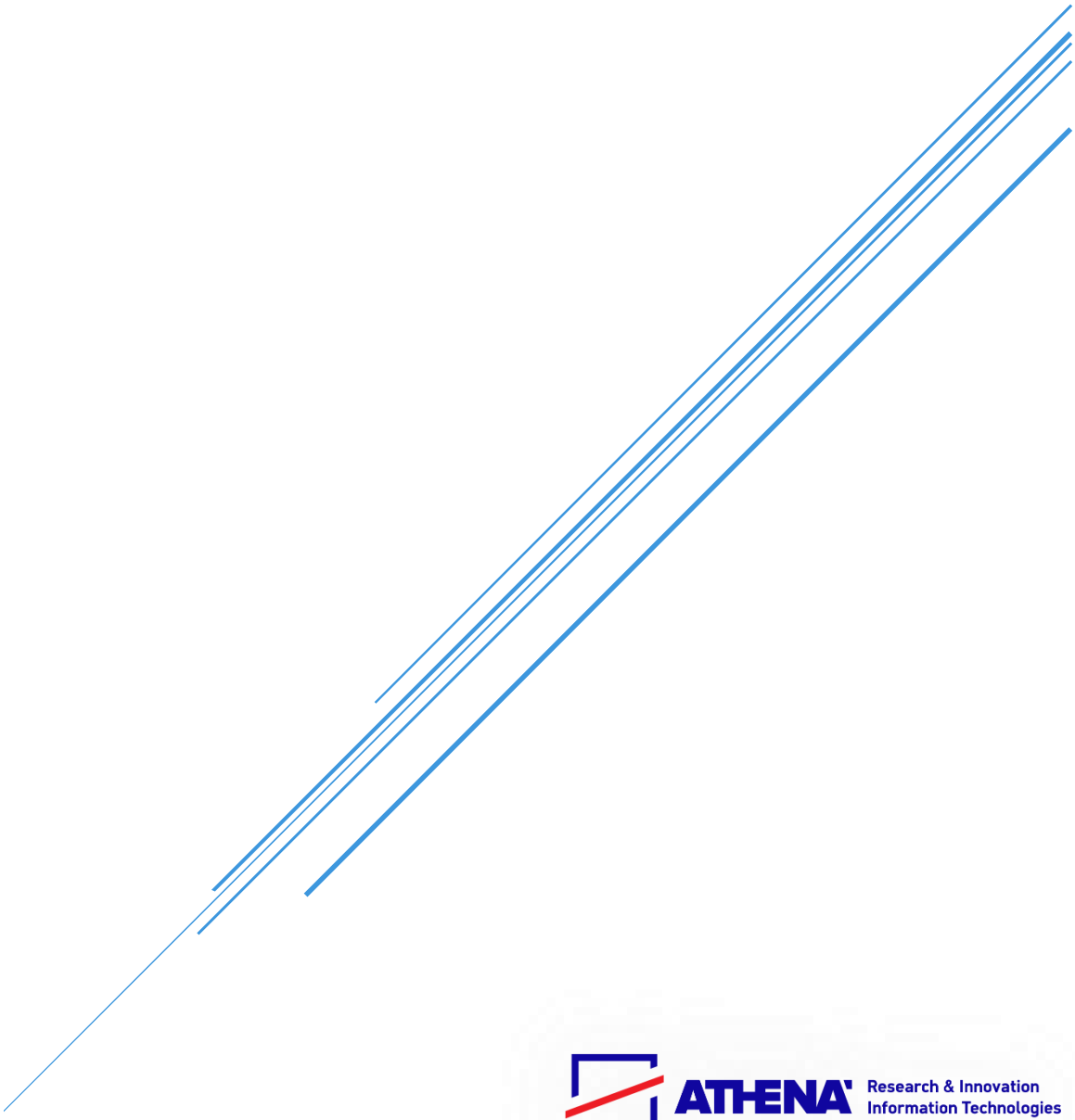
LIVING LAB MODELER

User Manual

Version 1.0



ATHENA Research & Innovation Information Technologies

About Living Lab Modeler

Living Lab Modeler - LLM is a tool that aims to facilitate and organize the operation of participatory processes. Participatory processes and more specifically Living Labs (LLs) are a very widespread method for identifying problems and work on solutions.

LLM offers a digital representation of a Living Lab. It visualizes the available information and automatically produces assessments based on the information provided. It thereby facilitates the exchange of information and cooperation between participants, the dissemination of the results of the LL to external bodies, streamlines processes, and supports the coordinators of the LL in their operation facilitating the achievement of its objectives.

Living Lab Modeler is being developed by ATHENA RC as part of the DESIRA H2020 project.

Contents

Context

Living Lab Modeler is a web application for digitally creating a Living Lab with the aim to leverage and support its activities.

Every user can create his own Living Lab through the application and evolve its information and material in parallel with the LL's activities. Each Living Lab is assigned to its creator, who can manage its members and roles and has two main statuses:

- *Published or Unpublished*: Initially the LL is unpublished and not accessible to other users, either members of it or not. When the minimum set of information is filled in the creator has the option to publish it and make it available to the users.
- *Private or Public*. Each LL is private by default and when published only the members of it can view its information. When set to 'Public', it becomes available to guest users also.

The application is available to both guest and authenticated users. For users to become members of a LL, authentication is required. The application supports authentication using as external providers: Google and OpenAIRE AAI.

Usage

The application provides a straightforward way for users to login and create a digital representation of their Living Lab. A set of minimal fields are required to be filled in before a LL can be published, while the rest of information can be filled in at a later stage and whenever they become available.

Guest users can visit the application and access all the public LLs and view their information.

APP URL

https://livinglabmodeler.eu

LLM landing page

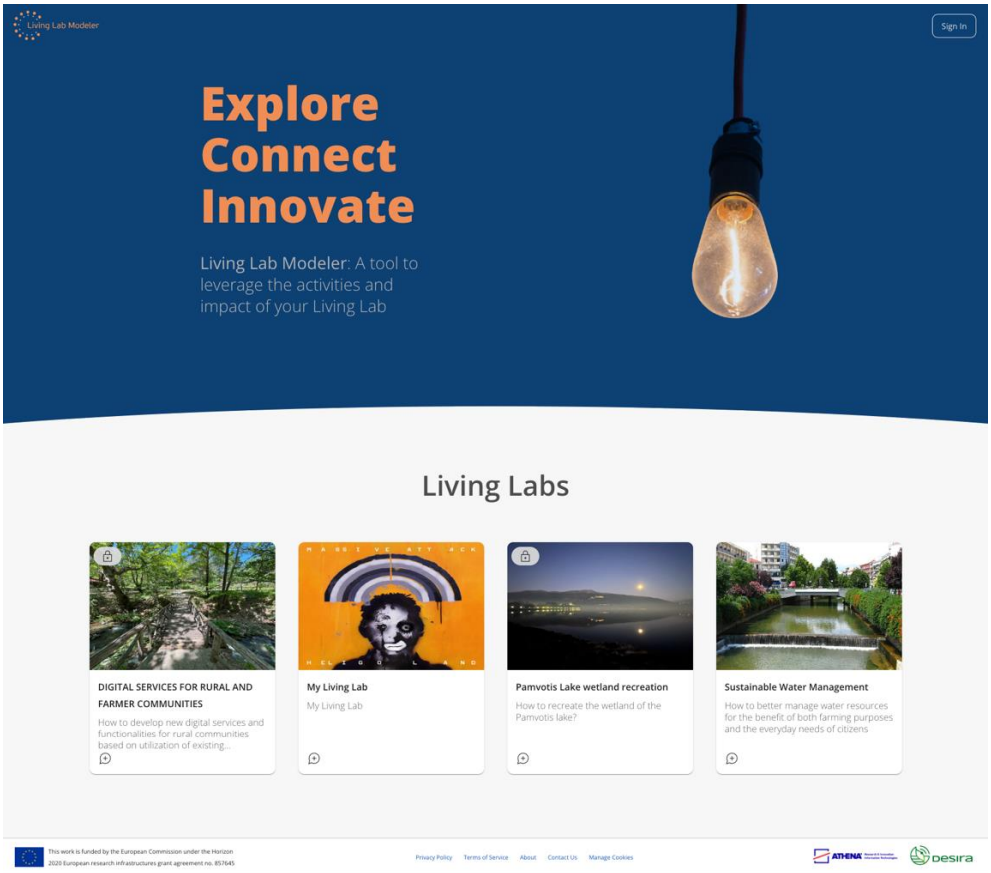


Figure 1 LLM landing page.

This is where the user lands and can view all the published LLs. Public LLs are clickable, and the guest user can navigate further and view all their available information, while the private ones are indicated by a "lock" icon on the top left and the guest users can only request to join and become a member of these LLs by clicking on the "+" icon at the bottom left.

Login

Users may choose to login for creating their own LL, be able to request to join a private LL and view the LLs in which they are members. LLM uses an AAI mechanism provided by OpenAIRE that authenticates pre-registered users utilizing their academic, Google, Facebook or GitHub accounts and it additionally exploits Google's single authentication mechanism.

