

**EELISA**

**European University**

## **USER GUIDE**

# **EELISA INNOCORE RESEARCH NETWORKING PLATFORM EINP**

**Date: September 2023**

<https://community.eelisa.eu/research-network/>



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101035811

## Main pillars of the EINP

The EINP has the opportunity to support additional collaborations within and across partners with three main objectives:

1. to facilitate the exchange between academics and researchers within the EElisa alliance by connecting individuals with similar research interests;
2. to collect research interests within the EElisa alliance in a structured and continuous manner in order to understand which are the main research topics to focus on in the coming years;
3. to create research clusters, connecting universities and research groups in order to identify future trajectories for possible new international research projects and facilitate the creation of new opportunities.

## Main characteristics of the EINP

EELISA innoCORE Networking Platform has the following characteristics:

- web-based application, with javascript as a language a MySQL database schema;
- researcher user database and authentication system (SSO) integrated via API from other application developed by (FAU);
- the research idea entered by the researcher is characterised by 'title', 'abstract' (descriptive) and a set of labels that 'classify' the proposed project;
- creation of a controlled dictionary for label management by administrators of the system administrators;
- design and implementation of an algorithm for identifying similar projects with the possibility of different levels (scores) of similarity;
- as soon as the system identifies a similarity match between projects, it sends a notice (e.g. by e-mail) to the proposers to give them the opportunity to establish contact;
- researchers receive alerts, consult the projects identified as "similar" and decide to accept/reject the contact;
- researchers using the platform can decide, for privacy reasons, what data to share beyond the minimum set with the platform users, both in terms of personal data and in terms of the projects;
- production of reports on the data in the system (e.g. number of researchers registered, number of projects, number of matches, number of ok / ko acceptance matches, description analysis of main research issues, etc.);
- quantitative and qualitative analysis function on the match algorithms used, based e.g. on the number of ok / ko acceptance matches;
- clustering algorithm refinement, also based on the use of free – keywords.

## Functioning of the platform

### Collection of research project (data entry function)

With the user ID, every researchers can upload the detail information about his/her research field and interest considering a list of input variables, some with prefixed labels, and some with free text.

### RESEARCH PROFILE

- Personal information of the researcher proposing the research project. It includes compulsory entries (Name, Surname, Institutional affiliation, e-mail address) and facultative entries (statement of research interest, link to personal website and/or to laboratories/infrastructures the researcher works within).



## ADD PROJECT

- Research project information. It includes compulsory entries (title of the project, a short (<1000 characters) abstract of the project (without acronyms), the action the researcher is proposing, the strategic research area (SRA) and the sustainable development goal (SDG) that are more affine to the project, ERC and free keywords) and facultative entries (any available laboratory/infrastructure that could be useful for the project, any possible already existing EELISA Community that is related to the project).

The Figure 1 shows the webpage related to inputs information related to a project. A researcher can upload more than one research project.



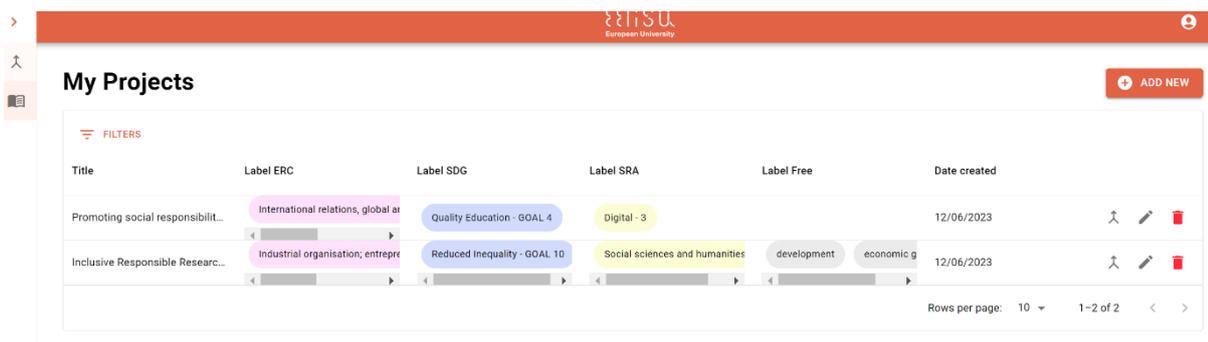
The screenshot shows the 'Add Project' form on the EELISA platform. The form is titled 'Add Project' and is located under the 'My Projects / Add Project' navigation. It contains several input fields: 'Title\*', 'Abstract\*' (with a rich text editor), 'Action proposed\*', 'Labels SRA\*', 'Labels SDG\*', 'Labels ERC\*' (with a dropdown menu), and 'Free keywords'. At the bottom of the form, there are 'SAVE' and 'CANCEL' buttons.

