Q-PLM - QUALITY ASSURANCE
FOR VET PROVIDERS USING
PRODUCT LIFECYCLE MANAGEMENT

User Manual

for

the Q-PLM software

September 2015

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Table of Contents

1 PLM in VET as a chance

Active product lifecycle management, including the use of suitable PLM software, is a tool to monitor and control the product portfolio of an educational institution. It can be recommended not only for reasons of quality assurance, but also for the facilitation of product development, for more transparency in the strategic business areas and, last but not least, for the maintenance of the competitiveness of VET providers. Services and products on the vocational education and training (VET) market are being influenced by a vast number of factors and variables. VET products have a certain product lifecycle, as do all products on the economic market – and PLM is a conceptual approach which takes into consideration the entire lifetime of a product. A PLM software system enables VET providers to facilitate the control of product life cycles and to manage the wide range of product data in an efficient way. Optimally coordinated processes across multiple locations allow a quick response to changes in market demand. Thus, the right product, at the right time, is brought to market at the right price.

The project's main objective was to, in an adapted form, transfer the product lifecycle management that is primarily being used in the industrial and IT area to the field of further education. Active PLM facilitates product control, planning, adaptation and innovation, thus enabling a market-orientated approach of the portfolios in further education. This project foresees the development of an IT-based tool for an integrated product lifecycle management for VET providers.

Active product lifecycle management, including the use of suitable PLM software, is a useful tool for monitoring and controlling the product portfolio of an educational institution. It can be recommended not only for reasons of quality assurance, but also for the facilitation of the product development, for more transparency in the strategic business areas and, last but not least, for the maintenance of the competitiveness of VET providers.

2 Target groups of the Q-PLM software

The PLM-software should be used for the coordination of training programs in the VET market and for the control of the processes and product portfolios of the training providers, thus making it easier to monitor and better visualize the business processes and the VET offers and products.

Within the Q-PLM project some hundred European target groups and stakeholders, who should guarantee a sustainable use and exploitation of the project, could be identified within an exploitation questionnaire. The main target groups and stakeholders proposed by the partnership for the exploitative use of the project are the following ones:

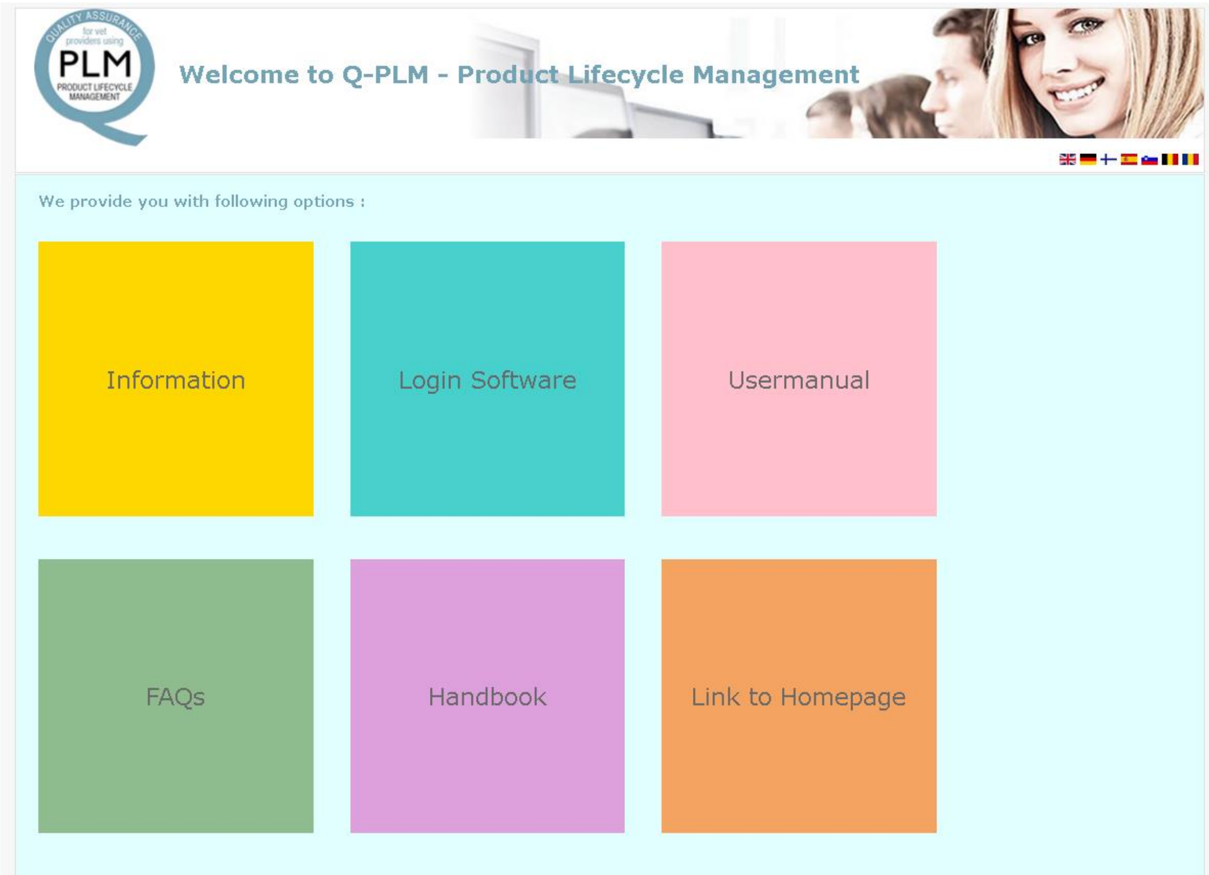
- European networks for the quality assurance in VET, like the EQARF (The European Quality Assurance Reference Framework)
- European VET- providers at all levels (professional schools, vocational education providers, universities of applied sciences, universities, postgraduate universities,…)
- VET providers at all geographic levels: local, regional, national, European
- European project managers
- VET providers participating in European projects
- National Agencies
- National boards of education and training
- Management staff in VET organizations
- Head of departments in VET organizations
- Head of training centres, schools, universities
- Product developers for VET programs
- Competence centres in VET
- Marketing managers in the VET sector
- Members of the national feedback panels
- Members and stakeholders of the partner organizations
- Staff in the partner organizations
- Academics and researchers
- Trainers and teachers
- Associations, associated partners of all partner organizations
- Professional associations
- Public authorities
- Research centres
- Social partners and unions
- Governmental and non-governmental organizations

3 Use and application of the Q-PLM software

The “Welcome” page of the software provides you with different options:

- Information: Brief information on the project and its aims
- Login software: The login-page for the Q-PLM database
- User manual: A link to the manual for the Q-PLM-database (this section of the handbook)
- FAQs: A list of frequently asked questions
- Handbook: A link to this handbook
- Link to Homepage: A link to the official project homepage.

You can change the language in the right upper corner by clicking the miniature icons.



3.1 Login

By clicking “Login Software” on the homepage you will be able to login to the Q-PLM database.

By entering your login name and your password and then clicking the button “Login” you enter the software. If you don’t already have a login name and password, ask the administrator of your organisation responsible for the software to provide you with the login details.

If you have entered an incorrect username or password you will get the message “Your login failed!”. Click the button “Back to Login” to go back to the “Login” field.

3.2 Product and Rating

After successfully logging in, you will see a number of tabs appropriate to your user level.

The first one is “Product & Rating” where you can create new products to be rated, change existing products and also create and change ratings for a product.