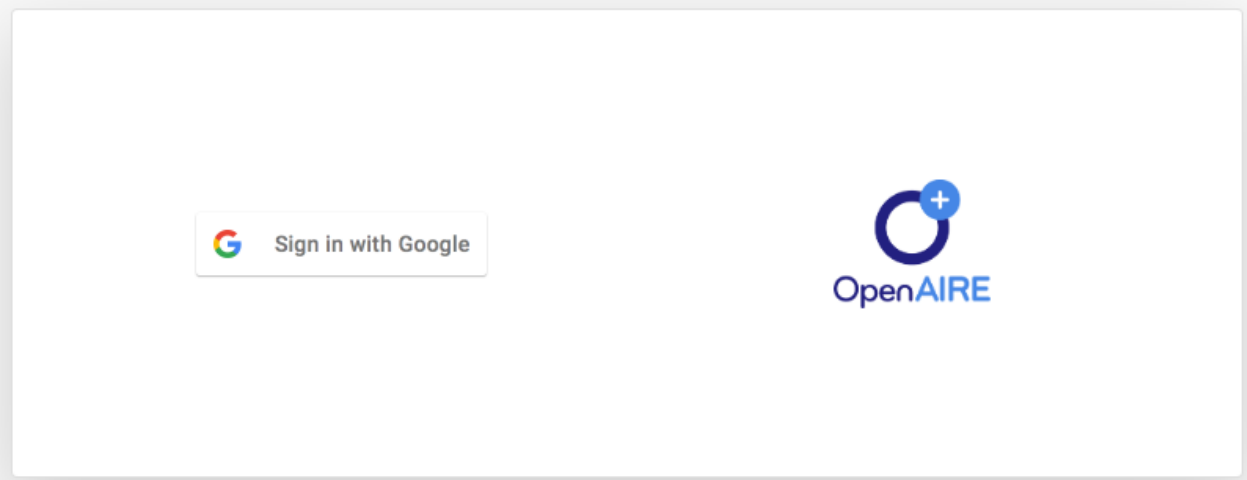


Figure 2 Login options

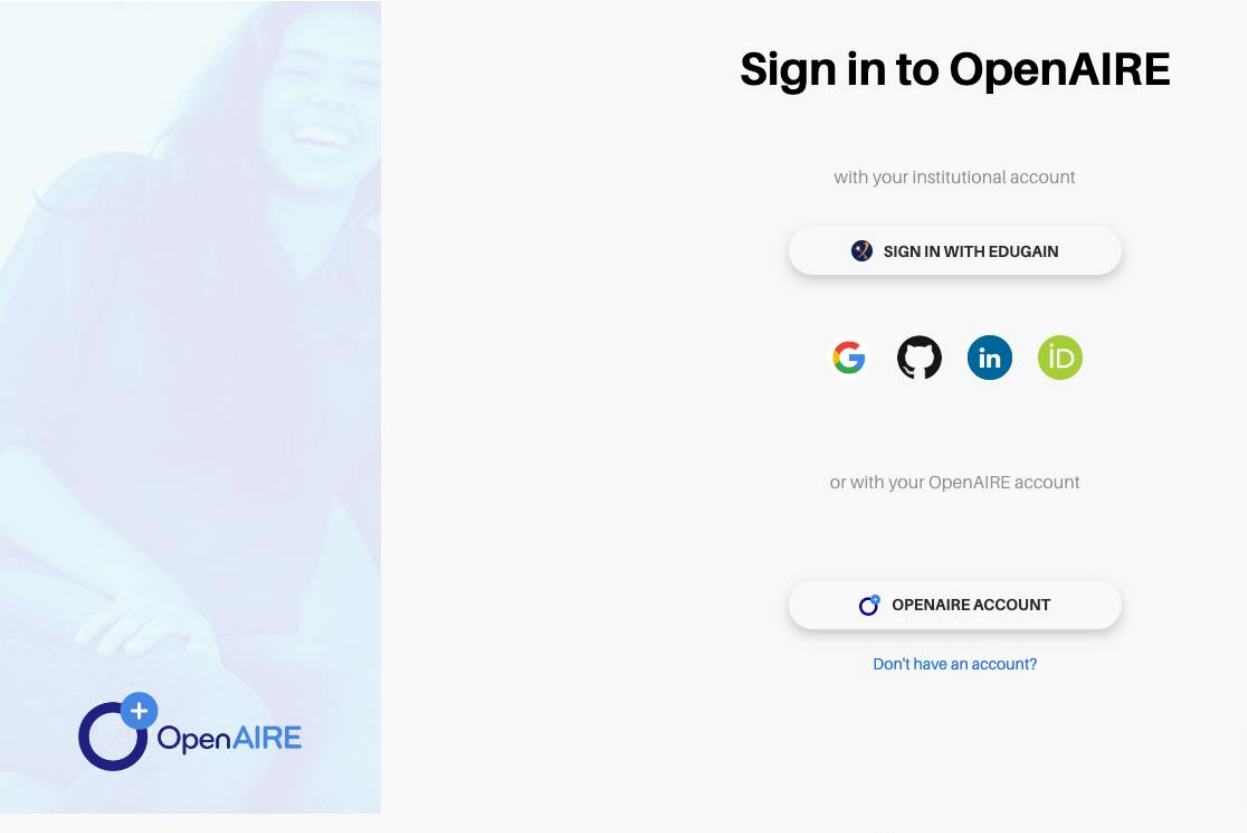


Figure 3 Sign in using Open AIRE's AAI

Dashboard

After the user is authenticated, he/she is redirected to the Dashboard page. The dashboard contains a button for start organizing a new Living Lab. The left menu provides access to the rest of the available pages including:

- My Profile: Contains user's profile information.
- Organize a Living Lab: Organize a new Living Lab.
- My Living Labs: Living Labs user owns or is a member of.
- All Living Labs: Application's available Living Labs.

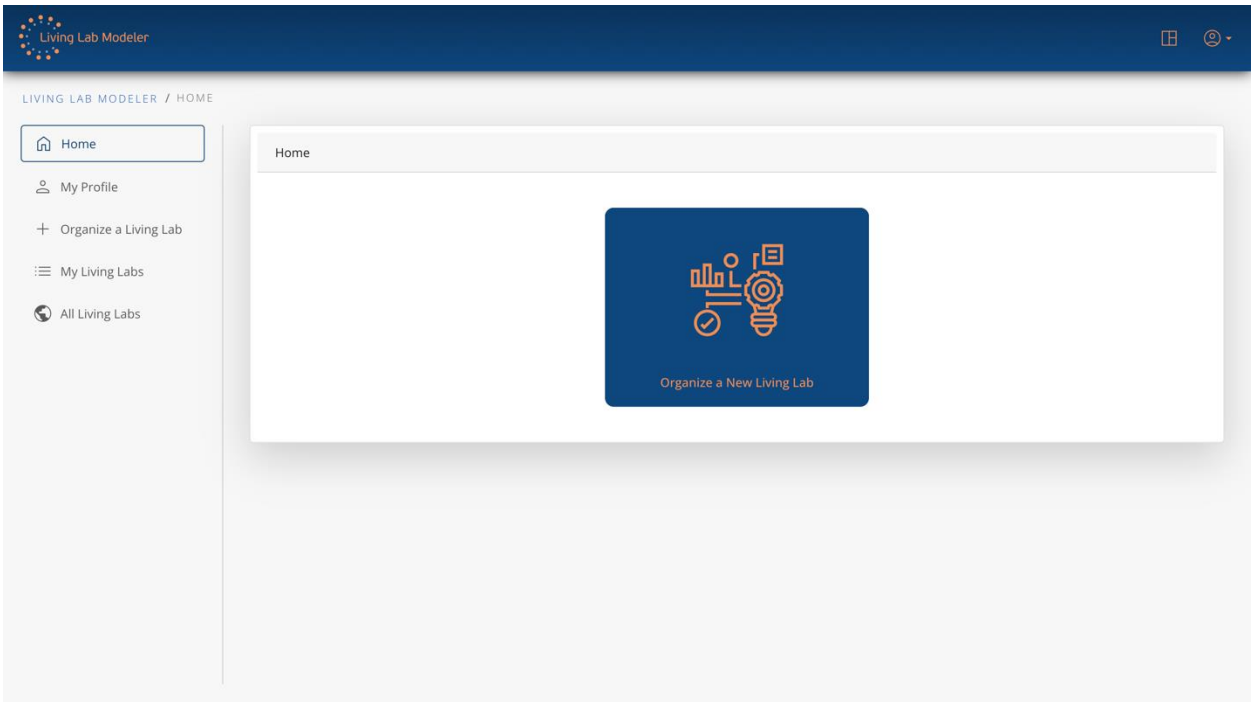


Figure 4 LLM Dashboard page

Organize a Living Lab

The main functionality of the LLM application is to create a digital representation of a Living Lab. To do this, users should visit the "Organize a Living Lab" page and start filling in the required information. To streamline this process, the information is split in different tabs and the user can start filling in any field.

Important Notes

- After every change you must click on the “Save” button on the top right to persist your changes.

- When the minimum set of mandatory fields are filled-in the “Published” toggle button is enabled and you can select to “Publish” this LL and thus make it available to the public. This option will disclose the LL’s information and will enable users to request to become a member of it, depending on its visibility status.

- To change the visibility of your Living Lab you should click on the “Public” toggle button. A public LL is open to guest users, while a private LL is open to its members only.

- General tab
  - Title: The title of your Living Lab.
  - Focal question: The main question this Living Lab is addressing.
  - Description: A textual description of your Living Lab.
  - Location: The location of the Living Lab. There are 3 options to enter the location of your Living Lab.
    1. Pin it on the map.
    2. Start typing and select any of the suggestions.
    3. Type your own text.
  - Main photo: Upload a photo that represents your Living Lab and will be used as its cover photo.

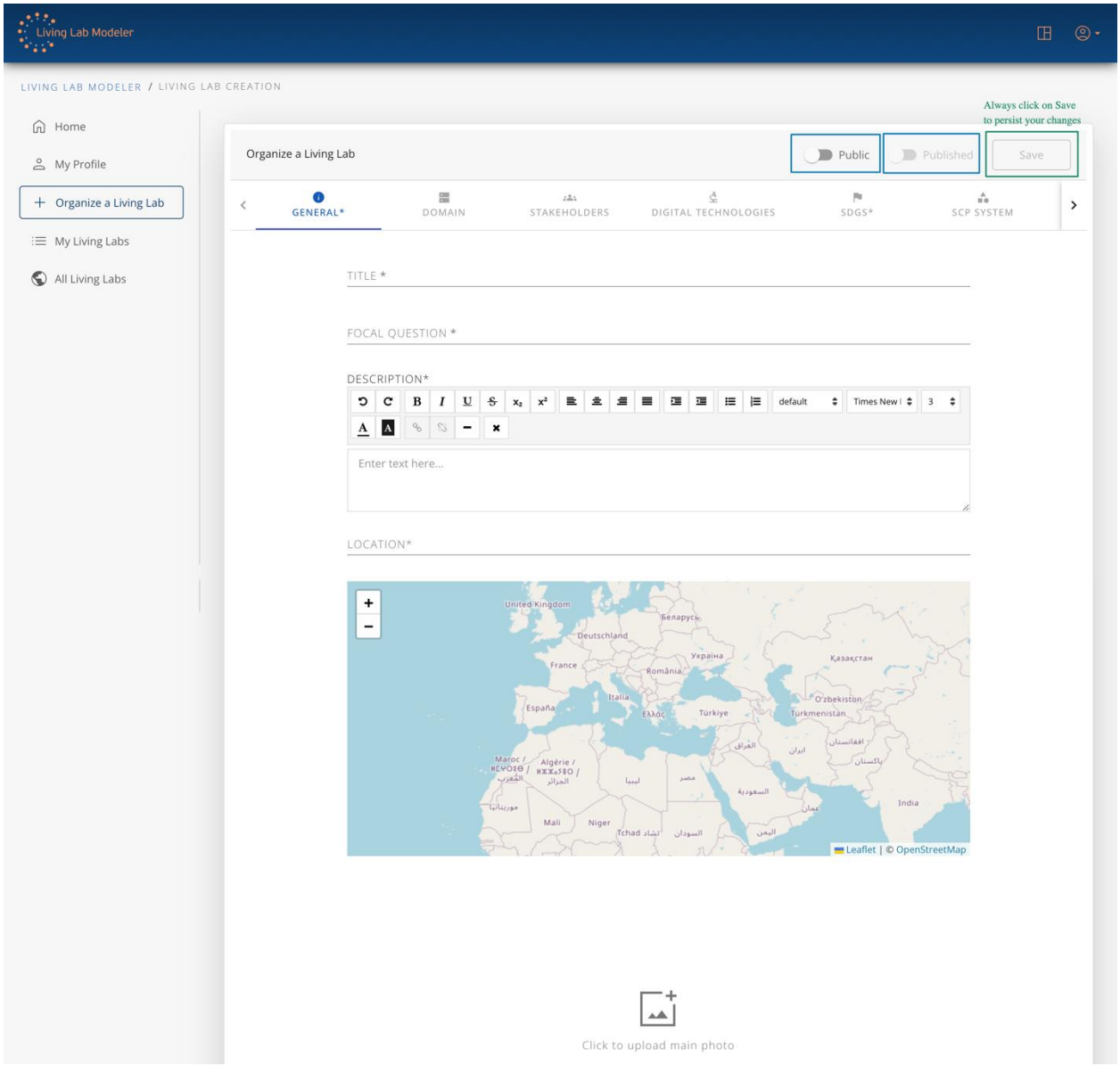


Figure 5 LLM General tab

- Domain tab:
  This tab features the main classification used in the DESIRA project: Domain -> Sub-domain -> Application Scenario.

