CONNECT

Inclusive open schooling with engaging and future-oriented science

D3.3

This project has received funding from the European Union's Horizon 2020 Research ad Innovation Programme under Grant Agreement No 872814

CONNECT online platform official launch

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D3.3

CONNECT online platform official launch

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Revision History

VERSION	DATE	REVIEWER	MODIFICATIONS
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1.0	31/08/2021	Eva Jaho	Final Quality Review

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Executive Summary

The following report which accompanies the demonstrator deliverable D3.3 presents a description of the officially launched CONNECT platform. This iteration of the platform aims to provide the functionalities required to connect science teachers and scientists in order to engage and collaborate on Science-Action projects, making science education open a, accessible and engaging for students. The different areas of the platform are presented along with the various functionalities they support and user requirements they facilitate. Improvement will be made to the platform as between it's official release and final release in M24.

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1. Introduction

At the heart of the CONNECT project lies the multi-actor platform, which aims to support and consolidate the work from other WPs in a virtual environment where teachers can engage with science professionals and collaborate on novel Science-action projects. D3.1 ''CONNECT platform design report'' laid out a high-level design of the platform, including the various sections, functionalities, users and their requirements. D3.2 ''CONNECT platform baseline implementation''

This report accompanies the demonstrator deliverable D3.3 ''CONNECT online platform official launch''. It unfolds the platform structure, presenting the different modules in different sections. It has built upon the baseline implementation and feedback from partners to reach the current stage. Relevant user requirements are described in each section.

Being the 1st official version of the platform, it contains the necessary functionalities to bring together the various efforts and inputs of the CONNECT partners, allowing for users to collaborate and engage with each other to create science action projects for students. In M24, the platform will be released at its final version in D3.4 ''CONNECT online platform final improvement'', with feedback and input received from now till then.

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2. Platform breakdown

This section of the report will break down the platform in terms of modules, functionalities they provide and user requirements they address. User requirements for each module, first presented in D3.1 are described in the corresponding module section. A list of all requirements is included in Annex 1.
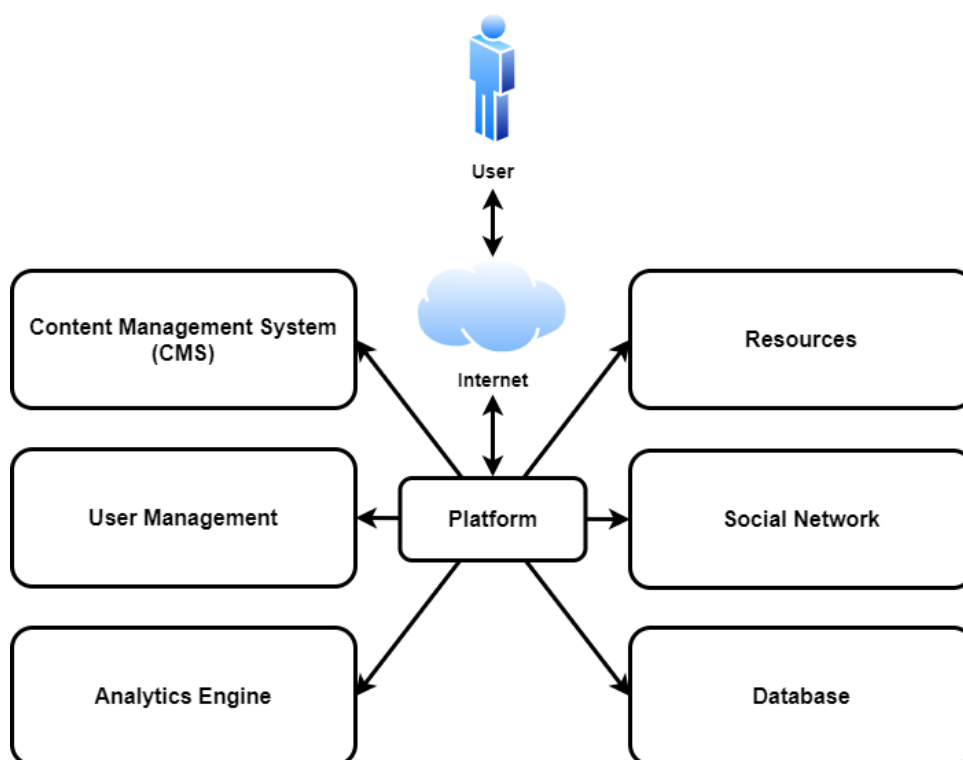
Figure 1 CONNECT platform modules

2.1 Content Management System (CMS)

The platform is built using WordPress as a CMS, which enables most of the functionalities laid out in this report through its own capabilities as a CMS as well as through additional plugins. It is important to note that although WordPress allows for CMS capabilities as a developer or administrator, we are leveraging its capabilities to allow users to manage certain content as well. This can be seen within modules such as the Resources sections, User Profiles and Social Network, which will be addressed further on.

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Figure 2 WordPress Dashboard

