range of values for a given alert.

3. **Filter groups**: sub-alerts are located into their own groups; the general group contains only top-level alerts. Combinations of criteria from multiple groups can be done. Clicking on group title will open each group so individual values can be changed.
4. **Buttons**: these buttons allow applying the filter and resetting the filter. By resetting a filter, all selectors will be re-initialized to the full range of values.

To perform a selection, change the selection criteria or values and click the ***Apply Filter*** button. To reinitialize the dashboard to its default selection, click the ***Reset*** then the ***Apply Filter*** button.



Range selectors cover the complete range of values for each alert. This allows the user to refine its selection and to target potential issues more accurately. Moving the left/right cursors will select the minimum/maximum value of the selected range. When cursors are completely on the left and on the right (covering the complete range) the criterion is ignored.

Performing complex filtering

Single or multiple criteria can be used, in multiple groups if needed. The selection is always the combination of all modified criteria.

6 Search and navigate

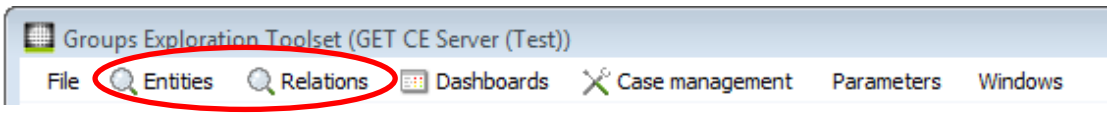
In order to perform dedicated and accurate investigations, the application contains dedicated search forms. These search options are separated in two categories: entity search and relation search. These search forms are available through the main application menu.

Once items have been found, the application offers a quick navigation into the entity-relationship diagram through context menus (right-click menus).

6.1 Search forms

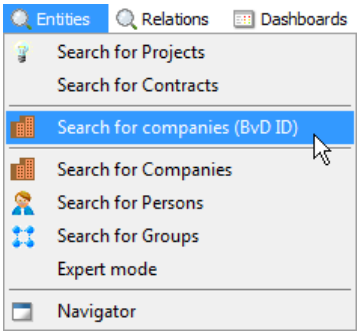
Search forms provide a quick and efficient search based on predefined criteria. Different search forms are provided by default with the application, and they apply to various entities and relations.

As stated in the overview, the application provides both entity search and relation search through its main menu.

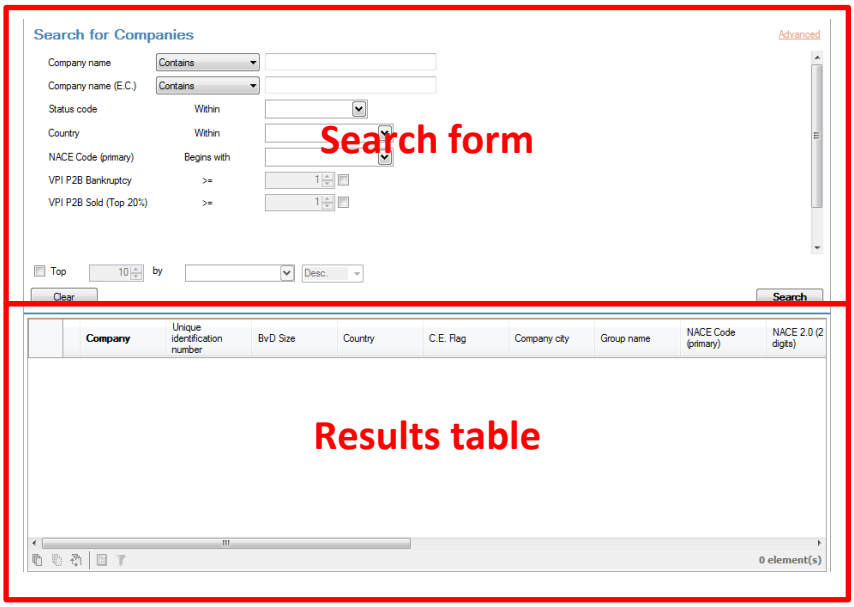


6.1.1 Search on entities

Entity search provides forms for projects, contracts, companies, persons and group...



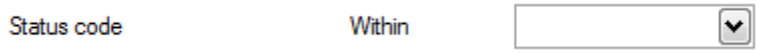
A typical search window contains two main components: the search form itself and the results table.



6.1.1.1 Search basics

In standard mode, the search form part contains predefined search criteria that can be filled by the user (The situation is different when using expert mode, please refer to chapter 12.1).

Typical form entry is composed of three parts: the property name, the operator and the value field.

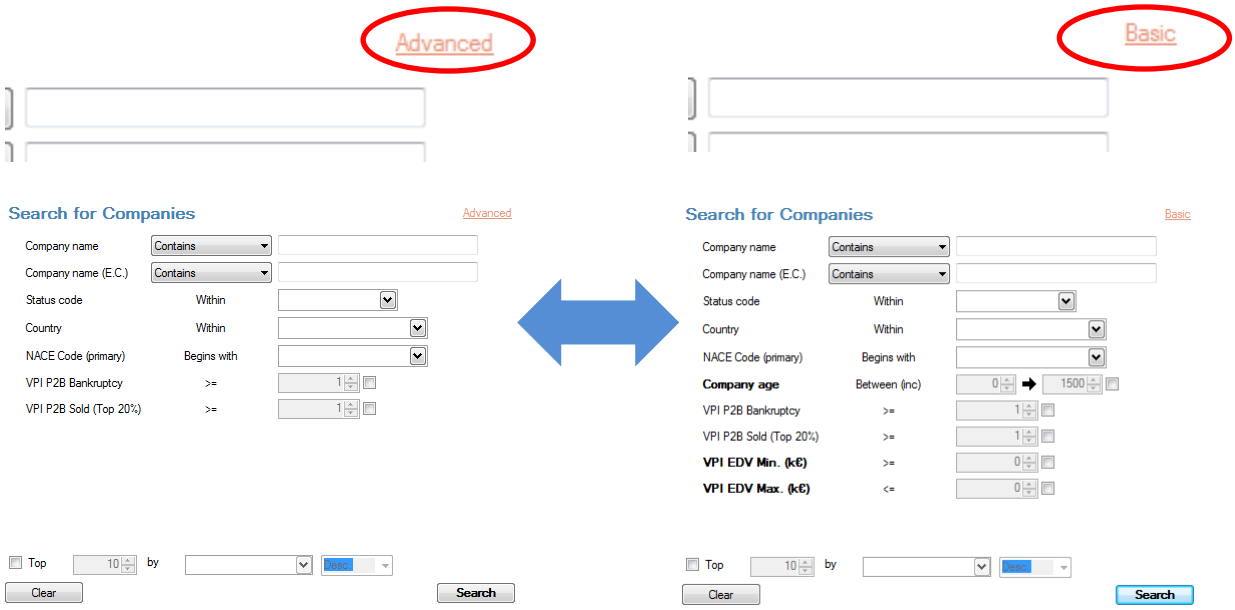


Depending on the property type, the value field may vary. It can be a simple text box, a multiple choice picker, a combo box, a numerical value box, a range selector or a date/time picker. By default, all fields left blank are just ignored for the search so you can fill only the desired values.

For some specific fields, you may also have the choice of the operator.

In most search forms, only a basic set of criteria is displayed by default. The form can be switched from basic mode to advanced mode by clicking on the top left link (*Advanced* when in basic mode, *Basic* when in advanced mode)

6.1.1.2 Advanced mode



When in advanced mode, additional criteria are available. They are displayed in bold to identify them easily. Advanced criteria are predefined and cannot be changed. For fully customizable selections, please refer to the chapter 12.1 about expert search mode.

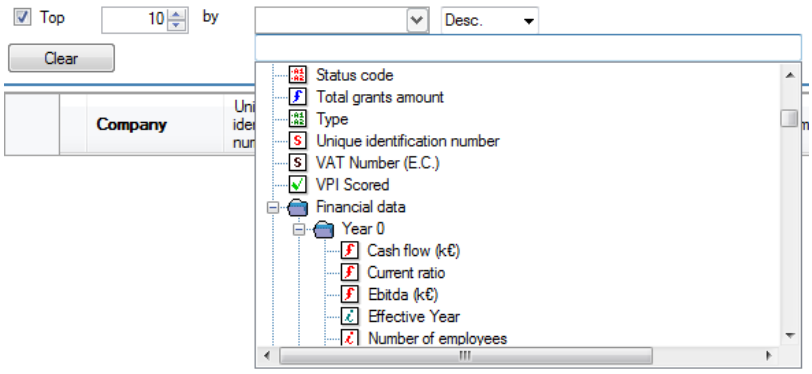
Forms contain a ***Clear*** button which resets all fields with an empty or default value.

6.1.1.3 Top selection

In addition to the search criteria, the search forms offer the possibility to use a single property as sort criteria, and then use it to limit the amount of records returned. This is called the *top selection*.

This option can be really useful when the search criteria are vague enough to return a wide range of elements. By using the top selection, you can reduce the amount of returned records (thus the speed of the response) and perform a more accurate search if the top property is well chosen.

When enabling the top selection, you will have to provide the number of returned records, the property used for sorting results and the sort direction. The top selection is done based on selected criteria.

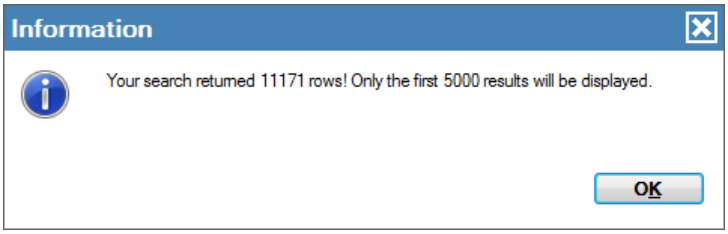


The property picker will list all available properties for the form's target entity. Once you have entered your criteria, just click on the ***Search*** button to start the query.

6.1.1.4 Search messages

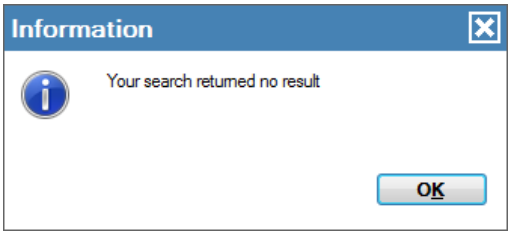
Different message dialogs may occur while proceeding to searches.

Size limitation



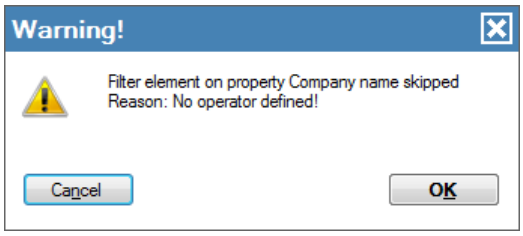
This message will occur when the number of records matching the criteria is above the server limit. This is happening when the search criteria are too permissive. In that case, only the first records will be returned, and there is no guarantee the returned records will match a defined order. In this case refine your selection criteria or use the top selection mechanism.

No result



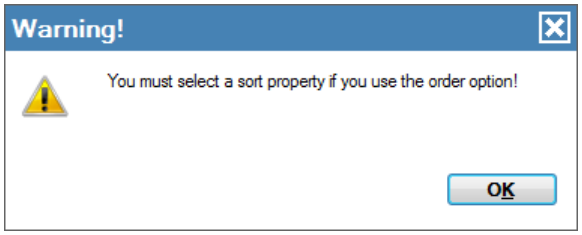
This message will appear when no record matches the criteria.

Operator was not set



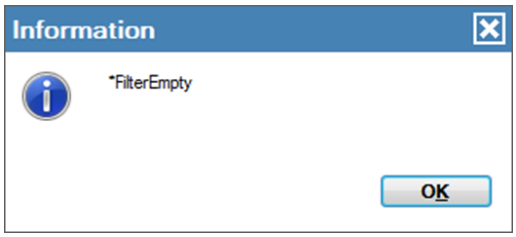
This message can appear when clicking on the search button and you forgot to pick an operator in the custom operators list.

No sort property defined



This message can appear when clicking on the search button with the top selection enabled, but no top property selected.

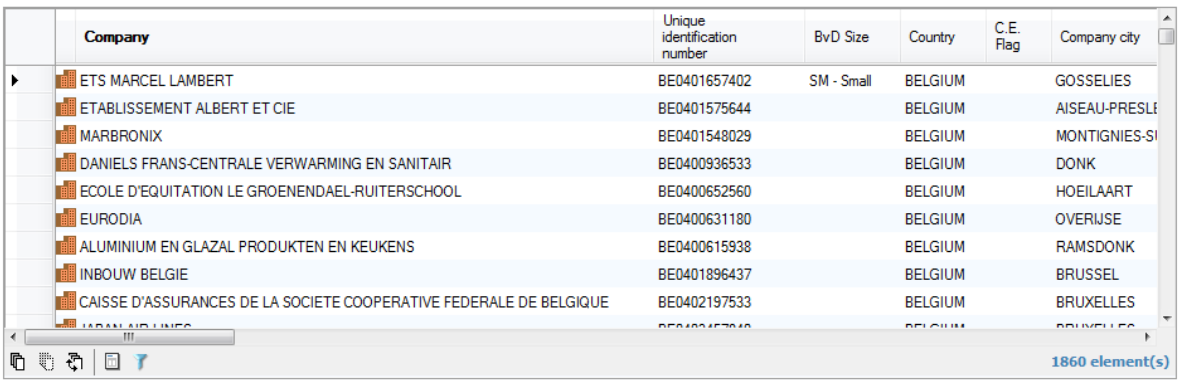
No values defined for the selected criteria in expert mode



This message can appear when clicking on the search button with no data entered for the selected fields in expert mode.

6.1.1.5 Search results

Once the search has been processed, the results are displayed in the lower table.



Company	Unique identification number	BvD Size	Country	C.E. Flag	Company city
ETS MARCEL LAMBERT	BE0401657402	SM - Small	BELGIUM		GOSSELIES
ETABLISSEMENT ALBERT ET CIE	BE0401575644		BELGIUM		AISEAU-PRESLE
MARBRONIX	BE0401548029		BELGIUM		MONTIGNIES-SU
DANIELS FRANS-CENTRALE VERWARMING EN SANITAIR	BE0400936533		BELGIUM		DONK
ECOLE D'EQUITATION LE GROENENDAEL-RUITERSCHOOL	BE0400652560		BELGIUM		HOEILAART
EURODIA	BE0400631180		BELGIUM		OVERIJSE
ALUMINIUM EN GLAZAL PRODUKTEN EN KEUKENS	BE0400615938		BELGIUM		RAMSDONK
INBOUW BELGIE	BE0401896437		BELGIUM		BRUSSEL
CAISSE D'ASSURANCES DE LA SOCIETE COOPERATIVE FEDERALE DE BELGIQUE	BE0402197533		BELGIUM		BRUXELLES

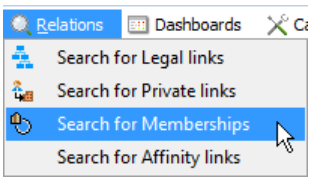
1860 element(s)

At that stage, the following operations can be performed on the results:

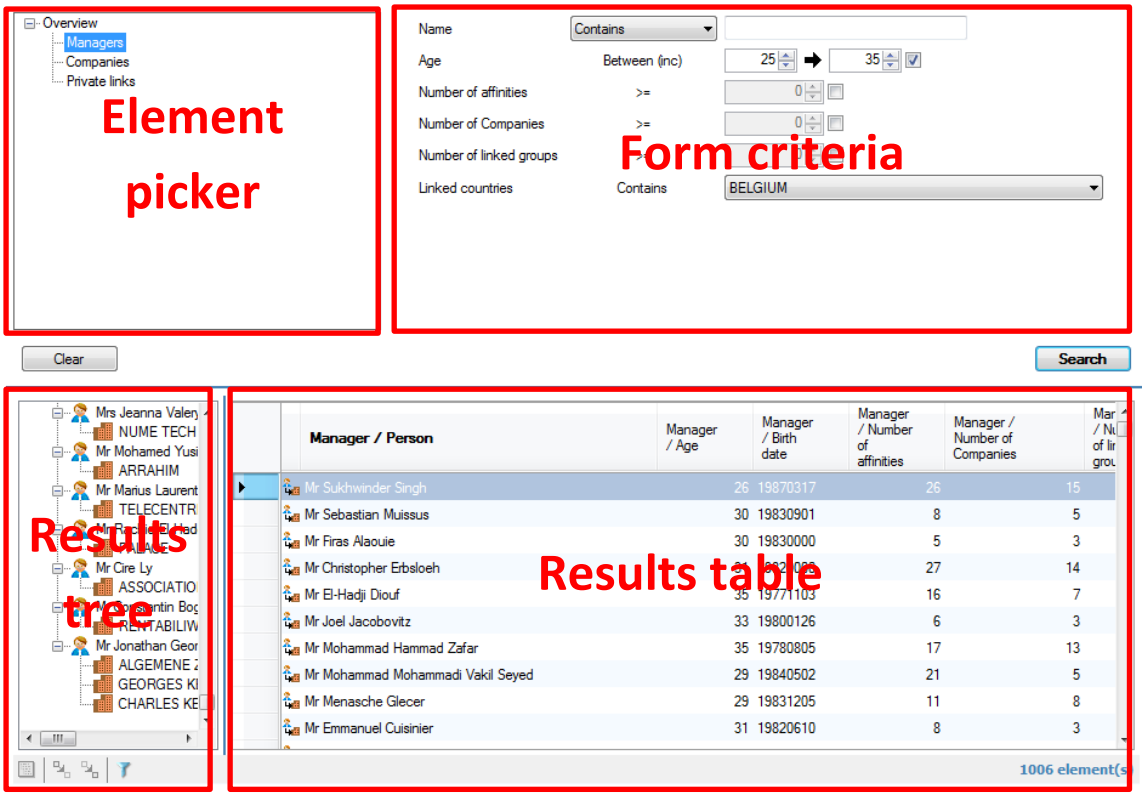
- The user can navigate to other entities or relation by right-clicking on items.
- Results can be sorted by clicking on column headers
- Columns can be re-ordered by a drag and drop operation.
- Columns can be customized according to the user's needs – refer to chapter 11.3
- Items can be selected (single or multiple selection) for export (see chapter 10) or to send them to the basket.
- From the toolbar, the summary function can be called on a selection (see advanced functions chapter)
- The local results can be filtered again to create sub-selection using the post-filter option (see advanced functions chapter 12).

6.1.2 Search on relations

Searching on relations is a bit more complex than searching on entities as the application gives you the ability to define criteria on the relation itself, but also on the source and target entities.



Relation search is available for external data, on legal links, private links, memberships and affinity links. Relation search screens have more elements than entity search screens.



6.1.2.1 Search basics

The element picker lists the different elements on which you can define search criteria.

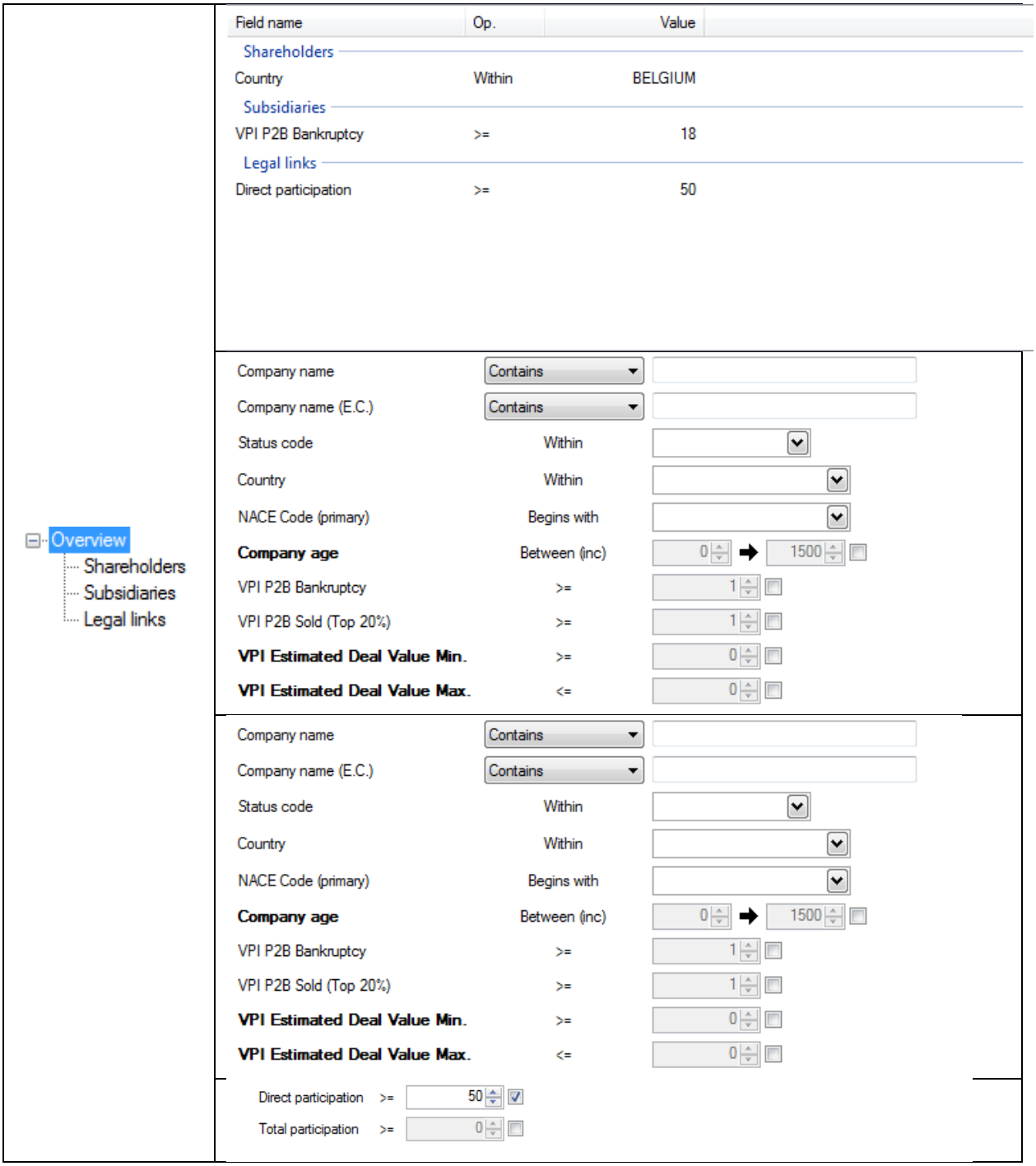
Legal links	Private links	Membership links	Affinity links
Overview	Overview	Overview	Overview
Shareholders	Managers	Members	Contacts
Subsidiaries	Companies	Groups	Contacts
Legal links	Private links	Memberships	Affinity links

The overview item displays an overview of the selected criteria in the form criteria part, as the other elements in the tree will show search criteria for the relation and the source and target entities.

Note: searching on relations can be a long process requiring minutes to find the results, depending on which criteria were used in the form.

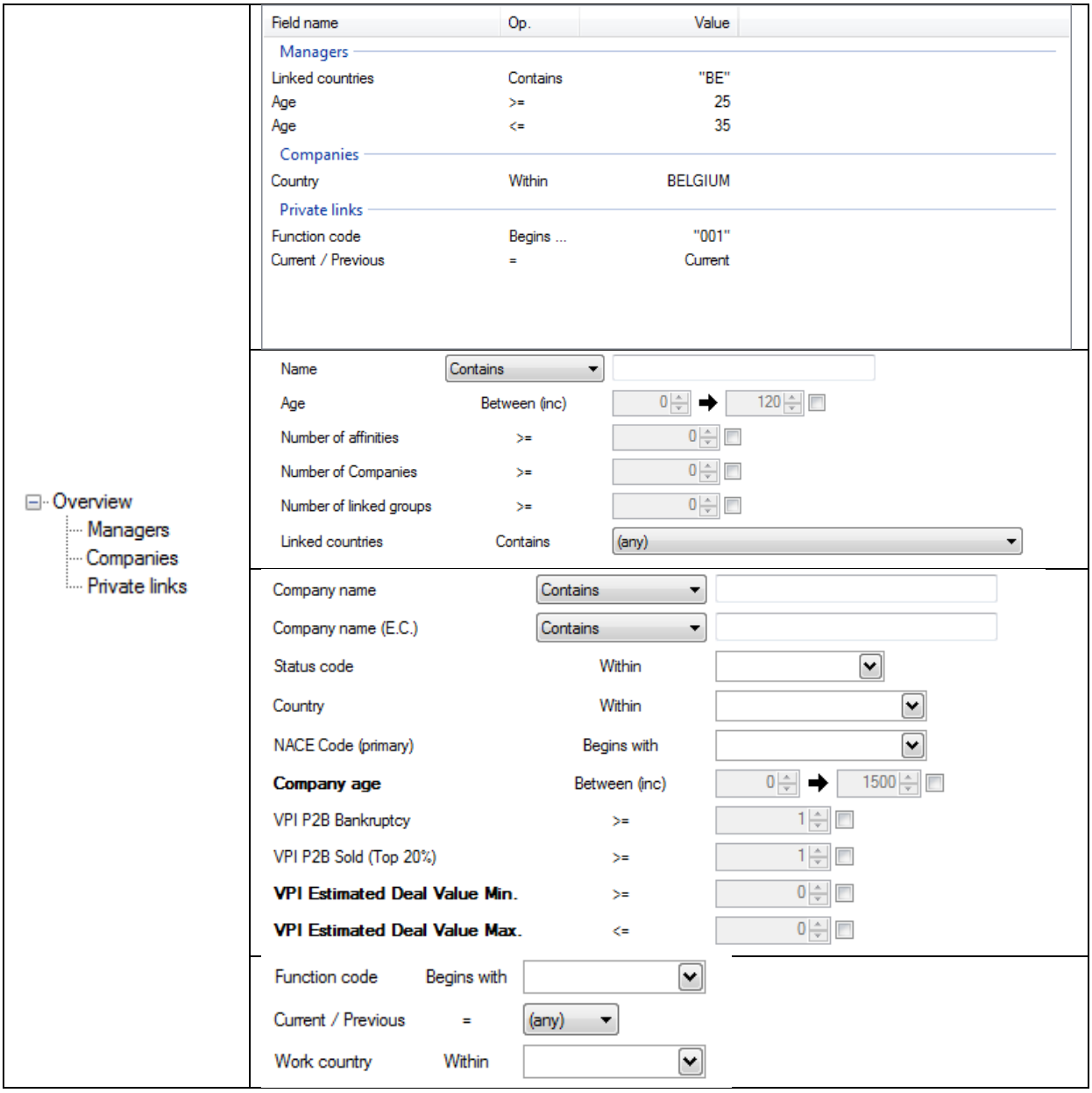
6.1.2.1.1 Search on legal links

Criteria on shareholder and subsidiary companies are the same as the search for company form. In addition, direct participation and total participation can be used to search for specific links.



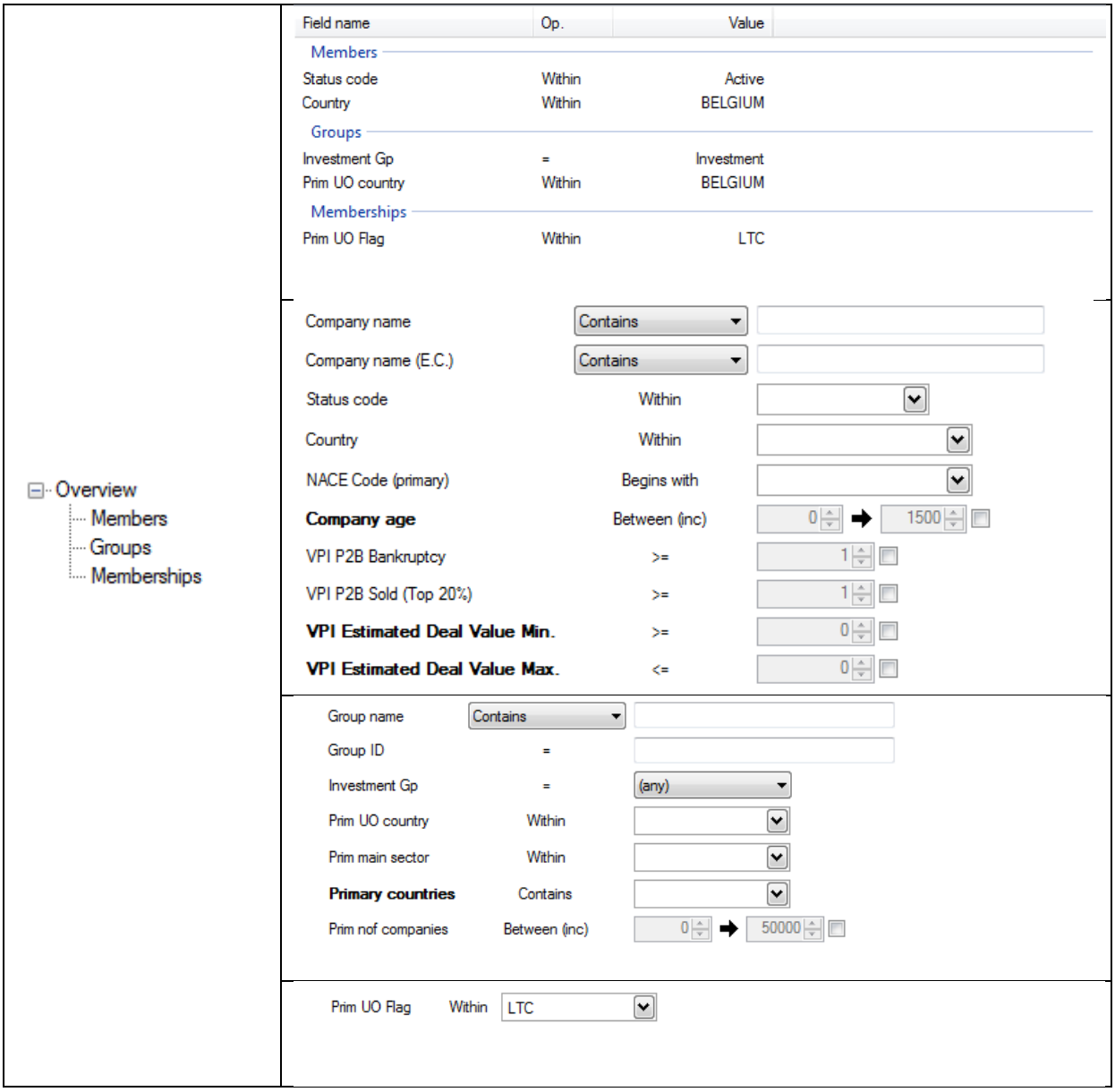
6.1.2.1.2 Search on private links

Criteria on the managers as the same as in the person search form, criteria on companies are the same as in the company search form. Private links can be searched base on the function code (standardized function), the work country and the current/previous flag. Previous functions mean they are not currently effective but kept in the database



6.1.2.1.3 Search on membership links

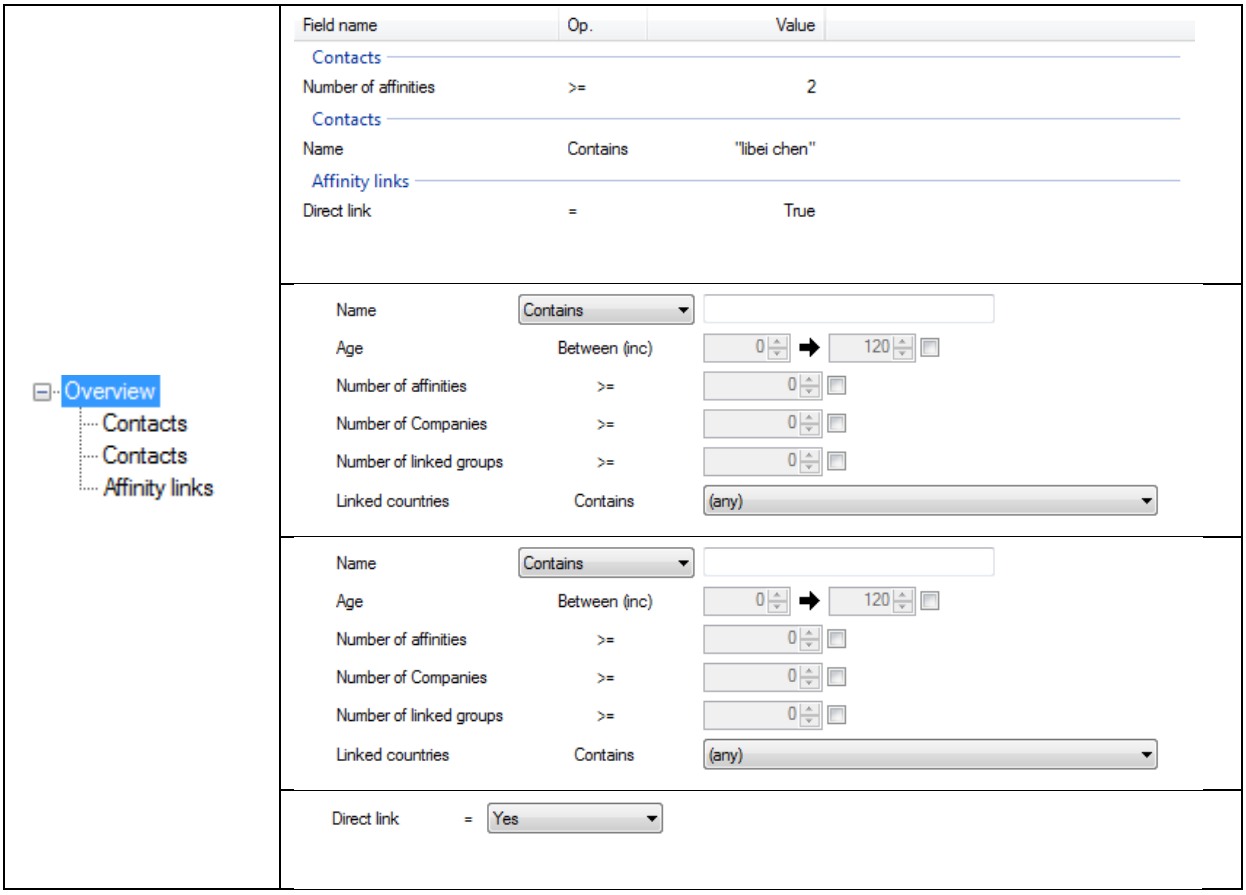
Criteria on companies are the same as in the company search form. Criteria on groups are the same as in the group search form. The only criterion on the membership link is the ultimate owner flag. This flag is a technical value indicating which method is used to determine the group's ultimate owner. It can take UO (ultimate owner) or LTC (largest top company)



6.1.2.1.4 Search on affinity links

The criteria on persons on both sides of the affinity link are the same as in the person search form.

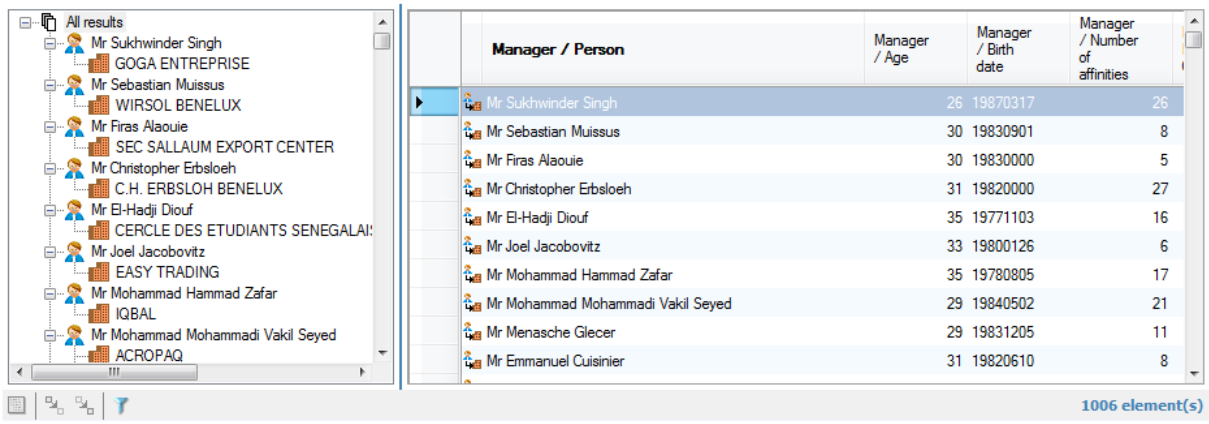
The only criterion on the affinity link is the direct link flag. A direct affinity link corresponds to a person → company → person path, as an indirect affinity link corresponds to a person → company → company → person path.



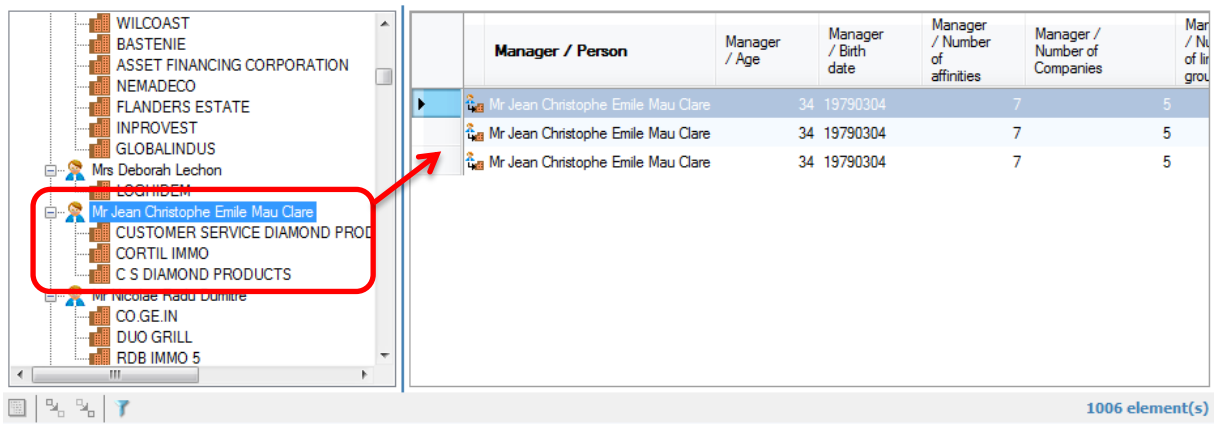
6.1.2.2 Search results

As the search results represent relations instead of entities, it is composed of two parts:

1. the results tree which shows the relation structure, and
2. the results table which displays relation data.



The tree part is used as a sub-selection mechanism. When relations have the same source entity, they are grouped together in the tree.



When a source element is selected, the table displays only the relations having this entity as a source. The same mechanism applies when a target entity is selected: the table shows only the relations related to this target entity.

The table columns correspond to the default columns for the source entity, the relation and the target entity. Header names for source and target entities are prefixed with their names (<*entity role*> / <*property name*>) as the relation has no prefix (only the property name is used).

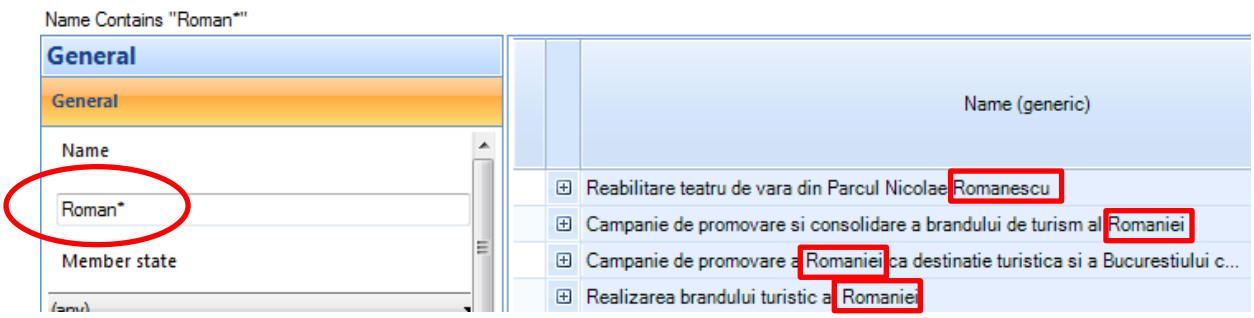
6.1.3 Searching on text fields

The way the application processes text search queries differs based on the selected operator. In standard search forms, most of them use the ***Contains*** operator, which has particular behavior as it is based on full-text indexing techniques. This operator is also used by default in dashboard filters, for project name.

The full-text indexing strategy behind the Contains operator indexes all separated words contained in the text fields, to be able to process to word search. This means that, when typing *word1 word2* in a text box using the Contains operator, the application will try to use the full-text index to locate occurrences of the field containing both words (*word1* **AND** *word2*).

There is also a possibility for the user to use wildcard (*****) expression for some words. Only trailing wildcards are supported in full-text indexing, e.g. when typing *word** in a search field, the operation really processed is: return all records where the property contains a word beginning with *word*.

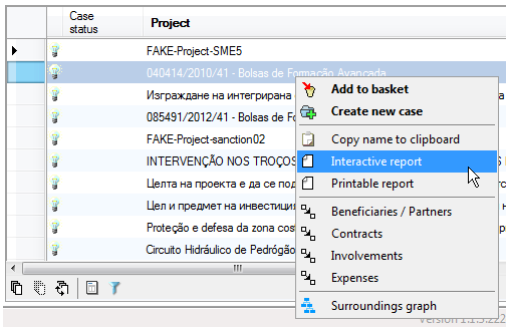
Expressions with leading wildcard (**word*) or inside wildcards (*wor*d, wor?d*) are not supported.

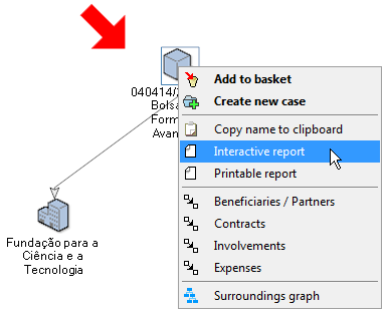


6.2 Navigation

The navigation into the global network built on entities and relations always uses the same behavior i.e. context menus available on the various entities and relations. These context menus[4] are available on the following items:

- Any entity or relation displayed in a table or dashboard
- Any entity or relation displayed in a graph





These context menus contain system functions (in bold, always appearing first on the popup) and navigation menus. System functions are standard as navigation menu may differ from one entity or relation to another.

6.2.1 System functions

The following system functions are available in context menus:

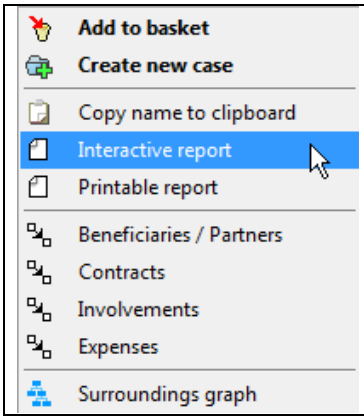
- **Add to basket**: adds the selected element(s) to the application basket (See chapter 12.3 for more information about the basket system)
- **Create new case**: only if the element is part of the case management, starts a new case creation process. This option is only available on ***projects*** and ***contracts***.
- **Display case**: only if a case exists for this element, this menu leads to the case detail screen. This option is only available on ***projects*** and ***contracts***.
- **Copy name to clipboard**: copy the entity name on the clipboard so it can be pasted in this or another application.

6.2.2 Navigation functions

The following navigation options are available for the different entities in the system.

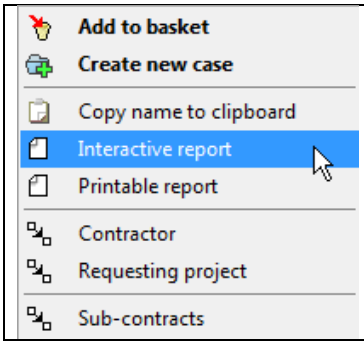
[4] Context menus are available by right-clicking on items

6.2.2.1 Project entity



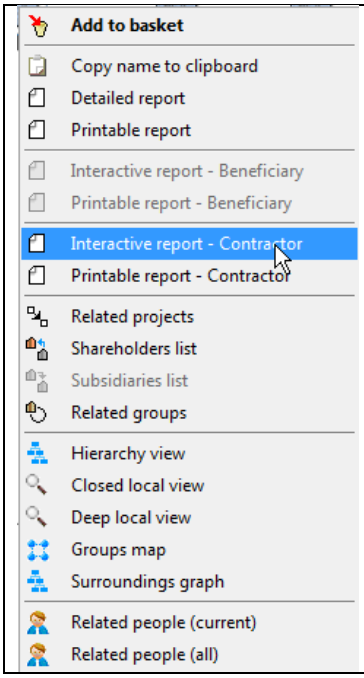
- Copy name to clipboard
- Interactive report
- Printable report
- Beneficiaries / Partners
- Contracts
- Involvements
- Expenses
- Surroundings graph

6.2.2.2 Contract entity



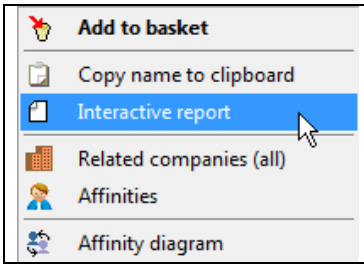
- Copy name to clipboard
- Interactive report
- Printable report
- Contractor
- Requesting project
- Sub-contracts

6.2.2.3 Company entity

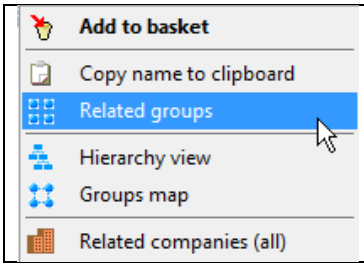


- Detailed report (Orbis)
- Printable report (Orbis)
- Interactive report - Beneficiary
- Printable report - Beneficiary
- Interactive report - Contractor
- Printable report - Contractor
- Related projects
- Shareholders list
- Subsidiaries list
- Related groups
- Hierarchy view
- Closed local view
- Deep local view
- Groups map
- Surroundings graph
- Related people (Current)
- Related people (all)

6.2.2.4 Person entity

	- Interactive report - Related companies (all) - Affinities - Affinity diagram

6.2.2.5 Group entity

	- Related groups - Hierarchy view - Groups map - Related companies (all)

6.2.3 Navigation results

When using neighborhood navigation (e.g. project beneficiaries, company related people, contract sub-contracts), the application will open a new window with a list of matching elements. Note that these elements are not entities but relations, even if they are not shown completely. This means that, sometimes, the same entity may appear on multiple rows. This simply means that there are multiple relations between the original entity and this entity.

This happens mostly in beneficiaries and partners (as one company may be beneficiary and contractor at the same time) or company related people (as a single person can have multiple roles in a company).

Companies for Mr Manuel Jose Lamouroux Barroso

Company / Company	Function code	Curren Previo
INDOLSAN - INDUSTRIA DE OLEOS DE SANTAREM,S.A.	Board of Directors - Member	Current
SOCOIMA - SOCIEDADE DE CONSTRUÇOES E IMOBILIARIA DA MAIA, S.A.	Board of Directors - Member	Current
SOCOIMA - SOCIEDADE DE CONSTRUÇOES E IMOBILIARIA DA MAIA, S.A.	Board of Directors - President / Chairman	Current
MOTOR F1 - COMÉRCIO DE AUTOMOVEIS, S.A.	Owners / Partners / Shareholders / Founders - Owner / Partner / Shareholder / Founder	Current
MOTOR F1 - COMÉRCIO DE AUTOMOVEIS, S.A.	Board of Directors - Member	Current
MOTOR F1 - COMÉRCIO DE AUTOMOVEIS, S.A.	Board of Directors - President / Chairman	Current
2NOSH - SOCIEDADE DE CONSTRUÇOES CIVIS, LDA	Senior management - Unspecified executive	Current
2NOSH - SOCIEDADE DE CONSTRUÇOES CIVIS, LDA	Owners / Partners / Shareholders / Founders - Owner / Partner / Shareholder / Founder	Current

In the example above, you can see multiple lines with the same company name as the selected person has multiple functions in them.

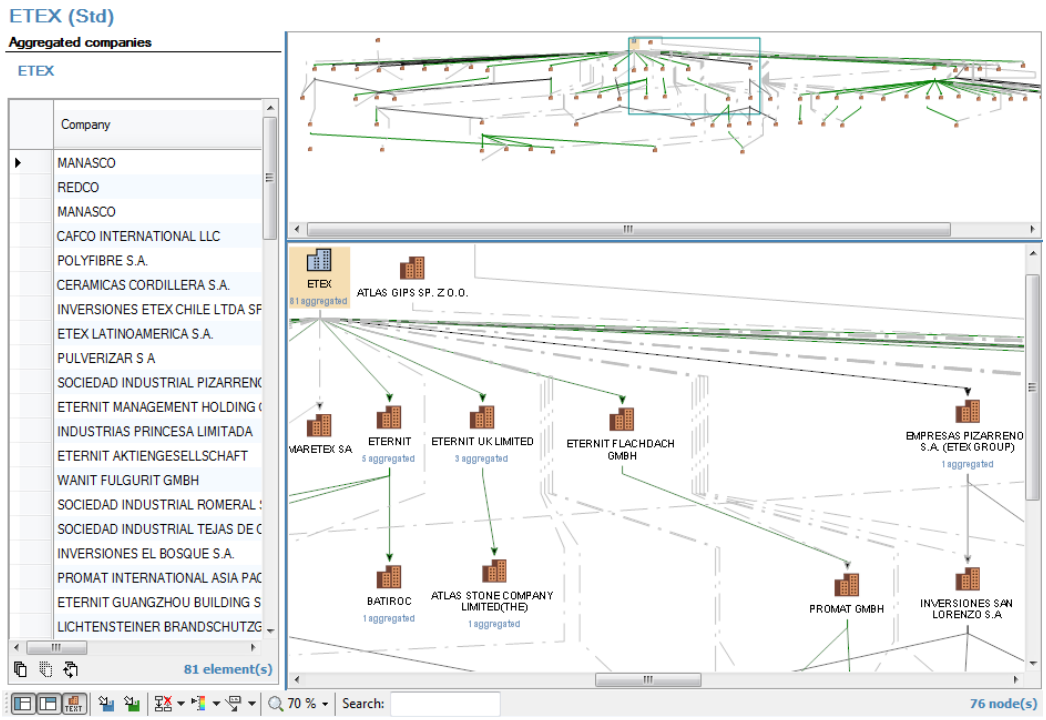
7 Graphs

Graph representations are known to be more intuitive and attractive than just tables and listings. They also give a global and easy to read representation of relationships between different entities. That's why the application uses various graphs to represent the information.

- The Hierarchical view is a group dedicated view which exposes the content of a group, in a tree-like representation of companies and their common legal links inside the group.
- The Group map is the "top view" over groups, displaying information about how groups are linked together through their respective company legal links.
- The Affinity graph represents links between people through companies.
- The Local view, the opposite of the hierarchical view, is not limited to a defined set of companies but corresponds to a variable set of companies surrounding the selected one, called entry point. These surroundings can be modified through parameters to include or exclude elements based on different values.
- The Surroundings graph is similar to the local view, but uses a particular path definition to include the entry point surroundings.
- Finally, the Paths graph displays shortest path information between two given entities, and can be enriched with extra entities and relations manually.

7.1 Hierarchical view

The goal of a hierarchical graph is to display the set of companies belonging to a given group. This set is displayed as a directed "tree like" graph based on the legal links. This gives a near-reality organizational tree of shareholders and subsidiaries.



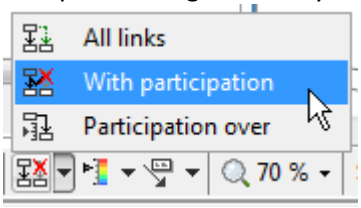
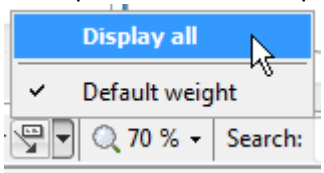
7.1.1 Nodes aggregation

In order to avoid having too much information in the graphs, some companies are not directly represented in the graph but rather aggregated (hidden) in their shareholder company. Concerned companies are tree leaves i.e. companies having a single common shareholder and no subsidiary.

To get information on these aggregated companies, locate a company which has a blue indication below its icon. This indicates the number of aggregated subsidiaries for this shareholder. By selecting the company (with left-mouse-click), the table on the left will be populated with the aggregated subsidiaries. This function is specific to the hierarchical graph.

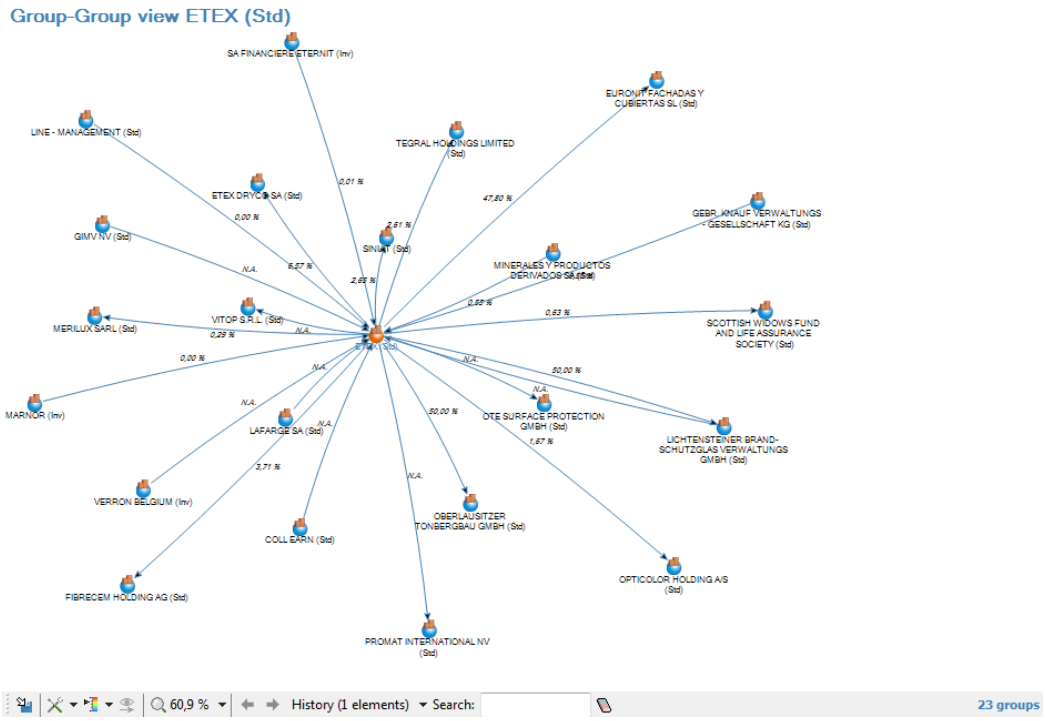
7.1.2 Specific options

These options are available in the bottom toolbar in the graph window.

	Shows or hides the aggregated companies table
	Shows or hides the graph overview
	Shows or hides company names on icons in the graph
	This option changes the way links are displayed in the graph  - All links - Only links with known direct participation - Only links with participation over a given threshold.
	This option switches the participation rates to appear on all links. 

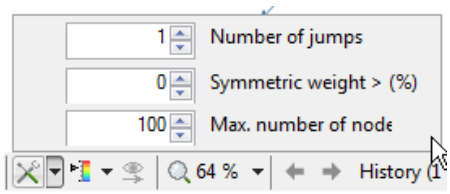
7.2 Group map

The group map, with the hierarchical graph, is the two views related to the group clustering system. As the hierarchical was the inside cluster view, the group map is the outside cluster view i.e. the relations between the clusters. Please refer to the chapter 4.6.2 for more information about the cluster groups and how they work.



7.2.1 Customization

The group map can be parameterized to include more or less elements in the view.



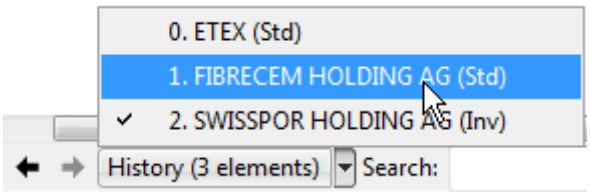
Available parameters are:

- Number of jumps (graph depth) to explore. This defines the number of group legal links to explore around the target group. The default value is 1. The value can vary from 1 to 10. Be careful when using higher values, processing time can forcibly increase.
- Symmetric weight threshold: group legal links having a value below this threshold are ignored when the graph is generated
- Maximum number of nodes to fetch: when the data are fetched, they are sorted on the descending symmetric weight. Modifying this value alters how much records are kept in this selection. The value can vary from 20 to 200.

7.2.2 Specific options

7.2.2.1 Navigation and navigation history

When double-clicking on a group, the view will re-center itself on the selected group. This gives the ability to slide the view from one point to another without leaving the window. In parallel to this navigation, the graph keeps a history of the different entry points.

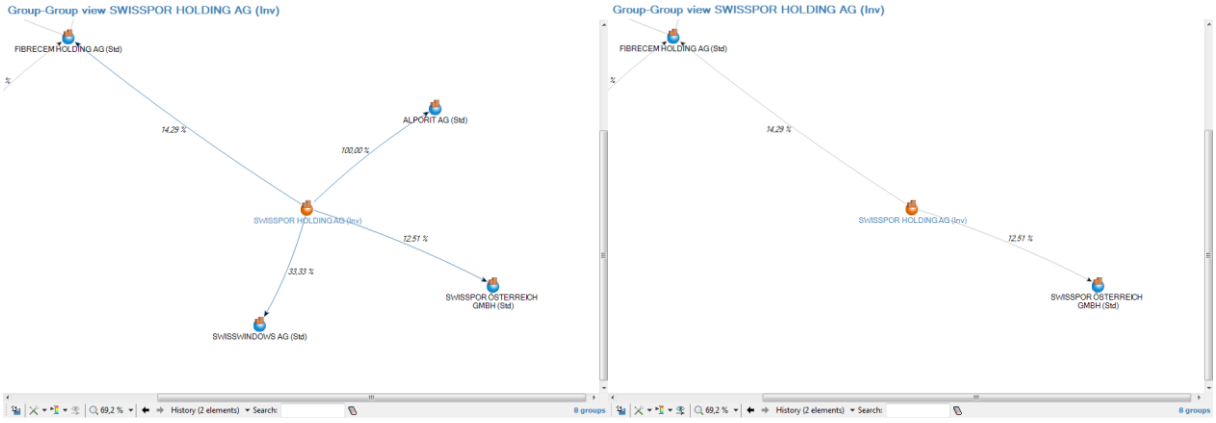


Using the back / forward arrows or the history list allows you to quickly go back to a previous view.