The user can select any of the options that describe his/her Living Lab.

The main domains are:

  - Agriculture
  - Forestry
  - Rural Areas

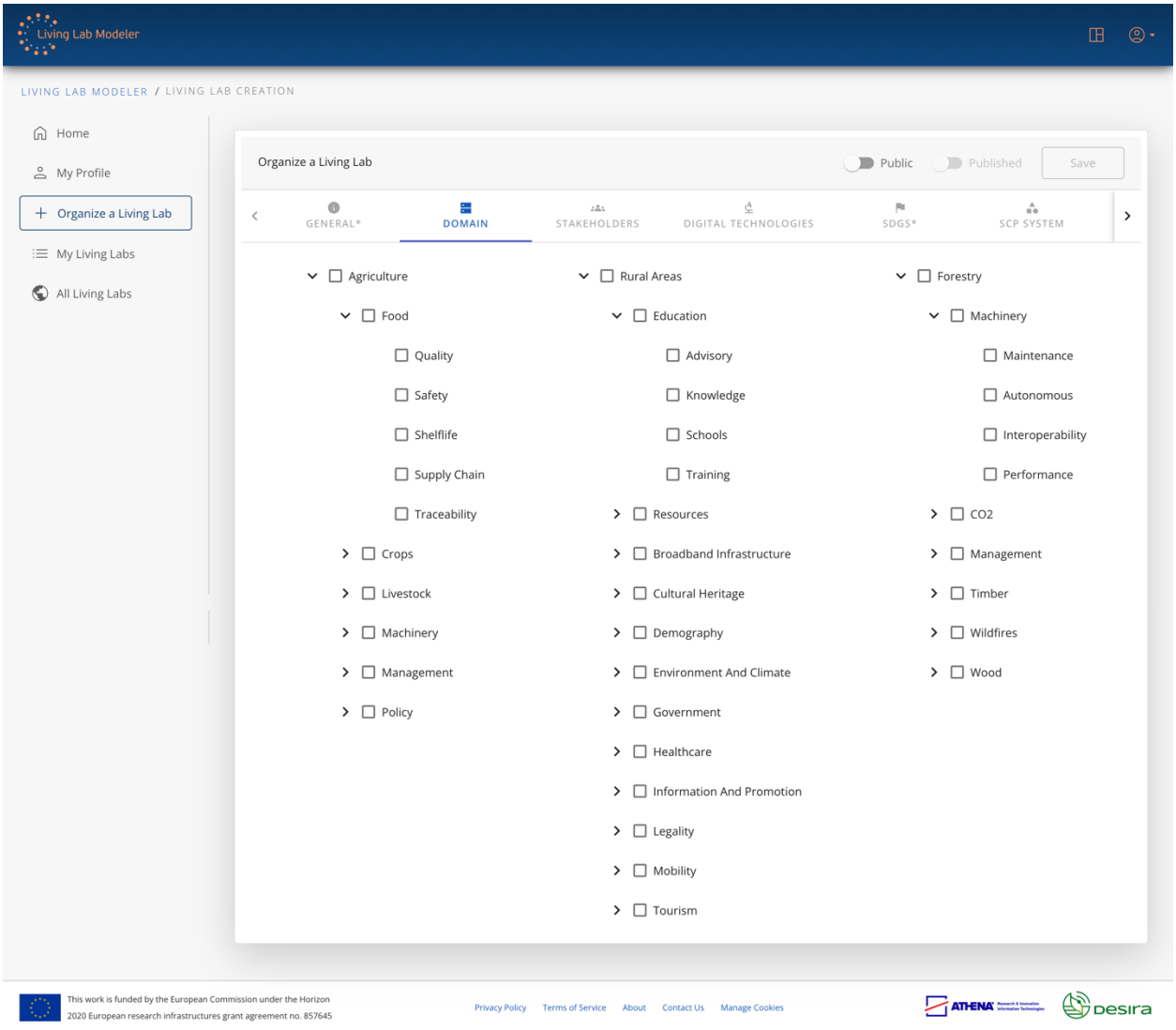


Figure 6 Domain tab & domain options display

- Stakeholders tab:
  In this tab the user can add all the stakeholders that are involved in the Living Lab. Two categories of stakeholders are available:
  - Main Stakeholder
  - Contributor

  Each stakeholder entry requires a name, a description, and the selection of type. LLM contains a global list of stakeholder types which are suggested when the user starts typing, providing the option to either select one of the suggested types or allowing the user to add the type of his/her preference.

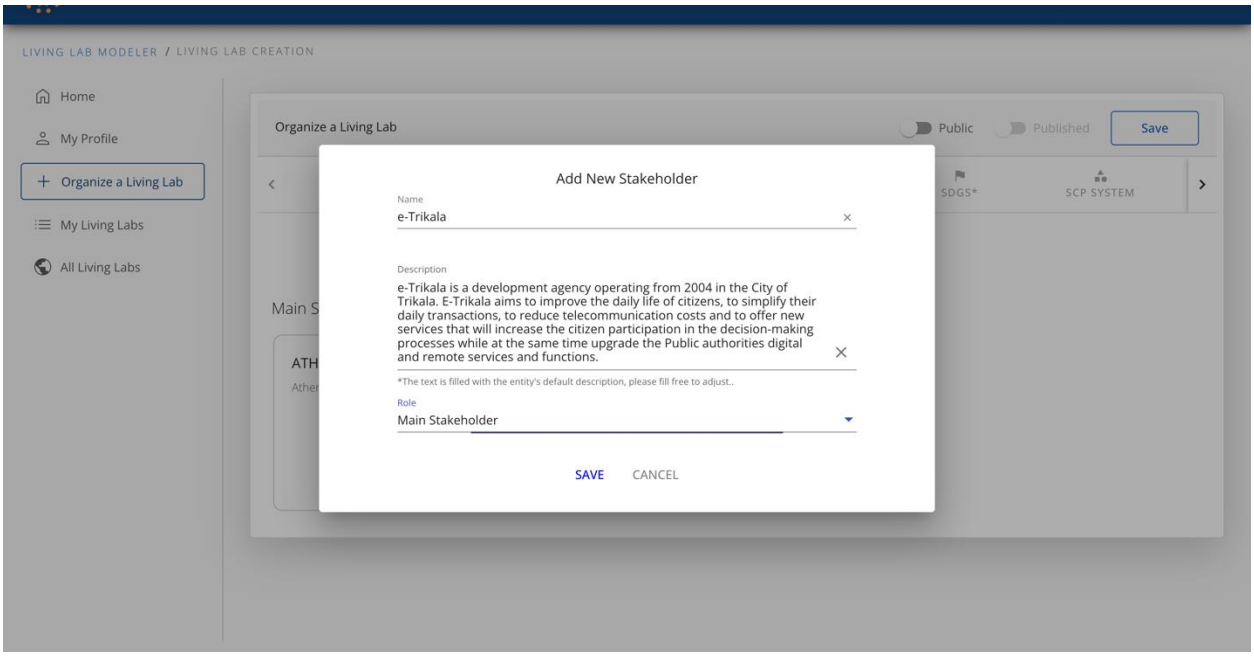


Figure 7 LL Stakeholders information entry window

- Digital Technologies tab:
  In this tab the user can select all the Digital Technologies (DT) that are

relevant to the Living Lab in terms of exploitation or being already used. The user can click on a DT to select it, while another click will un-select it.