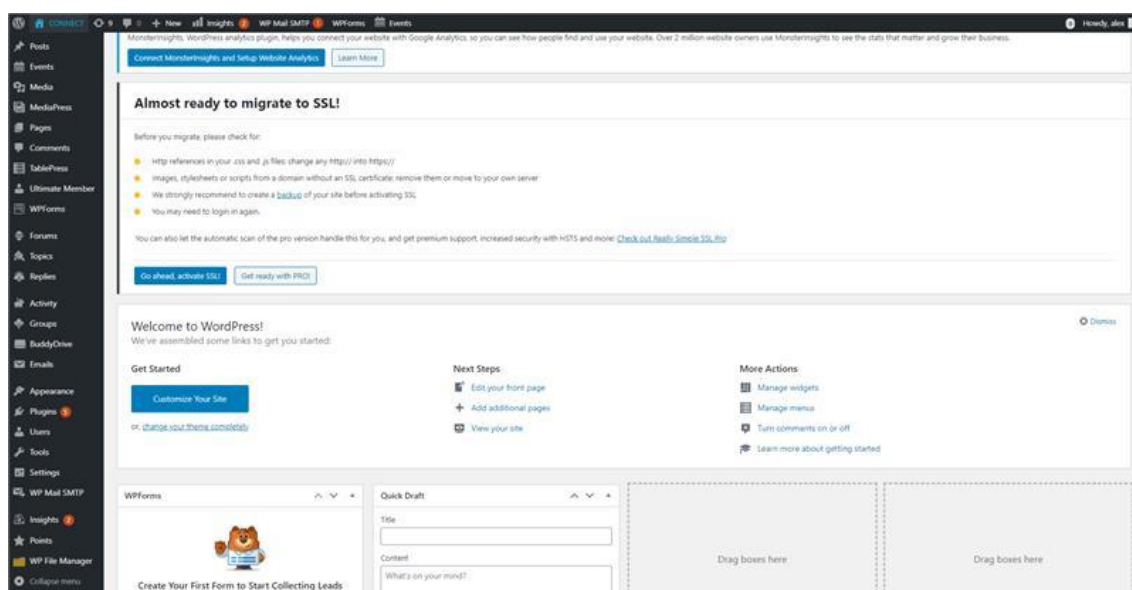Some of the plugins that are currently being used are laid out in the table below, which have been updated or changed since the previous iteration. These are subject to changes and amendments based on further feedback and requirements that may arise.

Plugin Name	Functionality
BuddyBoss Platform Pro	Facilitates most functionalities such as social network aspects, user management, resources, content management,
Modern Events calendar	Displays a calendar to which events can be added
TranslatePress – Multilingual	Imbed multiple languages within the platform
WP Mail SMTP	Allows the platform to send e-mails for registration confirmation and invites
WP ULike	Enables certain content to be liked and disliked for measuring content engagement

Table 1 WordPress plugins

2.1.1 User requirements relevant to the CMS:

User requirement	Explanation
UR01: Accessibility of resources	The CMS allows for the management of digital content,

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	including any resources uploaded onto the platform.
UR02: Content Management	The CMS allows for the management of digital content from and administrative and developer perspective but also for platform users. This is facilitated through plugins.
UR04: Support of multiple users and languages	Through the use of the CMS and plugins, the platform can host multiple users who case run the platform in their own language.
UR05: Publicizing material	The CMS allows for the uploading of digital content and the use of plugins provide users with these capabilities.
UR06: News and events	Users can post updates or news on their profiles. A central area of the platform can host news (currently doesn't) and updates for all users. A calendar plugin currently displays events.
UR07: Secure login	The CMS and different plugins allow for the secure login capabilities of different users.
UR:13 Reward and display performance	The CMS will allow for the display of open badges of different formats. This includes in the Social Network, Groups and User Profiles.

Table 2 User Requirements - CMS

2.2 User Management

There are three key areas within the platform where User Management is facilitated: User Registration and Sign In, User Profiles and Groups.

2.2.1 CONNECT User Registration and Sign In

New users will have to register to enter the platform with ANNEX B showing the registration window. They can be led to the registration page either through clicking a link, searching for the platform or email invitations. To register, they have to enter the information shown in the table below, which will then be displayed on their profile. This is also important information that may be used to find their profiles in the platform when looking for possible partner collaborations.

Existing users will have to log in every time they use the platform or remain logged in, with Annex C showing the sign in in window.

Field	Description
Email	Their email address
Password	Their password to enter the platform in the future
First name	Their first name
Last Name	Their last name
Nickname	A nickname to use in the platform
Job Title	Their current job title
Organization	The name of their current organization (school name, university name, company name etc.)
Role	One of the following role options: • Head school • Science coordinator • Science teacher • Scientists / science professional • Science mentor (e.g. PhD students, ambassadors) • Community-member • Other
Personal Description (optional)	A personal description of who they are and what they do
Coach	Confirming whether they will act as a coach or not

Table 3 Signup Criteria

2.2.2 CONNECT User profiles

When a new user enters the platform, they will have to create their profile. They are asked to provide their name, their job title and to add profile and cover pictures. The user's profile will display the user's affiliated groups, media and a personal resource library with searchable content that can be shared. There are also Social Network capabilities which will be highlighted further on.
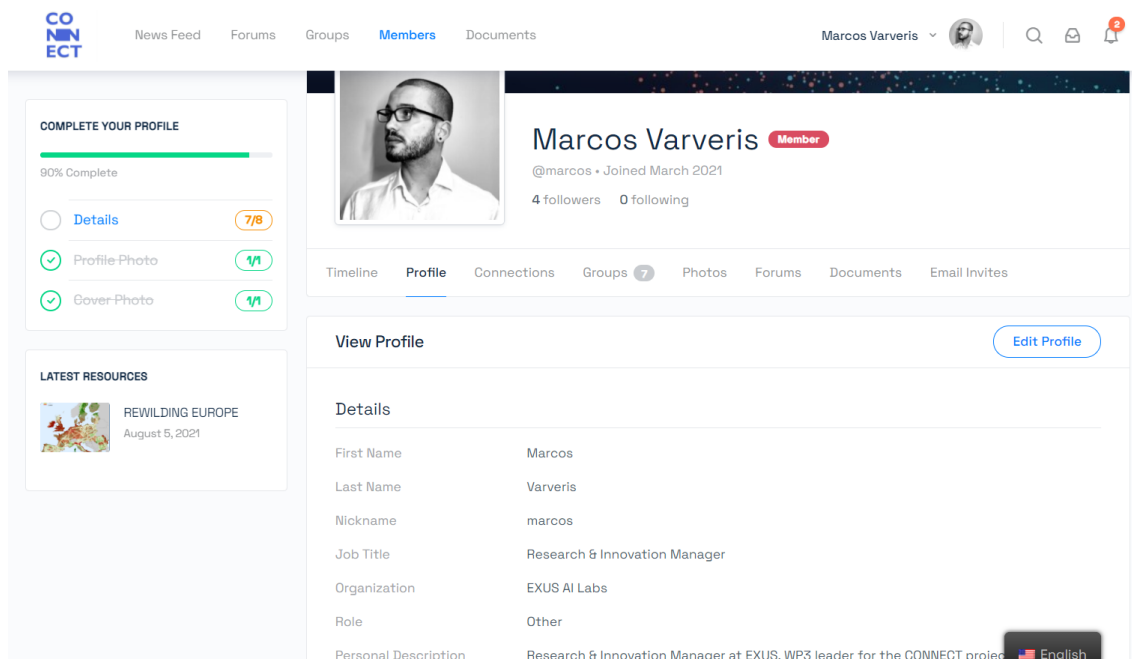
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Figure 3 User Profile