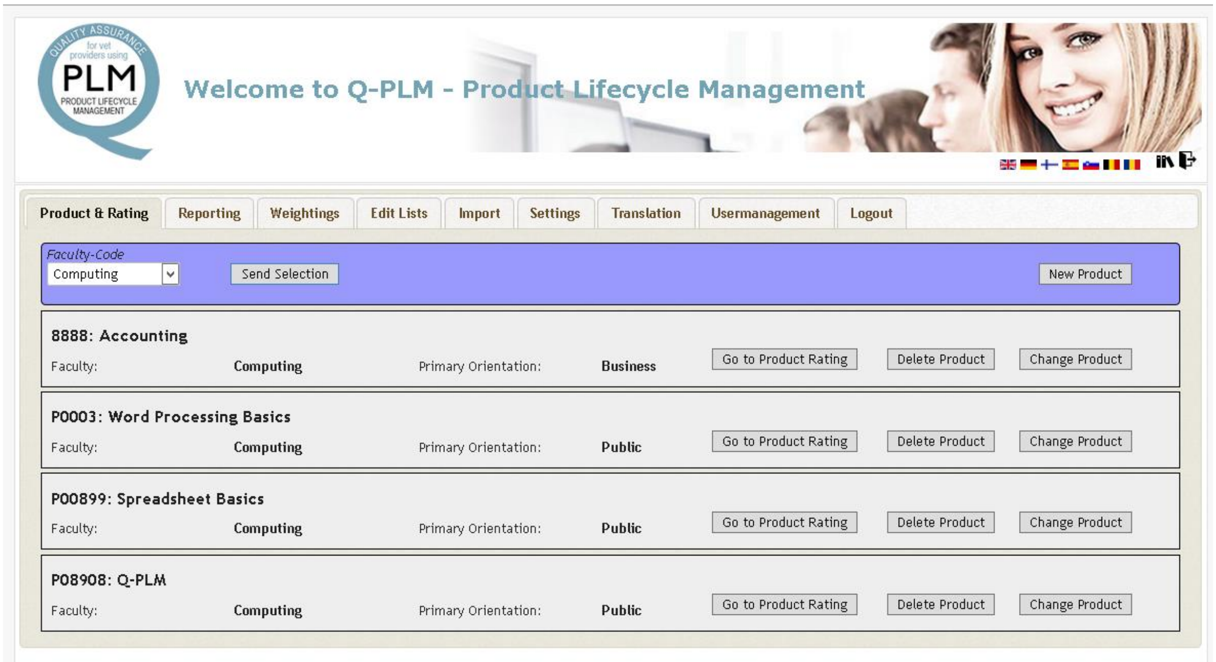
On this panel you can

- Create a new product
- Edit an existing product
- Rate a product
- Delete a product

If your list of products is already very long you can limit the list through a “Faculty Code”.

If you want to create a new product click on the button “New Product” on the right side of the blue panel.

This is not the only way to enter products; you can also import them, as described in a further chapter.



After you have clicked “New Product” you can enter the data of your product. These are

- ID of Product: A product number as used in your organisation, this number may also contain letters
- Title of Product: The name or description of your product
- Primary Orientation: An initial value to organise your product list. You can only use values from the select list
- Faculty Code: a second value to organise your product list. You can only use values from the select list

All four values are mandatory, so you have to choose at least one “Primary Orientation” and one “Faculty List”.

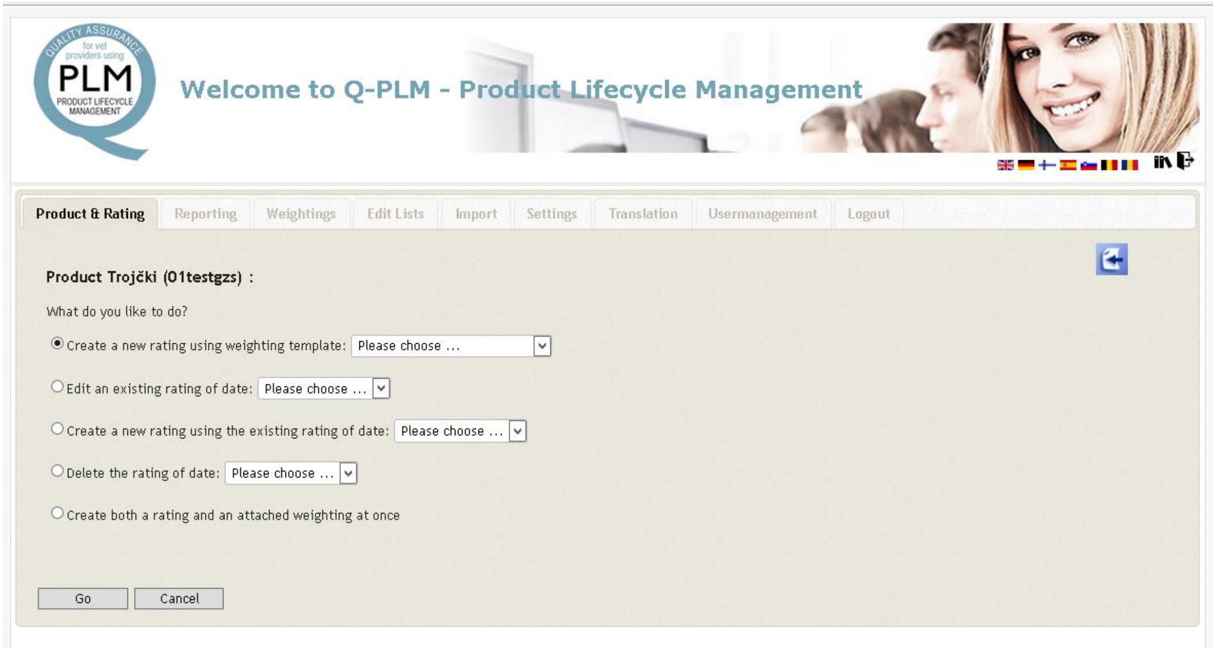
After you have finished entering the data click the button “Save” to save the new product. You can also exit without saving by clicking “Cancel”.

If you are logged in as an “Administrator” you will be able to work on both the lists “Primary Orientation” and “Faculty Code”. In this case you will see the buttons “Edit Orientation List” and “Edit Faculty List” beside the select lists. How to work on these lists will be topic of the chapter “Edit Lists”.

If you don’t use “Primary Orientation” or “Faculty List” in your organisation, you can change this by simply renaming it through the translation feature. How to translate will also be described in the chapter “Translation”

After you have returned to the main product list, you will see your new product at top of the list. Here you can change the product data by simple clicking on the button “Change Product” on the left side of the products panel. You will get a very similar form to the one for creating a product, where you can change and save your product settings.

You can delete a product by clicking on the button “Delete Product”. You have to confirm the deletion. Be aware, that if you have already made ratings on a product, these ratings will also be deleted. N.B. If you have deleted the data, you cannot undo the process!