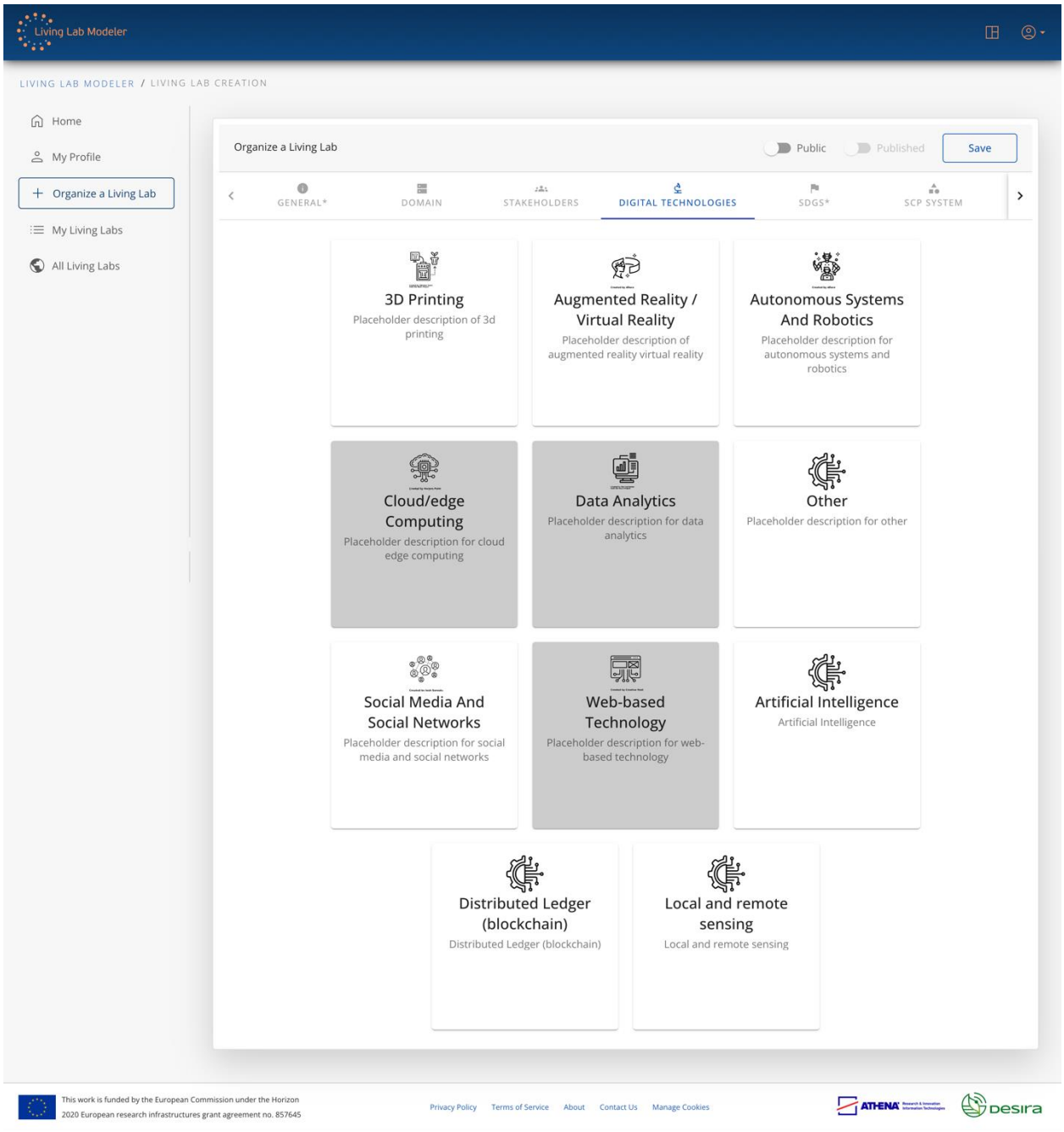


Figure 8 Digital Technologies option selection tab

- SDGs tab
  In this tab the user should select all Sustainable Development Goals (SDGs) that are relevant to the Living Lab. At least one SDG should be selected.
    - When selecting an SDG, the user has the option to add more detailed information about the current and future impact the activities of the Living Lab are having/expected to have In relation with the selected SDG.

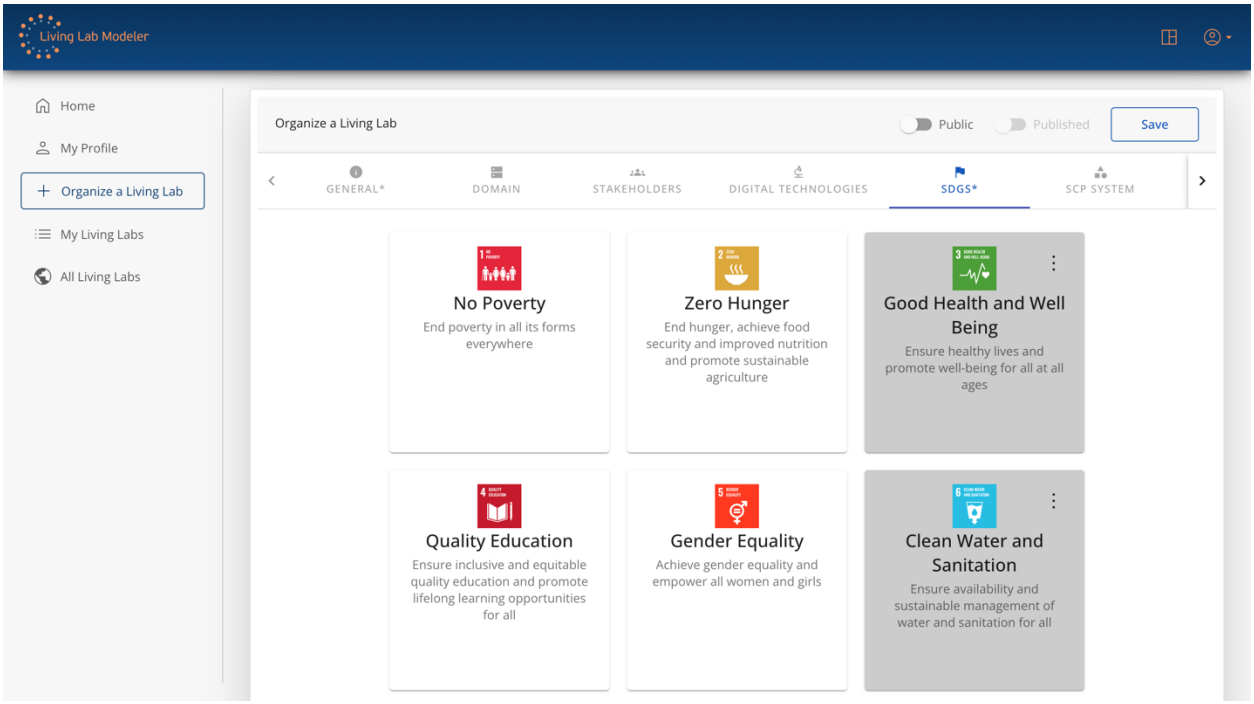


Figure 9 Sustainable Development Goals option selection tab

The picture below, shows the information that could be added when an SDG is selected. Please notice that this is not mandatory, so the user can click on the "CANCEL" button without filling in this information.

Information in this field can be added or edited at a later stage by clicking on the "three dots" button -> edit and the window will be shown.

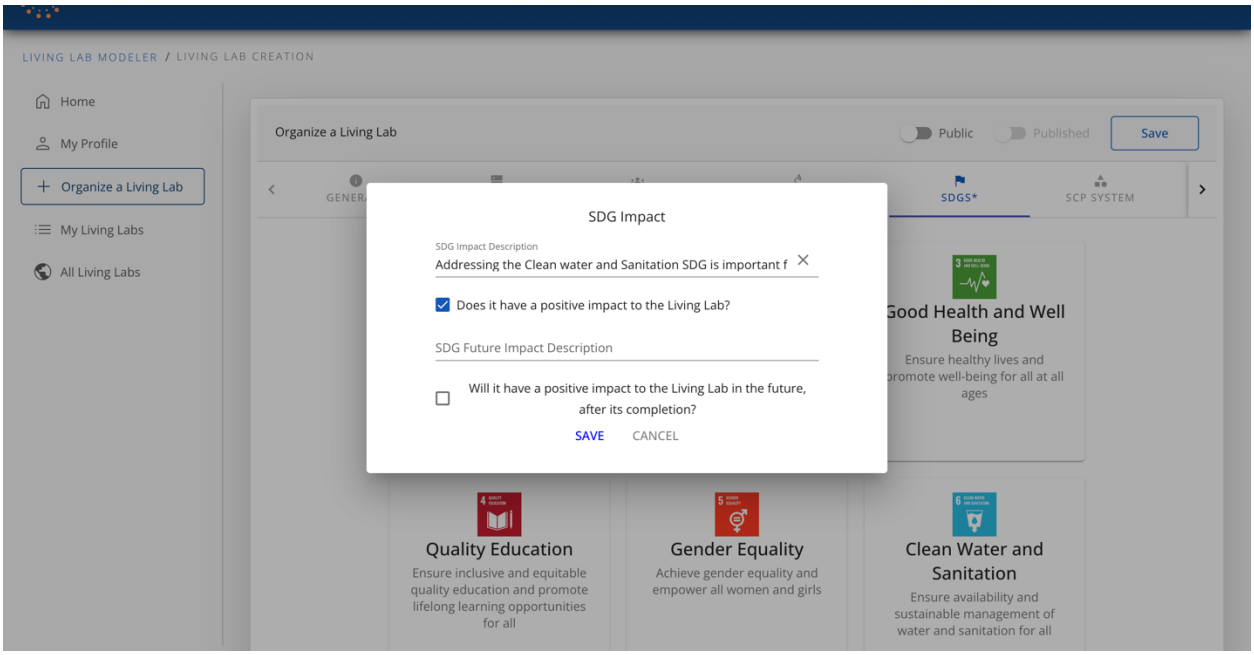


Figure 10 Sustainable Development Goals impact Information entry window

- SCP SYSTEM tab:
  In this tab the user can describe the Socio-Cyber-Physical system of his/her Living Lab.
  Additional information about the SCP system can be found at: https://desira2020.eu/wp-content/uploads/2020/11/Briefing_Socio-Cyber-Physical-Systems.pdf
  - To add a new entity to the SCP, the user should click on the "+" button and the new entity window will be shown as in the figure below:
    1. Add a new entity name or use one of the suggested ones.
    2. Provide a description for the new entity. In case an existing entity is selected, the available description will be loaded, providing the option to edit this description or change it into a new one, that better describes the entity in the context of the Living Lab.
    3. Select the domain of the entity: Social - Cyber – Physical.

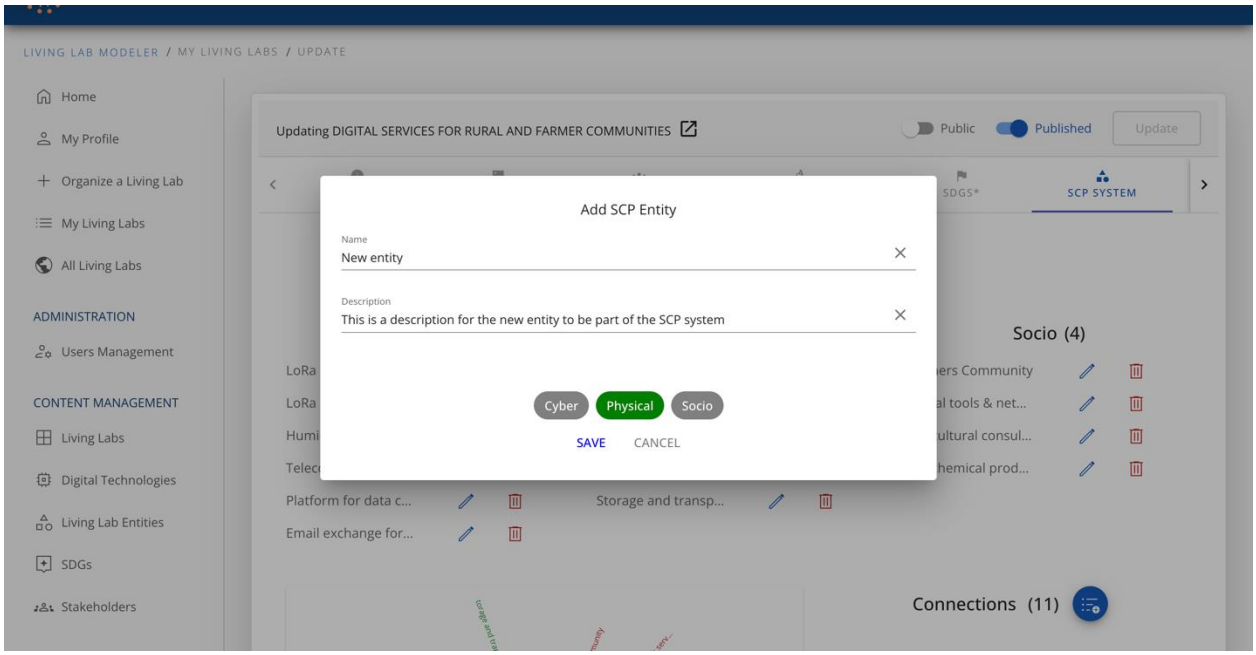


Figure 11 SCP system information window

- To add a new connection to the SCP among two existing entities, the user should click on the button next to Connections and a window will appear as shown in the picture below.
    1. Select the entity in the “Connect” field.
    2. Select the entity in the “To” field.
    3. Provide an optional description for this connection.

