Guidebook for potential Synergic Crowd Innovation Platform users

Version 1

01 2020

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1. Manual of the Synergic Crowd Innovation Platform

1.1. Introduction to the Synergic Crowd Innovation Platform

Synergic Crowd Innovation Platform is an online tool, where different types of newly designed services enhancing crowd innovation initiatives are available. The Synergy Platform is a place where industrial companies can define their needs and problems and researchers can deliver jointly developed solutions. The idea is to set up a platform ensuring crowdfunding and crowdsourcing for innovative solutions for the Central European society. As a part of functionality of the Synergy Platform, a crowdfunding mechanism will be developed. Within this approach every euro is contributed towards innovation and helps push the boundaries of knowledge. Scientists, researchers, idea-givers will share progress, data, and results directly with their backers. Microworking will be provided by a Crowdsourcing challenge for innovation functionality as a tool for companies that can share their problems and crowd will support them with the solutions. The Synergy Crowd Innovation Platform is enabling:

- ✓ crowdsourcing for innovation and innovative solutions,
- ✓ mutual collaboration on research projects,
- ✓ setting up cooperation and microworking,
- ✓ crowdfunding for small research projects,
- ✓ possibility to exchange resources among different Central European regions (HR, equipment & infrastructure).

Synergic Crowd Innovation Platform can be entered via link: https://synergyplatform.pwr.edu.pl (Fig. 1). The platform is divided into three main sections (status 01/2020):

- ✓ Crowdfunding for research
- ✓ Crowdsourcing challenges for innovation
- ✓ Infrastructure sharing

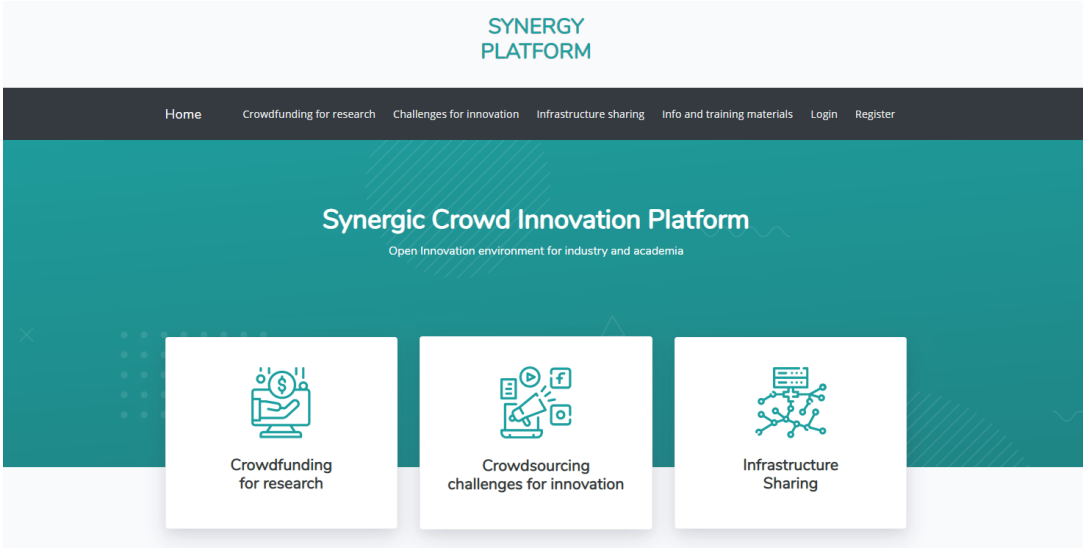

Fig. 1 Screenshot of Synergic Crowd Innovation Platform

The platform consist of:

1. navigation bar

2. main functionalities of platform (also accessible from navigation bar)
3. List of last published campaigns and challenges
4. Section about the project and latest news
5. Section with term of use and contact.