Users will also be given different WordPress roles on the platform, offering different capabilities and access rights. The below table explains the three different user WordPress roles.

WordPress Role	Description	Used by
Administrator	Full control of all aspects of the platform, including content, site settings and site structure.	EXUS development team
Editor	Full control of content on the website. They can edit, moderate and delete content.	CONNECT Partners
Contributor	Can add and edit their own posts but they cannot publish them.	Other platform users

Table 4 User Roles

The Below image shows different users and their respective roles.

alex	—	a.karalis@exus.co.uk	Administrator	0
aokada	Alexandra Okada	ale.okada@open.ac.uk	Editor	1
asilva	Adaltro Silva	adaltroaraujo@gmail.com	Contributor	0
atay	Angela Tay	12tayangela@gmail.com	Contributor	0

Figure 4 Users and their respective roles

2.2.2 CONNECT Groups

The CONNECT platform will host users from a variety of disciplines and countries. Groups are used to structure the platform in a way for users to find and interact with the most relevant content and people on the platform. Within the platform, users will be able to join and create groups that are either private (an invite must be sent or an access request must be granted) or public. The (tentative) list below indicates the different groups and subgroups within which can be subject to amends, depending on the project needs. An example of a group is presented below. Later on, in the document, functionalities of the groups will be described from the Social Network perspective.

- Articles
- CONNECT - Romania
- CONNECT - Brazil
- CONNECT - Greece
- CONNECT - Project
- CONNECT - Catalonia
- CONNECT - UK
- CONNECT - Certificates
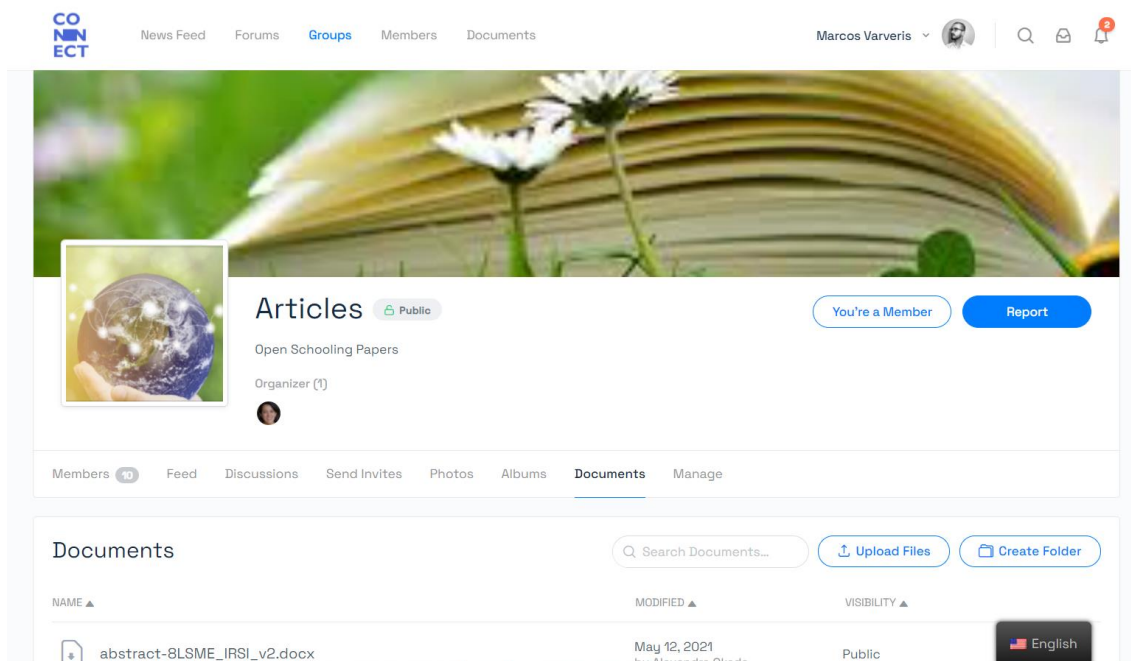- CONNECT - Resources
- CONNECT – Scenario Tools

Figure 5 Articles Group

2.2.3 User requirements relevant to User Management:

User requirement	Explanation
UR04: Support of multiple users and languages	Users that have registered on the platform can create and customize their own profiles.
UR08: User Management	The groups functionality controls access to certain groups and their resources.
UR09: Parent Organization	Groups can be made for a parent organization or relevant group of people. This can be a specific topic, country or organization.
UR10: Engaging partnership and project database	It is possible to search for users and groups. Users can be searched by name or profession. Groups can be searched by name.
UR11: User Profiles	Users can create their own profiles where they can upload relevant information and materials.

