ProfileMap – User Manual

value – inspired by people

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Information regarding reading this document:

In the whole document the terms “skills” and “competencies” are used as synonyms. Both terms are used throughout the whole documents and the meaning is identical.

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1 Login

To log in to the system, one needs to navigate to www.profilemap.de and type in the Active Directory credentials. The user is prompted to use either the Azure Multi-Factor Authentication or the SecurID Authentication Method, otherwise the user is taken directly to the dashboard screen if connected through the msg VPN.

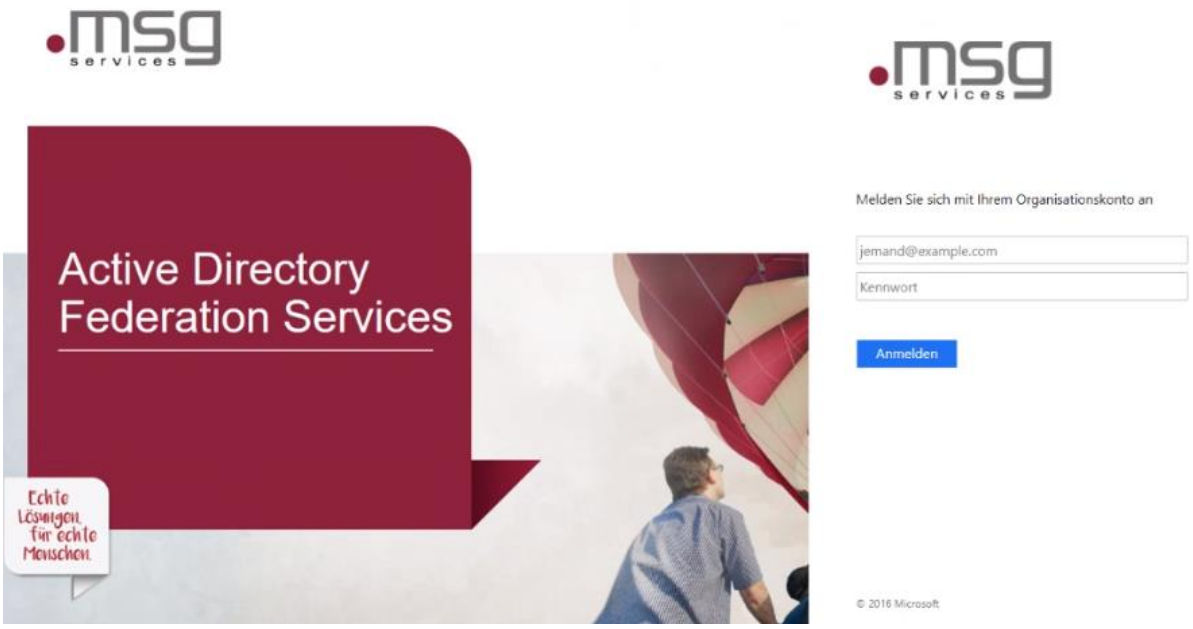

Figure 1: Login Screen

2 Profile Management

Depending on the user's role, edit and viewing rights could be limited to:

- Own profile
- Profiles of respective BSU
- Direct reports

To edit one's profile, follow the steps below:

2.1 Select Profile Management

Select "Profile Management" on the dashboard.

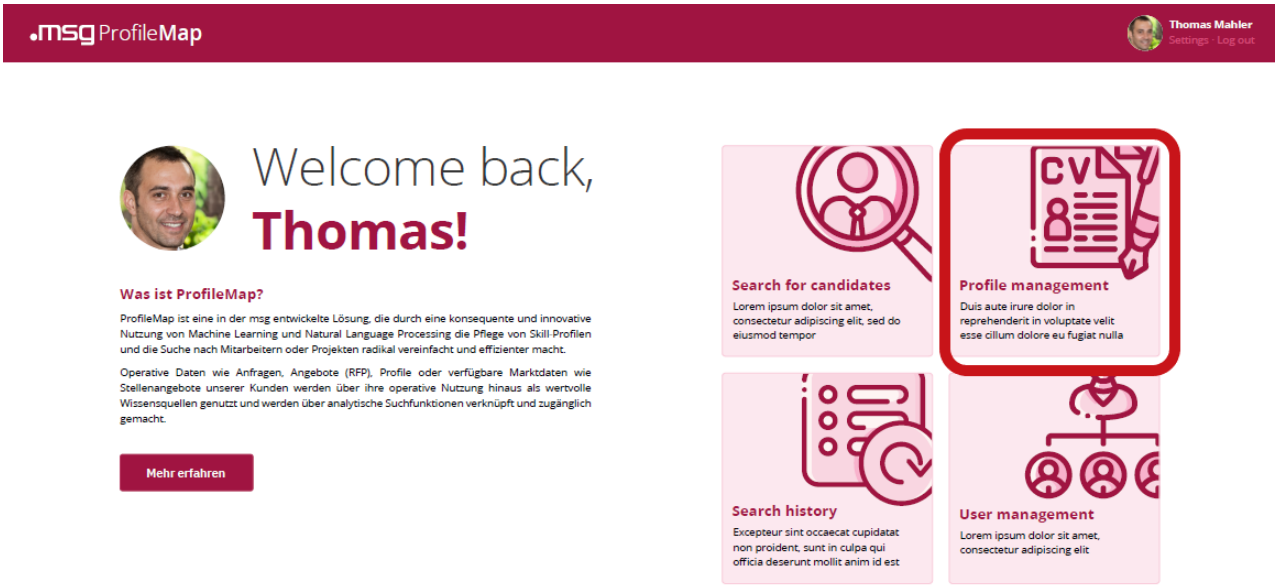

Figure 2: Dashboard

2.2 Search for employees

Users with one of the roles ProfileManager or LineManager (see chapter 4 User Management) can use the employees list in the left side panel to search for a particular person. By selecting a name in the list, that person's profile is displayed, and it can now be edited. Editing the profile works the same as for one's own profile.

The search can be done by wildcard. Just enter the string you want to search for and all names with use the string will be listed. The search string can be part of the first or the last name. At least two characters need to be entered for starting the search.

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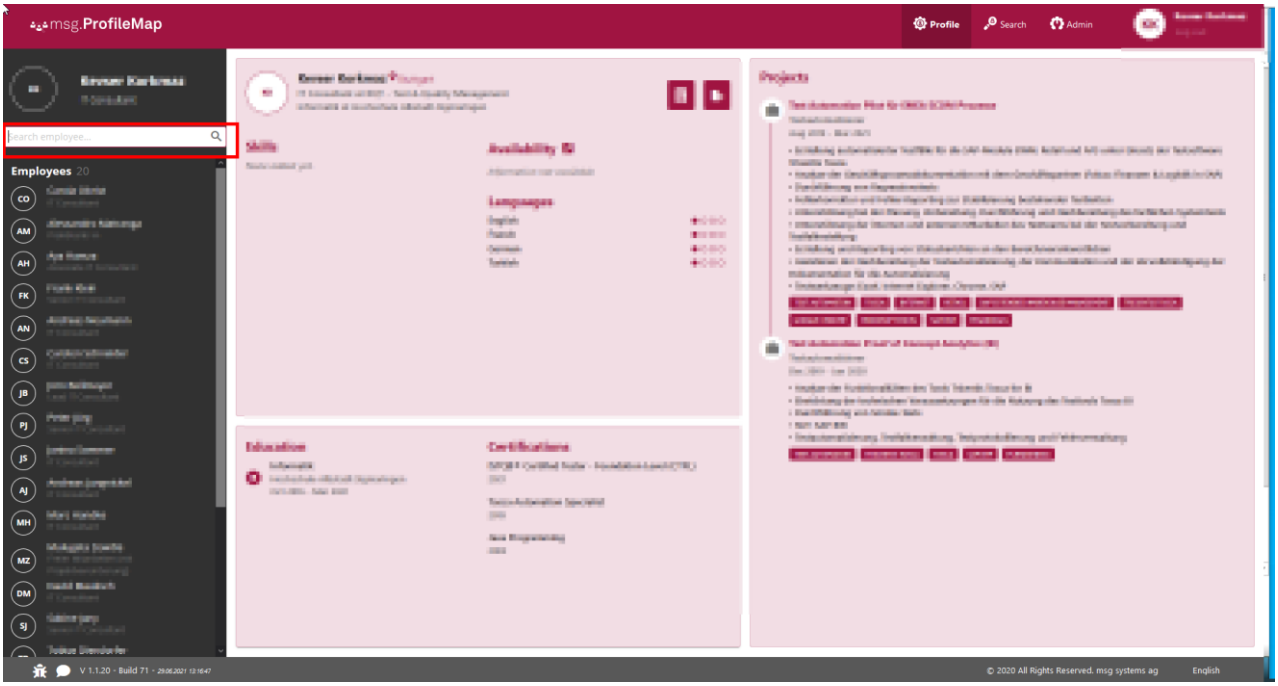

Figure 3: Search for empoiyees

2.3 Enter Profile Data

There are different ways to maintain your profile:

- either **upload a CV**, from which the information about skills and languages is automatically transferred to the profile using a text extraction algorithm
- or enter all the information **manually**. A combination of both options is also possible.

Not all fields within the profile management section are editable. Name, location, business unit and availability are imported data that cannot be changed in ProfileMap due to data consistency.

The CV file can be uploaded by drag & drop or by pressing the upload button and selecting the desired file (only. docs **and .pdfs** *currently* supported).

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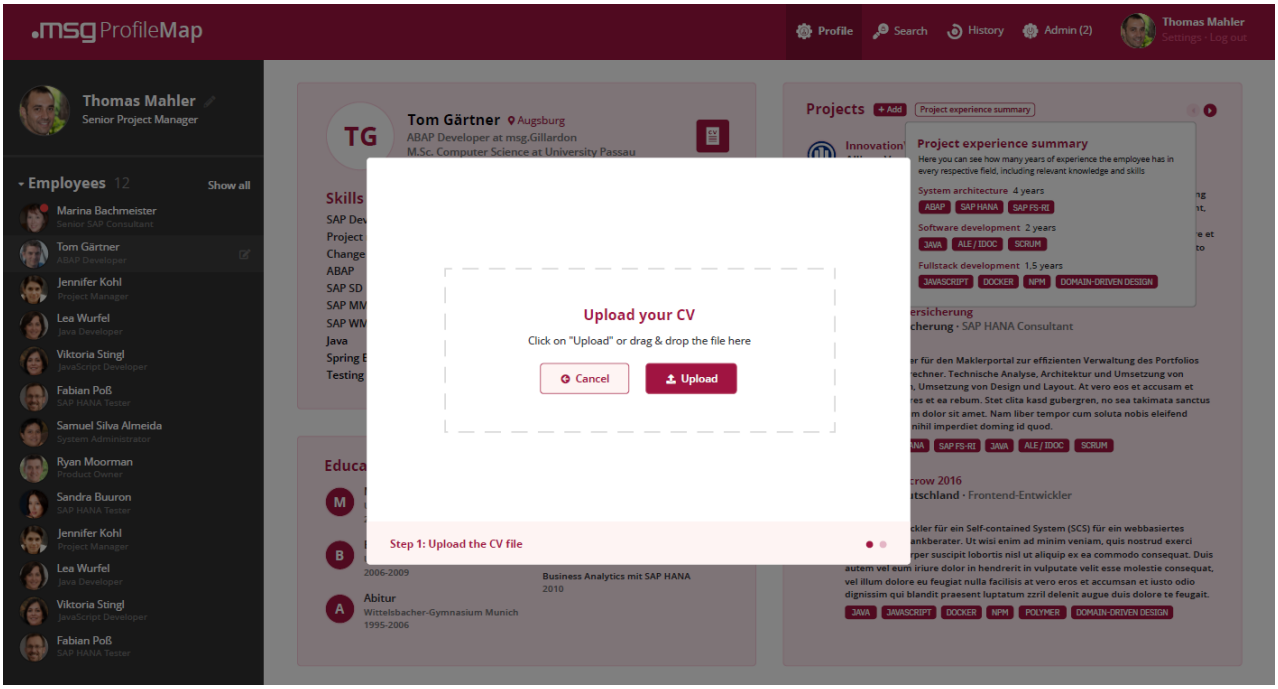

Figure 4: CV Upload – Profile Management

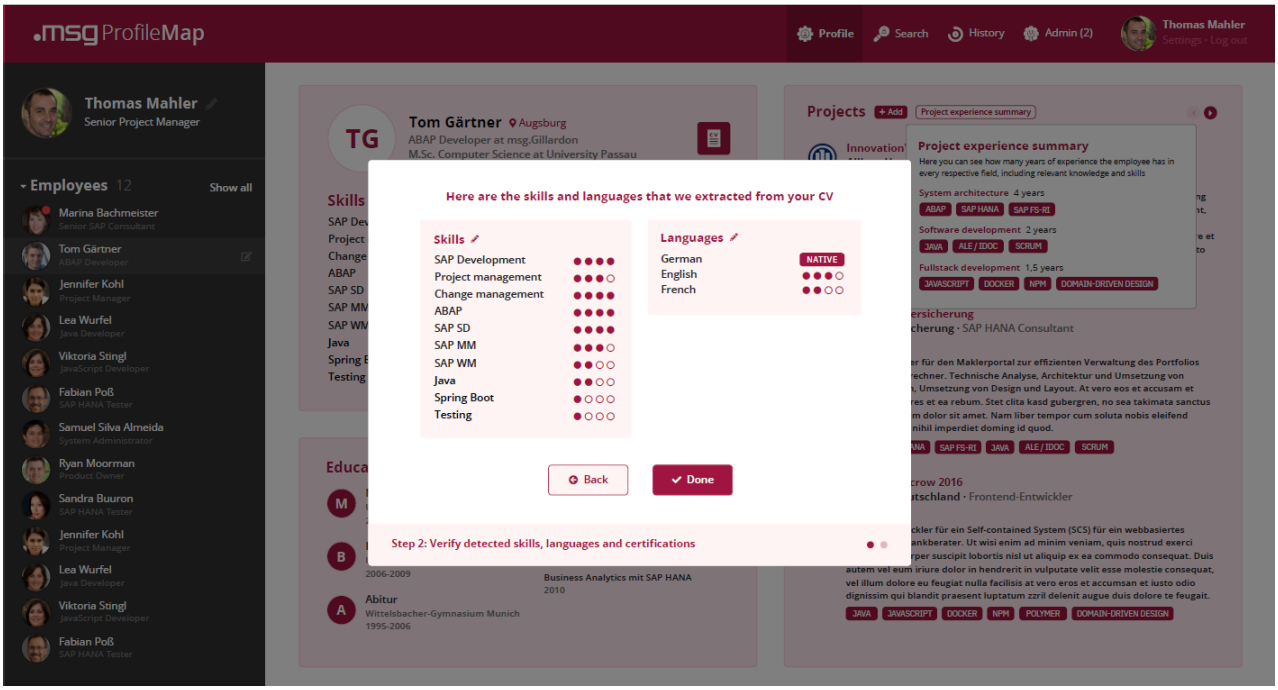

Figure 5: Editing profile – Screen 1

2.4 Upload a Profile Photo

To upload a profile photo click on the round placeholder in the top left corner of the profile.

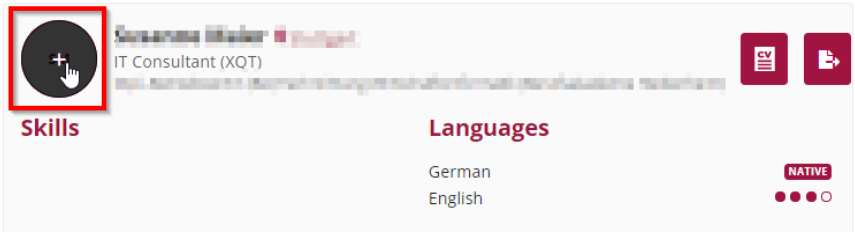

Figure 6: Add Profile Photo

In the following upload dialog a photo can be selected and uploaded to the profile.

If necessary the photo can be adjusted in the second screen.

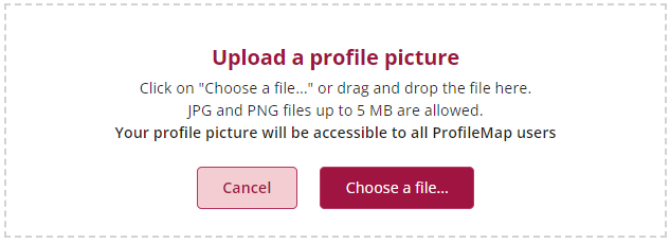

Figure 7: Choose Photo

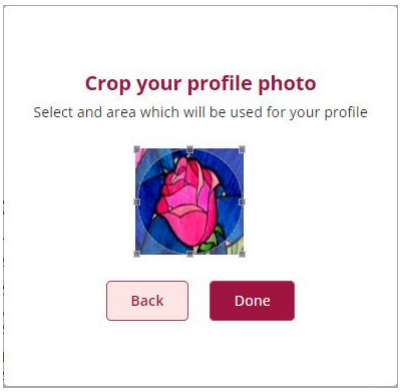

Figure 8: Adjust Photo

With click on “Done” the selected photo will be added to the profile.

2.5 Edit and Delete Profile Photo

By hovering over the profile photo end edit button (in form of a pencil) and a delete button (in form of a waste basket) will be displayed.

A click on the edit button will open the upload dialog and a new photo can be uploaded.

A click on the delete button will delete the existing photo.

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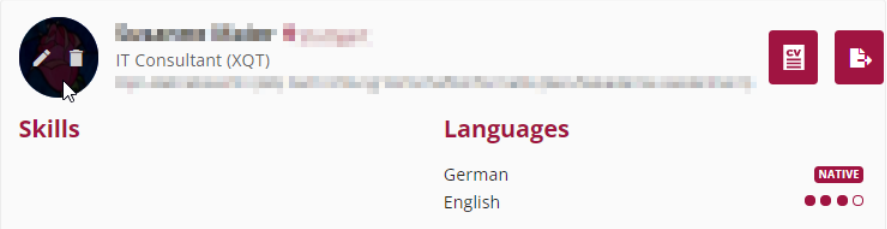

Figure 9: Edit / Delete Photo

2.6 Edit Skills

By hovering over the “Skills” section an edit button will be displayed (in the form of a pencil). Click this button and the “Edit Skills” window will be displayed.

Select the desired skills from the list or use the search field below to search for a specific skill. The display of the skills can be switched between BSU specific categories and skills and the whole knowledge base by selecting the appropriate radio button at the bottom of the window.

The BSU specific categories and skills are managed by the Skill Manager. For more details see chapter 5 Data Categorization.

Add the skill to the right-side panel called “Existing Skills” by clicking the “Add” button while hovering over the skill. The user can also adjust the skill level represented by the “4 point” bar.

Skilllevel	Description
Skilllevel 1 – Basic Knowledge	Employee knows the principles and mechanism and the theory (from training or school) but doesn’t have any practical knowledge.
Skilllevel 2 – Limited Expertise	Employee has comprehensive theoretical knowledge and first practical experience. They can work in projects together with a more experienced colleague.
Skilllevel 3 – Advanced Expertise	Employee has established theoretical knowledge and already has practical experience from projects. They can lead subprojects or smaller projects in this field.
Skilllevel 4 – Expert	Employee has great expertise and has extensive knowledge regarding this skill. They can provide training for others. They can lead any project of any size on their own and can assist customers regarding their questions or problems.

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Kompetenzlevel	Beschreibung
Kompetenzlevel 1 Theoretische Grundkenntnisse	Der Mitarbeiter kennt die Prinzipien und Mechanismen in der Theorie (aus Schulungen oder Studium) , hat diese jedoch noch nicht praktisch anwenden können.
Kompetenzlevel 2 Eingeschränkte Handlungskompetenz	Der Mitarbeiter hat umfassende theoretische Grundkenntnisse und erste praktische Erfahrungen. Der Mitarbeiter kann in diesem Gebiet unterstützend auf Projekten eingesetzt werden.
Kompetenzlevel 3 Volle Handlungskompetenz	Der Mitarbeiter verfügt über fundiertes theoretisches Wissen und hat bereits Projekterfahrung in diesem Bereich sammeln können. Der Mitarbeiter kann Teilprojekte/kleine Projekte in diesem Gebiet eigenständig leiten.
Kompetenzlevel 4 Experte	Der Mitarbeiter beherrscht die jeweilige Kompetenz perfekt, besitzt umfassendes Hintergrundwissen und kann andere darin schulen. Er ist absoluter Wissensträger in diesem Gebiet, kann Projekte jeder Größe eigenständig führen und ist in der Lage den Kunden bei Fragestellungen jeglicher Art zur unterstützen.

After all desired skills have been added in the “Existing Skills” list click the “Done” button to confirm all changes.

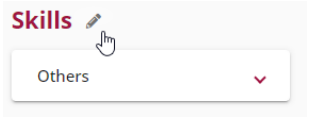

Figure 10: Edit skills

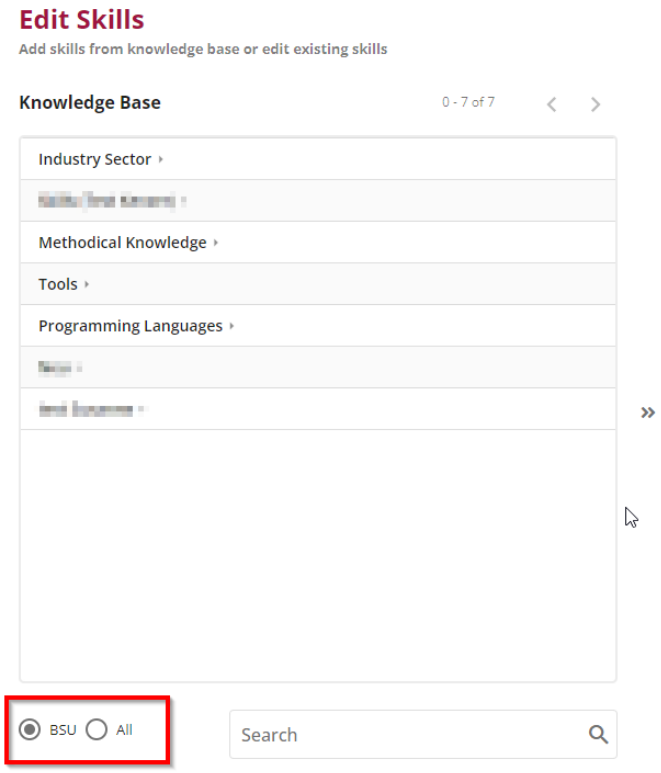

Figure 11: Switch between BSU relevant categories and all available skills

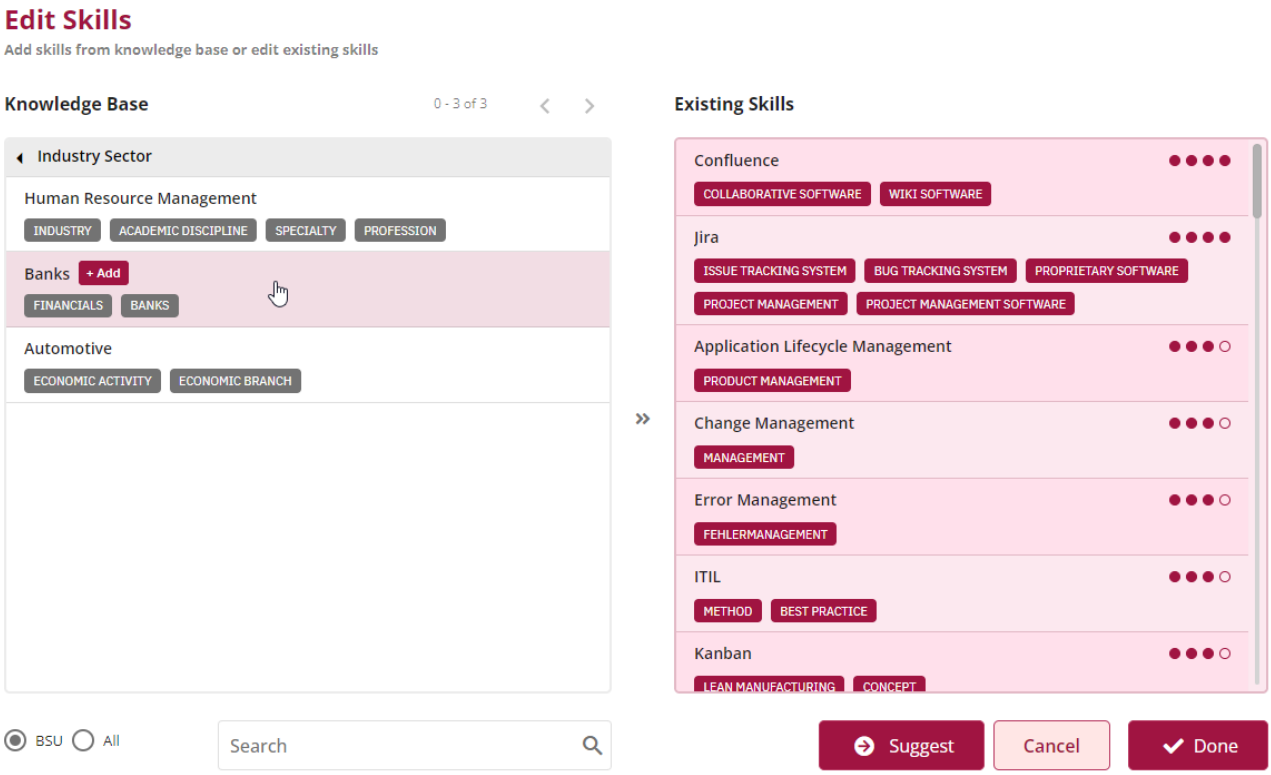

Figure 12: Add new skills to profile

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2.7 Suggest new Skills

If a skill is not available in either BSU (BSU) ontology nor in general (All) the missing skill can be suggested to be checked and added by the Data Curator.