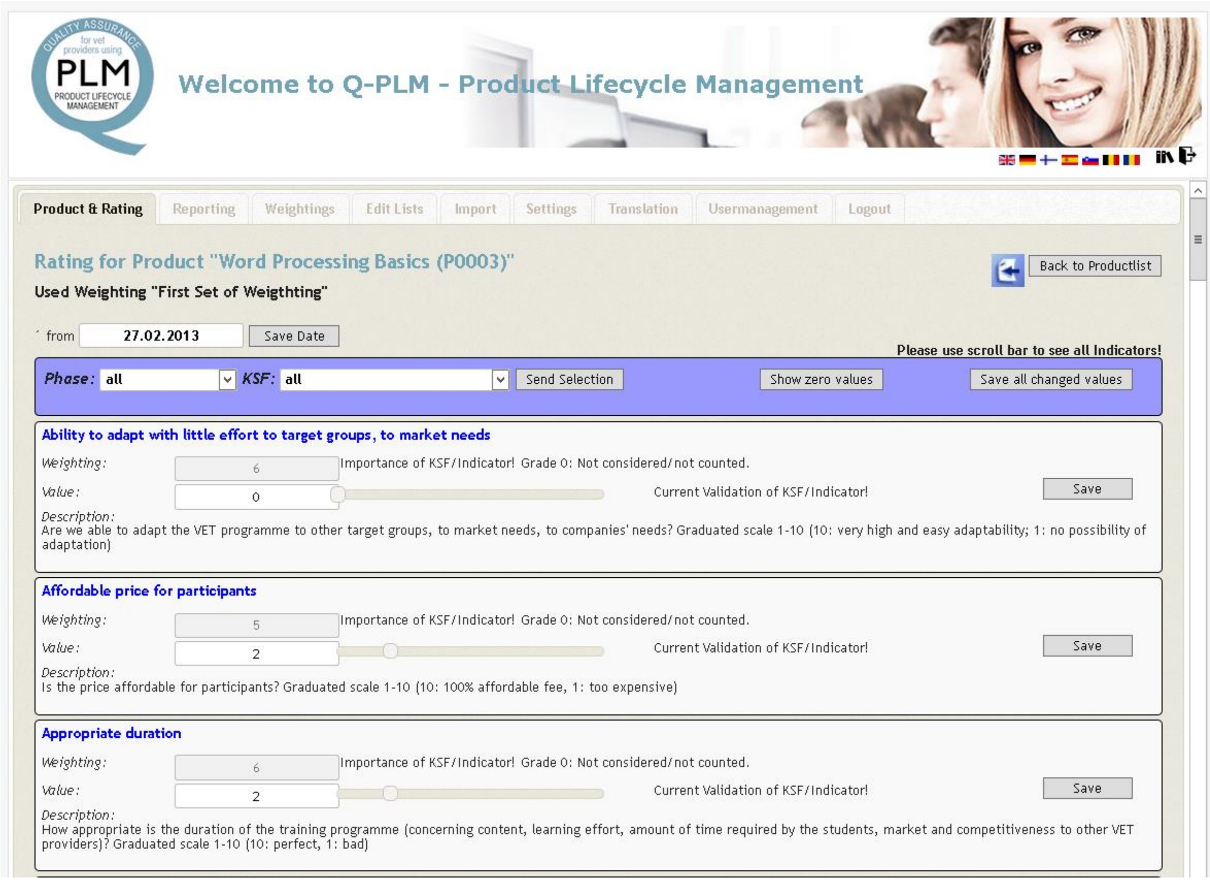


The main work on products is to create one or more ratings. To start the rating for a product click "Go to Product Rating". You will not immediately go to a rating form, but have to choose first, what you want to do. Here you have four options (if you are logged in as an "Administrator" you have got a fifth option)

- Create a new rating using a weighting
  Weightings are provided by users who are "Administrators"
- Edit an existing rating for this product
- Create a new rating by using an existing rating for this product
- Delete a rating
- And if you are an "Administrator": Create both a rating and an attached weighting simultaneously

Choose an option and select a weighting from the list beside the option and click the button "Go". Click the button "Cancel" to go back to the main list of products.

In case you chose one of the first three options you will get a similar form to change and save the ratings for each indicator.



On the rating form you will see the title of the product and the name of the weighting you have chosen.

Each rating is attached to a date. When a rating is created the current date is attached. You can easily change the date to your own choice by entering a different date “from” and click the button “Save Date”. You have to confirm this change.

If you want to go back to the product list click the button “Back to Product list”. You will be notified if you have left any values for indicators at zero.

For each indicator, in the initial version there are about 50, you can enter a value between zero and ten. If you set the value at zero this means, that you don’t need this indicator in your rating for this product. Zero means that this indicator will not be taken into account for any reports on this product.

If you want this indicator to show up in a report for the product, you have to choose values between one and ten. One is the lowest rating, ten is the highest rating.

If you have created a completely new rating all values start at zero.

The weighting is also shown in this rating. Both weighting and rating are used in reporting. The value you get in reporting is simply the product of weighting and rating. The weighting shows how important this indicator is for your organisation, the rating shows how well this indicator is fulfilled. So if the weighting is high the focus is on this indicator and also looks for a high value. If the weighting is low there is less focus on this indicator, because in a report the calculated value, the product of weighing and value, will not be high even if the value you have entered is high.

You cannot change the weighting at the rating stage of a product. You must be “Administrator” to be able to do both.

You can enter the value as a number or use the slider beside.

After you have entered a value you can save it by clicking the button “Save” in the panel of the indicator. Which indicator you have changed and not yet saved is shown by a reddish colour in the background of the indicators panel. You can also first change all indicators and then save them simultaneously by using the button “Save all changed Values” at the top of the indicator list.

You can use three filters on the list of indicators. You can set these filters through select lists and buttons positioned at the top of the list.

- Phase: choose one of the four phases and click “Send Selection”
- KSF: choose one of the ten Key Success Factors and click “Send Selection”
- Click the button “Show zero Values” if you want to see only those indicators you have not rated yet

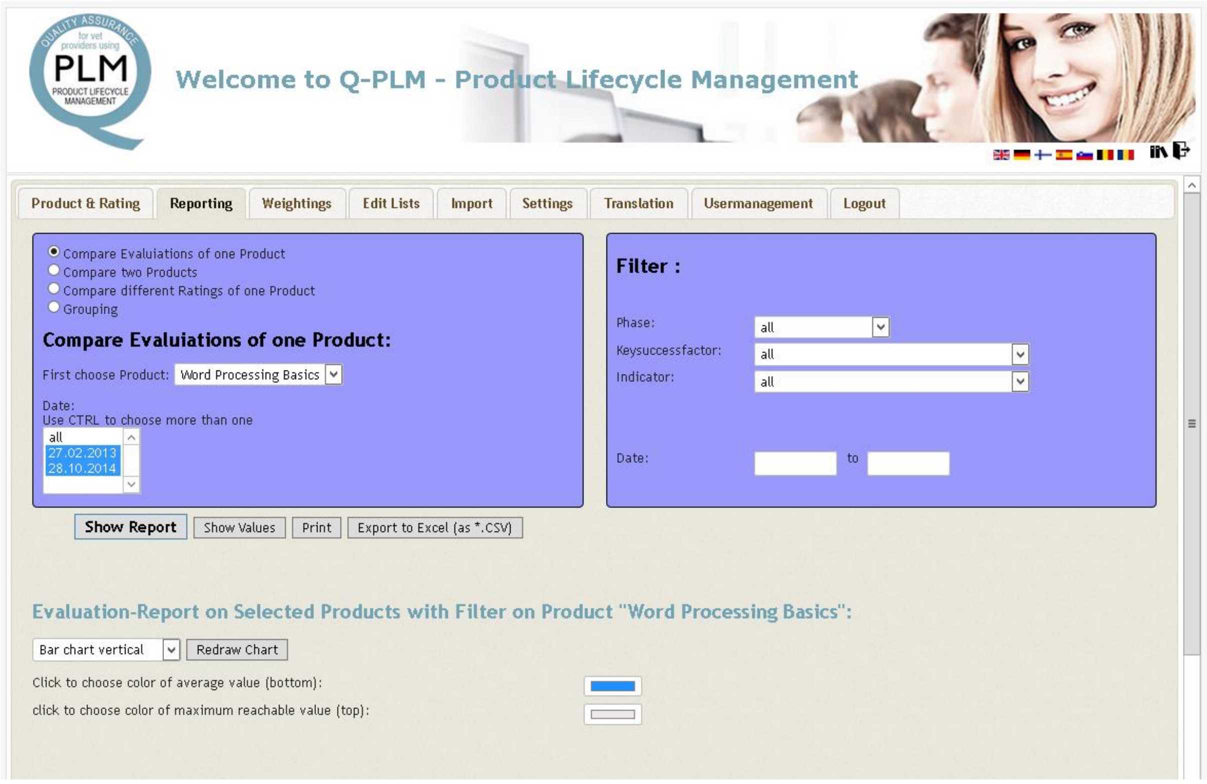
You can set all three filters at the same time.

3.3 Reporting

The second part of the evaluation process and therefore of the software, is the reporting and comparison of the ratings different products and different stages of a product.

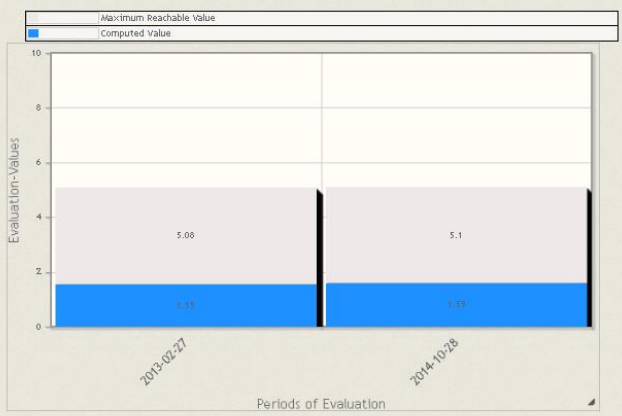
In the software this is realized by two concepts: Filters and Grouping

- Filters: you can select one or more filters to limit the result of the report to a product, a phase, a key success factor, a period and so on
- Grouping: how should the result be presented? Do you want to break down the report into phases, key success factors or indicators? Or do you want to combine two of them? Or do you want to compare the ratings of two products? Or of one product during different stages?