Table 5 User Requirements - User Management

2.3 Social Network

The Social Network capabilities are displayed through the following:

- User Profiles
- Groups

User profiles display basic information surrounding a user and is set up in a similar format to popular social networks by displaying basic information, personal descriptions, profile and cover photos and more. It also displays which people the user has connected to, the groups they are a part of and any public documents they have uploaded. Some key functionalities supported by the user profiles are laid out below:

- Personal messages to other users
- Email invites to join the platform
- Connecting to other users
- Commenting and interacting with posts, resources and forums on the platform
- Joining groups

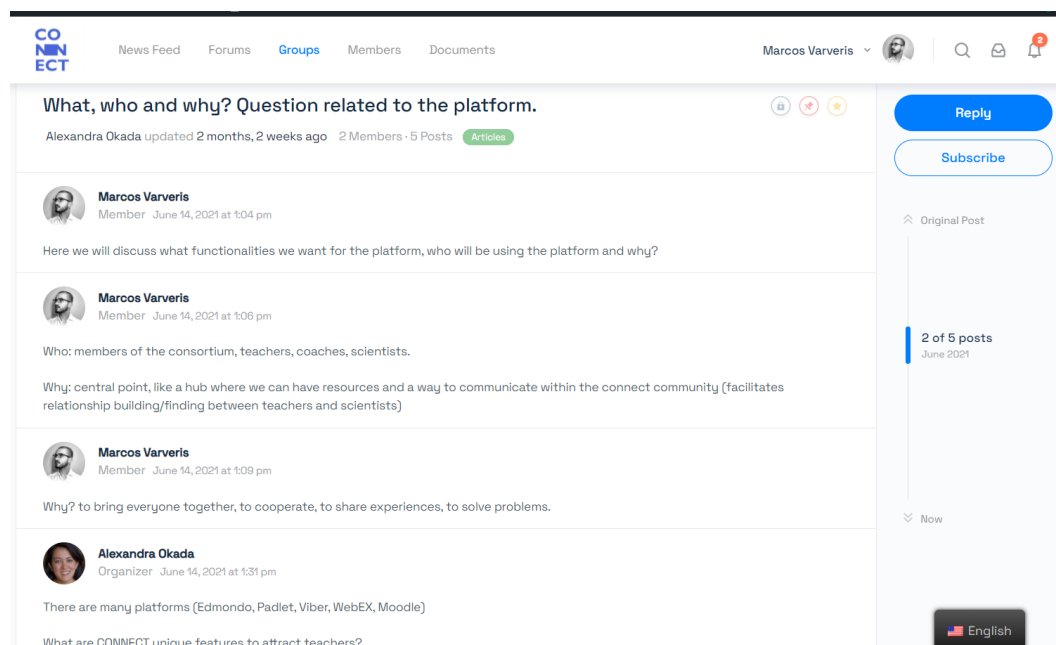Within the groups, users can share content with each other and engage with forums within.

Figure 6 Internal forum within "Articles" Group

2.3.1 User requirements relevant to the Social Network:

User requirement	Explanation
UR02: Content Management	The Social Network capabilities will allow for users to share content.
UR03: Fostering Communication	The BuddyBoss plugin allows for messaging between members but also communication through interactions like commenting and liking posts or publicized materials.
UR05: Publicizing material	Users will be able to publicize content in their groups, on their profiles or on the more public spaces.
UR11: User Profiles	Users will be able to post their own relevant resources and content on their profiles. From here they can interact with other users.

Table 6 User Requirements - Social Network

2.4 Database

The databases on the platform are used to find the following:

- Partners and users on the platform
- Resources for Science Action projects (structured scenarios, unstructured scenarios, best practices)
- Resources (materials within groups or within the documents for various uses)
- Groups

Below, the generic search results are displayed. Using the search bar at the top shows all results within posts, forums, resources and groups. Search results are categorized to ensure findability.
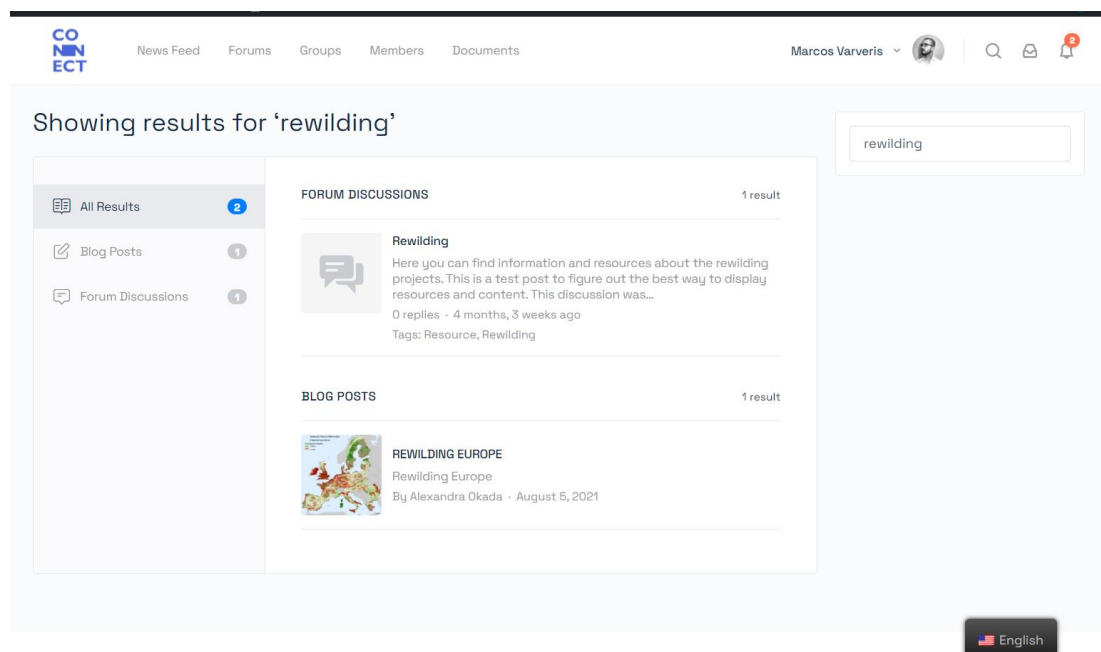