To suggest a new skill the new skill needs to be entered in the Search field. Then click the button “Suggest”.

The Data Curator will see the new skill and after they added the new skill it will be available for adding to the profile.

For details check chapters 5 Data Categorization and 5 Data Categorization.

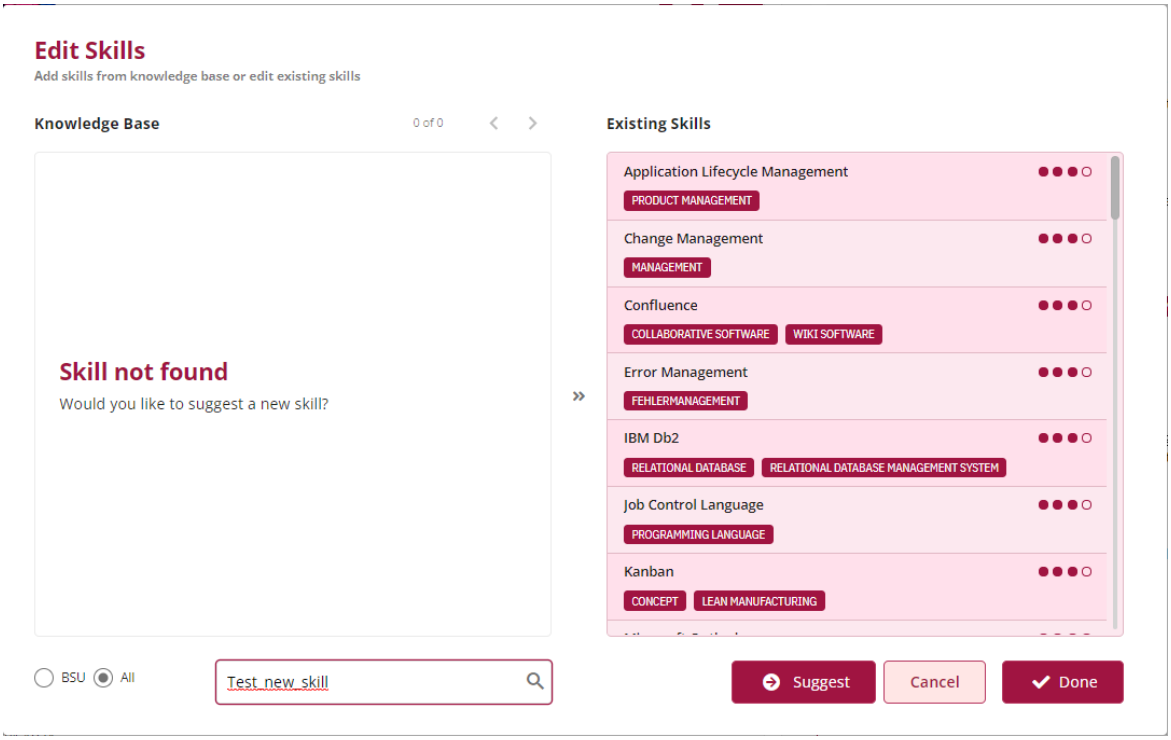

Figure 13: Suggest new Skills

2.8 Delete Skills

By hovering over the “Skills” section an edit button will be displayed (in the form of a pencil). Click this button and the “Edit Skills” window will be displayed. While hovering over the desired skill in the “Existing Skills” section, click the “Delete” button (in the form of a trash bin). Click “Done” to confirm the changes.

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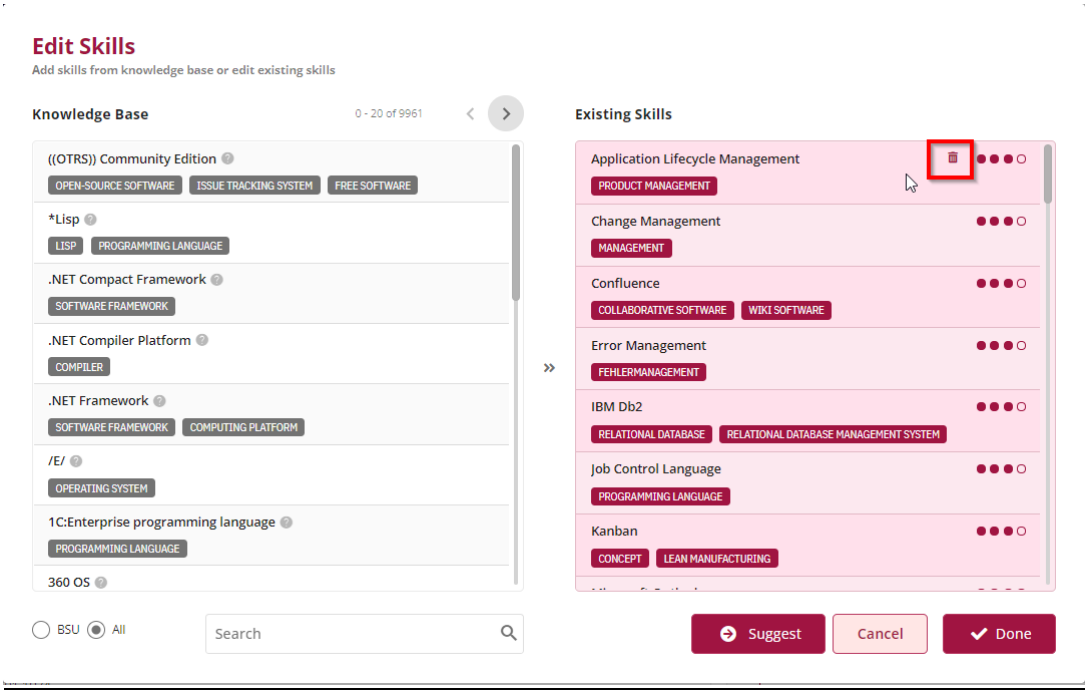

Figure 14: Delete Skills

2.9 Edit Languages

By hovering over the “Languages” section an edit button will be displayed (in the form of a pencil). Click this button and the “Edit Languages” window will be displayed. Select the desired languages from the list or use the search field below to display a more specific language. Add the language to the right side panel called “Existing Languages” by clicking the “Add” button while hovering over the language. The user can also adjust the language level represented by the “4 point” bar (for “Native” select the maximum 4 points). After all desired languages have been added in the “Existing Languages” list click the “Done” button to confirm all changes.

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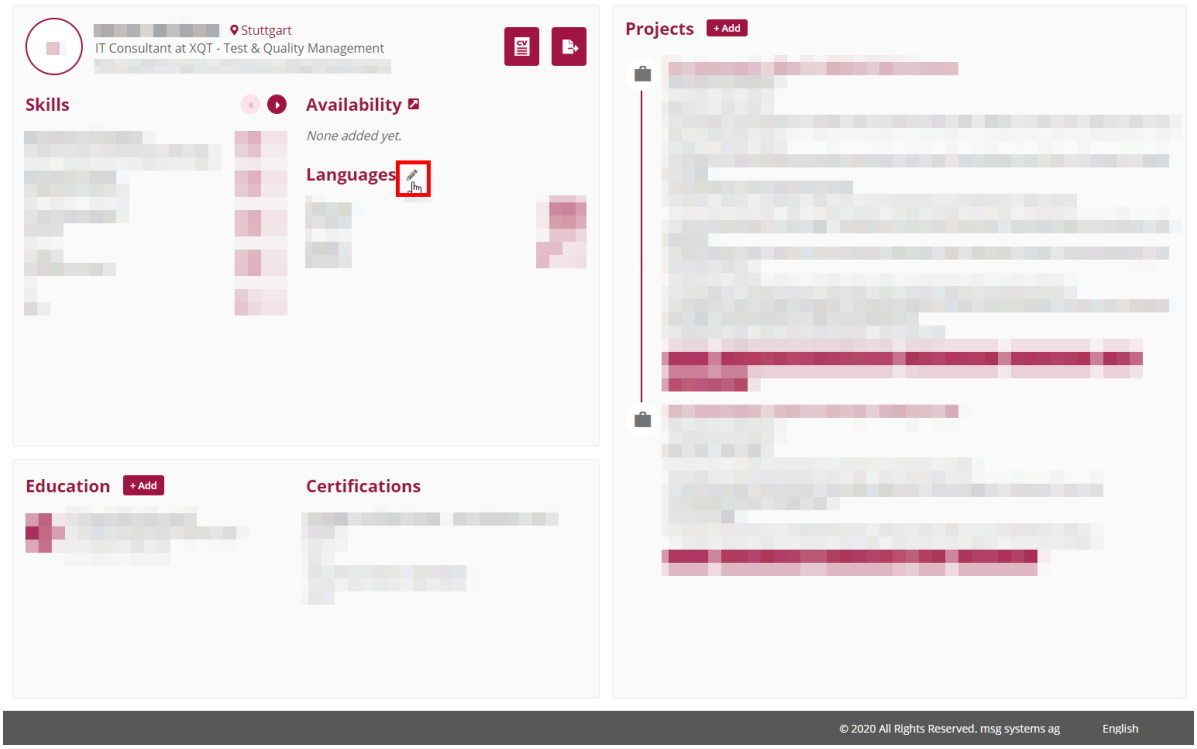

Figure 15: Edit Languages

2.10 Delete Languages

By hovering over the “Languages” section an edit button will be displayed (in the form of a pencil). Click this button and the “Edit Languages” window will be displayed. While hovering over the desired language, click the “Delete” button (in the form of a trash bin). Click “Done” to confirm the changes.

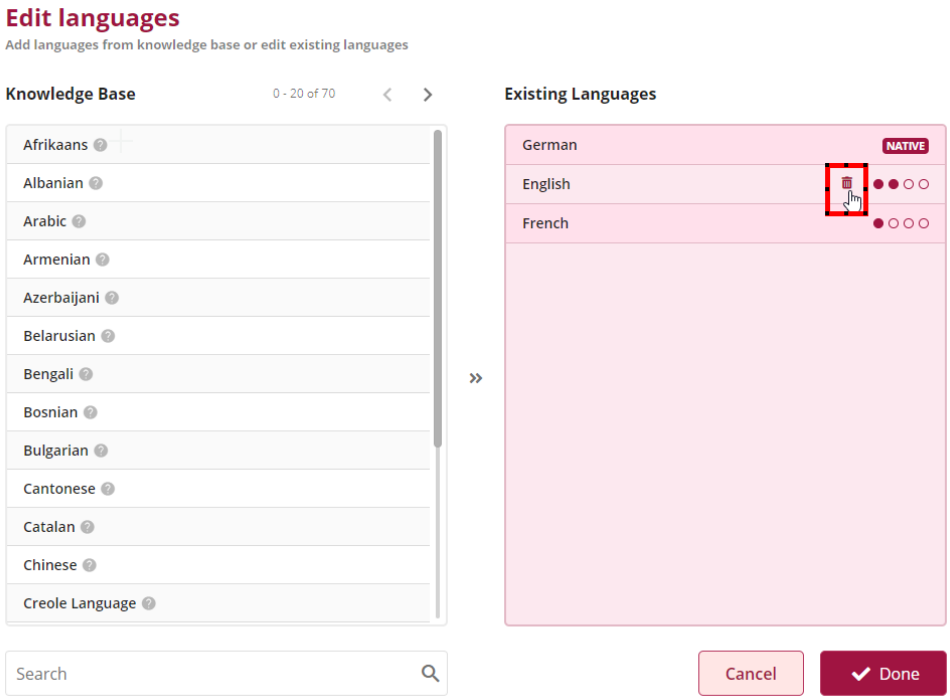

Figure 16: Delete Languages

2.11 Add Education

While hovering over the “Education” section, click the “Add” button. Select or fill in all necessary information in the displayed fields and then click the “Done” button to confirm the changes.

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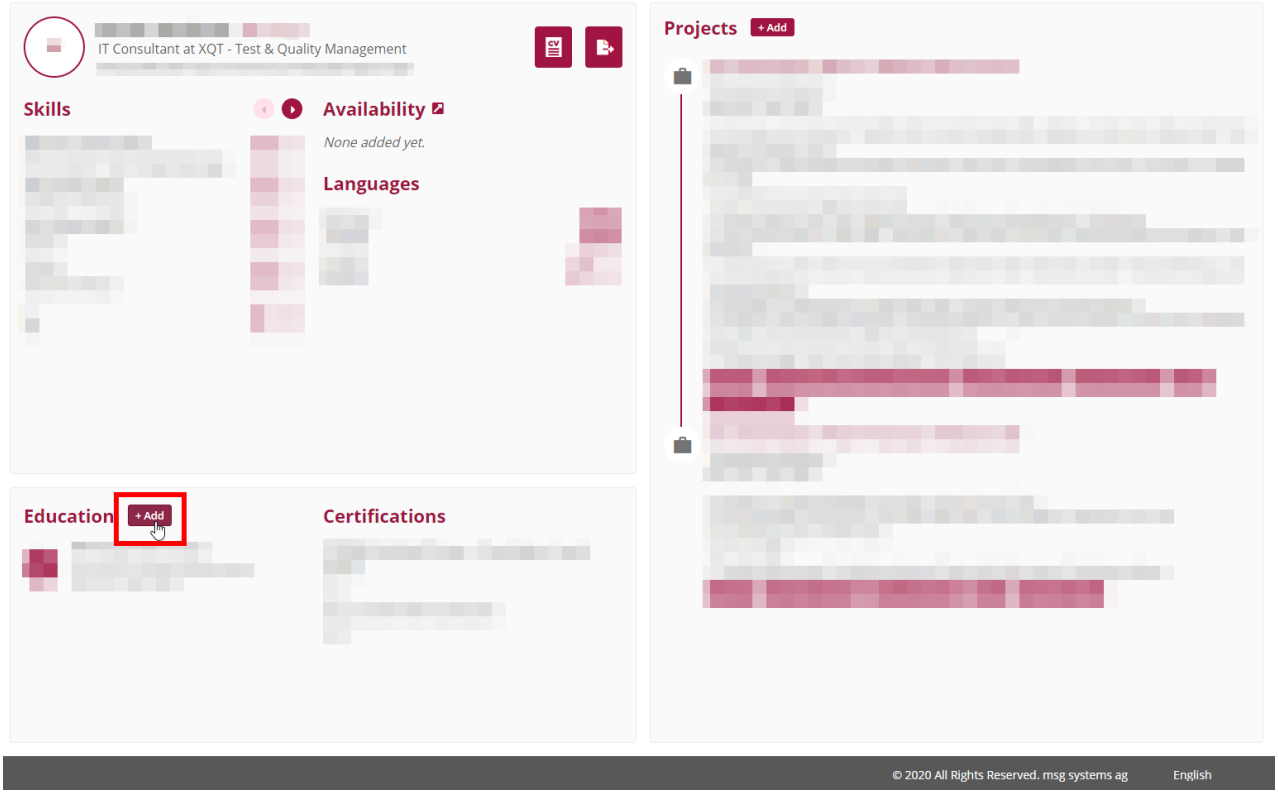

Figure 17: Add Education

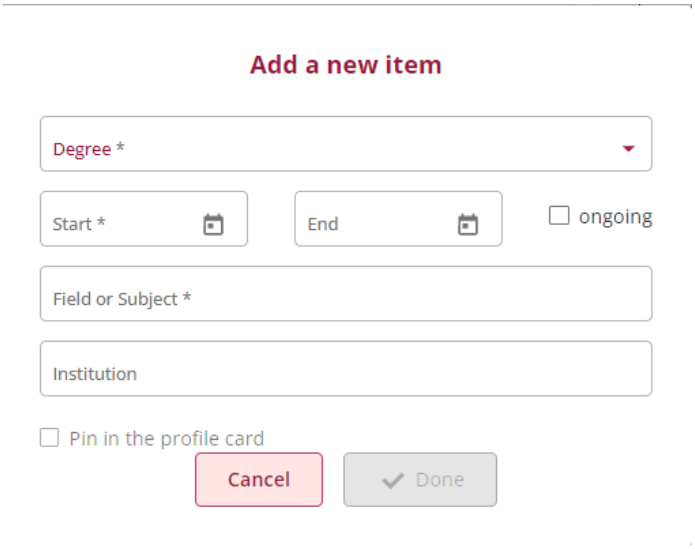

Figure 18: Edit Education

In the field “Field or Subject” the degree or title can be entered which should be displayed in the header of the profile (e.g. “Diplom-Ingenieur”).

Per Defaul the newst education is used for the header. If this is not correct you can mark the relevant education for the header with checking the checkbox “Pin in the profile card”.

2.12 Edit Education

To edit an existing education item hover over the desired entry in the Education section and click the “Edit Education” button (in the form of a pencil). Change any or all information displayed in the fields and then click “Done” to confirm.

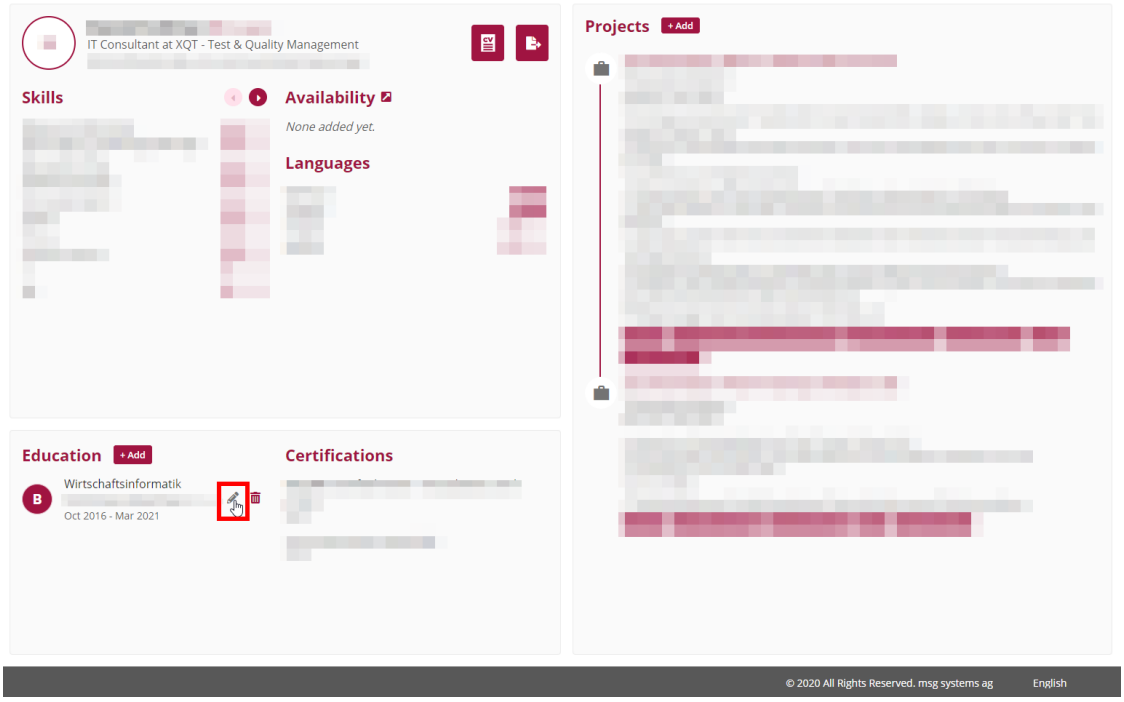

Figure 19: Edit existing Education

2.13 Delete Education

To delete an existing education item hover over the desired entry in the Education section and click the “Delete” button (in the form of a trash bin).

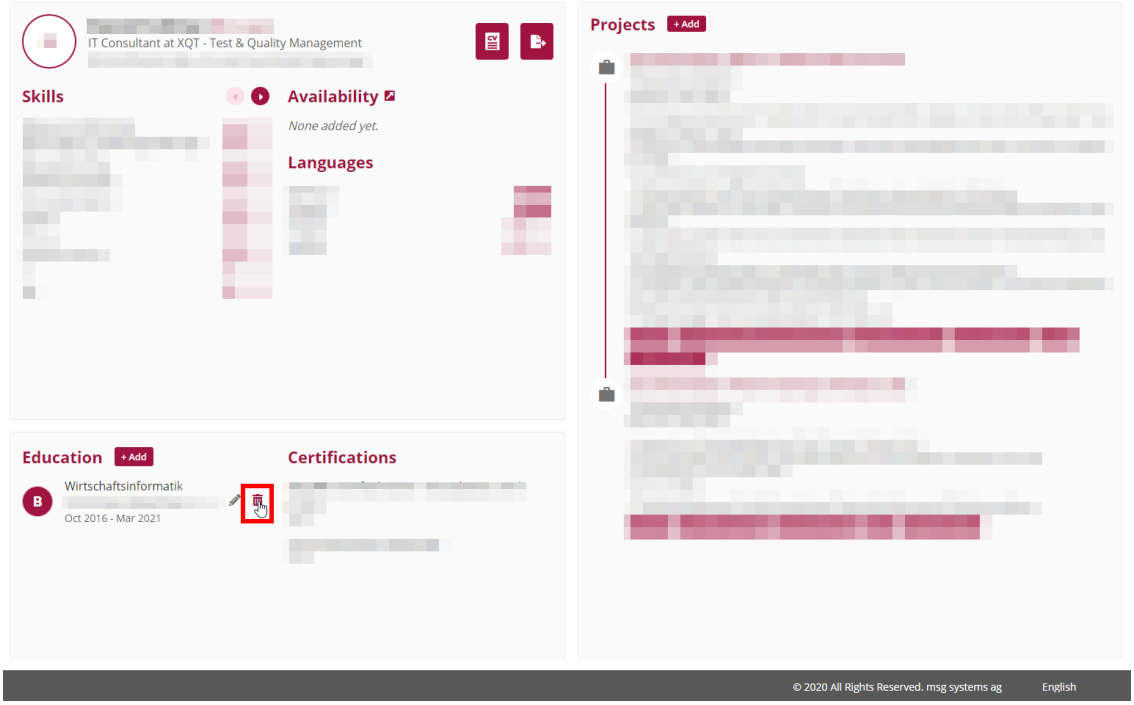

Figure 20: Delete Education

2.14 Add Certifications

While hovering over the “Certification” section, click the “Edit” button (in the form of a pencil).

By hovering over the “Certifications” section an edit button will be displayed (in the form of a pencil). Click this button and the “Edit Certificates” window will be displayed. Select the desired certificates from the list or use the search field below to display a more specific certificate. Add the certificates to the right side panel called “Existing Certificates” by selecting a date and clicking the “Add” button while hovering over the certificate. After all desired certificates have been added in the “Existing Certificates” list click the “Done” button to confirm all changes.