7.2.2.2 Hiding elements

To facilitate the user's work, this graph gives the possibility to remove groups from the view by selecting them and pressing the delete (***Del***) key.

Before *After*



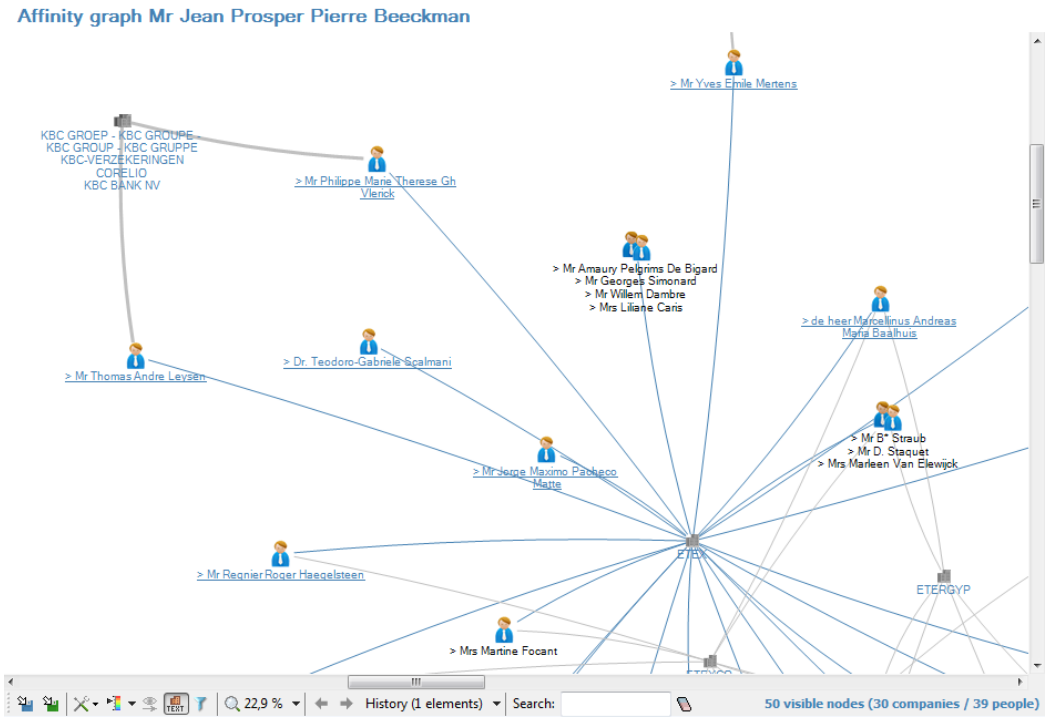
Once some groups have been hidden, the eye icon on the toolbar becomes enabled, indicating some hidden nodes can be shown on the graph. By clicking on this button, hidden groups will reappear in the window.

7.3 Affinity graph

The affinity graph displays the relationships between people through companies. This graph is based on a first node selection through the Affinity relation, to select all related people for a given person. Once this selection is done, it includes all common related companies.

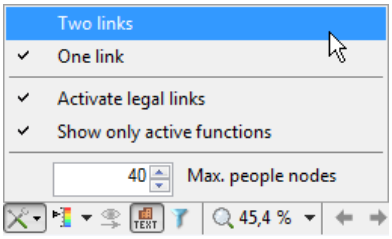
For more explanation about affinities, please refer to chapter 4.6.3

In the end, the graph displays persons, companies, and the links between them.



7.3.1 Customization

Customization options are available by clicking on the tools ( ) button on the bottom toolbar.



Graph depth

The depth can be changed between one link (depth = 1) or two links (depth = 2). The default value is one link.

Activate legal links

Activating legal links means the *indirect affinities* are taken into account in the selection phase. When disabled, only *direct affinities* are used. By default, legal links are activated.

Direct affinities correspond to person → company → person path, as indirect affinities correspond to person → company → company → person path.

Show active functions

When this option is enabled, the graph won't include the links with *previous* functions. Only *current* functions will be used. This option is enabled by default.

Max. people nodes

In order to limit the graph size, only a "top strongest affinities" are used in the selection process. This option makes the top selection vary to include more or less people in the graph. The value can vary from 10 to 100. The default value is 40.

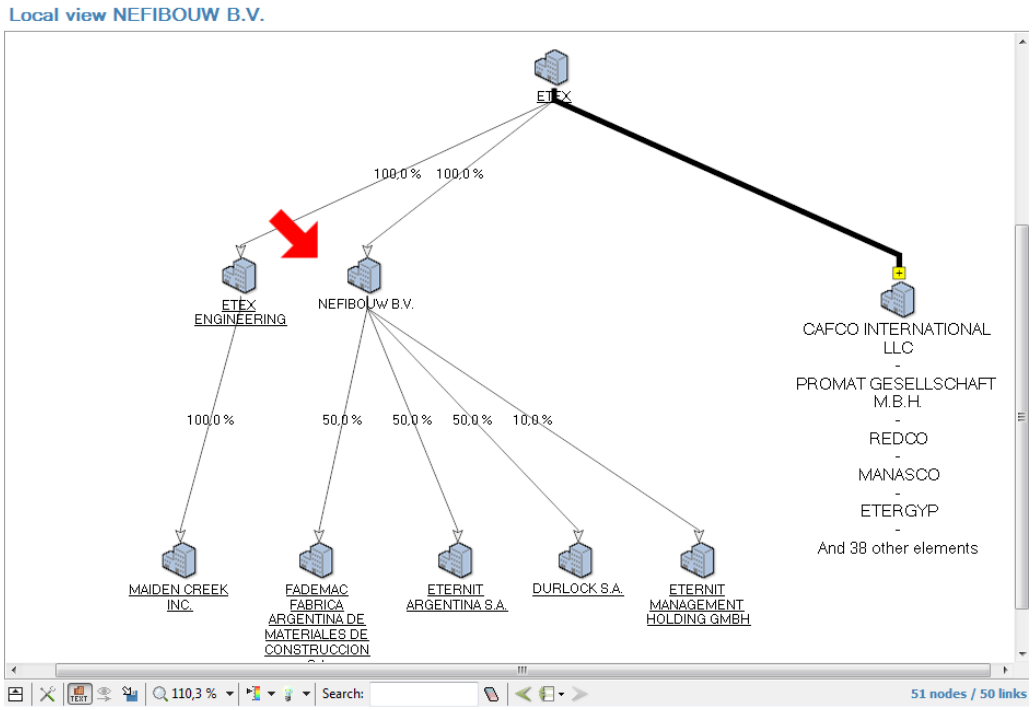
7.3.2 Specific options

7.3.2.1 Hiding elements

Hiding elements works identically as in the ***group map***.

7.4 Local view

The local view displays centered graph on a given company, using the legal links network. The view depth can be adapted using the graph customization parameters. However, the application provides a "*closed*" and a "*deep*" local view, with different presets.

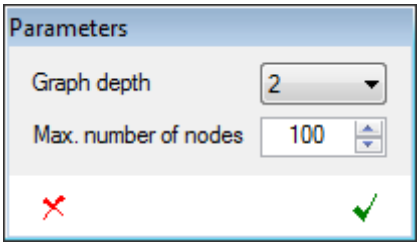


"Closed" and "deep" local views differ by their initial parameters:

	Closed view	Deep view
Depth	2	3
Max. nodes	100	300

7.4.1 Customization

Options are available by clicking on the tool ( ) button in the bottom toolbar.

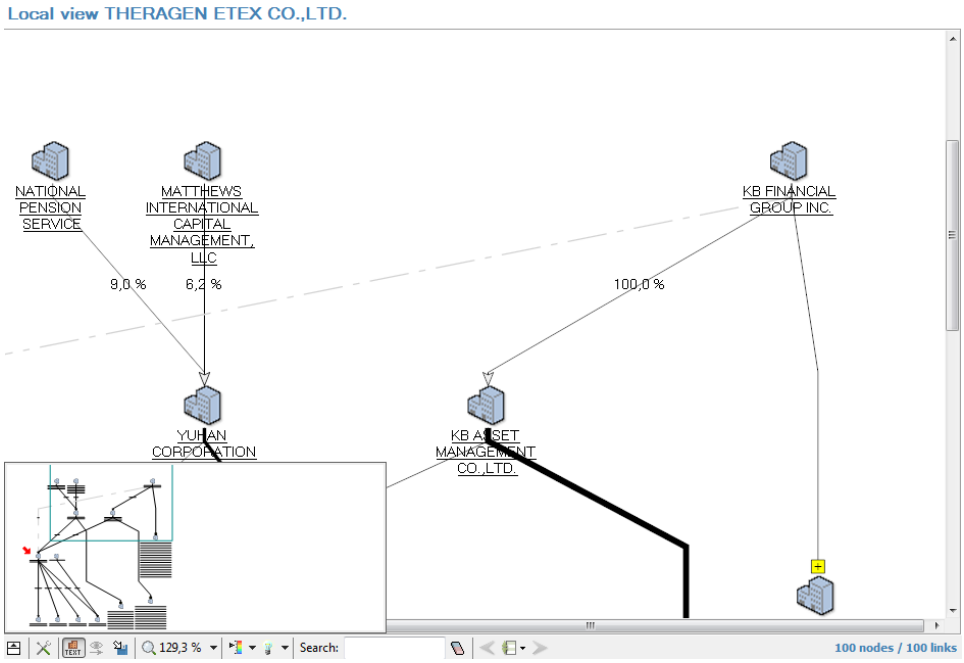


The local view parameters are the graph depth (i.e. the number of neighborhood levels taken from the entry point) and the number of neighbor nodes to display on screen.

7.4.2 Specific options

7.4.2.1 Overview

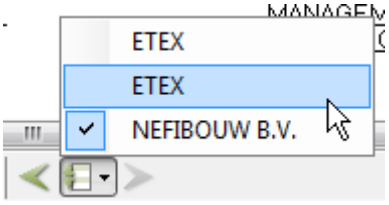
Clicking on the "how/hide overview" button ( ) shows or hides a graph overview panel that can be used to quickly navigate into different areas of a big graph.



The blue rectangle represents the main view in the whole graph. It can be moved/redrawn using the mouse. The overview rectangle can also be resized by dragging its borders.

7.4.2.2 Navigation and navigation history

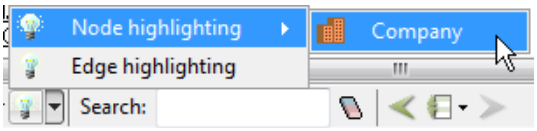
When double-clicking on a company, a new local view will be displayed with the current parameters, using the selected company as center. This gives the ability to slide the view from one point to another without leaving the window. In parallel to this navigation, the graph keeps a history of the different entry points.



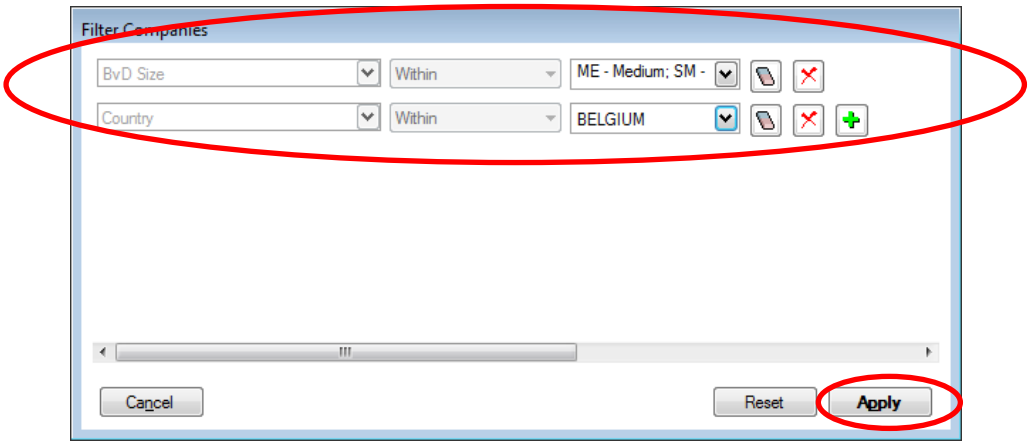
Using the back / forward arrows or the history list allows you to go quickly go back to a previous view.

7.4.2.3 Highlighting

The node and edge highlighting mechanism gives the ability to locate nodes or edges having particular behaviors in the graph, by spotting them. This option is available through the bulb icon from the toolbar.



First select the entity or relation you want to use for highlighting. You'll get a dedicated form to enter your highlighting criteria. Multiple criteria can be built manually by selecting properties, operators and values. The multiple criteria are always combined using a *AND* operator.



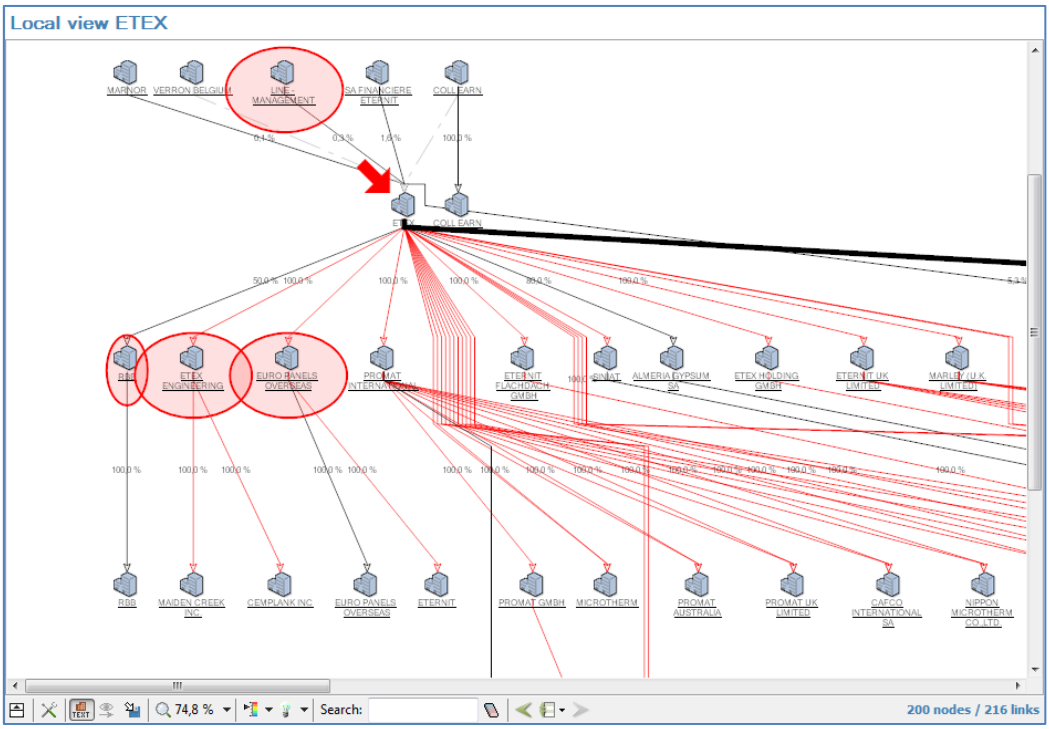
This form works exactly as the expert search or post-filtering system. For more details about making a selection, please refer to the chapter 12.1.1 of this manual.

Once the Apply button has been clicked, all elements corresponding to the filter are highlighted in the graph:

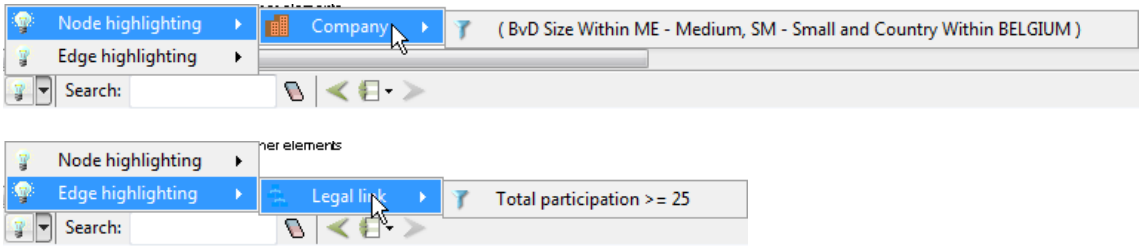
- For entities, red circles appear around the matches
- For relations, edges are colored in red.

If you go back to the highlight menu, you will see that the current selection for the item you picked is displayed in clear text.

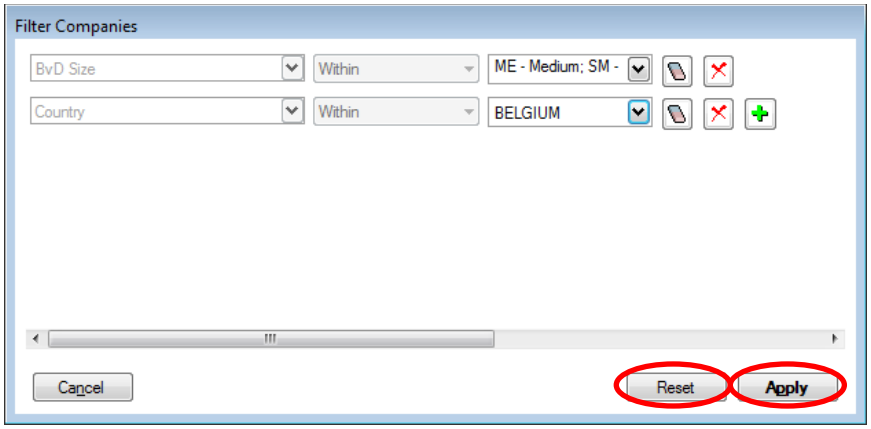
Nodes and edges highlights



Active highlight filters from the toolbar button



To change a highlight filter, click on the filter expression, the highlight filter dialog will re-open with the currently defined criteria. To reset a highlight filter, click on the filter expression, then follow these steps

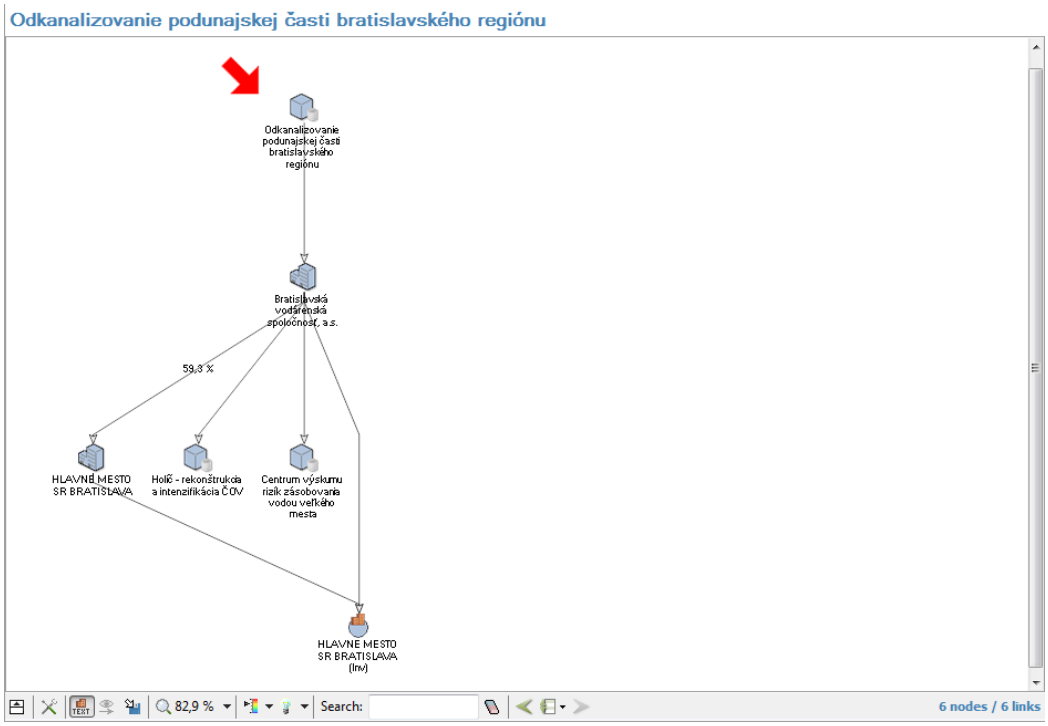


- In the highlight filter dialog, click on the ***Reset*** button to reinitialize the filters
- Click on the ***Apply*** button to confirm the operation.

The highlighting will disappear from the graph.

7.5 Surroundings graph

The surroundings graph is based on the same principle as the local view, but uses a "path definition" instead of one relation type and a depth. The path definition consists in a list of connected relations which define which items will be shown in the graph.



7.5.1 Path definitions

Path definitions explain how the relations are bound together to produce the corresponding graph.

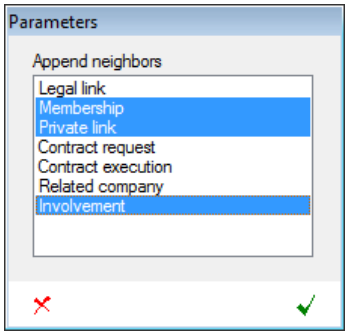
Entity type	Surroundings path
Project	Beneficiary → Beneficiary + Legal link → Private
Company	Beneficiary → Beneficiary → Private

For projects, here's the way the definition works:

- Starting from a project, the graph takes first all related companies from the ***Beneficiary*** relation.
- From these companies, the graph then takes all their related projects using the ***Beneficiary*** relation, and all related companies using the ***Legal link*** relation.
- Finally, based on this result, the graph takes all related persons through the ***Private*** relation (thus all persons linked to companies).

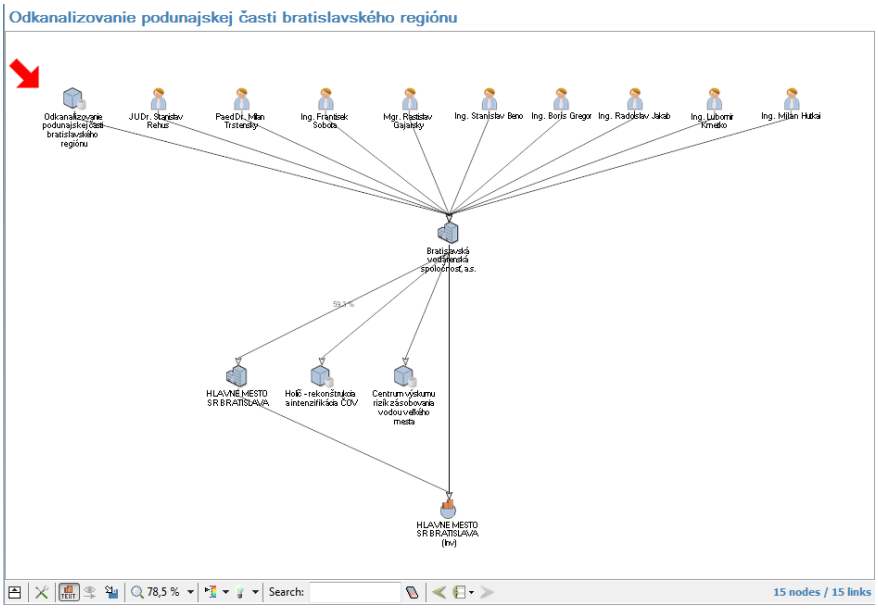
7.5.2 Customization

In order to extend the view, customization parameters allow adding multiple additional relations as a fourth path element.



The parameters dialog lists available relation types that can be selected to enrich the graph. You can select one or more additional relations based on the initial graph content. Items can be selected using SHIFT+click or CTRL+click. The operation is validated by clicking on the ✓ button.

Warning: this operation can take a lot of process time or even hang the application, particularly when adding affinity links on graphs containing already a lot of persons.



7.5.3 Specific options

The specific options are identical to the local view graph (chapter 7.4.2). Note that the history will only contain different version of the graph each time you modify its customization parameters, as there is no navigation in this type of graph.

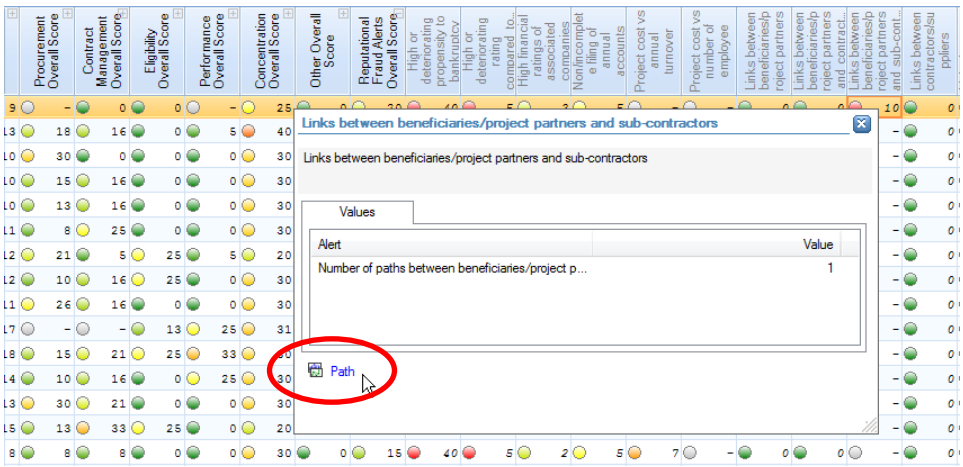
7.6 Paths graph

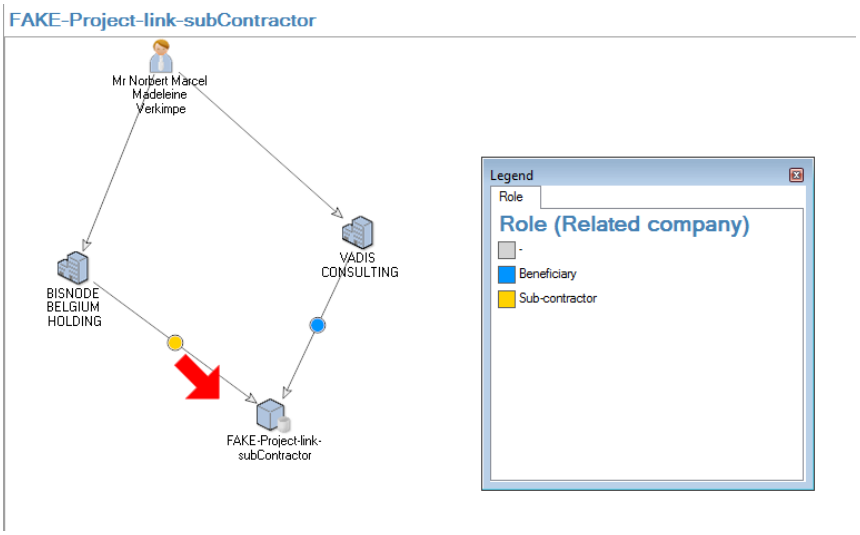
Paths graph is only available from specific alert details - in the reputation and fraud alert category:

- Links between beneficiaries/project partners
- Links between beneficiaries/project partners and contractors/suppliers
- Links between beneficiaries/project partners and sub-contractors
- Links between contractors/suppliers
- Links between contractors/suppliers and sub-contractors

The graph displays an identified shortest path between two given entities, and some extra information covering the links between found elements. In addition, the graph can be manually enriched with extra entities and relations if needed.

Path graphs are only available through specific alert details, using the “Path” links when available.





In this screenshot based on the “***Links between contractors/suppliers***”, we can see there are relationships between different contractors (companies) related to the selected project.

7.6.1 Customization

The customization works the same way as the surrounding graphs, giving you the ability to add one more relation level to the graph, using multiple relation types.

7.6.2 Specific options

The specific options are identical to the local view graph (chapter 7.4.2). Note that the history will only contain different version of the graph each time you modify its customization parameters, as there is no navigation in this type of graph.

7.7 Common graph options

For all, or some of graph windows, there are common available options

	Save as image	*Save as vector image*	*Zoom*	*KPI coloring*	*Quick search*	*Highlighting*
Hierarchical graph	Yes	Yes	Yes	Yes	Yes	No
Group map	Yes	No	Yes	Yes	Yes	No
Affinity graph	Yes	No	Yes	Yes	Yes	No
Local view	Yes	No	Yes	Yes	Yes	Yes
Surroundings graph	Yes	No	Yes	Yes	Yes	Yes
Paths graph	Yes	No	Yes	Yes	Yes	Yes

7.7.1 Save as image

The button saves the graph, with its legend if displayed, as a bitmap image. The graph can be saved in JPEG, PNG or BMP format by selecting the file format when saving it.

This is a convenient tool to include graphs in other documents or to print them.

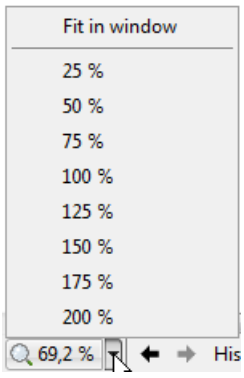
7.7.2 Save as vector image

The button saves the graph in vector format (SVG). Vector formats have the advantage that they can be scaled from very tiny to very large prints without quality loss.

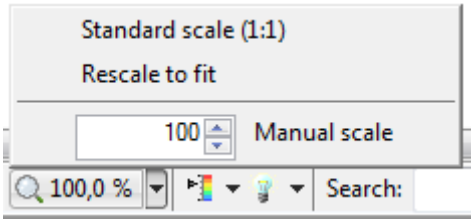
7.7.3 Zoom

The zoom options may appear differently in the graphs but have the same behavior: it allows zooming in, zooming out, going back to 1:1 scale or fitting the graph to the window.

Zoom option in hierarchical graph, group map and affinity graph.



Zoom option in local view, surroundings view and path graph.



The graph can also be zoomed in and out by pressing the CTRL key and rolling the mouse wheel.

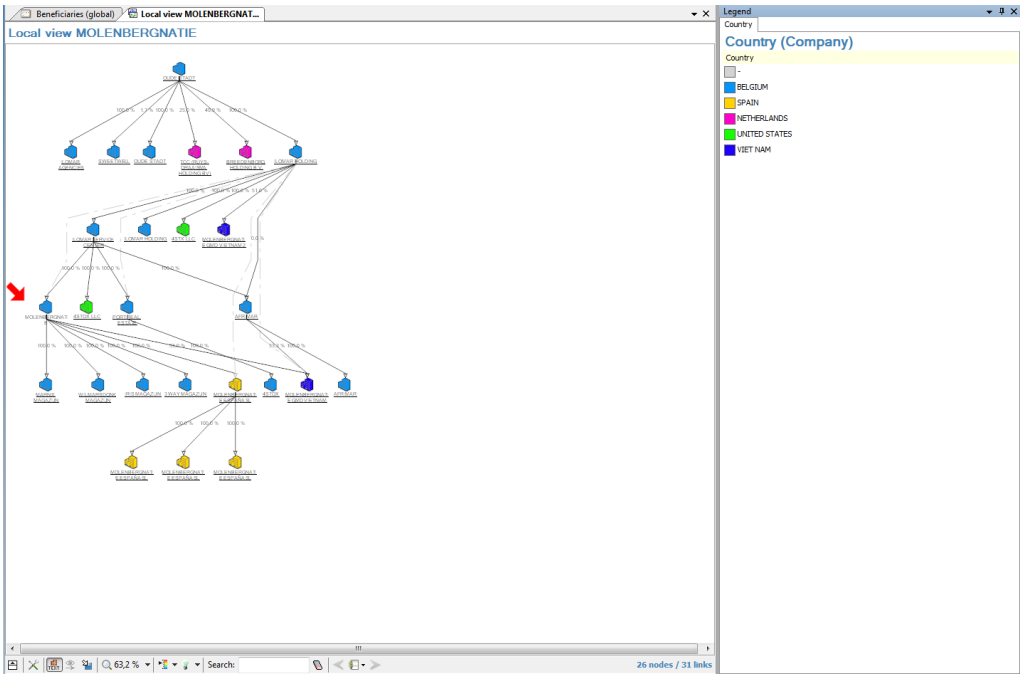
7.7.4 Coloring

The coloring options allow you to select some typical properties and use them as a coloring option inside the graph. Depending on the underlying data type, the graph will use either a scale gradient coloring or a palette coloring.

Note: coloring options may differ from the different graph representations.

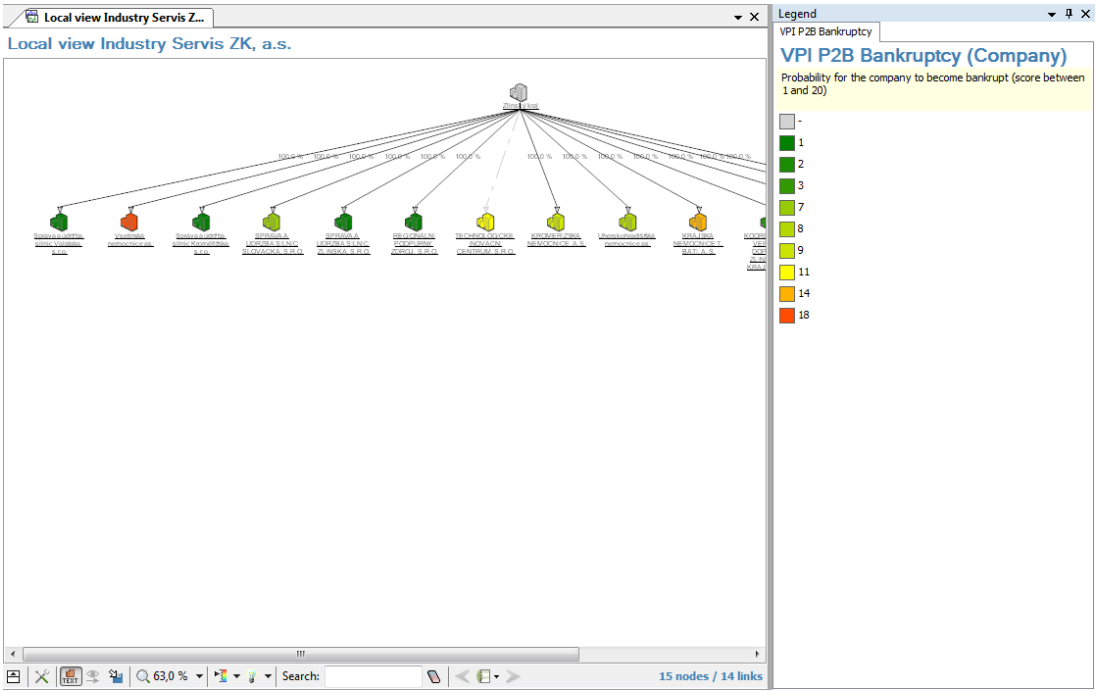
7.7.4.1 Palette colors

When you select a field containing multiple distinct values (strings, enumerations), the application will use an automatic palette generation according to the distinct values. The base colors can be customized through the application settings (See chapter 11.2)



7.7.4.2 Gradient colors

Gradient colors are used when the selected property contains a *normalizable* value (i.e. a data type having a well-defined range of values). Typical fields corresponding to these normalized values are alerts! In that case, the application uses the same gradient system as the LEDs in the dashboards.



7.7.4.3 Selecting an indicator

Selecting an indicator is done through the icon.

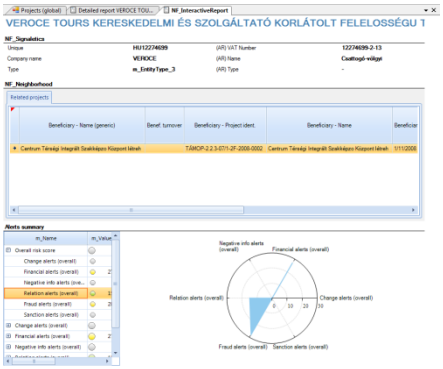
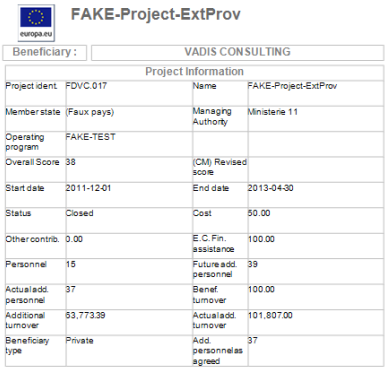
The available indicators may differ from one graph to another as they are directly related to the underlying entities. This means that the available properties depend on the kind of entity (company, project, contract) rather than the graph shown.

Available indicators

For projects	*For companies*	*For contracts*
Overall Score Concentration Overall Score Contract Management Overall Score Eligibility Overall Score Other Overall Score Performance Overall Score Procurement Overall Score Reputational Fraud Alerts Overall Score	Country Type Legal form Company age BvD Size C.E. Flag Overall Alert Overall Alert (contractor) Project count as beneficiary Project count as contractor Invest Active company Bankrupt company Entity bvd indicator Entity type In a group Linked to another group VPI Bankruptcy score (1-20) VPI Bankruptcy rating (A-F) VPI P2B Sold (Top 20%)	*There are actually no available indicators for the contracts.*
For persons		***For groups***
Number of affinities Number of Companies Number of linked groups Number of countries		Investment Gp Most represented country Ultimate owner country Companies count Countries count Group depth Legal links count

8 Reports

The Arachne reports come in two flavors: the interactive version, inside the application, summarizes the information but still allows navigation and other features, and the printable version which can be exported or printed directly.

Interactive version	*Printable version*
	

Interactive reports are available on different entities and in different formats. Each report will be described later in this chapter.

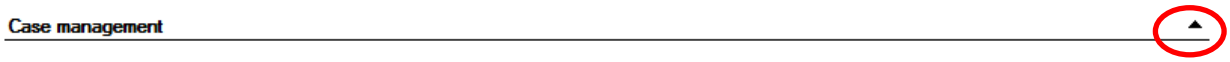
8.1 Interactive report

The interactive report cannot be printed but contains interactive features and graphs concerning a selected project, contract or company. Each report is divided into multiple information zones that can be collapsed or expanded.

As each interactive report contains the same section, each section will be described for the project report only and the other reports will just have a brief description of their content.

8.1.1 Project interactive report

Each report is constituted by different sections that can be expanded or collapsed using the small arrow on the top right of the section title.



The project interactive report contains the following sections:

Case management and general information

Interactive report: FAKE-Project-link-subContractor

FAKE-Project-link-subContractor

Case management

Case status - Case sub-status - New case

General information

Project ident.	**FDVC.001**	Name	**FAKE-Project-link-subContractor**
D.G.	-	Member state	**(Fake country)**
Managing Authority	**Ministerie 3**	Op. program ident.	**9999XA999XX001**
Overall Score	**9**	(CM) Revised score	-
Project type	**Road**	Project income	**7,873.00**
Start date	-	End date	-
Status	**Closed**	Cost	**45,378.00**
Other contrib.	**0.00**	E.C. Fin. assistance	**991,615.18**
Personnel	**11**	Add. personnel as agreed	**3**
Actual add. personnel	**5**	Benef. turnover	**45,345,347.00**
Additional turnover	**63,769.39**	Actual add. turnover	**97,494.00**
Beneficiary type	**Private**		

The case management section is visible only for users having rights to access it.

Neighborhood

Neighborhood

Beneficiaries | Contractors | Sub-contractors | Project partners | Contracts | Involvements

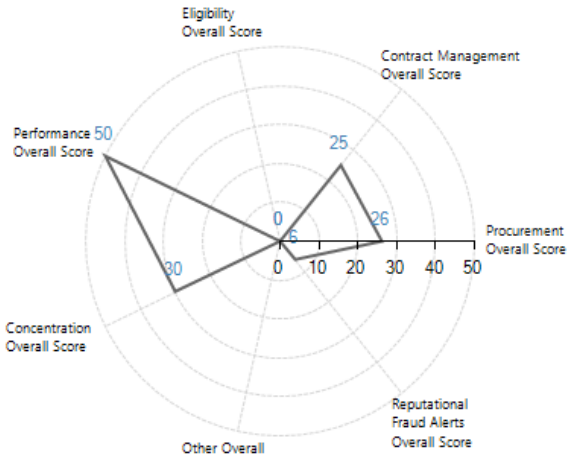
Benef/Contr - Name (generic)	Benef. turnover	Past fin. corr.	Benef/Contr - Company name (E.C.)	Benef/Contr - E.C. Type	Benef/Contr - VAT Nur
VADIS CONSULTING	–		VADIS CONSULTING	Private	0475080462

The neighborhood contains multiple tables listing elements related to the project: beneficiaries, contractors, sub-contractors, project partners, contracts and involvements.

Alerts summary

This section gives the categorical alert values as a radar chart, and the complete alert tree.

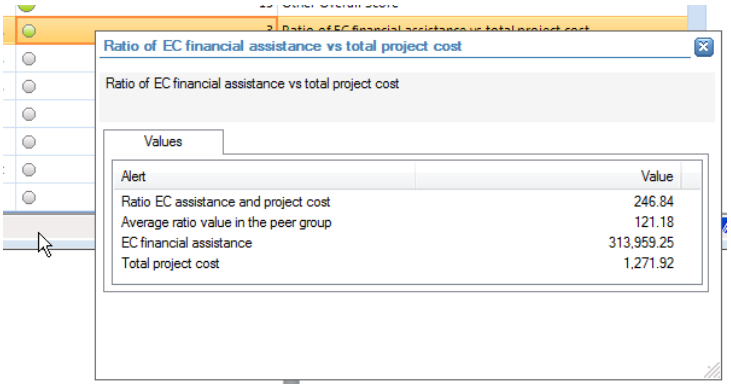
Alerts summary



The graph part is not interactive; it is only used to display the categorical alerts in a graphical way. However, all alert values, details and other information are available on the alert tree part, in the same way as on the dashboard functions.

Name	Value	Description
⊞ Overall Score	19	Overall Score
(CM) Revised score		Revised overall score, as set in the case management system
⊞ Procurement Overall Score	26	Procurement Overall Score
⊟ Contract Management Overall Score	25	Contract Management Overall Score
Contract addenda cost vs project...	0	Contract addenda cost vs project cost
Contract addenda cost vs contract...	10	Contract addenda cost vs contracted amount
Difference final contract end date...	5	Difference final contract end date and initial contract end date
Number of consortium partners		Number of consortium partners
Contract modifications		Contract modifications

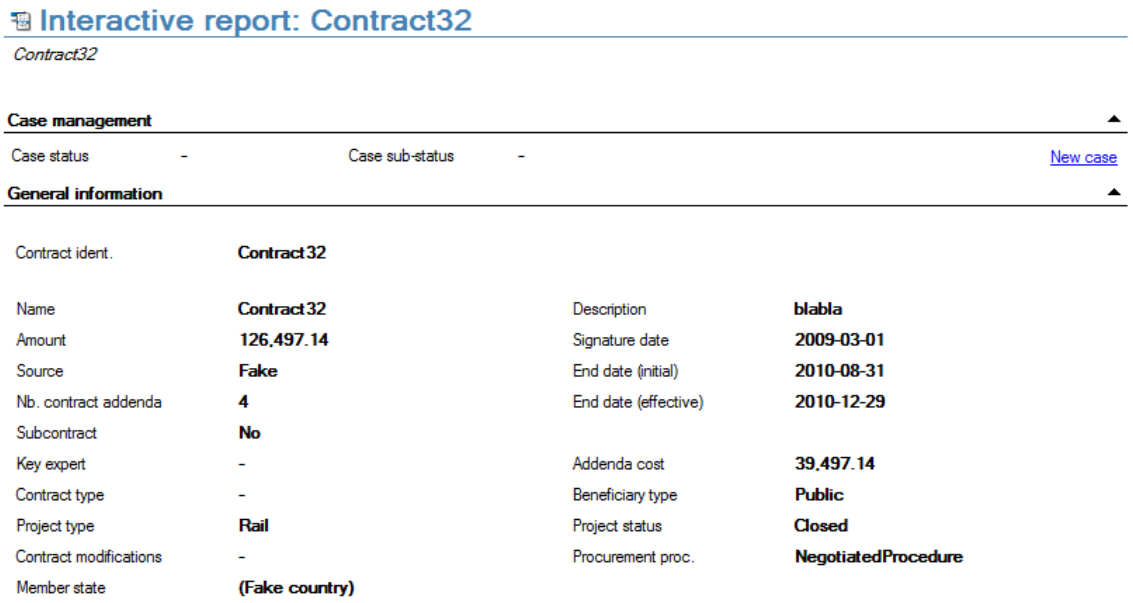
Right-clicking on individual alerts will give you the alert details popup, as described in the dashboard chapter (5).



8.1.2 Contract interactive report

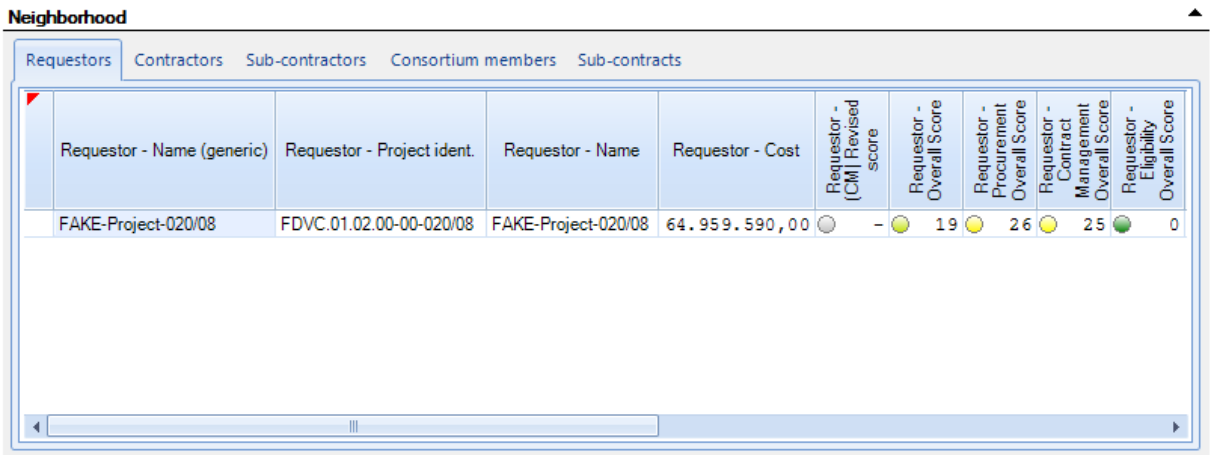
Case management and general information

This section is similar to the project report but with contract information.



Neighborhood section

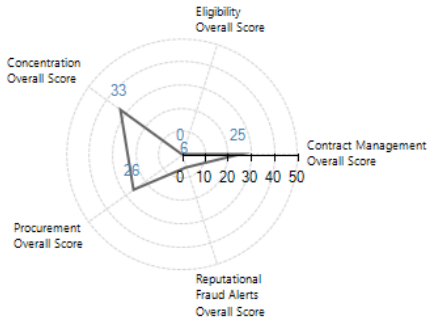
This section contains the following elements: requestors, contractors, sub-contractors, consortium members and sub-contracts.



Alerts summary

This section is similar to the project report but with contract alerts. Note that by definition there are less alert categories computed on the contract level. Here also, the alert details can be displayed by right-clicking on individual alerts.

Alerts summary



Name	Value	Description
Overall Alert	18	Overall Alert
(CM) Revised score		Revised overall score, as set in the case management system
Procurement Overall Score	26	ProcurementOverall Score
Contract Management Overall Score	25	Contract Management Overall Score
Eligibility Overall Score	0	Eligibility Overall Score
Concentration Overall Score	33	Concentration Overall Score
Reputational Fraud Alerts Overall Score	6	Reputational Fraud Alerts Overall Score

8.1.3 Beneficiary and contractor interactive reports

General information

This section differs from project and contract reports:

- It doesn't contain any case management references as companies are not part of the case management system
- The general information section is followed by two additional sections:
  - The *Orbis* address gives the address as present in the external data.
  - The financial information gives the last balance sheet information available in the external database of Orbis.

Interactive report: THYMOS, spol. s.r.o.

THYMOS, spol. s.r.o.

General information

Company name	**THYMOS, S.R.O.**	Company name (E.C.)	**THYMOS, spol. s.r.o.**
Unique identification number	**SK31672914**	VAT Number (E.C.)	**SK2020515772**
Type	**C - Industrial companies**	E.C. Type	**Private**
Total grants amount	**0.00**		
Address (E.C.)	**Popradská 518**		
Post code (E.C.)	**05952**	City (E.C.)	**Veľká Lomnica**
		Country (E.C.)	**SLOVAKIA**

Orbis address

Address	**Popradska 518**		
Zip code	**05952**	Company city	**VELKA LOMNICA**
		Country	**SLOVAKIA**

Financial information

Effective Year	**2012**		
Total assets (k€)	**9,316.00**	Operating revenue (k€)	**15,574.00**
Cash flow (k€)	**402.00**	Ebitda (k€)	**547.00**
Number of employees	-	Profit(loss)for the period (k€)	**132.00**
VPI P2B Bankruptcy	**16**		

Neighborhood

The neighborhood section contains the following information:

- For beneficiaries: related projects.

Neighborhood

Related projects

Project - Name (generic)	Benef. turnover	Past fin. corr.	Project - Project ident.	Project - Name	Project - Start date	Project - End date
FAKE-Project-031/10	493.516.992,81		FDVC.01.01.00-00-031/10	FAKE-Project-031/10	2010-11-01	2013-08-31
FAKE-Project-032/10	493.516.992,81		FDVC.01.01.00-00-032/10	FAKE-Project-032/10	2011-01-01	2012-04-30
FAKE-Project-001/08	493.516.992,81		FDVC.01.02.00-00-001/08	FAKE-Project-001/08	2008-10-01	2011-12-31
FAKE-Project-002/08	493.516.992,81		FDVC.01.02.00-00-002/08	FAKE-Project-002/08	2008-11-03	2009-09-30
FAKE-Project-003/09	493.516.992,81		FDVC.01.02.00-00-003/09	FAKE-Project-003/09	2009-02-01	2014-01-31
FAKE-Project-004/09	493.516.992,81		FDVC.01.02.00-00-004/09	FAKE-Project-004/09	2009-01-01	2014-04-30
FAKE-Project-005/09	493.516.992,81		FDVC.01.02.00-00-005/09	FAKE-Project-005/09	2009-07-01	2013-12-31

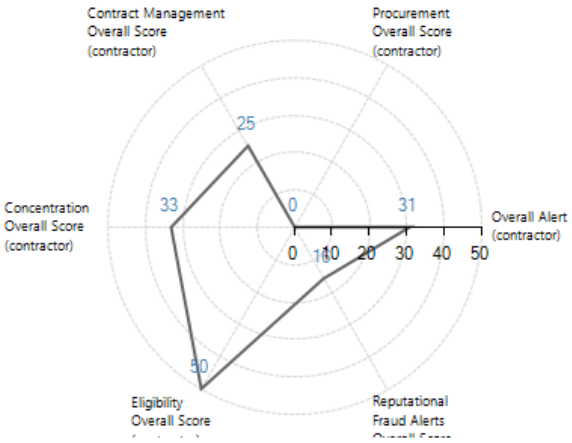
- For contractors: related projects, related contracts, related executors.

Neighborhood

Related projects | Contracts | Executors

Project - Name (generic)	Benef. turnover	Past fin. corr.	Project - Project ident.	Project - Name	Project - Start date	Project - End
FAKE-Project-link-subContractor	–		FDVC.001	FAKE-Project-link-subContractor	-	-

Alerts summary



Name	Value	Description
⊞ Overall Alert (contractor)	31	Overall Alert (contractor)
⊞ Procurement Overall Score (contractor)		Procurement Overall Score (contractor)
⊞ Contract Management Overall Score (c...	25	Contract Management Overall Score (contractor)
⊟ Eligibility Overall Score (contractor)	50	Eligibility Overall Score (contractor)
Contractors with invalid VAT numb...	10	Contractors with invalid VAT number - Infrastructural (contractor)
SubContractors with invalid VAT n...		bContractors with invalid VAT number - Infrastructural (contract...
⊞ Concentration Overall Score (contractor)		oncentration Overall Score (contractor)
⊞ Reputational Fraud Alerts Overall Scor...	16	Reputational Fraud Alerts Overall Score (contractor)

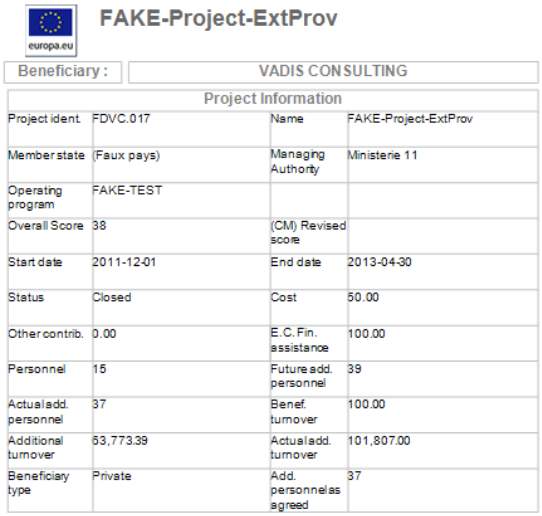
No alert information available!

The alerts summary will contain respectively categorized alert radar chart and tree specific to beneficiaries or contractors depending on the report.

Note that, as there is no details for beneficiary and contractor alerts, right-clicking on them will display a "*No alert information available*" popup. This is due to the fact that alerts computed at the beneficiary or contractor level are aggregated values based on related projects.

8.2 Printable report

The printable report summarizes all information concerning a given entity in a printable format.



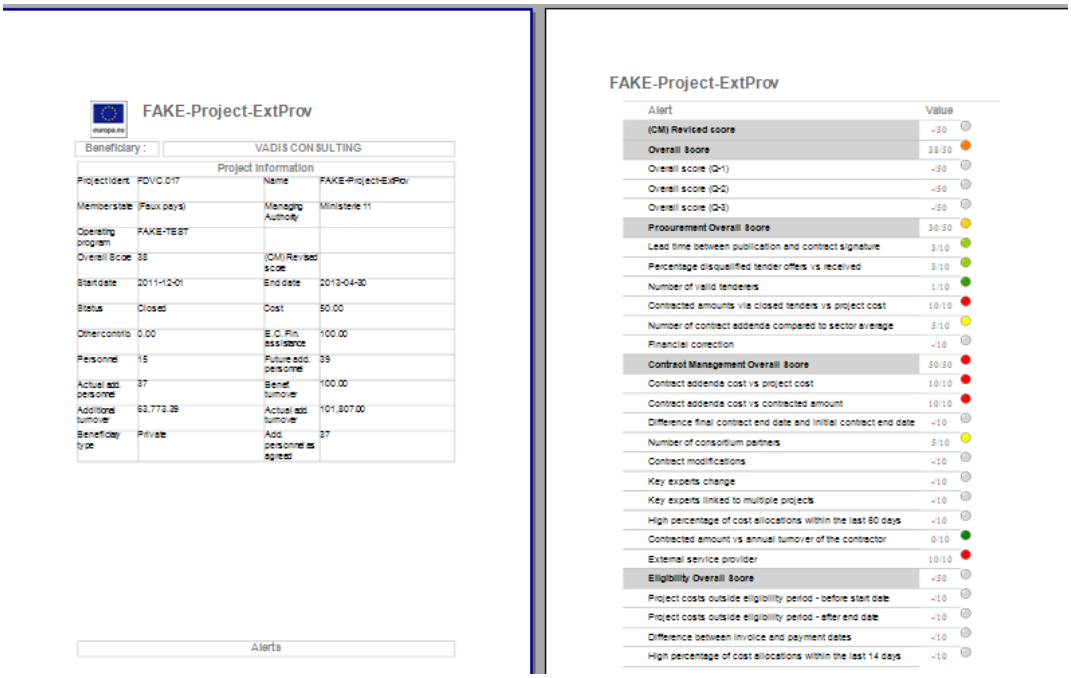
FAKE-Project-ExtProv

Beneficiary :	VADIS CONSULTING		
Project Information			
Project ident.	FDVC.017	Name	FAKE-Project-ExtProv
Member state	(Faux pays)	Managing Authority	Ministerie 11
Operating program	FAKE-TEST		
Overall Score	38	(CM) Revised score	
Start date	2011-12-01	End date	2013-04-30
Status	Closed	Cost	50.00
Other contrib.	0.00	E.C. Fin. assistance	100.00
Personnel	15	Future add. personnel	39
Actual add. personnel	37	Benef. turnover	100.00
Additional turnover	53,773.39	Actual add. turnover	101,807.00
Beneficiary type	Private	Add. personnel as agreed	37

This report window acts like a standard document preview window. From this window, the user can print or export the result to different file formats.

Using the button switches the presentation to the page view mode.

Using the zoom combo box allows to see multiple pages on screen.