Figure 7 Search results for "Rewilding"

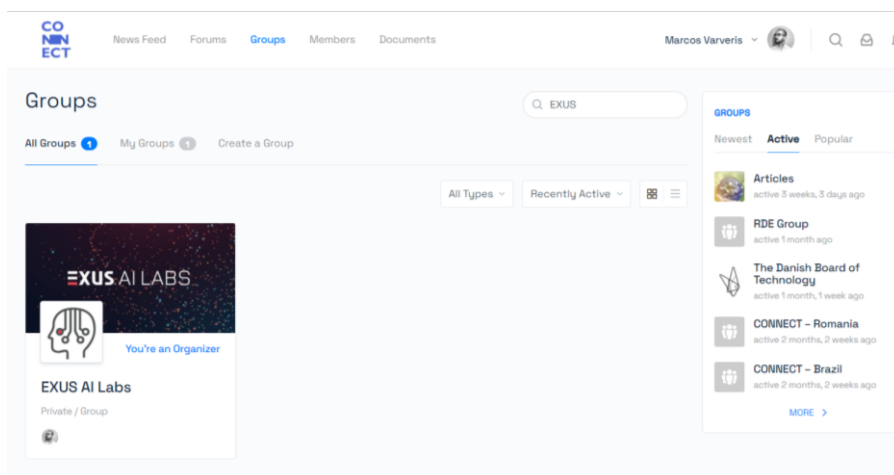Below, groups search results are displayed.

Figure 8 Group results for ''EXUS''

Search criteria for users are broader than those for groups and the general search bar. They include:

- First Name
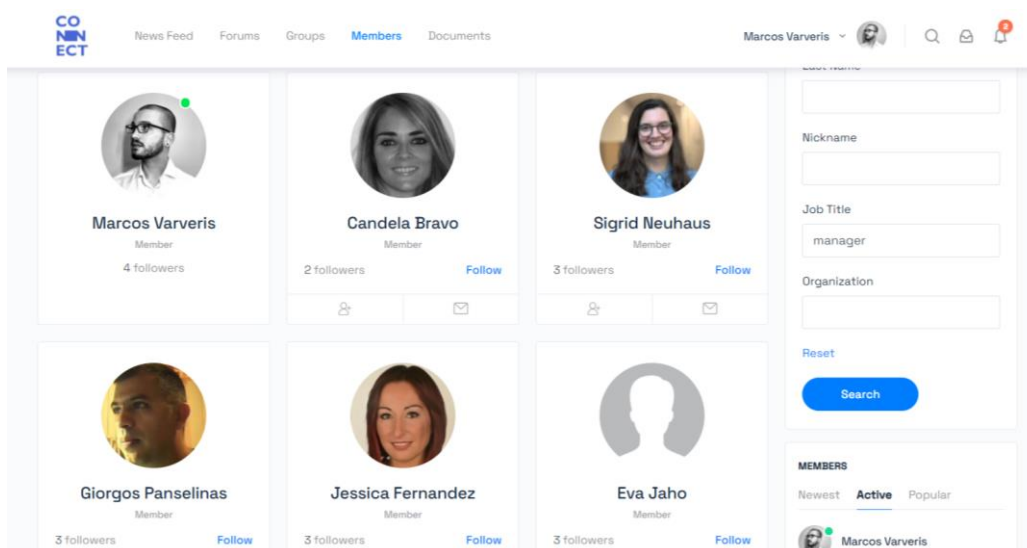- Last Name
- Nickname
- Job Title
- Organization

Figure 9 User profile results for ''Manager''

2.4.1 User requirements relevant to the Database:

User requirement	Explanation
UR01: Accessibility of resources	Different types of resources can be searched, based off titles of category.
UR10: Engaging partnership and project database	Partners and projects can be searched and will appear in a more dynamic form than just a list. Groups can be searched as well.

Table 7 User Requirements - Database

2.5 Resources

There are two main types of resources displayed on the CONNECT platform:

- Science Action Resources (Structured and Unstructured Scenario Resources and Science Action Best Practices)
- General Resources

2.5.1 Science Action Resources

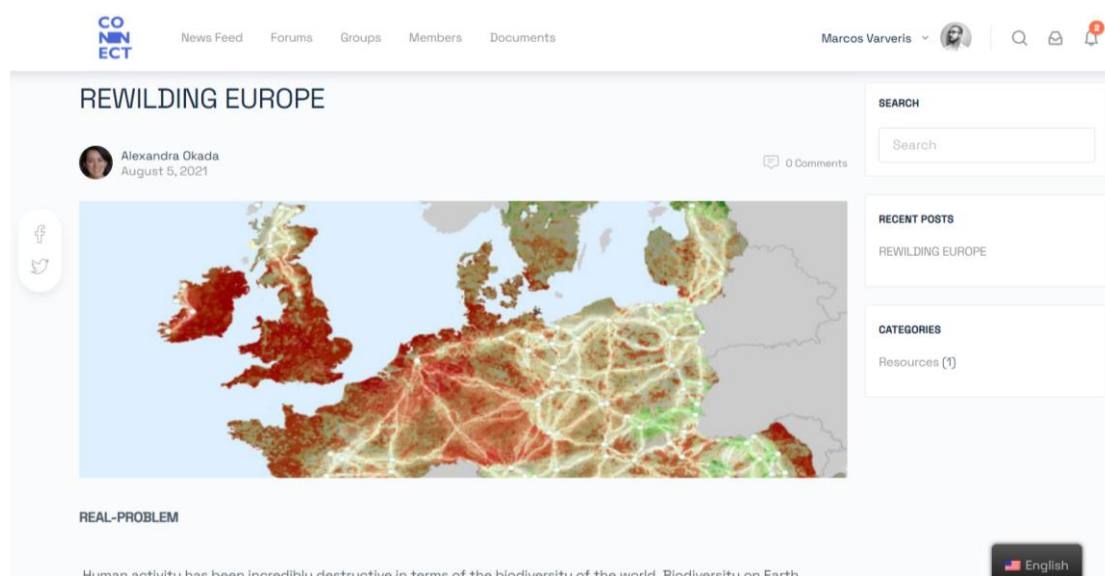An example is shown below of a structured scenario for ''Rewilding in Europe''