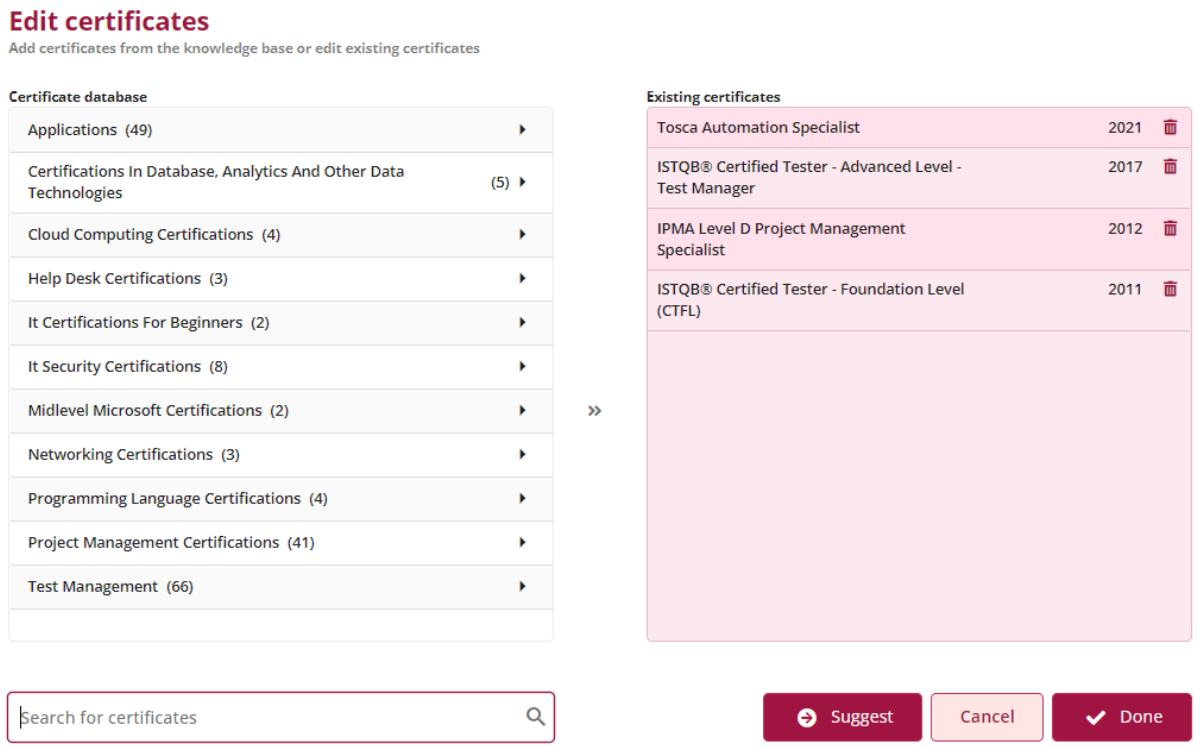

Figure 21: Add Certificate

2.15 Suggest new certificate

If the required certificate is not available in can be suggested as a new certificate. Enter the name of the missing certificate and click the button “Suggest”.

The Data Curator will check the suggestion and can add it so it can be selected in profile management.

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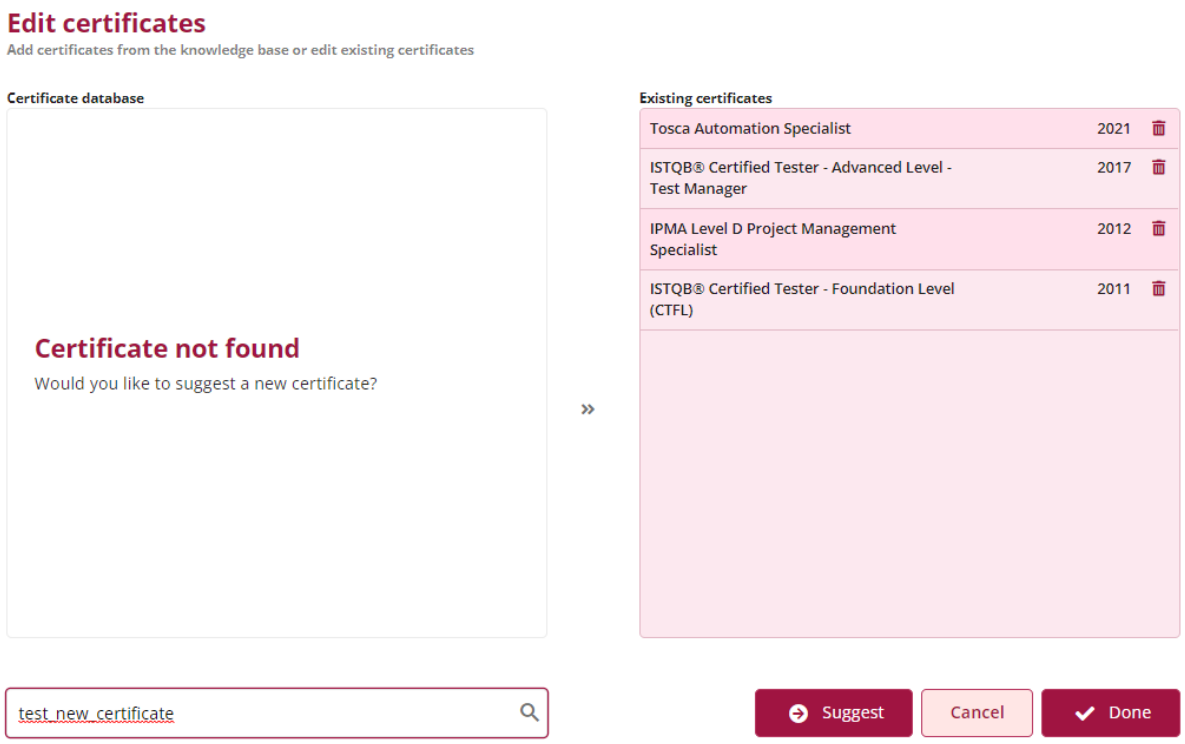

Figure 22: Suggest new Certificate

2.16 Delete Certificates

By hovering over the “Certifications” section an edit button will be displayed (in the form of a pencil). Click this button and the “Edit Certificates” window will be displayed. While hovering over the desired certificate, click the “Delete” button (in the form of a trash bin). Click “Done” to confirm the changes.

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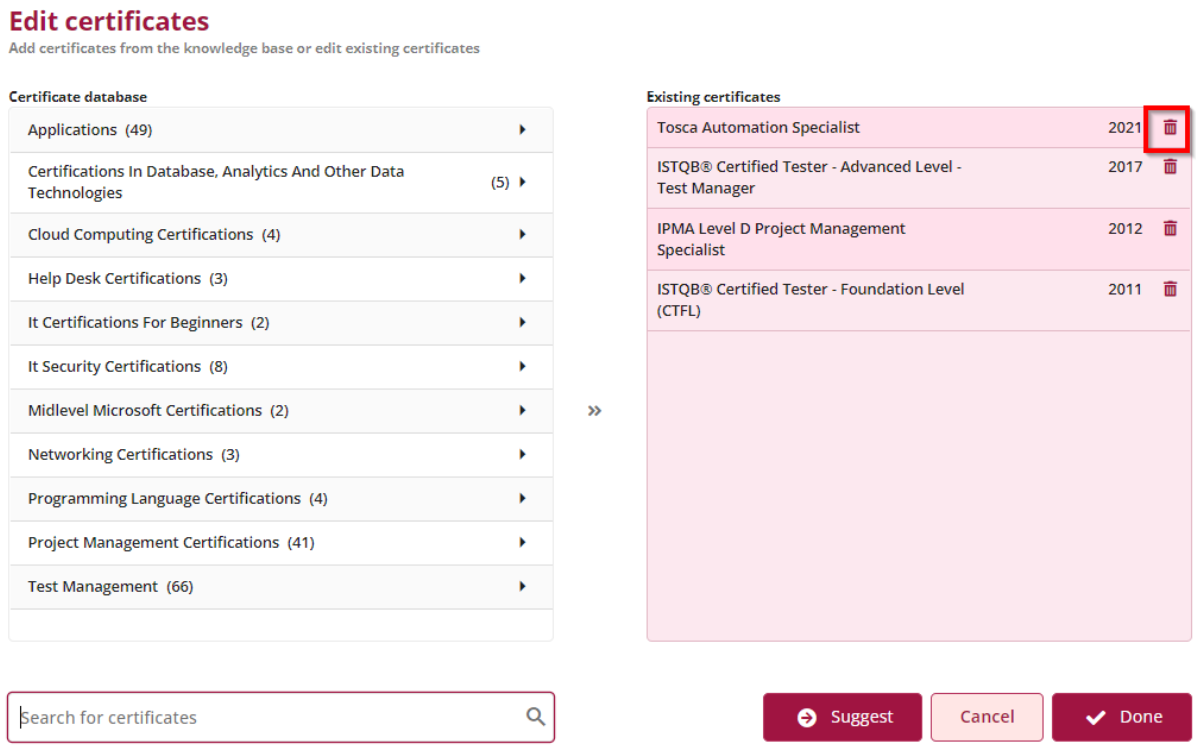

Figure 23: Delete Certificate

2.17 Edit Custom Fields

For additional information like birthdate or something similar there are two additional fields in the profile.

There is one date field and one text field. Each field can be referenced in the export template. Which kind of information is entered needs to be defined by each business unit itself.

Examples for usage: birthdate, start date with current employer, city of birth, country of birth, location etc.

By hovering over the “Custom Fields” section an edit button (in form of a pencil) will be displayed. With a click on this button an edit window will appear.

Data can be added. With click on “X”-Button the content will be deleted and empty values will be saved.

Figure 24: Edit Button for Custom Fields

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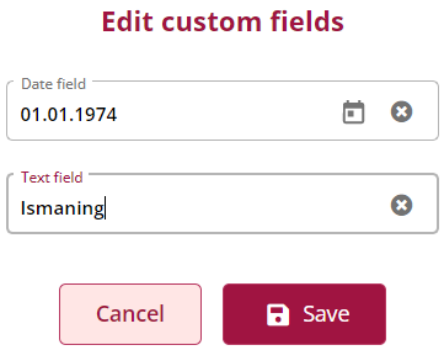

Figure 25: Edit / Delete content of Custom Fields

2.18 Add Projects

While hovering over the “Projects” section, click the “Add” button. Select or fill in all the required information in the displayed fields. Competencies will be extracted from the project description and can be adjusted manually. The data will be saved with click on the "Save".

Missing customers can be suggested. After the Data Curator added the new customer, the new customer can be selected in the project.

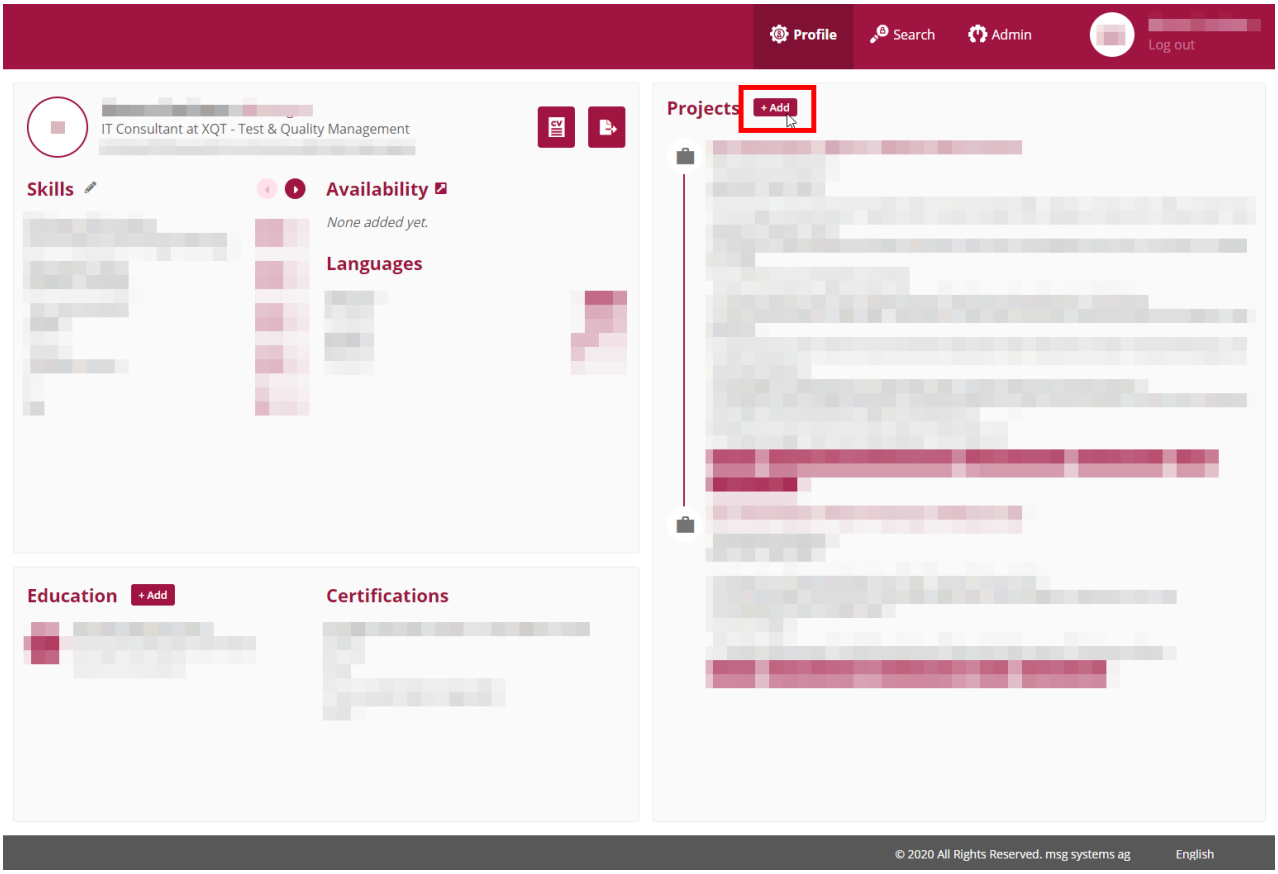

Figure 26: Add new Project

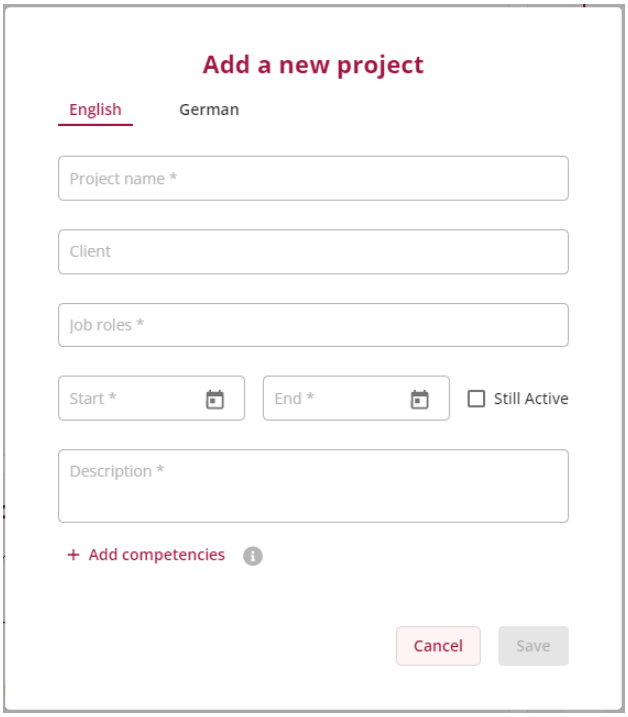

Figure 27: Edit window for a Project

The project information can be added in different languages. To switch languages open the relevant tab at the top of the window.

Saving the data is only possible if the all mandatory fields in the language selected in the application itself (right bottom corner) are entered.

Example: if English is selected as the language in the application, all mandatory fields for English project data need to be entered. If only the German data is entered, saving the data is not allowed. But the German data can be left empty.

If the needed customer isn't available, it can be suggested with click on "Not on the list"

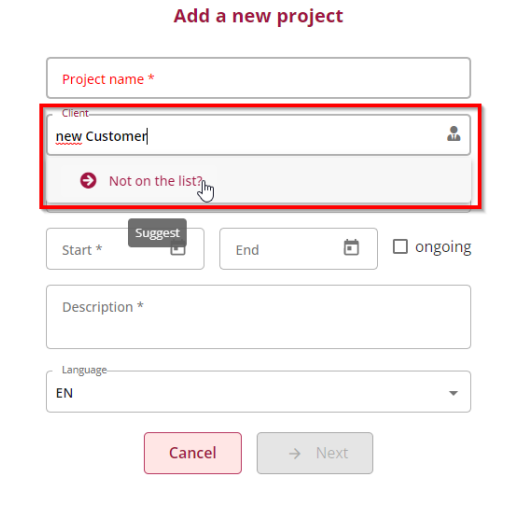

Figure 28: Suggest new customer

Competencies will be extracted from the project description when clicking on “Add competencies” below the project description.

The suggestions from the extraction will be listed in the top left corner. With click on an entry they can be moved to the right side to be added to the project.

Below the suggestions additional competencies from the ontology can be added manually to the list.

With click on the button “Save” the selected competencies are listed below the description and can be readjusted if necessary. The whole project is listed after clicking again the “Save” button.

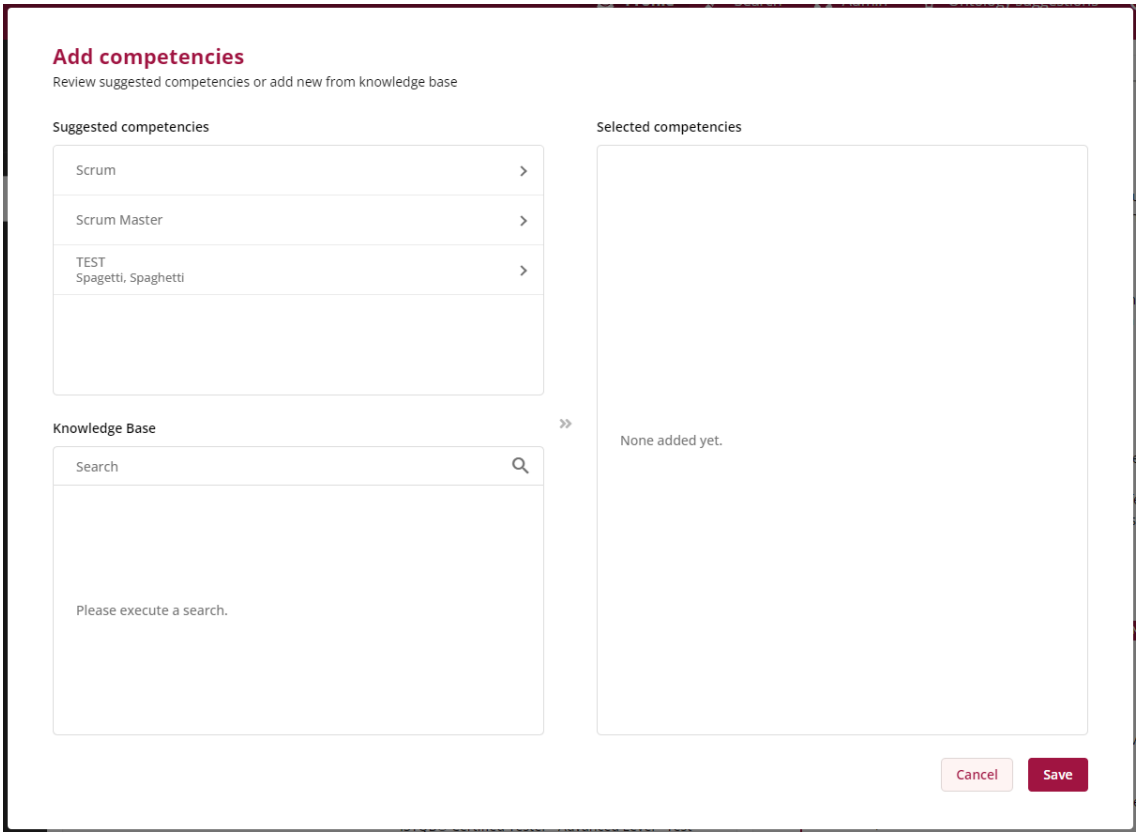

Figure 29: Edit skills and languages for a project

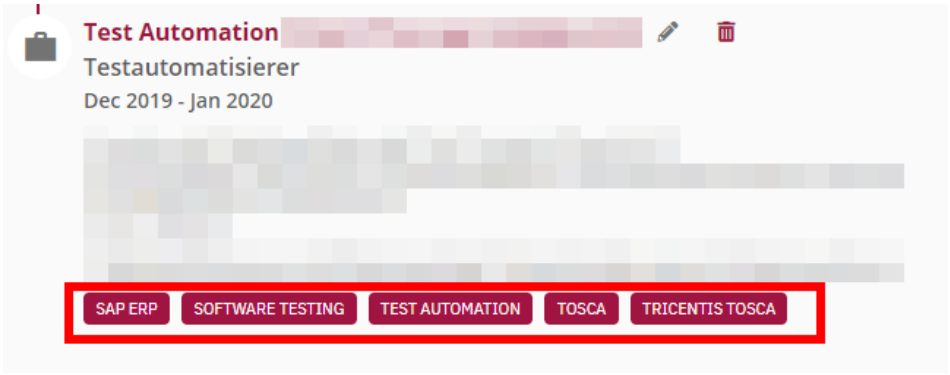

Figure 30: Tags after editing skills and languages

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2.19 Edit Projects

To edit an existing project hover over the desired entry in the Projects section and click the “Edit Projects” button (pencil icon).

Competencies can be change with clicking on the pencil icon below the description. Already selected competencies will be listed on the right and can be adjusted from the suggestions and with manual selection from the ontology.

Change any or all of the information displayed in the fields and then click the "Save" button to save the changed data.

Figure 31: Edit button for existing project

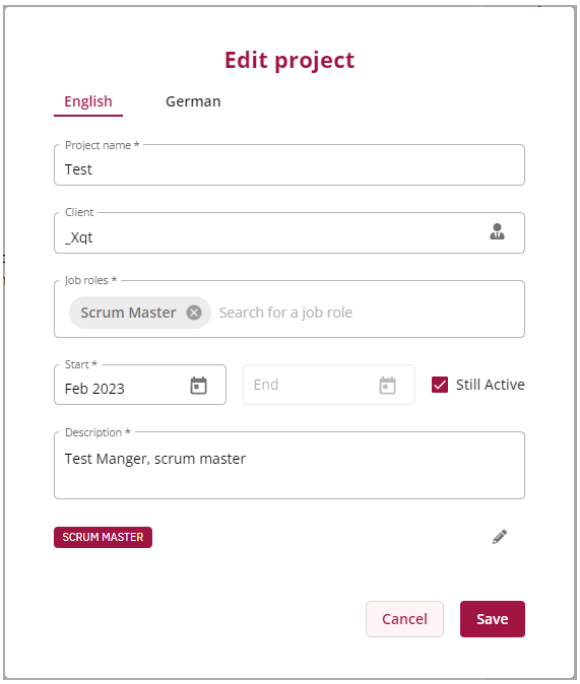

Figure 32: Edit window for existing project

2.20 Delete Projects

To delete an existing project hover over the desired entry in the Projects section and click the “Delete” button (trash bin icon).

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Figure 33: Delete button for project

2.21 Add, Edit and Delete Focus Area

Like editing projects the user can add their focus areas.

They can be added in German and English, the mandatory language depends on the language selected for the application.

Adding and editing competencies work the same as in projects.

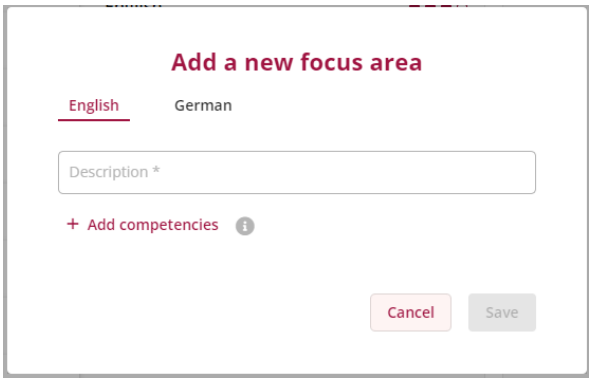

Figure 34: Adding new Focus Area

2.22 Add and Edit Job Experience

In the project section, next to the header “Projects” the header / link for “Job Experience” can be clicked.

The display will change from projects to job experience. With click on the “Add”-Button a new job experience can be added. An edit window will be displayed where different information can be entered. With click on button “Done” the information will be saved.

Figure 35: Section for Job Experience

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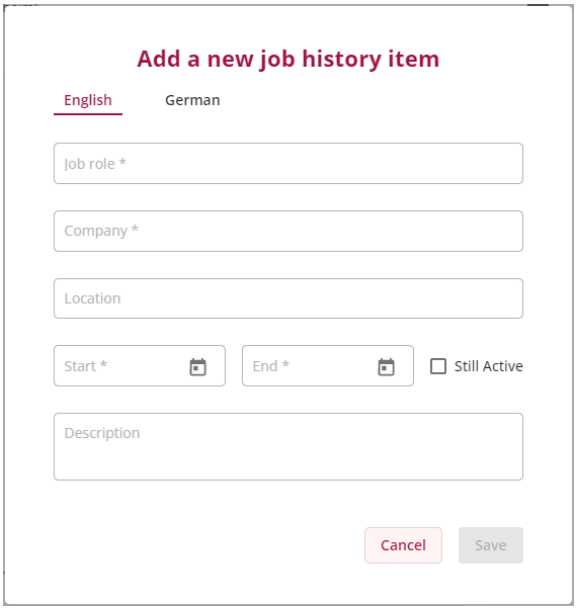

Figure 36: Add / Edit Job Experience

To edit an existing entry hover over the relevant project and click on the “Edit”-button in form of a pencil.

In the edit window the information can be changed in the same way as creating a new entry.