Figure 1 - Screenshot on how to add a project on the platform

Once the user has entered all their projects, the 'my project' section updates to show the list of projects entered. Figure 2 shows the projects entered

For each project, the user can see in the menu bar the main details on title, ERC, SDGs SRAs, EELISA Communities, free label and data creation. Eventually, the "filters" function can help the user to find a specific project using the title as filter.

## MY PROJECTS



The screenshot shows the 'My Projects' section on the EELISA platform. It features a table with the following columns: Title, Label ERC, Label SDG, Label SRA, Label Free, and Date created. There are two projects listed:

Title	Label ERC	Label SDG	Label SRA	Label Free	Date created
Promoting social responsibilit...	International relations, global ar	Quality Education - GOAL 4	Digital - 3		12/06/2023
Inclusive Responsible Researc...	Industrial organisation; entrepr	Reduced Inequality - GOAL 10	Social sciences and humanities	development economic g	12/06/2023

At the bottom of the table, there is a 'Rows per page' dropdown set to 10 and a pagination indicator '1-2 of 2'.

Figure 2 - Screenshot on List of uploaded projects



## MATCHING FUNCTION

As the platform begins to collect research projects, the matching function becomes meaningful. We discriminate the matching function, calculating the potential match between projects and researchers, and the matching routine, i.e. how often and when the matching function is executed. The aim of this function is to find possible common projects and research areas between several projects and several researchers. In this sense, the function compares the ERC, SRA and SDG labels to check similarities between the projects entered. In particular, the function calculates a score in percentage.

To see what and how many research projects match with our project, the user id can link to the section “Matches”, as shown in the Figure 3.

### Matches

My project	Matched with	Score	Date	Status
Sensing Sciences and Technologies	Comparison of heuristic optimization me...	3%	13/06/2023	Accepted
Sensing Sciences and Technologies	Creation of mobility packages based on ...	3%	13/06/2023	To be reviewed
Sensing Sciences and Technologies	Development of a method for the interco...	3%	13/06/2023	To be reviewed
Sensing Sciences and Technologies	Activity chain optimization with mass da...	3%	13/06/2023	New
Sensing Sciences and Technologies	An extended method for the analysis of ...	3%	13/06/2023	New
Sensing Sciences and Technologies	Creation of a micromobility index for citi...	3%	13/06/2023	New
Sensing Sciences and Technologies	Analysis of travel behaviour and social n...	3%	13/06/2023	New
Sensing Sciences and Technologies	Narrative CV	3%	13/06/2023	New
Sensing Sciences and Technologies	Ecosystem performances assessment of...	3%	13/06/2023	New
Sensing Sciences and Technologies	Development of an artificial intraurethral ...	3%	13/06/2023	New

Figure 3 - Screenshot on possible matching for a project with details on score and status

For each research project the user can see on the bar the matched projects, the score and the status. Moreover, there is also the possibility to see the details of each of the matched project. Figure shows the matched projects with a score of 3% that consider only the label on SDGs, goal 11.

The user receives a mail for each proposed matched project, with the basic information and the invitation to check his/her section of possible matches to accept or reject proposals. The user can read and compare details of each research project and decide to: 1. Accept the match (I accept) 2. Not accept the match (I am not interested). The status of each research project change depending on the users' actions, as show in Table .

Table 1 - Research project status

Matches	User 1 (RP A)	User 2 (RP B)	Status
RP A and RP B	No action	No action	New
RP A and RP B	Accepted	No Action	To be review
RP A and RP B	No Action	Accepted	To be review
RP A and RP B	Accepted	Accepted	Confirmed

If both researchers accept the matching an email with an alert will be send and the researchers will have the contact details to start a possible collaboration.