FAKE-Project-ExtProv

Beneficiary :	VADIS CONSULTING		
Project Information			
Project ident.	FDVC.017	Name	FAKE-Project-ExtProv
Member state	(Faux pays)	Managing Authority	Ministerie 11
Operating program	FAKE-TEST		
Overall Score	38	(CM) Revised score	
Start date	2011-12-01	End date	2013-04-30
Status	Closed	Cost	50.00
Other contrib.	0.00	E.C. Fin. assistance	100.00
Personnel	15	Future add. personnel	39
Actual add. personnel	37	Benef. turnover	100.00
Additional turnover	53,773.39	Actual add. turnover	101,807.00
Beneficiary type	Private	Add. personnel as agreed	37

Alerts

FAKE-Project-ExtProv

Alert	Value
(CM) Revised score	-/50
Overall Score	38/50
Overall score (Q-1)	-/50
Overall score (Q-2)	-/50
Overall score (Q-3)	-/50
Procurement Overall Score	30/50
Lead time between publication and contract signature	3/10
Percentage disqualified tender offers vs received	3/10
Number of valid tenderers	1/10
Contracted amounts via closed tenders vs project cost	10/10
Number of contract addenda compared to sector average	5/10
Financial correction	-/10
Contract Management Overall Score	30/50
Contract addenda cost vs project cost	10/10
Contract addenda cost vs contracted amount	10/10
Difference final contract end date and initial contract end date	-/10
Number of consortium partners	5/10
Contract modifications	-/10
Key experts change	-/10
Key experts linked to multiple projects	-/10
High percentage of cost allocations within the last 60 days	-/10
Contracted amount vs annual turnover of the contractor	0/10
External service provider	10/10
Eligibility Overall Score	-/50
Project costs outside eligibility period - before start date	-/10
Project costs outside eligibility period - after end date	-/10
Difference between invoice and payment dates	-/10
High percentage of cost allocations within the last 14 days	-/10

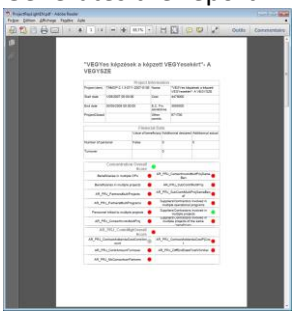
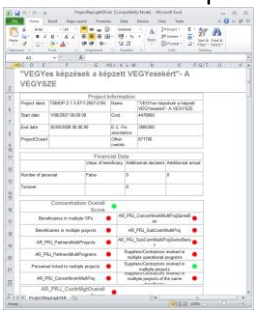
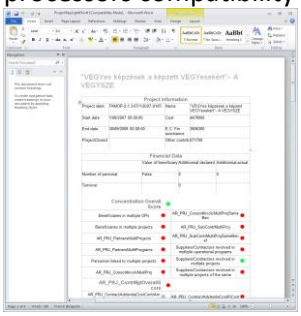
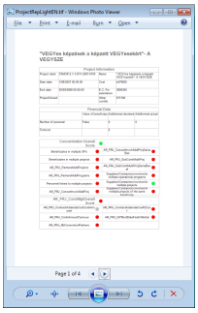
8.2.1.1 Printing results

The report can be printed using the print ( ) button.

8.2.1.2 Exporting results

Using the disk icon ( ) gives the user the ability to export in various formats.

Supported formats:

Acrobat (PDF) file	Generates the report in Adobe Acrobat format 
Excel 97-2003	Generates the report as an Excel document 
Rich Text Format	Generates the report in RTF (Rich Text Format), a multiple word processors compatibility format. 
TIFF File	Generates the report in multi-image TIFF format (.tif). 
Web Archive	Generates the report in MIME HTML format, also called Web Archive format. This format is compatible with most common web browsers.
XPS Document	Generates the report in Microsoft's "Electronic Paper Format" (XPS) which is very similar to the PDF format, but designed by Microsoft.

9 Case management

The case management was designed to assist the user of the Arachne tool in managing the proper follow-up of projects or contracts that require additional review.

9.1.1 Case management user roles

Each Arachne user account will be assigned one of the following user roles with regards to the case management module:

- **Guest**: he can see cases, but cannot change anything except comments;
- **Follower**: he can add additional information to the cases that are assigned to him; he can propose a case status change. He cannot assign cases to specific users nor approve other case status changes;
- **Supervisor**: he must (re-)assign the cases to specific users (user with a Follower role), and he can accept or decline case status change proposals.

Roles are assigned by local administrators on user account creation.

Some users may not access the case management module depending on how their account has been created.

The following table explains which user role has which access to the case management functions.

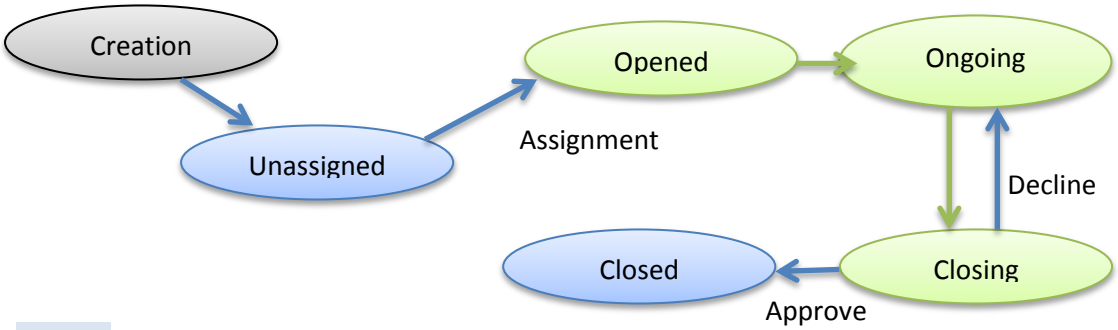
	Guest	***Follower***	***Supervisor***
Create new cases	Yes	Yes	Yes
Assign cases	No	No	Yes
Change case status	No	Yes	Yes
Close cases	No	No	Yes
Add comments	Yes	Yes	Yes
Display case information	Yes	Yes	Yes

9.1.2 Case management data isolation

Case management data isolation works in a similar way as internal data isolation: users belonging to a given user group (DG, MA or OP) will have only access and make changes to the cases of their group.

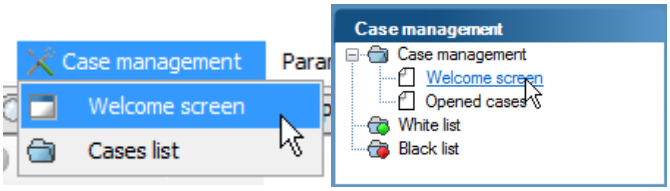
In terms of inheritance, top groups can access cases of bottom groups but cannot make changed on them. This means a user from a managing authority can access cases opened at the operational levels, but cannot do any modification on them.

9.1.3 Case lifecycle diagram

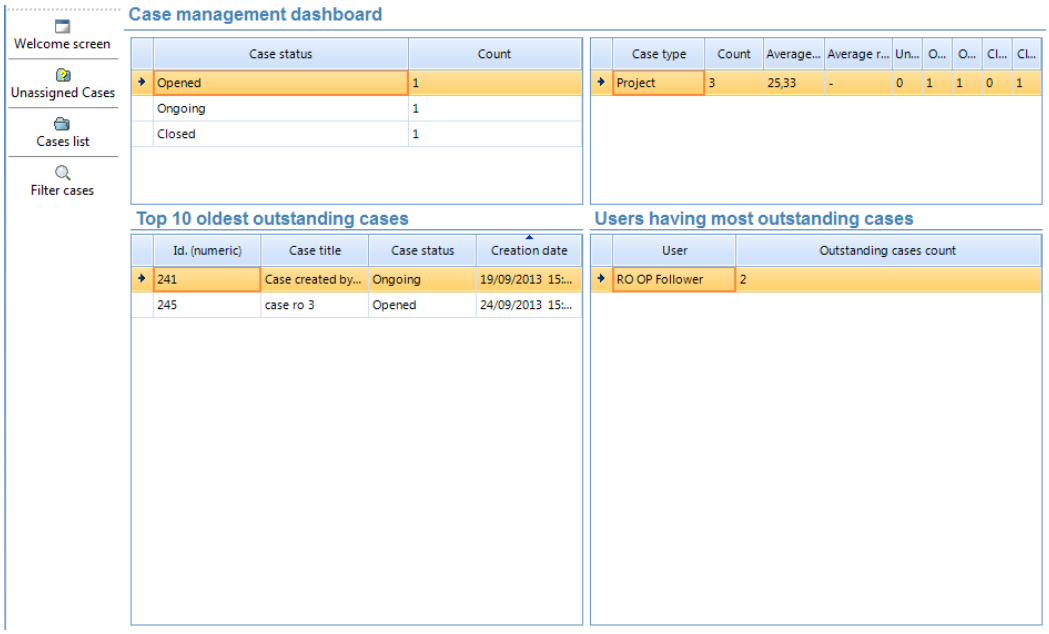


9.1.4 How to access the case management module

The case management module can be accessed either from the application menu or the task pane.



9.1.5 Case Management welcome screen



Internal case management options are shown on the left bar:

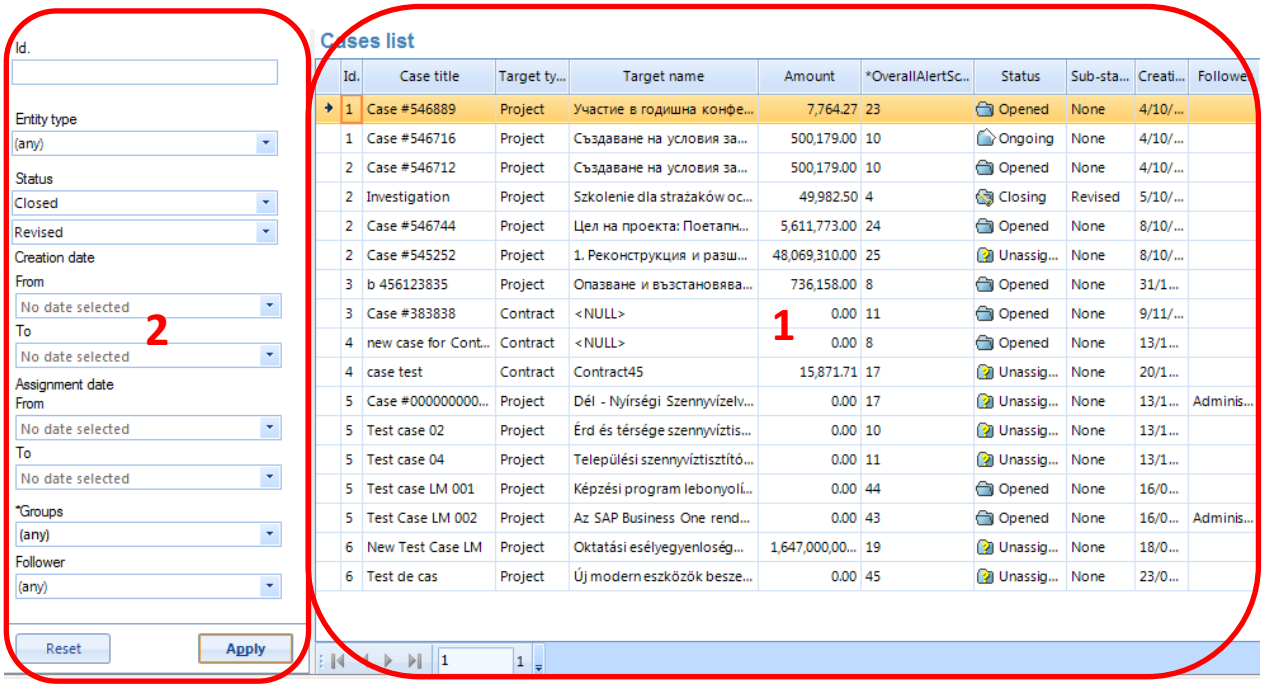
- Welcome screen button leads to this screen
- Unassigned cases displays the cases list with a predefined focus on unassigned cases
- Cases list gives the fully customizable cases list screen
- Filter cases enables filtering options when the cases list is displayed.

The welcome screen of the case management is the starting point to navigate the case management. There are two main functionalities in this screen:

- General overview: This part of the welcome screen lists general information regarding the number of projects or contracts that have been assigned to a user for review and their status.
- Reports: Using the report buttons the user is able to create/open several types of reports:
  - Number of cases by status
  - Average throughput time
  - Cases assignments
  - Closing cases
  - Open cases
  - Cases age

9.1.6 Cases list screen

The cases list screen consists of two main parts, the overview pane and the filtering pane. This screen is displayed when clicking on either ***Unassigned cases*** or ***Cases list*** buttons on the left.

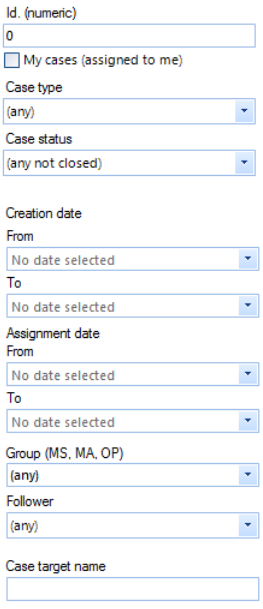


9.1.6.1 Cases list pane

All open cases are displayed with their type (contract or project), name, status, assigned user (Follower), project/contract amount, creation date, using a paging of 20 cases/page. By default projects are sorted on creation date with the oldest cases on top. However cases can be sorted on each column. Cases can be displayed using the paging buttons on the bottom toolbar attached to the list. Double-clicking on a single case will open the corresponding case details screen.

9.1.6.2 Filtering pane

This part of the screen allows the user to filter on various parameters. It's only visible by clicking on the ***Filter cases*** button on the left.

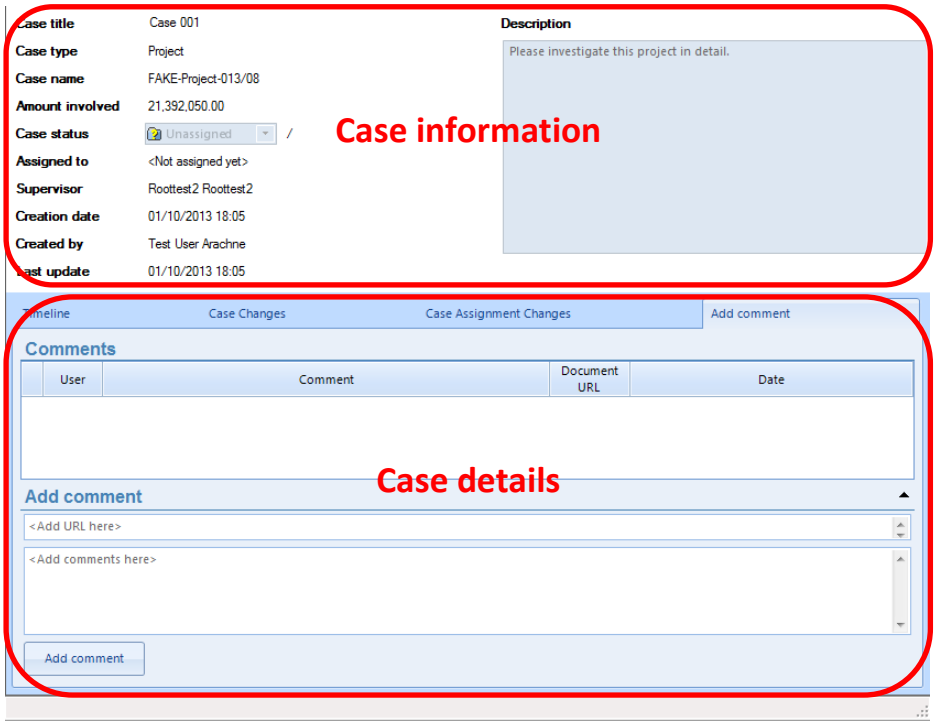


Following criteria may be used:

- Case identifier
- Cases assigned to the current user
- Case type
- Case status
- Case creation date, in a date/time interval (from – to)
- Case assignment date, in a date/time interval (from - to)
- User group
- Follower
- Target name (name of the entity concerned by the case)

9.1.7 Cases details screen

The case details screen displays the complete information about one single case. It is accessed by double-clicking on a case or in the case list or asking the case details on a project or contract using the context menus.



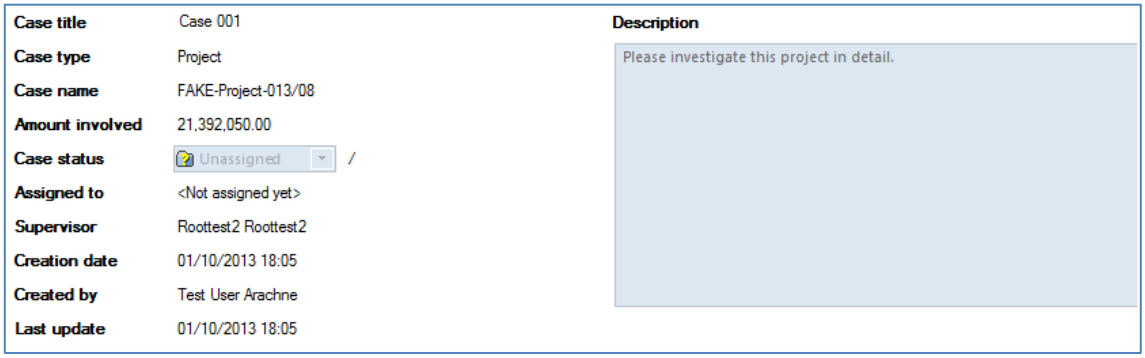
The screen is split in two parts:

- The case information part displaying:
  - Case title and description

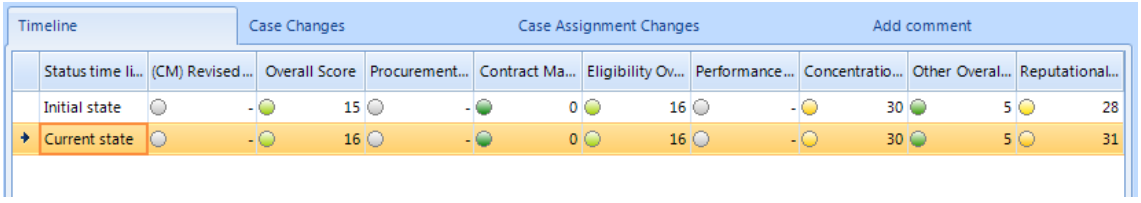
- The case's related entity type and name
- The amount involved in the entity
- The current case status and sub-status
- The assignee
- The supervisor
- The case creation date and creator name
- The date of the last update (last comment or change on the case)

- The case details tab panel containing:
  - The timeline values for the entity
  - The case changes tracking
  - The case assignment changes
  - The case comments

9.1.7.1 Case information

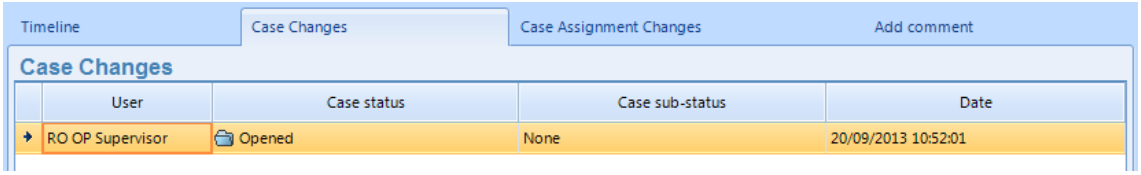


9.1.7.2 Timeline tab



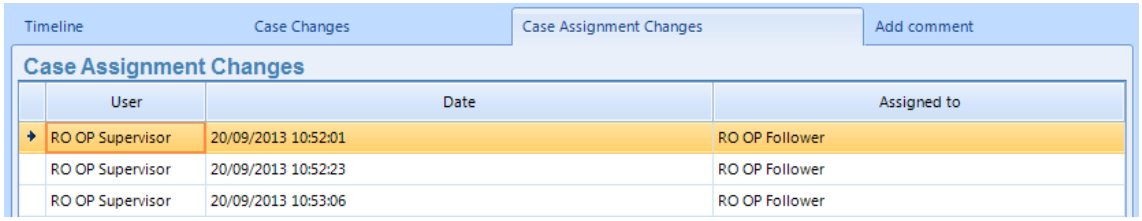
The timeline tab displays the differences between the entity alert when the case was created and the current entity alerts. Differences may appear for old cases when data have been refreshed – some old alert values may become inaccurate, making the case to be "*resolved*" itself.

9.1.7.3 Case changes tab



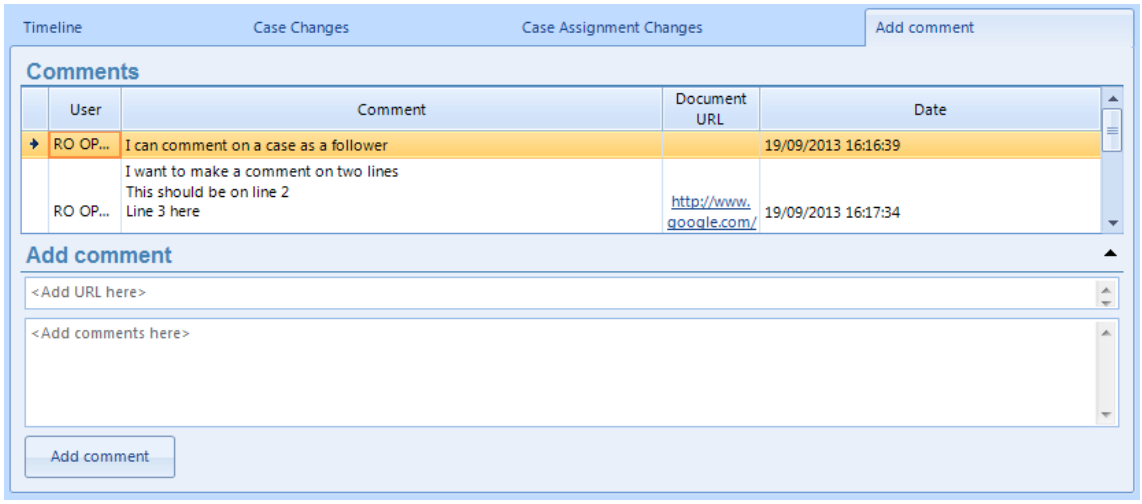
This tab lists the different status changes which occurred on the case, with the user and change date.

9.1.7.4 Case assignment changes tab



This tab lists the different case assignment changes.

9.1.7.5 Add comment tab

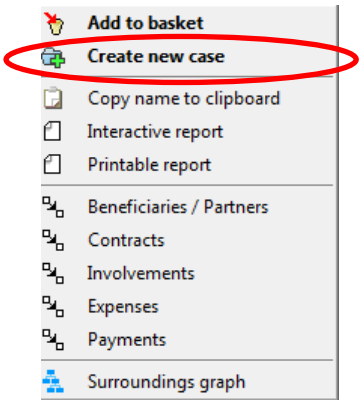


This last tab lists the different comments made on the case and offers the ability to add new comments. A comment is made of a text and an optional URL. The URL can contain any reference to a document on the internet or shared network.

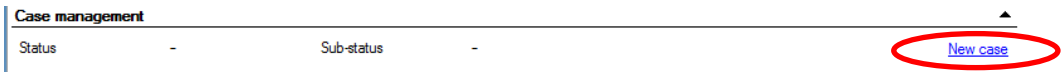
9.1.8 Creating a case

The user can create a new case in several ways

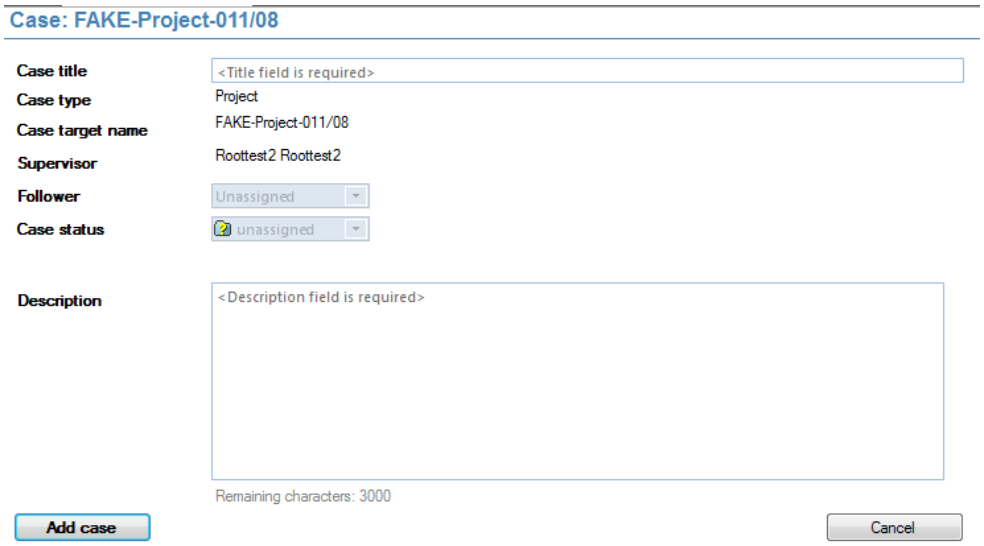
- From the project or contract dashboards or mini-dashboards from the welcome window using the right click menu option “Create new case



- From a detailed screen relating to a project or contract by selecting the “New case” button



Regardless of the starting point the following case creation screen is displayed:

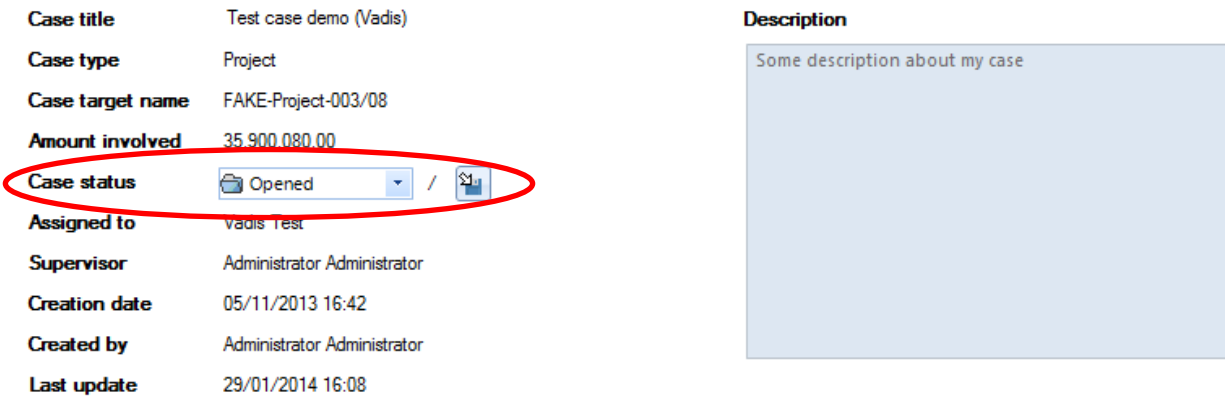


The case name (project or contract name), the case type (Project and Contract) and the supervisor (the user that creates the case) are entered automatically. The user can provide a title for the case, assign a specific user (only available when the current user is a supervisor) that is responsible for the follow up and change the case status (only available when the current user is a supervisor). A description text box is foreseen to provide specific instructions for the reviewer.

Once the case creation is complete the case will appear in the case overview screen.

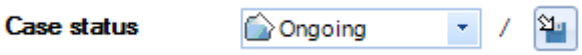
9.1.9 Updating a case

Reviewing cases can be done only by followers or supervisors. When opening the case details screen, case status and sub-status can be changed.



9.1.9.1 Follower options

For case followers, the case status can be changed to *ongoing* or *closing*.



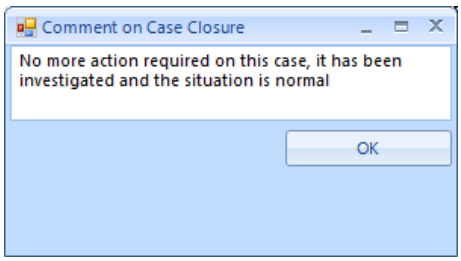
The follower must change the case status from *opened* to *ongoing* when he starts working on the case. Cases may be left *opened* as nobody works on them.

When changing the case status to closing, a sub-status must be set. The sub-status can have the following values:

- No action: the case doesn't need specific operation anymore
- Whitelisted: the revised score must be set to 0 (no risk) for the corresponding entity
- Blacklisted: the revised score must be set to 50 (highest risk) for the corresponding entity

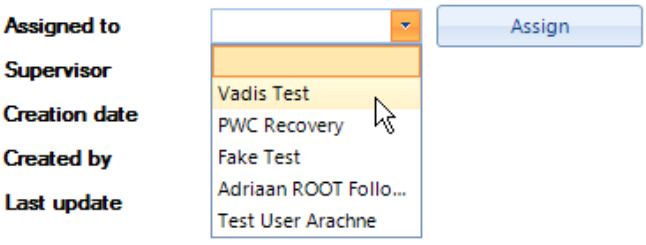
When the status has been changed, the operation must be confirmed by clicking on the disk ( ) icon.

Note that changing a case status to "closing" will require you to add a closing comment. Cases cannot be put in "closing" status without it.



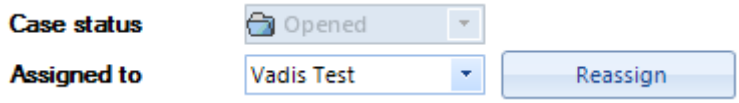
9.1.9.2 Supervisor options

As cases are created unassigned by default (only supervisors can create assigned cases directly), the first step for supervisors will be to assign a case follower. The follower will be responsible of the case investigation and will report comments on it.



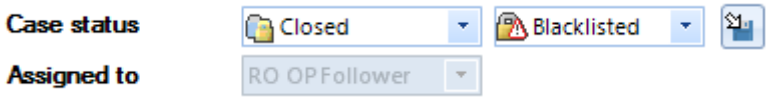
Only user accounts of the same user group with the ***follower*** role are listed in the combo box. To assign a case, select a follower and click the ***Assign*** button.

When a case has already been assigned, there is a possibility for supervisors to reassign it to another follower if needed. The mechanism is identical to the assign process.

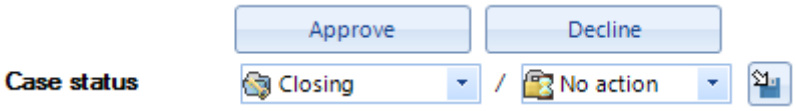


Once a case is assigned, its status becomes *opened*.

For *ongoing* cases, supervisors are allowed to change the case status and sub-status but the case cannot be re-assigned to another user.



Finally, for closing cases, the supervisor has the responsibility to approve or decline the follower proposed status.



Approving a case will confirm the decision and set the case status to *closed*.

Closing the case will assign a value to the *revised score* of the target entity. This *revised score* is visible in the dashboards and reports.

Sub-status	Action
Whitelisted	Revised score is set to its minimal value
Blacklisted	Revised score is set to its maximal value
No action	Revised score is kept untouched

Note that, even when a case is closed, the supervisor still has the ability to change its sub-status.

Declining a case makes it going back to *ongoing* status, meaning the follower must continue its investigation on the case.

10 Exporting data

The export function is only available for users having the export function enabled on their account.

The export option is available from any window containing elements as a table. This feature is global to the application and will export elements based on the visible table contents or selection. Export function doesn't work from graphs.

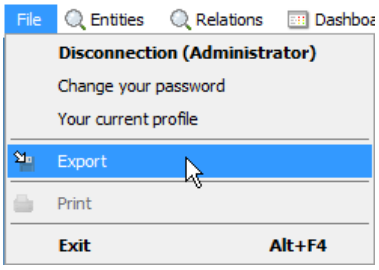
Note: depending on your user rights, the export function may be disabled.

10.1 Selecting records

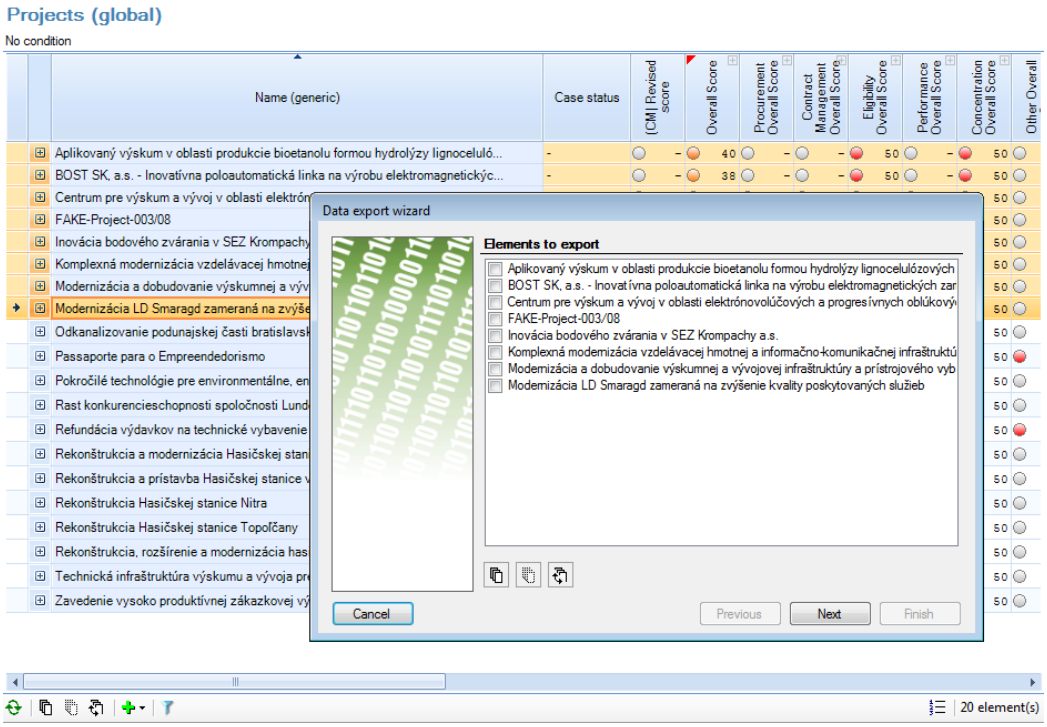
Export function will work based on the following screens

- Dashboard : selected items (the selection can be made using windows standard click, SHIFT+click, CTRL+click combinations on items; in addition, the "Select all", "Select none" and "Invert selection" buttons in the bottom toolbar can be used)
- Search results or navigation tables : all items or selected items

Once data have been selected in a screen, simply go to ***File*** → ***Export*** option to start the export wizard.



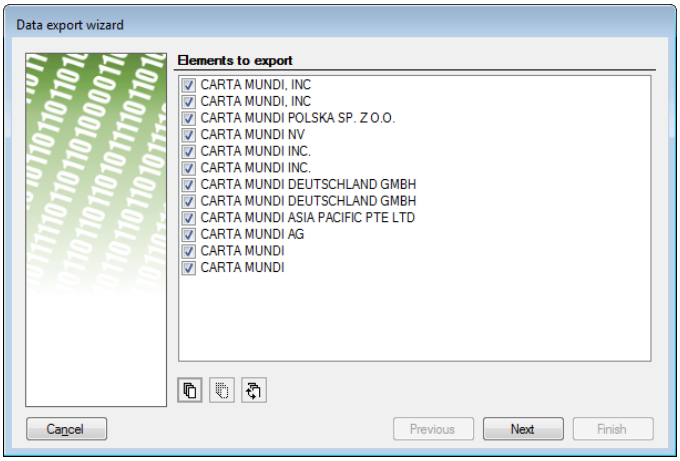
The following window appears and the user can select entities which some information will be exported.



10.2 Export wizard steps

10.2.1 Refine / confirm selection

This screen allows you to validate your initial selection by checking or unchecking items in the list. You can use the bottom buttons to select all items, no item or to invert the current selection.



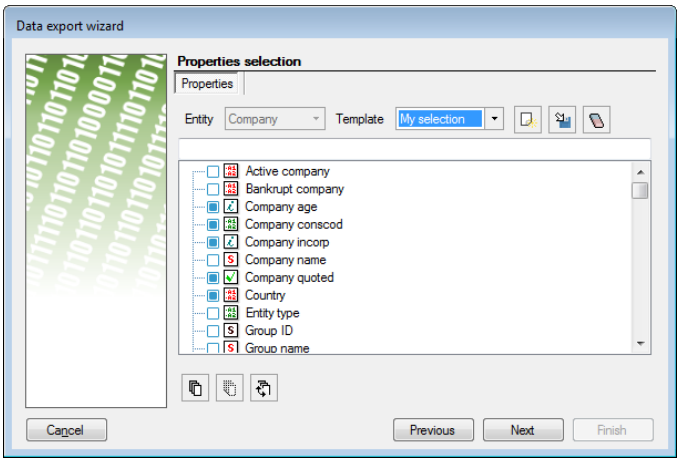
Click the ***Next*** button when your selection is correct.

10.2.2 Property selection

Once the items have been selected, the second phase is to select which properties (fields) you want into your final export. This mechanism avoids exporting useless properties.

You can only select properties applicable for the entity selected. It is not possible to select properties belonging to other entities. For example, when exporting projects, you can only select properties

belonging to projects (name, …), but you cannot select properties belonging to other entities like contract or beneficiary i.e. you cannot export beneficiary/contractor name or other beneficiary/contractor related fields when exporting a project.

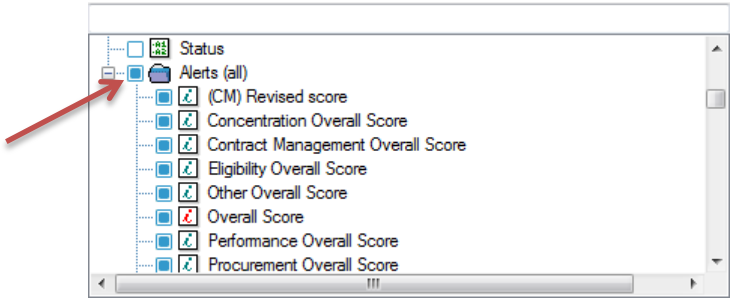


Once the selection has been done, clicking on the "Next" button will request the properties to the server.

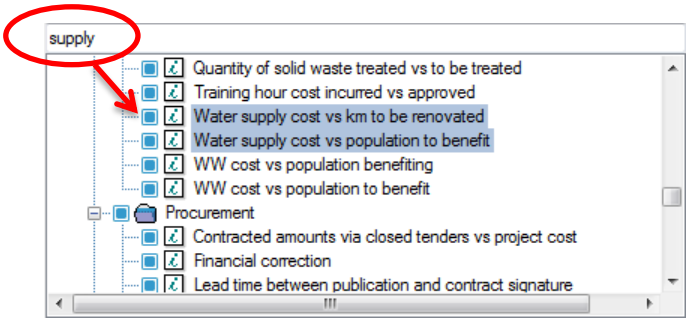
10.2.2.1 Property selection mechanism

When exporting entities, the entity type is pre-selected so you only have to select the properties you want to export in the property tree. Selection is done by checking items in the list. In addition, the bottom buttons allow to select all properties, no property or to invert selection.

When organized in categories, selecting the category will automatically select all properties below it.



There is also a way to focus on properties containing specific characters by typing them in the text box on top of the tree. The list will highlight matching elements and position itself on the first match. If the match is unique, the focus will be set on the first matching element.



10.2.2.2 Property templates

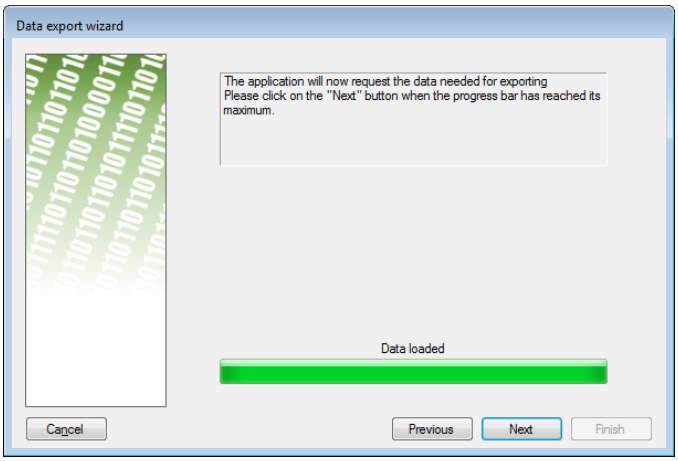
In the properties selection panel, it is possible to create user-defined templates which can be reused later. The templates are saved into a dedicated file stored in the windows user profile.

The dropdown lists the different available templates. To create a new template, you must **first** click on the create template button ( ) and enter a template name. Then, select the different properties you want to assign to this template, and finally click on the save template button ( )

Templates can be changed if needed, by selecting them in the list, change their selected properties and click on the save template button again. Templates can be deleted by selecting them then clicking on the eraser button.

10.2.2.3 Property loading

At this stage, the user has nothing to configure. This step will load the corresponding data. Just click ***Next*** to continue.



10.2.2.4 Selecting export format

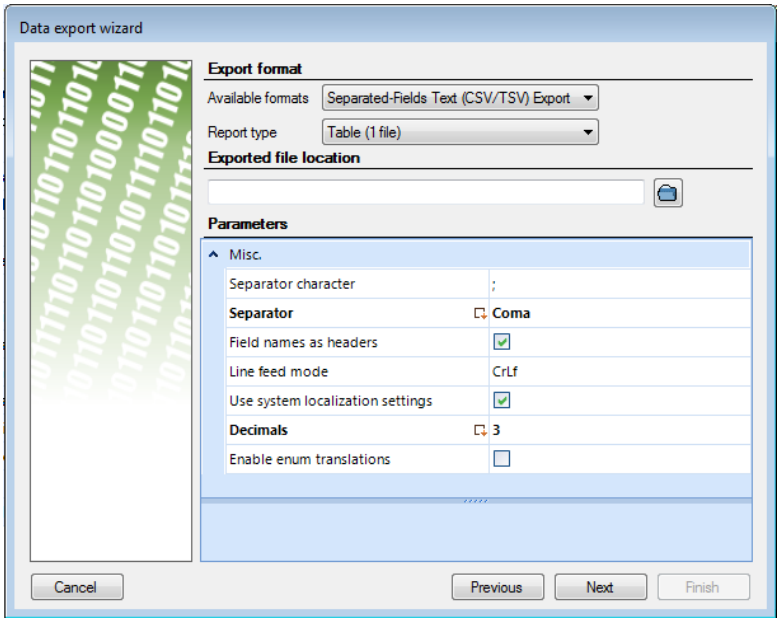
At this stage, it is time to select in which export format you want to obtain the information. The application provides three different export formats:

- **Separated-Fields Text**: exports in CSV/TSV format.
- **Simple Text Export**: exports in simple text file.
- **XML Formatted file**: exports as a structured XML file.

The first format is used if you want to load the results in other software such as Excel or database systems. It provides a simple delimited text file.

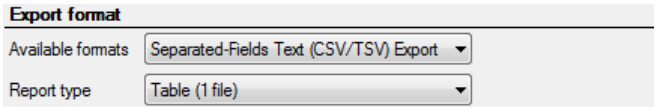
The simple text export can be used to get tables or lists that can be either printed or re-imported into word processors.

The XML format will generate a structured XML file that can be used in various applications or even transformed using XSLT to generate HTML exports.

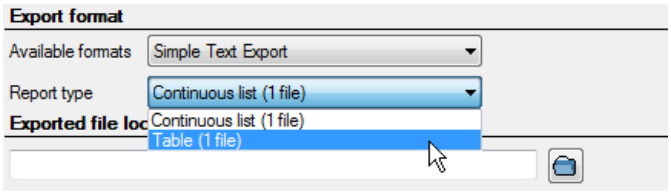


Depending on the chosen export format, the following elements on the screen will adapt their content. The report type can be used as a sub-format selector in export formats. The Parameters part will display specific parameters according to the selected export formats.

Example for separated fields – only one report type available

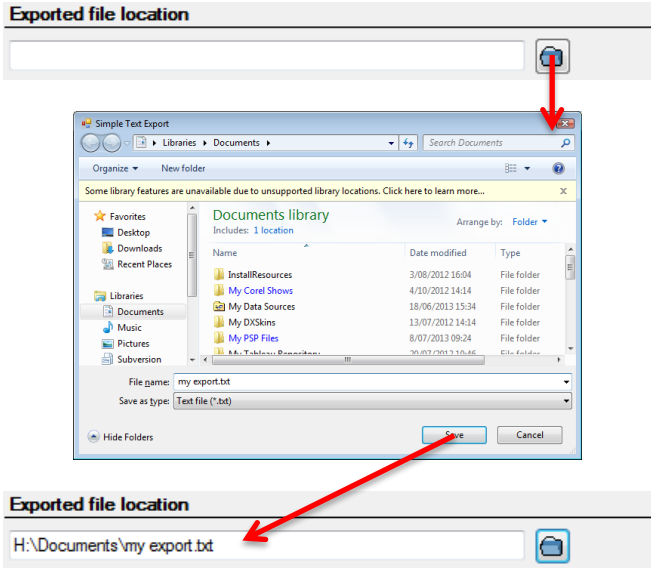


Example for the simple text export – continuous list or table is available.



Remark: the CSV/TSV format is a simple structured text file format. As the format specification is very basic, please use it with caution. Changing separator character may have an impact on how the file will be loaded by different applications.

You can select the exported file location by clicking on the folder icon and selecting a file.



Once the export format and report type and destination file have been chosen, you can fine-tune export parameters.

Separated fields text parameters	
Separator character	When ***Separator*** is on ***FreeChar*** mode, type the character you want to use as column separator here.
Separator	Defines which column separator is used in the file. Possible values are ***Coma***, ***Semicolon***, ***Pipe***, ***Tab*** or ***FreeChar***. By default, CSV files use a coma as delimiter, but for some applications, semicolon or tab characters are commonly used. Pipe character (|) or FreeChar can be used for specific cases.
Field names as headers	This option is enabled by default. When enabled, the first row will contain the property names.
Line feed mode	***CrLf*** or ***Lf*** values define how the line feed is written in the file. If you export files for Linux/Unix operating systems, please select ***Lf***.
Use system localization settings	When enabled, floating-point values will be formatted using the system settings.
Decimals	Number of decimals to keep for floating-point values.
Simple text parameters	
Include date	When set, the export date will be added inside the text file
Text width	Fixes the maximum number of characters per line.
Document footer	Allows to add an extra text as a page footer
Document header	Allows to add an extra text as page header
Document title	Defines the global title used in the text file.
XML formatted file parameters	
Encoding type	Allows the following encodings when saving into XML file: - Standard (ANSI) - ASCII (7 bit strict ASCII encoding) - UTF-8 (most commonly used encoding) - Unicode (true Unicode encoding)

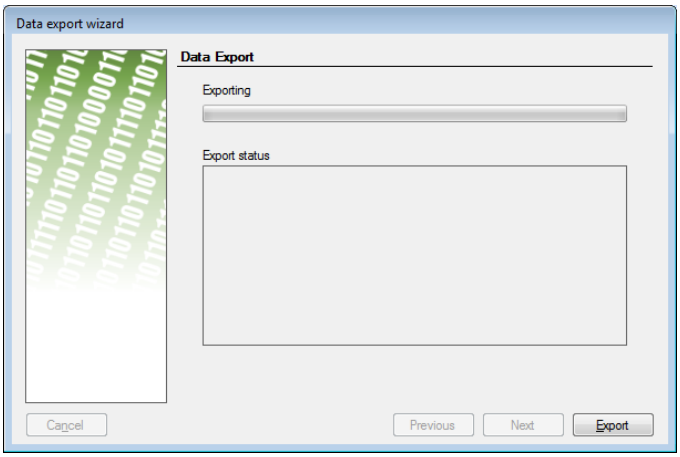
Once the correct parameters have been selected, click ***Next***.

10.2.2.5 File format confirmation

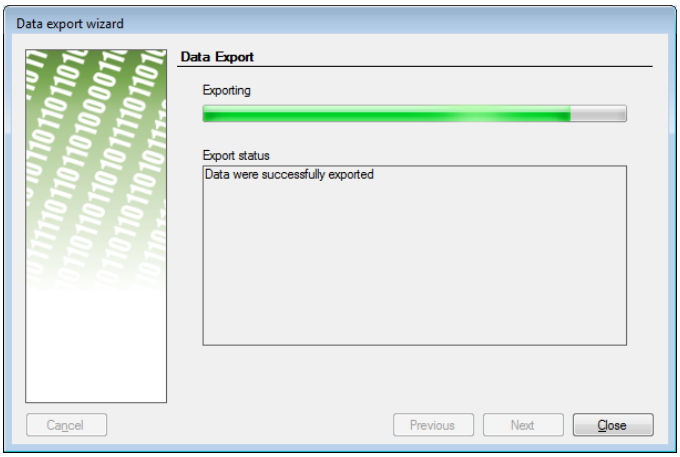
This screen displays a summary of your file format parameters. Just click Next to confirm.

10.2.2.6 Export screen

Once everything is confirmed, the final step is displayed and the export can begin.



Just click on the ***Export*** button to start exporting data. A progress bar will indicate the export progress.



Once the export is finished, click on the ***Close*** button.

10.2.3 File associations

By default, once the export wizard has closed, the application will try to open the exported file with its windows default application. This behavior can be enabled or disabled via user options (see chapter 11.1) in the export options section.

11 Customizing your application

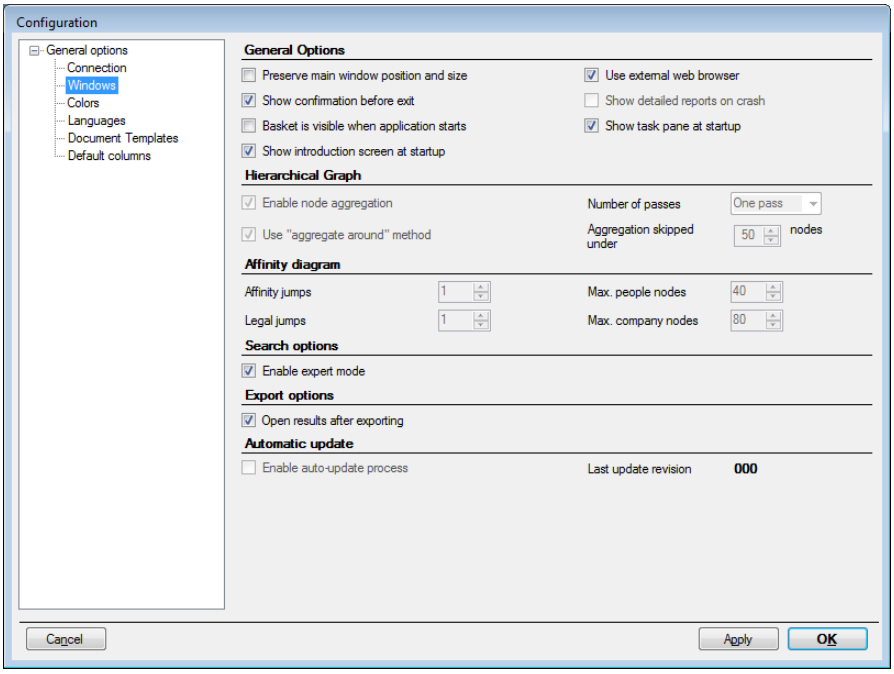
The **Parameters** menu allows you to modify the application options and appearance. This menu contains six functions:

- **Windows:** configures windows elements and modules
- **Colors:** configures colors used in palette and gradients
- **Templates:** not used in Arachne application, present for backward compatibility.
- **Columns:** defines default columns for search / navigation result tables and the business card.
- **Languages:** choice between two versions of the application, French and English.

These user preferences are persisted in a user settings file. Once the settings are modified, they will be used of any newly opened window. The previously opened windows won't be updated. This is valid for all changes except the language change which requires an application restart.

11.1 Windows

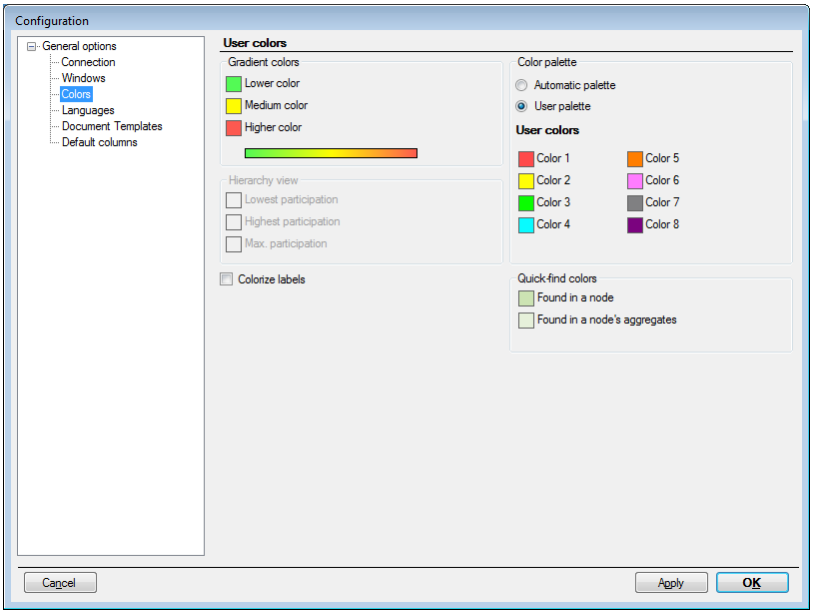
The user can determine different options such as the main window's position and size, the visibility of the basket window when application starts and a confirmation message before exit. Other options are also available concerning hierarchical graph and affinity diagram. But the main advantage of these settings is at the level of the option "Enable expert mode" (see 12.1). By choosing this option, the user will be able to use the Expert mode as default mode.



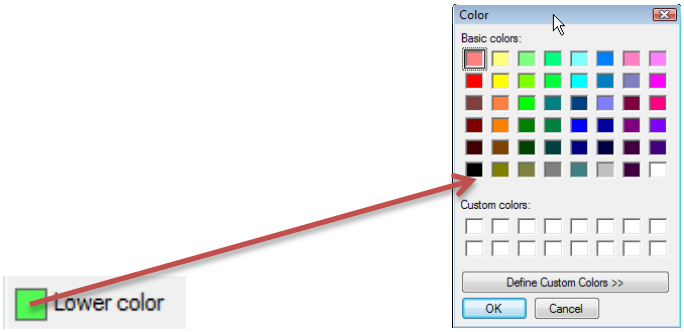
General options	
Preserve main window position and size	When activated, latest application position and size is saved in the user configuration file so it will be restarted at the same location.
Use external web browser	When activated, the application will open web links into an external browser instead of opening it with the embedded browser.
Show confirmation before exit	When activated, a confirmation dialog is displayed when closing the application
Show detailed reports on crash	(cannot be changed)
Basket is visible when the application starts	When activated, the basket window will be displayed when the application starts
Show task pane at startup	When activated, the task pane is shown when the application starts
Show introduction screen at startup	When activated, the introduction web page is shown when the application starts
Hierarchical graph	
Enable aggregation	(cannot be changed)
Number of passes	(cannot be changed)
Use aggregate around method	(cannot be changed)
Aggregation skipped under	(cannot be changed)
Affinity diagram	
Affinity jumps	(cannot be changed)
Legal jumps	(cannot be changed)
Max people nodes	(cannot be changed)
Max company nodes	(cannot be changed)
Show company names by default	When activated, company names will be displayed on company nodes in the affinity graphs instead of the company count.
Search options	
Enable expert mode	This option has the same role as the “Expert mode” option on the entity search menu.
Export options	
Open results after exporting	When activated, the application will try to open automatically the exported file after a successful export
Automatic update	
Enable auto-update process	When activated, enables auto-updating **This function is not available in the European Commission version.**

11.2 Colors

The user can choose his preferred colors or those allowing a better visibility when coloring graphs (see e.g. the coloring option).



Colors can be changed by double-clicking on color pickers. It opens the standard Windows color picker.



11.2.1 Gradient colors

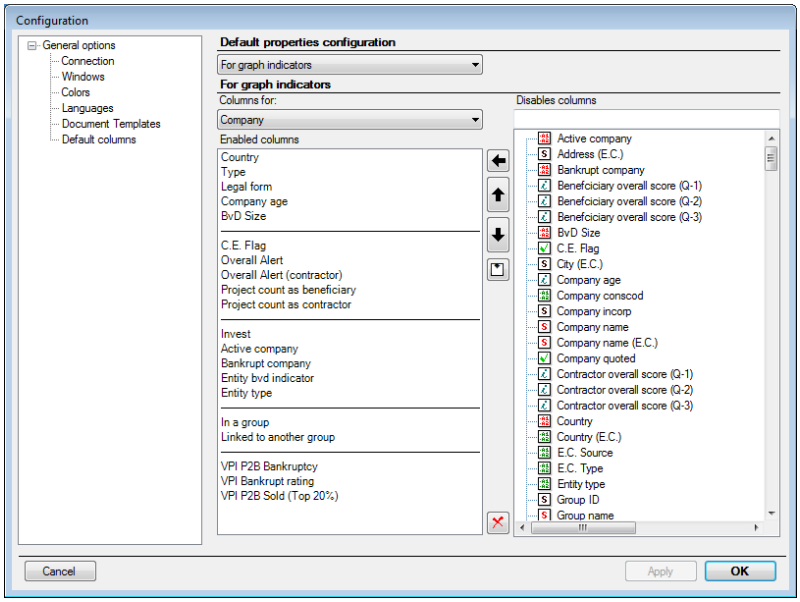
The color gradient used when representing continuous values is built on three colors: lower color, medium color and higher color, representing lower, medium and higher values.

11.2.2 Color palette

The color palette is used to represent enumerated values or distinct literals. It can be automatic or user based. In user palette mode, the user can define eight base colors. In automatic mode, these colors are automatically generated by the application using an hsl optimal dispersion algorithm (ensuring an optimal color difference between two consecutive colors)

11.3 Default columns

For each entity (company, group, person, …) and each type of link (legal link, membership, private link, …), the user can select the columns he wants to display in the list of results, details panel on the task pane (on the left of the application) and the graph indicators available in graph windows.



11.3.1 For table columns

The selection will impact search results, navigation tables and the basket. This selection has no impact on the dashboards. Once the new selection has been made, it is effective for all newly opened windows.

11.3.2 For details panel

The selection impacts only the details panel present on the task pane. Once the selection has been made, it will be directly updated the next time a new entity is displayed in the panel.

11.3.3 For graph indicators

The selection impacts only the coloring indicators present in graph windows. Once the selection has been applied, it will be directly available in next opened graph windows.

Note that, in this mode, an additional button allows insertion of separators, which make the menus easier to read and use

11.3.4 Editing columns

1. Select the entity or relation for which you want to change the columns configuration in the ***Columns for*** combo box. The left list represents the currently selected columns, the right list contains all columns available for the selected entity or relation.

2. To add a new column, select it on the right list then click on the arrow.

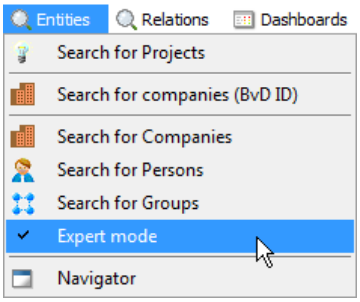
3. To remove a column from the selection, select it in the left list then click on the delete ( ) button

4. To change the selection order, select a field in the left list and use the up/down arrow buttons to change its position.