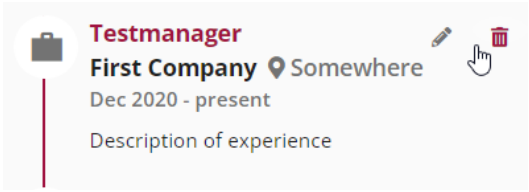

Figure 37: Edit button for Job Experience

2.23 Delete Job Experience

To delete a job experience hover over the relevant entry and click on the delete button I form of a trash bin.

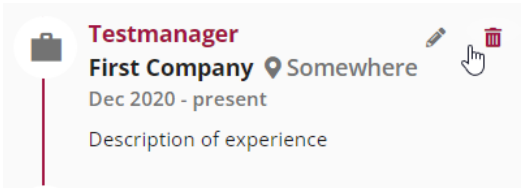

Figure 38: Delete button for Job Experience

2.24 CV Export

After a profile has been successfully updated, the user can export the profile by clicking on the “Export CV” button. The user is then prompted to choose between short or long format by clicking on the corresponding buttons. Choose a template from the list (at least one default template will be available) and click “Next”. Search criteria can be entered like name of the template or tags assigned to a certain template. Templates from a different business unit also can be selected.

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With click on “Next” the relevant information to be exported can be selected: skill categories, projects and job experience.

To see the skills for one category click on the arrow on the right side of the category – the list will unfold.

After selecting the necessary data click on button “Next”.

The user has the option to Hide Customer names in the profile information by selecting the “Hide the Client name’ checkbox. An alternative client description can be entered. By clicking “Next” the document will be downloaded. The created file can be found in the download folder or – depending on the browser settings – can be opened directly in the browser.

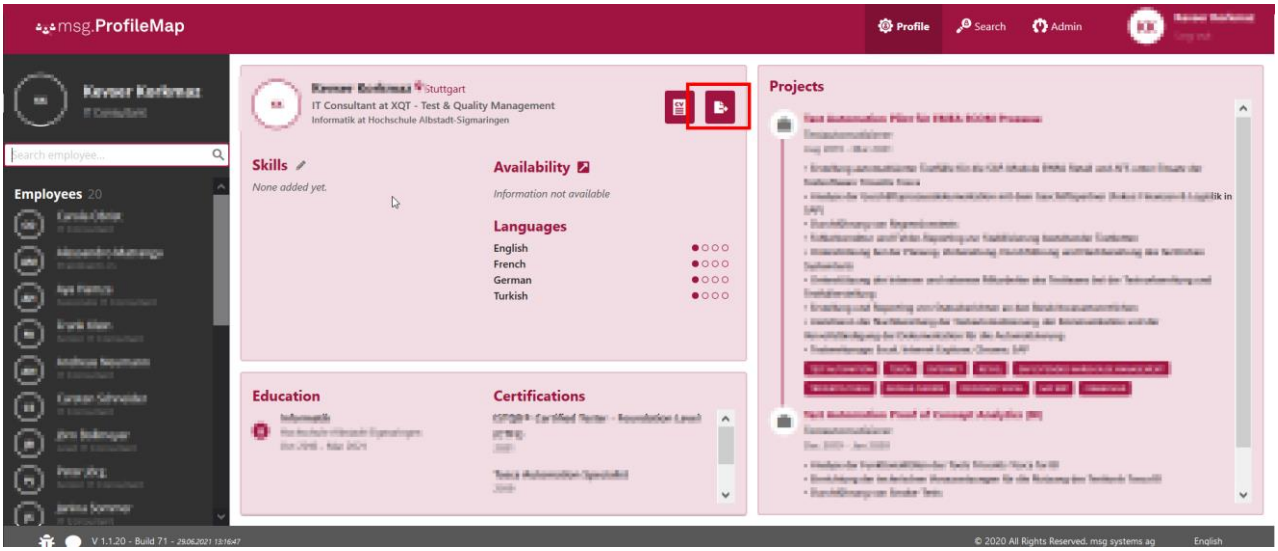

Figure 39: Export button

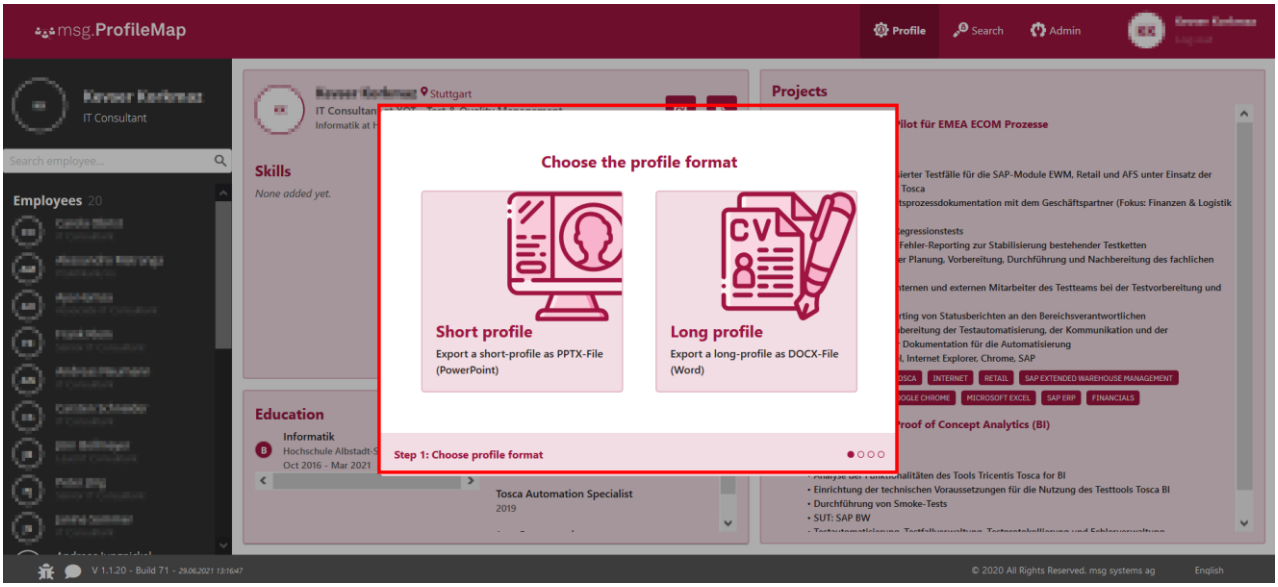

Figure 40: Choose profile format

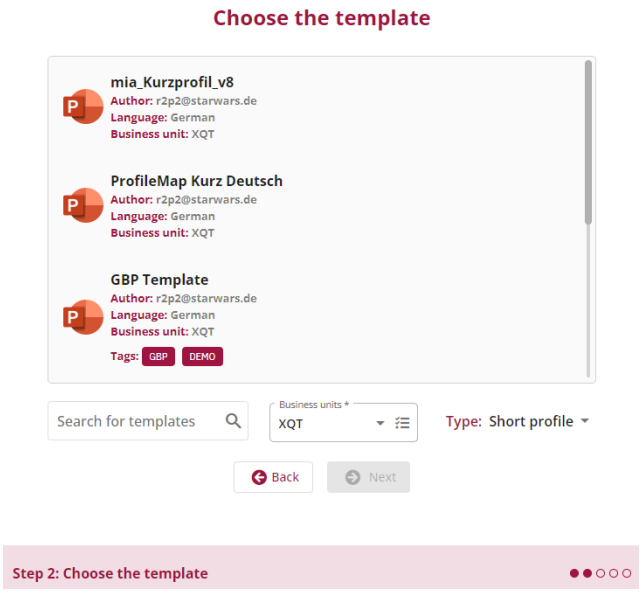

Figure 41: Search and select template

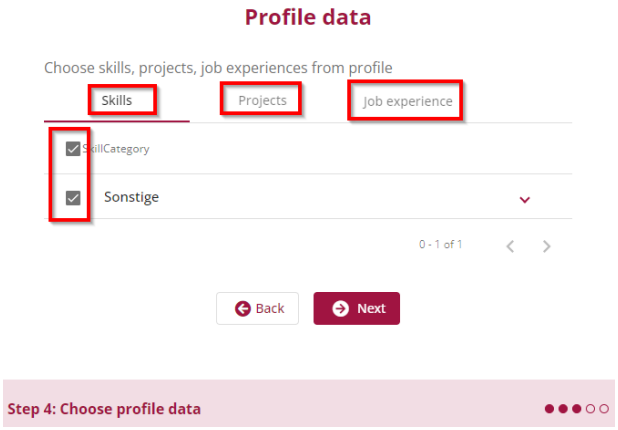

Figure 42: Check / uncheck skills, projects, job experiences for export

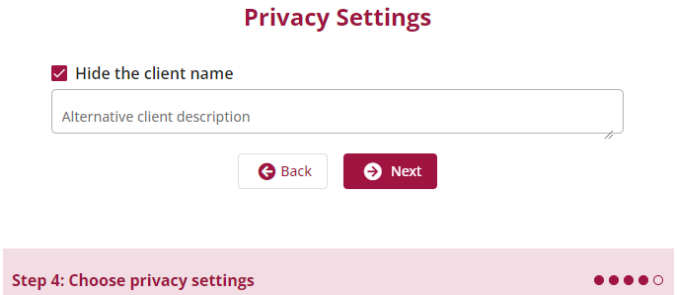

Figure 43: Hide client name with alternative description

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3 Search for candidates

The search function is only available to Sourcing and Line Manager roles.

Users with these respective roles can submit a request to find suitable profiles for a specific position.

To submit a request, follow the steps below:

3.1 Step 1: Access Search Function

The user can access the search from the dashboard by clicking on the "Search for Candidates" button.

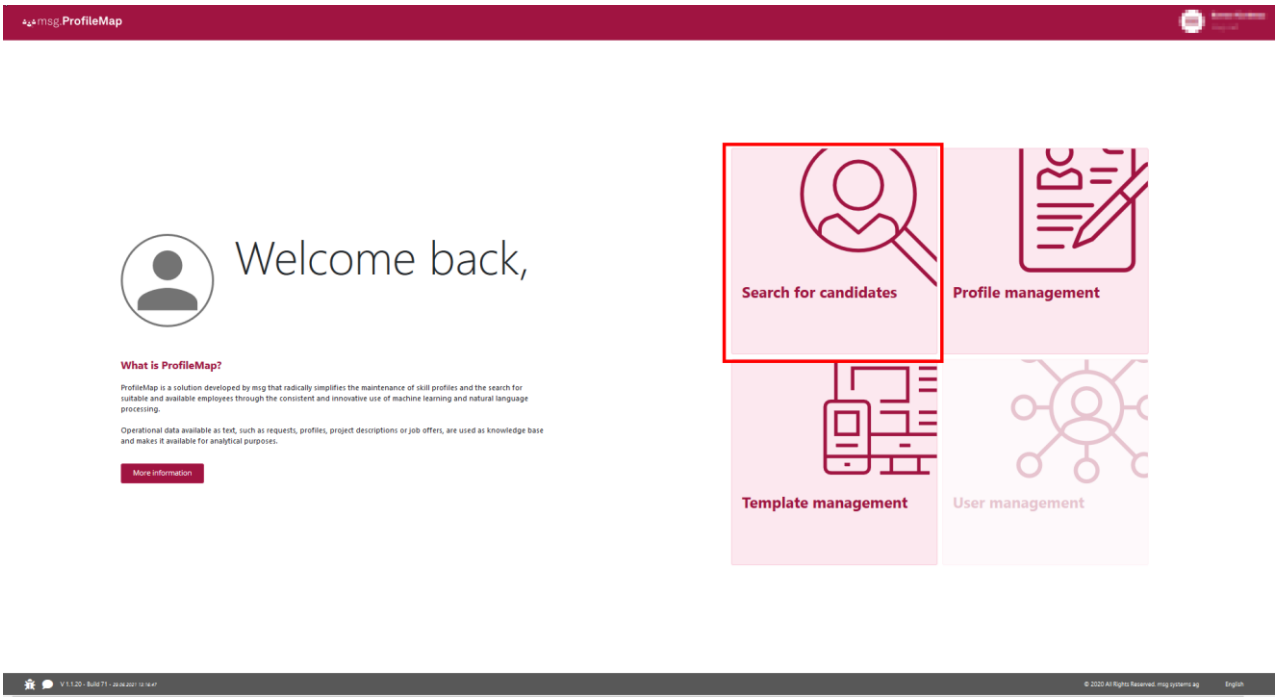

Figure 44: Dashboard to Access Search

In addition to that, depending on the visited page within the application a navigational bar on top of the screen offers a “Search” option that takes the user to the same search menu.

Figure 45: ProfileMap navigational bar

3.2 Step 2: Search Engine Input

The search is executed via a search engine capable of processing natural language:

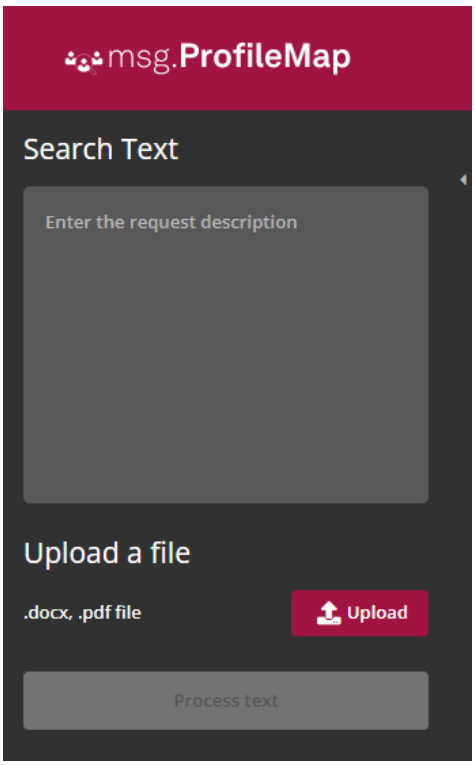

Figure 46: Entry Screen for Search Text

There are two different ways to submit a request:

- The user can upload a document* containing a job posting or search request as text. The document can be accessed via the Upload button allowing a selection from local or shared drives.
- The search text can also be entered into the text box either by writing into the text field or by copy & paste. After adding the request, click the “Process Text” button.

**.docx and .pdf files currently supported*

3.3 Step 3: Filter Function – Search Refinement

After the request has been uploaded or inserted, ProfileMap extracts and displays all the entities (competencies, certificates, and languages) that were found. Entities are detected by looking for the name and synonyms of the entity within the provided text. If multiple entities have the same name or synonym both will appear in the list of returned entities.

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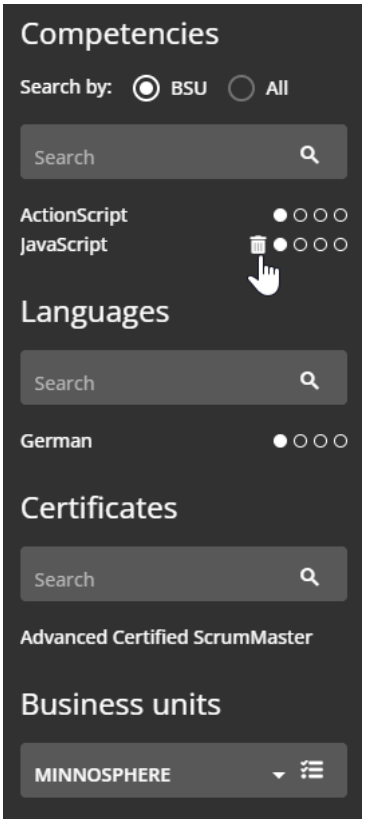

Figure 47: Options to refine a search

The extracted entities are criteria used for searching. Before the search is executed, however, the user has the possibility to refine the search criteria in multiple ways:

- The required competency and language levels can be set to a value between 1 and 4. Only if a candidate has at least one requested entity at the required level or higher in his profile or if he or she has a competency that makes it very likely that he or she has one of the requested competency even though it is not explicitly mentioned in the profile (e.g. knowing a library of a programming language indicates that the candidate knows the programming language), he or she will appear in the result list. The language and competency levels can also affect whether candidates appear higher or lower in the result list.
- Entities can be added using the respective search bars. These searches offer suggestions while the user types into the text field by comparing the inserted text with the names and synonyms of the respective entities. An entity is added to the search criteria by clicking on it.

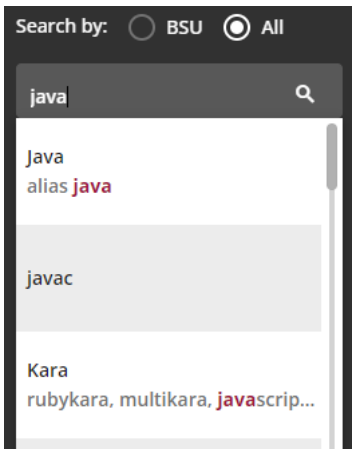

Figure 48: Adding competencies using the search bar

For competencies, the search is by default restricted to the business unit (BSU) of the user. This means that only competencies defined in the BSU taxonomy will be suggested. This can be changed by selecting the “All” radio button, which will result in all non-deactivated competencies in the ontology being considered for suggestion.

- Entities can be removed by hovering over them with the mouse and clicking on the garbage bin icon that appears next to the entity level.

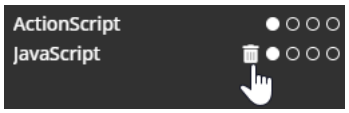

Figure 49: Deleting entities

- Entities can be made mandatory by hovering over their name with the mouse and selecting the checkbox.

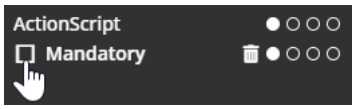

Figure 50: Making an entity mandatory

If one or more entities are made mandatory only candidates that have all the mandatory entities with at least the required level in their profile will be in the result list. Indirectly matching a competency is not enough in this case.

- By default, only candidates from the user’s business unit are returned by the search. The user has the possibility to include additional BSUs or exclusively search in other BSUs by clicking on the drop-down box in the Business units section and selecting the checkboxes of the required BSUs.

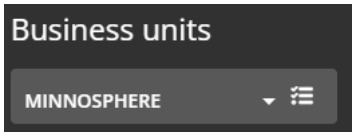

Figure 51: Choosing the business units to search in

Profiles from other BSUs are anonymized. Profiles with detailed information need to be requested from the relevant line manager.

In addition to the functionality to adapt the search query, the original query text is displayed.

Finally, clicking the "Apply search parameters" button will trigger the search for suitable candidates. After the search is executed, the refinement options remain on the left side of the screen and can be used to make further adaptations to the search request. Once the adaptations are made the “Apply search parameters” button needs to be clicked again for the search result list to be updated.

3.4 Step 4: Searching

The search engine then processes the search request while a message informing the user that the search is in progress is displayed. Once it is finished the search results are displayed. It is possible to leave the search page while the search is performed. In this case, once it is finished the user will be informed by a popup message and a notification. The notification can be accessed by clicking the bell icon in the navigational bar. The number in the red circle indicates the number of unread notifications. Clicking on the bell icon results in the display of a chronologically ordered list of the notifications of the last two days. Clicking on the x next to the label “Notifications” closes the list again. Clicking on “Clear All” deletes all

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notifications. Clicking on a x next to a notification deletes the individual notification. And clicking on a notification result in switching to the search result page with the corresponding search results displayed.

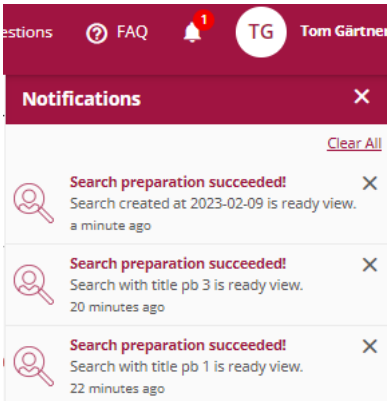

Figure 52: Search notifications

On the search results page a sorted list of candidates is displayed. The candidates are ordered by how good the system thinks a candidate's profile fits the entered search request. To come up with this assessment, for each candidate it calculates how similar the candidate is with respect to different aspects of the request. An aspect is always a subset of entities defined by a fixed ontology pattern.

Example:

An academic discipline is a field of study or profession like "Marketing", "Software Architecture" or "Machine Learning". This information is modelled in the ontology. One aspect used in the search is checking how similar a candidate's profile is to the search request with respect to academic disciplines. The ranking algorithm uses different measures to determine the similarity between a set of entities from the search request and a set of entities from a profile. But typically, they consider the two sets to be more similar if the overlap between the sets is larger and if the entities that are not directly matching are closer related to other entities in the candidate's profile.

So, if there is a request asking for somebody who knows "Marketing", "Machine Learning" and "Python", then only "Marketing" and "Machine Learning" are used to determine the academic discipline similarity. And if there are two candidates that have "Marketing", "Machine Learning" and "Java" and respectively "Marketing", "Software Architecture" and "Python" in their profiles, the first one will get a higher academic discipline similarity since they have more overlap looking at this aspect of their profile.

The different aspect similarities are then given to a machine learning model that provides the overall ranking score based on them. The model has been trained on feedbacks by users rating how good a candidate's profile fits the respective search request (see step 8). From this the model learns how important which aspects and which combinations of aspects are for different kinds of search requests. It tries to predict how many stars an expert would give the fit between request and profile. The prediction is then scaled up to 0-100% and displayed as the overall score.

3.5 Step 5: Display of Results and Score Visualisation

Profiles that match the search criteria are displayed in a descending order with the best match on top. The quality of the match is represented by the total score. In addition to that, scores for competencies, certificates and projects are displayed that indicate in which parts of the profile the candidate has more overlap with the search request.

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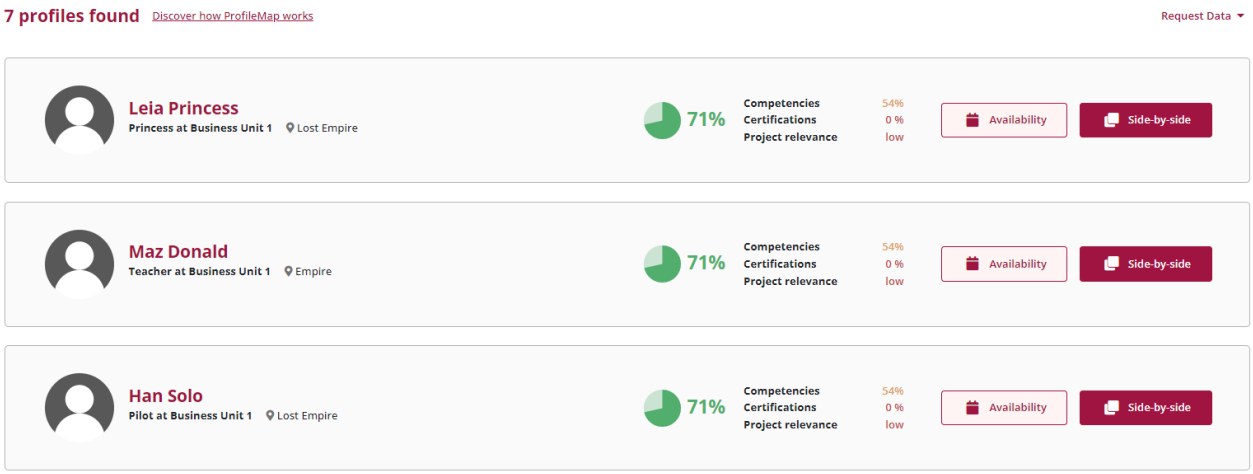

Figure 53: Display of Search Results

A search result entry consists of the following information:

- candidate name (anonymised if from another business unit)
- role
- location
- availability (if interface for the candidate's business unit is available)
- overall score
- scores for competencies, certifications, project relevance (see next section for details)

3.6 Step 6: Side by Side Comparison (SBS)

To evaluate how well a candidate meets the requirements defined in a search request a side-by-side comparison (short: SBS) provides a detailed analysis across several categories comparing request against profile

- competencies
- languages
- certifications
- project relevance

To get to the SBS click on the "Side-by-Side" button.