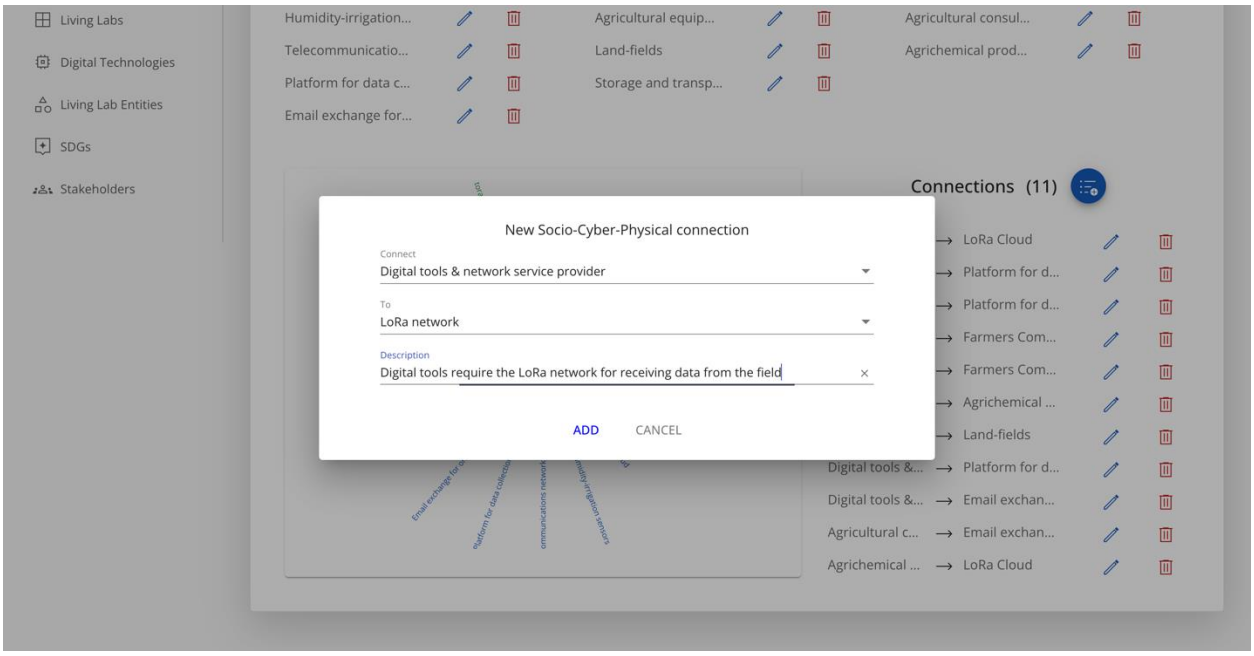


Figure 12 Creating the connections among the SCP system entities

LLM offers a visual representation of the SCP, which consists of all the entities and their connections.

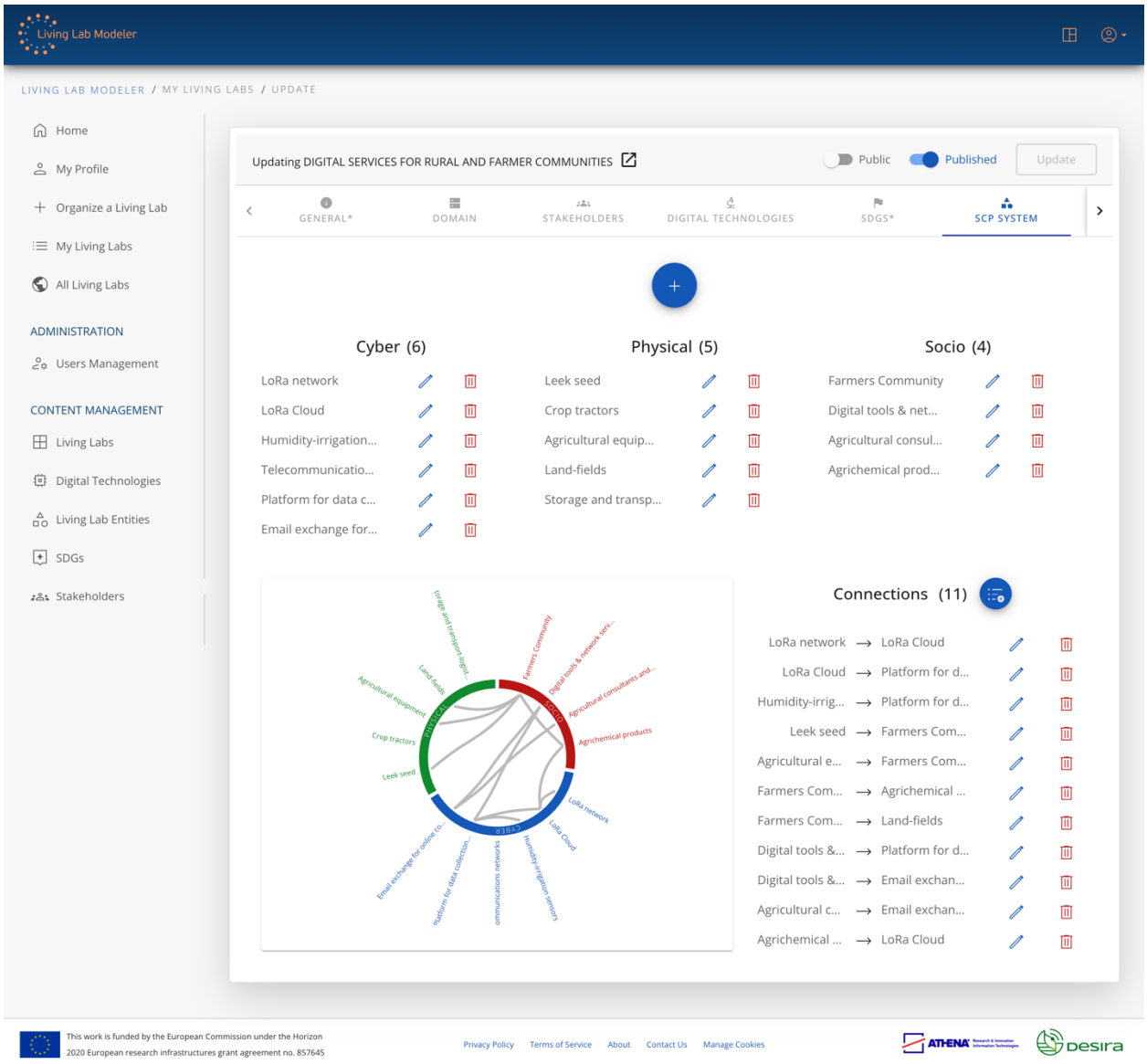


Figure 13 Display of SCP system entities & interconnections

Any existing entity or connection can be deleted by clicking on the "delete" button next to it. Please notice that in case an entity participating to a connection is deleted, the connection will be deleted also.

- ACTIVITIES tab

  In this tab the user can manage all the activities taking place in the Living Lab. The user can create activities that are planned in the future or any activity that has already taken place. Each activity consists of a set of information, that can

be completed in several rounds and not all of them are mandatory. Mandatory fields are masked with a “(required)*”.

The UI is straightforward as shown below:

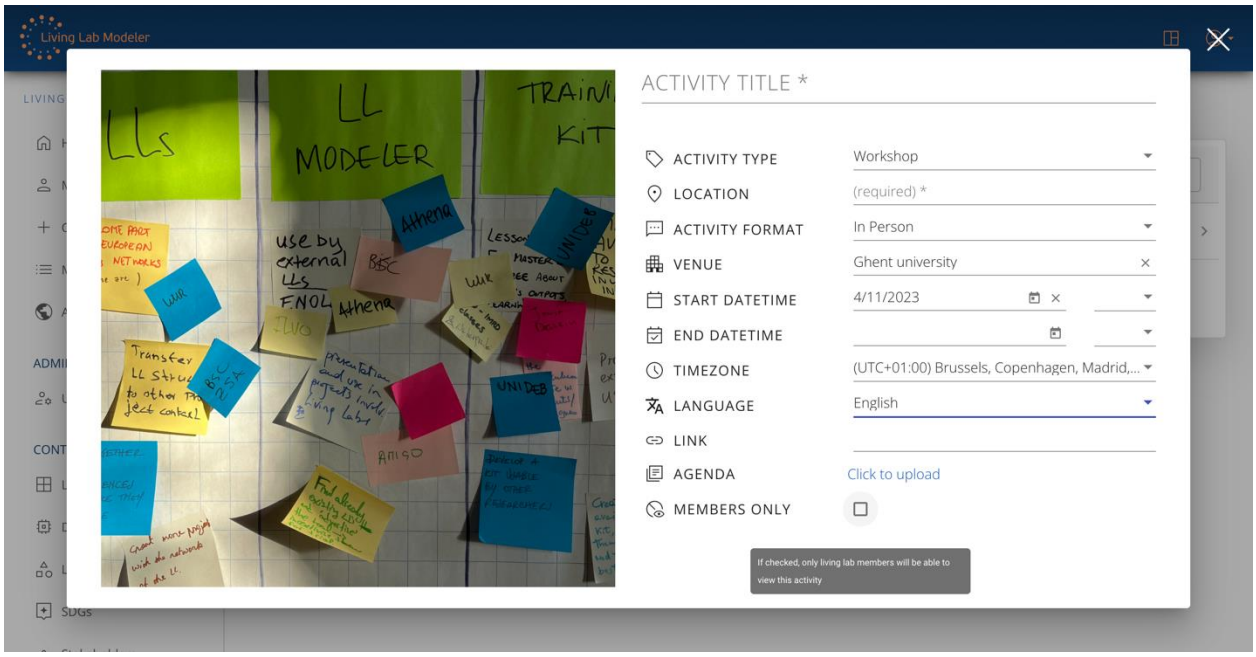


Figure 14 Activity information tab

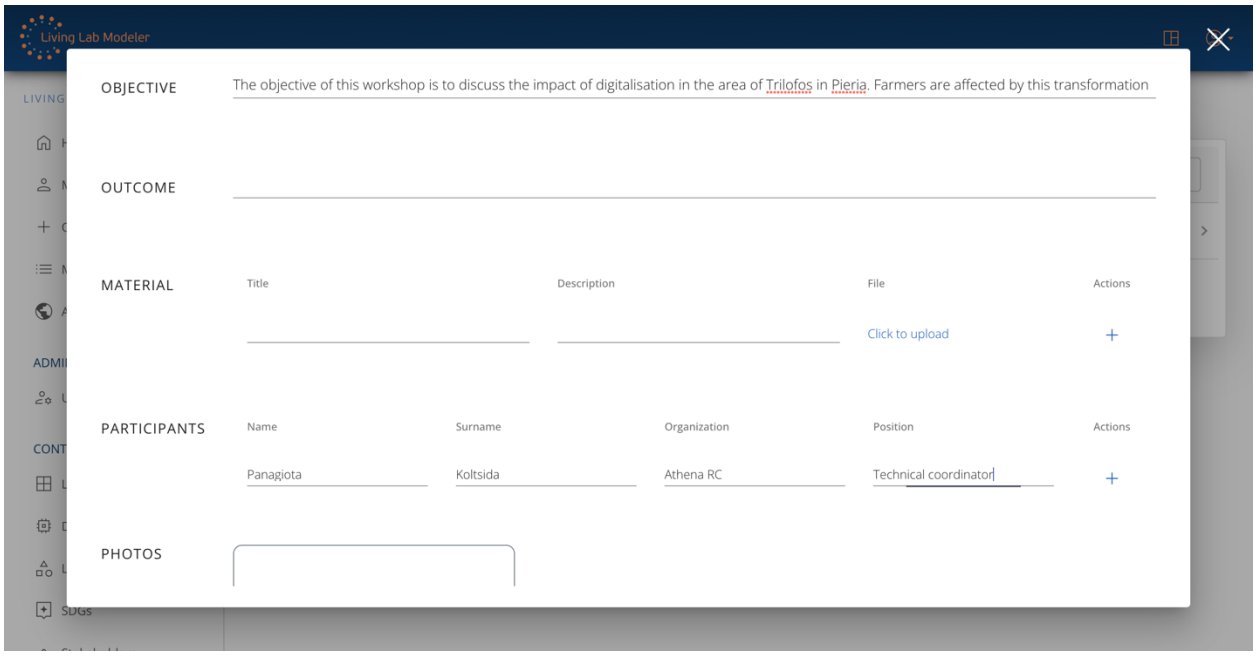


Figure 15 Additional information on LL activities

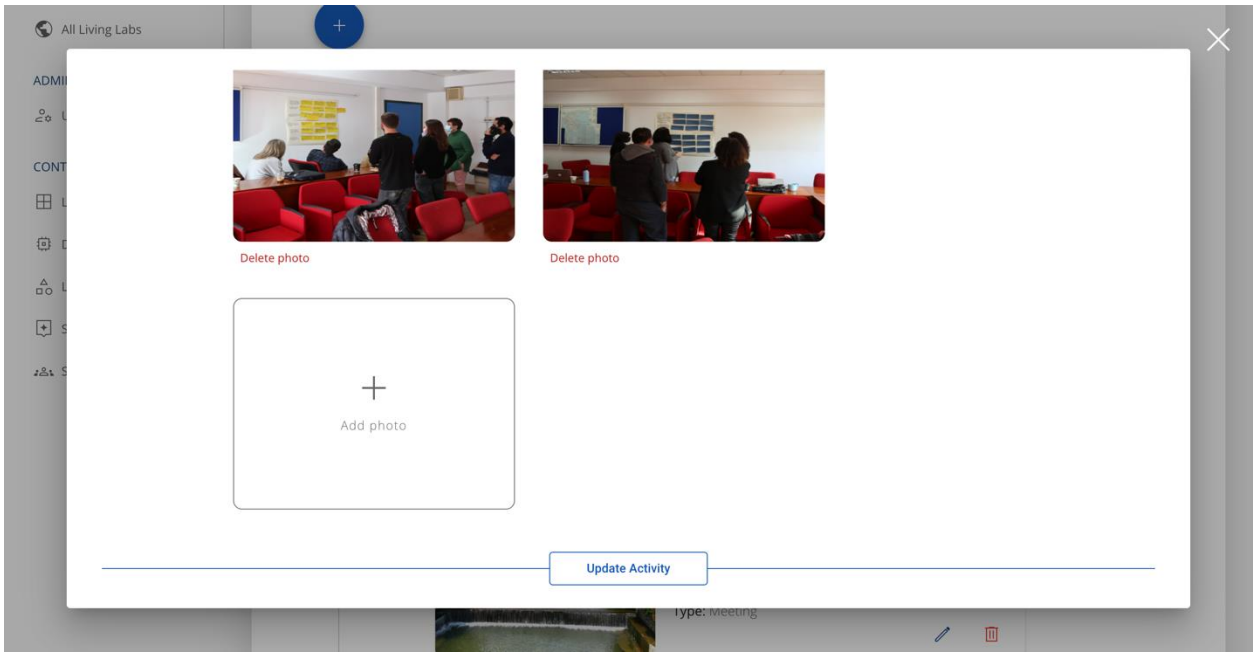


Figure 16 Options to manage photographs of LL activities

In this tab the list of all LL's activities is show in chronological order and you can select any of them to update its information by clicking on the "edit" button or delete it by clicking on the "delete" button.

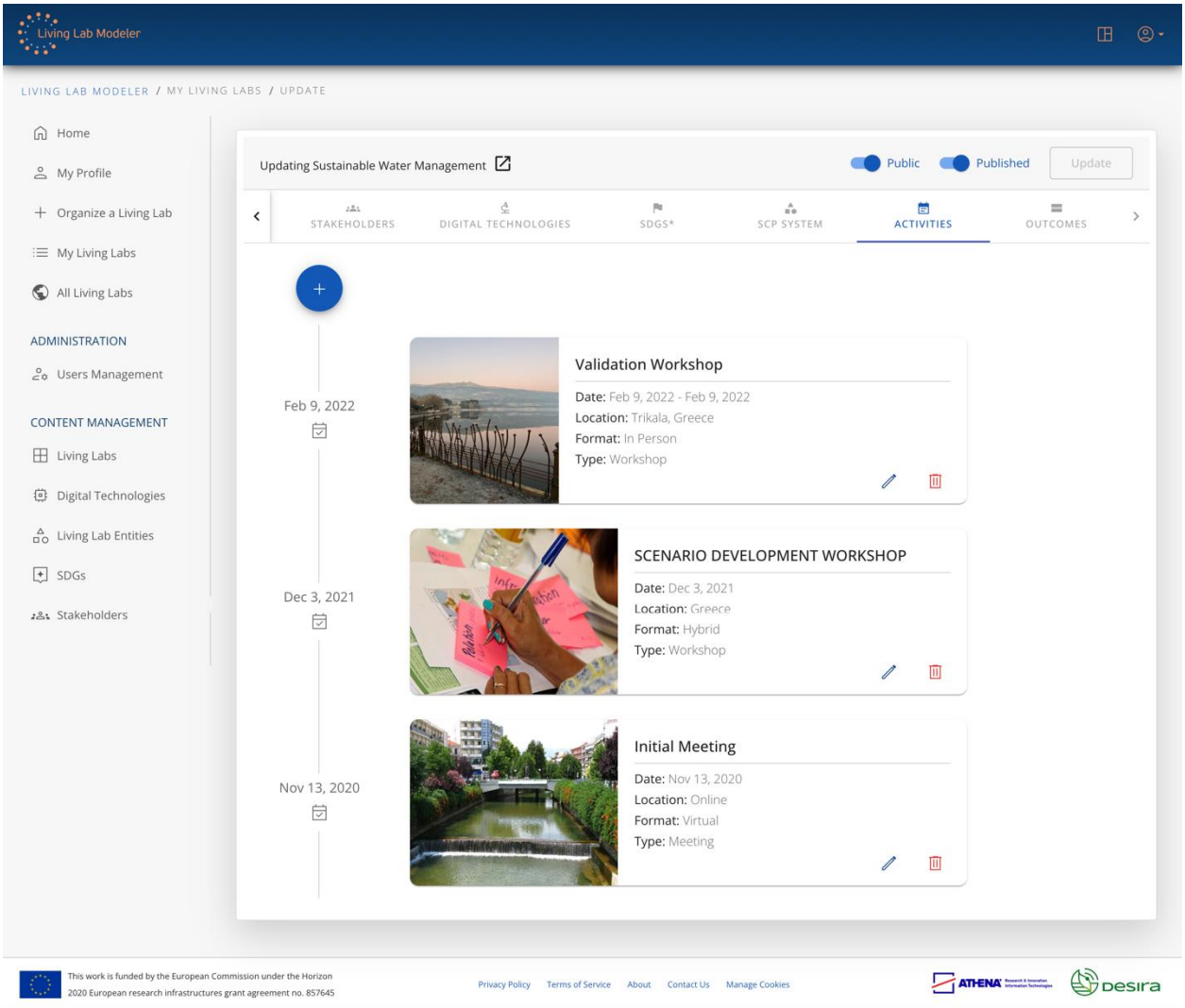


Figure 17 Display of the timeline of LL past/future activities

- OUTCOMES tab

In this tab user can add the outcomes of his/her Living Lab. He has the option to add as many outcomes as he/she considers important, by providing either a description and/or adding files and photos.

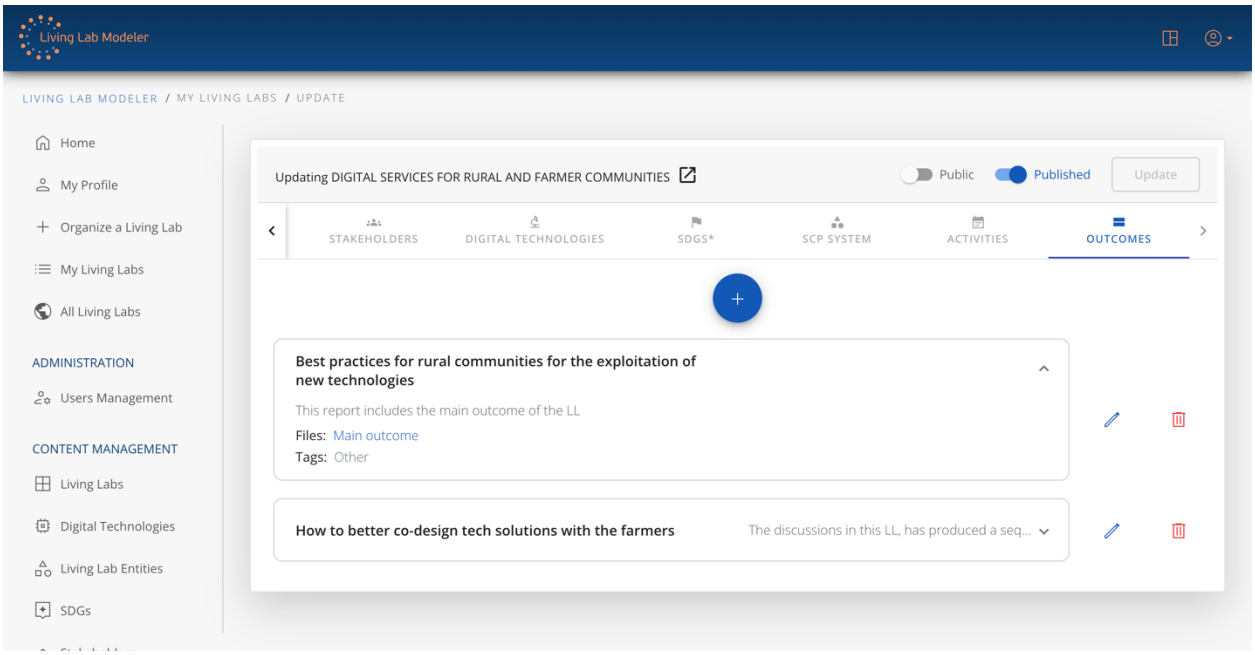


Figure 18 LLM Outcomes tab

When adding a new outcome, a set of information can be filled following the structure below:

Title: The title of the outcome.