Description	Average Value of Indicators	Average Maximum Reachable Value of Indicator	Number of included Idicators
KSF1: Quality of VET Training :	1.75	5.77	26
KSF2: Customer Satisfaction :	1.28	4.78	18
KSF3: Quality of the Staff :	0.82	4.2	10
KSF4: Responding to Market Demands :	1.43	5.25	28
KSF5: Cost Control :	1.5	5	4
KSF6: Suitability of Infrastructure and Material :	4	5	2
KSF7: Stakeholder Engagement :	1.4	5	10
KSF8: Strategic Provider Benefits :	2.75	5	4
KSF9: Evaluation Mechanisms :	2.62	5	10
KSF10: Appropriate Certification :	1.23	5	8

Chart



Table

Average lower than 50% of Maximum Reachable
Average between 50% and 80% of Maximum Reachable
Average higher than 80% of Maximum Reachable

Description	Average Value of Indicators	Average Maximum Reachable Value of Indicator	Number of included Idicators
2013-02-27	1.55	5.08	48
2014-10-28	1.59	5.1	50

You will have to get familiar with reporting to get the results you are interested in.

The results are shown both as a chart and as a table below. If you use “Grouping 1” and “Grouping 2” the result will only be shown as a table.

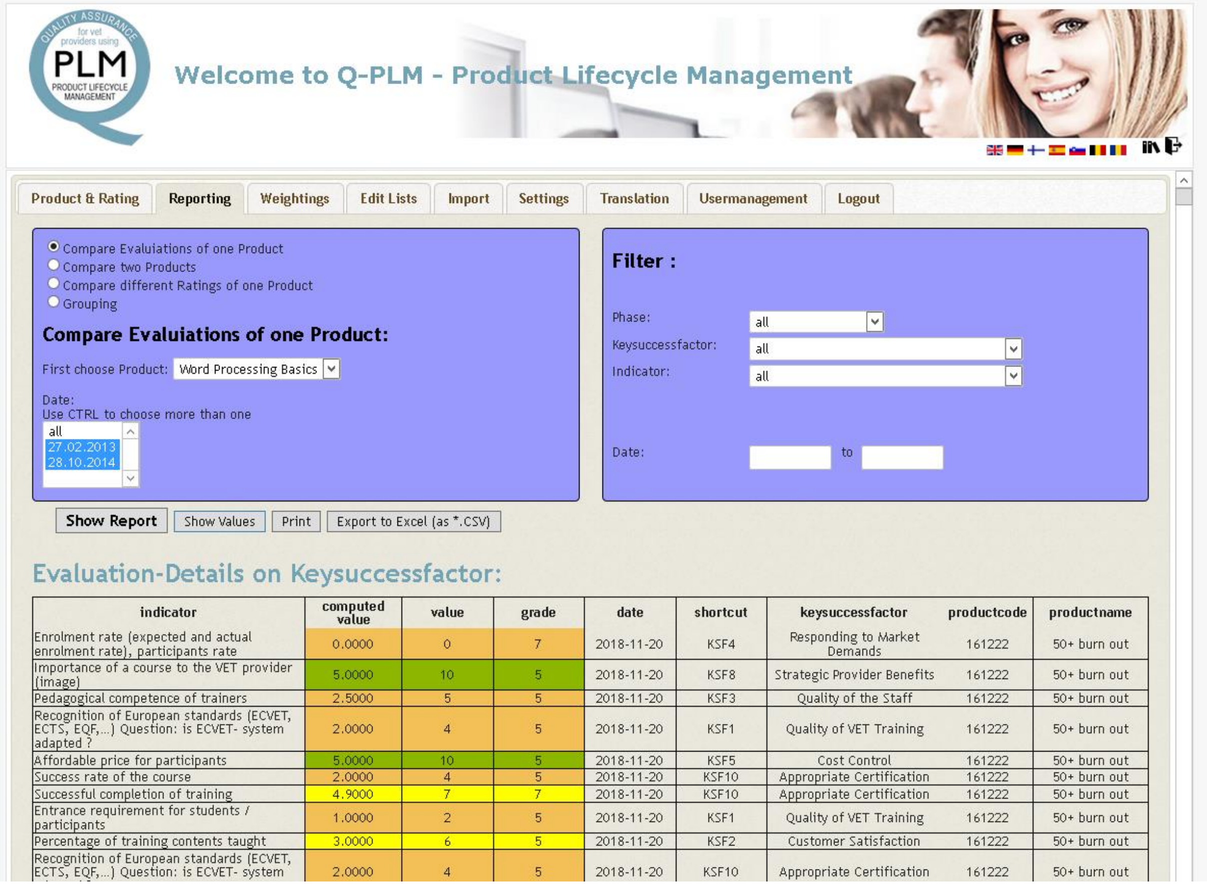
The chart shows the current result value in blue.

You can choose between the different diagrams by using the select list “Select chart”. You may choose between

- bar chart vertical
- bar chart horizontal
- line chart

The columns in the resulting table are:

- Description: the name or description of the result value
- Average value of indicators: all result values, that is value X weighting divided by 10, computed as an average of all single result values
- Average Maximum Reachable Value of Indicator: this is an average of all weightings or, if you want, the average of all products weighting X 10, the maximum value, divided by 10
- Number of included Indicators: how many indicators are used to compute the values in the columns before



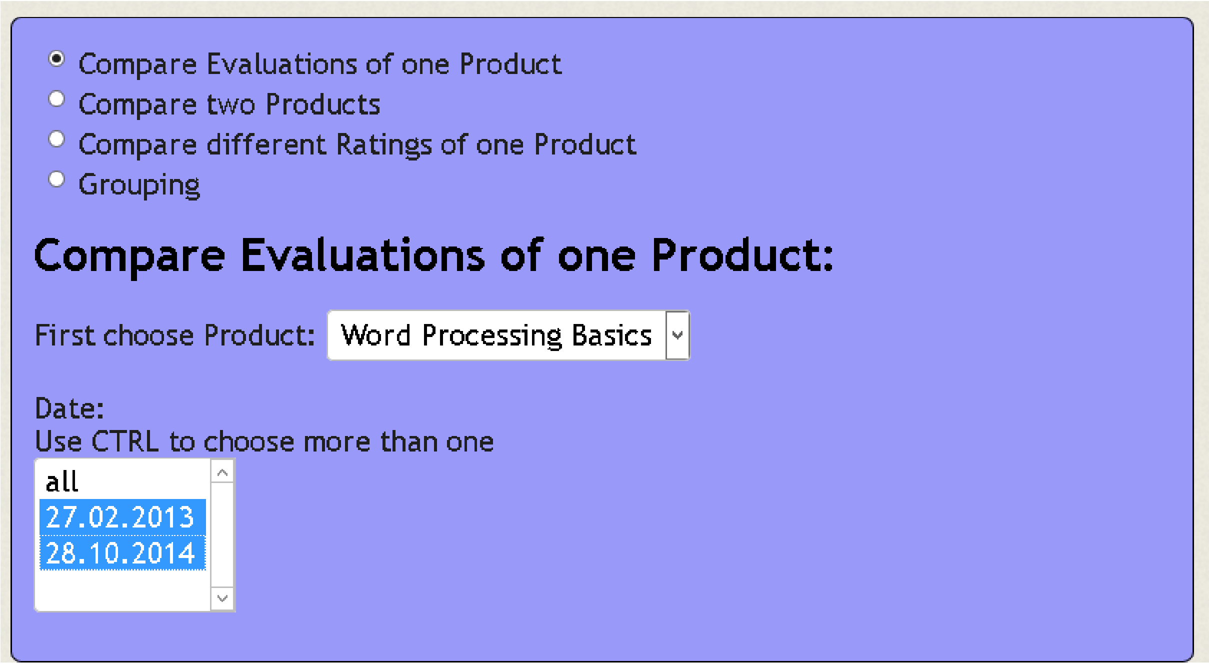
indicator	computed value	value	grade	date	shortcut	keysuccessfactor	productcode	productname
Enrolment rate (expected and actual enrolment rate), participants rate	0.0000	0	7	2018-11-20	KSF4	Responding to Market Demands	161222	50+ burn out
Importance of a course to the VET provider (image)	5.0000	10	5	2018-11-20	KSF8	Strategic Provider Benefits	161222	50+ burn out
Pedagogical competence of trainers	2.5000	5	5	2018-11-20	KSF3	Quality of the Staff	161222	50+ burn out
Recognition of European standards (ECVET, ECTS, EQF,...) Question: is ECVET- system adapted ?	2.0000	4	5	2018-11-20	KSF1	Quality of VET Training	161222	50+ burn out
Affordable price for participants	5.0000	10	5	2018-11-20	KSF5	Cost Control	161222	50+ burn out
Success rate of the course	2.0000	4	5	2018-11-20	KSF10	Appropriate Certification	161222	50+ burn out
Successful completion of training	4.9000	7	7	2018-11-20	KSF10	Appropriate Certification	161222	50+ burn out
Entrance requirement for students / participants	1.0000	2	5	2018-11-20	KSF1	Quality of VET Training	161222	50+ burn out
Percentage of training contents taught	3.0000	6	5	2018-11-20	KSF2	Customer Satisfaction	161222	50+ burn out
Recognition of European standards (ECVET, ECTS, EQF,...) Question: is ECVET- system	2.0000	4	5	2018-11-20	KSF10	Appropriate Certification	161222	50+ burn out