Figure 54: Start Side-by-Side Comparison

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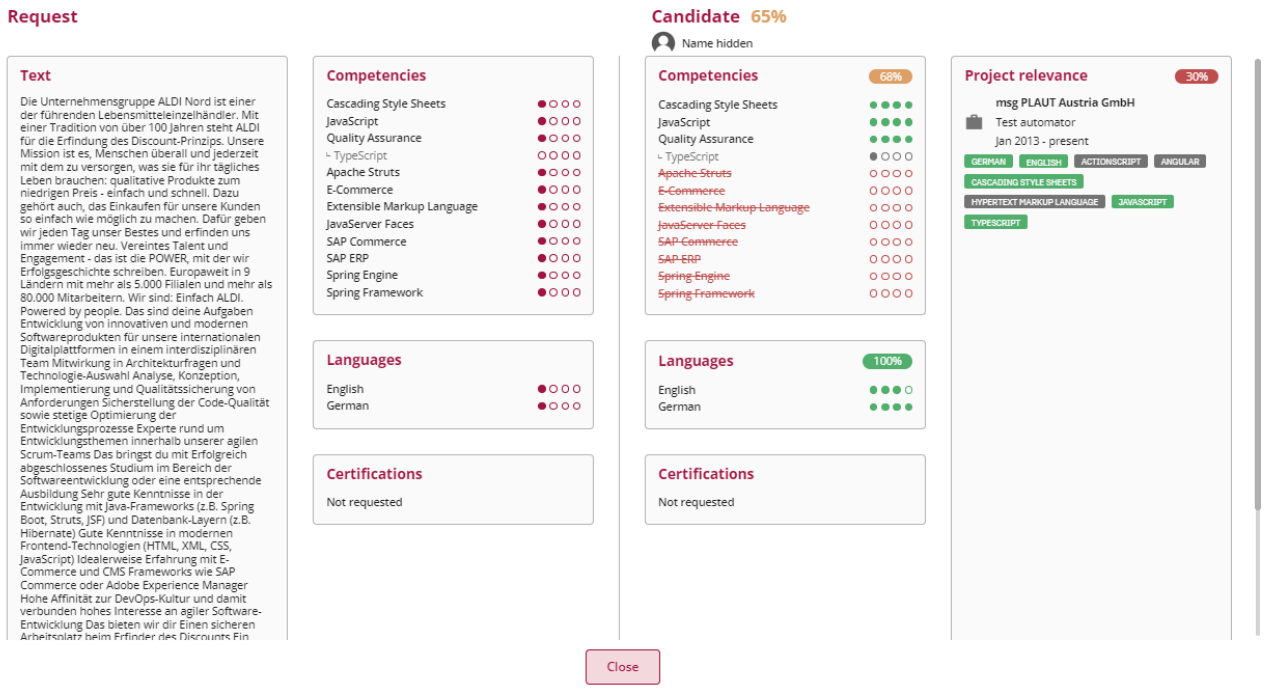

Figure 55: Side by Side Comparison

Requested competencies that are missing from the candidate's profile are displayed in red and crossed out. Requested competencies that are also in the candidate's profile are displayed in black. Related competencies that support that a candidate possesses a certain competency are displayed indented and in grey.

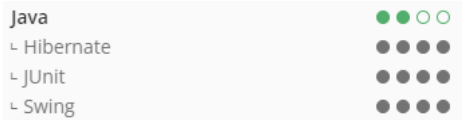

Figure 56: Display of related competencies

The scores for the parts of the profile are calculated as follows: The language score corresponds to the fraction of requested languages that are in the profile of the candidate. So, if three languages are requested but the candidate only has one of these in his or her profile, then the score will be 33%. Likewise, the certificate score is the fraction of the requested certificates that are in the profile of the candidate.

Projects are tagged with competencies and languages. If at least one of the tags matches one of the requested entities directly or indirectly, the project is considered relevant, displayed in the side-by-side comparison and the direct or indirectly matching tags are highlighted in green. The project score provides the fraction of competencies and languages that are in at least one of the candidate's projects. So, if a request is made for German, Java and JavaScript and the candidate has three projects: one tagged with German and Java, one tagged with German and one without any of the requested entities tagged. Then the project score will be 66% since two of the three requested languages or competencies are in at least one project.

For competencies, the machine learning model takes different indirect ontology relationships of these competencies (more than those displayed in the side-by-side comparison) into consideration. To account

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for this, the competency score is not calculated as a fraction of matching competencies but rather linked to the overall score calculated by the complex machine learning model and corrected for the results of the other three scores (languages, certificates, projects). This way the overall score can be seen as a combination of competency, language, certificates, and project scores, with the competency score accounting for the largest part of the overall score. Since the machine learning model tends to be cautious to predict very large and very low values and since the amount of considered information goes beyond what is displayed in the side-by-side comparison, both the overall score and the competency score will typically not be around 100% when all shown criteria are met and not be around 0% when hardly any are.

3.7 Step 7: Viewing a candidate's profile

If the user searching for a candidate has the necessary rights to see non-anonymised data, clicking on the candidate's name takes the user to the profile screen containing all information that a candidate maintained with the option to export the profile into a document format.

If the user does not have the rights to see personal information that identify the candidate, name and education are hidden and the export function is not available.

The following information is anonymized:

- Name
- Last Name
- Education
- Availability
- Hourly / daily rate

The Project name, Project duration and Project description will still be visible.

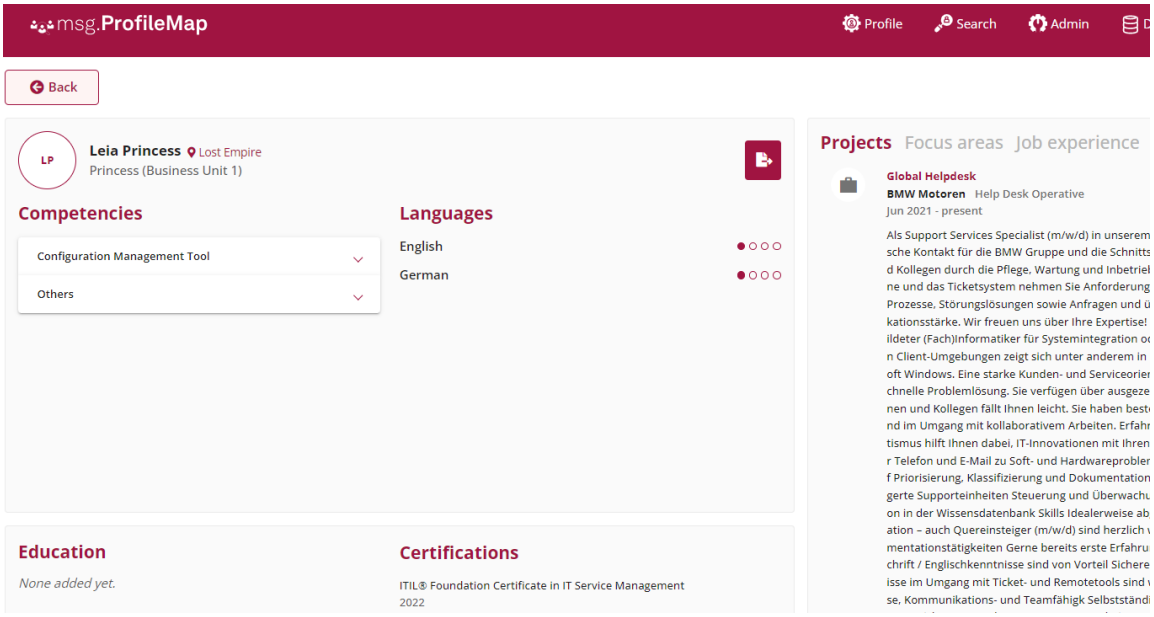

Figure 57: View Profile through Search Result

3.8 Step 8: Saving a Search and Providing Feedback

Every search can be saved. The saving of a search enables the user to use additional functionality like giving feedback regarding the quality of the search results and setting a status for each profile in the result.

To define the search, additional data can be entered when clicking in “Request Data”. This data has no impact on the search results, they are only used to define the saved search.

The available fields are:

- Request Title
- Job Title
- Search Description
- End Customer
- Client
- Deadline date
- Receipt of request
- Maximum price
- Effort in PT
- Daily rate
- Hourly rate
- Responsible person
- Job Site
- Number of requests
- Comments (only available after first saving the search)

If in the fields the required customer isn’t available, it can be added with click on “Not on the list?” (also see chapter 2.18 Add Projects)

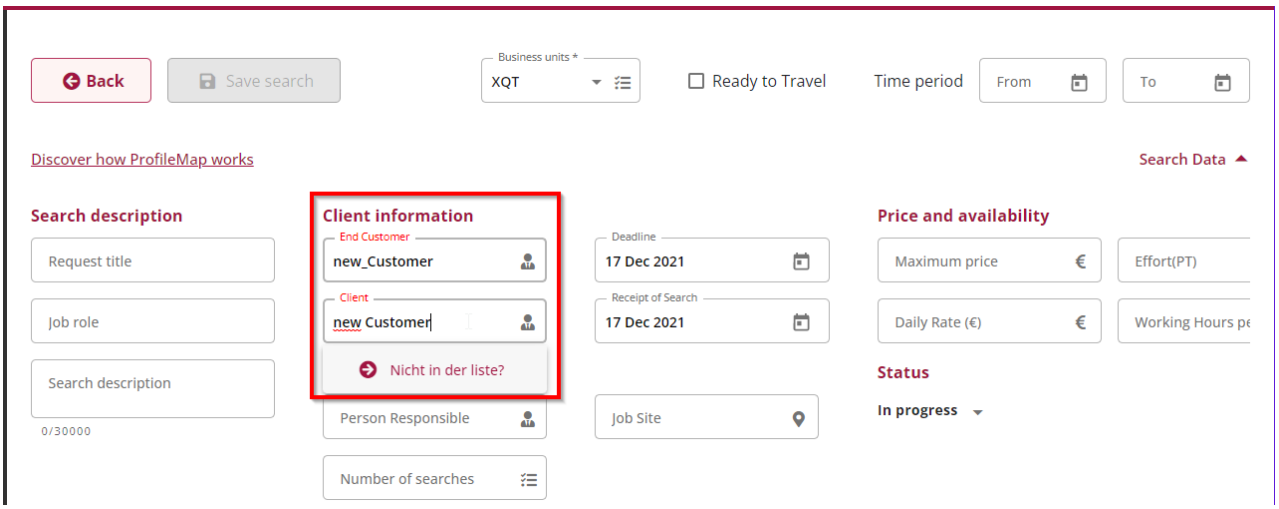

Figure 58: Select Business Units for Search

After entering all important information, confirm the entry by clicking on "Save search".

If the search is saved, the user has the possibility to provide feedback to the system how well a candidate’s profile fits the search request by selecting one to five stars for each candidate.

- Giving a candidate’s profile **five stars** means that his or her profile fit the search request very well.
- Giving a candidate’s profile **one star** means that the profile doesn’t fit the search request at all.

This information can be used to train the machine learning-based ranking model.

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Also, if the search is saved, the search is listed in the search history (see next section) and the found profiles can be checked and evaluated. For each profile, the system offers the possibility to accept or reject it and call up the complete profile.

When you click on status “Interested” the LineManager of that profile receives an e-mail which contains the information of the request and the desired profile. From this moment on the communication concerning the profiles will be done via e-mail.

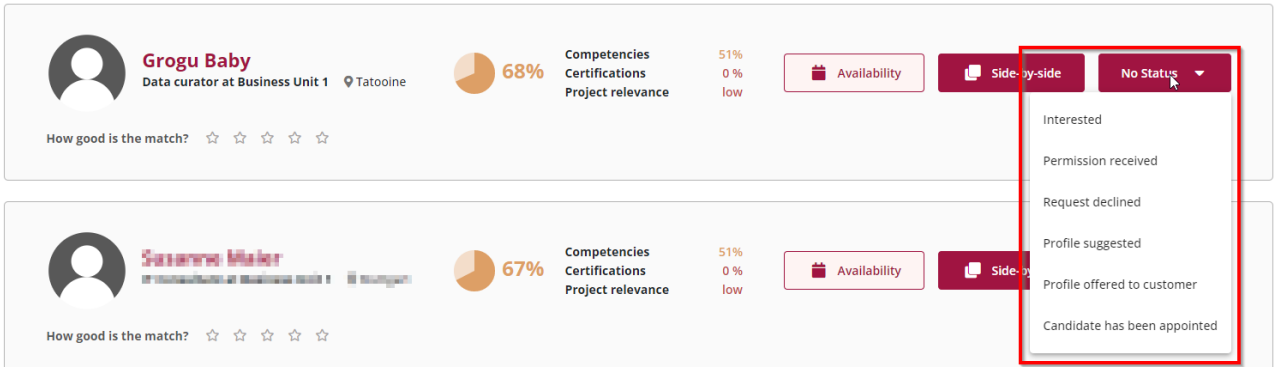

Figure 59: Set Status of listed Profiles (e.g. Interested)

Any changes need to be saved so they are available for a later review/update of the search.

3.9 Step 9: Loading a saved search

Saved searches are listed in the search history. The field “Request title” is listed as “Name” in the Search History.

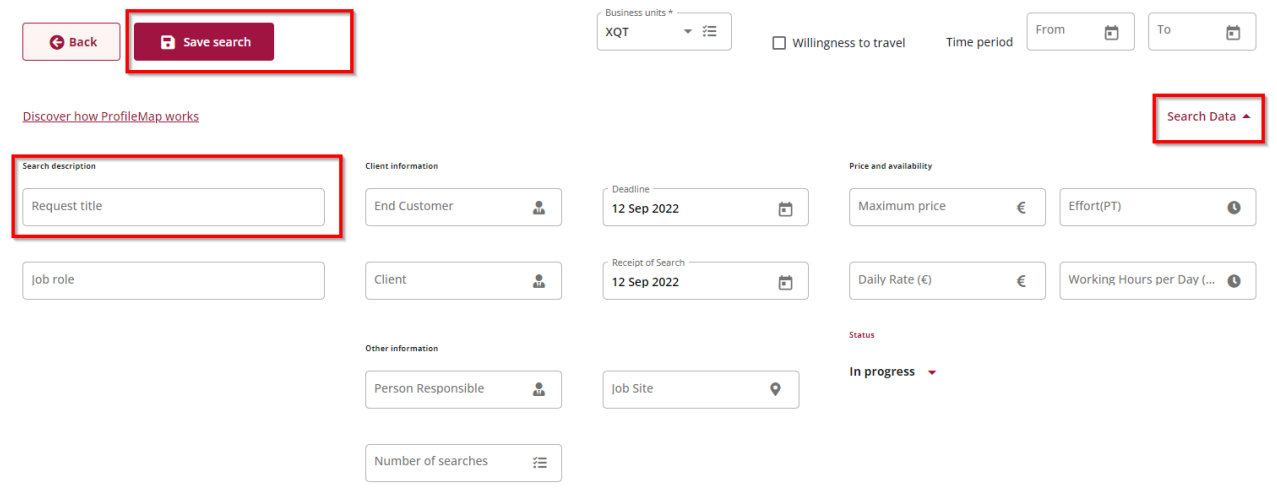

Figure 60: Save Search

The Search History can be accessed through the dashboard – click on button “Search for Candidates”. Otherwise in the top menu through the button “Search”.

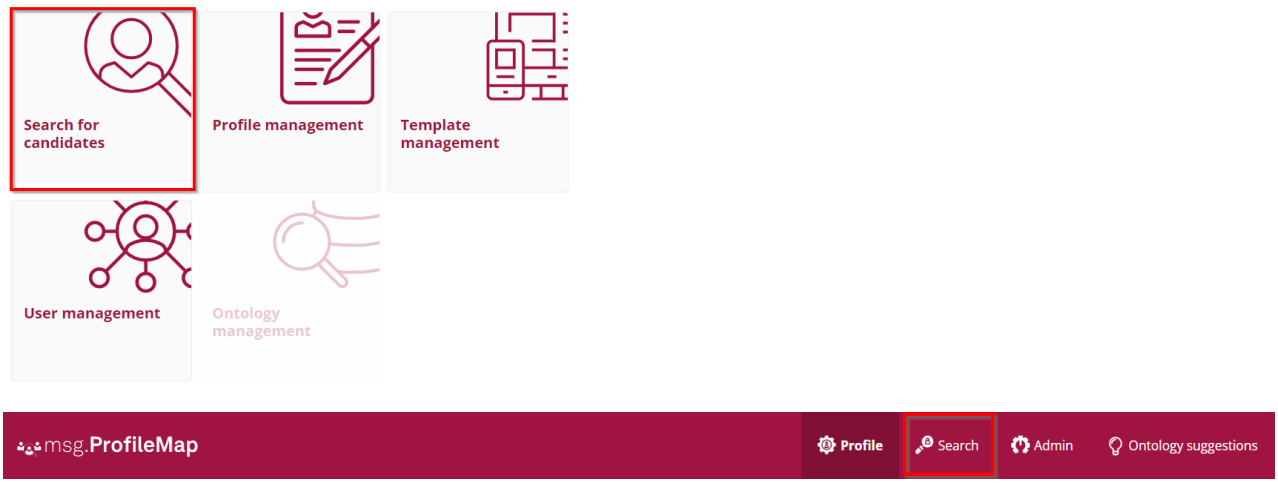

Figure 61: Different Ways to Access Search History

The search history shows an overview of all saved requests, in a table format which displays the most important information of each request which was set in “Search Data”.

The list contains the following information on the respective request:

- Date of the request
- job role searched for,
- client
- end customer
- requested time
- planned effort (PT)
- the status of the request (Open, in progress, completed)
- the submission deadline.

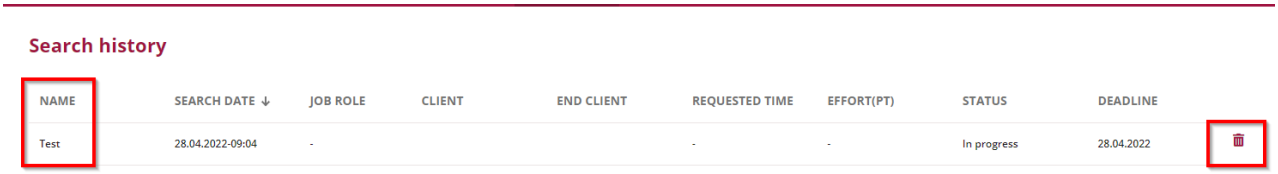

Figure 62: Search History

The user can view all requests in the displayed table and view/edit one at a time by clicking on the respective search.

When clicking on the entry in the table, the saved search is loaded including already set data regarding feedback and status for this search and already set status and feedback for the profiles. The search results are stored with the search making loading a search significantly quicker than executing a new one and ensuring the same results as when the search was originally executed. If the search parameters of a loaded search are changed, the search must first be executed before it is possible to save the adapted search. Saving an adapted loaded search will always lead to overwriting the original search. If a new search should be saved, the “New Search” button must be used to enter a new search request.

In the overview saved searches can also be deleted with a click on the trashcan button on the right side.

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4 User Management

The user management section provides the opportunity to assign specific roles to certain users.

4.1 Basic User

Every user automatically has the authorizations of a Basic User and can therefore maintain their own profile.

*see “2. Profile Management” for further details on how to edit and maintain a profile.

4.2 Super User

The **Super User** role has the permission to assign the role of BSU Admin to anyone in the application (For more information about Role management see Authorization Concept).

*The Assignee needs to be logged in at least once.

Step 1:

Click on the "User Management" button in the dashboard. This will take you to an overview of all names registered in the system.

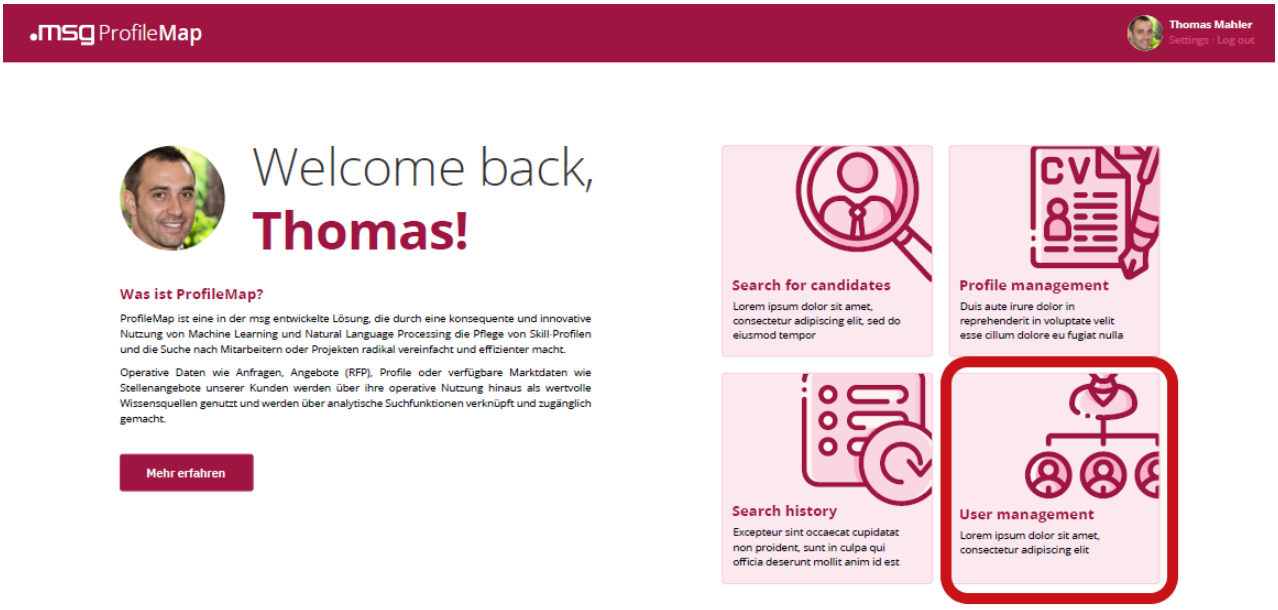

Figure 8: Dashboard – User Management

Step 2:

Now enter the name of the person to be assigned as **BSU Admin** in the search bar or search for them by scrolling through the panel.

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Step 3:

As soon as the desired person has been found, click the Change Role button.

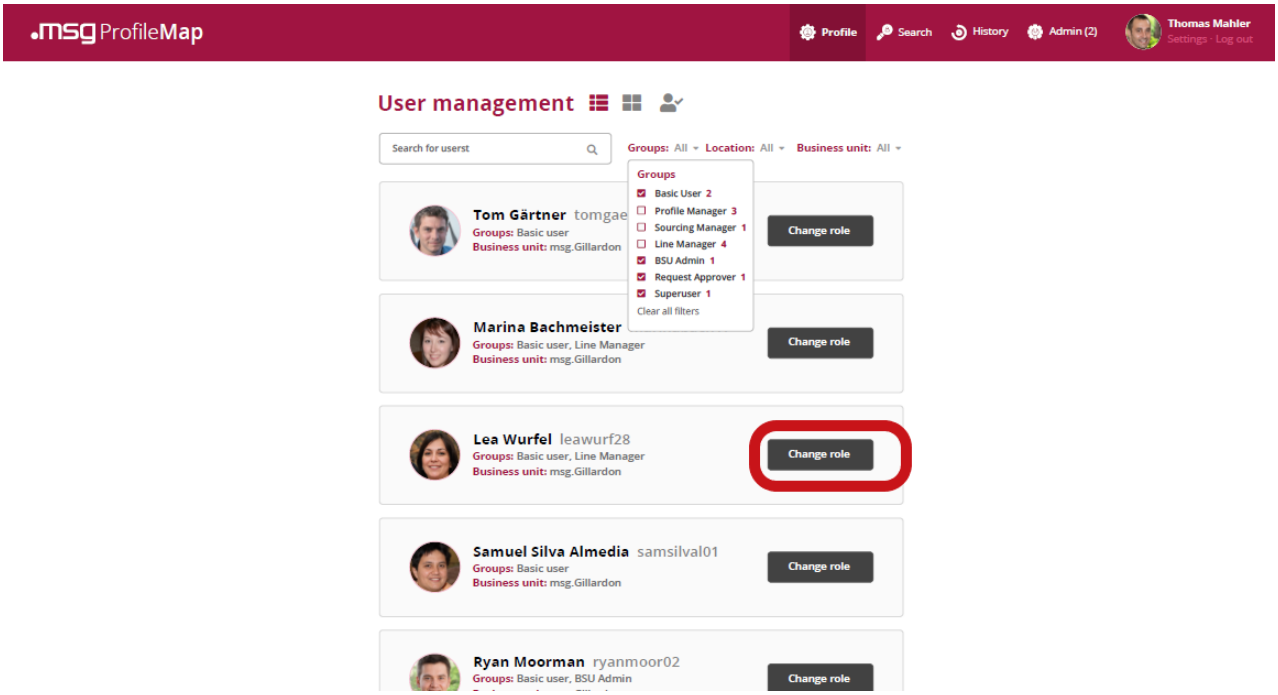

Figure 9: User Management - Overview

Step 4:

A small window will open showing the role BSU Admin and the associated privileges. Here you have to set a check box and then click on "Continue" to assign the role.