12 Advanced functions

12.1 Expert search

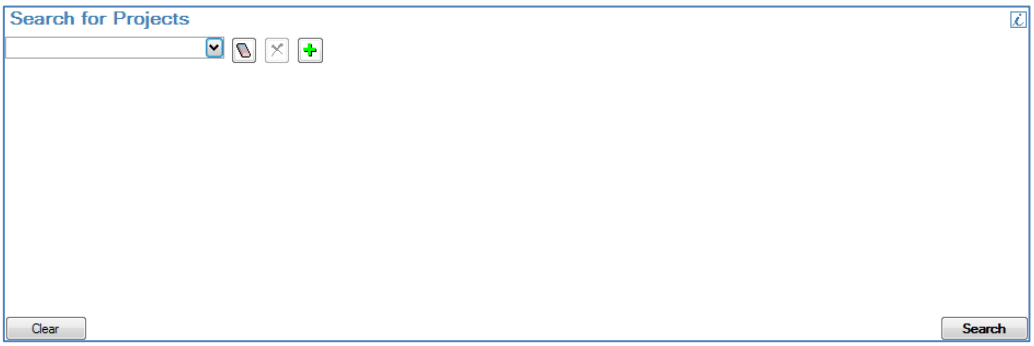
As all the standard searches are limited to certain predefined criteria, it is also possible to turn on the ***expert mode***. The expert mode allows to completely customizing search forms based on the whole set of available properties in the system. The expert mode is enabled from the Entities main menu, or the application configuration.



Once the expert mode is enabled, subsequent calls to entity or relation search forms will display a fully customizable search form instead of the predefined forms. To go back to the standard mode, simply uncheck the option from the menu.

12.1.1 Building your search form

In its initial state, the expert search form is completely empty.



For each new criterion, you will have to

- Select a property
- Select an operator
- Optionally type in a value for the selected property

Picking a property is done on the first drop-down control. Note that, for the first line, the drop-down will only show a limited set of properties, called *indexed* properties. Queries on indexed properties perform better than queries on non-indexed properties.

Once the property has been picked, you must select an operator. Operators differ depending on the property type.

Operators on numerical values are equality and order operators: =, <, <=, >, >= as well as the "***undefined***" operator.

Operators on text values are:

- The equality (=) operator which defines an exact match
- The content (Contains) operator which searches given words into the property
- Undefined operator

Operators on enumerated values are:

- The equality operator (=)
- The multiple equality operator (Within list)

This second option is more interesting as multiple choices can be done directly.

After the operator has been selected, an extra field to enter the value will appear, except for the ***undefined*** operator which requires no value.

The value field will differ depending on the property type. Text values will use text box, numerical values will use a numeric value box, and enumerated values will use a drop-down list.

This creates your first search criterion.

Note that you can roll back your modifications using the eraser button. Each click will go one step backwards, going back to the operator picker, then the property picker.

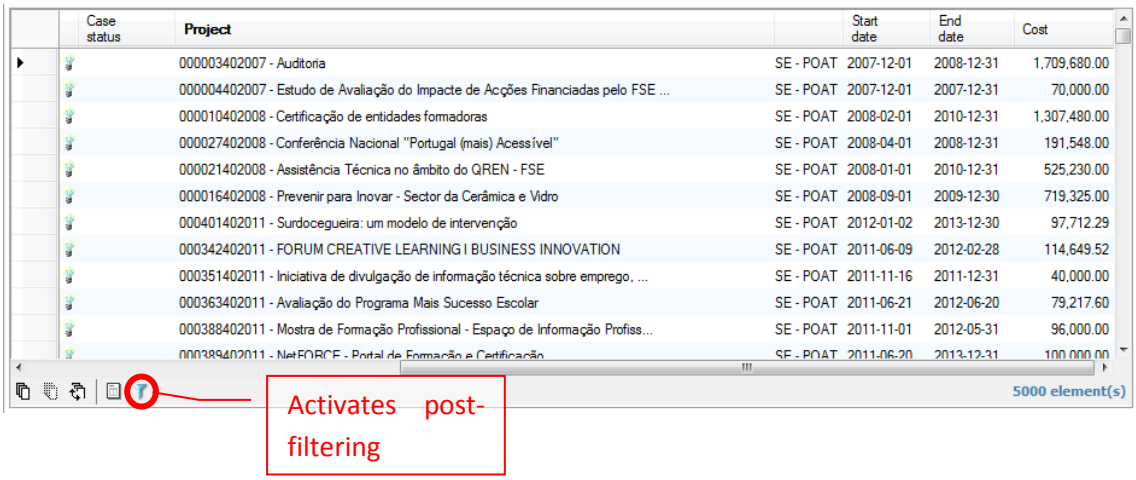
If you want to add more criteria, just use the "**+**" button. It will create an extra line, and then restart the same process.

To remove a complete line, use the red cross button.

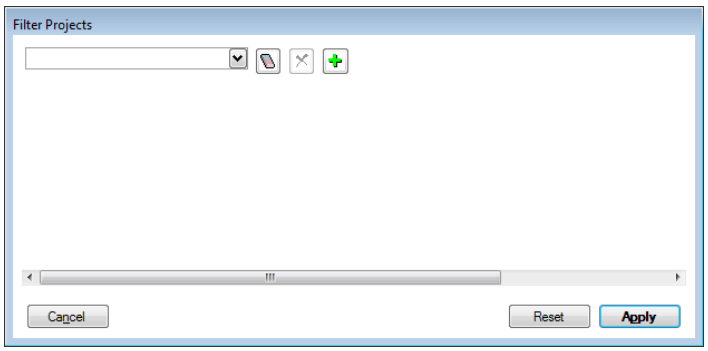
Note: when you create advanced forms, always remember that all criteria must be validated in order to have some results (***AND*** operation).

12.2 Post-filtering options

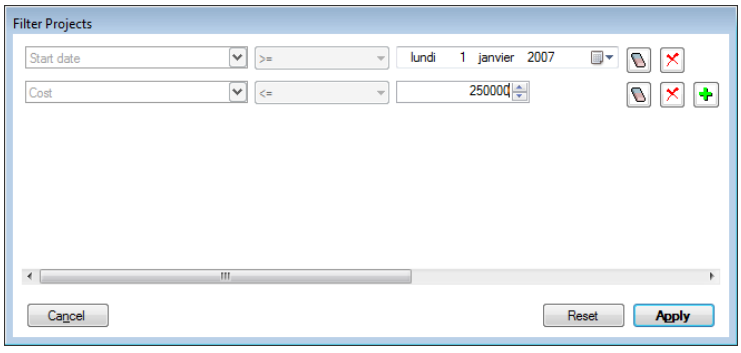
Post-filtering option is a specific action that can be performed on entity search results, and the basket. This post-filtering process acts only on the result set, and will only use available information (i.e. visible columns).



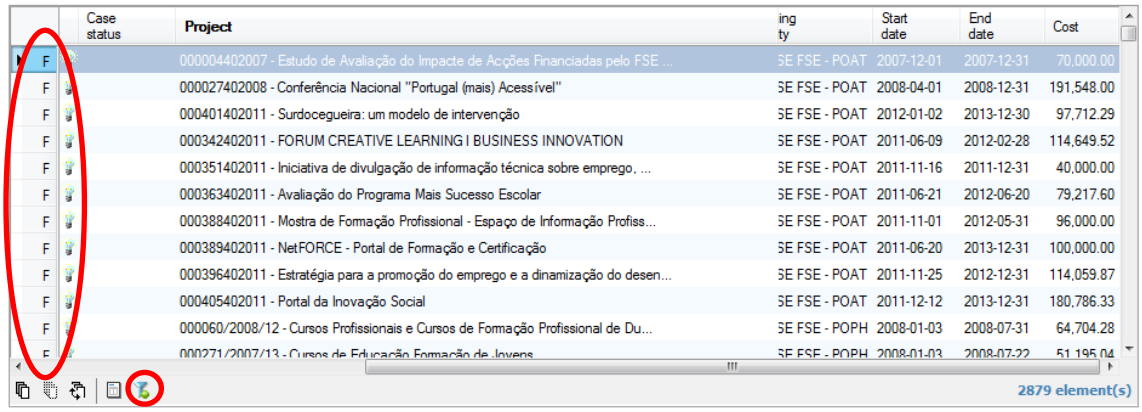
Clicking on the post-filtering button displays a new window allowing the user to select on which properties/values to filter the current results. This window works exactly as the expert search, but with a property set strictly limited to the actually visible columns as it won't generate any server query. It will just proceed to local results filtering.



For more information about how to define your criteria, please read the previous chapter about expert search. Once you have defined your criteria, click on the ***Apply*** button to apply the filter to the local results.



Once applied, the results in the search window are post-filtered according to the selected criteria.



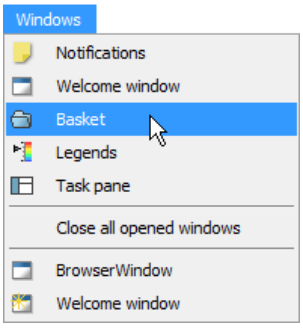
The ***F*** character appears in row headers to indicate they are filtered results, and the button icon displays a green LED indicator showing a filter is currently active. To reset the filter, click on the post-filter button again, then click on the "Reset" button in the post-filter window, then apply the results.

12.3 Entity basket

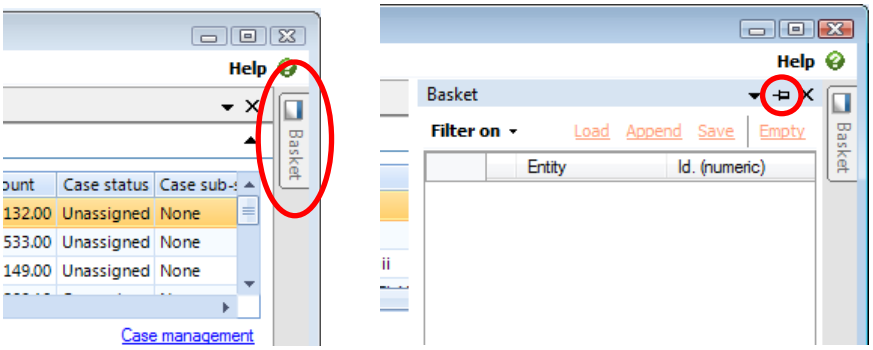
The Basket is an extra component built for keeping interesting entities from searches, navigation or graphs. It is particularly useful for cross-fertilization searches. When you click on an element of the basket, some basic details about this entity are shown beneath the basket, in the business card.

12.3.1 Enabling the basket

The basket can be enabled by checking the **Basket** option in the **Windows** menu.



By default, the basket appears collapsed on the right border of the application space. Clicking on the tab will open it. To keep it opened, just click on the pin button in its title bar.

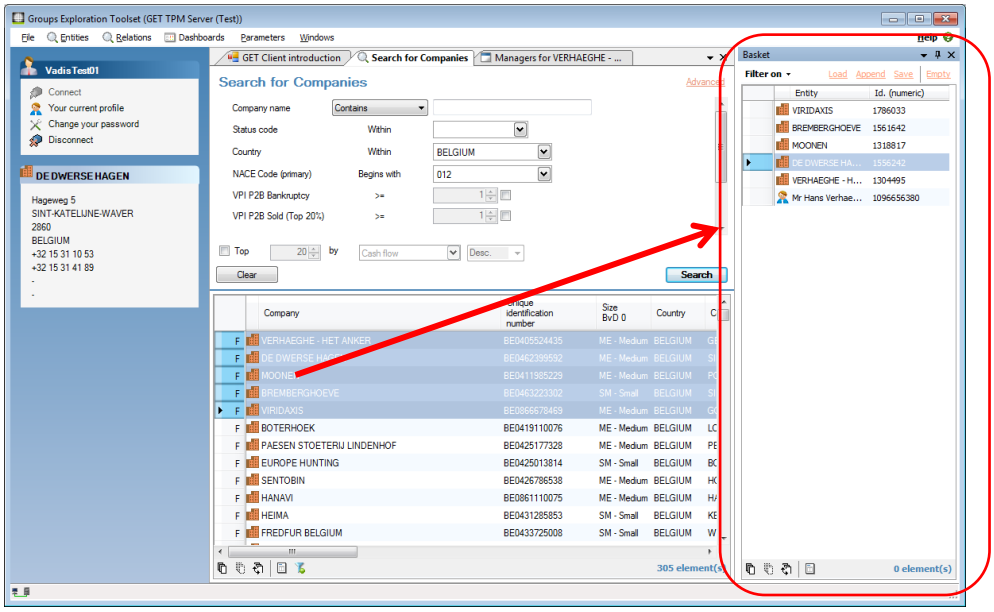


Note: Depending on the client version or user profile the basket feature may be disabled.

12.3.2 Sending items to the basket

Items can be put in the basket in two different ways:

- Using the context menu, and use the "**Add to basket**" option.
- Simply drag and drop elements from tables to the basket. Warning: you must pick the row header to perform the drag and drop operation (Note that the drag and drop operation is not possible from the dashboards or mini-dashboards)



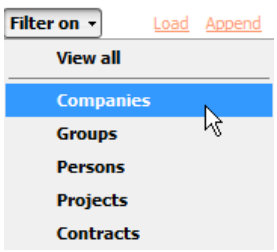
It is possible to load, append, save, or empty a basket (as .bsk format). The number of elements stored in the basket is indicated in the bottom right of the window. In order to have a more efficient view, the basket is directly sorted by type of entity.

Note that the basket can hold multiple types of entities, but cannot hold relations. Adding a relation will add the source and target entities.

12.3.3 Basket options

Filtering

As the basket may contain a lot of entities of different types, the "**Filter on**" options will show only desired entity type.



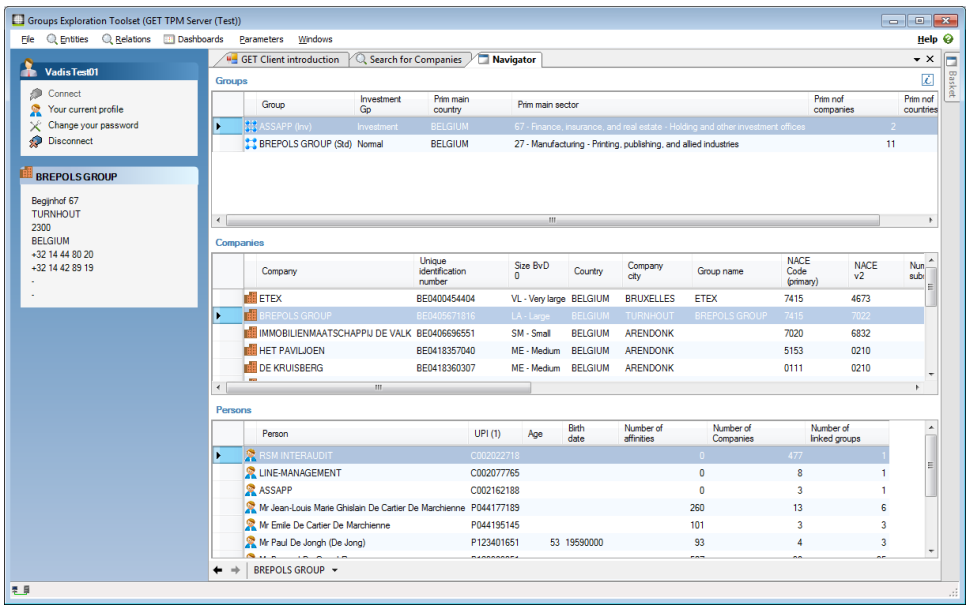
Loading, saving, merging baskets

The application gives also the following options:

- Save a basket using the **Save** link
- Load a basket using the **Load** link – current content will be removed
- Append a basket using the **Append** link – current content is kept, and new content is added to it.
- **Empty** current basket.

12.4 Navigator

The navigator allows the user to visualize the different relations between different types of entities (company, person and group) in **one single screen** (separated into three parts because of the three different types of entities). It aims at having a complete overview of the relationships around a specific entity.



To put elements in the navigator window, you have to drag and drop them in the correct area, i.e., drag a company and drop it into the "***Companies***" table.

Once a first element has been added to the navigator, a double-click on it will populate the other tables with related elements. Double-click can occur in any of the tables.

12.5 Licensing system

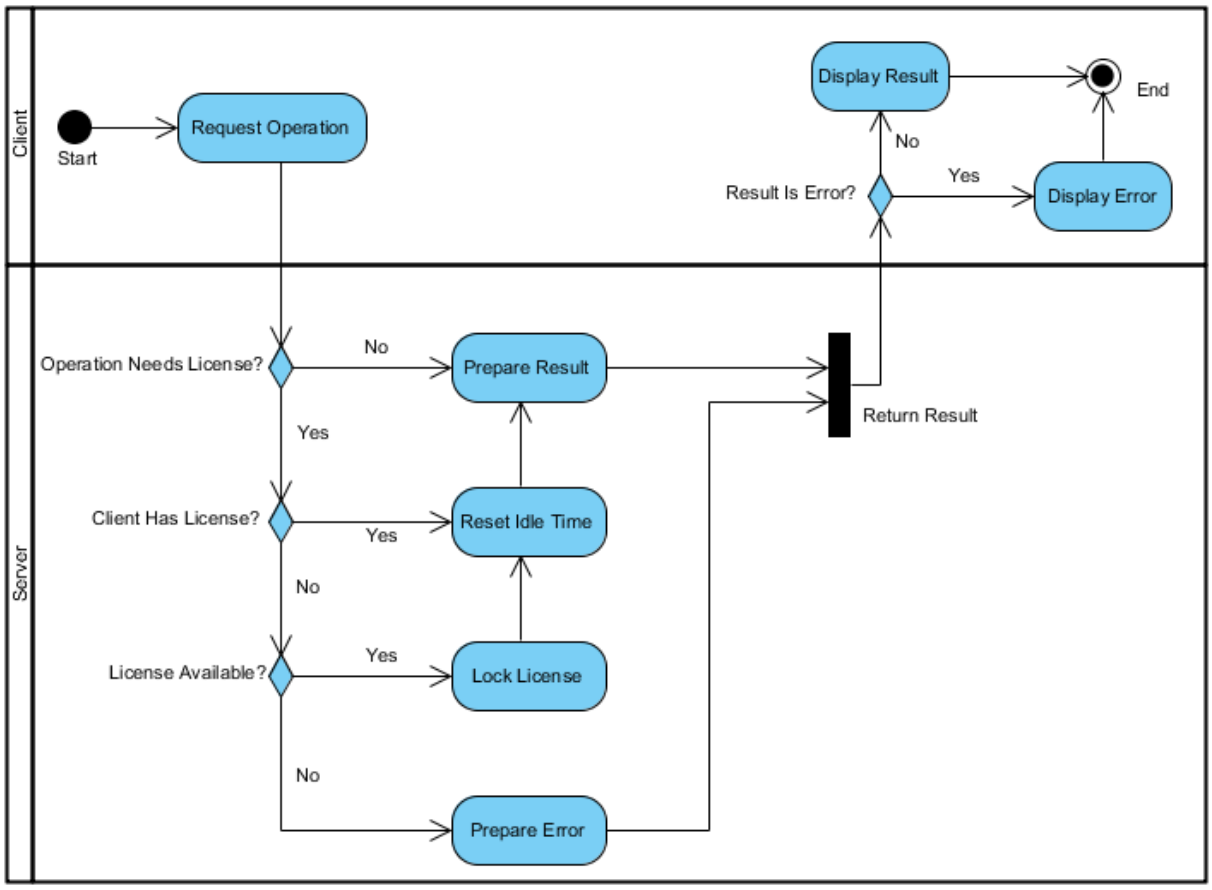
Arachne users have unlimited access to their own data, i.e. the information they have provided themselves through SFC2007 utilizing a predefined XML schema. The external data (corporate data, sanction lists, adverse media …) is subject to a licensing fee with a concurrent users structure.

In case there is a license available, the user will get it automatically when either starting up the application or performing an action in the application which requires access to the external data.

When an action is performed which requires a license and there is no license available, then a pop-up message is shown. The license is automatically released when the user is inactive during a period of 5 minutes.

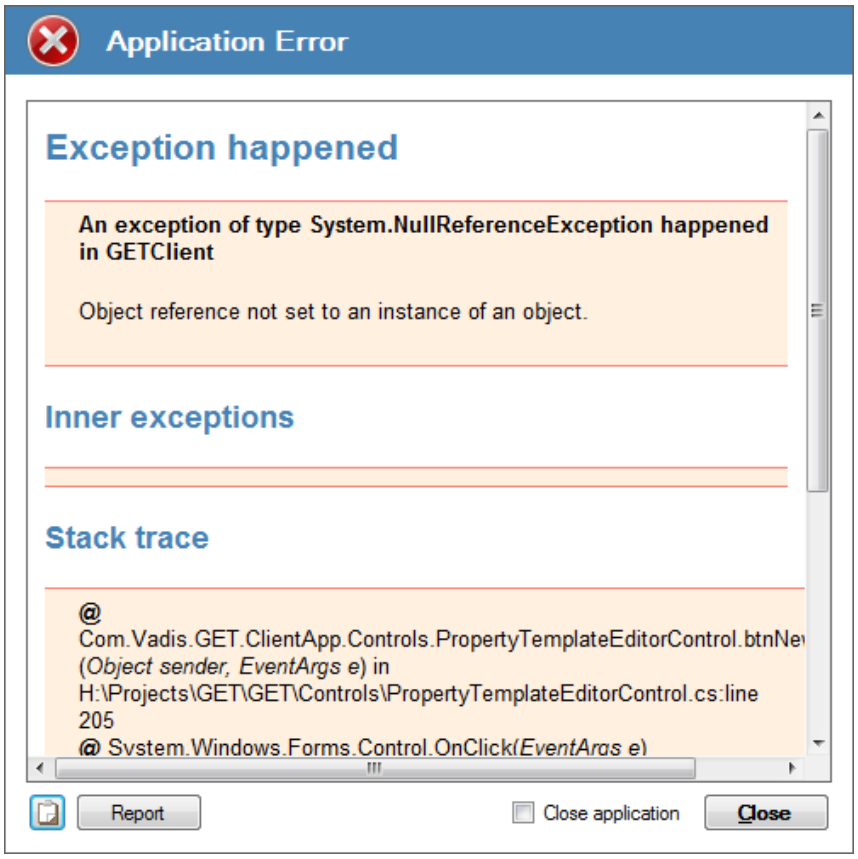
In the restricted access mode (without license), the user has access to the internal data, all alert scores (based on internal as well as external data), the detailed information (drill-down / pop-up) of alerts based on internal data, visualization based on internal data (surroundings graph) and the case management system. However, the user has no access to information from the Orbis database, the detailed information (drill-down / pop-up) of alerts based on the external data, reports containing external data, visualizations based on external data, functionalities to add external data to the surroundings graph and functionalities to navigate to the external data from the dashboards.

The chart below provides an overview of the behavior of the concurrent user mechanism when there is a request operation in the application.



13 Troubleshooting the application

The application has built-in error logging and error reporting facilities. When critical errors appear, the application displays a complete error report.



If such errors occur, please report them using the **Report** button, or email the error report if automatic reporting is not available or doesn't succeed. You can copy the report content and paste it in an email or another document using the clipboard ( ) button.

In order to help developers to identify and fix the issue, you may also send the application log files. Note that the last log file is automatically attached to the report email when using the ***Report*** button. To locate and send the log files, please follow these simple steps:

- Open the windows file explorer
- In the address bar, type the following line: ***%APPDATA%\Vadis s.a\GET Client application\Arachne\Logs***. This should place you in the application logs folder
- Logs are created on a daily basis and are named using the current day date. To locate the last log, simply locate the file named **Log-**<*yyyy*>**-**<*mm*>**-**<*dd*>**.log** where y is the year, m is the month and d is the day corresponding to today's date.

14 Appendices

14.1 Glossary

Affinity	A business relationship between two managers/owners of a same company (direct affinity) or of two different legally-linked companies (indirect affinity).
Affinity diagram	A graph representing all direct and indirect affinities for a given person.
Aggregate companies	Companies held by only one shareholder. They are called aggregated since they are represented together with the shareholder into one node in any space representation.
Basket	Tool allowing saving researches about companies, persons or groups.
Beneficiary	The *Beneficiary* relation links projects and companies together. At least one relationship must exist between a project and its beneficiary company. In fact, this link is not only about beneficiary but about any kind of link occurring between projects and companies: • Beneficiary (1 per project) • Contractors and subcontractors • Partners • Consortium members
Business card	Window containing basic information about any selected entity.
BvD ID	Unique identifier or company code for any company. BvD stands for Bureau van Dijk.
BvD size	Size of the company based on Bureau van Dijk definition (related to turnover, number of employee and total assets of the company).
Case management	A case management is a tool to assist the user of the Arachne tool in managing the proper follow-up of projects or contracts that require additional review.
CE flag	Flag that indicates the company is linked to projects of the European Commission.
Cluster group	- Set of companies linked to each other identified around a skeleton group of strongly linked companies. - It is constructed progressively from a skeleton group of all linked companies with higher than 50% participations, secondly with all strongly linked ones of higher than 25% participation rates and then with other companies that this group can have the most influence. - A cluster group of a singleton company appears when it is jointly owned by its shareholders. - The cluster group construction takes into account investment and non-investment groups. The CG algorithm is applied to these two populations. The intersection of the two populations contains the non investment companies that are owned by one or several investment companies.

Companies	The Company entity contains mixed information coming from data from the European Commission (beneficiary, contractor and sub-contractor information) and from public data (financial and scores). Companies are linked to projects via the Beneficiary relation. They are linked to contracts via the Contract executor relation. In addition, companies are linked together via the Legal link relation, to groups via the Membership relation and to persons via the Private relation. These three relations come from the public data.
Company city	Local plant city.
Contract	The Contract entity represents a contract signed by a company (beneficiary, contractor or sub-contractor) for a given project. The contract is related to the project via the Contract requestor, and to the company via the Contract executor.
Controlling point	A controlling point is on top of a skeleton group and has at least one participation rate higher than 50% to another company of the same skeleton group. Several controlling points can be identified in the same skeleton group. On the other hand, a group may not have a controlling point if it is only composed of weak links (i.e. no skeleton exists).
Dashboard	The dashboard function summarizes the critical information for projects, beneficiaries, contracts and contractors in a compact, visual and interactive way. Its target is to focus the user's attention on high risk indicators.
EBITDA	Company's earnings before interest, taxes, depreciation, and amortization which give an indication of its current operational profitability, i.e., how much profit it makes with its present assets and its operations on the products it produces and sells.
ECAS	As this application is based on client-server architecture, it requires user authentication to connect to the server. The default user authentication is done through the standard ECAS authentication service in place at the European Commission.

Entity Project, Contract, company, person or group.

Entity BvD indicators

- (missing)	**Missing**
A	**Any company with known recorded shareholders none of which having more than 25% of direct or total ownership.**
A+	Companies with 6 or more identified shareholders (of any type) whose ownership percentage is known. Also attributed to A companies in which the summation of direct ownership links (all categories of shareholders included, all of which being under 25%), is higher than 75%.
A	As above, but includes companies with 4 or 5 identified shareholders.
A-	As above, but includes companies with 1 to 3 identified shareholders. Also attributed for a company that is mentioned by a source (Annual Report, Private Communication or Information Provider) as being the Ultimate Owner of another company, even when its shareholders are not mentioned.
B	**Any company with a known recorded shareholder none of which with an ownership percentage (direct, total or calculated total) over 50%, but having one or more shareholders with an ownership percentage above 25%.**
B+	Companies with 6 or more identified shareholders. Also attributed to B companies in which the summation of direct ownership percentages (all categories of shareholders included) is higher than 50%.
B	As above, but includes companies with 4 or 5 identified shareholders.
B-	As above, but includes companies with 1 to 3 identified shareholders.
C	**Any company with a recorded shareholder (excluding the 3 "collective" types mentioned above) with a total or a calculated total ownership over 50%. Also given to a company when a source indicates that the company has an ultimate owner, even though its percentage of ownership is unknown.**
C+	Attributed to C companies in which the summation of direct ownership percentage (all categories of shareholders included) is higher than 50%.
D	**Any company with a recorded shareholder with a direct ownership of over 50%.**
U	**Unknown degree of independence.**

GET – Groups Exploration Tool Tool originally created to provide data exploration tools for the business, built on Bureau Van Dijk worldwide data service (Orbis database). It includes a wide range of publicly available data, plus additional data mining options developed by Vadis for the Arachne project (Vadis Predictive Indicators, Cluster Groups, Unique Person Identifier…).

Group	The Group entity represents a set of companies strongly linked together via the Legal link relation. Groups are linked to companies via the Membership relation and between each other via the Group legal link relation.
Group name, or Group representative	The group representative can be either the ultimate owner of the group, if the group contains, or the most influencing top level company that is chosen to represent the group. When the ultimate owner is outside of a normal group (in this case, the ultimate owner is usually in an investment group) or the group does not have an ultimate owner, this most influencing top level company is the one that has the highest number of direct and indirect children with the strong links (participation rates higher than 25%) within the group.
Group legal link	The Group legal link relation links groups together by aggregating legal links between companies of those groups.
Hierarchy view	Visualization of the internal structure of a group of companies.
Interactive report	Report with detailed information about any entity.
Investment companies	A company is called an investment company when it has one of the following characteristics: 1. Company's activity code in - 65: Financial intermediation, except insurance and pension funding - 66: Insurance and pension funding, except compulsive social security - 67: Activity auxiliary to financial intermediation 2. Classified as with company type in - Banks, - Financials - Mutual & Pension funds/Nominees/Trusts/Trustees - Public authorities/States/Governments A top invest company is an investment company that has either no company as shareholder, or only has top investment companies as shareholders.
Investment group	The investment network is constituted of all legal links whose shareholder is a top investment company. An investment group is constructed from this investment network. For connectivity reasons, an investment group may have all companies as top investment companies except the bottom level subsidiaries as non investment companies. It is therefore possible that a company belongs to an investment group and a normal group: this is a direct subsidiary to a top investment company.
Legal link	The Legal link relation links companies together, symbolizing the ownership of one company by another. This link is qualified by the participation rate (percentage).
Leveling	Define the level (or the importance) of a company inside a group starting from the ultimate owner (level 0): companies (minority shareholders) above the ultimate owner have level above 0 and subsidiaries below 0.
Link	Any deal where a shareholder acquires some participation into a subsidiary.

Map of groups	A map of groups is a network map of interconnected cluster groups of companies.
Membership	The Membership relation links companies to their group(s). One company may be linked to no group, one group, or two groups. In this last case, one group is qualified as the standard group and the second one as the investment group.
NACE code	The Statistical Classification of Economic Activities in the European Community (in French: Nomenclature des Activités économiques dans la Communauté Européenne), commonly referred to as NACE, is a European industry standard classification system consisting of a 6 digit code.
Navigator	The navigator allows the user to visualize the different relations between different types of entities (company, person and group) in one single screen (separated into three parts because of the three different types of entities). It aims at having a complete overview of the relationships around a specific entity.
Orbis database	Database containing publicly available information about companies and their board members: ○ General information (address, phone, web site ...) ○ Financial information coming from published balance sheets ○ Ownership information between companies ○ Ownership and functional relationships between companies and individuals
Path graph	Shortest path information between two given entities, and can be enriched with extra entities and relations manually.
Participation rate	Percentage held by a shareholder in a subsidiary. There are two types of participations rates: "direct" that describes the directly linked participation and "total" that is the summation of direct and indirectly owned participations of a shareholder towards a subsidiary.
Person	The *Person* entity represents either individuals or corporations. The persons are linked to projects through the *Involvement* relation. Persons are also linked to companies through the *Private* relation and between each other via the *Affinity* relation.
Prim main country	Country the most represented in the group.
Prim main sector	Activity sector the most represented in the group.
Prim nof companies	Number of companies in the group.
Prim nof countries	Number of countries in the group.
Private link	The Private relation links persons to companies; the link is qualified by the role or position of the person into the company.

PR Ratio	The average participation rates that a group A may have as shareholder group towards another group B. This is the sum of all participation rates from all shareholders of group A to subsidiaries of group B, divided by the number of companies in group B.
Relations	Beneficiary, involvement, expense, contract executor, contract requestor and sub-contract requestor, links, membership or affinity.
Related companies	Search which provides for any group; all the companies belonging to the group.
Related groups	Search which provides for any company, information about the group to which it belongs.
Shareholder	A person or a company who holds a participation rate in a subsidiary.
Skeleton group	A skeleton group only includes companies that are linked with a participation rate higher than 50%.
Strong group	A strong group contains companies that are linked with a participation rate or sum of participations from companies of a skeleton group of higher than 25%.
Subsidiary	A company which is held to some extent by a person or another company.
Summary window	Window allowing the user to compute statistics about a set of entities.
Task pane	The task pane is the left-side part of the application screen and contains multiple functional blocks.
Ultimate Owner	Identifies the company having the largest influence inside a group with the following order of priority: - Being on top of a strong cluster - Having the highest number of children (direct or indirect) - Having the highest sum of participation rates to direct subsidiaries - Having the biggest size (Based on Bureau van Dijk data) - Having the highest shareholders funds
VPI predictive indicators	- ***VPI P2B Bankruptcy***: predicts the risk for a company to go bankrupt. - ***VPI P2B Sold:*** predicts the risk for a company to be sold/bought by another. - ***VPI No score:*** no sufficient (historical) financial data to predict VPI predictive indicators. - ***VPI EDV min:*** minimum Estimated Deal Value indicates the lowest range prediction of the financial value a company has if it would be sold at that moment. - ***VPI EDV max:*** maximum Estimated Deal Value indicates the highest range prediction of the financial value a company has if it would be sold at that moment.
Weight	The strength of the relationship between two groups, defined as the average of the two PR ratios between them.

Welcome window

The welcome screen acts like a kind of cockpit in which different types of information are directly visible for the connected user. This information covers the case management, the alert statistics and the different dashboards used in the application.

14.2 Vadis Predictive Indicators

VPI P2B Bankruptcy is a predictive indicator that indicates the propensity to bankruptcy, i.e. the probability that a company will go bankrupt within the next 12 to 18 months. VPI P2B Bankruptcy bases its predictions on models with global reach and that are then localized.

The best model for each country-size block is chosen amongst a large number of models built in that block and cross-validated within the population. All models are built based on the actual bankruptcy events which occurred during the preceding years. The best models are further tested and validated using identified bankruptcy events from an earlier period than the one that was used for model-building.

Scoring is made available for companies in around 60 countries where companies' information is available. Sufficient (historical) financial data from the company and the companies in its peer group has to be available in order to be able to calculate the score. A risk ranking within each country across all size segments is produced. This ranking values from 1 to 20, with 20 being the highest 5% most exposed companies in the country. A local risk rating also defined as 6 classes (A, B, C, D, E and F) with F being the class having the highest propensity of bankruptcy within the next 12 to 18 months. The following table lists the different categories with their matching scores

Category	Score	Explanation
A	1 - 5	The company belongs to the bottom 25% of companies in its country having the lowest risk to become bankrupt within the next 18 month.
B	6 - 11	The company belongs to the second bottom band companies in its country representing low risk of bankruptcy within the next 18 months.
C	12 - 14	The company belongs to the third bottom band of companies in its country representing relatively low risk of bankruptcy within the next 18 months, but with a higher risk probability than those in rating B.
D	15 - 17	The company belongs to a band of companies in its country having a medium risk to become bankrupt within the next 18 month.
E	18 - 19	The company belongs to a band of unstable companies in its country having a high risk to become bankrupt within the next 18 months.
F	20	The company belongs to the top 5% of companies in its country having the highest probability to become bankrupt within the next 18 months.

14.3 ARACHNE Alerts reference

14.3.1 Alert types

We can define three main types of alerts present in the Arachne tool:

- ***Absolute value based checks***

  The alerts in this category are calculated by comparing a value for a certain variable with absolute values as defined in the design phase of Arachne. E.g., a project with more than 3 consortium partners will be assigned a lower score for that alert than a project with more than 10 consortium partners.

- ***Ratio checks***

  The alerts in this category are obtained by calculation a ratio of project related values and comparing the results of this calculation with other entities in its peer group. The peer group can be different for different checks. E.g., we calculate the relation of travel expenses versus total project cost and compare this across all projects in the operational program "A". A score is attributed in accordance with the statistical deviation from the mean value of all calculated ratios in this peer group. The higher the deviation from the mean the higher the resulting score will be.

- ***Flag or no flag checks***

  The alerts in this category will generate a score of 0 or a score of 10 depending on the absence or presence of a certain variable.

  E.g., a contract with the contract modification variable as "true" will have a score of 10, a contract without this variable as "false" will have a score of 0.

Note that combinations between these different types of alerts are possible. For example a combination of a ratio check with an absolute value check occurs frequently.

14.3.2 Alert aggregations

The table below provides an overview of how individual alerts are aggregated into categorical alerts and how the categorical alerts are aggregated into the overall risk alert.

Procurement	A score on 50 is calculated based on the average of the 3 individual alerts with the highest scores.
Contract management	A score on 50 is calculated based on the average of the 3 individual alerts with the highest scores.
Eligibility	A score on 50 is calculated based on the average of all individual alerts.
Performance	A score on 50 is calculated based on the average of all individual alerts.
Concentration	A score on 50 is calculated based on the average of all individual alerts.
Other	A score on 50 is calculated based on the average of the 3 individual alerts with the highest scores.
Reputational & Fraud	A score on 50 is calculated based on the average of all individual alerts.
Overall	The overall score is the average of the scores of the categorical alerts mentioned above.

The risk score of a beneficiary is the weighted average of the risk scores of its projects.

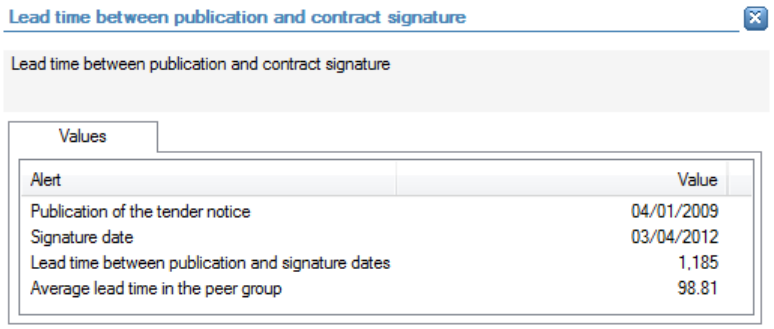
The risk score of a contractor is the weighted average of the risk scores of its contracts.

14.3.3 Procurement

14.3.3.1 Lead time between publication of the tender notice and contract signature date

Description	This check looks at the lead time between the publication of the tender notice and the contract signature date (in days). The objective of the check is to identify contracts for which there is either (i) a large delay between the publication date of a tender notice and the contract signature date or (ii) a significant difference between the delay for the contract and the average delay in the peer group.
Level of calculation	The check is performed for each contract
Peer group	Operational Program
Input data	The following data is used to calculate the alert: ▪ Publication date of the tender notice; ▪ Contract signature date
Calculated data	The following data is calculated for the alert: ▪ Difference between both dates; ▪ Average difference within the peer group; ▪ Deviation of the difference for each contract from the average difference in the peer group
Alert value	The alert gets a value from 0 to 10 depending on the deviation of the difference between both dates (in days) for the contract compared to the average difference between both dates in the peer group. If the difference between the publication of the tender notice and the contract signature date exceeds 180 days, then the alert value is also 10.
Project score	Highest score of the contracts that belong to the project
Applicable project types	DG Regio Infrastructural projects

Pop-up information



The following detailed information is available in the values tab:

- Date on which the tender notice was published
- Date on which the contract was signed
- Number of days between both above mentioned dates
- Average number of days between both dates in the peer group

No detailed information is available in the tables tab.

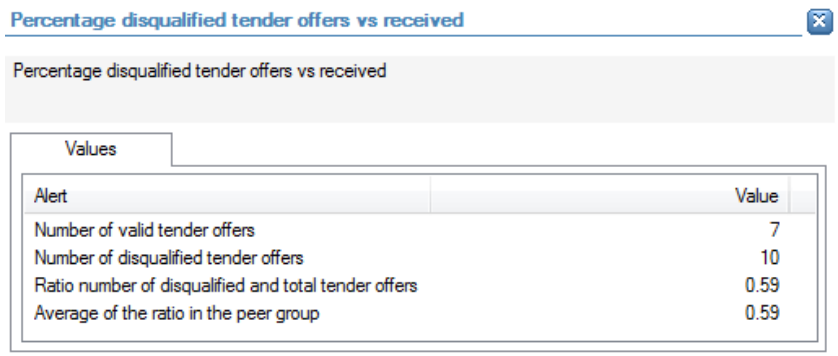
Links to further details

No links to further details are available.

14.3.3.2 Number of disqualified tender offers/Number of tender offers received (disqualified and valid)

Description	This check will look at the percentage of tenders that have been disqualified. The objective of the alert is to identify contracts for which the percentage of disqualified tender offers (compared to the total number of tender offers) differs from the average percentage in the peer group.
Level of calculation	The check is performed for each contract
Peer group	Sector (Operational Program + Project type)
Input data	The following data is used to calculate the alert: ▪ Number of disqualified tender offers; ▪ Number of tender offers received (disqualified and valid)
Calculated data	The following data is calculated for the alert: ▪ Percentage of disqualified tender offers compared to total number of tender offers received; ▪ Average percentage in the peer group; ▪ Deviation for each contract from the average percentage in the peer group
Alert value	The alert gets a value from 0 to 10 depending on the deviation from the average value in the peer group.
Project score	Highest score of the contracts that belong to the project
Applicable project types	DG Regio Infrastructural projects

Pop-up information



The following detailed information is available in the values tab:

- Number of valid tender offers;
- Number of disqualified tender offers;
- Percentage of disqualified tender offers;
- Average percentage in the peer group.

No detailed information is available in the tables tab:

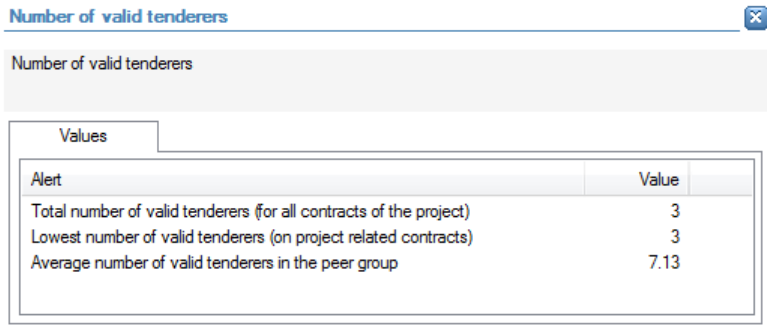
Links to further details

No links to further details are available.

14.3.3.3 Number of valid tenderers

Description	This check will look at the total number of valid tenders. The objective of the alert is to identify contracts for which the number of received valid tender offers is lower than the average number of valid tender offers received in the peer group.
Level of calculation	The check is performed for each contract
Peer group	Sector (Operational Program + Project type)
Input data	The following data is used to calculate the alert: ▪ Number of valid tender offers
Calculated data	The following data is calculated for the alert: ▪ Average number of valid tender offers in the peer group; ▪ Deviation of the number of valid tender offers for a specific contract from the average value in the peer group.
Alert value	The alert gets a value from 0 to 10 depending on the deviation from the average number of valid tender.
Project score	Highest score of the contracts that belong to the project
Applicable project types	DG Regio Infrastructural projects

Pop-up information



The following detailed information is available in the values tab:

- Total number of valid tender offers (for all contract of the project);
- Lowest number of valid tender offers (on project related contracts);
- Average number of valid tender offers per contract in the peer group

No detailed information is available in the tables tab.

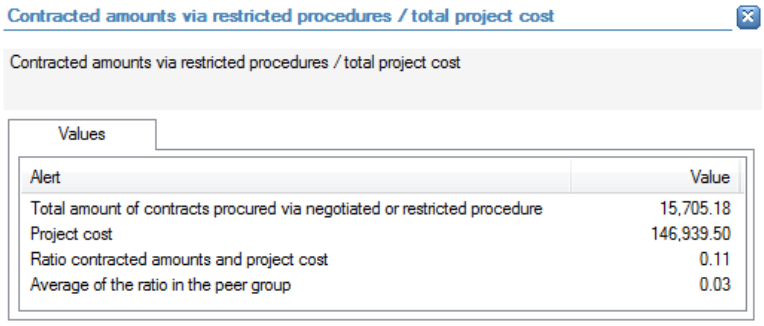
Links to further details

No links to further details are available.

14.3.3.4 Total Amount of contracts procured via negotiated, restricted procedure /Total Project Cost

Description	This check will look at the percentage of contracted amounts within a project that have been awarded using a negotiated or restricted procedure. The objective of the alert is to identify projects for which this percentage is larger than the average percentage in the peer group.
Level of calculation	The check is performed for each project
Peer group	Sector (Operational Program + Project type)
Input data	The following data is used to calculate the alert: ▪ Total amount of contracts procured via negotiated or restricted procedure; ▪ Total project cost.
Calculated data	The following data is calculated for the alert: ▪ Percentage of the total amount of contract procured via negotiated or restricted procedure compared to the total project cost; ▪ Average percentage in the peer group; ▪ Deviation of the percentage for the project from the percentage in the peer group.
Alert value	The alert gets a value from 0 to 10 depending on the deviation of percentage of the project from the percentage in the peer group.
Project score	Score of the alert
Applicable project types	DG Regio Infrastructural projects

Pop-up information



The following detailed information is available in the values tab:

- Total amount of contracts procured via negotiated or restricted procedure;
- Total project cost;
- Percentage of the total amount of contracts procured via negotiated, restricted procedure or direct award compared to the total project cost;
- Average percentage in the peer group.

No detailed information is available in the tables tab.

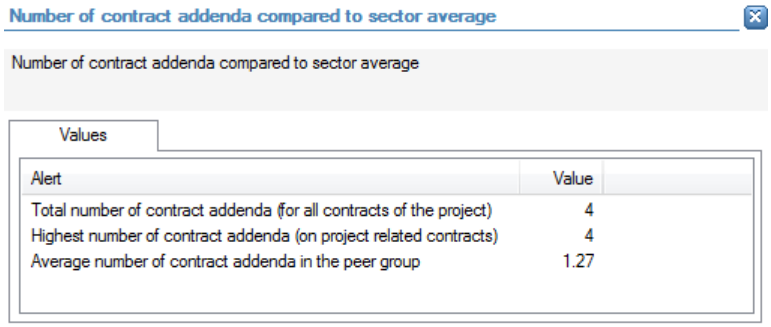
Links to further details

No links to further details are available.

14.3.3.5 Number of Contract addenda > 5 or high compared to the average per Sector

Description	This check will verify the number of contract addenda in absolute values, as well as compared to the average within the sector. The objective is to identify contracts with a high number of contract addenda, i.e. (i) high compared to the average number of addenda per contract in the peer group or (ii) more than 5 contract addenda.
Level of calculation	The check is performed for each contract
Peer group	Sector (Operational Program + Project type)
Input data	The following data is used to calculate the alert: ▪ Number of contract addenda
Calculated data	The following data is calculated for the alert: ▪ Average number of contract addenda per contract in the peer group; ▪ Deviation of the number of contract addenda from the average number of contract addenda in the peer group
Alert value	The alert gets a value from 0 to 10 depending on the deviation of the number of contract addenda from the average number of contract addenda in the peer group. An alert is generated if the number of contract addenda is larger than 5.
Project score	Highest score of the contracts that belong to the project
Applicable project types	DG Regio Infrastructural projects

Pop-up information



The following detailed information is available in the values tab:

- Total number of contract addenda (for all contracts of the project);
- Highest number of contract addenda (on project related contracts);
- Average number of contract addenda per contract in the peer group.

No detailed information is available in the tables tab.

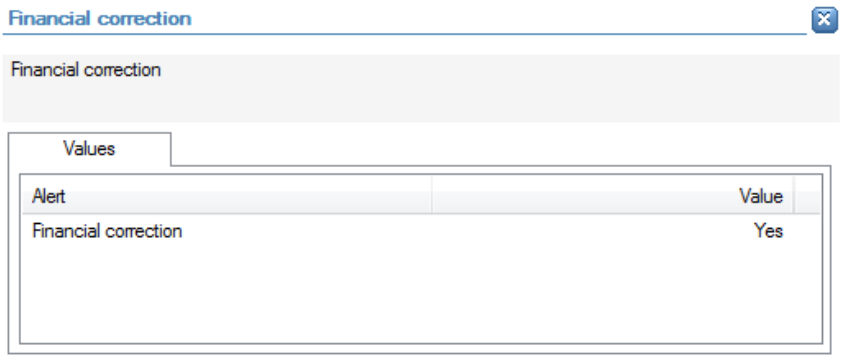
Links to further details

No links to further details are available.

14.3.3.6 Financial correction to procurement procedure applied in the past in relation to the beneficiary

Description	This check will check to see if any financial corrections have been made in the past for the beneficiary.
Level of calculation	The check is performed for each project
Peer group	Operational Program
Input data	The following data is used to calculate the alert: ▪ Flag whether there has been a financial correction to a procurement procedure applied in the past in relation to the beneficiary.
Calculated data	Not applicable
Alert value	If a financial correction has been applied to the beneficiary in the past, then the alert value is 10.
Project score	The alert value of the project.
Applicable project types	DG Regio Infrastructural projects

Pop-up information



The following detailed information is available in the values tab:

- Indication whether a financial correction has been applied to the beneficiary in the past.

No detailed information is available in the tables tab.

Links to further details

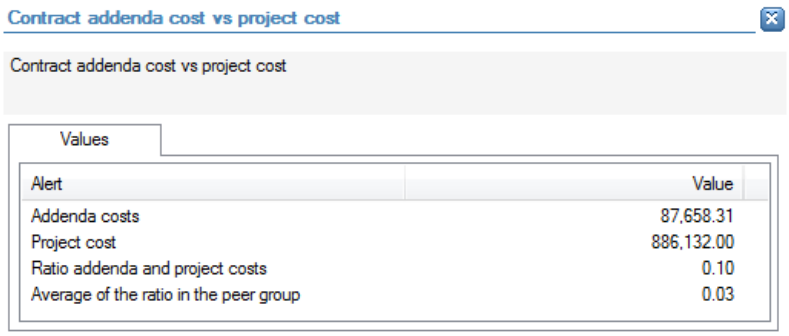
No links to further details are available.

14.3.4 Contract management

14.3.4.1 Contract Addenda Cost (total) for the Project / Project Cost

Description	This check will compares the contract addenda costs for a project with the total project cost. The objective is to identify projects for which the contract addenda cost part exceeds the average percentage in the peer group.
Level of calculation	The check is performed for each project
Peer group	Sector (Operational Program + Project type)
Input data	The following data is used to calculate the alert: ▪ Contract addenda cost (for all contracts related to the project); ▪ Project cost
Calculated data	The following data is calculated for the alert: ▪ Percentage of contract addenda cost compared to the total project cost; ▪ Average percentage in the peer group; ▪ Deviation of the percentage of contract addenda costs for the project from the average percentage in the peer group.
Alert value	The alert gets a value from 0 to 10 depending on the deviation of the percentage for the project form the percentage in the peer group.
Project score	Score of the project
Applicable project types	DG Regio Infrastructural projects

Pop-up information



The following detailed information is available in the values tab:

- Total contract addenda costs (for all contracts related to the project);
- Total project cost;
- Percentage of total contract addenda costs compared to the total project cost;
- Average percentage in the peer group.

No detailed information is available in the tables tab.

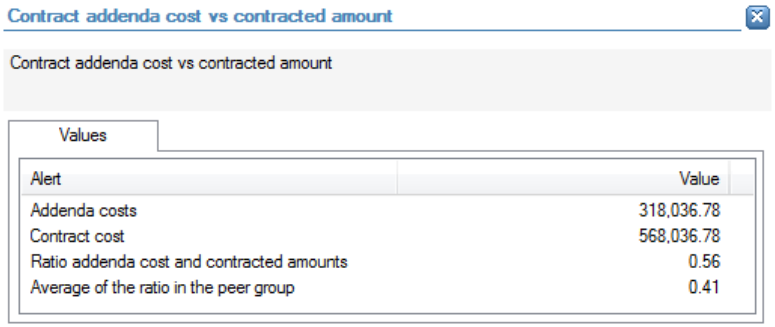
Links to further details

No links to further details are available.

14.3.4.2 Contract Addenda Cost (total per Contract)/Contracted Amount (Per Contract)

Description	This check will result in the percentage of amounts that were solicited through a contract addendum within one contract. The objective of the alert is to identify contracts where the percentage of contract addenda costs (compared to the contract amount) is higher than the average percentage in the peer group.
Level of calculation	The check is performed for each contract
Peer group	Sector (Operational Program + Project type)
Input data	The following data is used to calculate the alert: ▪ Contract addenda cost; ▪ Total contract amount
Calculated data	The following data is calculated for the alert: ▪ Percentage of contract addenda costs compared to the total contract amount; ▪ Average percentage in the peer group; ▪ Deviation of the percentage for the contract from the average percentage in the peer group.
Alert value	The alert gets a value from 0 to 10 depending on the deviation of the percentage of the contract from the average percentage in the peer group.
Project score	Highest score of the contracts that belong to the project
Applicable project types	DG Regio Infrastructural projects

Pop-up information



The following detailed information is available in the values tab:

- Contract amount;
- Contract addenda cost;
- Percentage of contract addenda cost compared to contract amount;
- Average percentage in the peer group.

No detailed information is available in the tables tab.

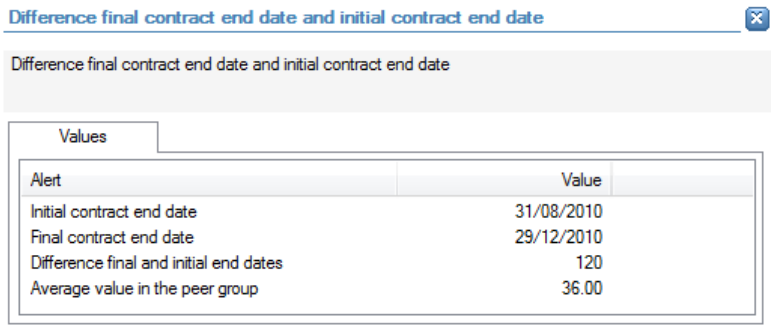
Links to further details

No links to further details are available.

14.3.4.3 Difference between Final Contract End Date and Initial Contract End Date (in days)

Description	This check will verify the difference between the initial contract end date, and the actual contract end date. The objective is to identify contracts for which this difference is either larger than the average value in the peer group or larger than 270 days.
Level of calculation	The check is performed for each contract
Peer group	Sector (Operational Program + Project type)
Input data	The following data is used to calculate the alert: ▪ Initial contract end date; ▪ Final contract end date
Calculated data	The following data is calculated for the alert: ▪ Difference between both dates in days; ▪ Average difference in the peer group; ▪ Deviation of the difference in days for the contract from the average difference in the peer group.
Alert value	The alert gets a value from 0 to 10 depending on the deviation of the difference for the contract from the average difference in the peer group. An alert is generated if the difference for the contract is larger than 270 days.
Project score	Highest score of the contracts that belong to the project
Applicable project types	DG Regio Infrastructural projects

Pop-up information



The following detailed information is available in the values tab:

- Initial contract end date;
- Final contract end date
- Difference between de initial contract end date and the final contract end date (in days);
- Average difference in the peer group.

No detailed information is available in the tables tab.

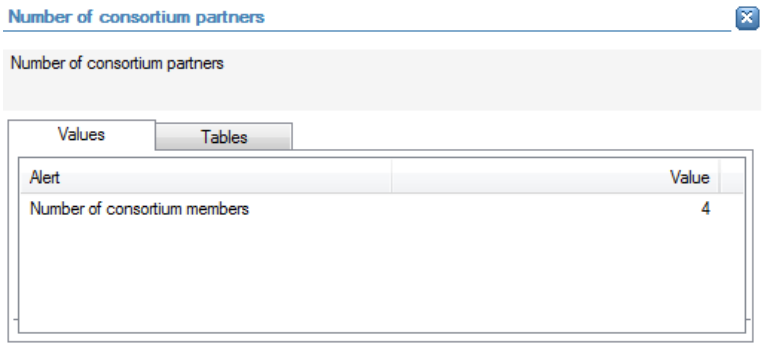
Links to further details

No links to further details are available.