Click the button “Show Report” to show the results.

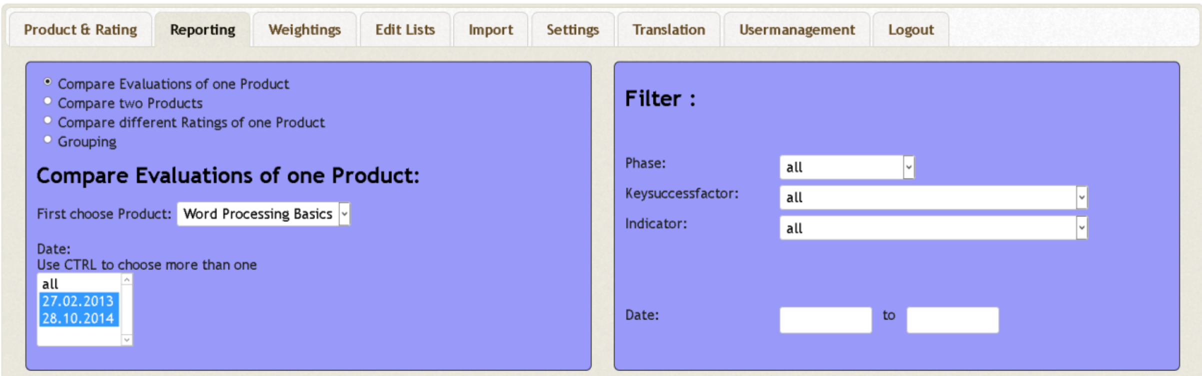
In the panel on the left side you can choose the filters you need. Please feel free to set all combinations of filters. The more filters you set the more restricted the result will be.

In the panel on the left side you can choose the presentation of the results. You have three options:

- Compare evaluations of one product: choose a product and the ratings to be compared
- Compare two products: choose two products to be compared
- Compare different ratings of one product: choose ratings from different dates of one product to be compared
- Grouping: simple report of one result set or two result sets combined.
  Default: one result set broken down into key success factors



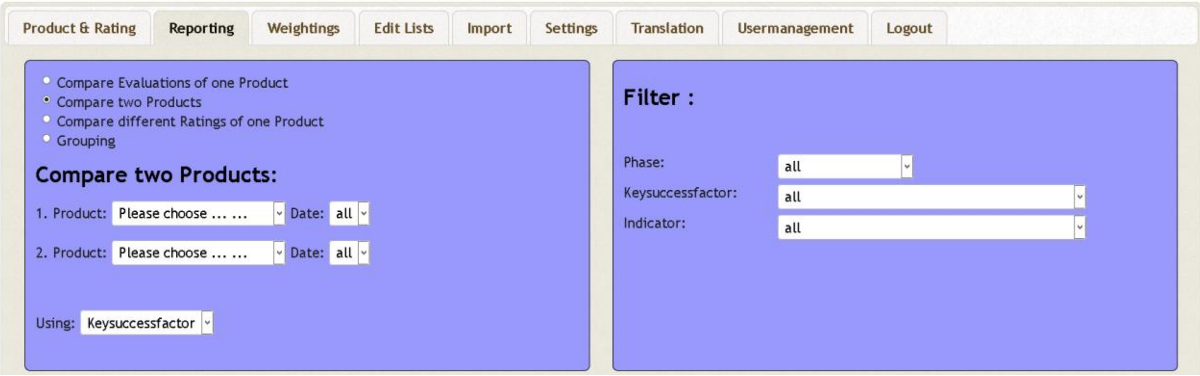
If you select the option “Compare Evaluations of one Product” you have to choose a product and the ratings of this product to be compared.



If you select the option “Compare two Products” you have to choose two products to be compared. You will get two results, a chart and a table for each of the products. You may choose a special date of a rating, if you want to compare only two ratings and not all ratings combined.

You can also choose the grouping for this report. The available options are:

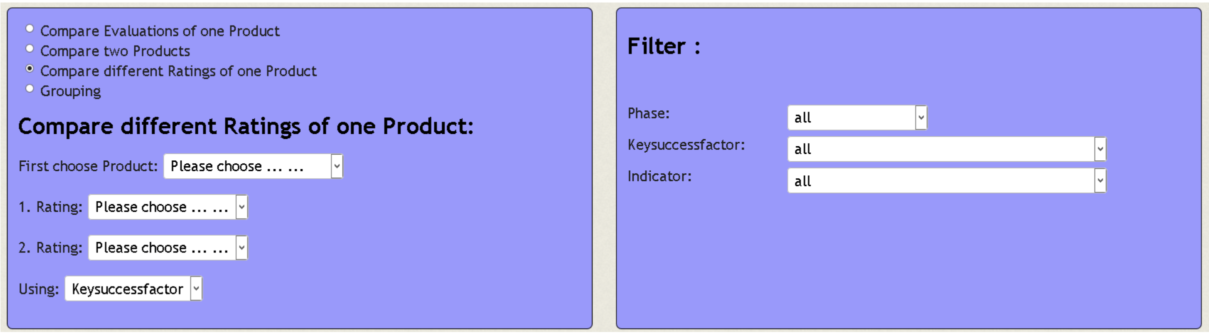
- Key success factor
- Phase
- Indicator



If you select the option “Compare different Ratings of one Product” you have to choose two dates of ratings to be compared. You will get two results, a chart and a table for each rating.

You can also choose the grouping for this report. The available options are:

- Key success factor
- Phase
- Indicator



If you choose “Grouping” you have to choose at least one value from the select list “Grouping 1”, default is “Key success factor”. You may choose between the options:

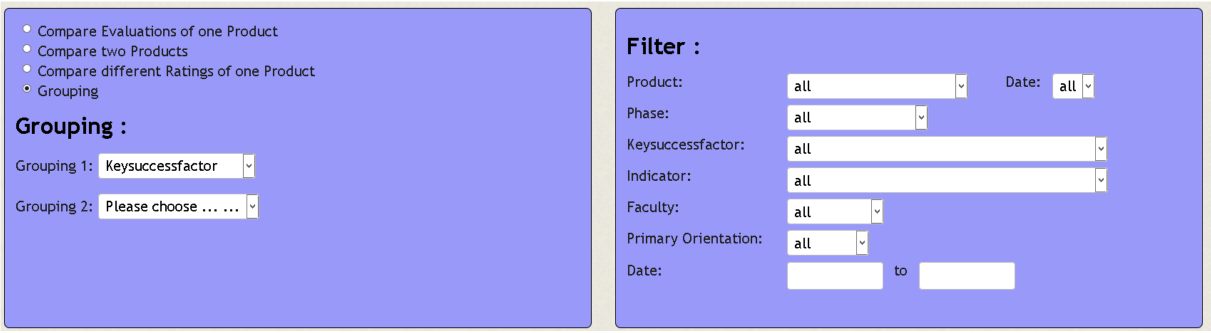
- Key success factor
- Phase
- Indicator
- Product
- Faculty
- Primary Orientation
- Date

If you choose only a value from “Grouping 1” the result will be broken down at this value and the result is shown in a chart and a table below.