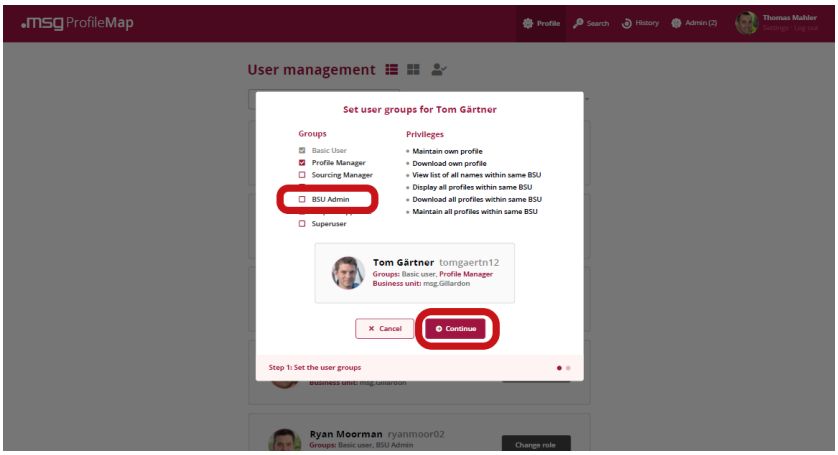

Figure 8: User Management – Assign BSU Admin

Step 5:

In the next field you have to select "Confirm" to confirm the assignment.

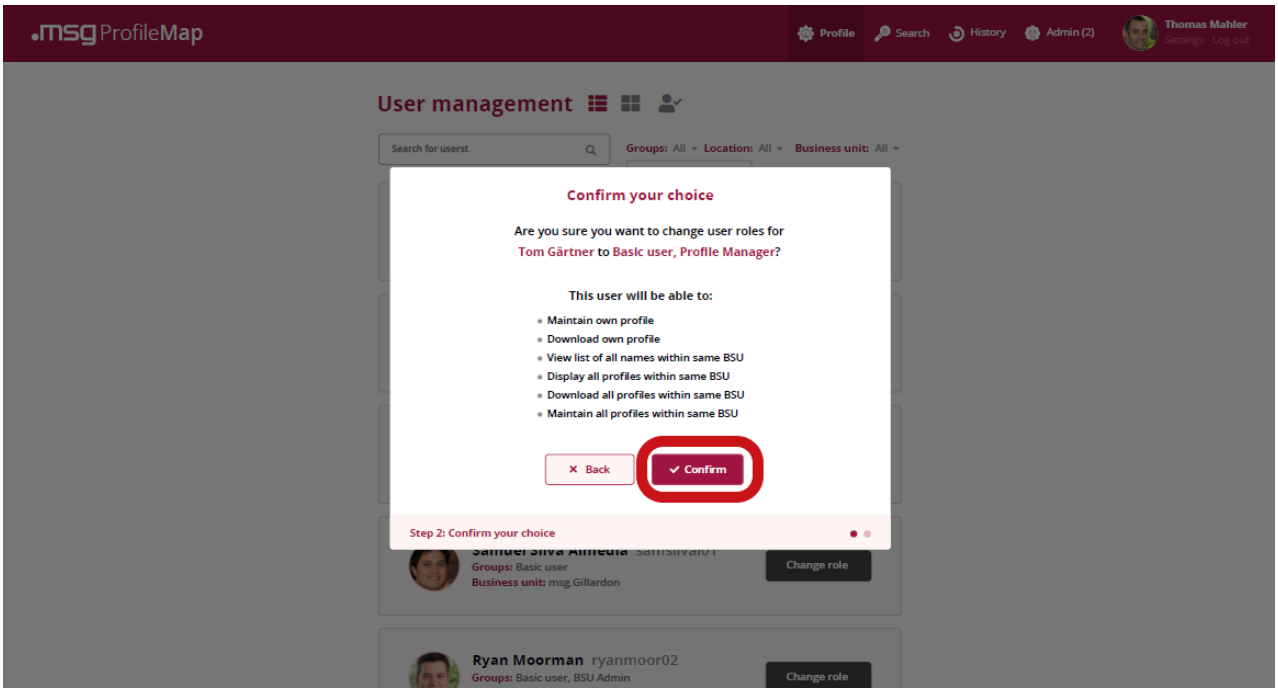

Figure 8: User Management – Confirm Role Assignment

4.3 BSU Admin

The **BSU Admin** role has the permission to assign Sourcing Manager and Profile Manager roles for users in their respective BSU.

Assign the roles Sourcing Manager and Profile Manager

Step 1:

To do this, click on the "User Management" button on the dashboard. This will take you to an overview of all names registered in a particular Business Unit.

Step 2:

Now enter the name of the person you want to assign a new role to in the search bar or search for them by scrolling through the panel.

As soon as the desired person has been found, click on the "Change Role" button.

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Step 3:

A small window will open showing the roles Sourcing Manager and Profile Manager with the associated privileges. Here you must place a check mark next to the role you want to assign to the person and then click "Next" to assign the role.

Step 4:

In the next field you need to click the "Confirm" button to confirm the assignment.

4.4 Line Manager

The Line Manager role can edit his own profile, as well as the profiles of employees who report directly to him.

4.4.1 Maintain/edit all profiles for his/her direct reports

Step 1:

To view or edit the profiles of any employee, click on the "Profile Management" button on the dashboard.

Step 2:

In Profile Management the user's own profile will be displayed at first. On the left side of the screen the names of all employees who report directly to the Line Manager are displayed. Click the desired employee's name to edit his profile.

Step 3:

Editing employees' profiles is the same as editing own profile (see "3 Profile Management").

4.4.2 Submit Request

The Line Manager role can submit requests. It also has access to profile information of direct reports and anonymized profile information of all remaining candidates.

For more information on how to submit a request please refer to section "4. Search for Candidates".

4.4.3 Show Request History

The Line Manager role has access to its' own request history.

For more information on how to use search history please refer to section "5. Search History".

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4.5 Sourcing Manager

The Sourcing Manager role is assigned by the BSU Admin.

4.5.1 Submit Request

The Sourcing Manager role can submit requests. It also has access to all profile information within its' own BSU and anonymized profile information of other BSUs.

For more information on how to submit a request please refer to section "4. Search for Candidates".

4.5.2 Show Request History

The Sourcing Manager role has access to its' own request history.

For more information on how to use search history please refer to section "5. Search History".

4.6 Profile Manager

4.6.1 Maintain/edit all profiles for within own BSU

The Profile Manager role has unlimited access to all profiles within its' own business unit. This means that he can view and maintain/edit all profiles, as well as his own.

Step 1:

To view or edit the profiles of your business unit, click on the "Profile Management" button in the dashboard.

Step 2:

In Profile Management you will first be shown your own profile. On the left side of the screen you will see the names of all persons from your business unit, where you select the person whose profile you want to maintain/edit.

Step 3:

Editing the profiles is the same as editing your own (see "2. Profile Management").

4.7 Data Curator

The role Data Curator can only be assigned by the role Super User.

The Data Curator has access to the Data Curation and can upload new skills for the shared knowledge base (ontology).

They need to check the terms suggested by other user and decide if the new terms need to be adjusted and added or rejected.

Data curation is taking place on the shared knowledge base to which every business unit has access.

For more Details check chapter 6 Data Curation.

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4.8 Skill Manager

The role Skill Manager is assigned by the role BSU Admin.

A Skill Manager can create categories and sub-categories specifically for their own business unit. They can add skills from the shared knowledge base which were accepted by the Data Curator to the categories.

These skills are available for the profile management of the business unit.

For more details check chapters

Chapter 5 Data Categorization

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5 Data Categorization

Data Categorization is only available for terms already added to the ontology. A Skill Manager always manages the categories of their own BSU and can pick and categorize any skill from the ontology.

If necessary, the Skill Manager can suggest new skills.

Changes regarding categories and content of the categories are only visible for their own BSU and won't have any impact on other BSUs.

The Data Categorization can be selected on the dashboard with click on "Ontology management". In Ontology management click on "Data Categorization".

Figure 63: Select Ontology management

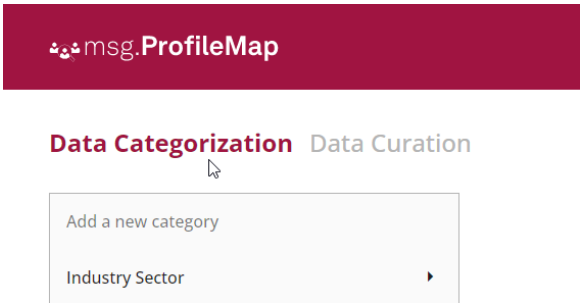

Figure 64: Select Data Categorization

5.1 Add / Change / Delete Category / Subcategory

To add a new category or subcategory click on "Add a new category". It's possible to create several levels of categories.

To create a new category a German and an English name need to be assigned. After entering the name click "Done".

Duplicate names are not possible.

To edit the names of a category or delete a category hover over the category and an edit button (form of a pencil) and a delete button (form of a trash can) will show.

For editing the names click on the pencil. To delete a category including the skills and subcategories assigned to this category click on the trash can.

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The assigned skills are only deleted from the category, not from the ontology. Skills can be reassigned again to a different category.

Hint 1: in the profile itself only the first level (top level) of categories is shown. All categories are shown in the screen for adding skills to the profile.

Hint 2: The top level categories can be referenced in the profile export templates. For more details check the documentation for creating templates and the example templates marked with the tag "TRAINING".

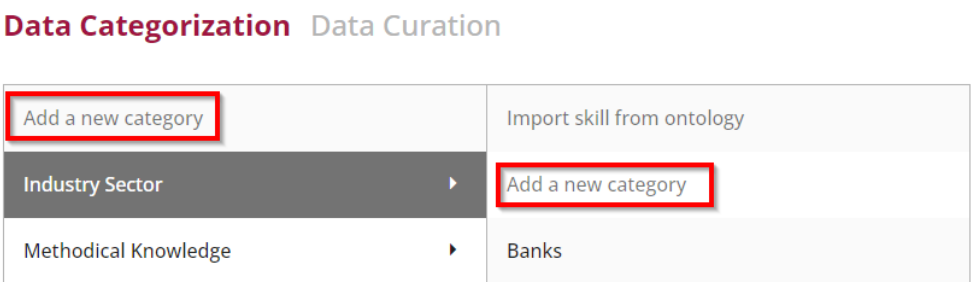

Figure 65: Add new category

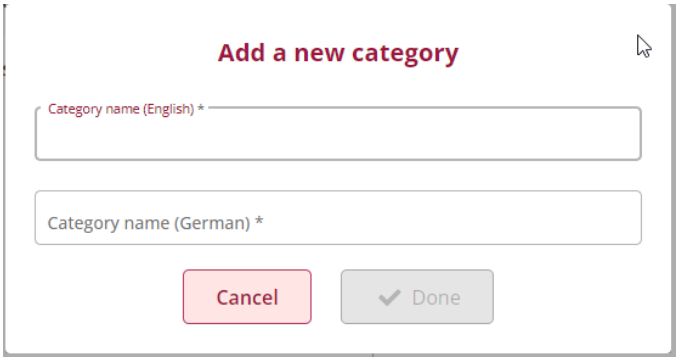

Figure 66: Enter / change names for category

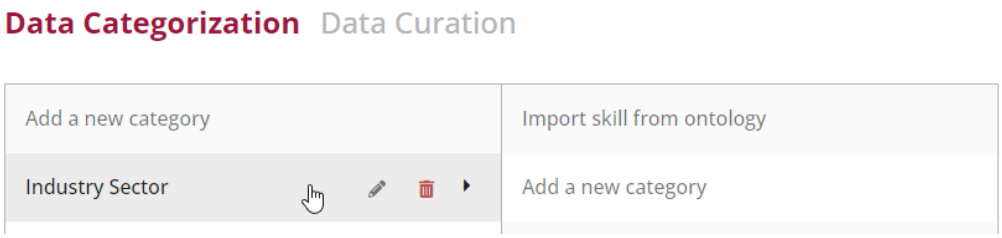

Figure 67: Edit and Delete buttons for a category

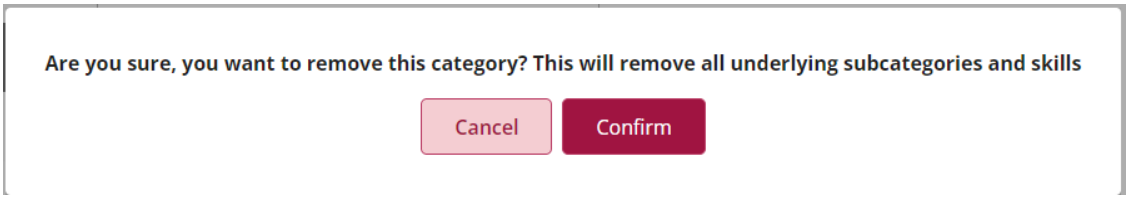

Figure 68: prompt before deleting a category

5.2 Add Terms to a Category or Subcategory

After creating a category skills can be added to it.

With click on “Import skill from ontology” a window opens where a skill can be searched and selected with click on “add”. After the necessary skills are selected click “Done” and the skills will be added to the category.

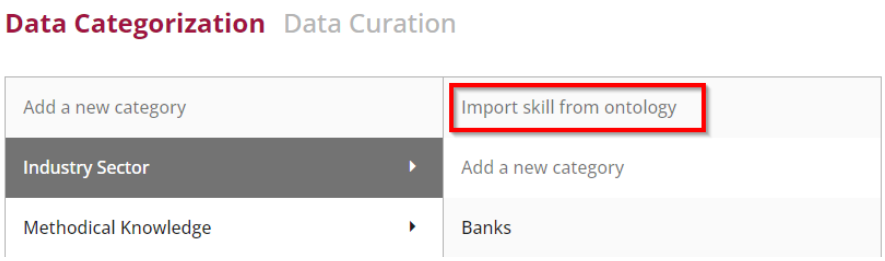

Figure 69: start adding new skill to category

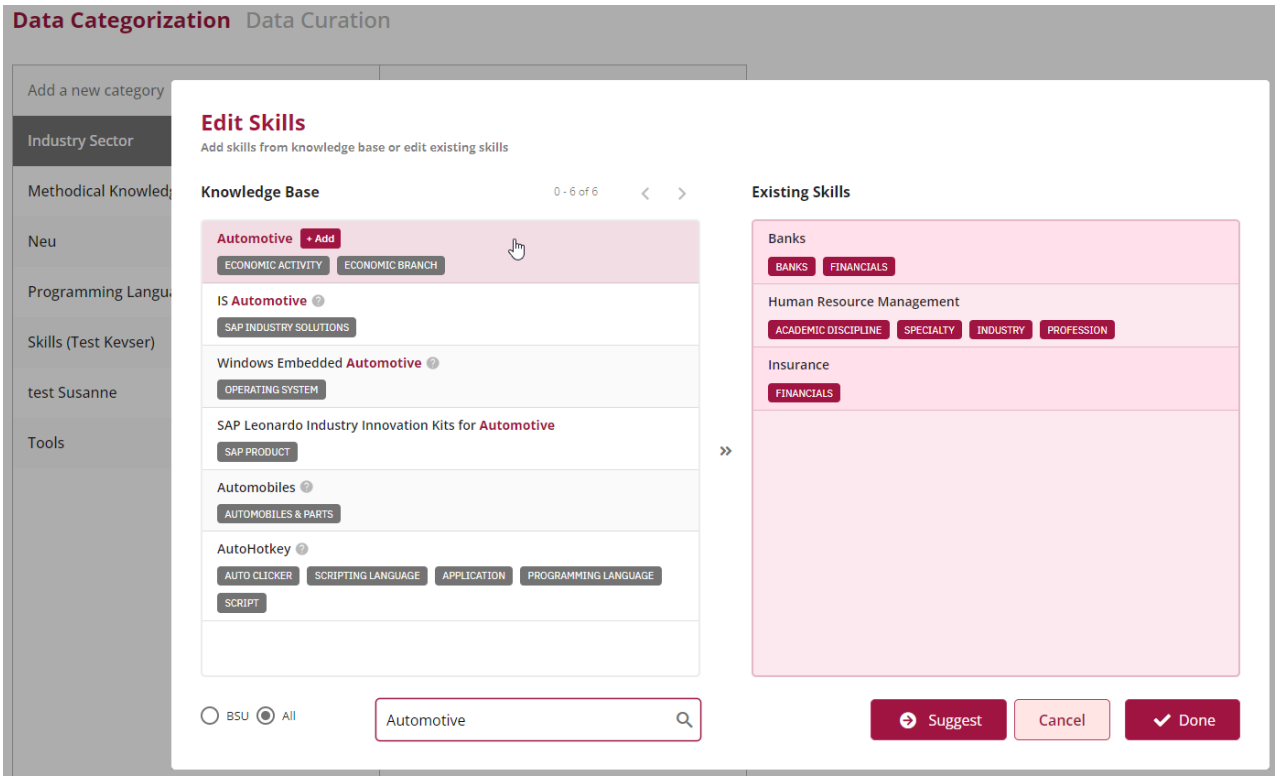

Figure 70: selecting skill for category

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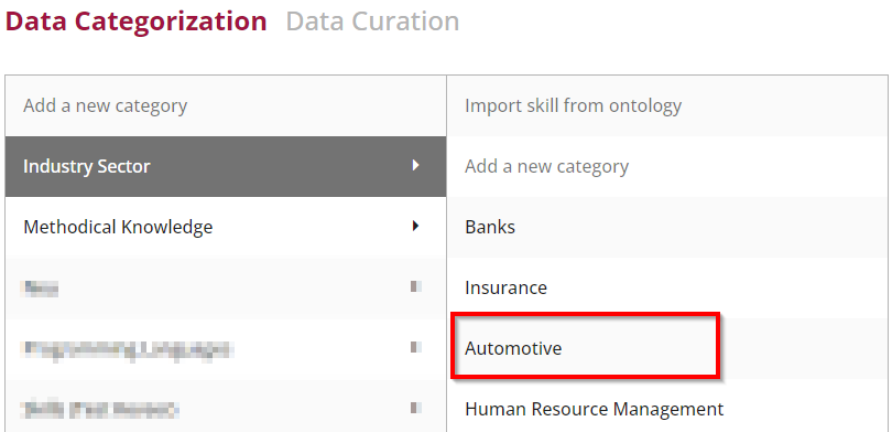

Figure 71: New skill added to category

5.3 Suggest new Skills

If the necessary skill is not available in the ontology the Skill Manager can suggest new skills for the Data Curator to add to the ontology.

For this click the button “Suggest” in the screen for adding skills to the category. In the new window the name of the new skill can be adjusted if necessary. With click on “Suggest” the new term will be sent to the Data Curator who will check and add the new term to the ontology

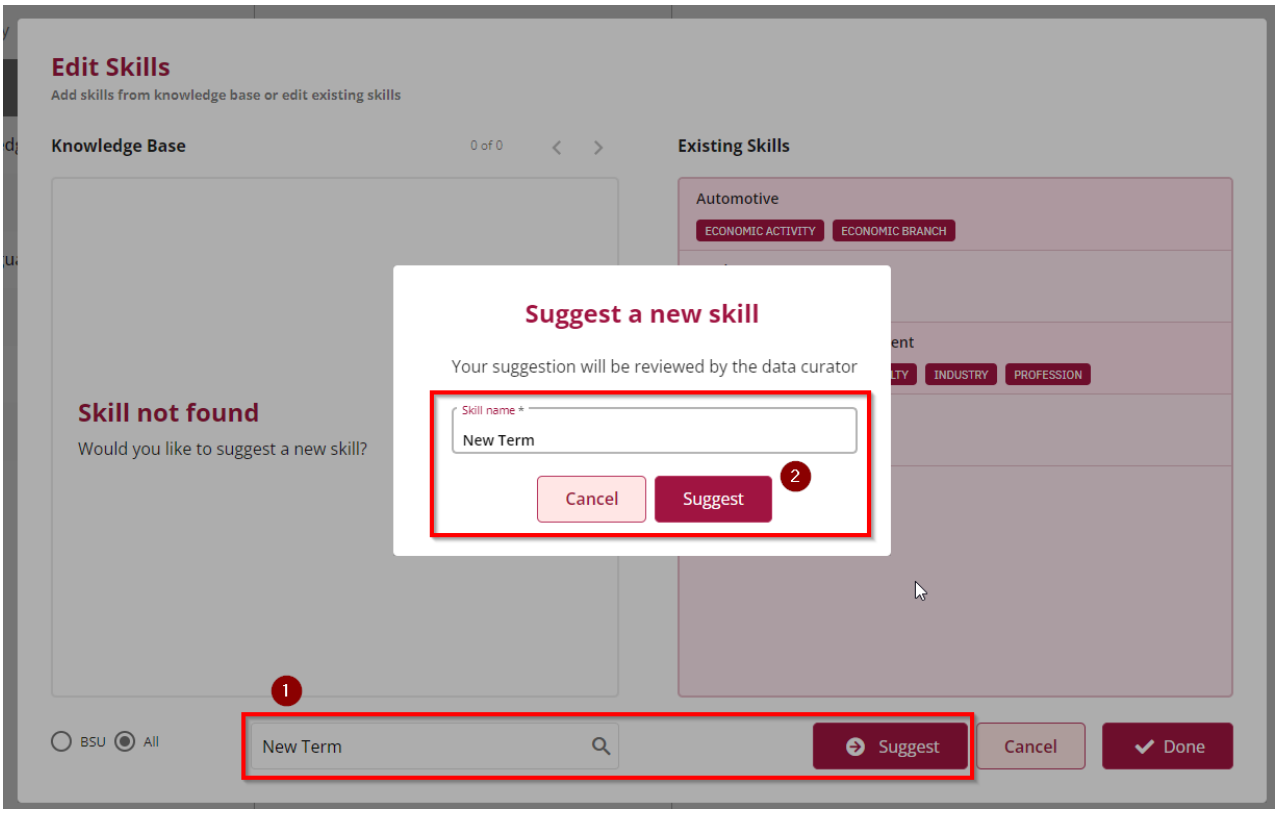

Figure 72: Suggest new skill

5.4 Delete Terms from a Category or Subcategory

Skills can be deleted from a category.

While hovering over the skill a delete button in form of a trash bin appears. A click on the trash bin deletes the skill from the category.

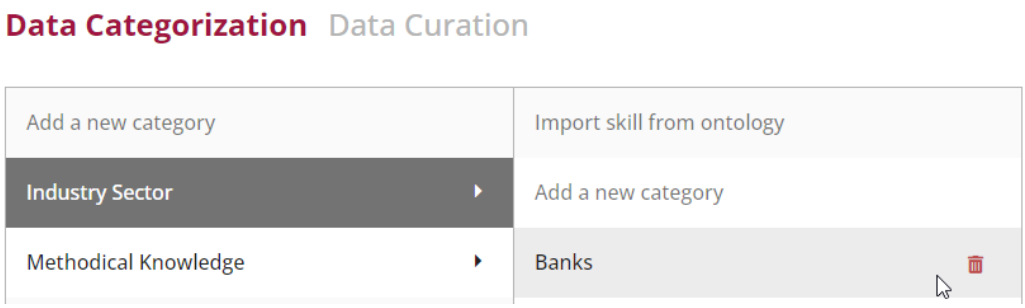

Figure 73: Delete skill from category

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6 Data Curation

In Data Curation the role Data Curator can suggest and add new terms to the ontology. To access Data Curation click on “Ontology management” and “Data Curation”.

Figure 74: Select Ontology Management

Figure 75: Select Data Curation

6.1 Suggesting new Terms

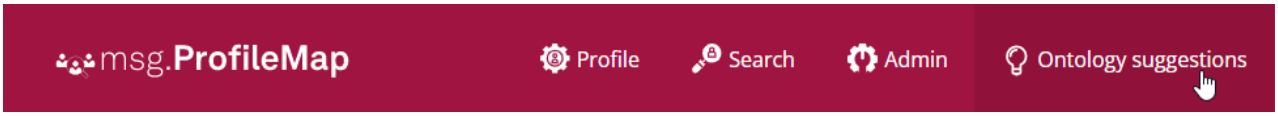
New skills, customers and certificates can be suggested in different parts of the application:

- Profile Management – for details check the following chapters:
  - 2.7 Suggest new Skills
  - 2.15 Suggest new certificate
  - 2.18 Add Projects
- Data Categorization – for more details see chapter 5.3 Suggest new Skills
- Data Curation – for more details see following chapters

6.2 Viewing own suggested Terms

To be able to keep track your own suggested terms there is a new list.

In can be accessed through the menu at the top of the screen with click on “Ontology suggestion”.



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A table is shown with the terms which were suggested by the logged in user.

By clicking on a different tab the lists can be changed between skills, certificates and clients.

By click on the arrow at the beginning of the line the details for the suggestion can be viewed. If changes are necessary they can be entered by clicking on the pencil at the end of the line.

By clicking on the cross the suggestion can be deleted.