14.3.4.4 Number of consortium partners

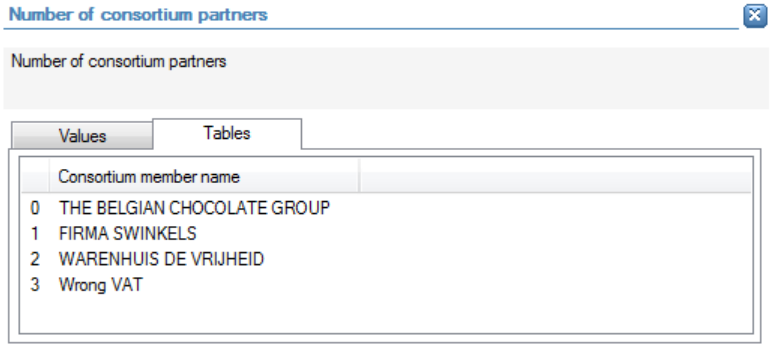
Description	The objective of this alert is to identify contracts for which there are a high number of consortium partners.
Level of calculation	The check is performed for each contract.
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Number of consortium partners
Calculated data	Not applicable
Alert value	The alert gets a value from 0 to 10 depending on the number of consortium partners for the contract. A higher number of consortium partners results in a higher alert value.
Project score	Highest score of the contracts that belong to the project
Applicable project types	DG Regio Infrastructural projects

Pop-up information



The following detailed information is available in the values tab:

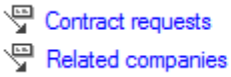
- Number of consortium partners



The following detailed information is available in the tables tab:

- The names of the consortium partners

Links to further details



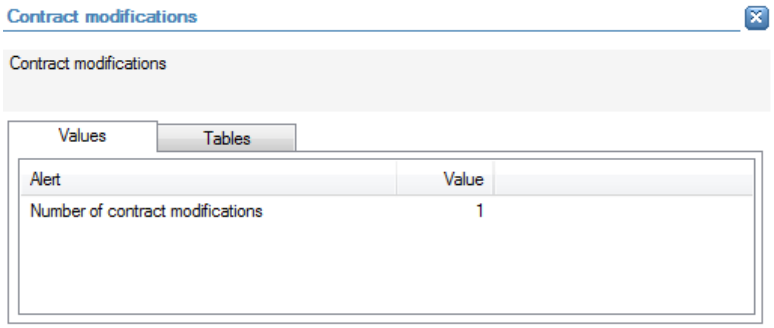
The following links to further details are available:

- Contract requests: link to the related contract;
- Related companies: link to the consortium partners

14.3.4.5 Contract modifications

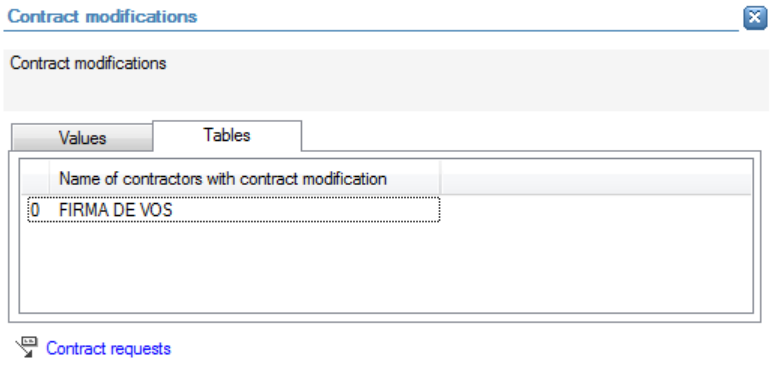
Description	This check will check to see if any contract modifications have been done.
Level of calculation	The check is performed for each contract
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Number of contract modifications
Calculated data	Not applicable
Alert value	If a contract modification has been applied, then the contract gets an alert value of 10.
Project score	Highest score of the contracts that belong to the project
Applicable project types	DG Regio Infrastructural projects

Pop-up information



The following detailed information is available in the values tab:

- Number of contract modifications



The following detailed information is available in the tables tab:

- Name of the contractor related to the contract for which there has been a contract modification

Links to further details

Contract requests

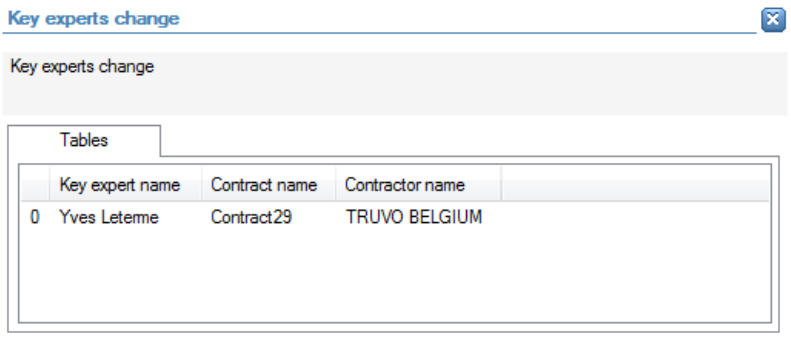
The following links to further details are available:

- Link to the related contract

14.3.4.6 Key experts change

Description	This check will check to see if key experts related to a contract have changed during the implementation of the project.
Level of calculation	The check is performed for each contract
Peer group	Operational Program
Input data	The following data is used to calculate the alert: ▪ Key expert change (flag)
Calculated data	Not applicable
Alert value	The alert gets a value of 10 when a key expert has changed.
Project score	Highest score of the contracts that belong to the project
Applicable project types	DG Regio Infrastructural projects

Pop-up information



The following detailed information is available in the tables tab:

- Name of the actual key expert;
- Name of the related contract;
- Name of the related contractor

No detailed information is available in the values tab.

Links to further details

Contract requests

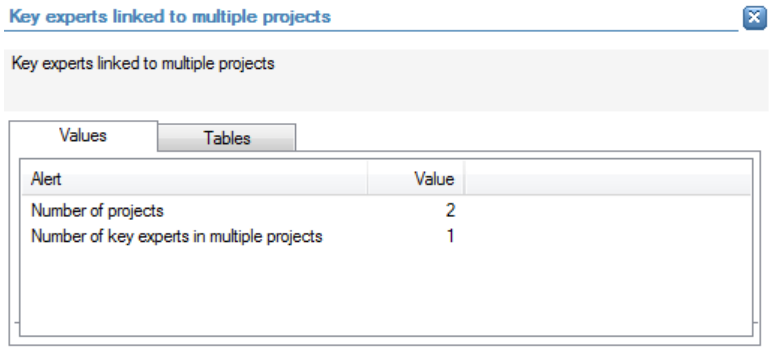
The following links to further details are available:

- Link to the related contract

14.3.4.7 Key experts linked to multiple projects

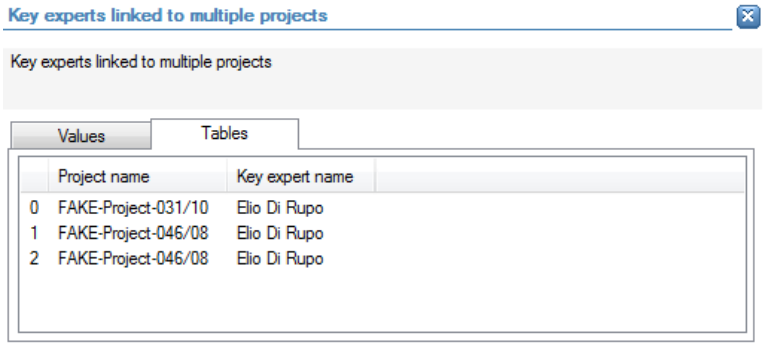
Description	The objective of the check is to identify contract in which key experts are involved that are also involved in other contracts related to other projects.
Level of calculation	The check is performed for each contract
Peer group	Operational Program
Input data	The following data is used to calculate the alert: ▪ Name of the key expert
Calculated data	The following data is calculated for the alert: ▪ Identification of the other contracts in which the key expert is involved and verification whether those contracts are linked to different projects.
Alert value	The alert gets a value from 0 to 10 depending on the number of different projects in which a key expert is involved (via contracts).
Project score	Highest score of the contracts that belong to the project
Applicable project types	DG Regio Infrastructural projects

Pop-up information



The following detailed information is available in the values tab:

- Number of projects in which the key expert is involved;
- Number of key experts that are involved in multiple projects



The following detailed information is available in the tables tab:

- Names of the different projects;

- Name of the key expert that is involved in the different projects

Links to further details

Contract requests
Details

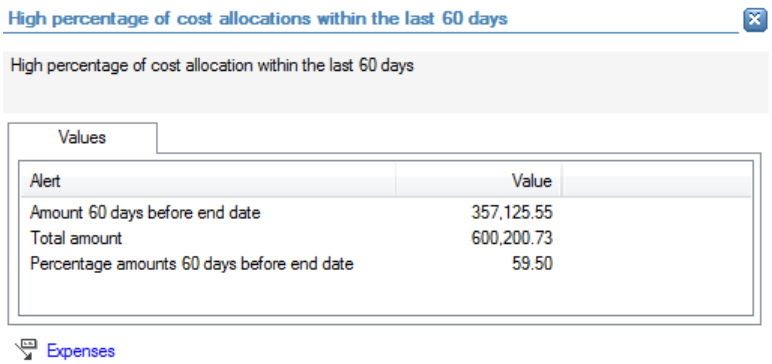
The following links to further details are available:

- Link to the contract (related to the current project) in which the key expert generating the alert value is involved.
- Details link leads to the project(s) in which the key expert is involved.

14.3.4.8 High percentage of cost allocations during the last 60 days before Project end date

Description	This check will look for a high percentage of costs being booked during the last 60 days before the project is ending.
Level of calculation	the check is performed for each project
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Project costs (based on individual expenses sourced); ▪ Date of the project cost; ▪ Project end date.
Calculated data	The following data is calculated for the alert: ▪ Total project cost; ▪ Project costs during the last 60 days before the project end date; ▪ Percentage of project costs during the last 60 days before the project end date compared to the total project costs
Alert value	The alert gets a value from 0 to 10 depending on percentages of costs that are dated less than 60 days before the project end date. The higher the percentage, the higher the alert value.
Project score	Score of the alert
Applicable project types	DG Regio Infrastructural projects

Pop-up information



The following detailed information is available in the values tab:

- Total amount of costs dated maximum 60 days before the project end date;

- Total project costs (based on individual expenses);
- Percentage of costs dated maximum 60 days before the project end date compared to the total project costs

No detailed information is available in the tables tab.

Links to further details

Expenses

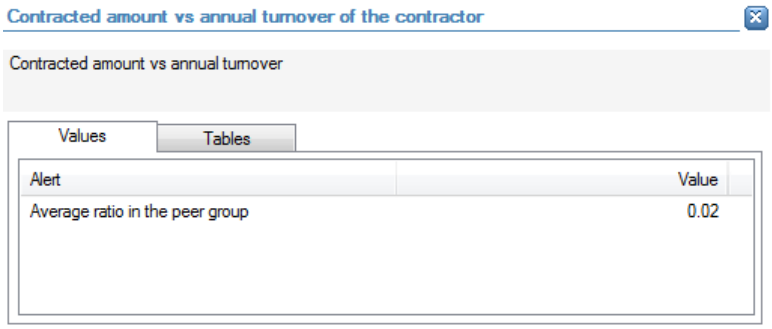
The following links to further details are available:

- A link to the list with expenses dated maximum 60 days before the project end date

14.3.4.9 Contracted amount / annual turnover of the contractor retrieved via data enrichment

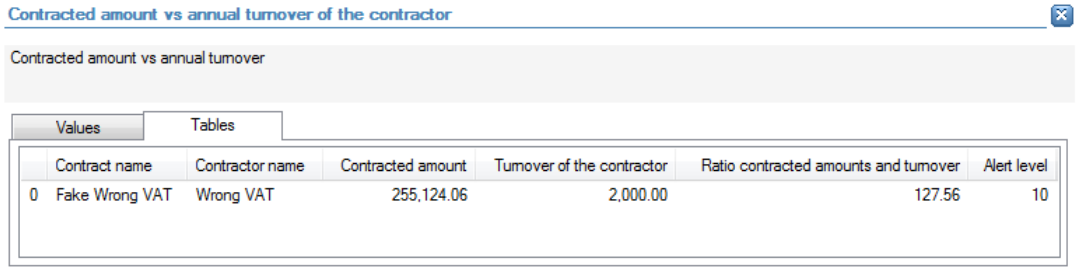
Description	This check will compare the contracted amount to the annual turnover of the contractor (as mentioned in the financial statements of the contract year, data from Orbis). The objective of the alert is to identify contracts for which the amount is high compared to the turnover of the contractor.
Level of calculation	The check is performed for each contract
Peer group	Sector (Operational Program + Project type)
Input data	The following data is used to calculate the alert: ▪ Contract amount; ▪ Turnover of the contractor based on the financial statements of the year of the contract (information retrieved from Orbis).
Calculated data	The following data is calculated for the alert: ▪ Percentage of contract amount compared to turnover of the contractor; ▪ Average percentage in the peer group. ▪ Deviation of the percentage for the contract from the average percentage in the peer group.
Alert value	The alert gets a value from 0 to 10 depending on the deviation of the percentage (contract amount compared to turnover of the contractor) for the contract from the average percentage in the peer group. Additionally, an alert is generated if the percentage is larger than 80% (value 8) or 100% (value 10).
Project score	Highest score of the contracts that belong to the project
Applicable project types	DG Regio Infrastructural projects

Pop-up information



The following detailed information is available in the values tab:

- Average percentage (contract amount compared to turnover of the contractor) in the peer group.



The following detailed information is available in the tables tab (for each contract that has an alert value):

- Value of the alert;
- Name of the contract related to that alert value;
- Contract amount;
- Turnover of the contractor (retrieved from Orbis);
- Percentage of the contract amount compared to the turnover of the contractor

Links to further details

Contract requests

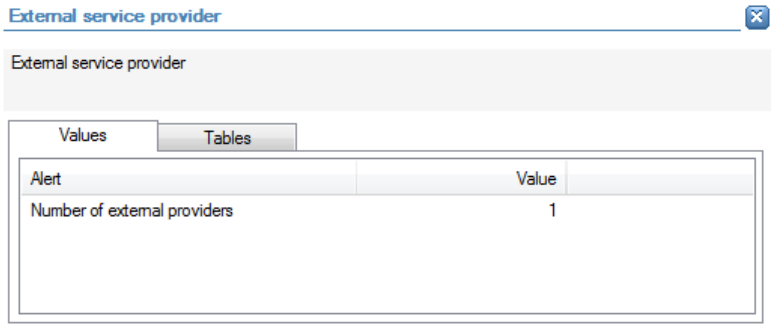
The following links to further details are available:

- Link to the contracts that have an alert value

14.3.4.10 External service provider

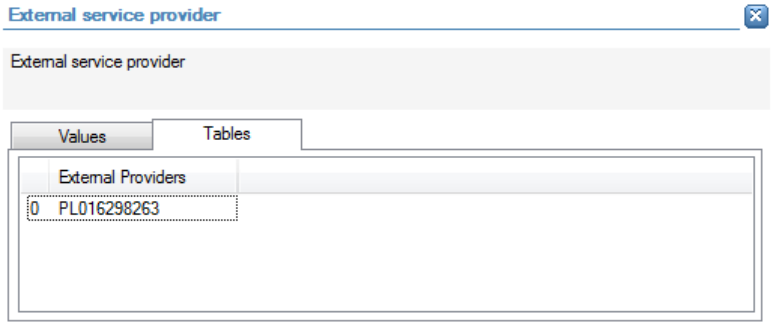
Description	This check will check to see if an external service provider is mentioned in the contract to back up financial or technical risks. An alert is generated if the is an external service provider.
Level of calculation	The check is performed for each contract
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ External service provider (name sourced by the Member States)
Calculated data	The following data is calculated for the alert: ▪ Number of external service providers sourced (by the Member State) for the contract
Alert value	The alert gets a value 10 is 1 or more external service providers is mentioned in the contract to back up financial or technical risks.
Project score	Highest score of the contracts that belong to the project
Applicable project types	DG Regio Infrastructural projects

Pop-up information



The following detailed information is available in the values tab:

- Number of external service providers linked to the contract



The following detailed information is available in the tables tab:

- Name(s) of the external service provider(s) linked to the contract

Links to further details

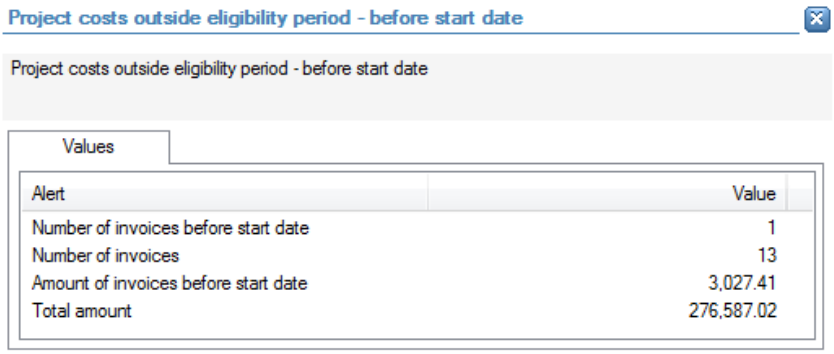
No links to further details are available.

14.3.5 Eligibility

14.3.5.1 Project costs outside eligibility period - before start date

Description	This check will look for costs dated before the project has started.
Level of calculation	The check is performed for each project
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Project start date ▪ Expense invoice date
Calculated data	Not applicable
Alert value	The alert gets a value 10 if there are any expenses for which the invoice date is dated before the project start date.
Project score	Alert value
Applicable project types	All projects

Pop-up information



The following detailed information is available in the values tab:

- Number of expenses with an invoice date before the start date of the project;
- Total number of expenses linked to the project;
- Total amount of expenses with an invoice date before the start date of the project;
- Total amount of all expenses linked to the project.

No detailed information is available in the tables tab.

Links to further details

Expenses

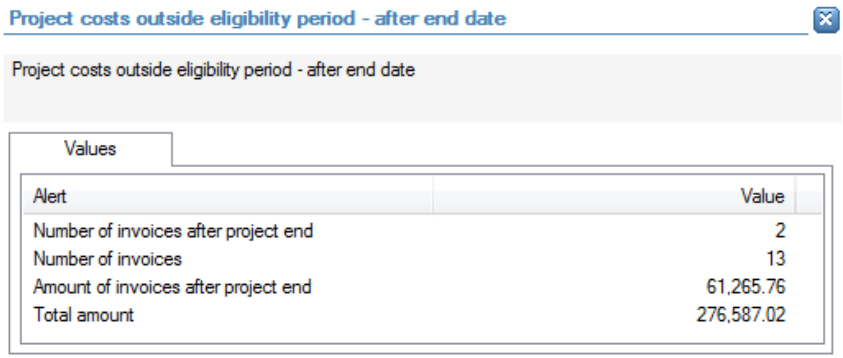
The following links to further details are available:

- Link to the expenses with an invoice date before the start date of the project.

14.3.5.2 Project costs outside eligibility period - after end date

Description	This check will look for costs dated after the project end date.
Level of calculation	The check is performed for each project
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Project end date ▪ Expense invoice date
Calculated data	Not applicable
Alert value	The alert gets a value 10 if there are any expenses for which the invoice date is dated after the project end date.
Project score	Alert value
Applicable project types	All projects

Pop-up information



The following detailed information is available in the values tab:

- Number of expenses with an invoice date after the end date of the project;
- Total number of expenses linked to the project;
- Total amount of expenses with an invoice date after the end date of the project;
- Total amount of all expenses linked to the project.

No detailed information is available in the tables tab

Links to further details

Expenses

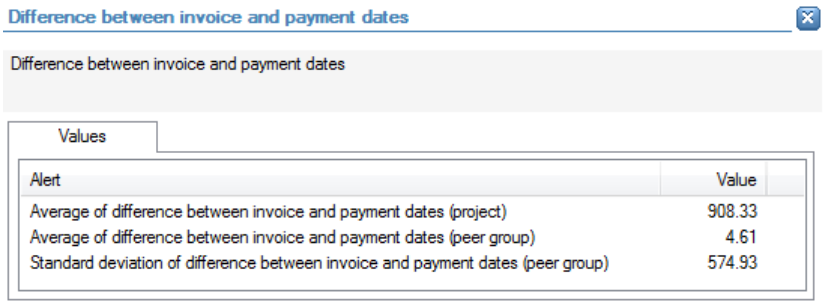
The following links to further details are available:

- Link to the expenses with an invoice date after the end date of the project

14.3.5.3 Difference (average per project) between invoice date and payment date

Description	The alert identifies projects for which the average delay between the invoice date and payment date for expenses is high.
Level of calculation	The check is performed for each contract
Peer group	Operational program for ESF and SME, sector for Infrastructure
Input data	The following data is used to calculate the alert: ▪ Invoice date (of expenses); ▪ Payment date (of expense)
Calculated data	The following data is calculated for the alert: ▪ Difference between invoice date and payment date for each expense (in days); ▪ Average difference for each project; ▪ Average difference within the peer group; ▪ Deviation of the average difference for the project from the average difference in the peer group
Alert value	The alert gets a value from 0 to 10 depending on the deviation of the average difference for the project from the average difference in the peer group. Additionally, a score of 10 is generated if the average difference for the project exceeds 40 days (for ESF projects) or 90 days (for ERDF projects).
Project score	Alert value
Applicable project types	All projects

Pop-up information



The following detailed information is available in the values tab:

- Average difference between invoice date and payment date (for all expenses linked to the project);
- Average difference between invoice date and payment date for all expenses within the peer group;
- Standard deviation of difference between invoice date and payment date in the peer group

No detailed information is available in the tables tab.

Links to further details

Expenses

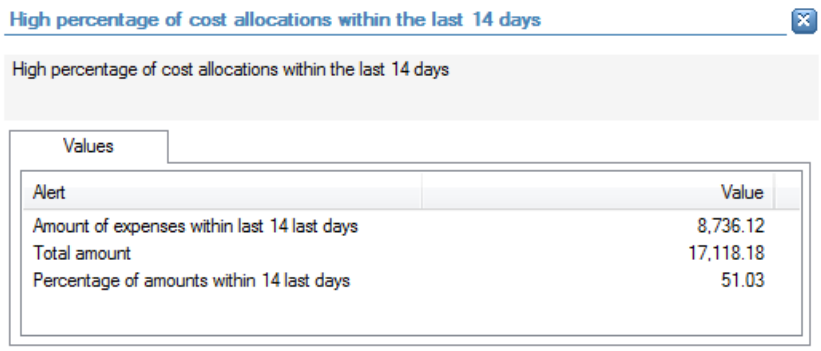
The following links to further details are available:

- Link to all expenses related to the project

14.3.5.4 High percentage of cost allocations during the last 14 days before Project end date

Description	This check identifies projects for which a high percentage of the expenses is dated in the last 14 days before the project end date.
Level of calculation	The check is performed for each project
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Expense amount; ▪ Expense invoice date; ▪ Project end date;
Calculated data	The following data is calculated for the alert: ▪ Total amount of expenses with an invoice date dated within 14 days before the project end date; ▪ Total amount of all expenses related to the project; ▪ Percentage of expenses dated within 14 days before the project end date compared to the total expense amount
Alert value	The alert gets a value from 0 to 10 depending on the percentage of expenses that have an invoice date within 14 days before the project end date.
Project score	Alert value
Applicable project types	ESF and SME

Pop-up information



The following detailed information is available in the values tab:

- Total amount of the expenses with an invoice date within 14 days before the project end date;
- Total amount of expenses related to the project;
- Percentage of the expenses with an invoice date within 14 days before the project end date compared to the total amount of expenses related to the project.

No detailed information is available in the tables tab.

Links to further details

Expenses

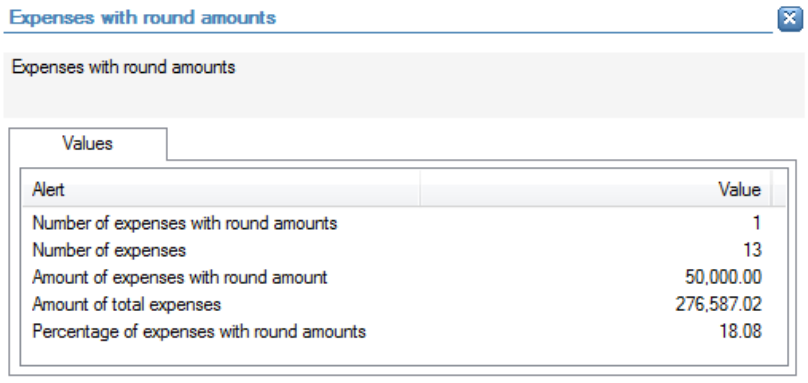
The following links to further details are available:

- Link to the expenses with an invoice date within 14 days before the project end date.

14.3.5.5 Expenses with round amounts

Description	This check will identify expenses with round amounts. The objective of the alert is to identify projects for which a high amount of the total expenses is claimed via round amount expenses
Level of calculation	The check is performed for each project
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Expense amount
Calculated data	The following data is calculated for the alert: ▪ Total amount for expenses with a round amount; ▪ Total amount of expenses; ▪ Percentage of round amount expenses compared to the total amount of expenses
Alert value	The alert gets a value from 0 to 10 depending on percentage of expense amounts that are round amounts compared to the total expense amounts.
Project score	Alert value
Applicable project types	ESF and SME

Pop-up information



The following detailed information is available in the values tab:

- Number of expenses with round mounts;
- Total number of expenses;
- Total amount of expenses with round amounts;
- Total amount of expenses;
- Percentage of expenses with round amounts compared to the total project amounts.

No detailed information is available in the tables tab.

Links to further details

Expenses

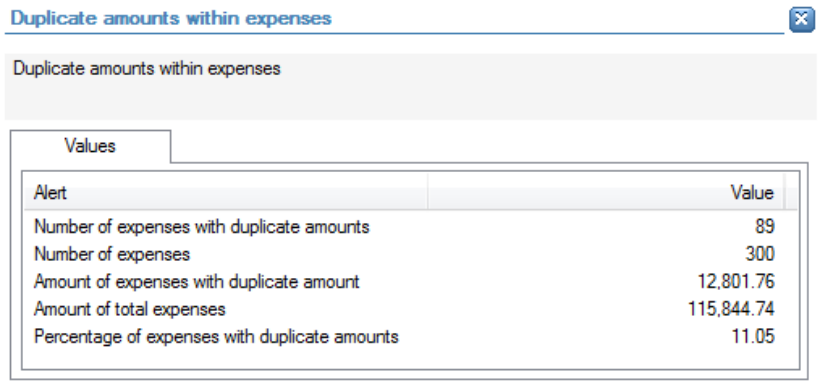
The following links to further details are available:

- Link to the expenses with a round amount.

14.3.5.6 Duplicate amounts within expenses

Description	This check will identify expenses with duplicate amounts. The objective of the alert is to identify projects for which a high amount of the total expenses is claimed via duplicate amount expenses
Level of calculation	The check is performed for each project
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Expense amount
Calculated data	The following data is calculated for the alert: ▪ Total amount for expenses with a duplicate amount; ▪ Total amount of expenses; ▪ Percentage of duplicate amount expenses compared to the total amount of expenses
Alert value	The alert gets a value from 0 to 10 depending on percentage of expense amounts that are duplicate amounts compared to the total expense amounts.
Project score	Alert value
Applicable project types	ESF and SME

Pop-up information



The following detailed information is available in the values tab:

- Number of expenses with duplicate mounts;
- Total number of expenses;
- Total amount of expenses with duplicate amounts;
- Total amount of expenses;
- Percentage of expenses with duplicate amounts compared to the total project amounts.

No detailed information is available in the tables tab.

Links to further details

Expenses

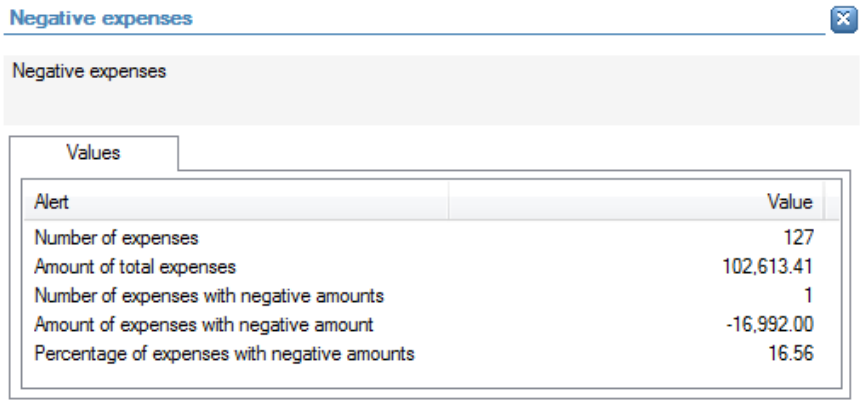
The following links to further details are available:

- Link to the expenses with duplicate amounts.

14.3.5.7 Negative expenses

Description	This check will identify expenses with negative amounts. The objective of the alert is to identify projects for which a high amount of the total expenses is claimed via negative amount expenses
Level of calculation	The check is performed for each project
Peer group	Operational Program
Input data	The following data is used to calculate the alert: ▪ Expense amount
Calculated data	The following data is calculated for the alert: ▪ Total amount for expenses with a negative amount; ▪ Total amount of expenses; ▪ Percentage of negative amount expenses compared to the total amount of expenses
Alert value	The alert gets a value from 0 to 10 depending on percentage of expense amounts that are negative amounts compared to the total expense amounts.
Project score	Alert value
Applicable project types	ESF and SME

Pop-up information



The following detailed information is available in the values tab:

- Total number of expenses;
- Total amount of expenses;
- Number of expenses with negative mounts;

- Total amount of expenses with negative amounts;
- Percentage of expenses with negative amounts compared to the total project amounts.

No detailed information is available in the tables tab.

Links to further details

Expenses

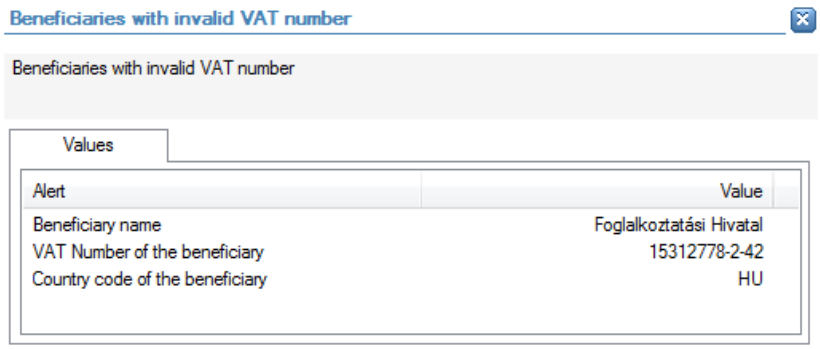
The following links to further details are available:

- Link to the expenses with negative amounts.

14.3.5.8 Beneficiaries with invalid VAT number

Description	This check will validate the beneficiary VAT number through a 'structure check'. The objective is to identify projects for which the VAT number of the beneficiary does not comply with the 'VAT structure requirements' as mentioned on the VIES website of the European Commission.
Level of calculation	The check is performed for each project
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ VAT number of the beneficiary
Calculated data	Not applicable
Alert value	The alert gets a value of 10 when the VAT number of the beneficiary does not meet the structural requirements as mentioned on the VIES website of the European Commission.
Project score	Alert value
Applicable project types	ESF and SME

Pop-up information



The following detailed information is available in the values tab:

- Name of the beneficiary;
- Country code of the beneficiary;
- VAT number of the beneficiary

No detailed information is available in the tables tab.

Links to further details

Related companies

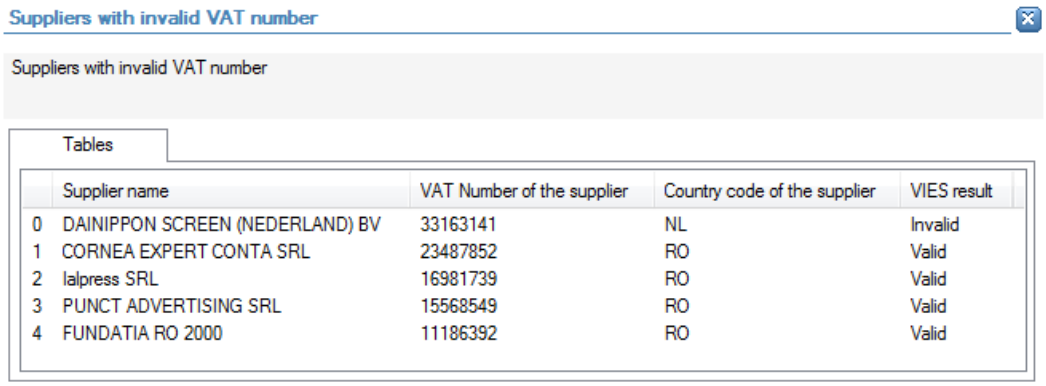
The following links to further details are available:

- Link to the beneficiary of the project (list)

14.3.5.9 Suppliers with invalid VAT number

Description	This check will validate the supplier VAT number through a 'structure check'. The objective is to identify projects for which the VAT number of any of the suppliers does not comply with the 'VAT structure requirements' as mentioned on the VIES website of the European Commission.
Level of calculation	The check is performed for each project
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Supplier VAT number
Calculated data	Not applicable
Alert value	The alert gets a value of 10 when the VAT number of one of the suppliers related to the project does not meet the structural requirements as mentioned on the VIES website of the European Commission.
Project score	Alert value
Applicable project types	ESF and SME

Pop-up information



	Supplier name	VAT Number of the supplier	Country code of the supplier	VIES result
0	DAINIPPON SCREEN (NEDERLAND) BV	33163141	NL	Invalid
1	CORNEA EXPERT CONTA SRL	23487852	RO	Valid
2	lalpress SRL	16981739	RO	Valid
3	PUNCT ADVERTISING SRL	15568549	RO	Valid
4	FUNDATIA RO 2000	11186392	RO	Valid

The following detailed information is available in the tables tab:

- Name of the suppliers, limited to 30 as a preview;
- VAT number of the suppliers;
- Country code of the suppliers;
- VIES result of the VAT check.

No detailed information is available in the values tab.

Links to further details

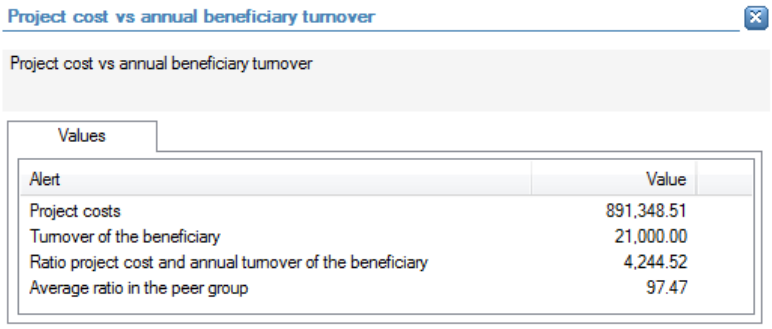
The following links to further details are available:

- Link to the list of related contracts (through with the suppliers are linked to the project). Starting from this list, the user can navigate to the concerned suppliers (right-mouse-click -> contractor).

14.3.5.10 Project total cost (declared to the EC) / Turnover of the beneficiary when the application was approved, retrieved via data enrichment

Description	This check will look at the total project cost versus the turnover of the beneficiary at the moment that the project application was approved (as mentioned in the financial statements of the project year, data from Orbis). The objective of the alert is to identify projects for which the project cost compared to the beneficiary turnover is high.
Level of calculation	The check is performed for each project
Peer group	Sector (Operational Program + Project type)
Input data	The following data is used to calculate the alert: ▪ Project cost ; ▪ Project start date; ▪ Turnover of the beneficiary (as mentioned in the financial statements of the project start year, this information is retrieved from Orbis).
Calculated data	The following data is calculated for the alert: ▪ Percentage of project cost compared to the turnover of the beneficiary; ▪ Average percentage in the peer group; ▪ Deviation of the percentage for the project from the average percentage in the peer group.
Alert value	The alert gets a value from 0 to 10 depending on the deviation of the percentage (project cost compared to turnover of the beneficiary) from the average percentage in the group. An alert value is generated if the average percentage for the project is larger than the average value in the peer group.
Project score	Alert value
Applicable project types	ESF and SME

Pop-up information



The following detailed information is available in the values tab:

- Project cost;
- Turnover of the beneficiary retrieved from the Orbis financial statements of the year in which the project started;
- Percentage of project cost compared to beneficiary turnover (for the project);
- Average percentage (project cost/beneficiary turnover) in the peer group.

No detailed information is available in the tables tab.

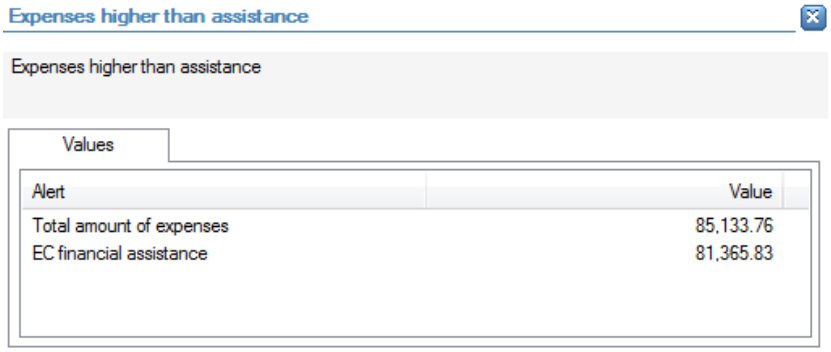
Links to further details

No links to further details are available.

14.3.5.11 Expenses higher than assistance

Description	This check will look for projects where the total expenses exceed the EC assistance
Level of calculation	The check is performed for each project
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Expenses (line items as sourced by the Member State); ▪ EC assistance amount
Calculated data	The following data is calculated for the alert: ▪ Total amount of expenses
Alert value	The alert gets a value of 10 when the total amount of expenses (based on the line items sourced) is larger than the EC assistance amount.
Project score	Alert value
Applicable project types	ESF

Pop-up information



The following detailed information is available in the values tab:

- Total amount of expenses;
- EC assistance amount.

No detailed information is available in the tables tab.

Links to further details

Expenses

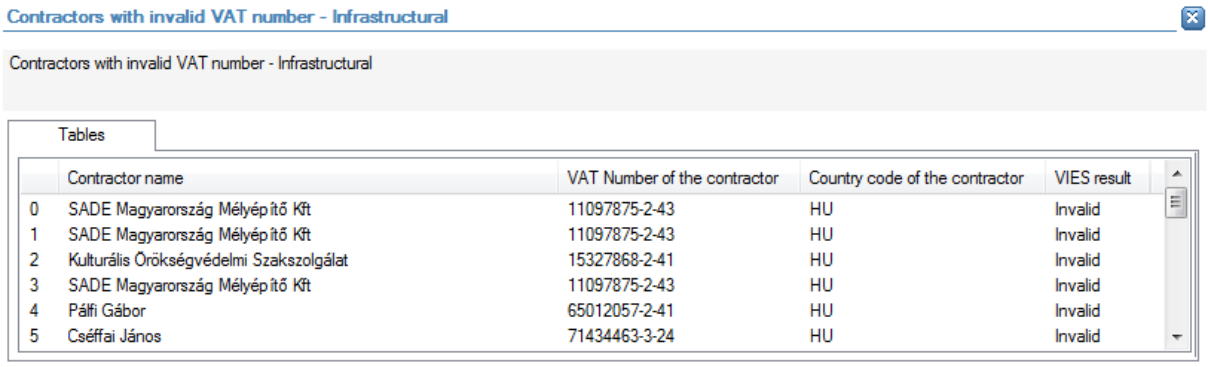
The following links to further details are available:

- Link to the expenses related to the project.

14.3.5.12 Contractors with invalid VAT number

Description	This check will validate the contractor VAT number through a 'structure check'. The objective is to identify projects for which the VAT number of any of the contractors does not comply with the 'VAT structure requirements' as mentioned on the VIES website of the European Commission.
Level of calculation	The check is performed for each project
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ VAT number of the contractor
Calculated data	Not applicable
Alert value	The alert gets a value of 10 when the VAT number of one of the contractors related to the project does not meet the structural requirements as mentioned on the VIES website of the European Commission.
Project score	Alert value
Applicable project types	DG Regio - Infrastructure

Pop-up information



	Contractor name	VAT Number of the contractor	Country code of the contractor	VIES result
0	SADE Magyarország Mélyépítő Kft	11097875-2-43	HU	Invalid
1	SADE Magyarország Mélyépítő Kft	11097875-2-43	HU	Invalid
2	Kulturális Örökségvédelmi Szakszolgálat	15327868-2-41	HU	Invalid
3	SADE Magyarország Mélyépítő Kft	11097875-2-43	HU	Invalid
4	Pálfi Gábor	65012057-2-41	HU	Invalid
5	Cséffai János	71434463-3-24	HU	Invalid

The following detailed information is available in the tables tab:

- Name of the contractors, limited to 30 as a preview;
- VAT number of the contractors;
- Country code of the contractors;
- VIES result of the VAT check.

No detailed information is available in the values tab.

Links to further details

Related companies

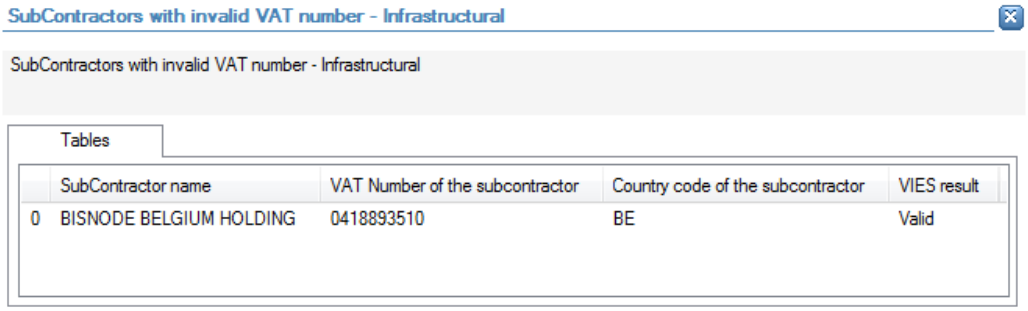
The following links to further details are available:

- Link to the list of related contractors.

14.3.5.13 Sub-contractors with invalid VAT number

Description	This check will validate the sub-contractor VAT number through a 'structure check'. The objective is to identify projects for which the VAT number of any of the sub-contractors does not comply with the 'VAT structure requirements' as mentioned on the VIES website of the European Commission.
Level of calculation	The check is performed for each project
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ VAT number of the sub-contractor
Calculated data	Not applicable
Alert value	The alert gets a value of 10 when the VAT number of one of the sub-contractors related to the project does not meet the structural requirements as mentioned on the VIES website of the European Commission.
Project score	Alert value
Applicable project types	DG Regio - Infrastructure

Pop-up information



The following detailed information is available in the tables tab:

- Name of the sub-contractors, limited to 30 as a preview;
- VAT number of the sub-contractors;
- Country code of the sub-contractors;
- VIES result of the VAT check.

No detailed information is available in the values tab.

Links to further details

Related companies

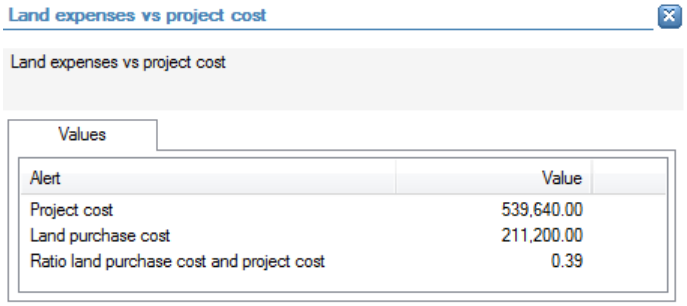
The following links to further details are available:

- Link to the list of related sub-contractors.

14.3.5.14 Expenditure paid for the purchase of the Land per Project/ Project total cost

Description	This check will return the percentage of total amounts used to pay for the purchase of land versus the total project cost
Level of calculation	The check is performed for each project
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Expenditure paid for the purchase of land; ▪ Project cost
Calculated data	The following data is calculated for the alert: ▪ Percentage of expenditure paid for the purchase of land compared to the total project cost
Alert value	The alert gets a value of 10 when the percentage of expenditure paid for the purchase of land compared to the project cost exceeds 10%.
Project score	Alert value
Applicable project types	DG Regio - Infrastructure

Pop-up information



The following detailed information is available in the values tab:

- Project cost;
- Cost for the purchase of land;
- Percentage: cost for the purchase of land / project cost.

No detailed information is available in the tables tab.

Links to further details

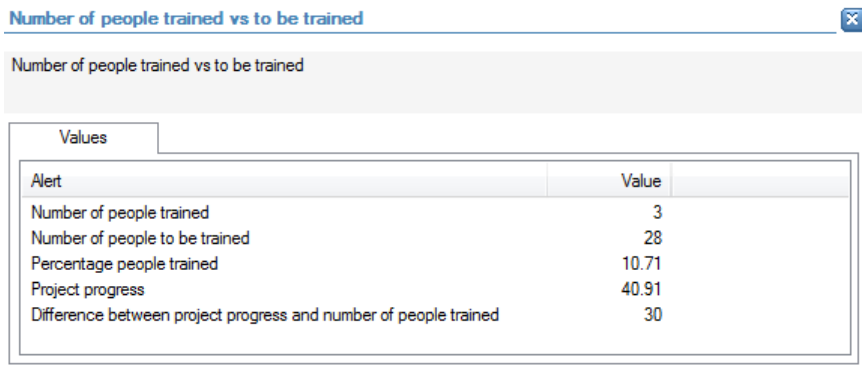
No links to further details are available.

14.3.6 Performance

14.3.6.1 Number of people trained / Number of people to be trained (agreed in the Contract)

Description	This check will compare the number of people that were actually trained, versus the people that needed to be trained as agreed in the contract and defines this as the performance progress. Project progress has been defined as the actual project expenses compared to the project cost as agreed on in the project application. The objective is to identify projects for which the performance progress is lower than the project progress.
Level of calculation	The check is performed for each project
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Number of people trained (actual); ▪ Number of people to be trained (as agreed in the contract); ▪ Project cost; ▪ Project expenses
Calculated data	The following data is calculated for the alert: ▪ Performance progress: number of people trained / number of people to be trained; ▪ Project progress: sum of project expenses / project cost
Alert value	The alert gets a value of 5 or 10 depending on the deviation of the performance progress from project progress. An alert is generated if the performance progress is at least 10% less than the project progress.
Project score	Alert value
Applicable project types	ESF

Pop-up information



The following detailed information is available in the values tab:

- Number of people trained;
- Number of people to be trained;
- Performance progress (percentage of people trained);
- Project progress;
- Difference between the project progress and the performance progress.

No detailed information is available in the tables tab.

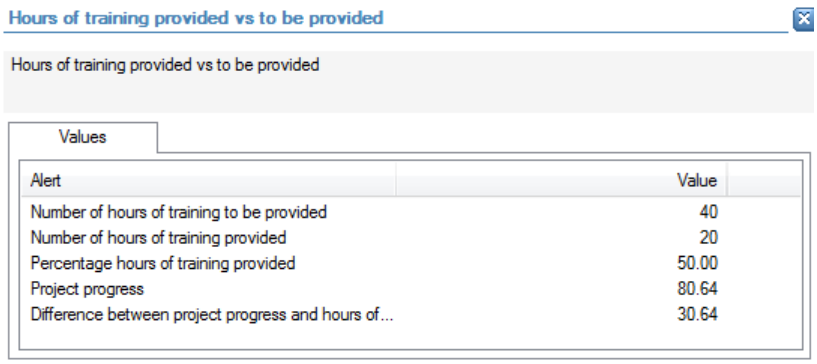
Links to further details

No links to further details are available.

14.3.6.2 Hours of training provided / Hours of training to be provided (agreed in the Contract)

Description	This check will compare the total number of training hours that have been provided, versus the total number of hours of training that needed to be provided as mentioned in the contract and defines this as the performance progress. Project progress has been defined as the actual project expenses compared to the project cost as agreed on in the project application. The objective is to identify projects for which the performance progress is lower than the project progress.
Level of calculation	The check is performed for each project
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Hours of training provided (actual) ▪ Hours of training to be provided (as agreed in the contract); ▪ Project cost; ▪ Project expenses
Calculated data	The following data is calculated for the alert: ▪ Performance progress: hours of training provided / hours of training to be provided; ▪ Project progress: sum of project expenses / project cost
Alert value	The alert gets a value of 5 or 10 depending on the deviation of the performance progress from project progress. An alert is generated if the performance progress is at least 10% less than the project progress.
Project score	Alert value
Applicable project types	ESF

Pop-up information



The following detailed information is available in the values tab:

- Hours of training to be provided;
- Hours of training provided;
- Performance progress (percentage of hours of training provided vs to be provided);
- Project progress;
- Difference between the project progress and the performance progress.

No detailed information is available in the tables tab.

Links to further details

No links to further details are available.

14.3.6.3 Training hour cost (actually incurred) / Training hour cost (on the basis of the approved budget)

Description	This check will compare the actual cost per training hour provided, versus the agreed hourly costs as mentioned in the project budget. The objective of the alert is to identify projects for which the actual cost per training hour is higher than the agreed cost per training hour.
Level of calculation	The check is performed for each project.
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Hours of training provided; ▪ Hours of training to be provided (as agreed in the contract); ▪ Project expenses; ▪ Project cost (as mentioned in the contract);
Calculated data	The following data is calculated for the alert: ▪ Actual cost per training hour: sum of project expenses / hours of training provided ▪ Agreed cost per training hour: project cost / hours of training to be provided.
Alert value	The alert gets a value of 5 or 10 depending on the deviation of the actual cost per training hour from the agreed cost per training hour. An alert is generated if the actual cost per training hour is at least 10% higher than the agreed cost per training hour.
Project score	Alert value
Applicable project types	ESF

Pop-up information

The following detailed information is available in the values tab:

- Hours of training to be provided;
- Hours of training provided;
- Actual project costs (sum of expenses);
- Project cost

No detailed information is available in the tables tab.

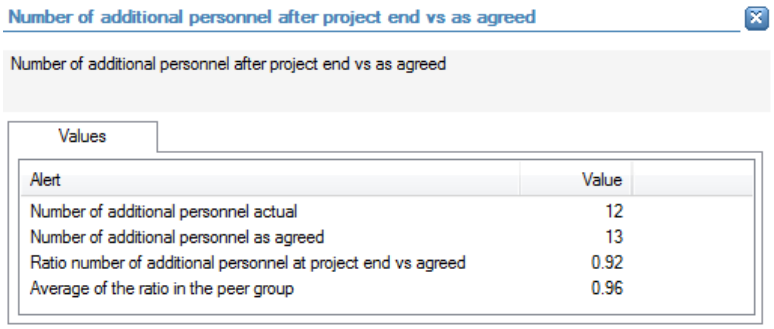
Links to further details

No links to further details are available.

14.3.6.4 Number of additional personnel after the Project is finished (latest available information) / Number of additional personnel (of the beneficiary) to be employed as agreed in the Project

Description	This check will compare the number of staff when the project is finished, and the number of staff to be employed as agreed in the contract and defines this as the 'realization rate'. The objective of the alert is to identify projects for which the realization rate is lower than the average realization rate in the peer group.
Level of calculation	The check is performed for each project
Peer group	Sector (Operational Program + Project type)
Input data	The following data is used to calculate the alert: ▪ Additional personnel after the project is finished (latest available information); ▪ Additional personnel (target, as agreed in the project)
Calculated data	The following data is calculated for the alert: ▪ Realization rate: additional personnel after the project is finished / additional personnel as agreed ▪ Average realization rate in the peer group ▪ Deviation of the realization rate of the project from the average realization rate.
Alert value	The alert gets a value from 0 to 10 depending on the deviation of the realization rate of the project from the average realization rate in the peer group. Additionally, an alert is generated if the realization rate of the project is less than 50%.
Project score	Alert value
Applicable project types	SME

Pop-up information



The following detailed information is available in the values tab:

- Number of additional personnel actual (after the project is finished);
- Number of additional personnel as agreed;
- Realization rate: number of additional personnel actual / number of additional personnel as agreed;
- Average realization rate in the peer group.

No detailed information is available in the tables tab.

Links to further details

No links to further details are available.

14.3.6.5 Number of additional personnel as agreed in the Project / Number of personnel (of the beneficiary) when the application was approved

Description	This check will check the number of staff that will be employed (as mentioned in the contract) versus the number of staff when the application was approved. The objective of the alert is to identify projects for which this performance metric is lower than the average value in the peer group.
Level of calculation	The check is performed for each project
Peer group	Sector (Operational Program + Project type)
Input data	The following data is used to calculate the alert: ▪ Number of additional personnel as agreed in the project; ▪ Number of personnel when the application was approved
Calculated data	The following data is calculated for the alert: ▪ Percentage of additional personnel as agreed compared to the number of personnel when the application was approved; ▪ Average percentage in the peer group; ▪ Deviation of the percentage for the project from the average percentage in the peer group.
Alert value	The alert gets a value from 0 to 10 depending on the deviation of the percentage (additional personnel as agreed versus personnel when the application was approved) of the project from the average percentage in the peer group. Additionally, an alert is generated if the percentage is larger than 50%.
Project score	Alert value
Applicable project types	SME

Pop-up information

The following detailed information is available in the values tab:

- Number of additional personnel as agreed;
- Number of personnel (of the beneficiary) when the application was approved;
- Average percentage in the peer group (additional personnel versus personnel when the application was approved);
- Percentage for the project.

No detailed information is available in the tables tab.

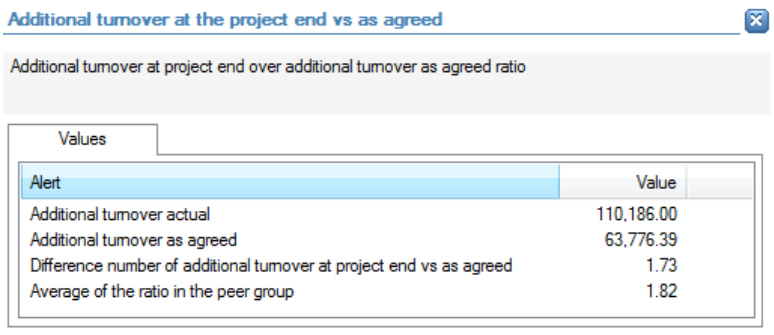
Links to further details

No links to further details are available.

14.3.6.6 Additional Turnover (of the beneficiary) after the Project is finished (latest available information) / Additional Turnover (of the beneficiary) as agreed in the Project when the project was approved

Description	This check will compare the additional turnover of the beneficiary when the project has finished, versus the additional turnover that was foreseen in the project application and defines this as the 'realization rate'. The objective of the alert is to identify projects for which the realization rate is lower than the average realization rate in the peer group.
Level of calculation	The check is performed for each project
Peer group	Sector (Operational Program + Project type)
Input data	The following data is used to calculate the alert: ▪ Additional turnover (beneficiary) when the project is finished; ▪ Additional turnover (beneficiary) as agreed in the project application
Calculated data	The following data is calculated for the alert: ▪ Realization rate: additional turnover when the project is finished / additional turnover as agreed; ▪ Average realization rate in the peer group; ▪ Deviation of the realization rate of the project from the average realization rate in the peer group.
Alert value	The alert gets a value from 0 to 10 depending on the deviation of the realization rate for the project from the average realization rate in the peer group. Additionally, an alert is generated if the realization rate is less than 50%.
Project score	Alert value
Applicable project types	SME

Pop-up information



The following detailed information is available in the values tab:

- Additional turnover (beneficiary) when the project is finished;

- Additional turnover (beneficiary) as agreed in the project application;
- Realization rate (difference number of additional turnover at project end vs. as agreed);
- Average realization rate in the peer group.

No detailed information is available in the tables tab.

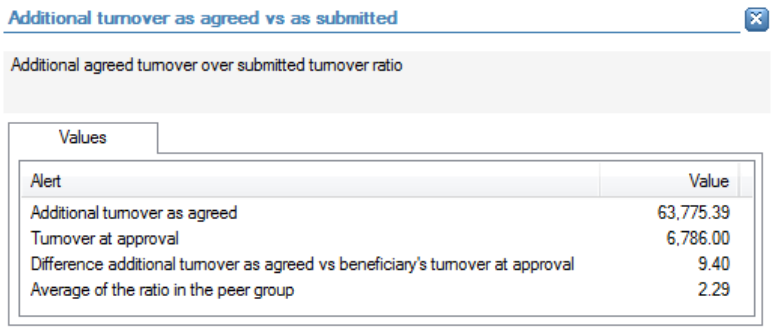
Links to further details

No links to further details are available.

14.3.6.7 Additional Turnover (of the beneficiary) as agreed in the Project when the project was approved / Turnover of the beneficiary when the application was approved (when the Project starts, given in the data)

Description	This check will compare the additional turnover of the beneficiary as agreed in the project application, versus the actual turnover amount of the beneficiary when the application was approved. The objective of the alert is to identify projects for which this performance metric is lower than the average value in the peer group.
Level of calculation	The check is performed for each project
Peer group	Sector (Operational Program + Project type)
Input data	The following data is used to calculate the alert: ▪ Additional turnover (beneficiary) as agreed in the project application; ▪ Turnover (beneficiary) when the application was approved
Calculated data	The following data is calculated for the alert: ▪ Percentage of additional turnover as agreed compared to the turnover when the application was approved; ▪ Average percentage in the peer group; ▪ Deviation of the percentage for the project from the average percentage in the peer group.
Alert value	The alert gets a value from 0 to 10 depending on the deviation of the percentage (additional turnover as agreed vs turnover when the application was approve) of the project from the average percentage in the peer group. Additionally, an alert is generated if the percentage is larger than 50%.
Project score	Alert value
Applicable project types	SME

Pop-up information



The following detailed information is available in the values tab:

- Additional turnover (beneficiary) as agreed in the project application;
- Turnover (beneficiary) when the application was approved;
- Percentage (additional turnover as agreed versus turnover when the application was approved);
- Average percentage in the peer group.

No detailed information is available in the tables tab.

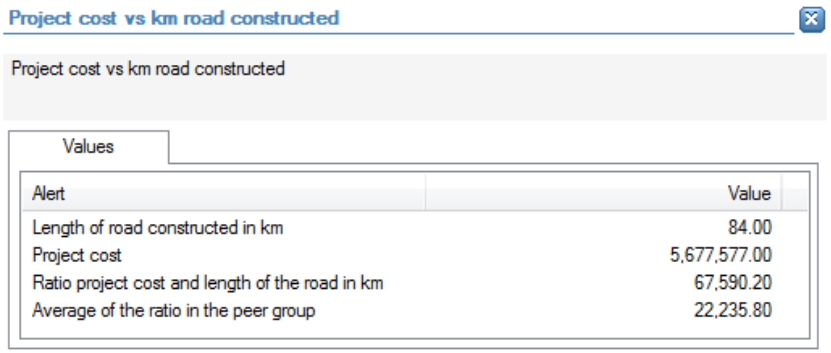
Links to further details

No links to further details are available.

14.3.6.8 Project total cost (declared to the EC)/ Length in km per Project (Per Type of Road)

Description	This check will return the total project cost per km for road projects. The objective is to identify projects for which the cost per km is larger than the average cost in the peer group.
Level of calculation	The check is performed for each project
Peer group	Same road type in the same Member State
Input data	The following data is used to calculate the alert: ▪ Project cost ▪ Length of road in km
Calculated data	The following data is calculated for the alert: ▪ Cost per km (project cost / length of road in km); ▪ Average cost in the peer group; ▪ Deviation of the cost per km for the project from the average cost in the peer group.
Alert value	The alert gets a value from 0 to 10 depending on the deviation of costs per km for the project from the average cost per km in the peer group.
Project score	Alert value
Applicable project types	Road

Pop-up information



The following detailed information is available in the values tab:

- Length of road in km;
- Project cost;
- Cost per km (project cost / length of road in km);
- Average cost per km in the peer group.

No detailed information is available in the tables tab.