If you choose from both “Grouping 1” and “Grouping 2”, values will be taken into account and the result will be a table only.

If you choose “Date” for your grouping you may choose between three options to break down the result:

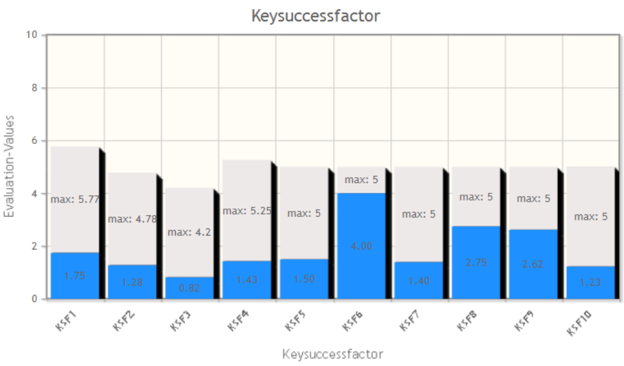
- Month
- Quarter
- Year



If you get a result after clicking the button “Show Report” you get three more buttons.

Click the button “Show Values” to get the list of all included indicators and their values and weightings set for this report. The “computed value” is the product of value X weighting divided by 10.

Evaluation-Report on Keysuccessfactor with Filter on Product "Word Processing Basics":



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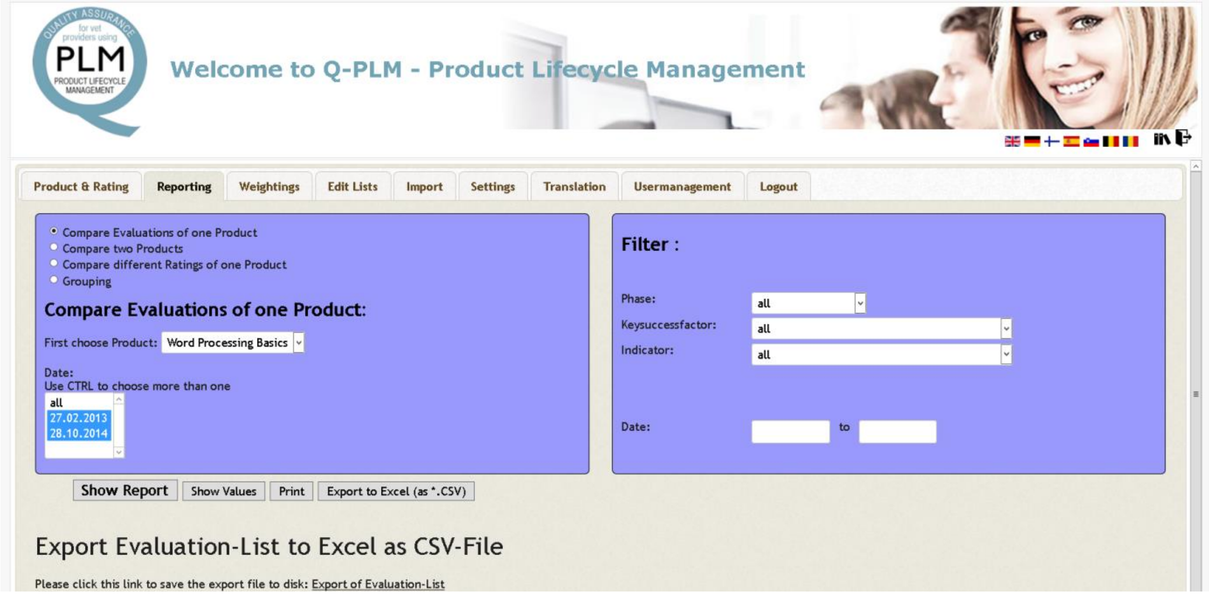
KSF8: Strategic Provider Benefits :	2.75	5	4
KSF9: Evaluation Mechanisms :	2.62	5	10
KSF10: Appropriate Certification :	1.23	5	8

Print Close Window/Tab

You may click the button “Print” to get a printable version of the report. Click on “Print” to print out on a printer or export it as a pdf-file.

Click the button “Close Window/Tab” to return to the original report.



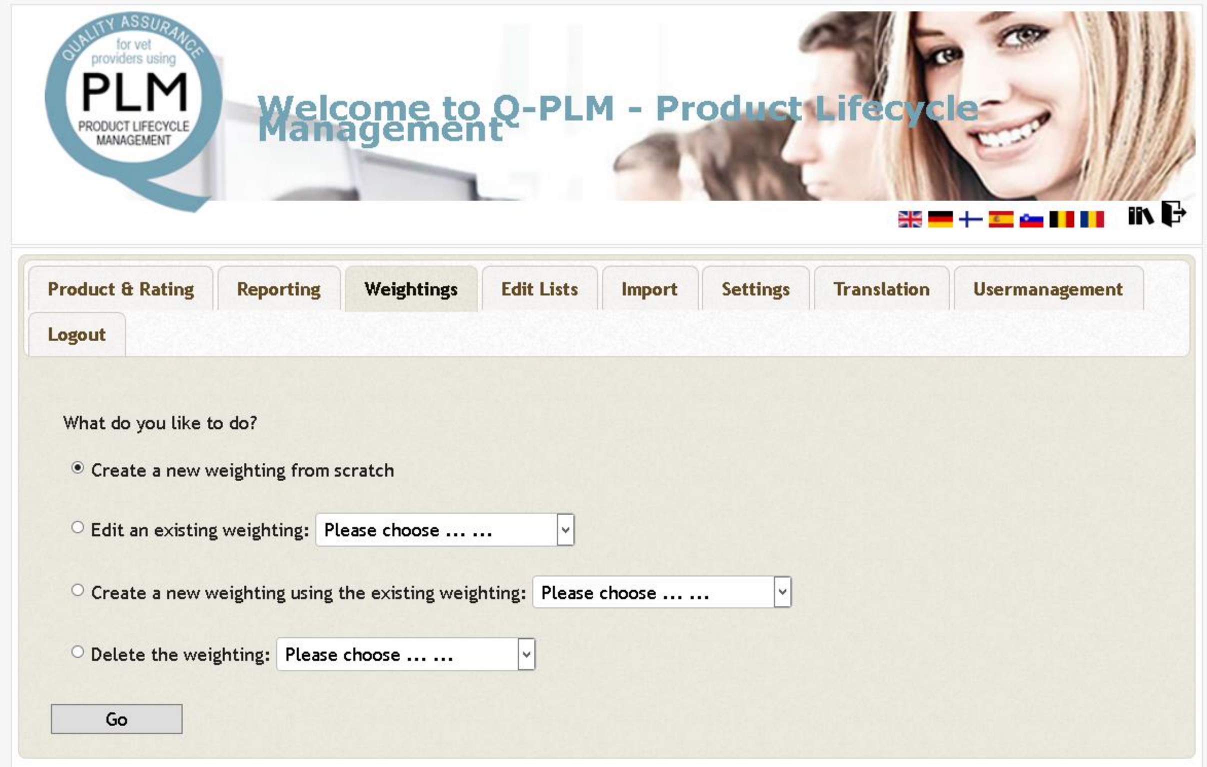
You may click the button "Export to Excel (as *.CSV)" to get an export file you can use with Microsoft Excel or another spreadsheet applications. After you have clicked the button an export-file is created. Click the link "Export of Evaluation-List" to download this file.

If Microsoft Excel is installed on your computer, CSV files are opened in Excel by default.

3.4 Weightings

If you are logged in as an "Administrator" you will be able to create new weightings for indicators. Weightings are used to rate how important an indicator is for the organisation.