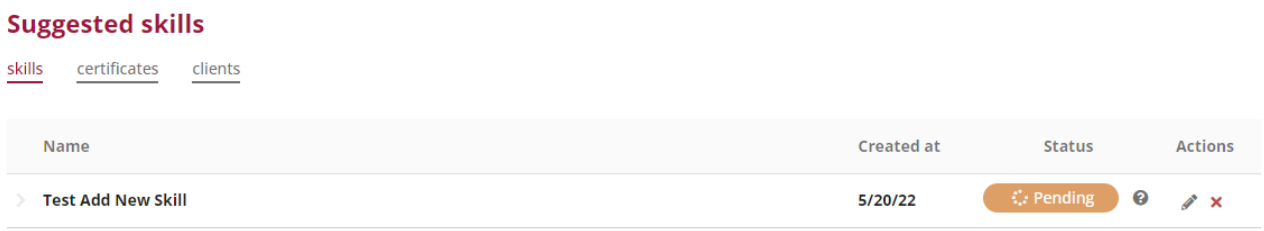

Figure 76: Suggested Skills

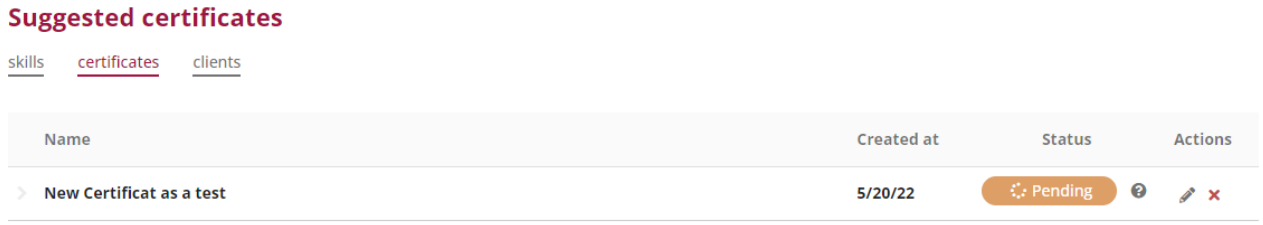

Figure 77: Suggested Certificates

Directly after suggesting a new term the status is set to “Pending”. This means that the Data Curator didn’t work on it yet.

When the Data Curator added the new term the status changes to “Approved”. With click on the “+”-Symbol the term can be added to the own profile.

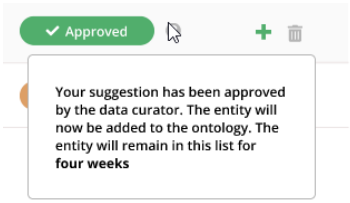

Figure 78: Approved Term

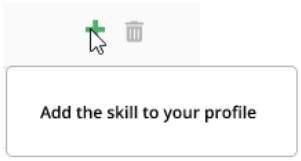

Figure 79: Add new Term to Profile

If a term is rejected the status “Rejected” is displayed. The reason why the term wasn’t added is shown in a tooltip when moving the mouse over the “?”-Symbol next to the status.

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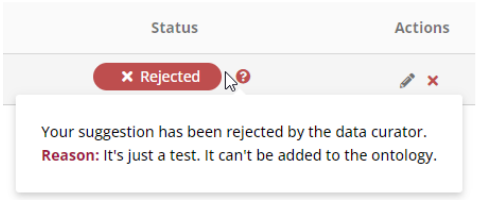

Figure 80: Rejected Term

If it's not deleted by the Data Curator or the user themselves, it's removed automatically after a few weeks.

6.3 New Skills

Figure 81: Header for Data Curation

6.3.1 Search and Suggest new Skills

The Data Curator can search in the list of suggestions. The search string can be entered in the search field.

If the Data Curator needs to suggest a new skill click on the button "Add a new skill". A window opens where the new skill can be added to the ontology. For a more detailed description see chapter 6.3.2 Check / Accept / Reject new Skills.

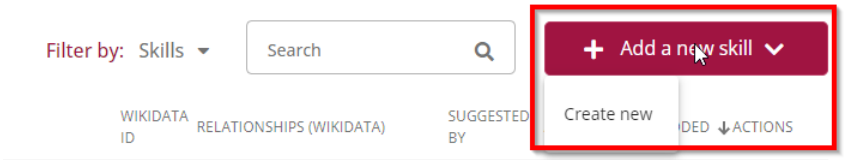

Figure 82: Button for adding a new skill

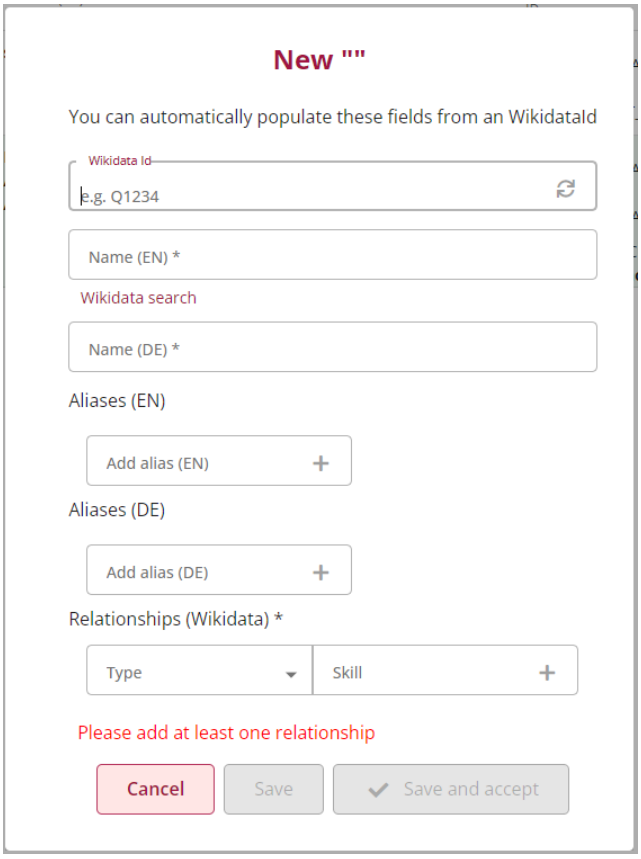

Figure 83: Screen for entering skill data

6.3.2 Check / Accept / Reject new Skills

If new skills are suggested in Profile Management or Data Categorization the suggested skills are listed for the Data Curator in Data Curation.

Initially the following data is listed for the skill: English name, name of user who suggested the skill, date of suggestion.

The buttons for editing (pencil) and deleting (trash can) are displayed.

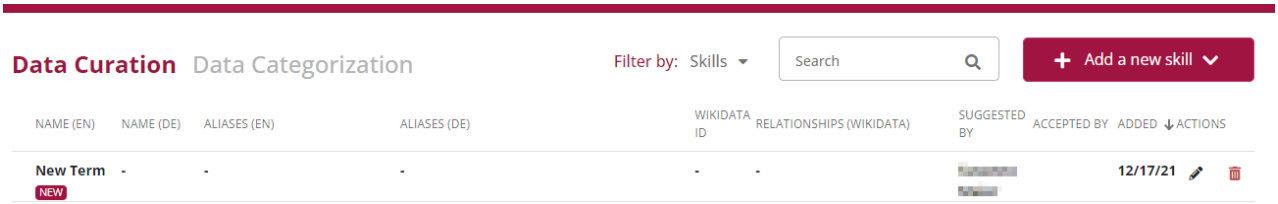

Figure 84: List of newly suggested skills

To check and edit the new skill click on the pencil. The following screen will appear.

The basis of the ontology is the website wikidata.org. To search for the new skill, click on the link “Search wikidata for New Term”. A new browser tab opens with the search results for the search term.

After selecting the correct entry in wikidata the wikidata ID needs to be copied and entered in the wikidata ID-field.

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With reloading the data (click on refresh arrows in field “wikidata ID”) the data connected to the wikidata ID is added to the window.

Part of the data are aliases in English and German and relationships.

If necessary, the names, aliases and relationships can be adjusted manually. If everything is OK click button “Save and accept”. The data is added to the ontology after a nightly batchjob (also see chapter 6.3.3. Nightly Batchjob).

If there are open questions the new skill can be saved (button “Save”) without accepting the data. The data is just saved and can be worked on at a later point, for example after clarifying open question with the person who suggested the new skill.

If the term already exists in the ontology a message is shown: “There is already an entry with this wikidata Id”. In this case the skill can’t be added. The button “Save and accept” is inactive and the suggested skill needs to be deleted: click on cancel, then delete the suggested term with click on the trash can.

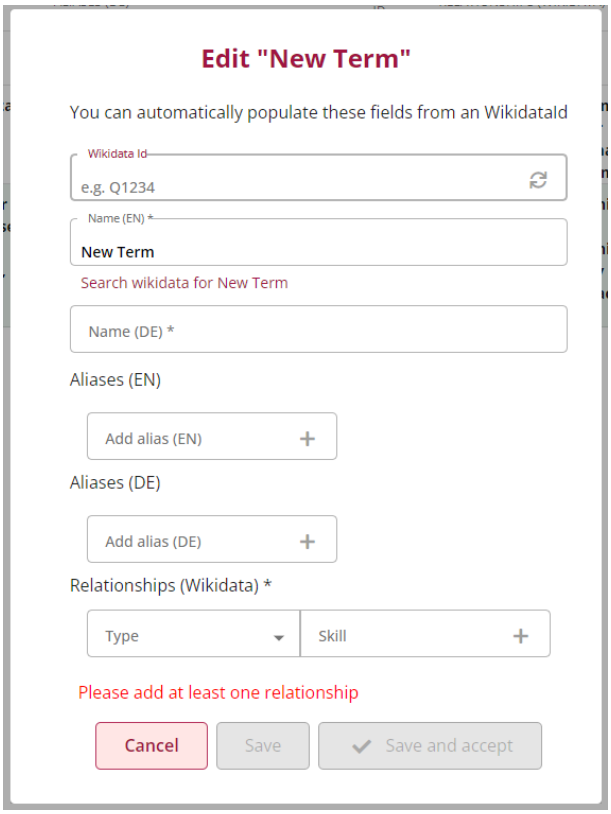

Figure 85: Edit new skill

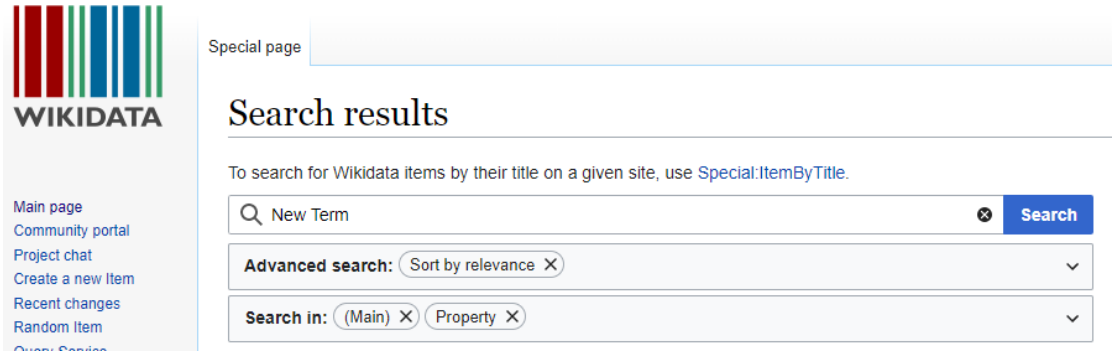

Figure 86: New browser tab after click on wikidata-link

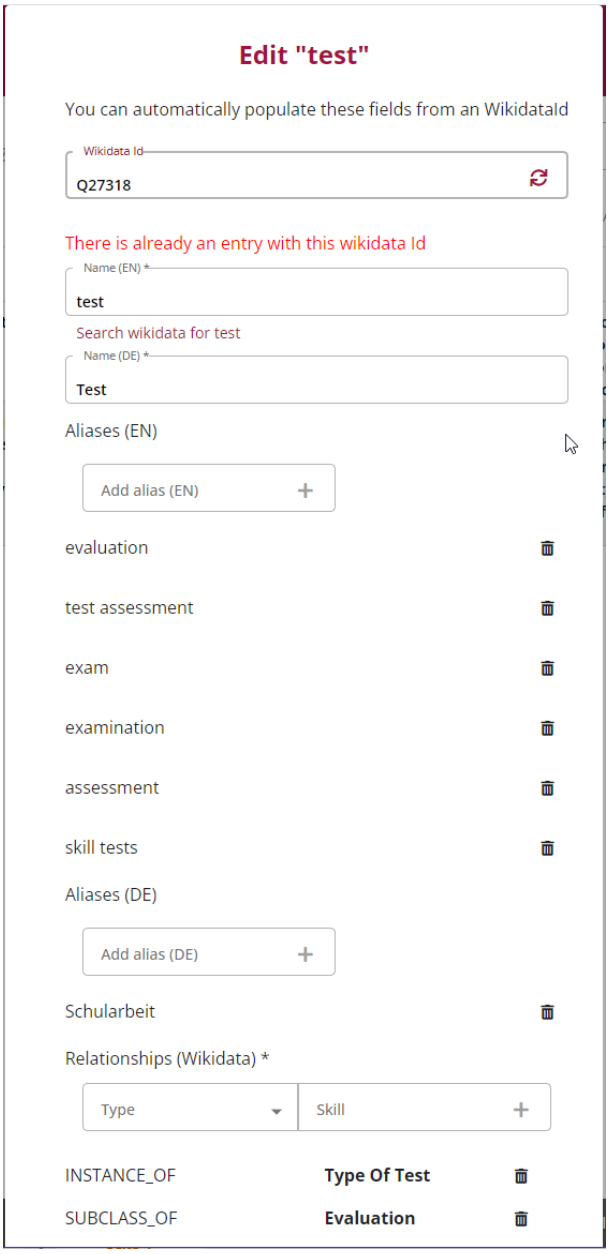

Figure 87: Loading data from wikdata.org – wikidata id already exists

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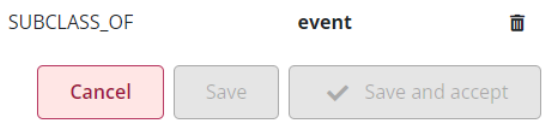

Figure 88: Existing terms can't be added.

If a skill needs to be added which has no entry in wikidata.org it can be added without a wikidata Id. The necessary date needs to be added manually:

- English name
- German name
- Aliases in English and / or German (optional)
- At least one Relationship referenced to Wikidata
    - Select a type from the list
    - Search for skill
    - Click plus button

After entering all necessary data click on button “Save and accept”.

The accepted skill is highlighted in green.

It’s possible to undo the acceptance. Edit the new skill again and click on button “Save and undo accept”. The entry is now highlighted in grey.

If a suggested skill needs to be deleted a security prompt appears which needs to be confirmed to finish deleting the skill.

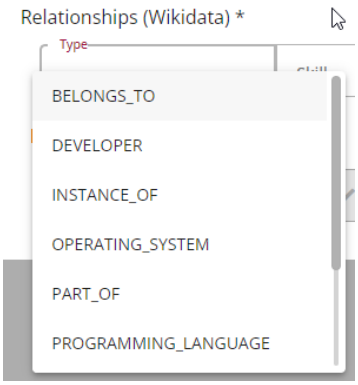

Figure 89: selecting relationship type

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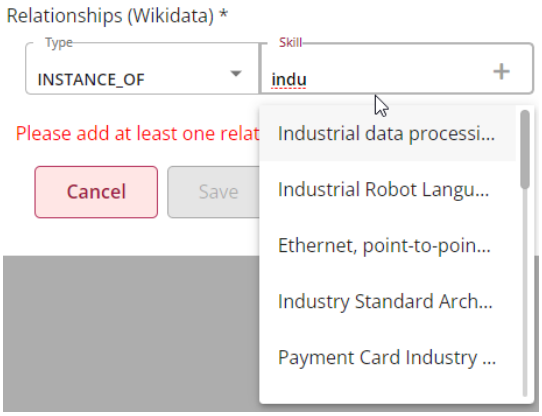

Figure 90: selecting relationshop skill

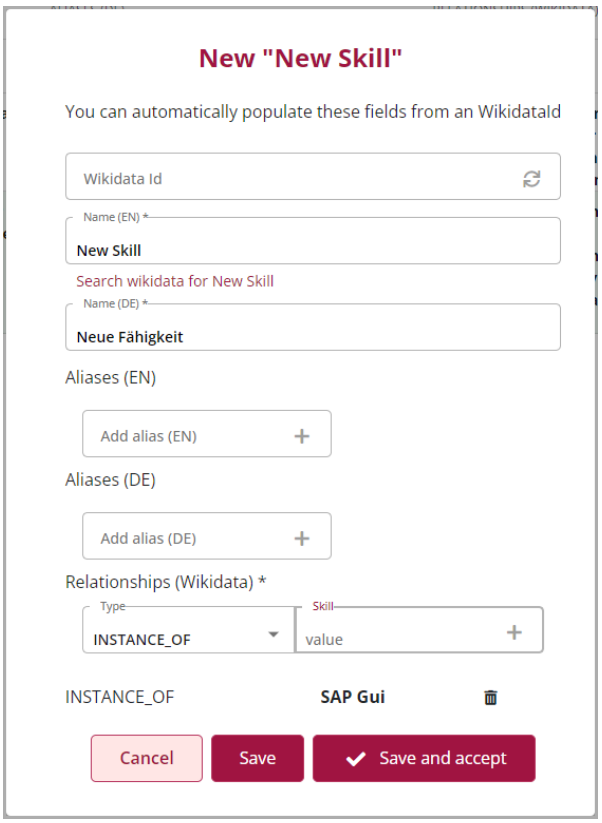

Figure 91: Save and accept new skill

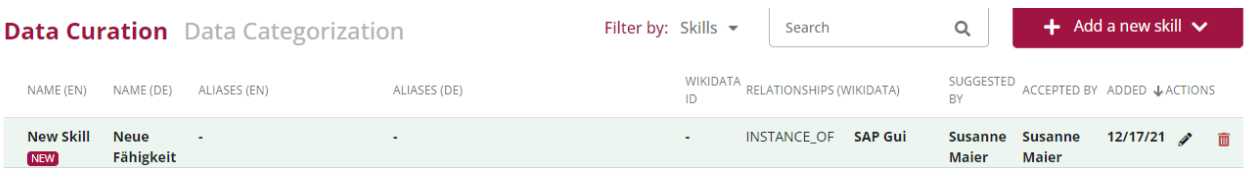

Figure 92: accepted skill highlighted in green

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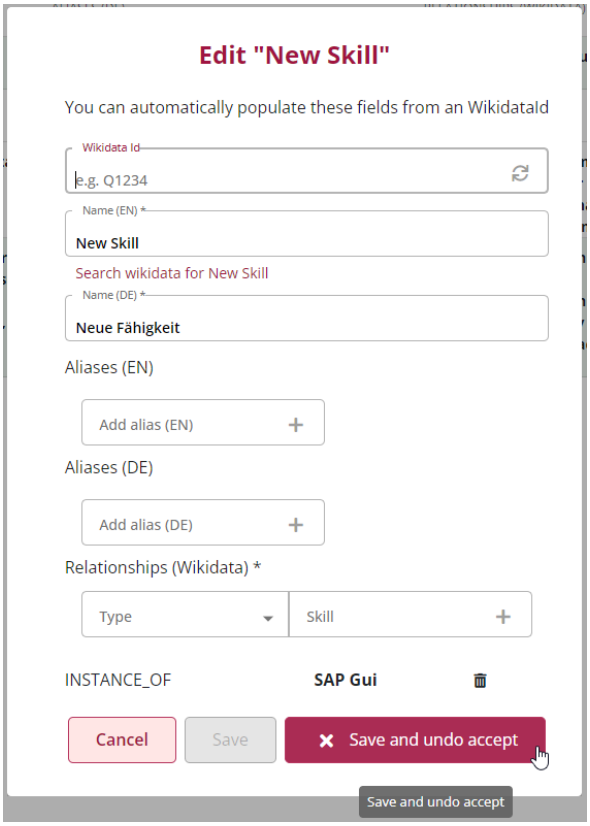

Figure 93: Save and undo accept

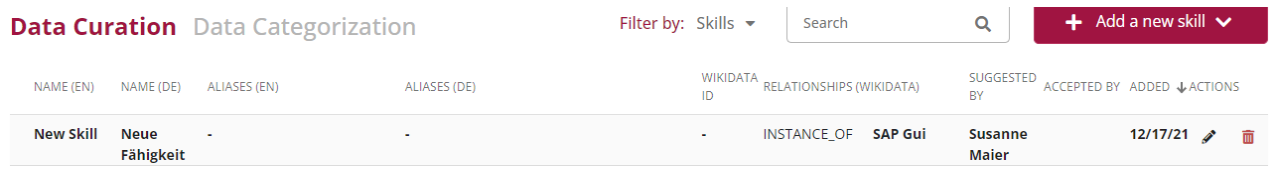

Figure 94: saved skill highlighted in grey

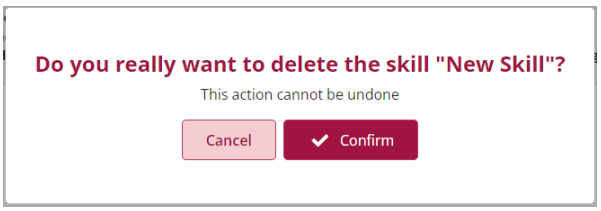

Figure 95: Deleting skill

6.3.3 Nightly Batchjob

To integrate the new skills into the ontology a nightly job runs early in the morning around five o'clock. The job is necessary to adjust the machine learning to the changed ontology.

Only after the job execution the new skills can be used in Profile Management and Data Categorization.

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When the skills are integrated successfully the in green highlighted skill are deleted from the Data Curation list.

If the green entries still exist the next day the ProfileMap-Team needs to be informed and the following points checked:

- Did the job run correctly? If not, what was the reason?
- Was there any error message for this new skill?

Depending on the result of the analysis the next steps need to be decided.

6.4 New Certificate

To switch to the newly suggested certificates click on the filter and select “Certificates”.

The list of suggested certificates is displayed.

Any user can suggest new certificates in profile management – see chapter 2.15 Suggest new certificate.

A Data Curator can also add new certificates directly in the Data Curation dialogue with click on “Add a new certificate” and “Create new”.

A new window open where the relevant data for the new certificate can be entered or edited. It’s the identical window which opens when clicking on the edit button of a suggested certificate.

Relevant data for a certificate:

- English name
- German name (can be identical to English name)
- Category, selected from a drop down list

The edit screen can be closed by click on:

- Cancel – changes will be ignored
- Save – data will be saved so it can be edited again at a later point
- Create certificate – suggested certificate will be added to the ontology at once.
  The entry will be deleted from the list.

If a suggested certificate needs to be deleted, click on the delete button. The delete request needs to be confirmed.

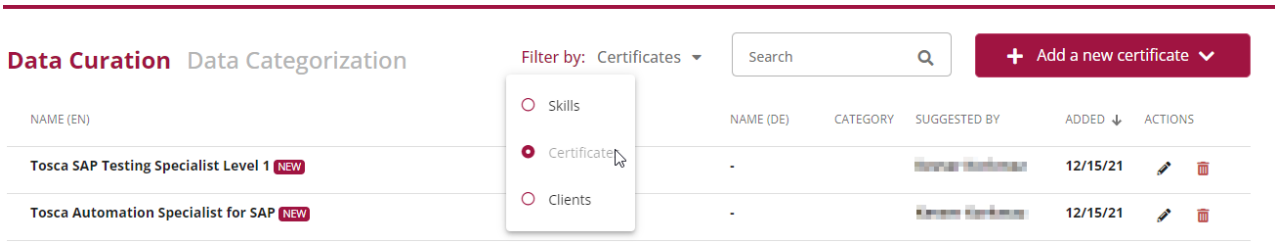

Figure 96: Select suggested certificates

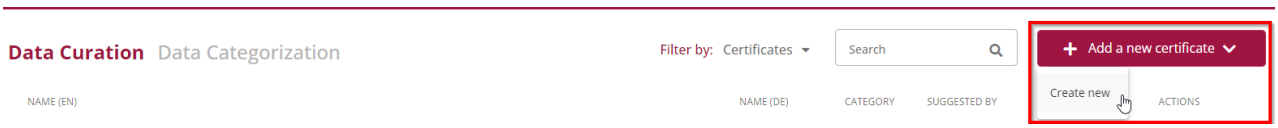

Figure 97: Suggest new certificate

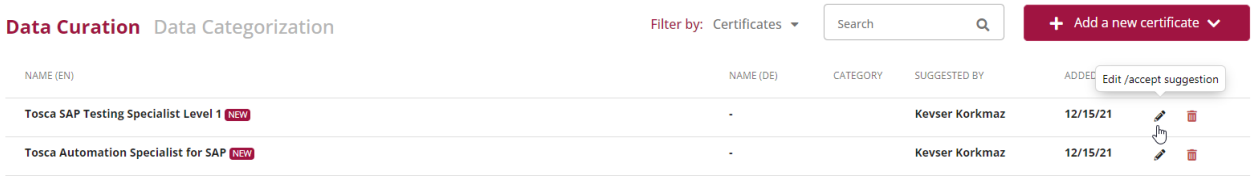

Figure 98: Edit/accept button for certificate

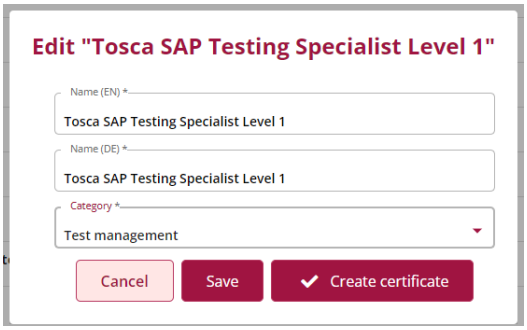

Figure 99: Edit new or suggested certificate

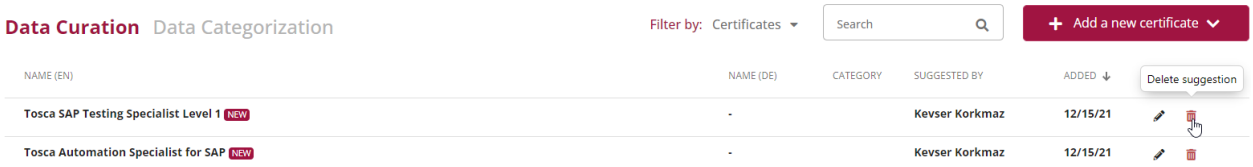

Figure 100: Delete button for certificate

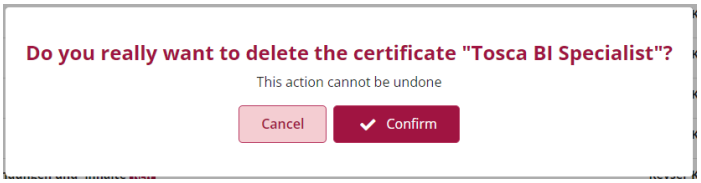

Figure 101: Prompt for confirming deletion of certificate

6.5 New Clients

To switch to the suggested clients, click on the filter and select “Clients”.