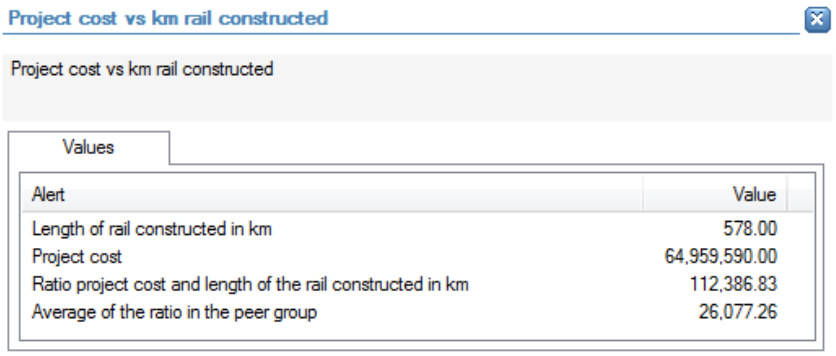
Links to further details

No links to further details are available.

14.3.6.9 Project total cost (declared to the EC) / Length in km per Project

Description	This check will return the total project costs per km for rail projects. The objective is to identify projects for which the cost per km is larger than the average cost in the peer group.
Level of calculation	The check is performed for each project
Peer group	Same rail type in the same Member State
Input data	The following data is used to calculate the alert: ▪ Project cost; ▪ Length of rail in km
Calculated data	The following data is calculated for the alert: ▪ Cost per km (project cost / length or rail in km); ▪ Average cost in the peer group; ▪ Deviation of the cost per km for the project from the average cost per km in the peer group.
Alert value	The alert gets a value from 0 to 10 depending on the deviation of costs per km for the project from the average cost per km in the peer group.
Project score	Alert value
Applicable project types	Rail

Pop-up information



The following detailed information is available in the values tab:

- Length of rail in km;
- Project cost;
- Cost per km (project cost / length of rail in km);
- Average cost per km in the peer group

No detailed information is available in the tables tab.

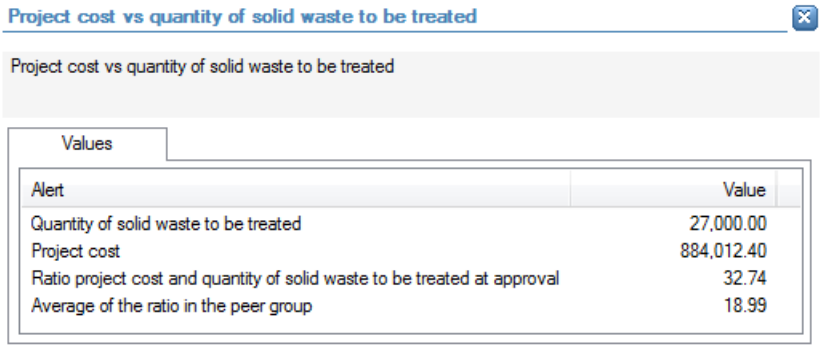
Links to further details

No links to further details are available.

14.3.6.10 Project total cost (declared to the EC) / Quantity of Solid Waste to be treated, in tons, when the project was approved

Description	This check will return the project cost per ton of solid waste to be treated. The objective is to identify projects for which the cost per ton is larger than the average cost in the peer group
Level of calculation	The check is performed for each project
Peer group	Sector
Input data	The following data is used to calculate the alert: ▪ Project cost; ▪ Quantity of solid waste to be treated (in tons, as agreed in the project application)
Calculated data	The following data is calculated for the alert: ▪ Project cost per ton (of solid waste to be treated); ▪ Average project cost per ton in the peer group; ▪ Deviation of the project cost per ton for the project from the average project cost per ton in the peer group.
Alert value	The alert gets a value from 0 to 10 depending on the deviation of costs per ton (of solid waste to be treated) for the project from the average cost per km in the peer group.
Project score	Alert value
Applicable project types	Solid waste

Pop-up information



The following detailed information is available in the values tab:

- Quantity of solid waste to be treated (in tons, as agreed in the project application);
- Project cost;
- Project cost per ton (for the project);
- Average project cost per ton in the peer group.

No detailed information is available in the tables tab.

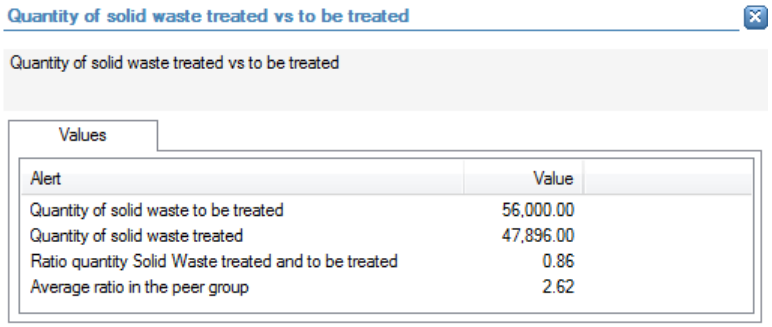
Links to further details

No links to further details are available.

14.3.6.11 Quantity of Solid Waste treated, in tons, after the Project is finished (latest available information) /Quantity of Solid Waste to be treated, in tons, when the project was approved

Description	This check returns a ratio that compares the quantity of solid waste treated when the project is finished to the quantity to be treated (when the project was approved) and defines this as the realization rate. The objective of the alert is to identify projects for which the realization rate is lower than the average realization rate in the peer group, or low in general.
Level of calculation	The check is performed for each project
Peer group	Sector
Input data	The following data is used to calculate the alert: ▪ Quantity of solid waste treated (after the project is finished, based on the latest available information, in tons); ▪ Quantity of solid waste to be treated (as agreed in the project application, in tons)
Calculated data	The following data is calculated for the alert: ▪ Realization rate: quantity of solid waste treated / quantity of solid waste to be treated; ▪ Average realization rate in the peer group; ▪ Deviation of the realization rate of the project from the average realization rate in the peer group.
Alert value	The alert gets a value from 0 to 10 depending on the deviation of the realization rate (quantity of solid waste treated vs quantity of solid waste to be treated) from the average realization rate in the peer group. Additionally, when the realization rate is less than 70%, 50% or 30% an alert is generated.
Project score	Alert value
Applicable project types	Solid Waste

Pop-up information



The following detailed information is available in the values tab:

- Quantity of solid waste to be treated (as agreed in project application, in tons);
- Quantity of solid waste treated (when the project is finished, in tons);
- Realization rate (quantity of solid waste treated vs quantity of solid waste to be treated);
- Average realization rate in the peer group

No detailed information is available in the tables tab.

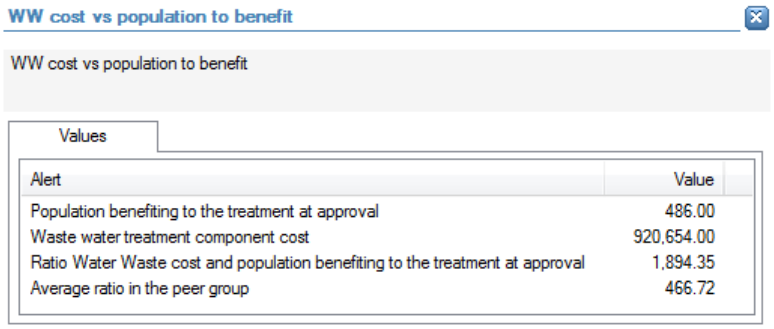
Links to further details

No links to further details are available.

14.3.6.12 Cost relating to the Waste Water Treatment Component of the Project / Population Equivalent to benefit from the waste water treatment (as agreed when the project was approved)

Description	This check will return the cost of the water waste component per population equivalent to benefit from the water waste treatment. The objective of the alert is to identify projects for which the cost per population equivalent is higher than the average cost in the peer group.
Level of calculation	The check is performed for each project
Peer group	Sector
Input data	The following data is used to calculate the alert: ▪ Cost relating to the waste water treatment component of the project; ▪ Population equivalent to benefit from the waste water treatment (as agreed in the project application)
Calculated data	The following data is calculated for the alert: ▪ Cost per population equivalent (cost relating to the waste water treatment component of the project / Population equivalent to benefit from the waste water treatment); ▪ Average cost per population equivalent in the peer group; ▪ Deviation of the average cost per population equivalent for the project from the average cost in the peer group.
Alert value	The alert gets a value from 0 to 10 depending on the deviation of the average cost per population equivalent (cost relating to the waste water treatment component of the project / Population equivalent to benefit from the waste water treatment) for the project from the average cost per population equivalent in the peer group.
Project score	Alert value
Applicable project types	Waste water or supply

Pop-up information



The following detailed information is available in the values tab:

- Population equivalent to benefit from the waste water treatment (as agreed in the project application);
- Cost relating to the waste water treatment component of the project;
- Cost per population equivalent (cost relating to the waste water treatment component of the project / Population equivalent to benefit from the waste water treatment);
- Average cost per population equivalent in the peer group.

No detailed information is available in the tables tab.

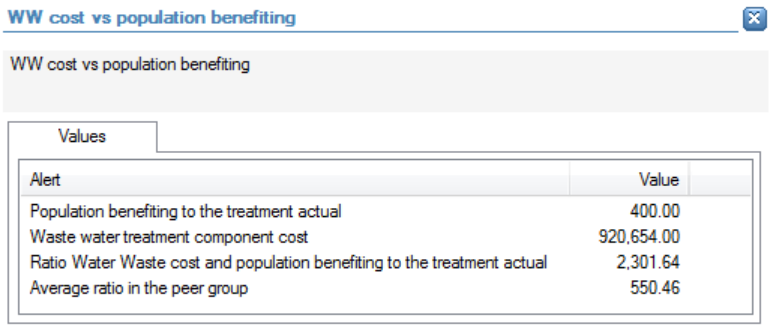
Links to further details

No links to further details are available.

14.3.6.13 Cost relating to the Waste Water Treatment Component of the Project / Population Equivalent benefiting from the waste water treatment (latest available information)

Description	This check will return the cost of the water waste component per population equivalent benefiting from the water waste treatment. The objective of the alert is to identify projects for which the cost per population equivalent is higher than the average cost in the peer group.
Level of calculation	The check is performed for each project
Peer group	Sector
Input data	The following data is used to calculate the alert: ▪ Cost relating to the waste water treatment component of the project; ▪ Population equivalent benefiting from the waste water treatment (actual, latest available information)
Calculated data	The following data is calculated for the alert: ▪ Cost per population equivalent (cost relating to the waste water treatment component of the project / population equivalent benefiting from the waste water treatment); ▪ Average cost per population equivalent in the peer group; ▪ Deviation of the average cost per population equivalent for the project from the average cost in the peer group.
Alert value	The alert gets a value from 0 to 10 depending on the deviation of the average cost per population equivalent (cost relating to the waste water treatment component of the project / population equivalent benefiting from the waste water treatment) for the project from the average cost per population equivalent in the peer group.
Project score	Alert value
Applicable project types	Waste water or supply

Pop-up information



The following detailed information is available in the values tab:

- Population equivalent benefiting from the waste water treatment (actual, latest available information);
- Cost relating to the waste water treatment component of the project;

- Cost per population equivalent (cost relating to the waste water treatment component of the project / population equivalent benefiting from the waste water treatment);
- Average cost per population equivalent in the peer group.

No detailed information is available in the tables tab.

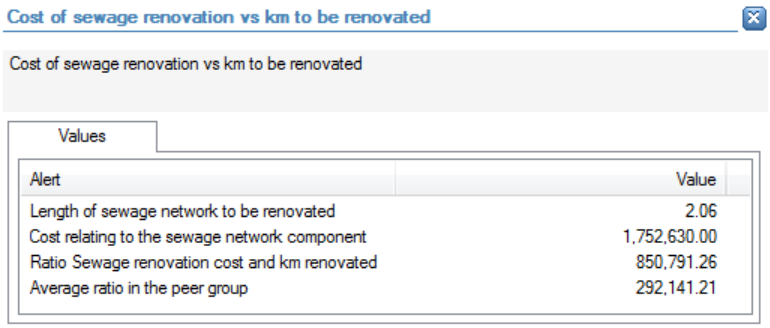
Links to further details

No links to further details are available.

14.3.6.14 Cost relating to the Sewage Network Component of the Project / Length of sewage network to be renovated /constructed in km

Description	This check will return the cost of the sewage network component per km of renovated or constructed sewage. The objective of the alert is to identify projects for which the cost per km is higher than the average cost in the peer group.
Level of calculation	The check is performed for each project
Peer group	Sector
Input data	The following data is used to calculate the alert: ▪ Cost relating to the sewage network component; ▪ Length of sewage network to be renovated/constructed in km
Calculated data	The following data is calculated for the alert: ▪ Cost per km (cost relating to the sewage network component / length of sewage network to be renovated/constructed in km); ▪ Average cost per km in the peer group; ▪ Deviation of the cost per km for the project from the average cost per km in the peer group.
Alert value	The alert gets a value from 0 to 10 depending on the deviation of the cost per km (cost relating to the sewage network component / length of sewage network to be renovated/constructed in km) for the project from the average cost per km in the peer group.
Project score	Alert value
Applicable project types	Waste water or supply

Pop-up information



The following detailed information is available in the values tab:

- Length of sewage network to be renovated/constructed in km;
- Cost relating to the sewage network component;
- Cost per km (cost relating to the sewage network component / length of sewage network to be renovated/constructed in km);
- Average cost per km in the peer group.

No detailed information is available in the tables tab.

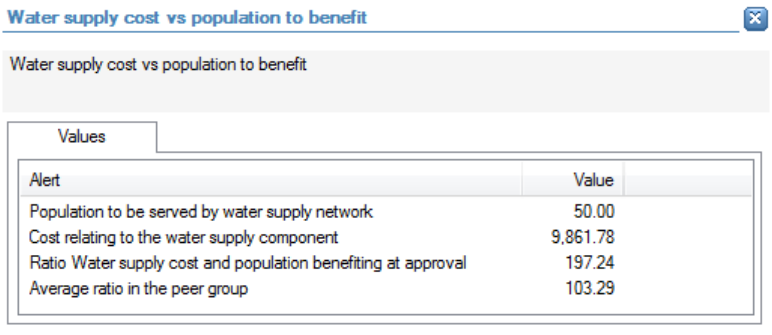
Links to further details

No links to further details are available.

14.3.6.15 Cost relating to the Water supply plant component of the Project / Population to benefit from the water supply network (as agreed when the project was approved)

Description	This check will return the cost of the water supply plant component per population equivalent to benefit from the water supply network. The objective of the alert is to identify projects for which the cost per population equivalent is higher than the average cost in the peer group.
Level of calculation	The check is performed for each project
Peer group	Sector
Input data	The following data is used to calculate the alert: ▪ Cost relating to the water supply plant component of the project; ▪ Population equivalent to benefit from the water supply network (as agreed in the project application)
Calculated data	The following data is calculated for the alert: ▪ Cost per population equivalent (cost relating to the water supply plant component of the project / population equivalent to benefit from the water supply network); ▪ Average cost per population equivalent in the peer group; ▪ Deviation of the average cost per population equivalent for the project from the average cost in the peer group.
Alert value	The alert gets a value from 0 to 10 depending on the deviation of the average cost per population equivalent (cost relating to the water supply plant component of the project / population equivalent to benefit from the water supply network) for the project from the average cost per population equivalent in the peer group.
Project score	Alert value
Applicable project types	Waste water or supply

Pop-up information



The following detailed information is available in the values tab:

- Population equivalent to benefit from the water supply network (as agreed in the project application);
- Cost relating to the water supply plant component of the project;

- Cost per population equivalent (cost relating to the water supply plant component of the project / population equivalent to benefit from the water supply network);
- Average cost per population equivalent in the peer group;

No detailed information is available in the tables tab.

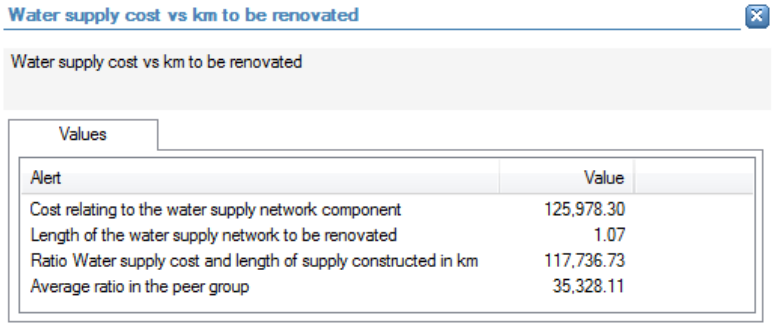
Links to further details

No links to further details are available.

14.3.6.16 Cost relating to the Water supply network component of the Project / Length of water supply network to be renovated/constructed in kms

Description	This check will return the cost related to the water supply network component per km of renovated or constructed water supply network. The objective of the alert is to identify projects for which the cost per km is higher than the average cost in the peer group.
Level of calculation	The check is performed for each project
Peer group	Sector
Input data	The following data is used to calculate the alert: ▪ Cost relating to the water supply network component; ▪ Length of water supply network to be renovated/constructed in km
Calculated data	The following data is calculated for the alert: ▪ Cost per km (cost relating to the water supply network component / length of water supply network to be renovated/constructed in km); ▪ Average cost per km in the peer group; ▪ Deviation of the cost per km for the project from the average cost per km in the peer group.
Alert value	The alert gets a value from 0 to 10 depending on the deviation of the cost per km (cost relating to the water supply network component / length of water supply network to be renovated/constructed in km) for the project from the average cost per km in the peer group.
Project score	Alert value
Applicable project types	Waste water or supply

Pop-up information



The following detailed information is available in the values tab:

- Cost relating to the water supply network component;
- Length of water supply network to be renovated/constructed in km
- Cost per km (cost relating to the water supply network component / length of water supply network to be renovated/constructed in km);
- Average cost per km in the peer group;

No detailed information is available in the tables tab.

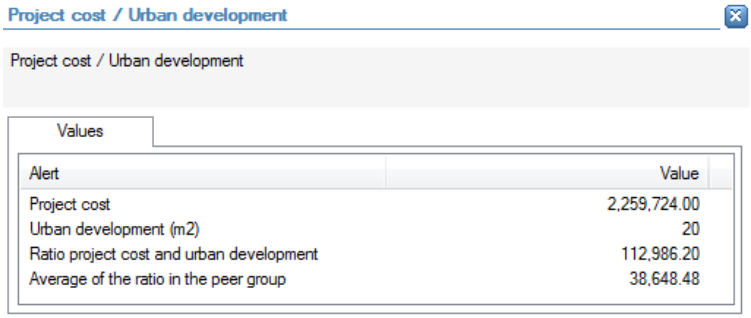
Links to further details

No links to further details are available.

14.3.6.17 Project total cost / urban development

Description	This check will return the project cost versus urban development in m^2. The objective of this alert is to identify projects for which the cost per m^2 is higher than the average cost in the peer group.
Level of calculation	The check is performed for each project
Peer group	Sector
Input data	The following data is used to calculate the alert: ▪ Project cost ▪ Urban development (m^2)
Calculated data	The following data is calculated for the alert: ▪ Cost per m^2 (project cost / urban development); ▪ Average cost per m^2 in the peer group; ▪ Deviation of the cost per m^2 for project from the average cost in the peer group.
Alert value	The alert gets a value from 0 to 10 depending on the deviation of the cost per m^2 (project cost / urban development) for the project from the average cost in the peer group.
Project score	Alert value
Applicable project types	Energy Efficiency Urban

Pop-up information



The following detailed information is available in the values tab:

- Project cost;
- Urban development (in m^2);
- Cost per m^2 (project cost / urban development);
- Average cost per m^2 in the peer group.

No detailed information is available in the tables tab.

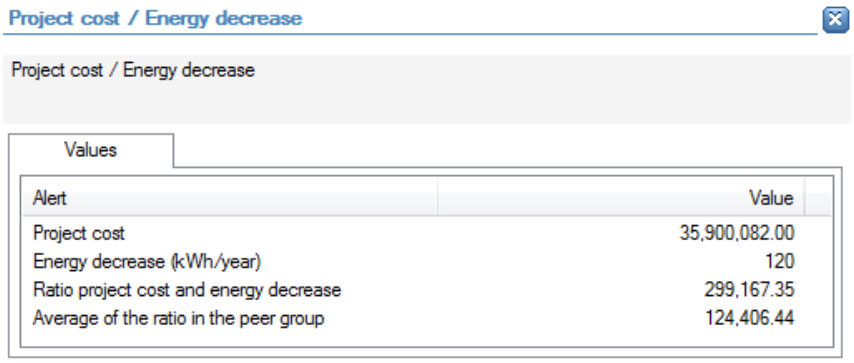
Links to further details

No links to further details are available.

14.3.6.18 Project total cost / Energy decrease

Description	This check will return the project cost versus energy decrease in kWh/year. The objective of this alert is to identify projects for which the cost per kWh/year is higher than the average cost in the peer group.
Level of calculation	The check is performed for each project
Peer group	Sector
Input data	The following data is used to calculate the alert: ▪ Project cost ▪ Energy decrease (kWh/year)
Calculated data	The following data is calculated for the alert: ▪ Cost per kWh/year (project cost / energy decrease); ▪ Average cost per kWh/year in the peer group; ▪ Deviation of the cost per kWh/year for project from the average cost in the peer group.
Alert value	The alert gets a value from 0 to 10 depending on the deviation of the cost per kWh/year (project cost / energy decrease) for the project from the average cost in the peer group.
Project score	Alert value
Applicable project types	Energy Efficiency Urban

Pop-up information



The following detailed information is available in the values tab:

- Energy decrease (in kWh/year);
- Project cost
- Cost per kWh/year (project cost / energy decrease);
- Average cost per kWh/year in the peer group.

No detailed information is available in the tables tab.

Links to further details

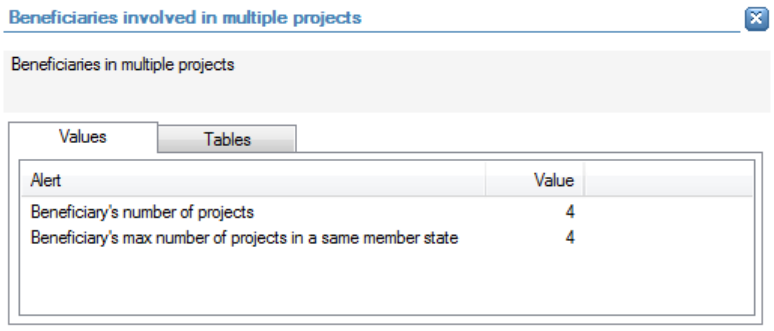
No links to further details are available.

14.3.7 Concentration

14.3.7.1 Beneficiaries involved in multiple Projects

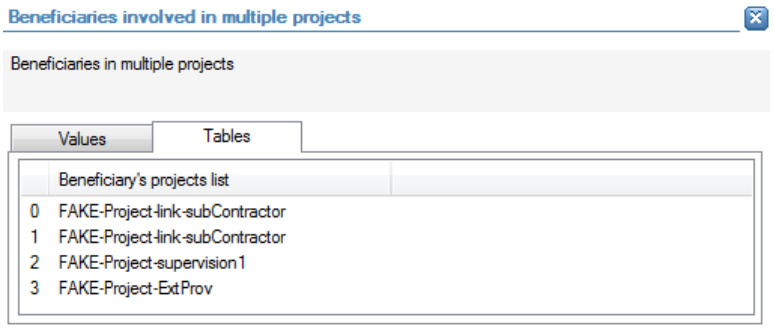
Description	The objective of this check is to identify projects for which the beneficiary appears in multiple projects within the same Member State
Level of calculation	The check is performed for each project
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Project; ▪ Beneficiary
Calculated data	Not applicable
Alert value	The alert gets a value of 10 when the beneficiary of the project is also involved, as beneficiary, in other projects in the same Member State.
Project score	Alert value
Applicable project types	All project types

Pop-up information



The following detailed information is available in the values tab:

- Number of projects in which the beneficiary is involved as beneficiary;
- Maximum number of projects in which the beneficiary is involved within the same Member State as beneficiary.



The following detailed information is available in the tables tab:

- The list of projects in which the beneficiary is involved as beneficiary, limited to 30 as a preview.

Links to further details

Related companies

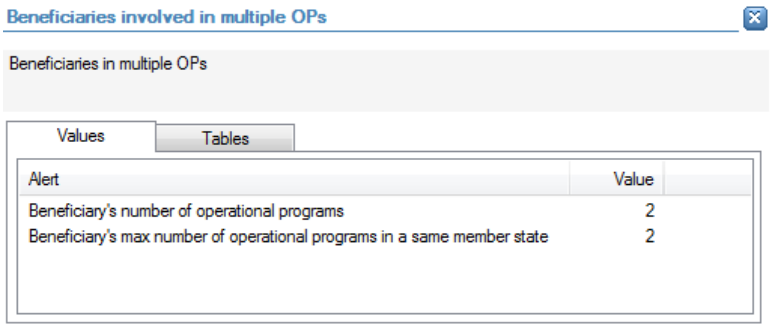
The following links to further details are available:

- Link to the beneficiary. Starting from this link, the user can further navigate to the projects in which the beneficiary is involved.

14.3.7.2 Beneficiaries involved in multiple operational programs

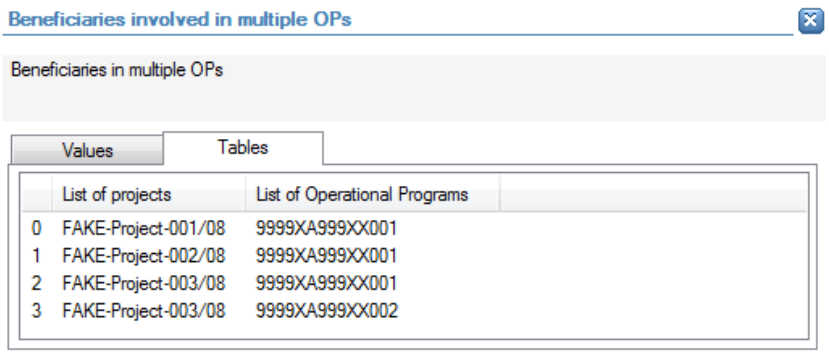
Description	The objective of this check is to identify projects for which the beneficiaries appear in multiple operational programs within the same Member State as beneficiary.
Level of calculation	The check is performed for each project
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Projects; ▪ Operational Programs to which the projects belong; ▪ Beneficiaries of the projects.
Calculated data	Not applicable
Alert value	The alert gets a value of 10 when the beneficiary of the project is also involved in a project that belongs to another operational program within the same Member State as beneficiary.
Project score	Alert value
Applicable project types	All project types

Pop-up information



The following detailed information is available in the values tab:

- Number of operational programs in which the beneficiary is involved as beneficiary;
- Maximum of operational programs in which the beneficiary is involved within the same Member State as beneficiary.



The following detailed information is available in the tables tab:

- List of projects for the operational programs in which the beneficiary is involved;
- List of operational programs in which the beneficiary is involved, limited to 30 as a preview.

Links to further details

Related companies

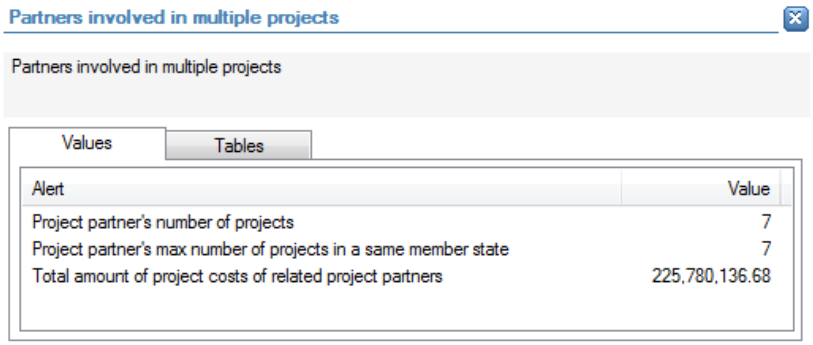
The following links to further details are available:

- Link to the beneficiary. Starting from this link, the user can further navigate to the projects in which the beneficiary is involved.

14.3.7.3 Project partners involved in multiple Projects

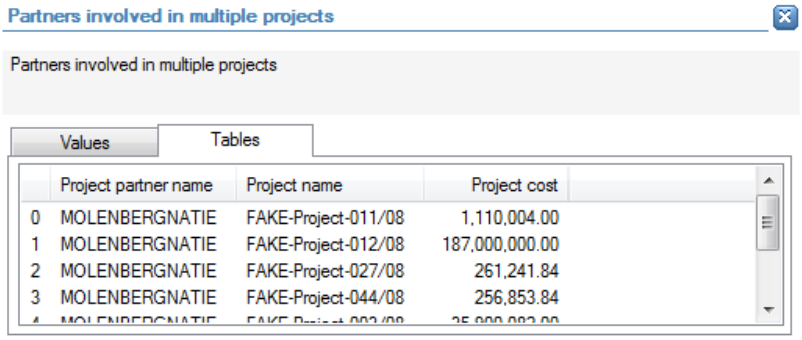
Description	The objective of this check is to identify projects for which the project partner appears in multiple projects within the same Member State as project partner.
Level of calculation	The check is performed for each project
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Projects ▪ Project partner
Calculated data	Not applicable
Alert value	The alert gets a value of 10 when the project partner of the project is involved in another project within the same Member State as project partner.
Project score	Alert value
Applicable project types	All project types

Pop-up information



The following detailed information is available in the values tab:

- Number of projects in which the project partner is involved as project partner;
- Maximum number of projects in which the project partner is involved within the same Member State as project partner;
- Total amount (sum) of the project costs of the projects in which the project partner is involved as project partner.



The following detailed information is available in the tables tab:

- Name of the project partner;
- Name of the project in which the project partner is involved as project partner, limited to 30 as a preview;
- Cost of the project in which the project partner is involved as project partner.

Links to further details

Related companies

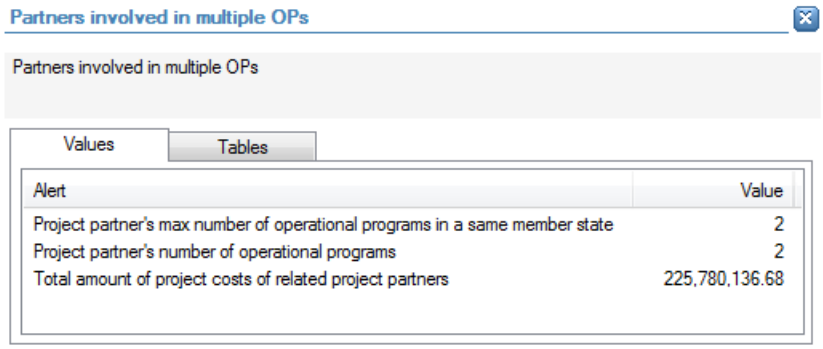
The following links to further details are available:

- Link to the project partner. Starting from this link, the user can further navigate to the projects in which the project partner is involved.

14.3.7.4 Project partners involved in multiple operational programs

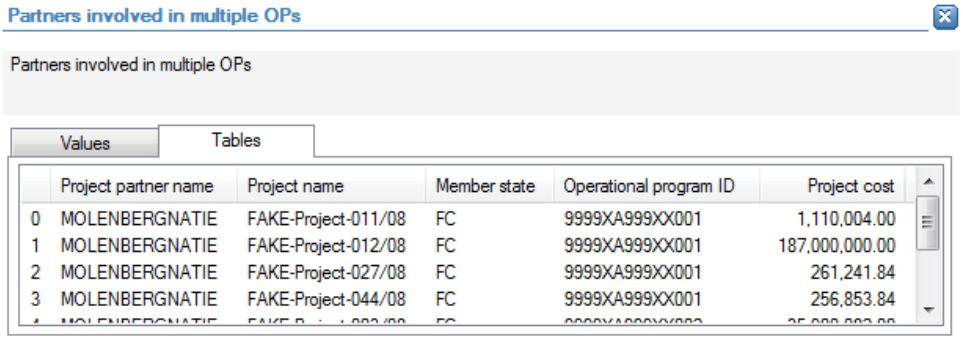
Description	The objective of this check is to identify projects for which the project partner appears in multiple operational programs within the same Member State as a project partner
Level of calculation	The check is performed for each project
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Projects; ▪ Project partners of the project; ▪ Operation program to which the project belongs.
Calculated data	Not applicable
Alert value	The alert gets a value of 10 when the project partner of the project is also involved, as project partner, in projects belonging to multiple operational programs within the same Member State.
Project score	Alert value
Applicable project types	All project types

Pop-up information



The following detailed information is available in the values tab:

- Number of operational programs in which the project partners is involved, through projects, as a project partner;
- Maximum number of operational programs in which the project partners is involved, through projects, as a project partner within the same Member State;
- Total cost of the projects in which the project partner is involved, as project partner, and that belong to different operational programs within the same Member State.



The following detailed information is available in the tables tab:

- Name of project partner;
- Project names (of the projects belonging to different operational programs in the same Member State and in which the project partner is involved as project partner), limited to 30 as a preview;
- Member State of the projects mentioned above;
- Operational program of the projects mentioned above;
- Project cost of the projects mentioned above.

Links to further details

Related companies

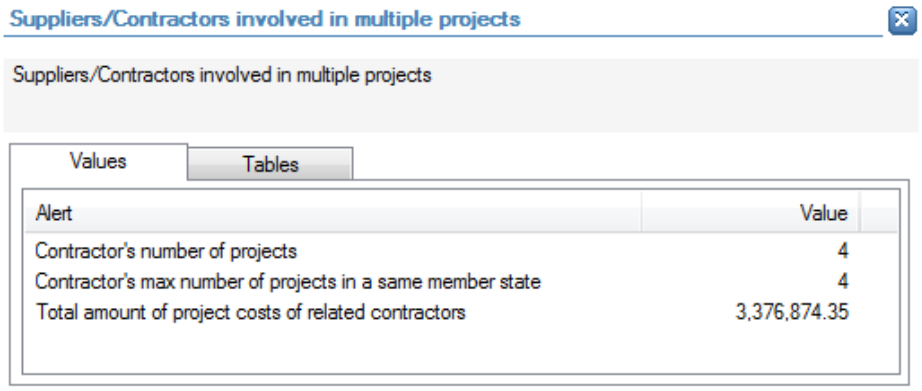
The following links to further details are available:

- Link to the project partner. Starting from this link, the user can further navigate to the projects in which the project partner is involved.

14.3.7.5 Suppliers/contractors involved in multiple Projects

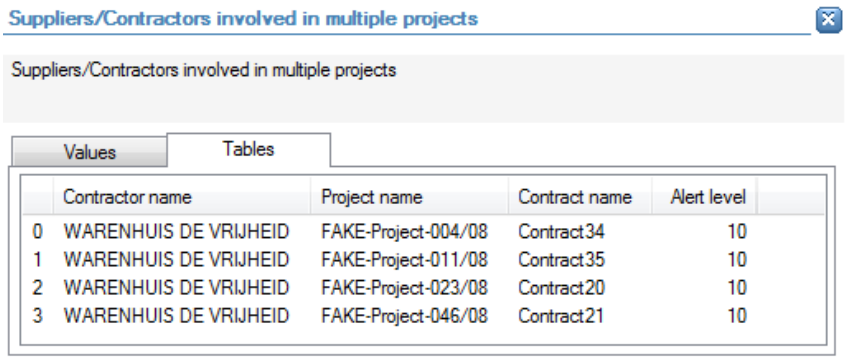
Description	The objective of this check is to identify projects for which there is a supplier/contractor that appears in multiple projects as supplier/contractor within the same Member State
Level of calculation	The check is performed for each project
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Projects; ▪ Related contracts and their contractor
Calculated data	Not applicable
Alert value	The alert gets a value of 10 when there is a supplier/contractor that is involved, as supplier/contractor, in other projects within the same Member State.
Project score	Alert value
Applicable project types	All project types

Pop-up information



The following detailed information is available in the values tab:

- Number of projects in which the supplier/contractor is involved (as a supplier/contractor);
- Maximum number of projects in which the supplier/contractor is involved, as a supplier/contractor, within the same Member State;
- Total accumulated cost of the projects in which the supplier/contractor is involved (as a supplier/contractor.



The following detailed information is available in the tables tab:

- Name of the supplier/contractor;
- Projects in which the supplier/contractor is involved as a supplier/contractor, limited to 30 as a preview;
- Name of the contracts through the supplier/contractor is linked with the projects;
- Alert value for the contractor.

Links to further details

Contract requests

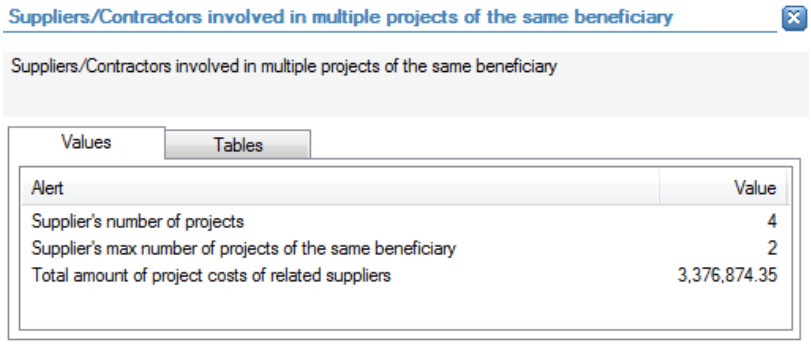
The following links to further details are available:

- Link to contract (related to the current project) that generated the alert value. Starting from that point, the user can navigate to the supplier/contractor and subsequently the related contracts.

14.3.7.6 Suppliers/contractors involved in multiple Projects of the same beneficiary

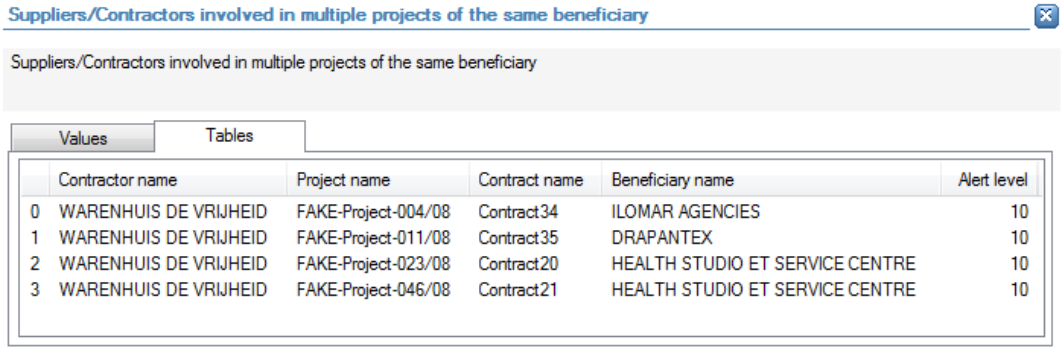
Description	The objective of this check is to identify projects for which there is a supplier/contractor that is linked to multiple projects, as a supplier/contractor, but with the same beneficiary within the same Member State
Level of calculation	The check is performed for each project
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Projects; ▪ Related contractors; ▪ Related beneficiaries
Calculated data	Not applicable
Alert value	The alert gets a value of 10 when there is a supplier/contractor that is linked to multiple projects, as a supplier/contractor, but with the same beneficiary within the same Member State.
Project score	Alert value
Applicable project types	All project types

Pop-up information



The following detailed information is available in the values tab:

- Number of projects in which the supplier/contractor is involved (as a supplier/contractor);
- Maximum number of projects in which the supplier/contractor is involved, as a supplier/contractor, within the same Member State and with the same beneficiary;
- Total accumulated cost of the projects in which the supplier/contractor is involved (as a supplier/contractor.



The following detailed information is available in the tables tab:

- Name of the supplier/contractor;
- Projects in which the supplier/contractor is involved as a supplier/contractor, limited to 30 as a preview;
- Name of the contracts through the supplier/contractor is linked with the projects;
- Name of the beneficiary of the project;
- Alert value for the contractor.

Links to further details

Contract requests

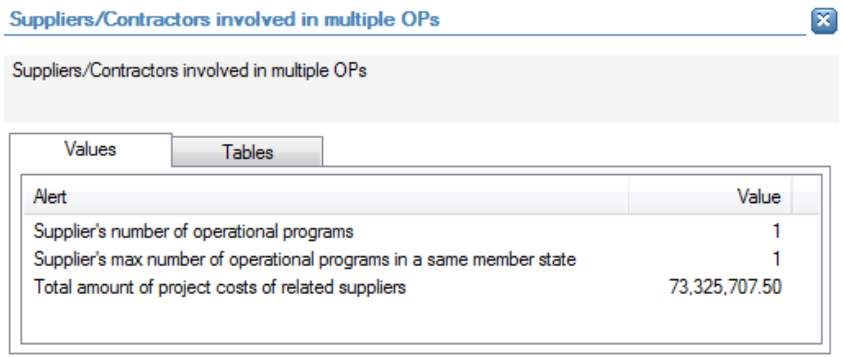
The following links to further details are available:

- Link to contract (related to the current project) that generated the alert value. Starting from that point, the user can navigate to the supplier/contractor and subsequently the related contracts.

14.3.7.7 Suppliers/contractors linked to multiple operational programs

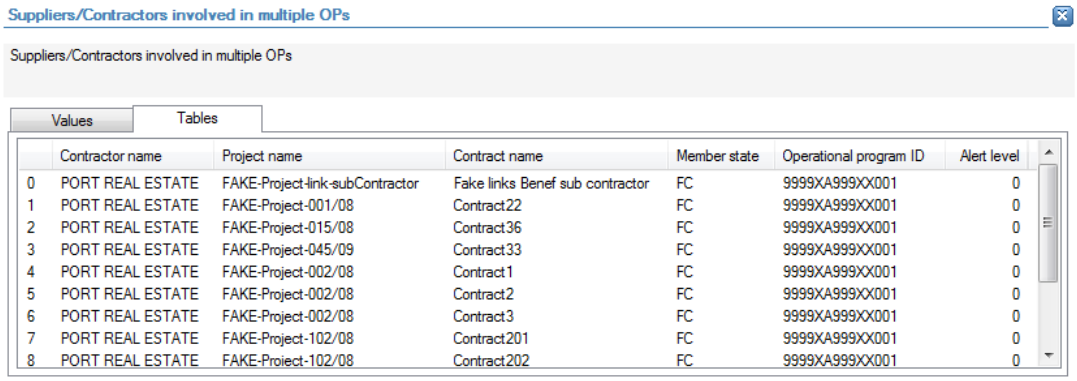
Description	The objective of this check is to identify projects for which a supplier/contractor is linked to multiple operational programs, as a supplier/contractor within the same Member State.
Level of calculation	The check is performed for each project
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Projects; ▪ Related operational programs; ▪ Related suppliers/contractors
Calculated data	Not applicable
Alert value	The alert gets a value 10 when there is a supplier/contractor that is linked to multiple operational programs, as a supplier/contractor, within the same Member State.
Project score	Alert value
Applicable project types	All project types

Pop-up information



The following detailed information is available in the values tab:

- Number of operational programs in which the supplier/contractor is involved (as a supplier/contractor);
- Maximum number of operational programs in which the supplier/contractor is involved, as a supplier/contractor, within the same Member State;
- Total accumulated cost of the projects in which the supplier/contractor is involved (as a supplier/contractor).



	Contractor name	Project name	Contract name	Member state	Operational program ID	Alert level
0	PORT REAL ESTATE	FAKE-Project-link-subContractor	Fake links Benef sub contractor	FC	9999XA999XX001	0
1	PORT REAL ESTATE	FAKE-Project-001/08	Contract22	FC	9999XA999XX001	0
2	PORT REAL ESTATE	FAKE-Project-015/08	Contract36	FC	9999XA999XX001	0
3	PORT REAL ESTATE	FAKE-Project-045/09	Contract33	FC	9999XA999XX001	0
4	PORT REAL ESTATE	FAKE-Project-002/08	Contract1	FC	9999XA999XX001	0
5	PORT REAL ESTATE	FAKE-Project-002/08	Contract2	FC	9999XA999XX001	0
6	PORT REAL ESTATE	FAKE-Project-002/08	Contract3	FC	9999XA999XX001	0
7	PORT REAL ESTATE	FAKE-Project-102/08	Contract201	FC	9999XA999XX001	0
8	PORT REAL ESTATE	FAKE-Project-102/08	Contract202	FC	9999XA999XX001	0

The following detailed information is available in the tables tab:

- Name of the supplier/contractor;
- Projects in which the supplier/contractor is involved as a supplier/contractor;
- Name of the contracts through the supplier/contractor is linked with the projects;
- Member States of the operational program in which the supplier/contractor is involved as a supplier/contractor;
- Operational programs in which the supplier/contractor is involved as a supplier/contractor, limited to 30 as a preview;
- Alert value for the contractor.

Links to further details

Contract requests

The following links to further details are available:

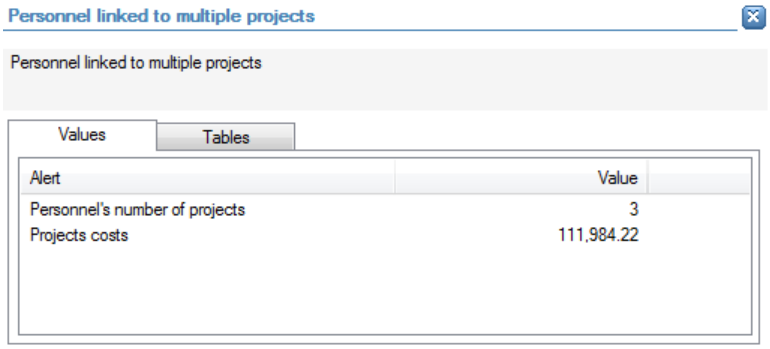
- Link to contract (related to the current project) that generated the alert value. Starting from that point, the user can navigate to the supplier/contractor and subsequently the related contracts.

14.3.7.8 Personnel linked to multiple Projects

Description	The objective of this check is to identify projects for which there is personnel that is involved in multiple projects within the same Member State
Level of calculation	The check is performed for each project
Peer group	Not applicable
Input data	The following data is used to calculate the alert:

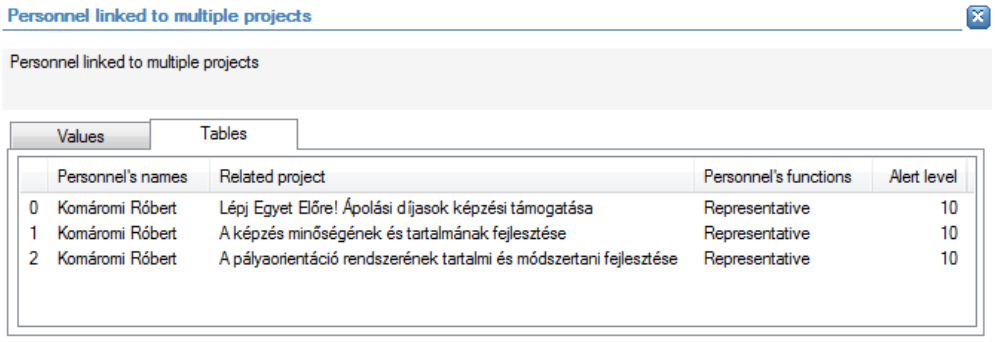
	▪ Projects; ▪ Personnel (involvements)
Calculated data	Not applicable
Alert value	The alert gets a value of 10 when there is personnel (involvement) that is linked to another project within the same Member State.
Project score	Alert value
Applicable project types	ESF

Pop-up information



The following detailed information is available in the values tab:

- Total number of projects in which the personnel member is involved;
- Total accumulated cost of those projects.



The following detailed information is available in the tables tab:

- Personnel member's name;
- Function of the personnel member;
- Project in which the personnel member is involved, limited to 30 as a preview;
- Alert value of the personnel member.

Links to further details

Involvements
Details

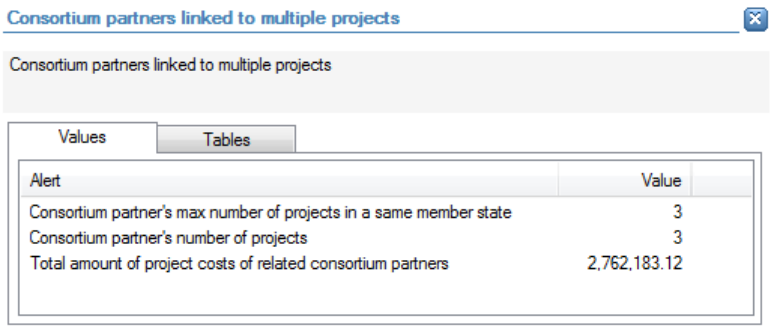
The following links to further details are available:

- Involvements: link to the personnel member. Starting from that point, related information from the Orbis database can be consulted.
- Details link leads to the project(s) in which the personnel member is involved.

14.3.7.9 Consortium members linked to multiple Projects

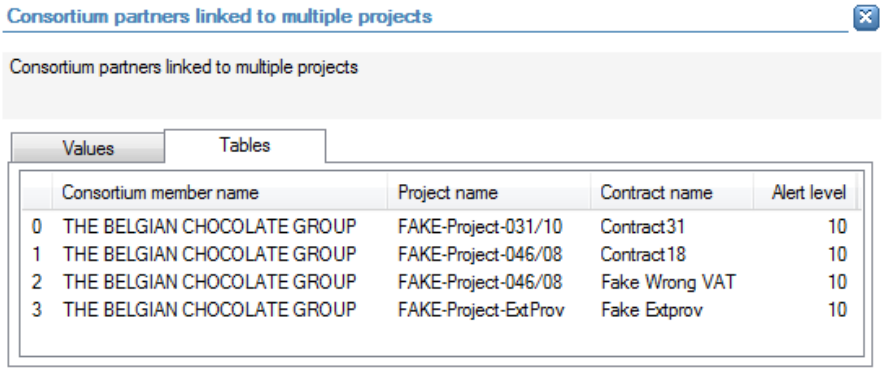
Description	The objective of this check is to identify projects for which there is a consortium member that appears, as a consortium member, in multiple projects within the same Member State
Level of calculation	The check is performed for each project
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Projects; ▪ Related consortium members
Calculated data	Not applicable
Alert value	The alert gets a value of 10 when there is a consortium member that appears, as a consortium member, in multiple projects within the same Member State.
Project score	Alert value
Applicable project types	DG Regio - Infrastructure

Pop-up information



The following detailed information is available in the values tab:

- Maximum number of projects in which the consortium member is involved, as a consortium member, within the same Member State;
- Number of projects in which the consortium member is involved (as a consortium member);
- Total accumulated cost of the projects in which the consortium member is involved.



The following detailed information is available in the tables tab:

- Name of the consortium member;
- Projects in which the consortium member is involved as a consortium member, limited to 30 as a preview;
- Name of the contracts through the consortium member is linked with the projects;
- Alert value for the consortium member.

Links to further details

Related companies

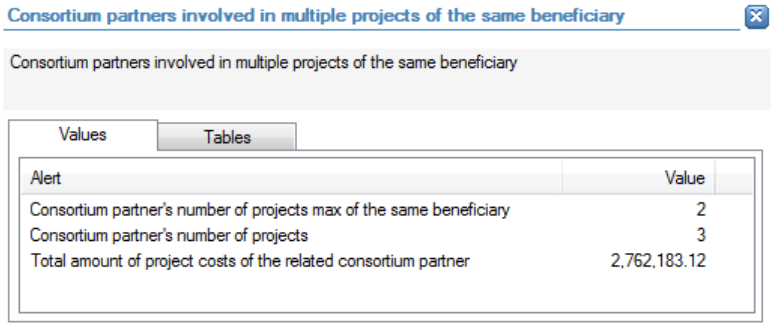
The following links to further details are available:

- A link to the consortium member. Starting from that point all related information for the consortium member can be accessed including the interactive report (contractor) in which the list of related contracts and projects can be consulted.

14.3.7.10 Consortium members linked to multiple Projects of the same beneficiary

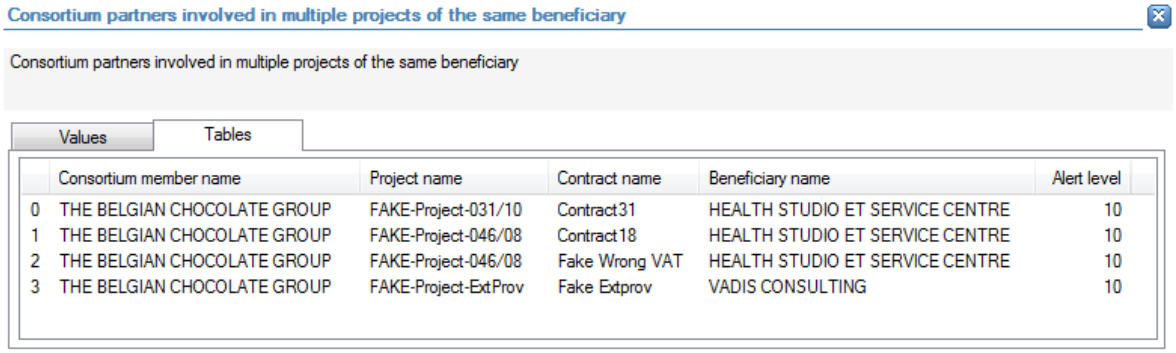
Description	The objective of this check is to identify project for which there is a consortium members that appears in multiple projects, as a consortium member, but always for the same beneficiary within the same Member State
Level of calculation	The check is performed for each project
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Projects; ▪ Related beneficiaries; ▪ Related consortium members
Calculated data	Not applicable
Alert value	The alert gets a value from of 10 when there is a consortium member that appears in multiple projects, as a consortium member, but always for the same beneficiary within the same Member State.
Project score	Alert value
Applicable project types	DG Regio - Infrastructure

Pop-up information



The following detailed information is available in the values tab:

- Maximum number of projects in which the consortium member is involved, as a consortium member, within the same Member State and with the same beneficiary;
- Number of projects in which the consortium member is involved (as a consortium member);
- Total accumulated cost of the projects in which the consortium member is involved (as a consortium member).



The following detailed information is available in the tables tab:

- Name of the consortium member;
- Projects in which the consortium member is involved as a consortium member, limited to 30 as a preview;
- Name of the contracts through which the consortium member is linked with the projects;
- Name of the beneficiary of the project;
- Alert value for the consortium member.

Links to further details

Related companies

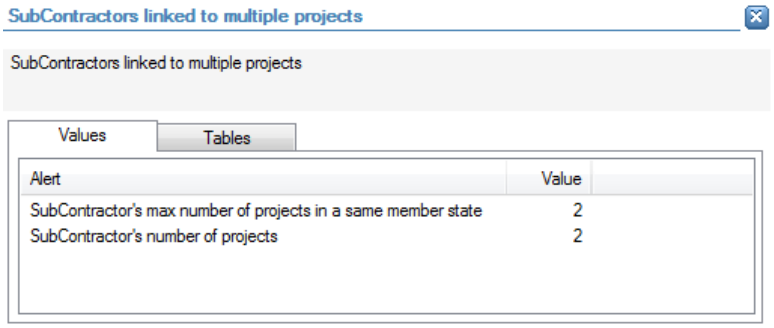
The following links to further details are available:

- A link to the consortium member. Starting from that point all related information for the consortium member can be accessed including the interactive report (contractor) in which the list of related contracts and projects can be consulted.

14.3.7.11 Sub-contractors linked to multiple Projects

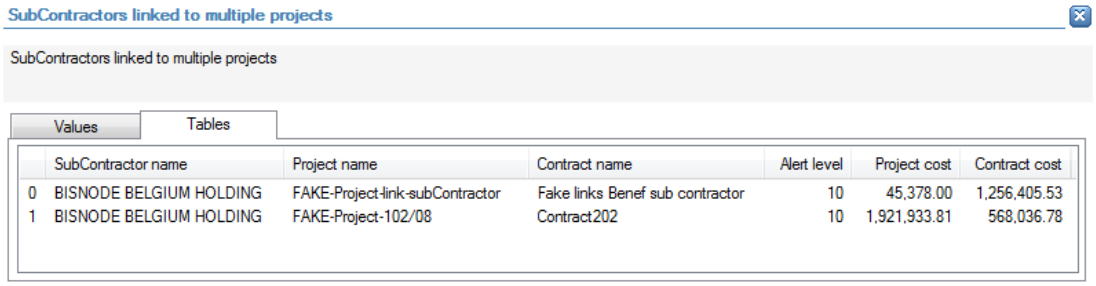
Description	The objective of this check is to identify projects for which there is a sub-contractor that appears, as a sub-contractor, in multiple projects within the same Member State
Level of calculation	The check is performed for each project
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Projects; ▪ Related sub-contractors
Calculated data	Not applicable
Alert value	The alert gets a value of 10 when there is a sub-contractor that appears, as a sub-contractor, in multiple projects within the same Member State.
Project score	Alert value
Applicable project types	DG Regio - Infrastructure

Pop-up information



The following detailed information is available in the values tab:

- Maximum number of projects in which the sub-contractor is involved, as a sub-contractor, within the same Member State;
- Number of projects in which the sub-contractor is involved (as a sub-contractor).



The following detailed information is available in the tables tab:

- Name of the sub-contractor;
- Projects in which the sub-contractor is involved as a sub-contractor, limited to 30 as a preview;

- Name of the contracts through the sub-contractor is linked with the projects;
- Alert value for the sub-contractor;
- Project amount;
- Contract amount.

Links to further details

Related companies

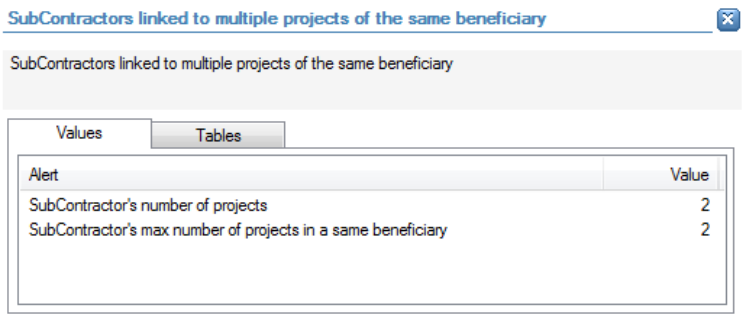
The following links to further details are available:

- A link to sub-contractor. Starting from that point all related information for the sub-contractor can be accessed including the interactive report (contractor) in which the list of related contracts and projects can be consulted.