Weightings are edited similar to ratings or products described in the chapter "Product and Rating".

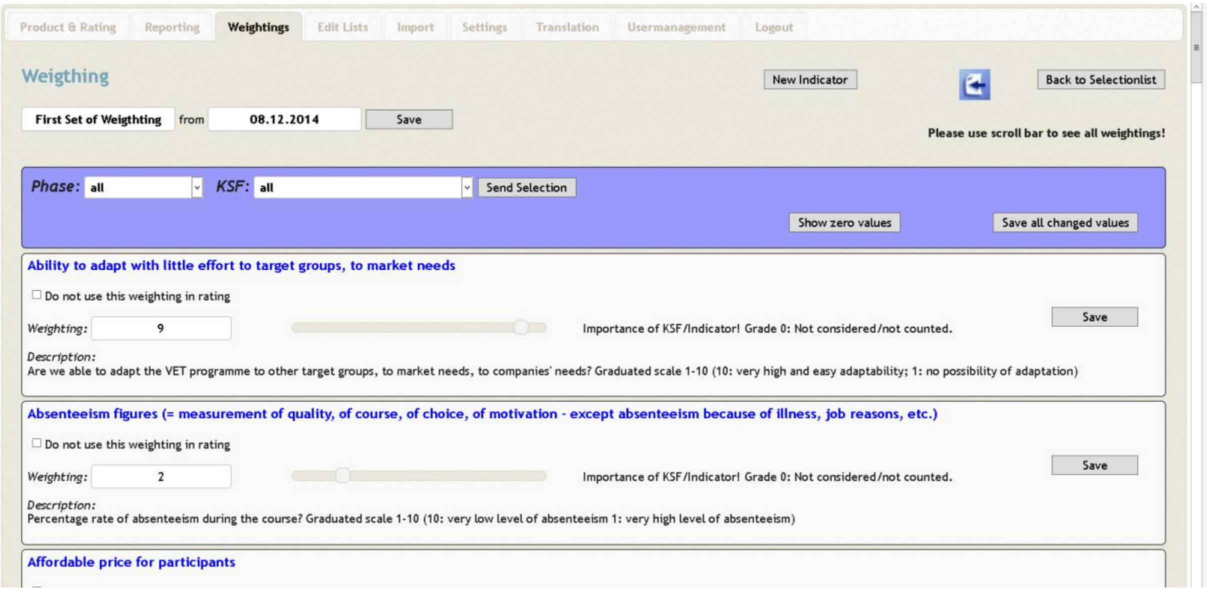


If you click on the tab you are asked what you like to do:

- Create a new weighting from scratch
- Edit an existing weighting
- Create new weighting by using an existing weighting.
- Delete a weighting

Choose an option and select a weighting from the list beside the option and click the button "Go".

If you chose one of the first three options you will get a similar form to change and save the weightings for each indicator.



On the rating form you will see the name of the weighting and its creation date.

Each weighting is attached to its name. If the rating is created you get a default name and the current date is attached. You can change the name and date to your own choice by typing in the appropriate values and clicking the button “Save”.

For each indicator, in the initial version about 50, you can enter a value between zero and ten. If you set the value to zero this means, that you don’t need this indicator in the rating of your products. Weighting zero means that this indicator will not account for any report.

So you have to choose values between one and ten if you want this indicator to show up in a report for this product. One is the lowest rating, ten is the highest rating.

If you have created a completely new weighting, all values start at zero.

You can enter the value as a number or use the slider at the side.

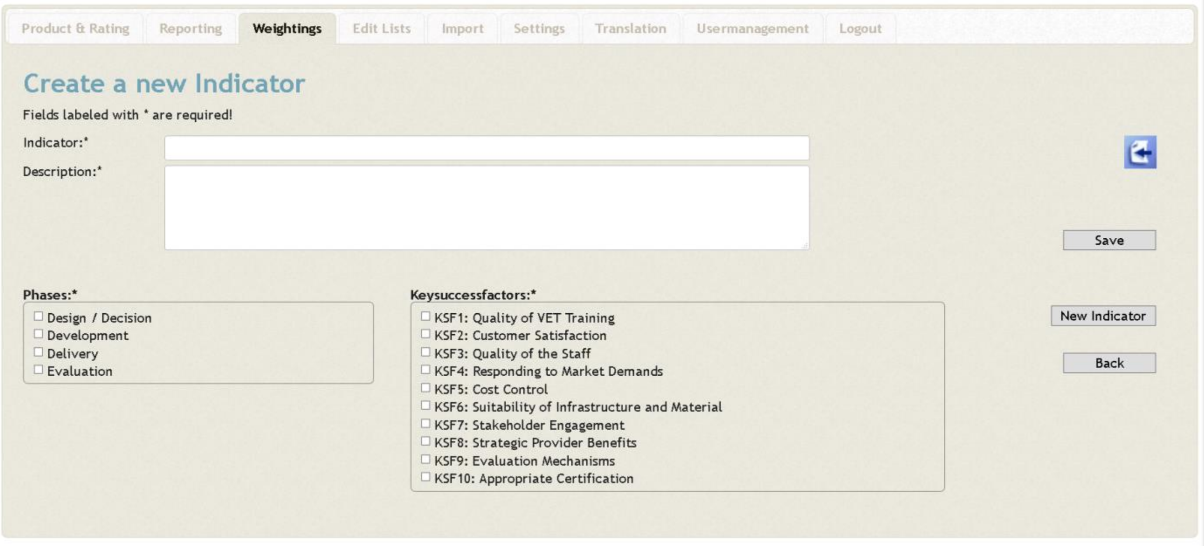
After you have entered a weighting you can save it by clicking the button “Save” in the panel of the indicator. Which indicator you have changed and not yet saved is shown by a reddish colour in the background of the indicators panel. You also can first change all indicators and then save them simultaneously by using the button “Save all changed Values” at the top of the indicator list.

You can use three filters to on the list of indicators. You can set these filters through select lists and buttons positioned at the top of the list.

- Phase: choose one of the four phases and click “Send Selection”
- KSF: choose one of the ten Key Success Factors and click “Send Selection”
- Click the button “Show zero Values” if you want to see only those indicators you have not rated yet.

You can set all three filters at the same time.

By clicking on the button “New Indicator” you can add a new indicator and add it to one or more phases and key success factors.



Click the button “Back to Select List” to return to the main page of weighting.

3.5 Edit Lists

The software comes with two lists to organise your products:

- Primary Orientation
- Faculty Code

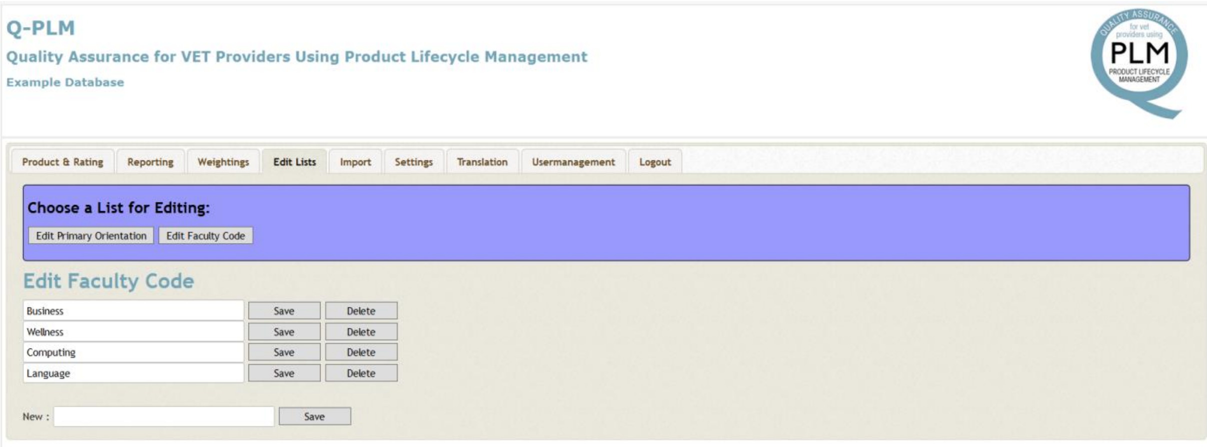
You can add and change the values for these lists on this tab. You must be logged in as “Administrator” to be able to edit these lists.