Description: A description to provide details about this outcome.

Tags: Select one of the available tags to tag this specific outcome.

Add files and / or photos.

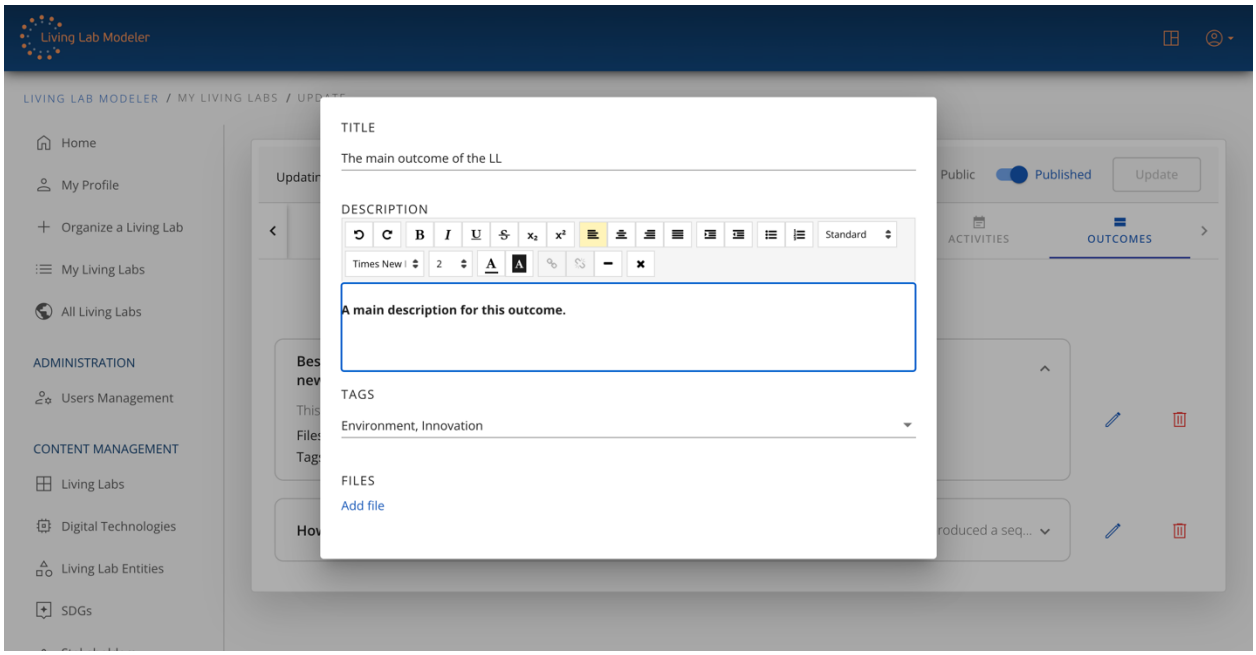


Figure 19 Adding information on the activity outcomes

Any of the added outcomes can be updated and or deleted by clicking on the corresponding buttons next to them.

View page of the Living Lab

The information provided during the setting up or updating of the Living Lab is presented to the guest users of the application (public status selected for the LL), or to its members (private status selected for the LL) through a view page as shown below:

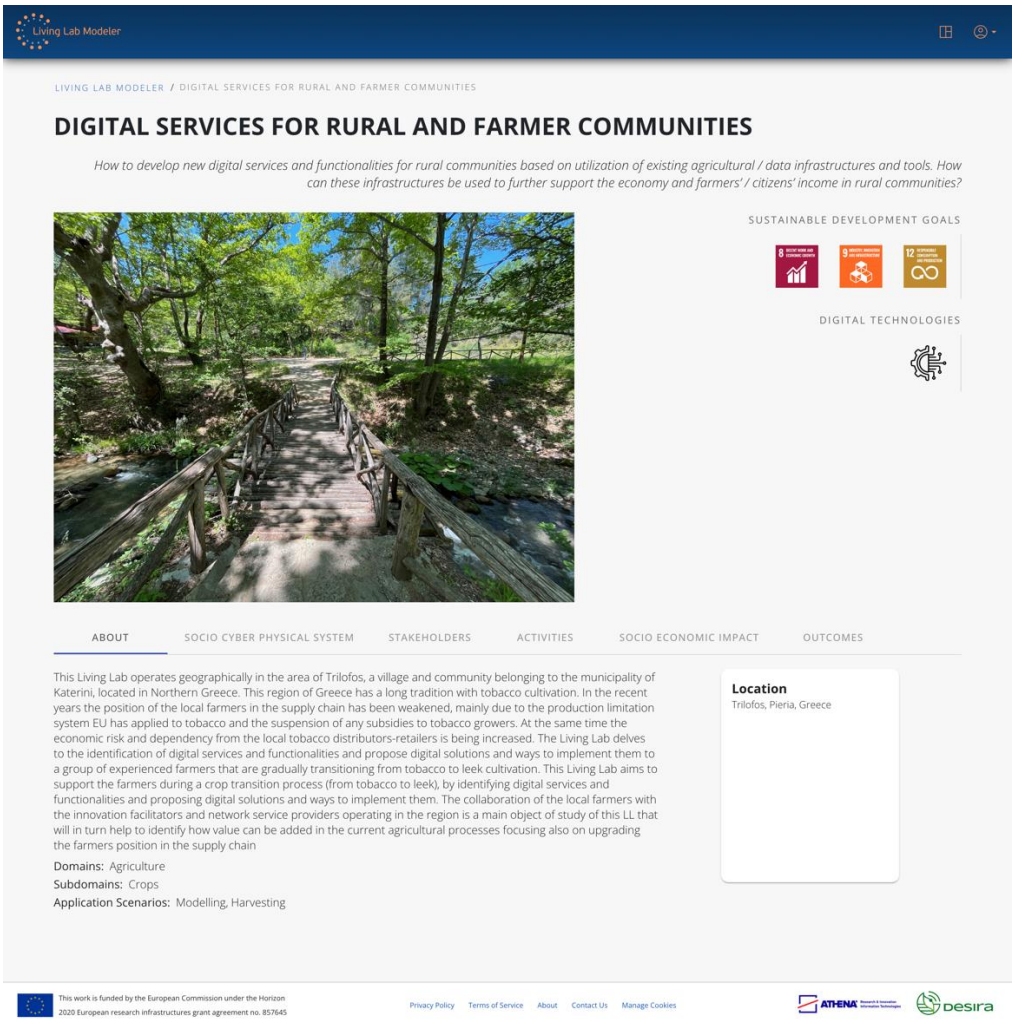


Figure 20 Overview of the LL information

Manage Join Requests

Every authenticated user can send a join request to become member of a private Living Lab. The requests can be managed by the owner and administrators of the specific LL. To manage a request, you should click on the "three dots" button on the bottom right of the LL's card.
A number is shown indicating the pending requests.

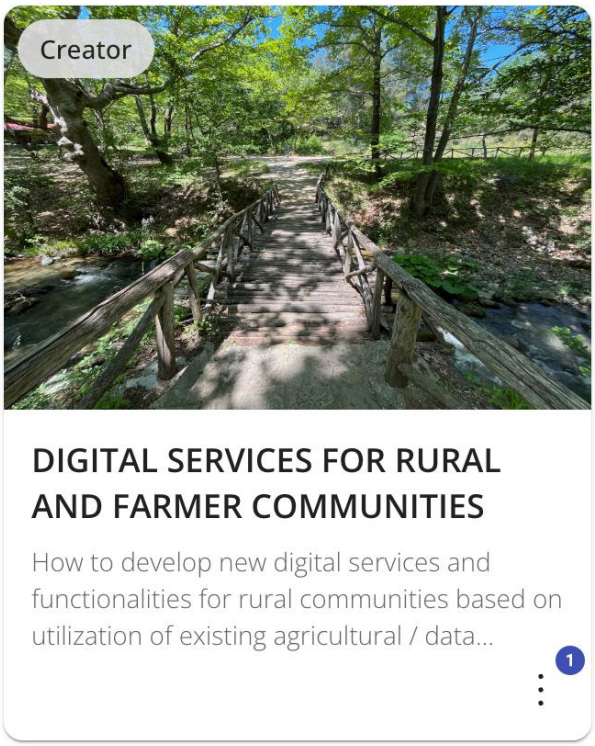


Figure 21 Button to manage membership requests of a LL

Click on the “Manage living lab users” button to manage the requests

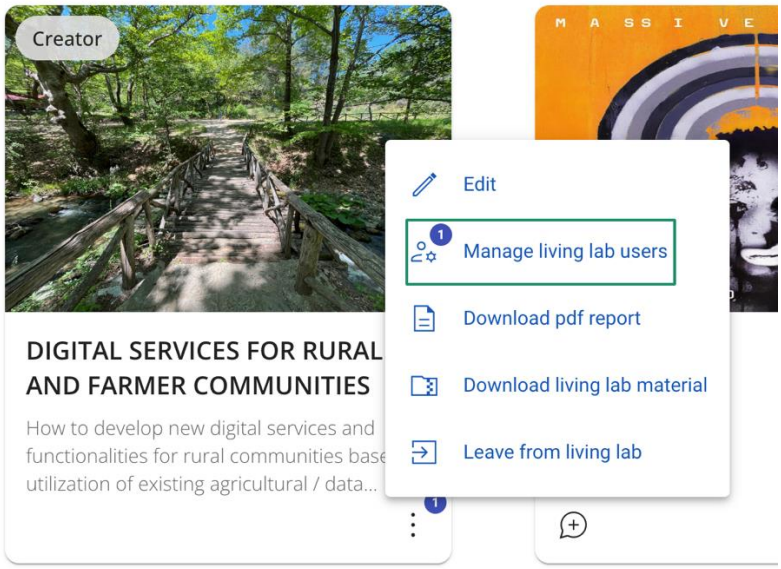


Figure 22 Manage options pop up window

Click on the "Accept" or "Reject" button next to each request. When a request is managed, an email is sent to the user to notify him about the membership status.