Figure 10 Structured Scenario: Rewilding Resource

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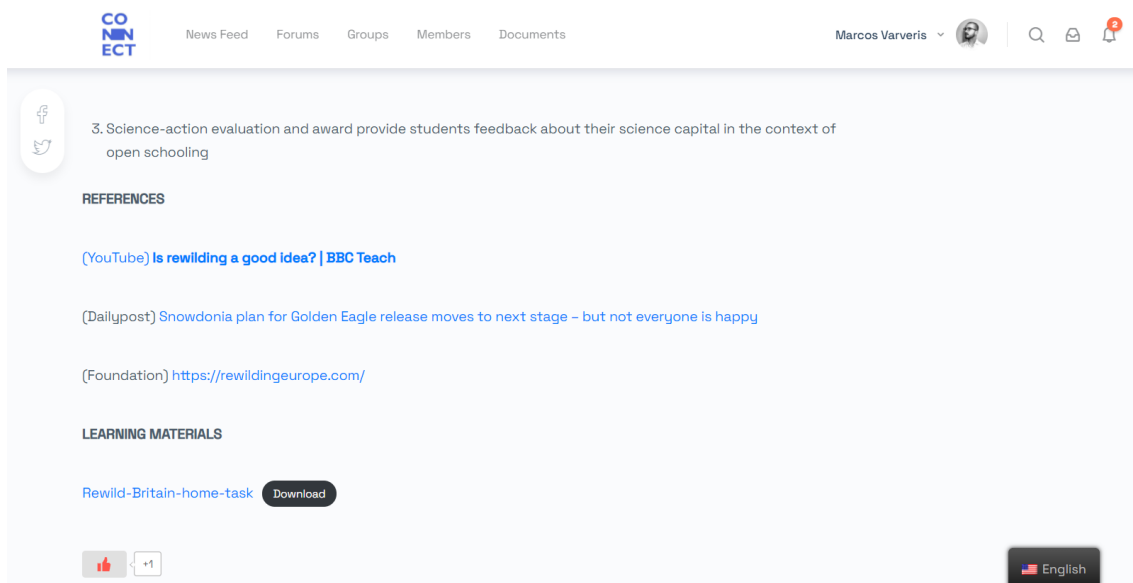
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Figure 11 Structured Scenario: rewilding Resource

The resource contains information about the topic, as well as the relevant resources that can be downloaded for teachers to use with their students. Resources can be commented on and liked (an important metric to measure for evaluation purposes). Below there is a list of what can be included:

- Text
- Images
- Links
- Files to download
- Imbedded Presentations (SlideShare)
- Imbedded videos
- Resource Category
- Tags

The platform is designed so that CONNECT partners (and potential users) can upload their own resources, such as new curriculum material or best practices from successful projects. Instructions to do so will be found in the respective CONNECT Groups. Annex D shows the backend of the resource pages.

2.5.2 General Resources

General resources can be found in the documents section at the top menu, the user profiles and within groups. As mentioned earlier, different resources will have different levels of user access depending on the visibility or group that it was uploaded in. Public resources can be viewed by all and will include open scenario materials, generic coaching materials, etc. Group resources may have restricted

access to members within the group and be specific only to that group, such as coaching material made specifically for a certain country.
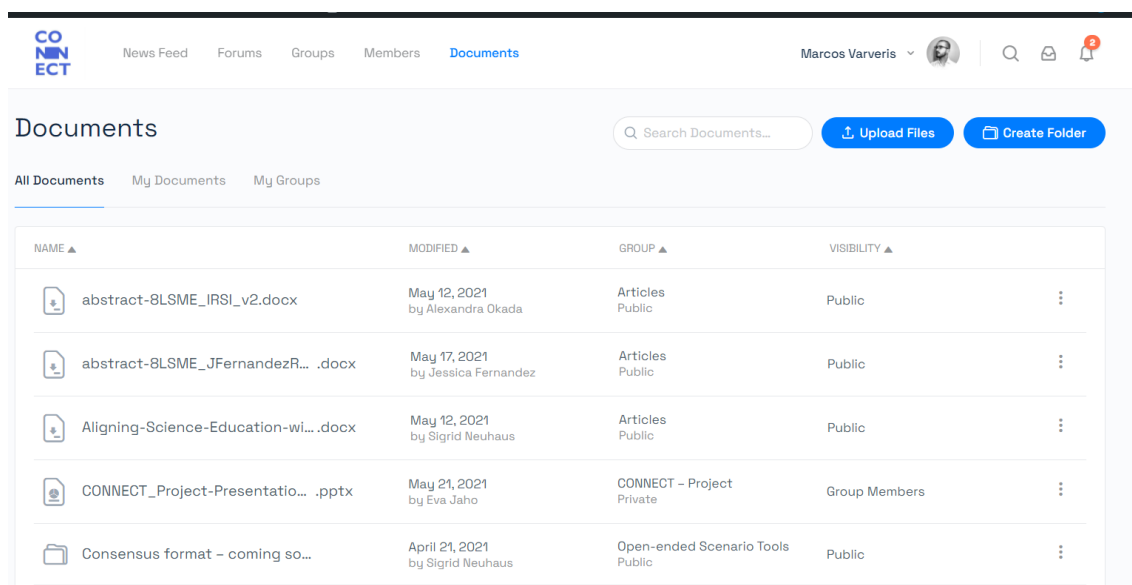

Figure 12 Resources on a user profile

2.5.3 User requirements relevant to the Resources:

User requirement	Explanation
UR01: Accessibility of resources	Different types of resources can be searched, based off titles of category.
UR02: Content Management	The various resources sections on the user profiles, groups and on the public space will allow for users to store, search, use and download resources.
UR10: Engaging partnership and project database	Partners and projects can be searched and will appear in a more dynamic form than just a list.