14.3.7.12 Sub-contractors linked to multiple Projects of the same beneficiary

Description	The objective of this check is to identify projects for which there is a sub-contractor that appears, as a sub-contractor, in multiple projects, but always with the same beneficiary within the same Member State
Level of calculation	The check is performed for each project
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Projects; ▪ Related beneficiaries; ▪ Related sub-contractors
Calculated data	Not applicable
Alert value	The alert gets a value of 10 when there is a sub-contractor that appears, as a sub-contractor, in multiple projects, but always with the same beneficiary within the same Member State.
Project score	Alert value
Applicable project types	DG Regio - Infrastructure

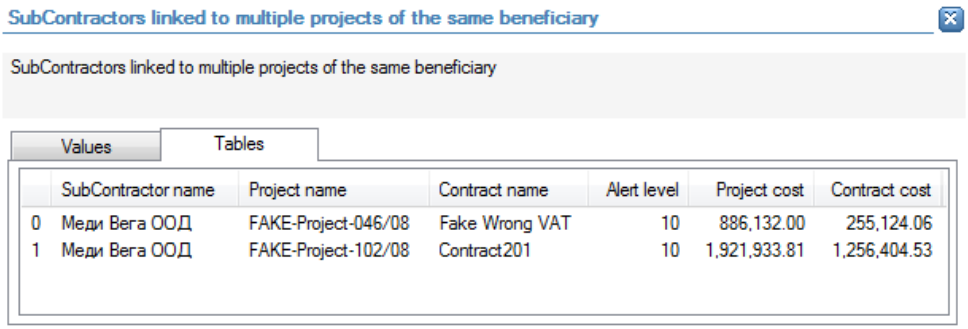
Pop-up information



The following detailed information is available in the values tab:

- Maximum number of projects in which the sub-contractor is involved, as a sub-contractor, within the same Member State and with the same beneficiary;

- Number of projects in which the sub-contractor is involved (as a sub-contractor).



	SubContractor name	Project name	Contract name	Alert level	Project cost	Contract cost
0	Меди Вега ООД	FAKE-Project-046/08	Fake Wrong VAT	10	886,132.00	255,124.06
1	Меди Вега ООД	FAKE-Project-102/08	Contract201	10	1,921,933.81	1,256,404.53

The following detailed information is available in the tables tab:

- Name of the sub-contractor;
- Projects in which the sub-contractor is involved as a sub-contractor, limited to 30 as a preview;
- Name of the contracts through the sub-contractor is linked with the projects;
- Alert value for the sub-contractor;
- Project amount;
- Contract amount.

Links to further details

Related companies

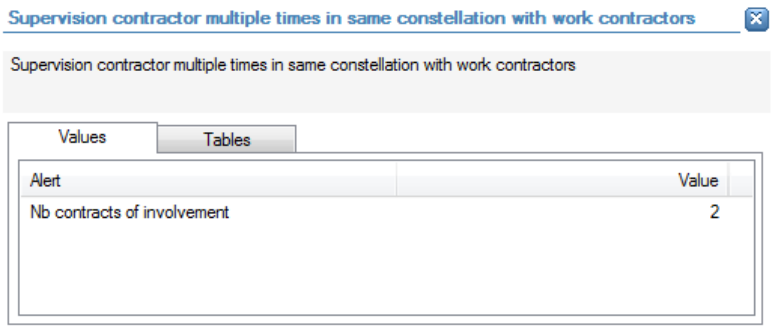
The following links to further details are available:

- A link to sub-contractor. Starting from that point all related information for the sub-contractor can be accessed including the interactive report (contractor) in which the list of related contracts and projects can be consulted.

14.3.7.13 Supervision contractor multiple times in same constellation with works contractor

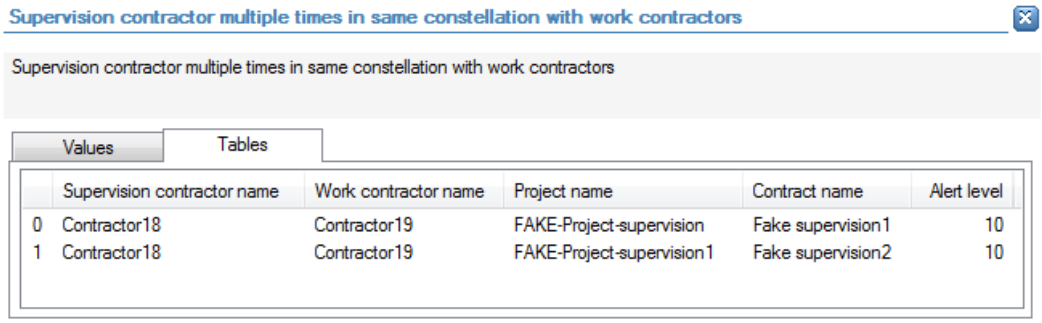
Description	The objective of this check it to identify projects for which there is a supervision contractor that appears together with the same works contractor, in other contracts within the same Member State
Level of calculation	The check is performed for each project
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Projects; ▪ Related contracts; ▪ Related contract types; ▪ Related contractors
Calculated data	Not applicable
Alert value	The alert gets a value of 10 when there is a supervision contractor that appears together with the same contractor, in other contracts within the same Member State
Project score	Alert value
Applicable project types	DG Regio - Infrastructure

Pop-up information



The following detailed information is available in the values tab:

- Number of contracts, in the same Member State, in which the supervision contractor appears with the same works contractor.



The following detailed information is available in the tables tab:

- Name of the supervision contractor;
- Name of the works contractor;

- Name of the projects (in which the supervision contractor appears with the same works contractor) , limited to 30 as a preview;
- Name of the contracts (in which the supervision contractor appears with the same works contractor);
- Alert value for the supervision contractor.

Links to further details

The following links to further details are available:

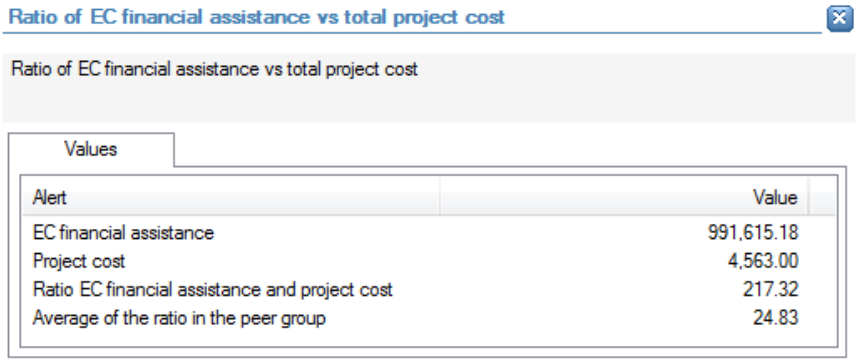
- Link to the supervision contract(s) (related to the current project) that caused the alert value.

14.3.8 Other checks related to ESF projects

14.3.8.1 EC financial assistance/ total Project cost

Description	The objective of this check is to identify projects for with the ratio of EC financial assistance relative to the total project cost is larger than the average ratio in the peer group.
Level of calculation	The check is performed for each project
Peer group	Operational Program
Input data	The following data is used to calculate the alert: ▪ EC financial assistance ▪ Project cost
Calculated data	The following data is calculated for the alert: ▪ Ratio: EC financial assistance / project cost; ▪ Average ratio in the peer group; ▪ Deviation of the ratio (EC financial assistance / project cost) for the project from the average ratio in the peer group.
Alert value	The alert gets a value from 0 to 10 depending on the deviation of the ratio (EC financial assistance / project cost) for the project from the average ratio in the peer group.
Project score	Alert value
Applicable project types	ESF

Pop-up information



The following detailed information is available in the values tab:

- EC financial assistance amount;
- Project cost;
- Ratio of EC financial assistance compared to project cost;
- Average ratio in the peer group.

No detailed information is available in the tables tab.

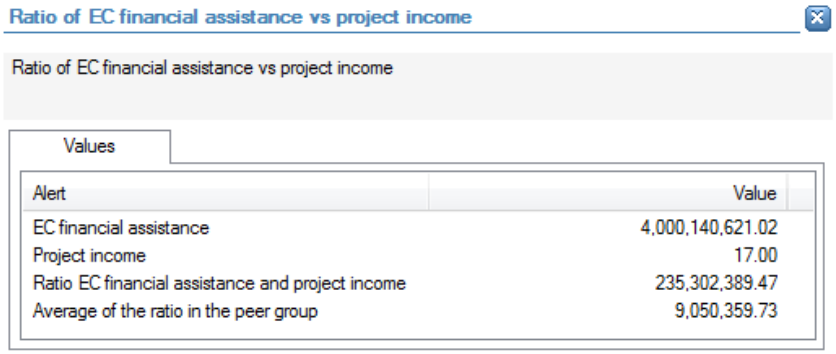
Links to further details

No links to further details are available.

14.3.8.2 EC financial assistance/ Project income

Description	The objective of this check is to identify projects for with the ratio of EC financial assistance relative to the project income is larger than the average ratio in the peer group.
Level of calculation	The check is performed for each project
Peer group	Operational Program
Input data	The following data is used to calculate the alert: ▪ EC financial assistance ▪ Project income
Calculated data	The following data is calculated for the alert: ▪ Ratio: EC financial assistance / project income; ▪ Average ratio in the peer group; ▪ Deviation of the ratio (EC financial assistance / project income) for the project from the average ratio in the peer group.
Alert value	The alert gets a value from 0 to 10 depending on the deviation of the ratio (EC financial assistance / project income) for the project from the average ratio in the peer group.
Project score	Alert value
Applicable project types	ESF

Pop-up information



The following detailed information is available in the values tab:

- EC financial assistance amount;
- Project income;
- Ratio of EC financial assistance compared to project income;
- Average ratio in the peer group.

No detailed information is available in the tables tab.

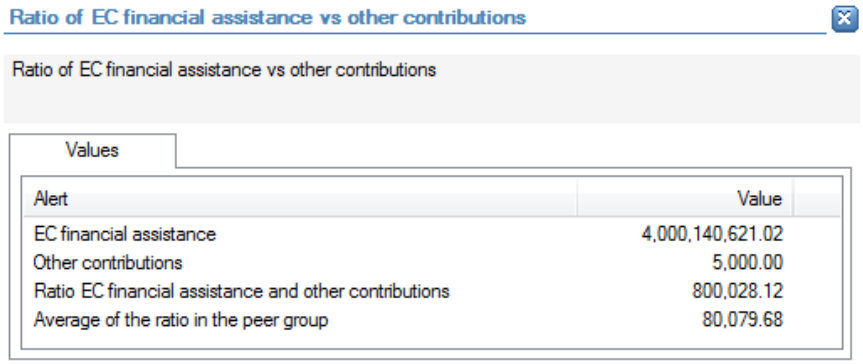
Links to further details

No links to further details are available.

14.3.8.3 EC financial assistance/ other contributions

Description	The objective of this check is to identify projects for with the ratio of EC financial assistance relative to other contributions is larger than the average ratio in the peer group.
Level of calculation	The check is performed for each project
Peer group	Operational Program
Input data	The following data is used to calculate the alert: ▪ EC financial assistance ▪ Other contributions
Calculated data	The following data is calculated for the alert: ▪ Ratio: EC financial assistance / other contributions; ▪ Average ratio in the peer group; ▪ Deviation of the ratio (EC financial assistance / other contribution) for the project from the average ratio in the peer group.
Alert value	The alert gets a value from 0 to 10 depending on the deviation of the ratio (EC financial assistance / other contributions) for the project from the average ratio in the peer group.
Project score	Alert value
Applicable project types	ESF

Pop-up information



The following detailed information is available in the values tab:

- EC financial assistance amount;
- Other contributions;
- Ratio of EC financial assistance compared to other contributions;
- Average ratio in the peer group.

No detailed information is available in the tables tab.

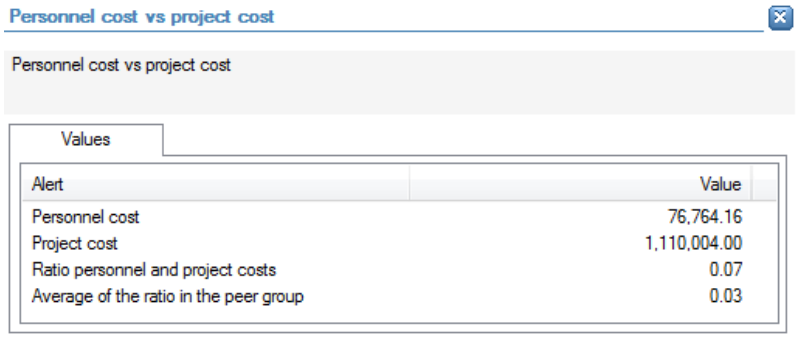
Links to further details

No links to further details are available.

14.3.8.4 Personnel cost/project cost

Description	The objective of this check is to identify projects for with the ratio of personnel cost relative to the total project cost is larger than the average ratio in the peer group.
Level of calculation	The check is performed for each project
Peer group	Operational Program
Input data	The following data is used to calculate the alert: ▪ Personnel cost ▪ Project cost
Calculated data	The following data is calculated for the alert: ▪ Ratio: personnel cost / project cost; ▪ Average ratio in the peer group; ▪ Deviation of the ratio (personnel cost / project cost) for the project from the average ratio in the peer group.
Alert value	The alert gets a value from 0 to 10 depending on the deviation of the ratio (personnel cost / project cost) for the project from the average ratio in the peer group.
Project score	Alert value
Applicable project types	ESF

Pop-up information



The following detailed information is available in the values tab:

- Ratio of personnel cost compared to project cost;
- Average ratio in the peer group;
- Personnel cost;
- Project cost.

No detailed information is available in the tables tab.

Links to further details

Expenses

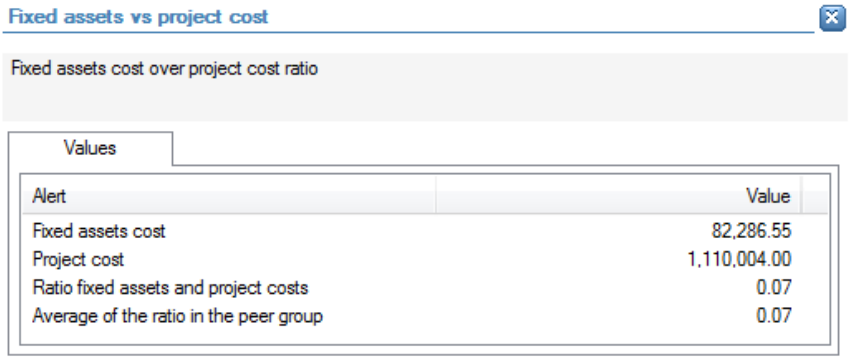
The following links to further details are available:

- Link to the personnel costs (line items in the expenses)

14.3.8.5 Fixed assets costs/project cost

Description	The objective of this check is to identify projects for with the ratio of fixed assets cost relative to the total project cost is larger than the average ratio in the peer group.
Level of calculation	The check is performed for each project
Peer group	Operational Program
Input data	The following data is used to calculate the alert: ▪ Fixed assets cost ▪ Project cost
Calculated data	The following data is calculated for the alert: ▪ Ratio: fixed assets cost / project cost; ▪ Average ratio in the peer group; ▪ Deviation of the ratio (fixed assets cost / project cost) for the project from the average ratio in the peer group.
Alert value	The alert gets a value from 0 to 10 depending on the deviation of the ratio (fixed assets cost / project cost) for the project from the average ratio in the peer group.
Project score	Alert value
Applicable project types	ESF

Pop-up information



The following detailed information is available in the values tab:

- Fixed assets cost;
- Project cost;
- Ratio of fixed assets cost compared to project cost;
- Average ratio in the peer group.

No detailed information is available in the tables tab.

Links to further details

Expenses

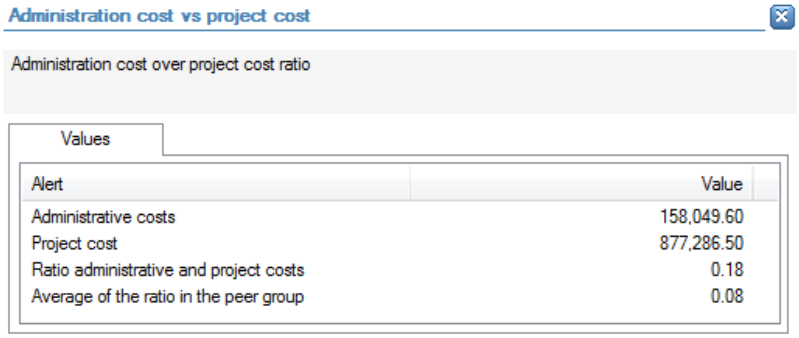
The following links to further details are available:

- Link to the fixed assets costs (line items in the expenses)

14.3.8.6 Administrative costs/project cost

Description	The objective of this check is to identify projects for with the ratio of administrative cost relative to the total project cost is larger than the average ratio in the peer group.
Level of calculation	The check is performed for each project
Peer group	Operational Program
Input data	The following data is used to calculate the alert: ▪ Administrative cost ▪ Project cost
Calculated data	The following data is calculated for the alert: ▪ Ratio: administrative cost / project cost; ▪ Average ratio in the peer group; ▪ Deviation of the ratio (administrative cost / project cost) for the project from the average ratio in the peer group.
Alert value	The alert gets a value from 0 to 10 depending on the deviation of the ratio (administrative cost / project cost) for the project from the average ratio in the peer group.
Project score	Alert value
Applicable project types	ESF

Pop-up information



The following detailed information is available in the values tab:

- Administrative cost;
- Project cost:
- Ratio of administrative cost compared to project cost;
- Average ratio in the peer group.

No detailed information is available in the tables tab.

Links to further details

Expenses

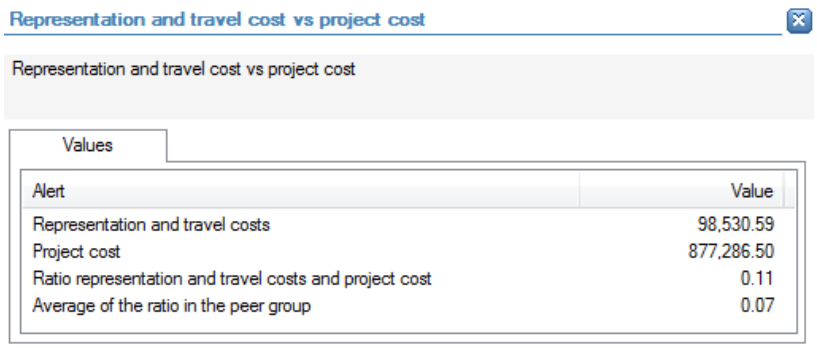
The following links to further details are available:

- Link to the administrative costs (line items in the expenses)

14.3.8.7 Representation and travel costs/project cost

Description	The objective of this check is to identify projects for with the ratio of representation and travel cost relative to the total project cost is larger than the average ratio in the peer group.
Level of calculation	The check is performed for each project
Peer group	Operational Program
Input data	The following data is used to calculate the alert: ▪ Representation and travel cost ▪ Project cost
Calculated data	The following data is calculated for the alert: ▪ Ratio: representation and travel cost / project cost; ▪ Average ratio in the peer group; ▪ Deviation of the ratio (representation and travel cost / project cost) for the project from the average ratio in the peer group.
Alert value	The alert gets a value from 0 to 10 depending on the deviation of the ratio (representation and travel cost / project cost) for the project from the average ratio in the peer group.
Project score	Alert value
Applicable project types	ESF

Pop-up information



The following detailed information is available in the values tab:

- Representation and travel cost;
- Project cost;
- Ratio of representation and travel cost compared to project cost;
- Average ratio in the peer group.

No detailed information is available in the tables tab.

Links to further details

Expenses

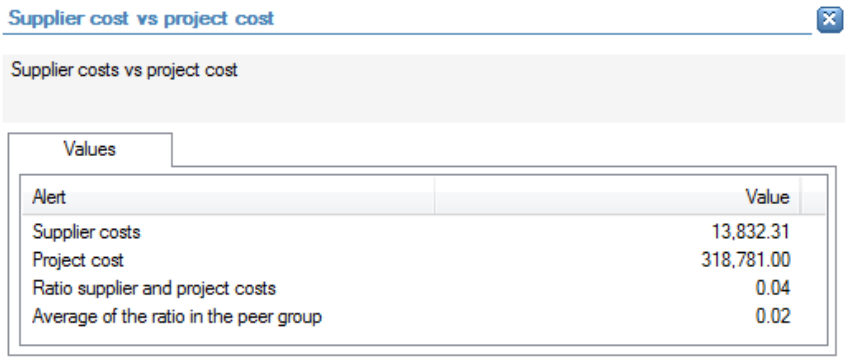
The following links to further details are available:

- Link to the representation and travel costs (line items in the expenses)

14.3.8.8 Supplier costs/project cost

Description	The objective of this check is to identify projects for with the ratio of supplier cost relative to the total project cost is larger than the average ratio in the peer group.
Level of calculation	The check is performed for each project
Peer group	Operational Program
Input data	The following data is used to calculate the alert: ▪ Supplier cost ▪ Project cost
Calculated data	The following data is calculated for the alert: ▪ Ratio: supplier cost / project cost; ▪ Average ratio in the peer group; ▪ Deviation of the ratio (supplier cost / project cost) for the project from the average ratio in the peer group.
Alert value	The alert gets a value from 0 to 10 depending on the deviation of the ratio (supplier cost / project cost) for the project from the average ratio in the peer group.
Project score	Alert value
Applicable project types	ESF

Pop-up information



The following detailed information is available in the values tab:

- Supplier cost;
- Project cost;
- Ratio of supplier cost compared to project cost;
- Average ratio in the peer group.

No detailed information is available in the tables tab.

Links to further details

Expenses

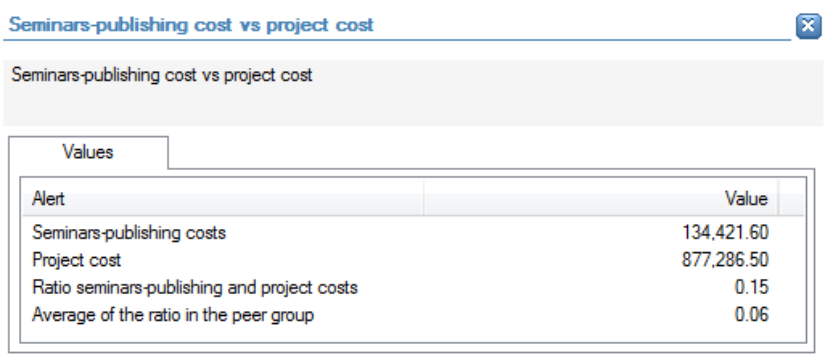
The following links to further details are available:

- Link to the supplier costs (line items in the expenses)

14.3.8.9 Seminars-publishing costs/project cost

Description	The objective of this check is to identify projects for with the ratio of seminars-publishing cost relative to the total project cost is larger than the average ratio in the peer group.
Level of calculation	The check is performed for each project
Peer group	Operational Program
Input data	The following data is used to calculate the alert: ▪ Seminars-publishing cost ▪ Project cost
Calculated data	The following data is calculated for the alert: ▪ Ratio: seminars-publishing cost / project cost; ▪ Average ratio in the peer group; ▪ Deviation of the ratio (seminars-publishing cost / project cost) for the project from the average ratio in the peer group.
Alert value	The alert gets a value from 0 to 10 depending on the deviation of the ratio (seminars-publishing cost / project cost) for the project from the average ratio in the peer group.
Project score	Alert value
Applicable project types	ESF

Pop-up information



The following detailed information is available in the values tab:

- Seminars-publishing cost;
- Project cost;
- Ratio of seminars-publishing cost compared to project cost;
- Average ratio in the peer group.

No detailed information is available in the tables tab.

Links to further details

Expenses

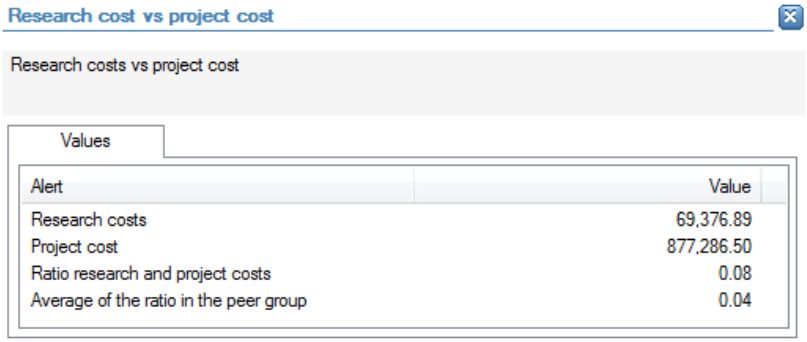
The following links to further details are available:

- Link to the seminars-publishing costs (line items in the expenses)

14.3.8.10 Research costs/project cost

Description	The objective of this check is to identify projects for with the ratio of research cost relative to the total project cost is larger than the average ratio in the peer group.
Level of calculation	The check is performed for each project
Peer group	Operational Program
Input data	The following data is used to calculate the alert: ▪ Research cost ▪ Project cost
Calculated data	The following data is calculated for the alert: ▪ Ratio: research cost / project cost; ▪ Average ratio in the peer group; ▪ Deviation of the ratio (research cost / project cost) for the project from the average ratio in the peer group.
Alert value	The alert gets a value from 0 to 10 depending on the deviation of the ratio (research cost / project cost) for the project from the average ratio in the peer group.
Project score	Alert value
Applicable project types	ESF

Pop-up information



The following detailed information is available in the values tab:

- Research cost;
- Project cost;
- Ratio of research cost compared to project cost;
- Average ratio in the peer group.

No detailed information is available in the tables tab.

Links to further details

Expenses

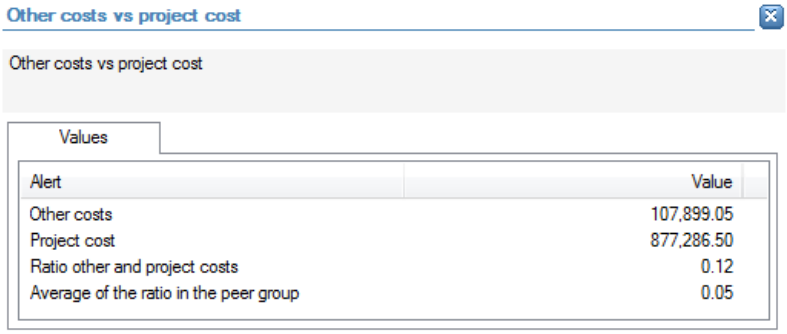
The following links to further details are available:

- Link to the research costs (line items in the expenses)

14.3.8.11 Other costs/project cost

Description	The objective of this check is to identify projects for with the ratio of other cost relative to the total project cost is larger than the average ratio in the peer group.
Level of calculation	The check is performed for each project
Peer group	Operational Program
Input data	The following data is used to calculate the alert: ▪ Other cost ▪ Project cost
Calculated data	The following data is calculated for the alert: ▪ Ratio: other cost / project cost; ▪ Average ratio in the peer group; ▪ Deviation of the ratio (other cost / project cost) for the project from the average ratio in the peer group.
Alert value	The alert gets a value from 0 to 10 depending on the deviation of the ratio (other cost / project cost) for the project from the average ratio in the peer group.
Project score	Alert value
Applicable project types	ESF

Pop-up information



The following detailed information is available in the values tab:

- Other cost;
- Project cost;
- Ratio of other cost compared to project cost;
- Average ratio in the peer group.

No detailed information is available in the tables tab.

Links to further details

Expenses

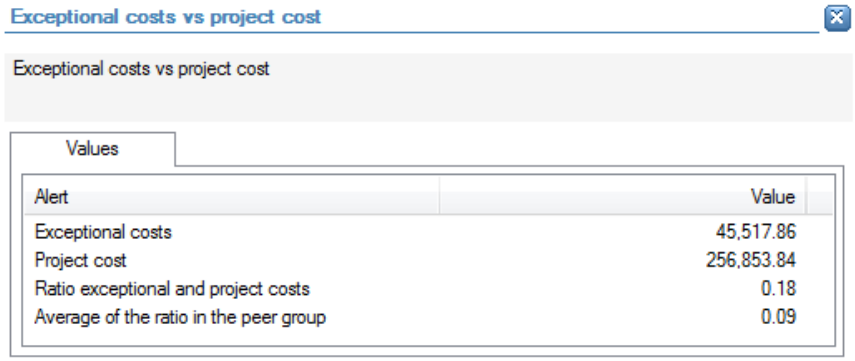
The following links to further details are available:

- Link to the other costs (line items in the expenses)

14.3.8.12 Exceptional costs/project cost

Description	The objective of this check is to identify projects for with the ratio of exceptional cost relative to the total project cost is larger than the average ratio in the peer group.
Level of calculation	The check is performed for each project
Peer group	Operational Program
Input data	The following data is used to calculate the alert: ▪ Exceptional cost ▪ Project cost
Calculated data	The following data is calculated for the alert: ▪ Ratio: exceptional cost / project cost; ▪ Average ratio in the peer group; ▪ Deviation of the ratio (exceptional cost / project cost) for the project from the average ratio in the peer group.
Alert value	The alert gets a value from 0 to 10 depending on the deviation of the ratio (exceptional cost / project cost) for the project from the average ratio in the peer group.
Project score	Alert value
Applicable project types	ESF

Pop-up information



The following detailed information is available in the values tab:

- Exceptional cost;
- Project cost;
- Ratio of exceptional cost compared to project cost;
- Average ratio in the peer group.

No detailed information is available in the tables tab.

Links to further details

Expenses

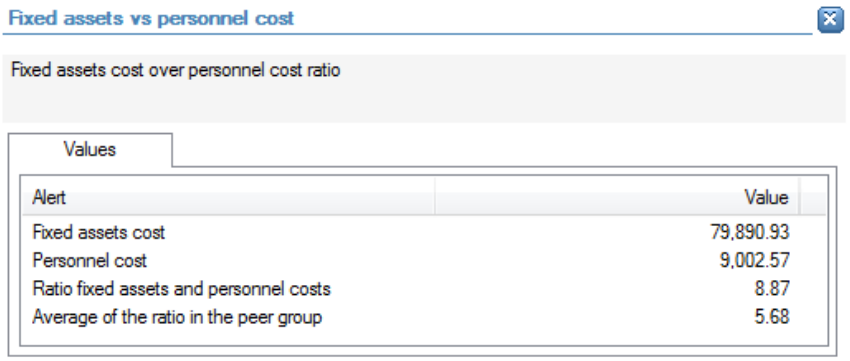
The following links to further details are available:

- Link to the exceptional costs (line items in the expenses)

14.3.8.13 Fixed assets cost/personnel cost

Description	The objective of this check is to identify projects for with the ratio of fixed assets cost relative to the personnel cost is larger than the average ratio in the peer group.
Level of calculation	The check is performed for each project
Peer group	Operational Program
Input data	The following data is used to calculate the alert: ▪ Fixed assets cost ▪ Personnel cost
Calculated data	The following data is calculated for the alert: ▪ Ratio: fixed assets cost / personnel cost; ▪ Average ratio in the peer group; ▪ Deviation of the ratio (fixed assets cost / personnel cost) for the project from the average ratio in the peer group.
Alert value	The alert gets a value from 0 to 10 depending on the deviation of the ratio (fixed assets cost / personnel cost) for the project from the average ratio in the peer group.
Project score	Alert value
Applicable project types	ESF

Pop-up information



The following detailed information is available in the values tab:

- Fixed assets cost;
- Personnel cost;
- Ratio of fixed assets cost compared to personnel cost;
- Average ratio in the peer group.

No detailed information is available in the tables tab.

Links to further details

Expenses

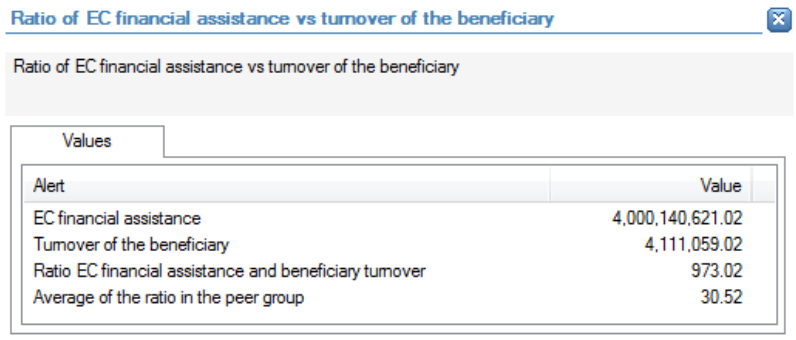
The following links to further details are available:

- Link to the expenses (all line items)

14.3.8.14 EC financial assistance/ beneficiary turnover (Project level)

Description	The objective of this check is to identify projects for with the ratio of EC financial assistance relative to the beneficiary turnover is larger than the average ratio in the peer group.
Level of calculation	The check is performed for each project
Peer group	Operational Program
Input data	The following data is used to calculate the alert: ▪ EC financial assistance; ▪ Beneficiary turnover (as sourced by the Member State in the Project table)
Calculated data	The following data is calculated for the alert: ▪ Ratio: EC financial assistance / beneficiary turnover; ▪ Average ratio in the peer group; ▪ Deviation of the ratio (EC financial assistance / beneficiary turnover) for the project from the average ratio in the peer group.
Alert value	The alert gets a value from 0 to 10 depending on the deviation of the ratio (EC financial assistance / beneficiary turnover) for the project from the average ratio in the peer group.
Project score	Alert value
Applicable project types	ESF

Pop-up information



The following detailed information is available in the values tab:

- EC financial assistance;
- Beneficiary turnover;
- Ratio of EC financial assistance compared to beneficiary turnover;
- Average ratio in the peer group.

No detailed information is available in the tables tab.

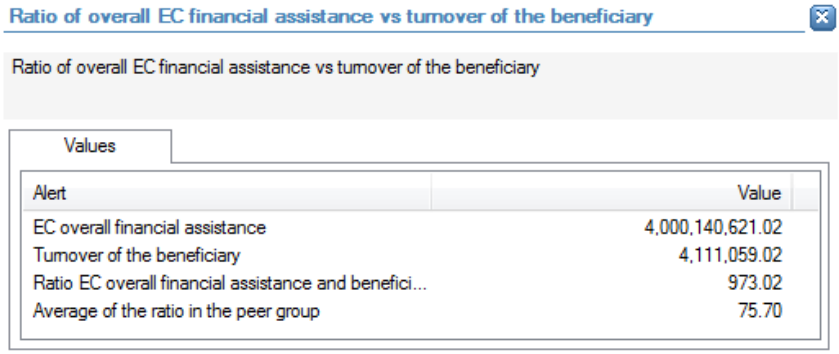
Links to further details

No links to further details are available.

14.3.8.15 EC financial assistance/ beneficiary turnover (overall)

Description	The objective of this check is to identify projects for with the ratio of overall EC financial assistance relative to the beneficiary turnover is larger than the average ratio in the peer group.
Level of calculation	The check is performed for each project
Peer group	Operational Program
Input data	The following data is used to calculate the alert: ▪ EC financial assistance; ▪ Beneficiary turnover (as sourced by the Member State in the Project table)
Calculated data	The following data is calculated for the alert: ▪ Overall EC financial assistance: sum of EC financial assistance for all projects of the beneficiary; ▪ Ratio: overall EC financial assistance / beneficiary turnover; ▪ Average ratio in the peer group; ▪ Deviation of the ratio (overall EC financial assistance / beneficiary turnover) for the project from the average ratio in the peer group.
Alert value	The alert gets a value from 0 to 10 depending on the deviation of the ratio (overall EC financial assistance / beneficiary turnover) for the project from the average ratio in the peer group.
Project score	Alert value
Applicable project types	ESF

Pop-up information



The following detailed information is available in the values tab:

- Overall EC financial assistance;
- Beneficiary turnover;
- Ratio of overall EC financial assistance compared to beneficiary turnover;
- Average ratio in the peer group.

No detailed information is available in the tables tab.

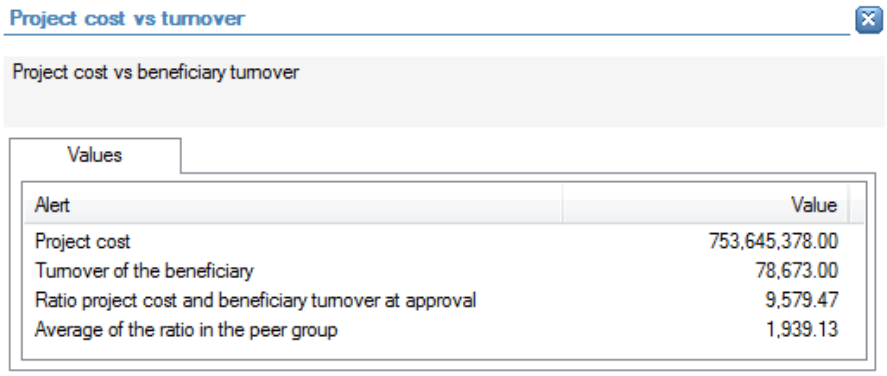
Links to further details

No links to further details are available.

14.3.8.16 Project cost / beneficiary turnover (Project level) only on SME projects

Description	The objective of this check is to identify projects for with the ratio of project cost relative to the beneficiary turnover is larger than the average ratio in the peer group.
Level of calculation	The check is performed for each project
Peer group	Operational Program
Input data	The following data is used to calculate the alert: ▪ Project cost ▪ Beneficiary turnover (as sourced by the Member State in table Project)
Calculated data	The following data is calculated for the alert: ▪ Ratio: project cost / beneficiary turnover; ▪ Average ratio in the peer group; ▪ Deviation of the ratio (project cost / beneficiary) for the project from the average ratio in the peer group.
Alert value	The alert gets a value from 0 to 10 depending on the deviation of the ratio (project cost / beneficiary turnover) for the project from the average ratio in the peer group.
Project score	Alert value
Applicable project types	SME

Pop-up information



The following detailed information is available in the values tab:

- Project cost;
- Beneficiary turnover;
- Ratio of project cost compared to beneficiary turnover;
- Average ratio in the peer group.

No detailed information is available in the tables tab.

Links to further details

No links to further details are available.

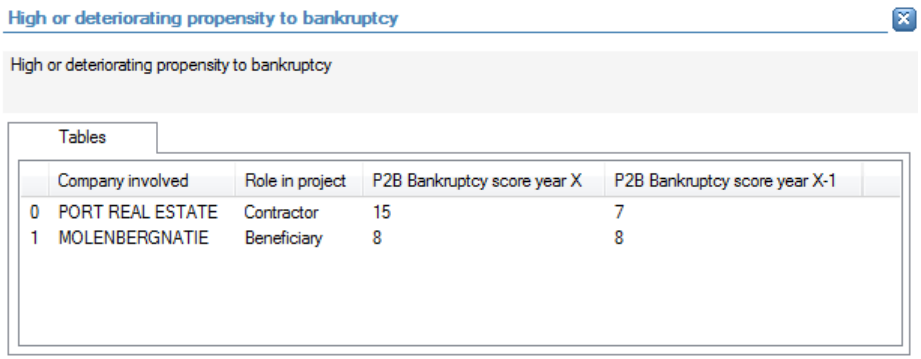
14.3.9 Reputational & Fraud alerts

14.3.9.1 Financial

14.3.9.1.1 High or deteriorating propensity to bankruptcy

Description	The objective of this check is to determine a financial risk score for a company based on its propensity to bankruptcy and the evolution of its propensity to bankruptcy over 2 years. The propensity to bankruptcy is a score from 1 to 20 which indicates the probability that a company will go bankrupt in the coming 18 months. Further information on the propensity to bankruptcy indicator is included in 15.2. The objective of the alert is to identify projects to which a company with high financial risk score is linked.
Level of calculation	The check is performed for each beneficiary, project partner, contractor and consortium member.
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Propensity to bankruptcy year X (latest available indicator from Orbis); ▪ Propensity to bankruptcy year X-1
Calculated data	The following data is calculated for the alert: ▪ Evolution of the propensity to bankruptcy from year X-1 to year X
Alert value	The alert gets a value from 0 to 10 depending on the value of the propensity to bankruptcy (indicator value in Orbis) and the evolution of the propensity to bankruptcy over 2 years. An increase over time results in a larger alert value.
Project score	Highest alert value of any company linked to the project (beneficiary, project partner, contractor or consortium member)
Applicable project types	All

Pop-up information



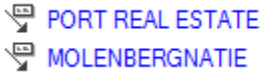
The following detailed information is available in the tables tab (for all involved companies for which predictive indicators are available):

- Company name;

- Role in the project;
- Propensity to bankruptcy score year X;
- Propensity to bankruptcy score year X-1.

No detailed information is available in the values tab.

Links to further details



The following links to further details are available:

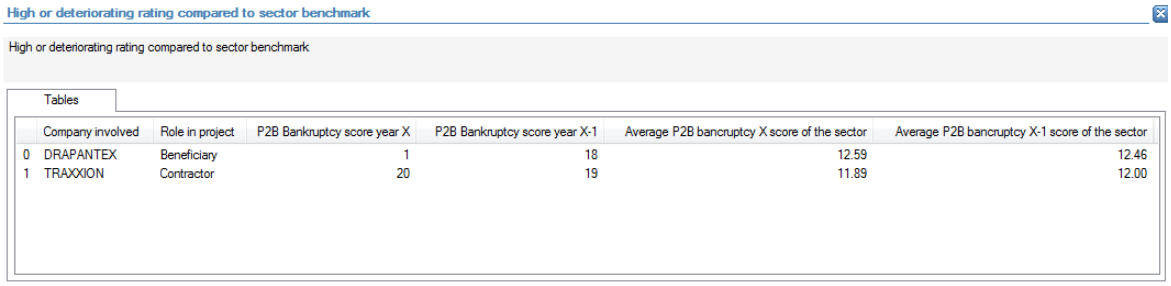
- Links to the interactive reports of the companies mentioned in the tables tab.

14.3.9.1.2 High or deteriorating rating compared to sector benchmark

Description	The objective of this check is to compare the propensity to bankruptcy of a company with the average propensity to bankruptcy in the sector. The comparison is made based on (i) the most recent bankruptcy score and (ii) the evolution of the bankruptcy score. The propensity to bankruptcy is a score from 1 to 20 which indicates the probability that a company will go bankrupt in the coming 18 months. Further information on the propensity to bankruptcy indicator is included in 15.2. The objective of the alert is to identify projects to which a company with high financial risk score is linked.
Level of calculation	The check is performed for each beneficiary, project partner, contractor and consortium member.
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Propensity to bankruptcy year X (latest available indicator from Orbis); ▪ Propensity to bankruptcy year X-1
Calculated data	The following data is calculated for the alert: ▪ Average propensity to bankruptcy year X in the sector; ▪ Average propensity to bankruptcy year X-1 in the sector; ▪ Evolution of the propensity to bankruptcy from year X-1 to year X; ▪ Evolution of the average propensity to bankruptcy from year X-1 to year X in the sector.
Alert value	The alert gets a value from 0 to 5 depending on (i) the value of the propensity to bankruptcy (indicator value in Orbis) compared to the average propensity to bankruptcy in the sector and (ii) the evolution of the propensity compared to the average evolution of the propensity to bankruptcy in the sector.
Project score	Highest alert value of any company linked to the project (beneficiary, project partner, contractor or consortium member)

Applicable project types	All

Pop-up information



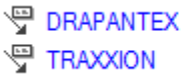
	Company involved	Role in project	P2B Bankruptcy score year X	P2B Bankruptcy score year X-1	Average P2B bancruptcy X score of the sector	Average P2B bancruptcy X-1 score of the sector
0	DRAPANTEX	Beneficiary	1	18	12.59	12.46
1	TRAXXION	Contractor	20	19	11.89	12.00

The following detailed information is available in the tables tab (for all involved companies for which predictive indicators are available):

- Company name;
- Role in the project;
- Propensity to bankruptcy score year X;
- Propensity to bankruptcy score year X-1;
- Average propensity to bankruptcy score year X in the sector;
- Average propensity to bankruptcy score year X-1 in the sector.

No detailed information is available in the values tab.

Links to further details



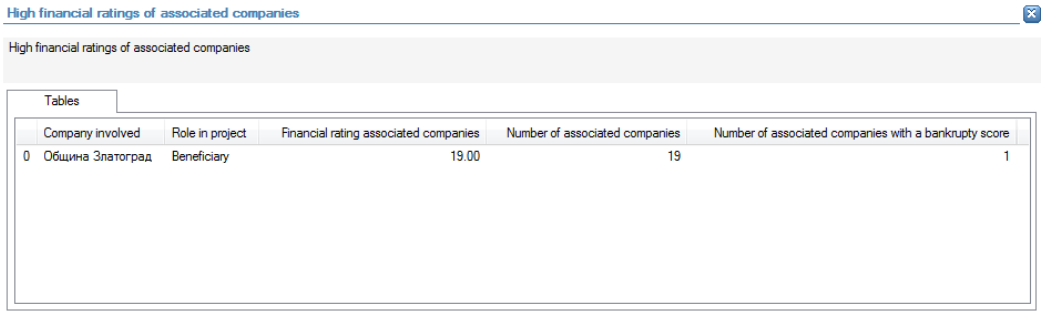
The following links to further details are available:

- Links to the interactive reports of the companies mentioned in the tables tab, with a bad propensity.

14.3.9.1.3 High financial ratings of associated companies

Description	The objective of this check is to determine a financial risk score for a company based on the propensity to bankruptcy for its associated companies (shareholders/subsidiaries). The propensity to bankruptcy is a score from 1 to 20 which indicates the probability that a company will go bankrupt in the coming 18 months. Further information on the propensity to bankruptcy indicator is included in 15.2. The objective of the alert is to identify projects to which a company with a high financial risk score is linked.
Level of calculation	The check is performed for each beneficiary, project partner, contractor and consortium member.
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Associated companies (shareholders/subsidiaries), this information is retrieved from Orbis; ▪ Propensity to bankruptcy year X (latest available indicator from Orbis) for the associated companies.
Calculated data	The following data is calculated for the alert: ▪ Average propensity to bankruptcy for all associated companies of a company
Alert value	The alert gets a value from 0 to 5 depending on the average propensity to bankruptcy of the associated companies of a company.
Project score	Highest alert value of any company linked to the project (beneficiary, project partner, contractor or consortium member)
Applicable project types	All

Pop-up information



The following detailed information is available in the tables tab (for all involved companies for which predictive indicators are available for associated companies):

- Company name;
- Role in the project;
- Average propensity to bankruptcy of associated companies;
- Number of associated companies;
- Number of associated companies with a bankruptcy score.

No detailed information is available in the values tab.

Links to further details

Община Златоград

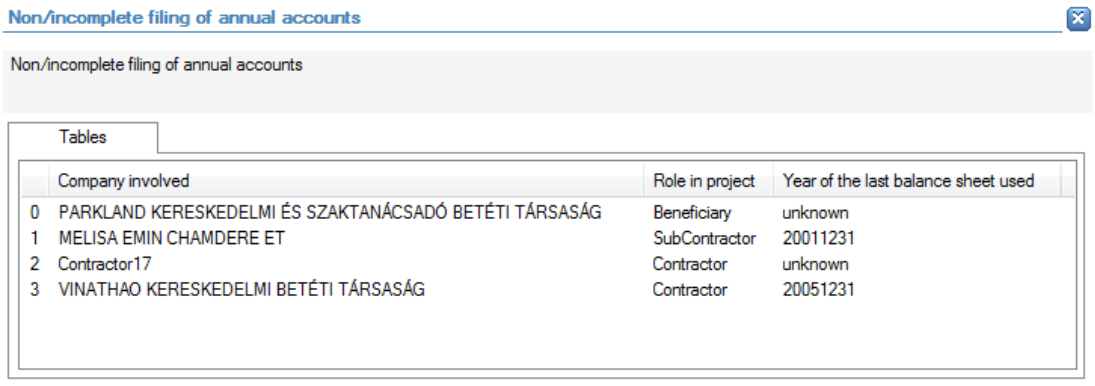
The following links to further details are available:

- Link to the interactive report of the companies mentioned in the tables tab.

14.3.9.1.4 Non/incomplete filing of annual accounts

Description	The objective of this alert is to identify companies for which no or limited financial data is available.
Level of calculation	The check is performed for each beneficiary, project partner, contractor and consortium member.
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Publication dates of the financial statements
Calculated data	The following data is calculated for the alert: ▪ Year of the latest available financial statements; ▪ Availability of any published financial statements
Alert value	The alert gets a value from 0 to 10 depending on the availability and age of published financial statements. The less information available, the higher the alert value.
Project score	Highest alert value of any company linked to the project (beneficiary, project partner, contractor or consortium member)
Applicable project types	All

Pop-up information



The following detailed information is available in the tables tab:

- Name of the company;
- Role in the project;
- Year of the lasted available financial statements

No detailed information is available in the values tab.

Links to further details

PARKLAND KERESKEDELMI ÉS SZAKTANÁCSADÓ BETÉTI TÁRSASÁG
Contractor17

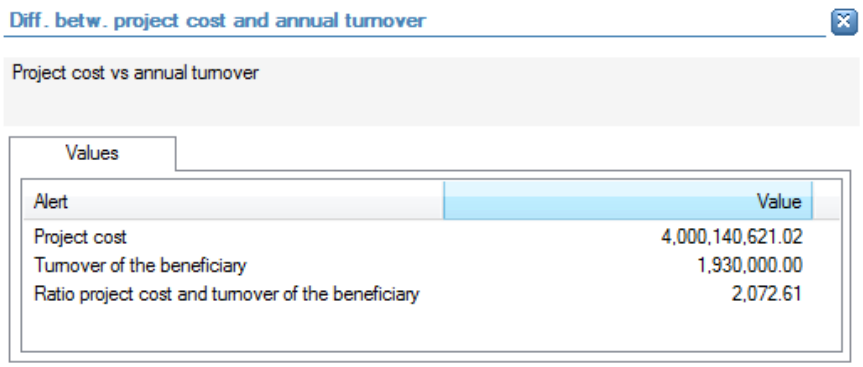
The following links to further details are available:

- Link to the interactive reports of the companies mentioned in the tables tab for which there are no financial statements available.

14.3.9.1.5 Project cost/ annual turnover

Description	The objective of this check is to identify projects for with the ratio of the project cost relative to the annual turnover of the beneficiary is large. (as it is mentioned in the financial statements of the project year, data from Orbis)
Level of calculation	The check is performed for each project
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Project cost ▪ Annual turnover of the beneficiary (as it is mentioned in the financial statements of the project year, data from Orbis)
Calculated data	The following data is calculated for the alert: ▪ Ratio: project cost / annual turnover of the beneficiary;
Alert value	The alert gets a value from 0 to 10 depending on the value of the ratio. A larger ratio value results in a larger alert value.
Project score	Alert value
Applicable project types	All

Pop-up information



The following detailed information is available in the values tab:

- Project cost;
- Annual turnover of the beneficiary;
- Ratio of project cost compared to annual turnover of the beneficiary.

No detailed information is available in the tables tab.

Links to further details

MOLENBERGNATIE

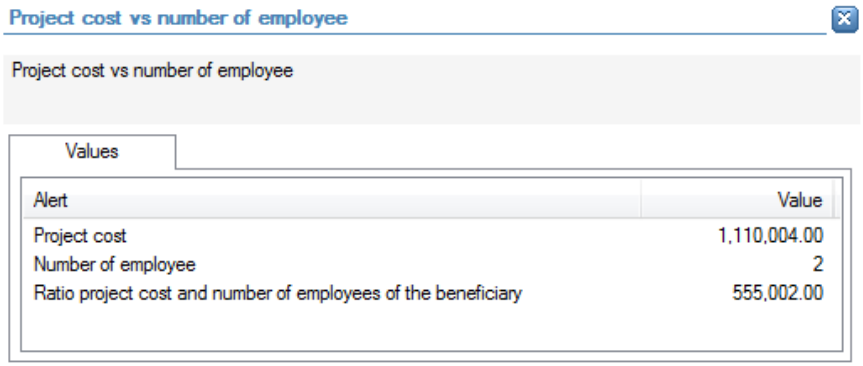
The following links to further details are available:

- Link to the interactive report of the beneficiary

14.3.9.1.6 Project cost / Number of employees

Description	The objective of this check is to identify projects for with the ratio of project cost relative to the number of employees of the beneficiary is large.
Level of calculation	The check is performed for each project
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Project cost ▪ Number of employees of the beneficiary (as mentioned in the annual accounts of the project end year, data from Orbis)
Calculated data	The following data is calculated for the alert: ▪ Ratio: project cost / number of employees of the beneficiary;
Alert value	The alert gets a value from 0 to 10 depending on the value of the ratio (project cost / number of employees of the beneficiary) for the project. A larger ratio value results in a larger alert value.
Project score	Alert value
Applicable project types	All

Pop-up information



The following detailed information is available in the values tab:

- Project cost;
- Number of employees of the beneficiary;
- Ratio of project cost compared to number of employees of the beneficiary.

No detailed information is available in the tables tab.

Links to further details

MOLENBERGNATIE

The following links to further details are available:

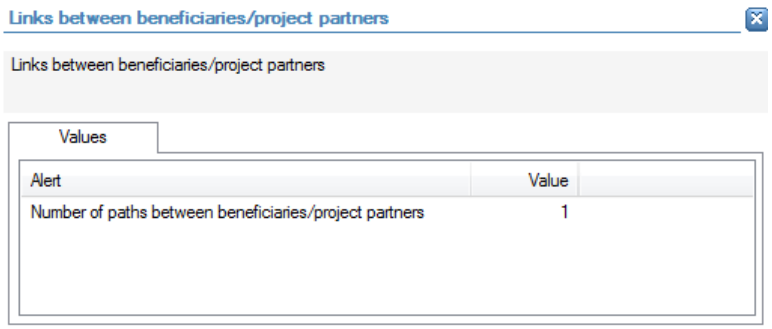
- Link to the interactive report of the beneficiary

14.3.9.2 Relationship

14.3.9.2.1 Links between beneficiaries/project partners

Description	The objective of this check is to identify projects for which there exists path between the beneficiaries / project partner(s). A path is a link between several entities in the Orbis database. It can be comprised of legal links (between companies) and private links (between companies and related people). A distance of 4 or less steps between two entities will be considered as a link.
Level of calculation	The check is performed for project.
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Orbis ID of Beneficiary; ▪ Orbis ID of Project partners; ▪ Legal links (ownership) in Orbis; ▪ Private links (directors, …) in Orbis
Calculated data	The following data is calculated for the alert: ▪ Path finding between entities
Alert value	The alert gets a value of 10 when a path is identified.
Project score	Alert value
Applicable project types	All

Pop-up information



The following detailed information is available in the values tab:

- Number of paths that have been found between the beneficiary / project partner(s).

No detailed information is available in the tables tab.

Links to further details

Path

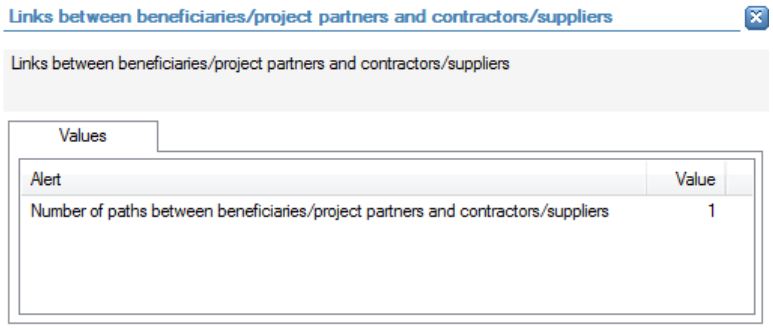
The following links to further details are available:

- Link to the visualization of the path(s) that have been found. In the visualisation additional information can be added (roles on the project, legal links, private links, affinities, …)

14.3.9.2.2 Links between beneficiaries/project partners and contractors/suppliers (including consortium partners)

Description	The objective of this check is to identify projects for which there exists a path between the beneficiary/project partner(s) and contractor(s)/supplier(s). A path is a link between several entities in the Orbis database. It can be comprised of legal links (between companies) and private links (between companies and related people). A distance of 4 or less steps between two entities will be considered as a link.
Level of calculation	The check is performed for project.
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Orbis ID of Beneficiary; ▪ Orbis ID of Project partners; ▪ Orbis ID of Contractors/suppliers ▪ Legal links (ownership) in Orbis; ▪ Private links (directors, …) in Orbis
Calculated data	The following data is calculated for the alert: ▪ Path finding between entities
Alert value	The alert gets a value of 10 when a path is identified
Project score	Alert value
Applicable project types	All

Pop-up information



The following detailed information is available in the values tab:

- Number of paths that have been found between the beneficiary/project partner(s) and contractor(s)/supplier(s)

No detailed information is available in the tables tab.

Links to further details

Path

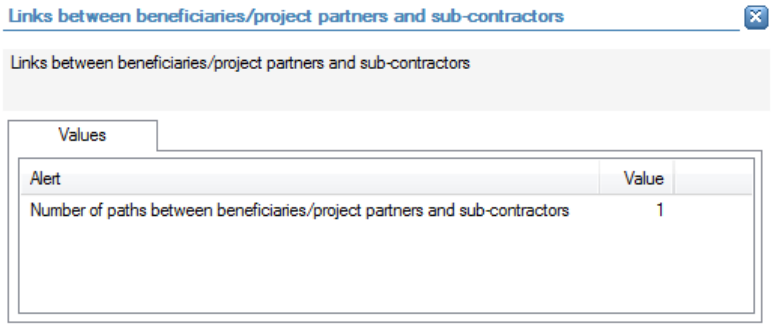
The following links to further details are available:

- Link to the visualization of the path(s) that have been found. In the visualisation additional information can be added (roles on the project, legal links, private links, affinities, …)

14.3.9.2.3 Links between beneficiaries/project partners and sub-contractors

Description	The objective of this check is to identify projects for which there exists a path between the beneficiary/project partner(s) and sub-contractor(s). A path is a link between several entities in the Orbis database. It can be comprised of legal links (between companies) and private links (between companies and related people). A distance of 4 or less steps between two entities will be considered as a link.
Level of calculation	The check is performed for project.
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Orbis ID of Beneficiary; ▪ Orbis ID of Project partners; ▪ Orbis ID of Sub-contractors; ▪ Legal links (ownership) in Orbis; ▪ Private links (directors, …) in Orbis
Calculated data	The following data is calculated for the alert: ▪ Path finding between entities
Alert value	The alert gets a value of 10 when a path is identified.
Project score	Alert value
Applicable project types	All

Pop-up information



The following detailed information is available in the values tab:

- Number of paths that have been found between the beneficiary/project partner(s) and sub-contractor(s).