Click the button “Edit Primary Orientation” to edit the Primary Orientation list, click the button “Edit Faculty Code” to edit the Faculty Code list.

To edit an existing entry, overwrite the existing value and click on the button “Save”.

To delete an entry click the button “Delete”.

To add a new entry, type in a new value in “New:” and click the button “Save”.



You may even delete an entry if it is used with products. The products save their own values and will keep the value even is this is not in the list.

Therefore if you change an entry here it will not automatically be changed for a product. You must edit the product and attach the appropriate value from the select list.

3.6 Import

If you want to rate many products and you already have your list of products you may easily import it through this feature.

You must be logged in as “Administrator” to use this feature.

The file you upload must be simple text with delimiter semicolons as follows

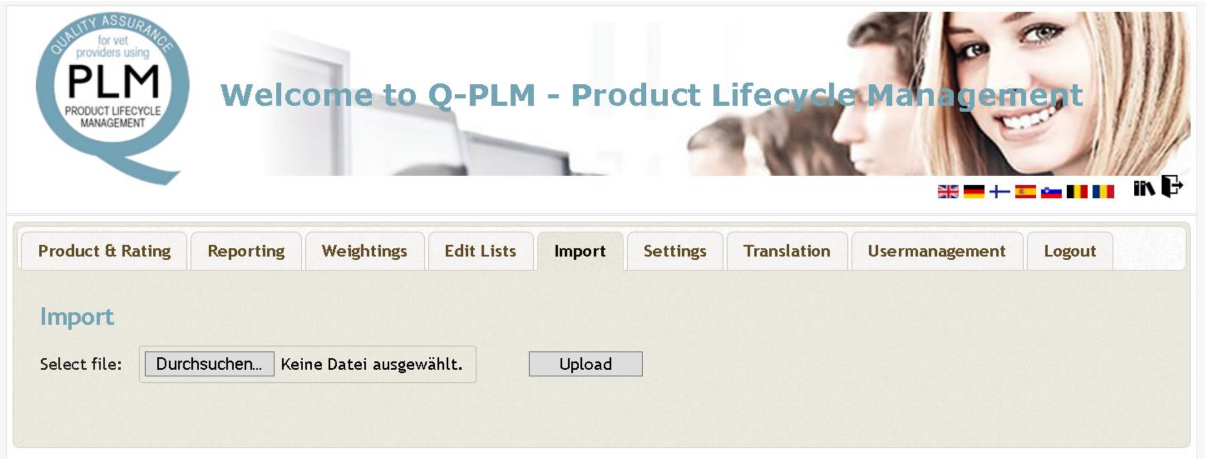
ProductID;Productname;Orientation;Faculty
P1234Z;Q-PLM Introduction;Public;Computing

The first row of the file to be imported must consist of these column names:

ProductID;Productname;Orientation;Faculty

If the first row does not follow this rule, the import file will be rejected.

Use the file type CSV to export it from your application and it will be appropriate. Make sure that the encoding of the file is “utf8” or you will have problems with language specific letters. N.B. Excel will export by default with encoding “ANSI”, which will not otherwise work.



Click the button “Select File” to select the file you want upload from your computer.

Click the button “Upload” to upload the file. You will get a preview. Here you can review the upload and see if all language specific letters are shown correctly. If not change the file and try it again. Do not click on button “Import” before the preview is correct.

Click the button “Import” to finish the upload.

New values for the lists “Primary Orientation” and “Faculty Code” will automatically be extracted from the third and fourth column of the imported file and are added to these lists.

3.7 Settings

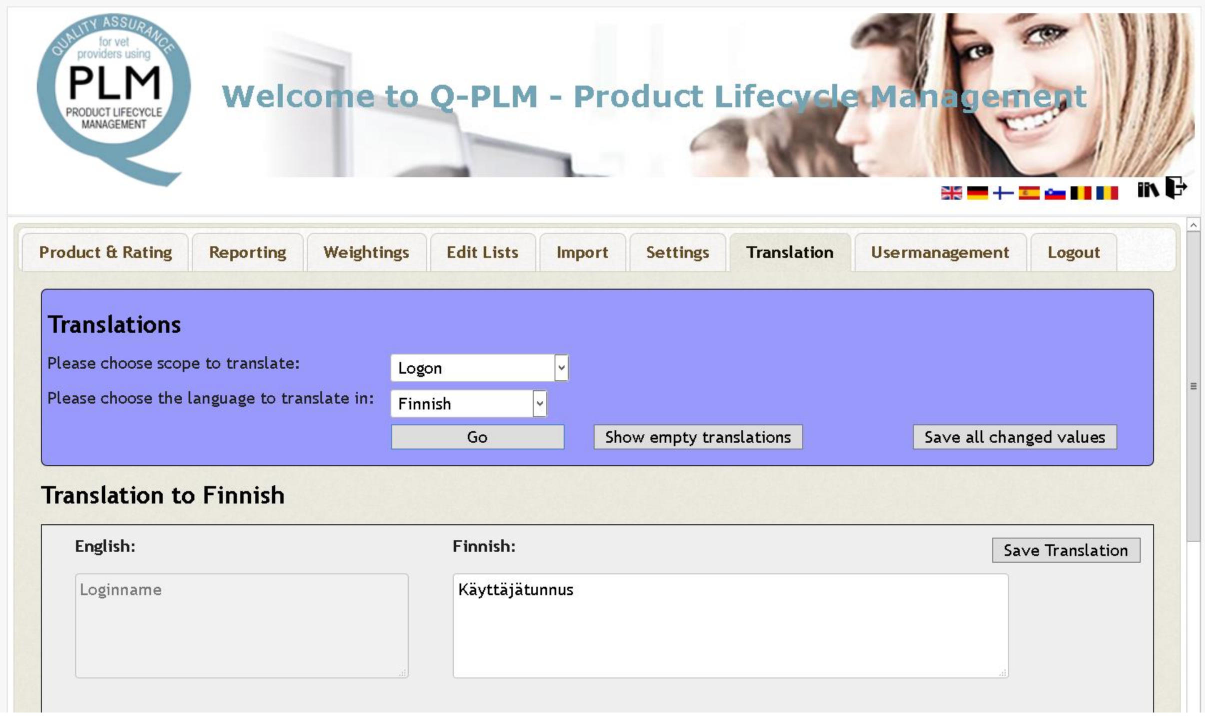
You can choose your language whenever you log in by clicking on the tab “Settings”.

Choose a language from the select list. Click on button “Save” to change the language of the software. This language is also used with your next login.

Only languages are provided, which are added by a user who is “Administrator”.

3.8 Translation

If you are logged in as an “Administrator” you can add a new language and add translations to all parts of the software. You are able to translate the descriptions of the user frontend, the phases, key success factors and indicators.



First choose the scope you want to translate from the first select list, the language you want to translate to. Click the button “Select” to show a list of all the phrases to be translated.

On the left side you will get the phrase in English, on the right side you may enter or change the translation in your language. Click button “Save Translation” to save the translation.

You may use the button “Show empty Translations” at the top of the list to show only those phrases where the translation is missing.

You may first enter all translations and then click the button “Save all changed values” at the top of the list.

If you don’t enter a translation for a phrase the English phase is used.

If you want to add a new language. click the button “New Language”. Here you can enter a further language to the language list.

3.9 User management

If you are logged in as “Administrator” you can add, change and delete users.

Select a user from the list of existing users to change its values.

If you want to add a new user click button “New User”

Username, First name, Surname and Group are mandatory, also the Password if a new user is to be added.

You may choose between three groups:

- Administrator: has access to all functions in the software
- User: is able to add new products, do ratings and do reports
- Reporter: is able to do reports

If you do not enter a new password, the password will not be changed.

If you enter a password you have to re-enter it. This is for security reasons.

Click the button “Save” to save the changes.

Click the button “Cancel” to cancel all changes

To delete a user first choose from the list of users and then click the button “Delete”. You must confirm the deletion.

3.10 Logout

Click the button “Logout” if you want to logout from the software.