Table 8 User requirements - Resources

2.6 Analytics Engine

The Analytics engine has been developed to measure different metrics on the platform and display them, in a readable manner. This will be made accessible to platform users but will also facilitate activities of WP6, which are related to sustainable evaluation of the CONNECT Open Schooling activities. Currently, the

engine will go through a brief evaluation period to assess whether it can sustain larger volumes of data that will be created by onboarding more users, as well as how it meets the requirements of the project. Based on user feedback, different parameters can be measured. Currently, the analytics display the following information:

- Timeline based on user registration date
- Top Posters
- Top Commented posts
- Published posts
- Users
- Timeline based on number of comments
- Top 6 groups of users (roles)
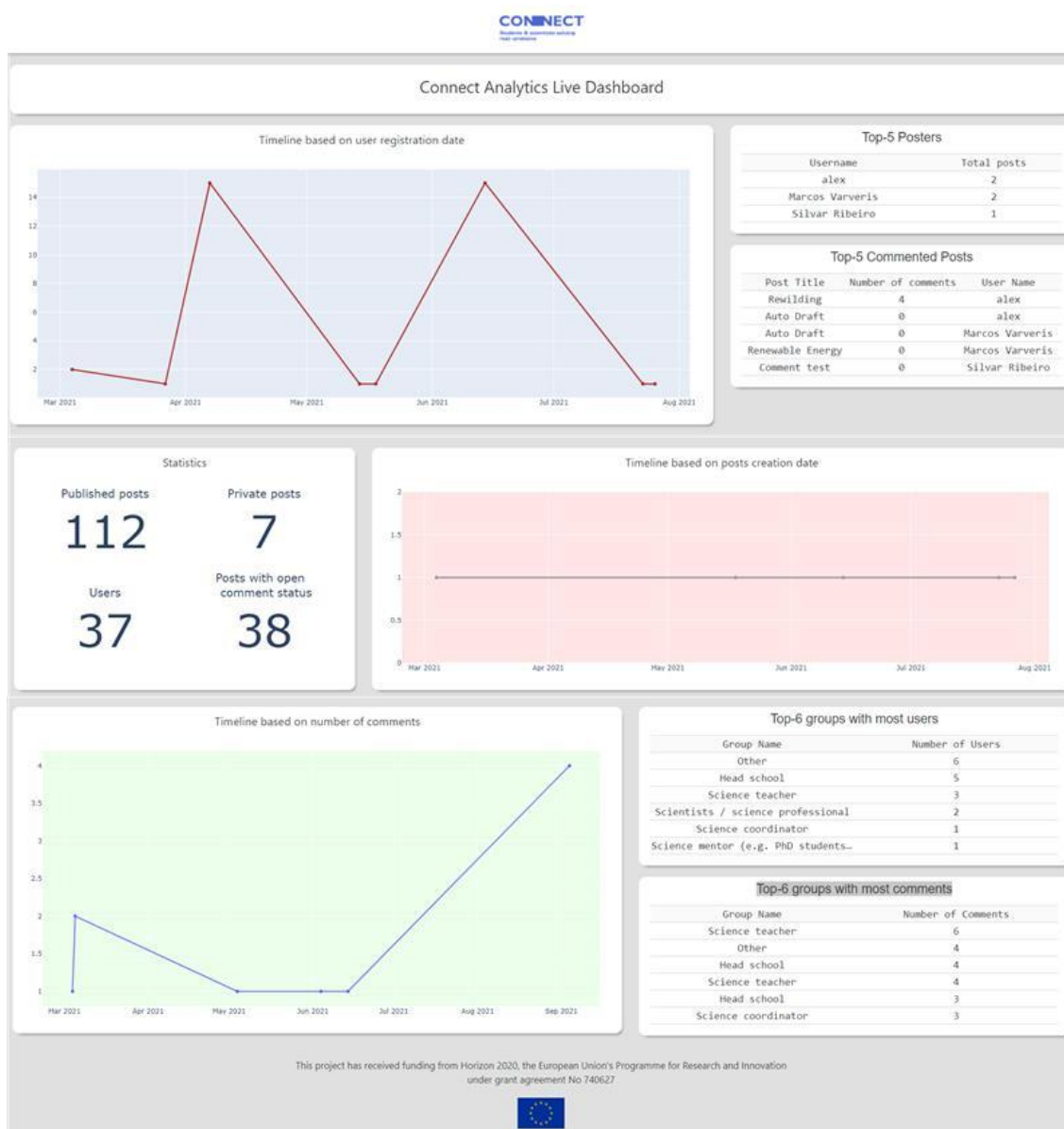- Top 6 groups of users (roles) with most comments

Figure 13 CONNECT Analytics Engine

2.6.1 User requirements relevant to Analytics Engine

User requirement	Explanation
UR12: Measuring Engagement	Engagement can be measured based off of levels of downloads and likes of Science Action Resources, and interactions on the platform.
UR:13 Reward and display performance:	Performance metrics such as levels of engagement between users and use of resources may be displayed.

Table 9 User Requirements - Analytics Engine

3. Current State and Future actions

3.1 Current state

The platform is currently hosted in EXUS servers **connect-eu.exus.co.uk** and is publicly viewable

3.2 Future actions

Currently, the platform stands at its 1st official version. In M24, the platform will be released at its final version in D3.4 ''CONNECT online platform final improvement''. Till this time, constant feedback will be gathered regarding the platform functionalities and its performance will be unofficially evaluated to help with development efforts.