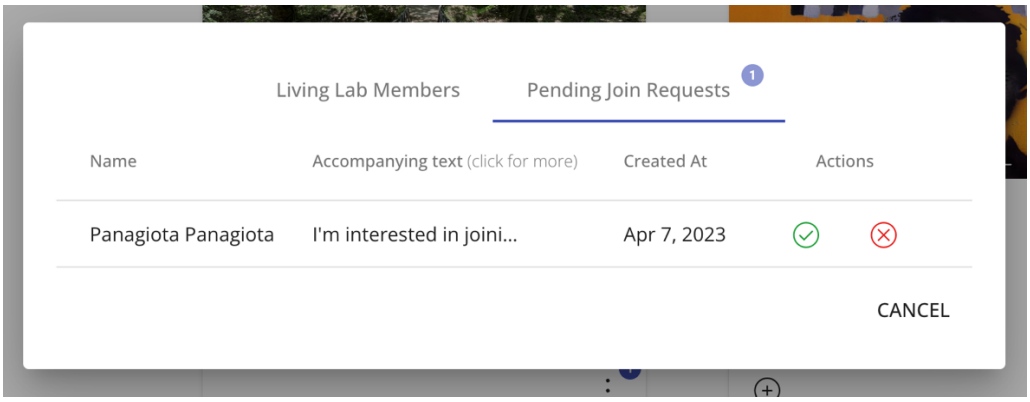


Figure 23 Accept and Reject options of a LL membership request

Ask to join a Living Lab

Users can ask to join any Living Lab (private or public). For private Living Labs it is mandatory to be a member of it, so as to view its available information. Public Living Labs' information is accessible to guest users, however there may be activities where a membership request is required to be accessed.

To send a membership request the guest user should click on the “join” button available on the bottom left corner of a LL’s card and optionally add a message that will be visible to the administrators of this LL.

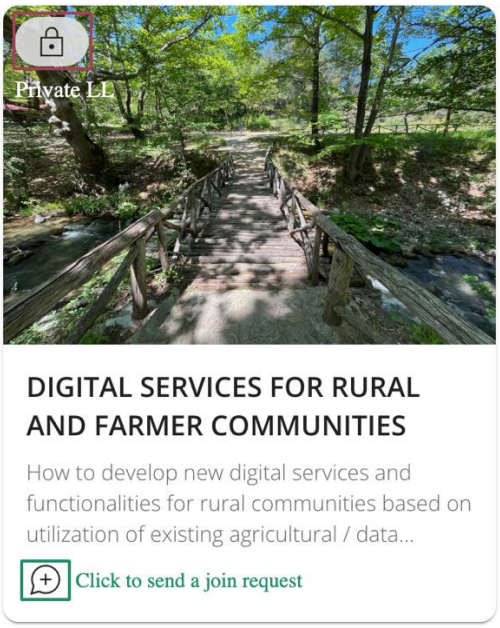


Figure 24 Button to send a LL membership request

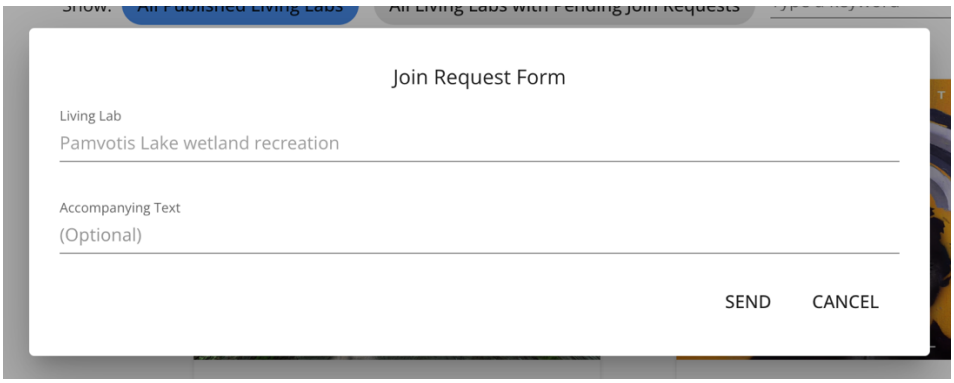


Figure 25 Optional accompanying text for the administrators of the LL

When the administrators of this LL handle your request

User Profile

Registered users have a profile page available to them, to administer their personal data. The e-mail address provided by the third-party provider (Google or OpenAIRE) cannot be edited.

To access the profile page, the user should click on the top right icon and then on the "My Profile" page as shown below:

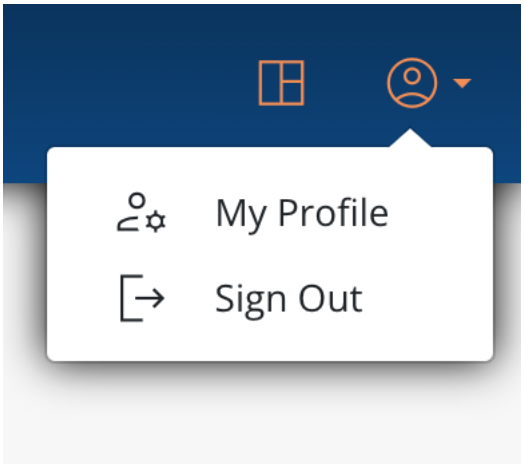


Figure 26 LLM Registered users menu options

Edit any of the editable information and click on the "Save" button on the top right to persist your changes.

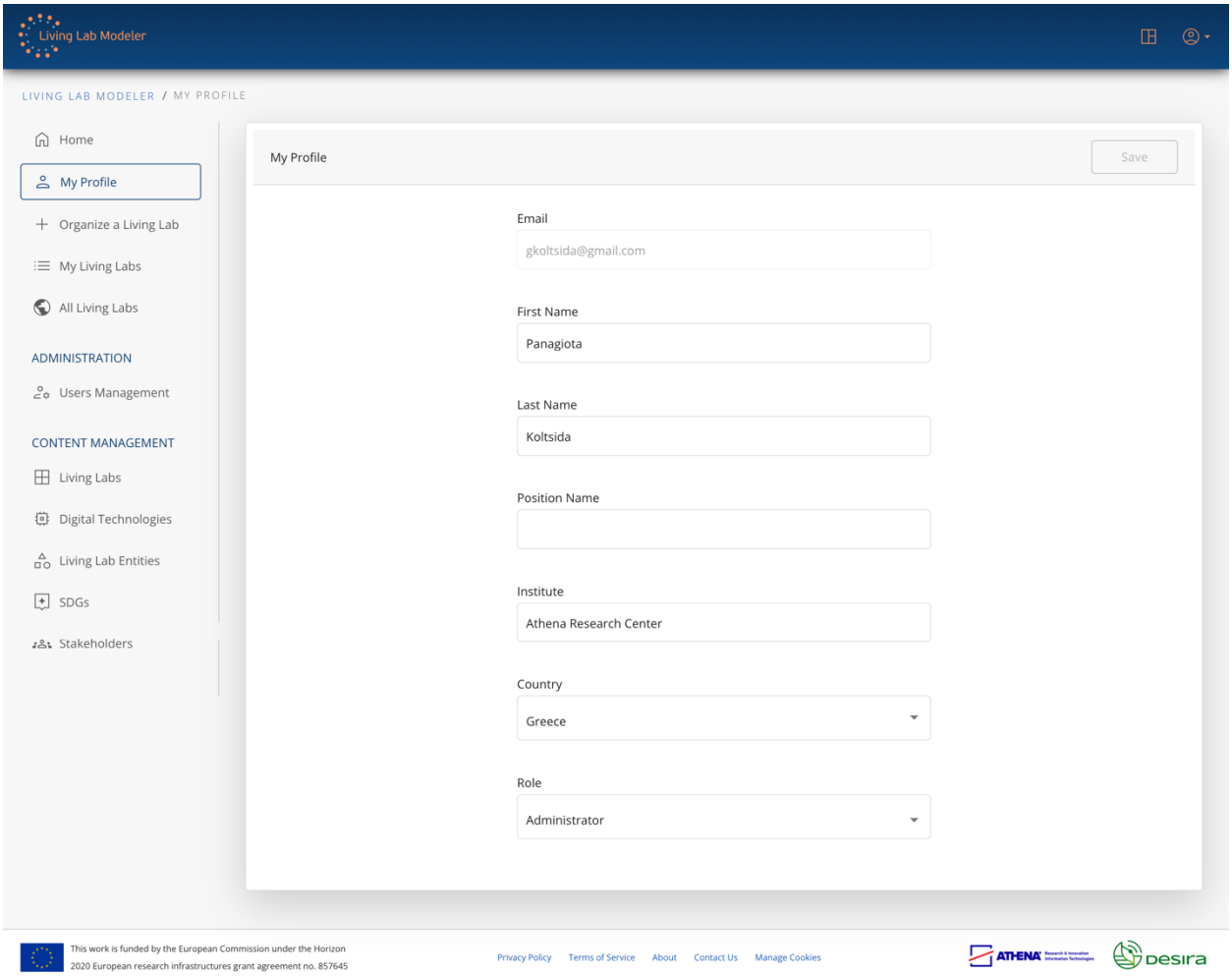


Figure 27 LLM Registered user profile page

Contact Us page

For any inquiries about the Living Lab Modeler and its usage you can contact us through the dedicated page.

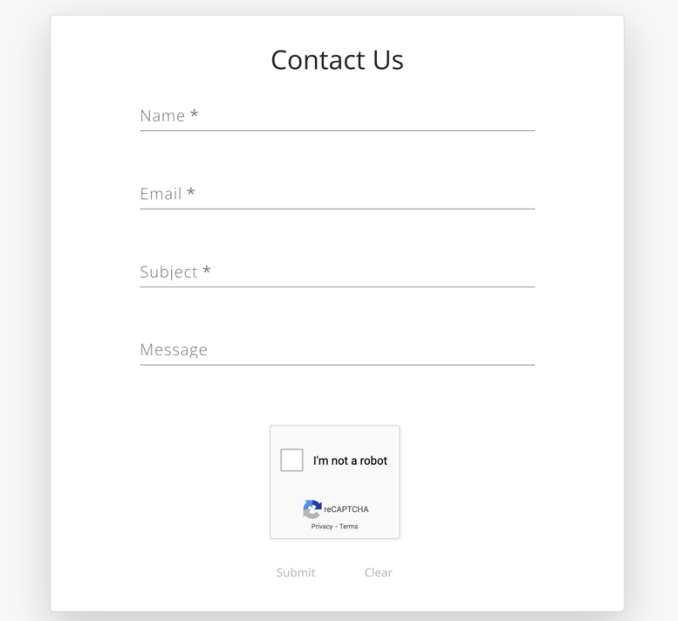


Figure 28 Contact us form

Privacy Notice

If the end-users wish to explore the tool as authenticated users, LLM will receive information about them from third parties. More specifically, the end-users are invited to login to LLM via "OpenAIRE Login" which offers various login options. For more information about this service the end-users are invited to review OpenAIRE's Login Privacy Notice that is available online on https://www.openaire.eu/privacy-policy.