The newly suggested clients are listed.

Like new skills the English name, “suggested by” and the date of the suggestion are listed. Possible actions are editing (pencil button) and deleting (trash can button) the suggestion.

Any user can suggest new clients in profile management – see chapter 2.18 Add Projects.

The Data Curator can also add new clients in Data Curation with clicking on the button “Add a new client” and “Create new”.

A window opens where the data of a new client can be added:

- English name
- German name (can be identical to English name)
- Category from a drop down list

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This is the same window as the edit window when the edit button of a suggested client is clicked.

After entering / editing the client data the data can be saved for a later decision or created directly and is available in profile management at once.

If the client already exists or is a duplicate the suggestion can be deleted with the delete button on form of a trash can.

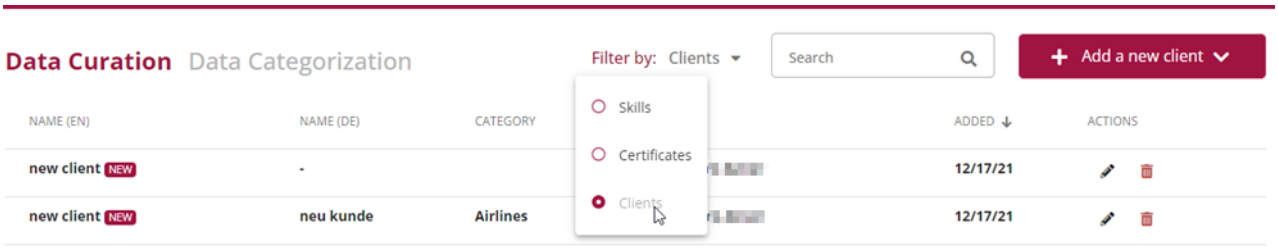

Figure 102: Switch to clients and list suggestions

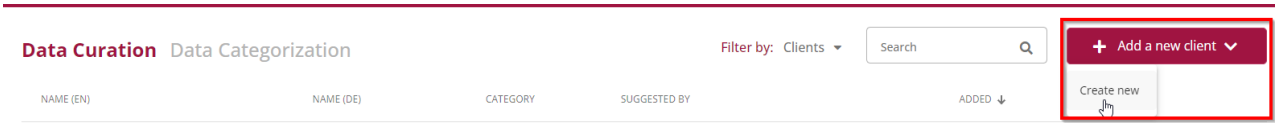

Figure 103: Add new client

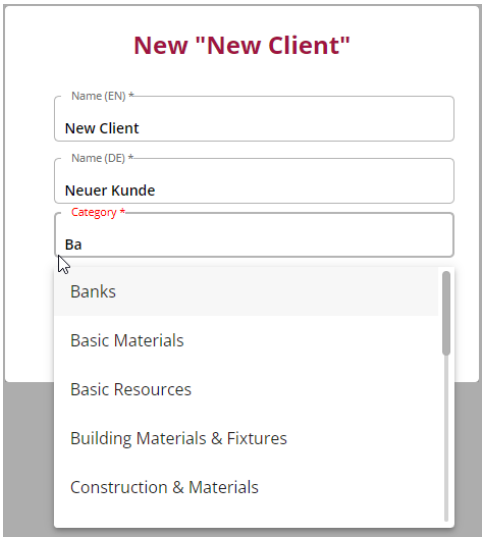

Figure 104: Edit new / suggested client

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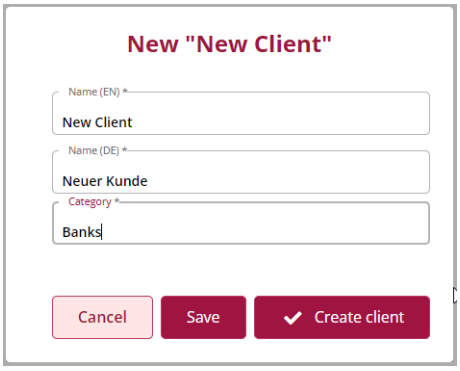

Figure 105: Possible actions after editing a client

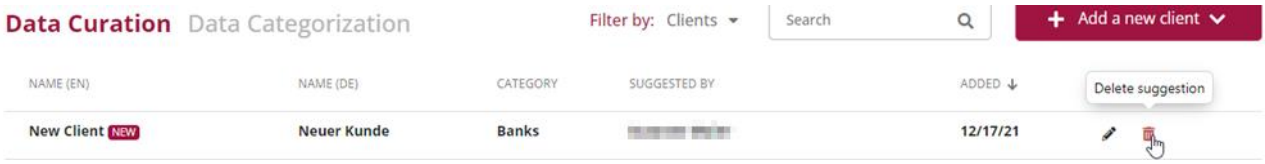

Figure 106: Delete a suggested client

6.6 Editing existing Skills, Certificates, Clients

Existing issues can be adjusted in data curation after adding them.

As with for new terms the filter can be adjusted for selecting for skills, certificates or clients.

Reasons for adjusting terms can be

- Removing typing errors
- Adding or removing relationships for skills
- Adding new aliases
- Adjusting name for other reasons
- Changing categories for customers or certificates

Default setting for Data Curation is “new”.

Figure 107: Display suggested terms

The display can be changed to “Existing”:

Figure 108: Display exising terms

The initial list after changing the view is empty. The list fills as soon as in the search field a search string is entered.

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Figure 109: Searching existing terms

6.6.1 Editing Skills

For editing skills click on the button “Edit item”, also marked with a pecil.

The following window will be displayed with the data already available.

As soon as data is changed, the “Save”-button is activated and can be clicked to save the changed data.

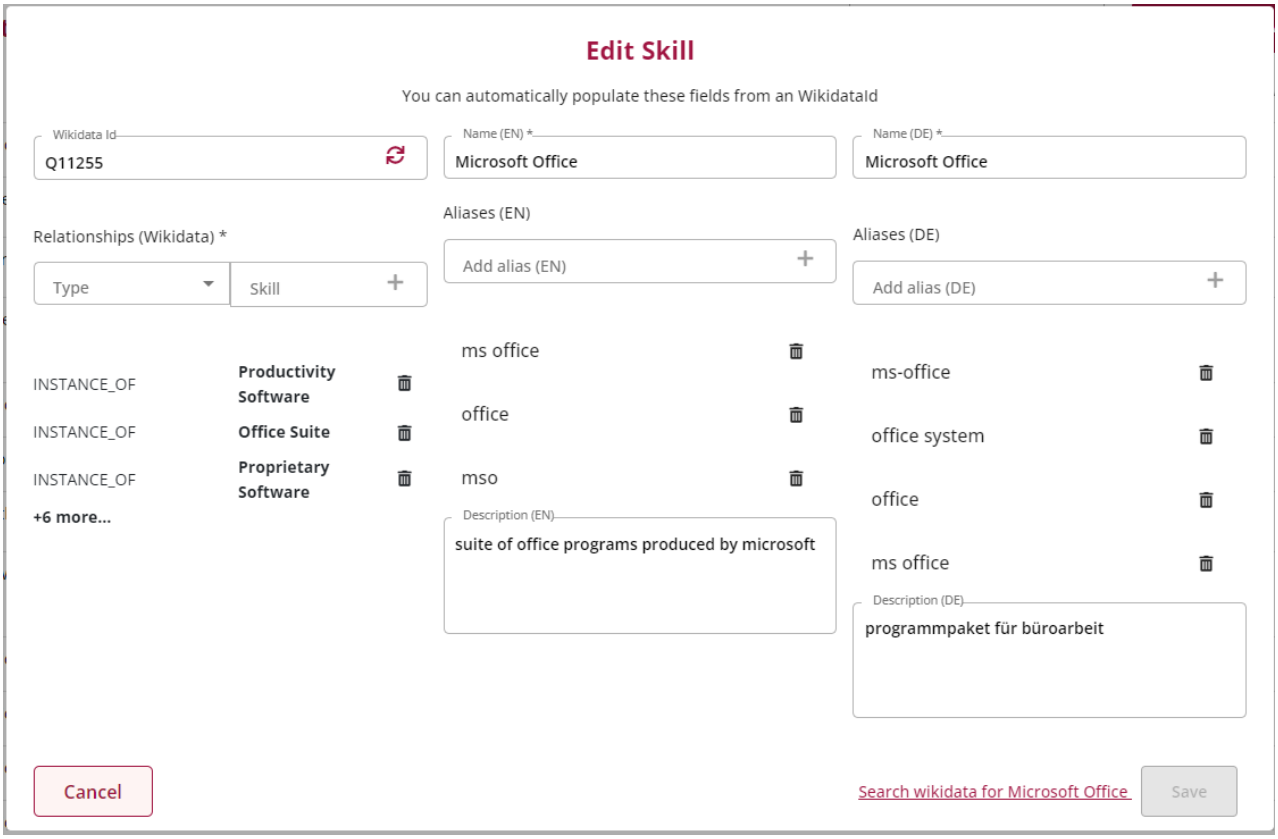


Figure 110: Data Curation – Editing Skills

6.6.2 Editing Certificates

The edit screen for certificates looks like this.

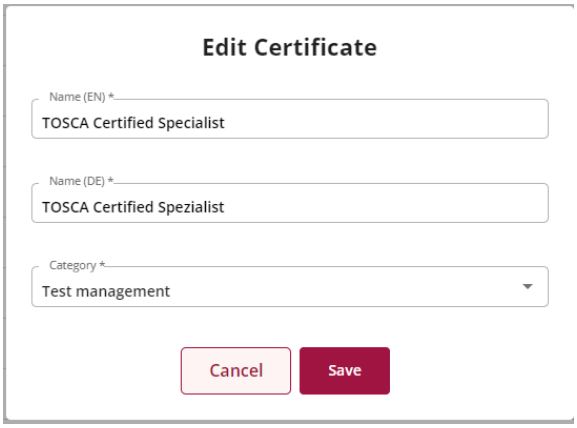


Figure 111: Data Curation – Editing Certificates

6.6.3 Editing Clients

For clients also the logo can be changed / added. If it's available in wikidata.org it's already loaded when adding the new client.

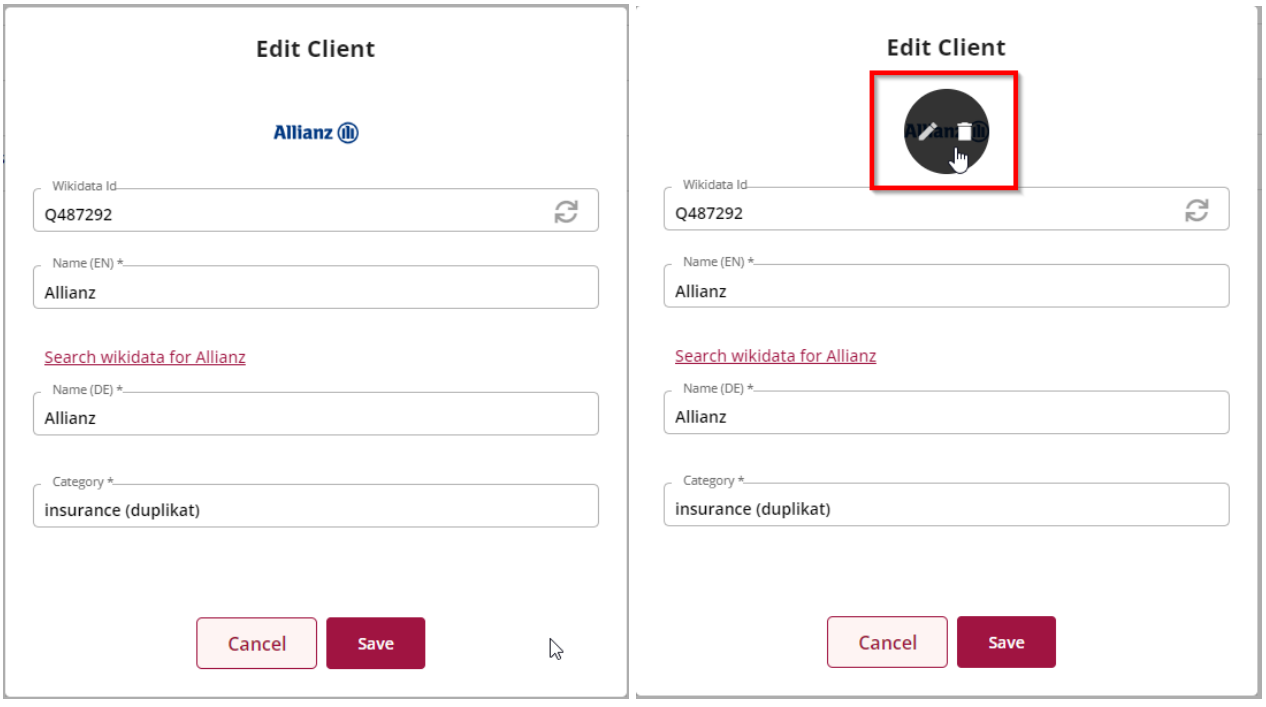
If the client was added before making the link to wikidata.org available, the data including the logo can be reloaded be adding the wikidata-ID and reloading the data.

If necessary the logo can be added, deleted or changed.

For this click on the logo. For deleting the logo click on the wastebin on the right. For changing or uploading a logo click on the pencil on the left.

The logo is shown in the project part of the profile and can be exported in the profile export.

After all changes are done click on the "Save"-button to save all changes.



6.7 Deactivating Terms

If there are duplicates or obsolete terms (skills, certificates, clients) the data curator needs to be able to remove them from the ontology.

There is no physical removal from the ontology, the term will only get a flag that it's deleted, and it will not be shown in any selection screen anymore.

Deactivated terms which are still used in the profile management are shown as striked through (~~strike through~~). This is a signal for the user to remove this term from the profile and if necessary, use the correct one.

6.7.1 Deactivate and Re-activate Term in Data Curation

To deactivate an existing term, eg. a skill, go to the Data Curation Screen.

Select "existing terms" and search for the relevant skill.

Figure 112: Data Curation – existing skills

To deactivate this skill, klick on the red cross on the right side.

The following warning message will be displayed:

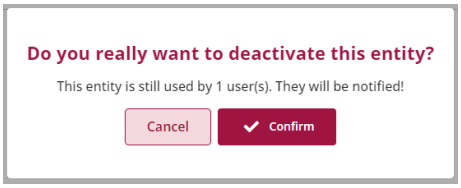


Figure 113: warning message to confirm deactivating a term

After confirming this notification, the skill will be deactivated.

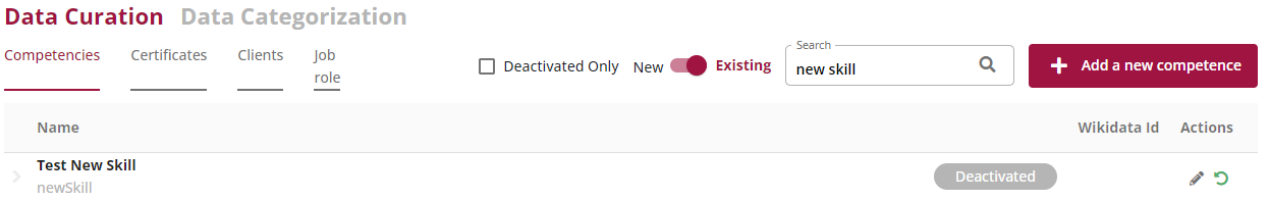


Figure 114: Data Curation after deactivating a term

If the term was deactivated by mistake or if the term needs to be reactivated for other reasons, klick on the green circle arrow.

After that the term is active again.

6.7.2 Display of deactivated Terms in Profile Management

Before deactivating a skill, the profile would look like this:

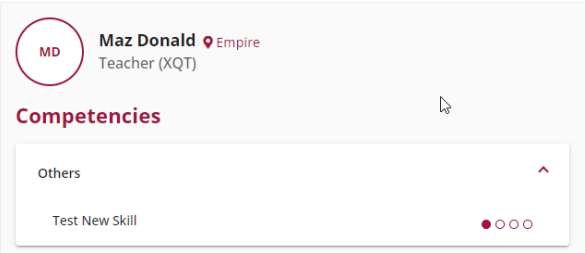


Figure 115: active skill in profile

After deactivating the skill it looks like this:

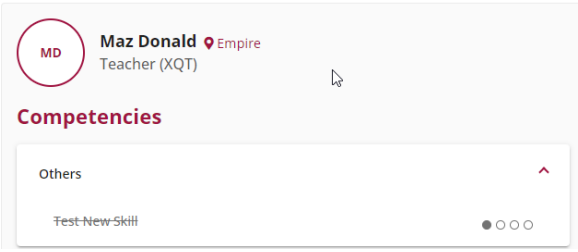


Figure 116: deactivated skill in profile

According to skills, other deactivated terms are shown like this:

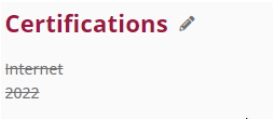


Figure 117: deactivated certificate in profile

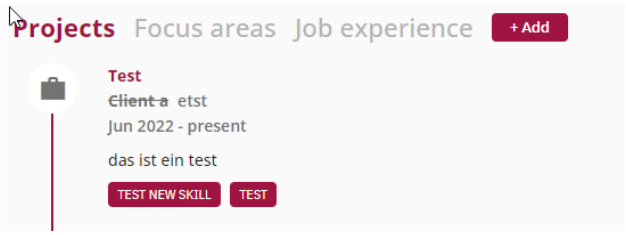


Figure 118: deactivated client in profile (projects)

6.7.3 Remove deactivated Term from Profile

6.7.3.1 Remove Skill

Click on “Edit Skills” (see chapter above).

The following window will be shown. Deactivated skills are shown here striked through, too. To delete the skill, mouse over the skill and click on the trash can.

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Adding new skills to the profile works the same as described in a chapter above.

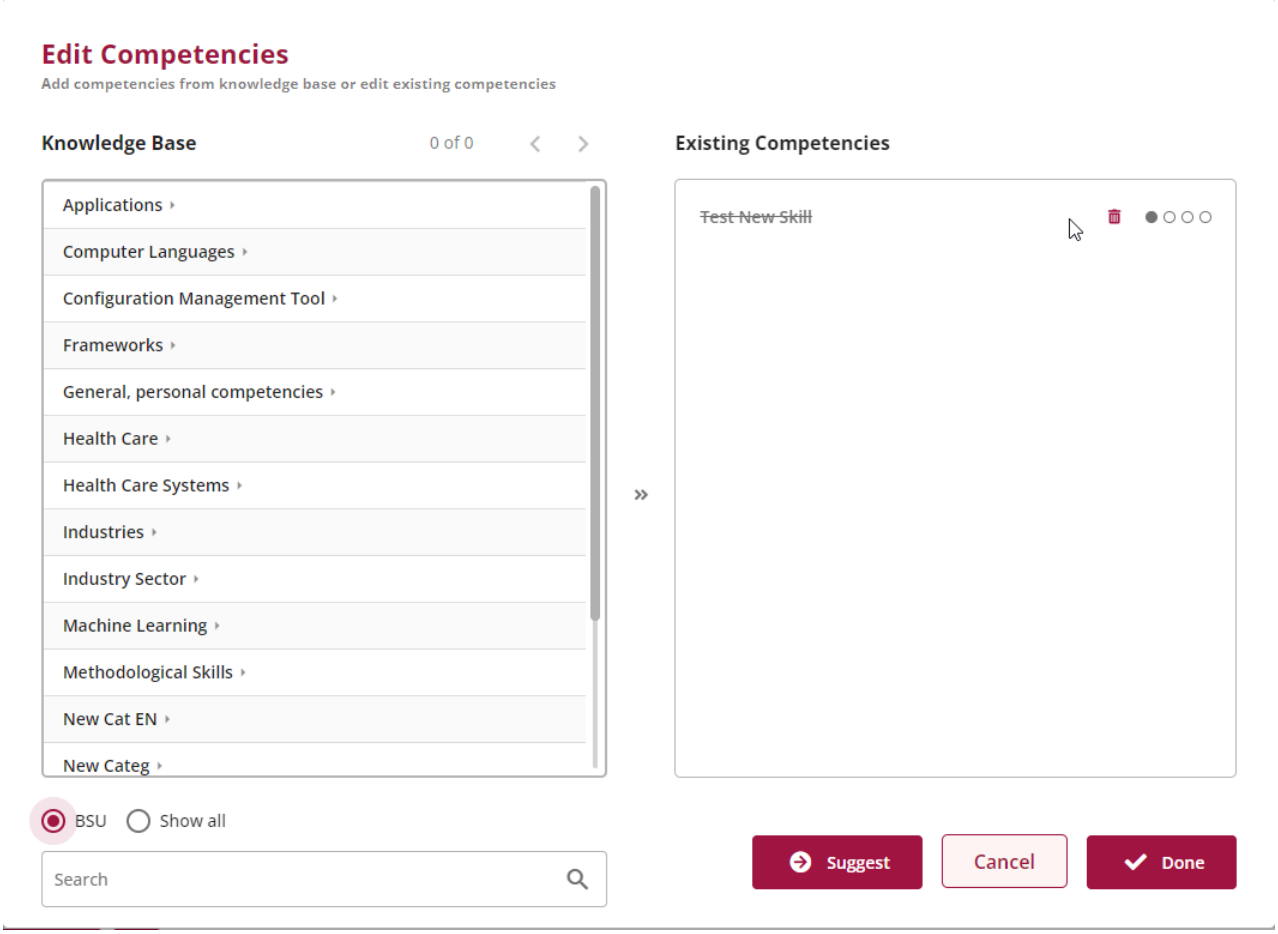

Figure 119: remove deactivated skill from profile

Certificates can remove in a similar way: edit profiles and remove the deactivated ones. Add new ones as required.

For clients in projects, it works a bit differently. Here you need to replace the client with the correct one or remove the client altogether.

Otherwise you can’t save any changes in the project.

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7 Document Overview

7.1 General Terms and Copyright

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7.2 Version History

Version	Description	Author	Date
1.0	Initial Creation	Eva Forster	16.09.2020
2.0	Uptate for UAT	Adrian Mandra	04.03.2021
3.0	Including Data Curation and Data Categorization	Susanne Maier	Nov / Dec 2021
3.0	Adjustments for Data Curation: Editing existing terms (skills, certificates, clients) Edit Skills: Skilllevel	Susanne Maier Monique Strehlow	May 2022 July 2022
3.1	Asynchronous search calls and subscores	Philipp Blohm	Feb 2023

7.3 Change History

Version	Chapter	Description	Author	Date
3.0	Data Curation	Adding new feature „Deactivating Terms in Ontology”	Susanne Maier	August 2022
3.0	Remove Skill Search	Skill Search needs to be removed from User Manual	Georg Jülke	September 2022
3.1	Edit Projects and Focus Area	Competencies in Projects and Focus Area can be changed without loosing already set competencies	Susanne Maier	Feb 2023

7.4 Reference Documents

Ref.	Document	Version	Date

Ref.	Document	Version	Date

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