No detailed information is available in the tables tab.

Links to further details

Path

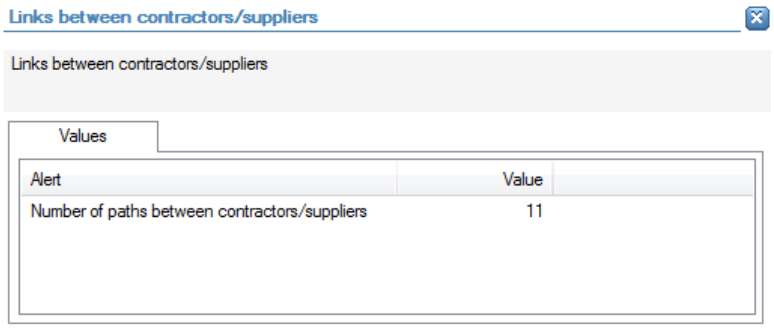
The following links to further details are available:

- Link to the visualization of the path(s) that have been found. In the visualisation additional information can be added (roles on the project, legal links, private links, affinities, …)

14.3.9.2.4 Links between contractors/suppliers (including consortium members)

Description	The objective of this check is to identify projects for which there exists a path between contractors/suppliers (including consortium members). A path is a link between several entities in the Orbis database. It can be comprised of legal links (between companies) and private links (between companies and related people). A distance of 4 or less steps between two entities will be considered as a link.
Level of calculation	The check is performed for each contractor/supplier (including consortium members)
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Orbis ID of Contractors/suppliers; ▪ Legal links (ownership) in Orbis; ▪ Private links (directors, …) in Orbis
Calculated data	The following data is calculated for the alert: ▪ Path finding between entities
Alert value	The alert gets a value between 3 and 10 when a path is identified, depending on the number of paths.
Project score	Highest alert value of the values for the contractors/suppliers linked to the project.
Applicable project types	All

Pop-up information



The following detailed information is available in the values tab:

- Number of paths that have been found between the contractors/suppliers (including consortium members).

No detailed information is available in the tables tab.

Links to further details

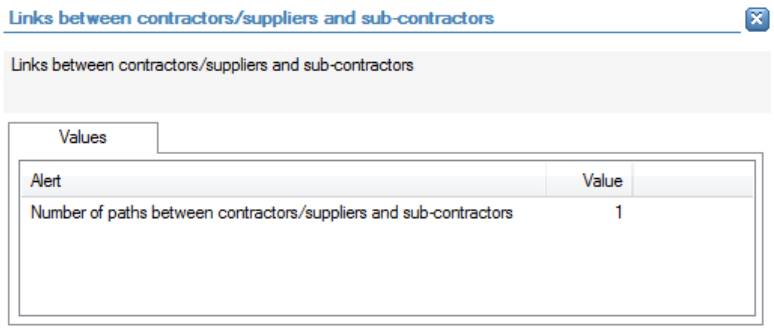
The following links to further details are available:

- Link to the visualization of the path(s) that have been found. In the visualisation additional information can be added (roles on the project, legal links, private links, affinities, …)

14.3.9.2.5 Links between contractors/consortium members and sub-contractors

Description	The objective of this check is to identify projects for which there exists path between the contractors/consortium members and sub-contractors linked to the same contract. A path is a link between several entities in the Orbis database. It can be comprised of legal links (between companies) and private links (between companies and related people). A distance of 4 or less steps between two entities will be considered as a link.
Level of calculation	The check is performed for each contractor/supplier (including consortium members)
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Orbis ID of Contractors/consortium members; ▪ Orbis ID of Sub-contractors; ▪ Legal links (ownership) in Orbis; ▪ Private links (directors, …) in Orbis
Calculated data	The following data is calculated for the alert: ▪ Path finding between entities
Alert value	The alert gets a value between 3 and 10 when a path is identified, depending on the number of paths that have been identified.
Project score	Highest alert value of the values for the contractors/suppliers linked to the project.
Applicable project types	All

Pop-up information



The following detailed information is available in the values tab:

- Number of paths that have been found between the contractors/suppliers and sub-contractors

No detailed information is available in the tables tab.

Links to further details

Path

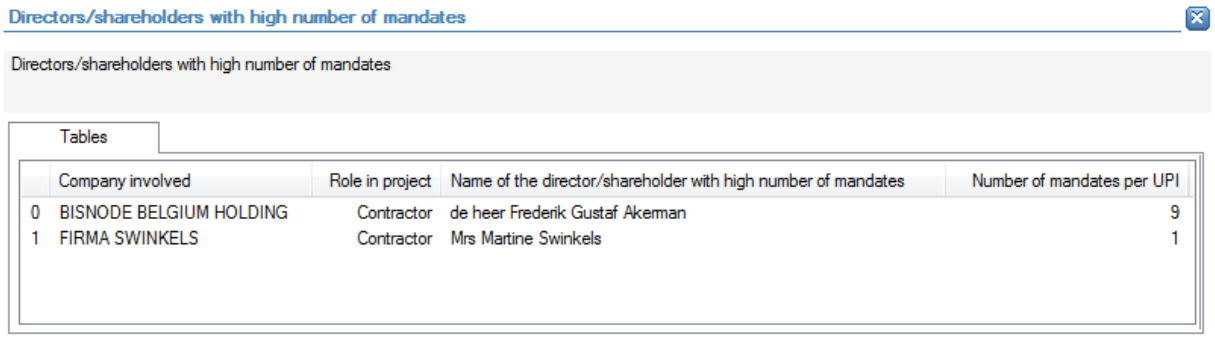
The following links to further details are available:

- Link to the visualization of the path(s) that have been found. In the visualisation additional information can be added (roles on the project, legal links, private links, affinities, …)

14.3.9.2.6 Directors/shareholders with high number of mandates

Description	The objective of this check is to identify projects for which there is related company (beneficiary, project partner, contractor or consortium member) that has a director/shareholder with a high number of mandates.
Level of calculation	The check is performed for each beneficiary, project partner, contractor or consortium member.
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Orbis ID of Beneficiary; ▪ Orbis ID of Project partners; ▪ Orbis ID of Contractors; ▪ Orbis ID of Consortium members; ▪ Private links (directors, …) in Orbis
Calculated data	The following data is calculated for the alert: ▪ Number of private links per director/shareholder
Alert value	The alert gets a value between 1 and 5 depending on the number of mandates of the directors/shareholder.
Project score	Highest alert value of any company linked to the project (beneficiary, project partner, contractor or consortium member)
Applicable project types	All

Pop-up information



	Company involved	Role in project	Name of the director/shareholder with high number of mandates	Number of mandates per UPI
0	BISNODE BELGIUM HOLDING	Contractor	de heer Frederik Gustaf Akerman	9
1	FIRMA SWINKELS	Contractor	Mrs Martine Swinkels	1

The following detailed information is available in the tables tab:

- Name of the company;
- Role in the project;
- Name of the director/shareholder of the company, limited to 30 as a preview;
- Number of mandates of the director/shareholder

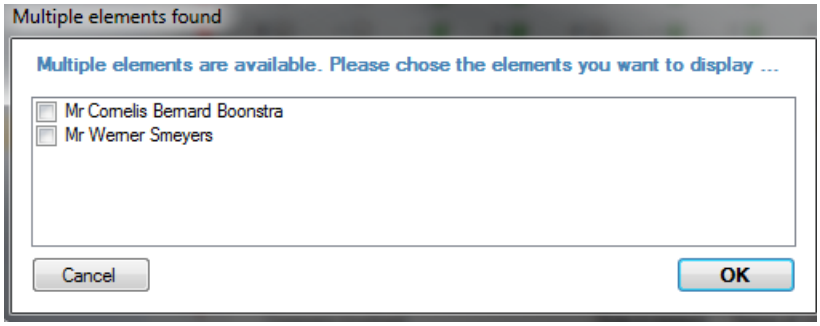
No detailed information is available in the values tab.

Links to further details

BISNODE BELGIUM HOLDING
FIRMA SWINKELS

The following links to further details are available:

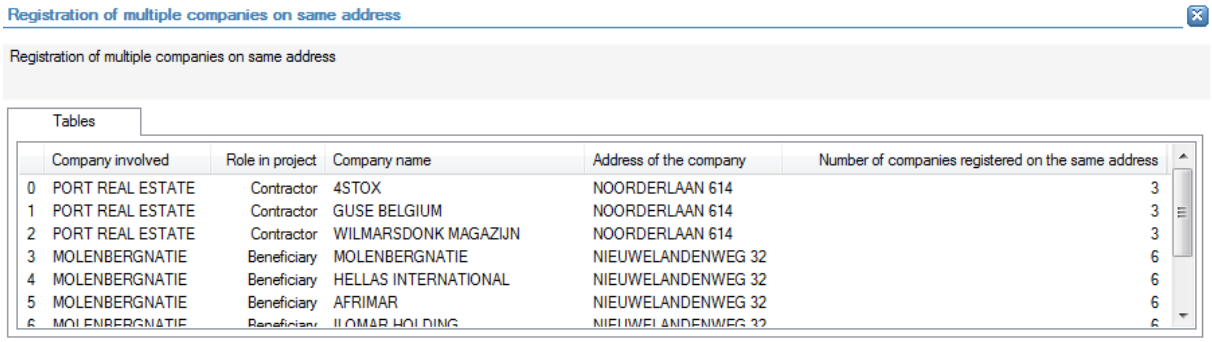
- Link for each company with a role in the project mentioned in the tables tab.
- Clicking on the link opens a selection window with the names of the individuals linked to the company. For all selected names, the interactive report will be opened.



14.3.9.2.7 Registration of multiple companies on the same address

Description	The objective of this check is to identify projects for which there is related company (beneficiary, project partner, contractor or consortium member) with an address on which multiple other companies are registered.
Level of calculation	The check is performed for each beneficiary, project partner, contractor or consortium member.
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Orbis ID of Beneficiary; ▪ Orbis ID of Project partners; ▪ Orbis ID of Contractors; ▪ Orbis ID of Consortium members; ▪ Address of companies (from Orbis).
Calculated data	The following data is calculated for the alert: ▪ Number of registered companies per address
Alert value	The alert gets a value between 1 and 5 depending on the number of companies registered on the same address.
Project score	Highest alert value of any company linked to the project (beneficiary, project partner, contractor or consortium member)
Applicable project types	All

Pop-up information



	Company involved	Role in project	Company name	Address of the company	Number of companies registered on the same address
0	PORT REAL ESTATE	Contractor	4STOX	NOORDERLAAN 614	3
1	PORT REAL ESTATE	Contractor	GUSE BELGIUM	NOORDERLAAN 614	3
2	PORT REAL ESTATE	Contractor	WILMARSDONK MAGAZIJN	NOORDERLAAN 614	3
3	MOLENBERGNATIE	Beneficiary	MOLENBERGNATIE	NIEUWELANDENWEG 32	6
4	MOLENBERGNATIE	Beneficiary	HELLAS INTERNATIONAL	NIEUWELANDENWEG 32	6
5	MOLENBERGNATIE	Beneficiary	AFRIMAR	NIEUWELANDENWEG 32	6
6	MOLENBERGNATIE	Beneficiary	ILOMAR HOLDING	NIEUWELANDENWEG 32	6

The following detailed information is available in the tables tab:

- Name of company registered on the same address, limited to 30 as a preview;
- Role in the project;
- Common address of these companies;
- Number of companies registered on the same address.

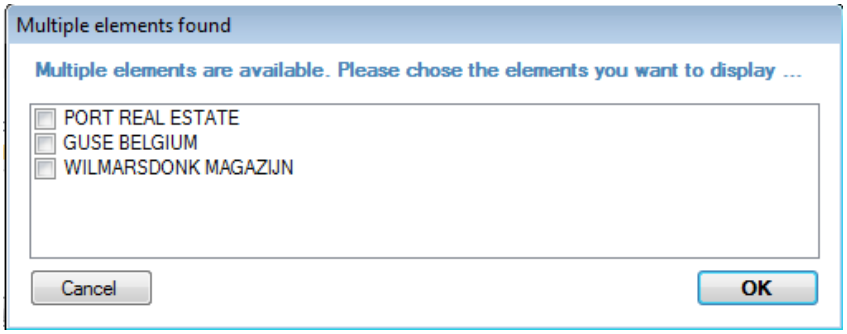
No detailed information is available in the values tab.

Links to further details

PORT REAL ESTATE
MOLENBERGNATIE

The following links to further details are available:

- Link for each company with a role in the project mentioned in the tables tab.
- Clicking on the link opens a selection window with the names of the companies registered on the same address as the company with a role in the project. For all selected names, the interactive report will be opened.

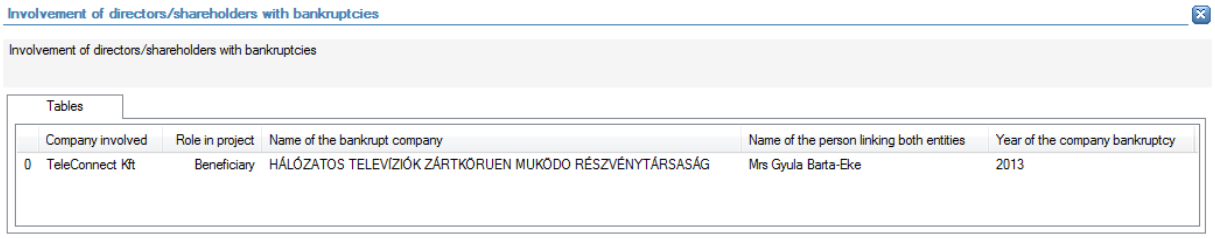


14.3.9.3 Reputational

14.3.9.3.1 Involvement of directors/shareholders with bankruptcies

Description	The objective of this check is to identify projects for which there is related company (beneficiary, project partner, contractor or consortium member) with a director/shareholder that has been involved in a bankruptcy in the past.
Level of calculation	The check is performed for each beneficiary, project partner, contractor and consortium member.
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Orbis ID of Beneficiary; ▪ Orbis ID of Project partners; ▪ Orbis ID of Contractors; ▪ Orbis ID of Consortium members; ▪ Private links (directors/shareholders) from Orbis; ▪ Involvements in previous bankruptcies for directors/shareholders (Orbis)
Calculated data	Not applicable
Alert value	The alert gets a value from 5 to 10 depending on date of the bankruptcy, a recent bankruptcy results in a higher alert value.
Project score	Highest alert value of any company linked to the project (beneficiary, project partner, contractor or consortium member)
Applicable project types	All

Pop-up information



The following detailed information is available in the tables tab:

- Name of the company;
- Role in the project;
- Name of the company that went bankrupt;
- Name of the director/shareholder (linked to the company and the company that went bankrupt), limited to 30 as a preview;
- Year of the bankruptcy.

No detailed information is available in the values tab.

Links to further details

TeleConnect Kft
Mrs Gyula Barta-Eke

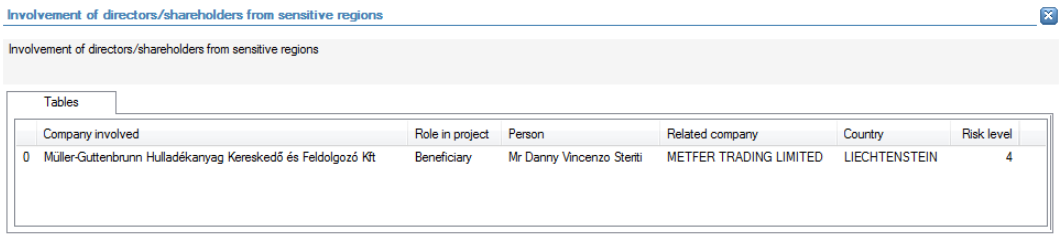
The following links to further details are available:

- Link to the interactive report of the company (that has a role in the project);
- Link to the interactive report of the related director/shareholder (where his involvements are mentioned including links with bankrupted companies).

14.3.9.3.2 Involvement of directors/shareholders from sensitive regions

Description	The objective of this check is to identify projects for which there is related company (beneficiary, project partner, contractor or consortium member) with a director/shareholder that has involvements in a sensitive region. The list of sensitive regions is based on official lists of tax havens and regions sensitive to corruption.
Level of calculation	The check is performed for each beneficiary, project partner, contractor and consortium member.
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Orbis ID of Beneficiary; ▪ Orbis ID of Project partners; ▪ Orbis ID of Contractors; ▪ Orbis ID of Consortium members; ▪ Private links (directors/shareholders) from Orbis; ▪ Countries companies linked to directors/shareholders (Orbis)
Calculated data	Not applicable
Alert value	The alert gets a value from 3 to 10 depending on the risk level of the country in which the director/shareholder has involvements.
Project score	Highest alert value of any company linked to the project (beneficiary, project partner, contractor or consortium member)
Applicable project types	All

Pop-up information



The following detailed information is available in the tables tab:

- Name of the company;
- Role in the project;
- Director/shareholder linked to the company;
- Name of the company in which the director/shareholder has an involvement;
- Country of the company in which the director/shareholder has an involvement;
- Risk level of the country.

No detailed information is available in the values tab.

Links to further details

Müller-Guttenbrunn Hulladékanyag Kereskedő és Feldolgozó Kft
Mr Danny Vincenzo Steriti

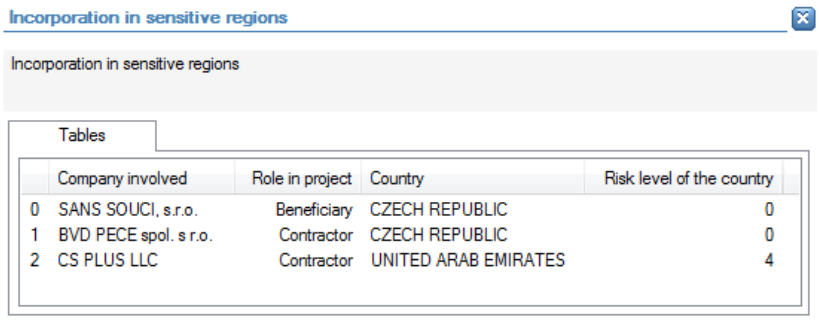
The following links to further details are available:

- Link to the interactive report of the company (that has a role in the project);
- Link to the interactive report of the related director/shareholder (where his involvements are mentioned).

14.3.9.3.3 Incorporation in sensitive regions

Description	The objective of this check is to identify projects for which there is related company (beneficiary, project partner, contractor or consortium member) that is registered in a sensitive region. The list of sensitive regions is based on official lists of tax havens and regions sensitive to corruption.
Level of calculation	The check is performed for each beneficiary, project partner, contractor and consortium member.
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Orbis ID of Beneficiary; ▪ Orbis ID of Project partners; ▪ Orbis ID of Contractors; ▪ Orbis ID of Consortium members; ▪ Countries of companies
Calculated data	Not applicable.
Alert value	The alert gets a value from 3 to 10 depending on the risk level of the country in which the related company is registered.
Project score	Highest alert value of any company linked to the project (beneficiary, project partner, contractor or consortium member)
Applicable project types	All

Pop-up information



The following detailed information is available in the tables tab:

- Company name;
- Role in the project;
- Country of the company;

- Risk level of the country of the company.

No detailed information is available in the values tab.

Links to further details

CS PLUS LLC

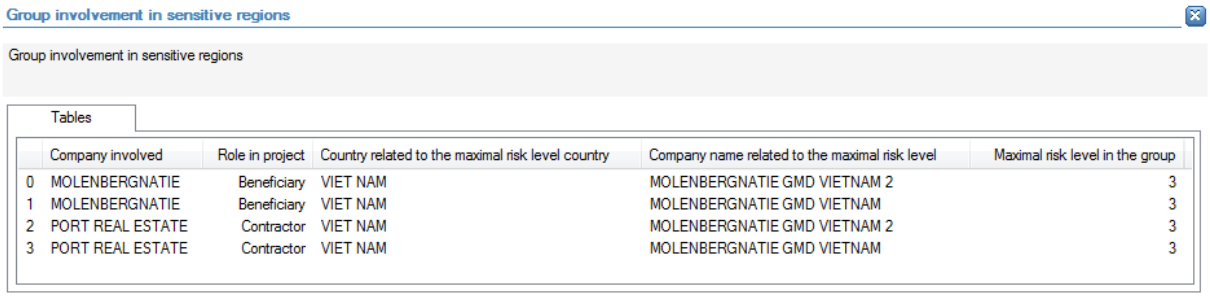
The following links to further details are available:

- Link to the interactive report of the companies mentioned in the tables tab with an elevated risk level.

14.3.9.3.4 Group involvement in sensitive regions

Description	The objective of this check is to identify projects for which there is related company (beneficiary, project partner, contractor or consortium member) that has companies in its group that are registered in a sensitive region. The list of sensitive regions is based on official lists of tax havens and regions sensitive to corruption. The group are companies that are linked to the company through direct or indirect ownership links.
Level of calculation	The check is performed for each beneficiary, project partner, contractor and consortium member.
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Orbis ID of Beneficiary; ▪ Orbis ID of Project partners; ▪ Orbis ID of Contractors; ▪ Orbis ID of Consortium members; ▪ Ownership links (Orbis)
Calculated data	Not applicable.
Alert value	The alert gets a value from 3 to 10 depending on the risk level of the country in which the company has group involvements.
Project score	Highest alert value of any company linked to the project (beneficiary, project partner, contractor or consortium member)
Applicable project types	All

Pop-up information


Group involvement in sensitive regions

Group involvement in sensitive regions

Tables

	Company involved	Role in project	Country related to the maximal risk level country	Company name related to the maximal risk level	Maximal risk level in the group
0	MOLENBERGNATIE	Beneficiary	VIET NAM	MOLENBERGNATIE GMD VIETNAM 2	3
1	MOLENBERGNATIE	Beneficiary	VIET NAM	MOLENBERGNATIE GMD VIETNAM	3
2	PORT REAL ESTATE	Contractor	VIET NAM	MOLENBERGNATIE GMD VIETNAM 2	3
3	PORT REAL ESTATE	Contractor	VIET NAM	MOLENBERGNATIE GMD VIETNAM	3

The following detailed information is available in the tables tab:

- Company name;
- Role in the project;
- Country of the related company within the group of the company;
- Name of the related company within the group of the company, limited to 30 as a preview;
- Risk level of the country of the related company within the group of the company.

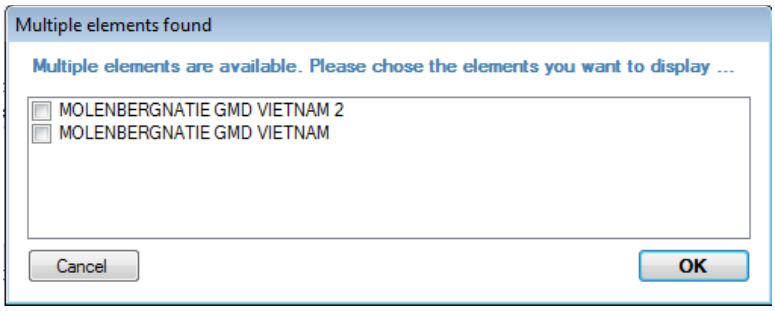
No detailed information is available in the values tab.

Links to further details

MOLENBERGNATIE
PORT REAL ESTATE

The following links to further details are available:

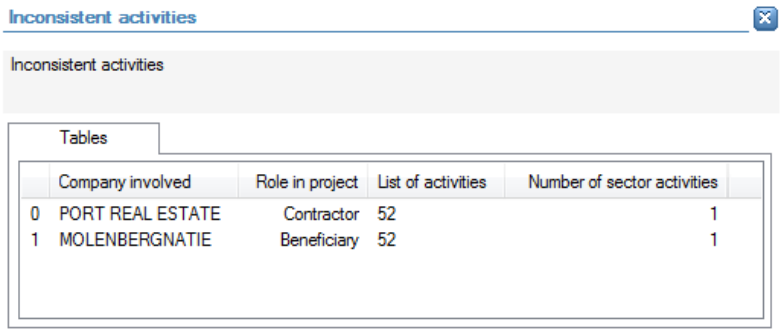
- Link for each company with an involvement in the project that is mentioned in the tables tab.
- Clicking on the link opens a new window in which the related companies within the group of the company (that are mentioned in the tables tab) can be selected. For each selected company, the interactive report will be opened.



14.3.9.3.5 Inconsistent activities

Description	The objective of this check is to identify projects for which there is related company (beneficiary, project partner, contractor or consortium member) that is involved in many activity sectors.
Level of calculation	The check is performed for each beneficiary, project partner, contractor and consortium member.
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Orbis ID of Beneficiary; ▪ Orbis ID of Project partners; ▪ Orbis ID of Contractors; ▪ Orbis ID of Consortium members; ▪ Activity sector code (Orbis)
Calculated data	The following data is calculated for the alert: ▪ Number of activities per company
Alert value	The alert gets a value of 10 when the number of activities is greater than 1.
Project score	Highest alert value of any company linked to the project (beneficiary, project partner, contractor or consortium member)
Applicable project types	All

Pop-up information



The following detailed information is available in the tables tab:

- Company name;
- Role in the project;
- Sector code of activities;
- Number of activities.

No detailed information is available in the values tab.

Links to further details

MOLENBERGNATIE
PORT REAL ESTATE

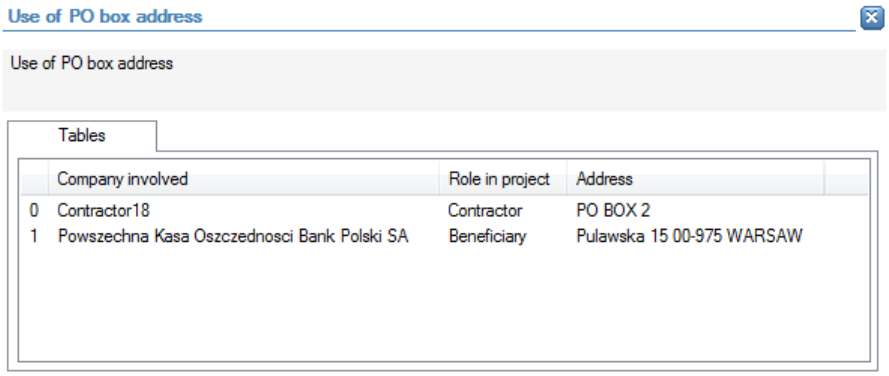
The following links to further details are available:

- Link to the interactive report of the companies mentioned in the tables tab with an elevated risk level.

14.3.9.3.6 Use of PO box address

Description	The objective of this check is to identify projects for which there is related company (beneficiary, project partner, contractor or consortium member) that has a PO Box address.
Level of calculation	The check is performed for each beneficiary, project partner, contractor and consortium member.
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Orbis ID of Beneficiary; ▪ Orbis ID of Project partners; ▪ Orbis ID of Contractors; ▪ Orbis ID of Consortium members; ▪ Address (Orbis)
Calculated data	Not applicable
Alert value	The alert gets a value of 5 when the address is a PO Box.
Project score	Highest alert value of any company linked to the project (beneficiary, project partner, contractor or consortium member)
Applicable project types	All

Pop-up information



The following detailed information is available in the tables tab:

- Name of the company;
- Role in the project;
- Address (Orbis)

No detailed information is available in the values tab.

Links to further details

Contractor18
Powszechna Kasa Oszczednosci Bank Polski SA

The following links to further details are available:

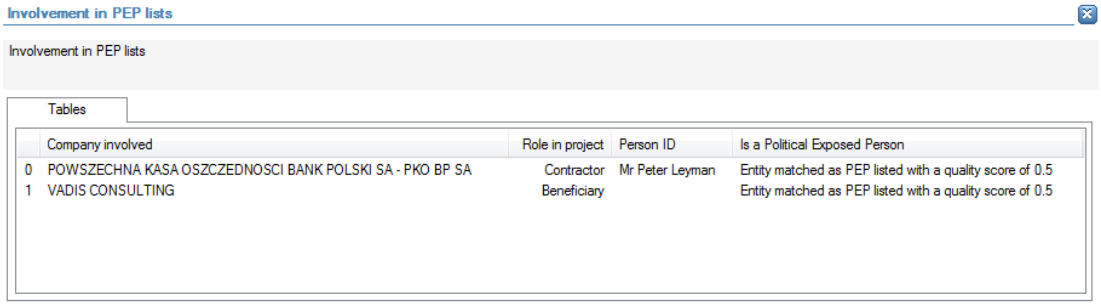
- Links to the interactive reports of the companies mentioned in the tables tab that have a PO Box address.

14.3.9.4 Sanction

14.3.9.4.1 Involvement of individuals included in PEP lists

Description	The objective of this check is to identify projects for which there is related company (beneficiary, project partner, contractor or consortium member) for which either the company or its management is listed as PEP (Politically Exposed Person) in the WorldCompliance database. This will include people that are in a political function, or that have close contacts (family member, close colleague,…) to a politician.
Level of calculation	The check is performed for each beneficiary, project partner, contractor and consortium member.
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Orbis ID of Beneficiaries; ▪ Orbis ID of Project partners; ▪ Orbis ID of Contractors; ▪ Orbis ID of Consortium members; ▪ Private links of the companies (management) (Orbis)
Calculated data	The following data is calculated for the alert: ▪ Links between Orbis data and World-Compliance; ▪ Quality of the link
Alert value	The alert gets a value from 0 to 10 depending on the quality of the match between the Orbis entity and the entity in World-Compliance. The quality of the match depends on the number of elements: ▪ Quality of the name match (exactly the same or similar); ▪ Additional match on address or not; ▪ Additional match on birthdate or not; ▪ Frequency of appearance of the name in the database
Project score	Highest alert value of any company linked to the project (beneficiary, project partner, contractor or consortium member)
Applicable project types	All

Pop-up information

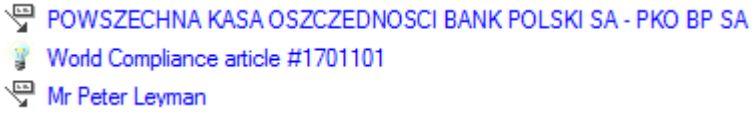


The following detailed information is available in the tables tab:

- Name of the company;
- Role of the company in the project;
- Name of the related individual when applicable;
- Type of match between Orbis and World-Compliance, and quality of the match.

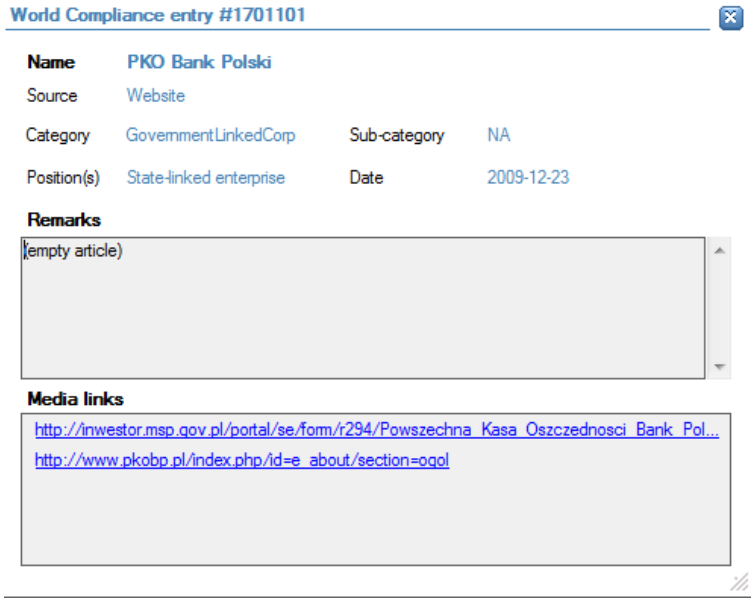
No detailed information is available in the values tab.

Links to further details



The following links to further details are available:

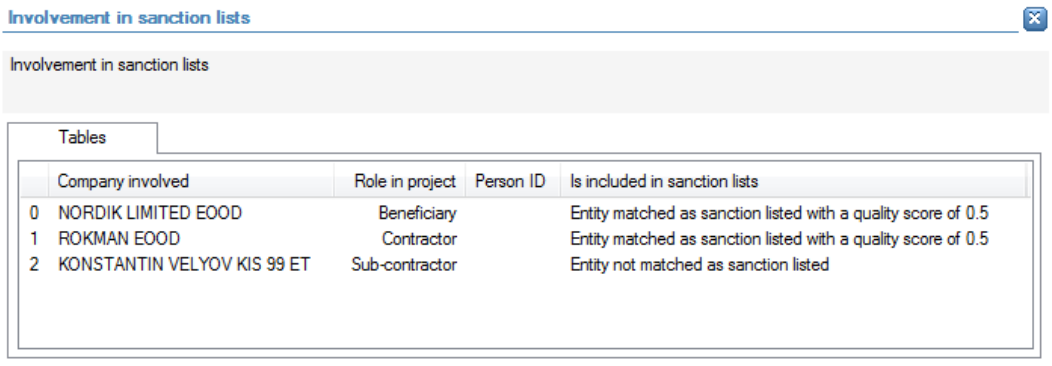
- Link to the interactive report for the related people mentioned in the tables tab.
- Link to the interactive report for each company mentioned in the tables tab.
- Link to WorldCompliance details and articles.



14.3.9.4.2 Involvement of individuals/entities included in sanction lists

Description	The objective of this check is to identify projects for which there is related company (beneficiary, project partner, contractor or consortium member) for which either the company or its management is listed in sanction lists in the WorldCompliance database. This will include people that are in a political function, or that have close contacts (family member, close colleague,…) to a politician.
Level of calculation	The check is performed for each beneficiary, project partner, contractor and consortium member.
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Orbis ID of Beneficiaries; ▪ Orbis ID of Project partners; ▪ Orbis ID of Contractors; ▪ Orbis ID of Consortium members; ▪ Private links of the companies (management) (Orbis)
Calculated data	The following data is calculated for the alert: ▪ Links between Orbis data and World-Compliance; ▪ Quality of the link
Alert value	The alert gets a value from 0 to 10 depending on the quality of the match between the Orbis entity and the entity in World-Compliance. The quality of the match depends on the number of elements: ▪ Quality of the name match (exactly the same or similar); ▪ Additional match on address or not; ▪ Additional match on birthdate or not; ▪ Frequency of appearance of the name in the database
Project score	Highest alert value of any company linked to the project (beneficiary, project partner, contractor or consortium member)
Applicable project types	All

Pop-up information



The following detailed information is available in the tables tab:

- Name of the company;
- Role in the project;

- Name of the related individual when applicable;
- Type of match between Orbis and World-Compliance, and quality of the match.

No detailed information is available in the values tab.

Links to further details

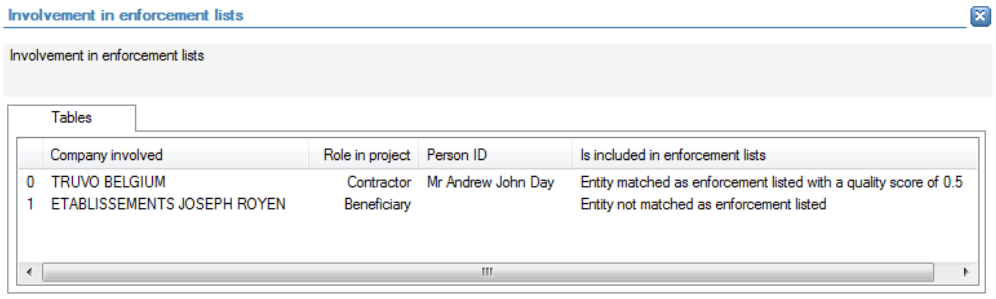
The following links to further details are available:

- Link to the interactive report for the related people that resulted in the info in the tables tab.
- Link to the interactive report for each company mentioned in the tables tab.
- Link to WorldCompliance details and articles.

14.3.9.4.3 Involvement of individuals/entities included in enforcement lists

Description	The objective of this check is to identify projects for which there is related company (beneficiary, project partner, contractor or consortium member) for which either the company or its management is listed in enforcement lists in the WorldCompliance database. This will include people that are in a political function, or that have close contacts (family member, close colleague,…) to a politician.
Level of calculation	The check is performed for each beneficiary, project partner, contractor and consortium member.
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Orbis ID of Beneficiaries; ▪ Orbis ID of Project partners; ▪ Orbis ID of Contractors; ▪ Orbis ID of Consortium members; ▪ Private links of the companies (management) (Orbis)
Calculated data	The following data is calculated for the alert: ▪ Links between Orbis data and World-Compliance; ▪ Quality of the link
Alert value	The alert gets a value from 0 to 10 depending on the quality of the match between the Orbis entity and the entity in World-Compliance. The quality of the match depends on the number of elements: ▪ Quality of the name match (exactly the same or similar); ▪ Additional match on address or not; ▪ Additional match on birthdate or not; ▪ Frequency of appearance of the name in the database
Project score	Highest alert value of any company linked to the project (beneficiary, project partner, contractor or consortium member)
Applicable project types	All

Pop-up information



The following detailed information is available in the tables tab:

- Name of the company;
- Role in the project;
- Name of the related individual when applicable;
- Type of match between Orbis and World-Compliance, and quality of the match.

No detailed information is available in the values tab.

Links to further details

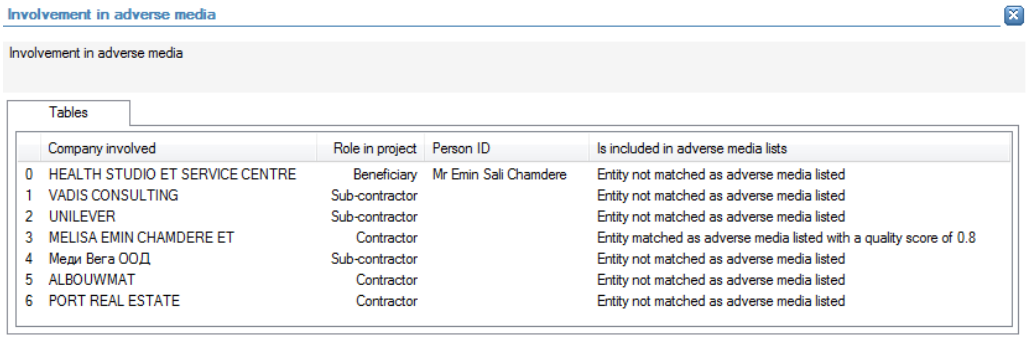
The following links to further details are available:

- Link to the interactive report for the related people mentioned in the tables tab.
- Link to the interactive report for each company mentioned in the tables tab.
- Link to WorldCompliance details and articles.

14.3.9.4.4 Involvement of individuals/entities included in adverse media lists

Description	The objective of this check is to identify projects for which there is related company (beneficiary, project partner, contractor or consortium member) for which either the company or its management is listed in adverse media lists in the WorldCompliance database. This will include people that are in a political function, or that have close contacts (family member, close colleague,…) to a politician.
Level of calculation	The check is performed for each beneficiary, project partner, contractor and consortium member.
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Orbis ID of Beneficiaries; ▪ Orbis ID of Project partners; ▪ Orbis ID of Contractors; ▪ Orbis ID of Consortium members; ▪ Private links of the companies (management) (Orbis)
Calculated data	The following data is calculated for the alert: ▪ Links between Orbis data and World-Compliance; ▪ Quality of the link
Alert value	The alert gets a value from 0 to 10 depending on the quality of the match between the Orbis entity and the entity in World-Compliance. The quality of the match depends on the number of elements: ▪ Quality of the name match (exactly the same or similar); ▪ Additional match on address or not; ▪ Additional match on birthdate or not; ▪ Frequency of appearance of the name in the database
Project score	Highest alert value of any company linked to the project (beneficiary, project partner, contractor or consortium member)
Applicable project types	All

Pop-up information



Involvement in adverse media

Involvement in adverse media

Tables

	Company involved	Role in project	Person ID	Is included in adverse media lists
0	HEALTH STUDIO ET SERVICE CENTRE	Beneficiary	Mr Emin Sali Chamdere	Entity not matched as adverse media listed
1	VADIS CONSULTING	Sub-contractor		Entity not matched as adverse media listed
2	UNILEVER	Sub-contractor		Entity not matched as adverse media listed
3	MELISA EMIN CHAMDERE ET	Contractor		Entity matched as adverse media listed with a quality score of 0.8
4	Меди Вега ООД	Sub-contractor		Entity not matched as adverse media listed
5	ALBOUWMAT	Contractor		Entity not matched as adverse media listed
6	PORT REAL ESTATE	Contractor		Entity not matched as adverse media listed

The following detailed information is available in the tables tab:

- Name of the company;
- Role in the project;
- Name of the related individual when applicable;
- Type of match between Orbis and World-Compliance, and quality of the match.

No detailed information is available in the values tab.

Links to further details

Mr Emin Sali Chamdere
MELISA EMIN CHAMDERE ET
World Compliance article #2439409

The following links to further details are available:

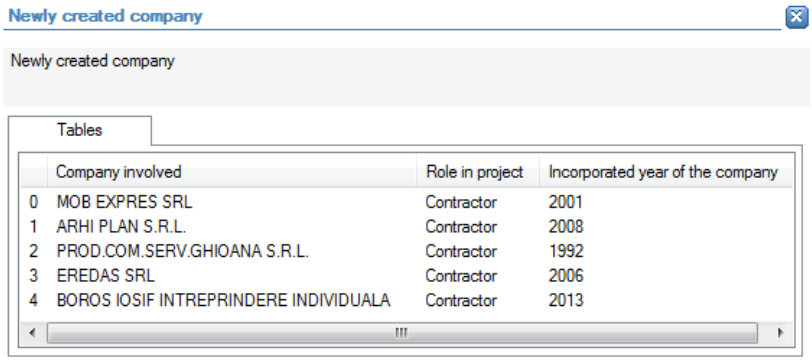
- Link to the interactive report for the related people mentioned in the tables tab.
- Link to the interactive report for each company mentioned in the tables tab.
- Link to WorldCompliance details and articles.

14.3.9.5 Change

14.3.9.5.1 Newly created company

Description	The objective of this check is to identify projects for which there is related company (beneficiary, project partner, contractor or consortium member) that has been recently created.
Level of calculation	The check is performed for each beneficiary, project partner, contractor and consortium member.
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Orbis ID of Beneficiary; ▪ Orbis ID of Project partners; ▪ Orbis ID of Contractors; ▪ Orbis ID of Consortium members; ▪ Company incorporation year (Orbis)
Calculated data	Not applicable
Alert value	The alert gets a value between 0 and 20 depending on the age of the company.
Project score	Highest alert value of any company linked to the project (beneficiary, project partner, contractor or consortium member)
Applicable project types	All

Pop-up information



The following detailed information is available in the tables tab:

- Name of the company;
- Role in the project;
- Incorporation year for the company.

No detailed information is available in the values tab.

Links to further details

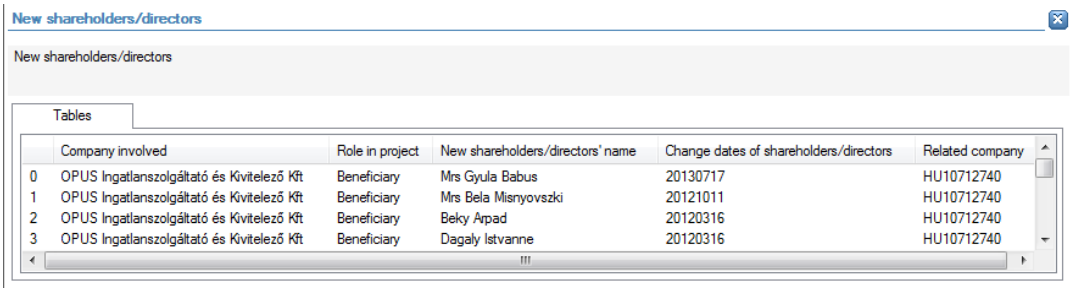
The following links to further details are available:

- Link to the interactive report for each company in the tables tab that generated an alert value.

14.3.9.5.2 New shareholders/directors

Description	The objective of this check is to identify projects for which there is related company (beneficiary, project partner, contractor or consortium member) in which new shareholders or directors have been appointed in the past three years.
Level of calculation	The check is performed for each beneficiary, project partner, contractor and consortium member.
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Orbis ID of Beneficiary; ▪ Orbis ID of Project partners; ▪ Orbis ID of Contractors; ▪ Orbis ID of Consortium members; ▪ Private links (Orbis); ▪ Change date of private links (Orbis)
Calculated data	Not applicable
Alert value	The alert gets a value between 3 and 10 depending on the number and timing of new directors/shareholders during the last 3 years.
Project score	Highest alert value of any company linked to the project (beneficiary, project partner, contractor or consortium member)
Applicable project types	All

Pop-up information



The following detailed information is available in the tables tab:

- Name of the company;
- Role in the project;
- Name of the new shareholder/director, limited to 30 as a preview;
- Date for change in new shareholder/director;
- VAT number of the company.

No detailed information is available in the values tab.

Links to further details

Persons in the company OPUS Ingatlanszolgáltató és Kivitelező Kft

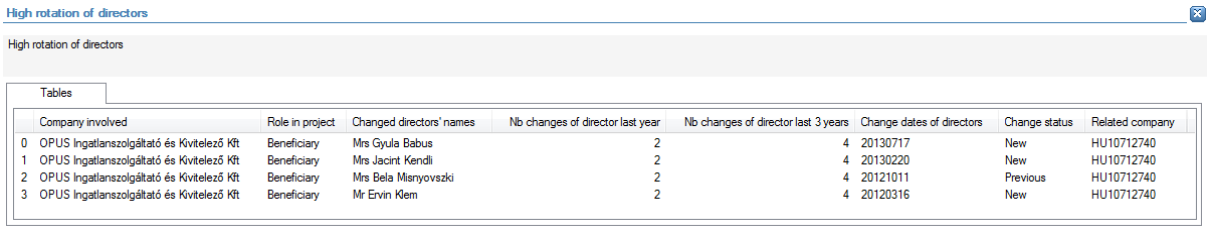
The following links to further details are available:

- A link for each company mentioned in the tables tab.
- Clicking on the link opens a new window in which the names of the related shareholders/directors (from the tables tab) can be selected. The interactive reports of the selected shareholders/directors are subsequently opened.

14.3.9.5.3 High rotation of directors

Description	The objective of this check is to identify projects for which there is related company (beneficiary, project partner, contractor or consortium member) that had a lot of changes in directors in the past three years.
Level of calculation	The check is performed for each beneficiary, project partner, contractor and consortium member.
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Orbis ID of Beneficiary; ▪ Orbis ID of Project partners; ▪ Orbis ID of Contractors; ▪ Orbis ID of Consortium members; ▪ Private links (Orbis); ▪ Change date of private links (Orbis)
Calculated data	Not applicable
Alert value	The alert gets a value between 3 and 10 depending on the number and timing of the changes in directors during the last 3 years.
Project score	Highest alert value of any company linked to the project (beneficiary, project partner, contractor or consortium member)
Applicable project types	All

Pop-up information


High rotation of directors

High rotation of directors

Tables

	Company involved	Role in project	Changed directors' names	Nb changes of director last year	Nb changes of director last 3 years	Change dates of directors	Change status	Related company
0	OPUS Ingatlanszolgáltató és Kivitelező Kft	Beneficiary	Mrs Gyula Babus	2	4	20130717	New	HU10712740
1	OPUS Ingatlanszolgáltató és Kivitelező Kft	Beneficiary	Mrs Jacint Kendli	2	4	20130220	New	HU10712740
2	OPUS Ingatlanszolgáltató és Kivitelező Kft	Beneficiary	Mrs Bela Misnyovszki	2	4	20121011	Previous	HU10712740
3	OPUS Ingatlanszolgáltató és Kivitelező Kft	Beneficiary	Mr Ervin Klem	2	4	20120316	New	HU10712740

The following detailed information is available in the tables tab:

- Name of the company;
- Role in the project;

- Name of the director that changed, limited to 30 as a preview;
- Number of changes in directors in the last year;
- Number of changes in directors in the last 3 years;
- Date of the change;
- Change status (new or previous);
- VAT number of the company.

No detailed information is available in the values tab.

Links to further details

OPUS Ingatlanszolgáltató és Kivitelező Kft

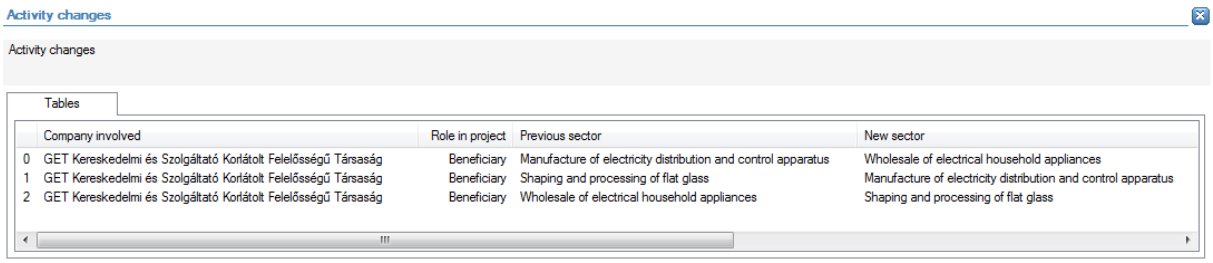
The following links to further details are available:

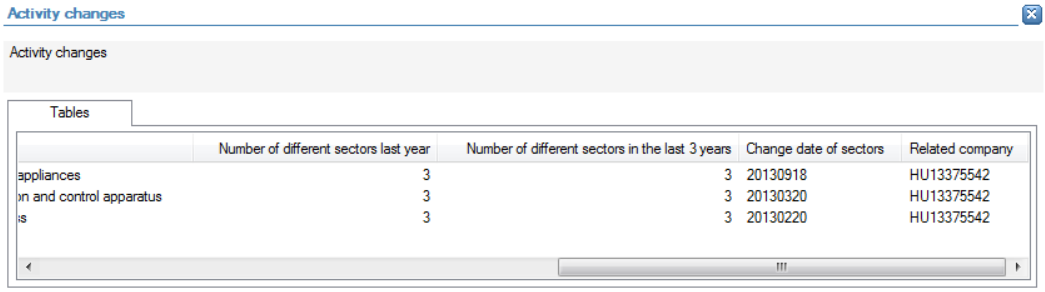
- Link to the interactive reports of the companies mentioned in the tables tab.

14.3.9.5.4 Activity changes

Description	The objective of this check is to identify projects for which there is related company (beneficiary, project partner, contractor or consortium member) for which the sector activity code has changed in the past three years.
Level of calculation	The check is performed for each beneficiary, project partner, contractor and consortium member.
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Orbis ID of Beneficiary; ▪ Orbis ID of Project partners; ▪ Orbis ID of Contractors; ▪ Orbis ID of Consortium members; ▪ Sector activity code (Orbis).
Calculated data	Not applicable
Alert value	The alert gets a value between 3 and 10 depending on the number and timing of the changes in activity code during the last 3 years.
Project score	Highest alert value of any company linked to the project (beneficiary, project partner, contractor or consortium member)
Applicable project types	All

Pop-up information





The following detailed information is available in the tables tab:

- Company name;
- Role in the project;
- Previous sector (activity code) , limited to 30 as a preview;
- New sector (activity code) , limited to 30 as a preview;
- Number of different sectors (activity code) in the last year;
- Number of different sectors (activity code) in the last 3 years;
- Date of the change in sector (activity code);
- VAT number of the company.

No detailed information is available in the values tab.

Links to further details

GET Kereskedelmi és Szolgáltató Korlátolt Felelősségű Társaság

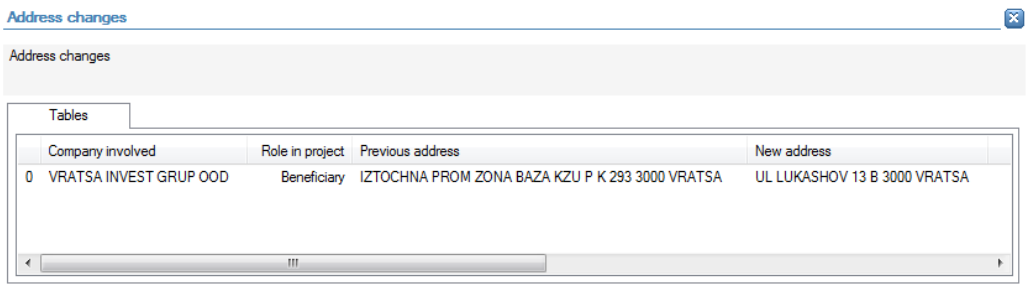
The following links to further details are available:

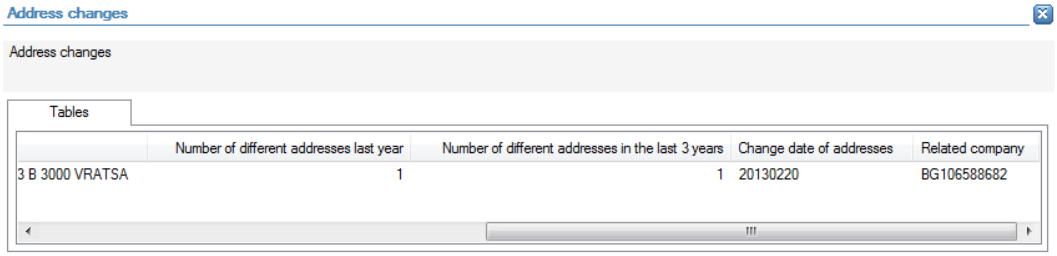
- Link to the interactive reports of the companies mentioned in the tables tab with activity change.

14.3.9.5.5 Address changes

Description	The objective of this check is to identify projects for which there is related company (beneficiary, project partner, contractor or consortium member) for which the address has changed in the past three years.
Level of calculation	The check is performed for each beneficiary, project partner, contractor and consortium member.
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Orbis ID of Beneficiary; ▪ Orbis ID of Project partners; ▪ Orbis ID of Contractors; ▪ Orbis ID of Consortium members; ▪ Address (Orbis).
Calculated data	Not applicable
Alert value	The alert gets a value between 3 and 5 depending on the number and timing of the changes in address during the last 3 years.
Project score	Highest alert value of any company linked to the project (beneficiary, project partner, contractor or consortium member)
Applicable project types	All

Pop-up information





The following detailed information is available in the tables tab:

- Company name;
- Role in the project;
- Previous address, limited to 30 as a preview;
- New address, limited to 30 as a preview;
- Number of different addresses in the last year;
- Number of different addresses in the last 3 years;

- Date of the change in address;
- VAT number of the company.

No detailed information is available in the values tab.

Links to further details

VRATSA INVEST GRUP OOD

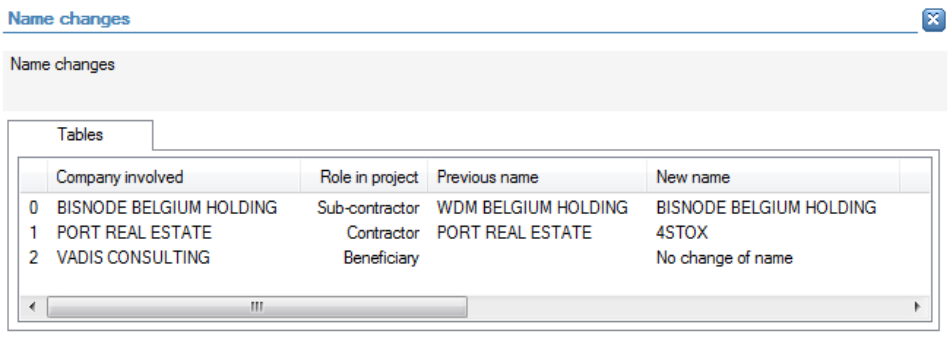
The following links to further details are available:

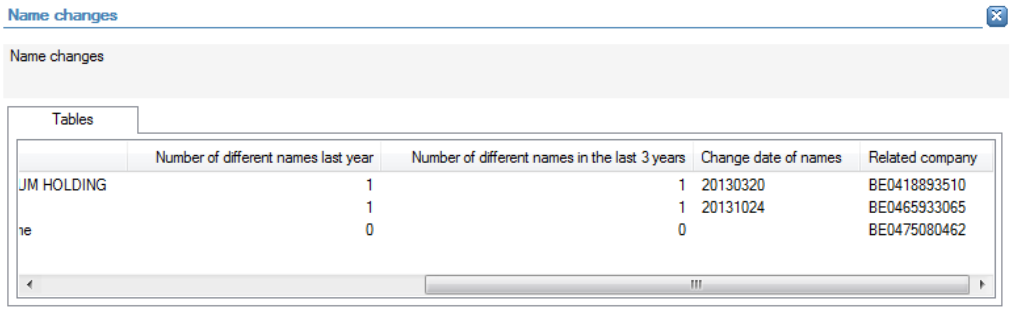
- Link to the interactive reports of the companies mentioned in the tables tab with address change.

14.3.9.5.6 Name changes

Description	The objective of this check is to identify projects for which there is related company (beneficiary, project partner, contractor or consortium member) for which the name has changed in the past three years.
Level of calculation	The check is performed for each beneficiary, project partner, contractor and consortium member.
Peer group	Not applicable
Input data	The following data is used to calculate the alert: ▪ Orbis ID of Beneficiary; ▪ Orbis ID of Project partners; ▪ Orbis ID of Contractors; ▪ Orbis ID of Consortium members; ▪ Name of the companies (Orbis).
Calculated data	Not applicable
Alert value	The alert gets a value between 3 and 15 depending on the number and timing of the changes in name during the last 3 years.
Project score	Highest alert value of any company linked to the project (beneficiary, project partner, contractor or consortium member)
Applicable project types	All

Pop-up information





The following detailed information is available in the tables tab:

- Company name;
- Role in the project;
- Previous name, limited to 30 as a preview;
- New name, limited to 30 as a preview;
- Number of different names during the last year;
- Number of different names during the last 3 years;
- Date of the change;
- VAT number of the company.

No detailed information is available in the values tab.

Links to further details

BISNODE BELGIUM HOLDING
PORT REAL ESTATE

The following links to further details are available:

- Link to the interactive reports of the companies mentioned in the tables tab with name change.