1. **CONNECT platform workshop:** A workshop will be held at the end of M15 or beginning of M16 to asses the current performance of the platform.
2. **Feedback and improvements:** After the first workshop, two feedback sessions are foreseen, in which partners can provide comments over their experience using the platform. User comments will be consolidated and corresponding requirements will be implemented into the platform.
3. **Future workshops:** Future workshops will be planned to gain further feedback on the platform. It is foreseen that there could also be sessions planned around future plenary and User Advisory Board (UAB) meeting.

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4. Conclusion

This report accompanies the demonstrator deliverable D3.3, which is the official launch of the CONNECT platform. The appropriate technologies have been used to meet the demands of the project. An overview is provided of the various modules and areas of the platforms, the functionalities they provide and the user requirements they address.

Future actions involve implementing feedback from partners and users as the platform runs. This will be used to support development actions for the final iteration of the platform.

Annexes

Annex A – User requirements

ID URNo	Name	User Need	Source ID
UR01	Accessibility of resources	Resources must be available for users to view, download and use. This includes Science action materials, Open Scenario tools and Coach Resources. Certain resources will only be available to certain users based on their respective organizations and level of user access. Moreover, said resources must have demonstrations available on the website.	**UR_DOW_1**
UR02	Content Management	Users must be able to manage digital content on the platform (text, videos, images, PDFs). The management of said content includes the storing, searching, retrieving, sharing and downloading content	**UR_DOW_2**
UR03	Fostering communication	Users must be able to communicate and engage with each other	**UR_DOW_3**
UR04	Support of multiple users and languages	The platform must support multiple users in multiple languages	**UR_DOW_4**
UR05	Publicizing material	Users must be able to publicise different materials (Science action resources, case studies, evaluation	**UR_DOW_5**

		evidence and policy recommendations)	
UR06	News and events	Users must be able to view news and events related to the community which can be linked to their calendar	**UR_DOW_6**
UR07	Secure login	There must be secure login capabilities that supports a large number of users	**UR_DOW_7**
UR08	User Management	The platform must be able to support different levels of users and access on the platform. This does not refer restricting access of capabilities and functionalities but rather allowing an organization or user to make certain information or material private (accessible to themselves and their organization only) and publicly accessible (accessible to all on the platform)	**UR_DOW_8**
UR09	Parent organization	Users must be able to register their profile under a ''parent organization if they choose to (Schools for teachers and respective organization for partners). This is to provide representation for the respective organization and to help them sort their various users and resources	**UR_WSM_1**
UR10	Engaging partnership	The partner and project database or means of finding	**UR_WSM_2**

	and project database	partners and projects should be more engaging than a simple list	
UR11	User profiles	Users must have a profile that displays key information about them and their activity on the platform	**UR_WSM_3**
UR12	Measuring Engagement	It must be possible to measure (in a quantitative manner) engagement on the platform in terms of interactions between users, use of resources and the progression of the educational projects	**UR_WSM_4**
UR13	Reward and display performance	Users must be able to reward and display good performance practices.	**UR_WSM_5**

Table 10 User requirements

Annex B – Signup Window

Figure 14 Registration window

Annex C – Login Window

Figure 15 Login window

Annex D – WordPress Backend

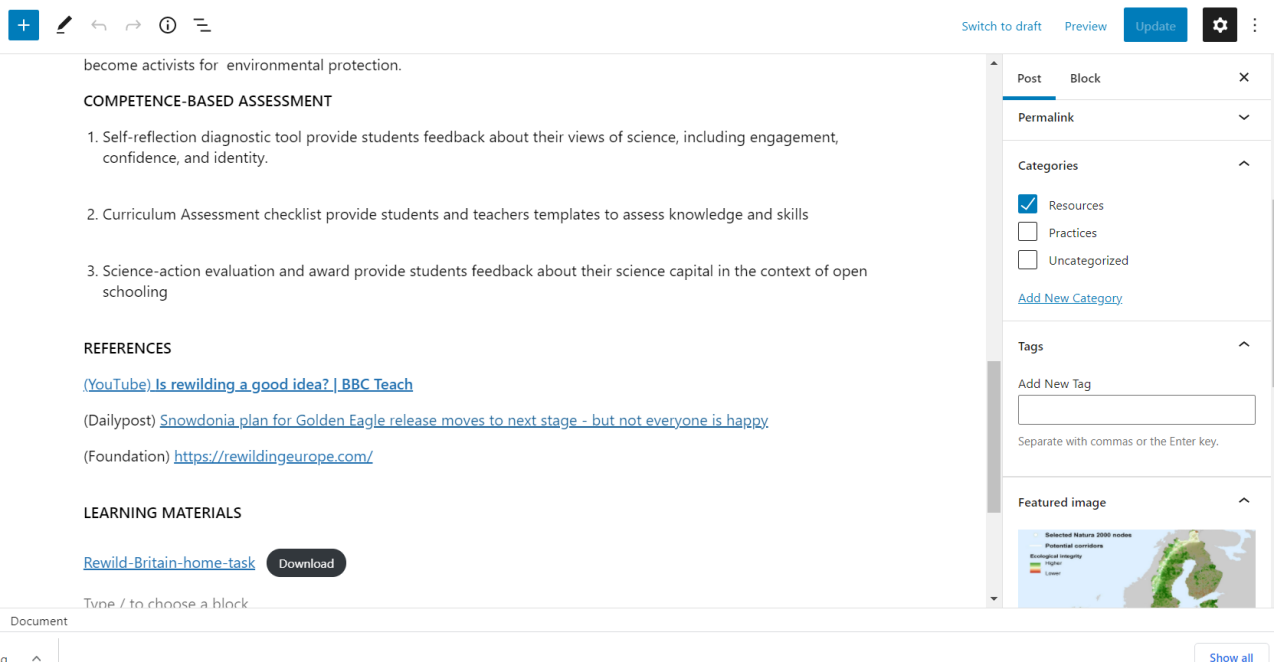*Figure 16 Resources backend: Post*

Figure 17 WordPress Backend: Post and Block Editor

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