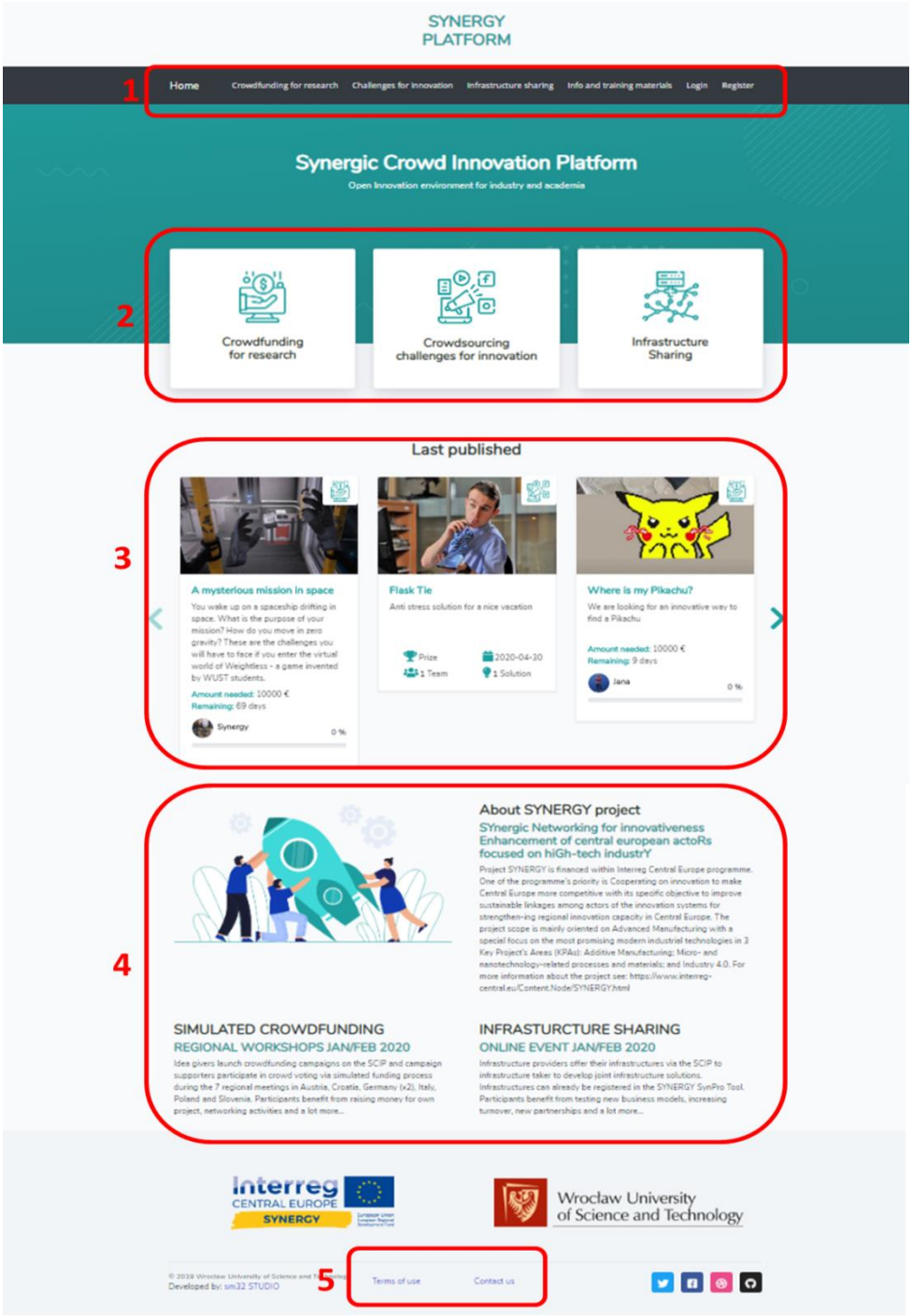

Fig. 2 Synergic Crowd Innovation Platform overview

Within Synergic Crowd Innovation Platform different types of newly designed services enhancing crowd innovation initiatives are available. They can be distinguished within four types:

- ✓ Crowdsourcing

- Social Product Developmet
- Research & Innovation projects

✓ Microworking
- Industrial challenges
- Crowd innovation for companies

✓ Crowdfunding
- Crowdfunding for research projects

✓ Exchanging resources
- Infrastructure sharing
- Competences exchange

Short descriptions of services foreseen to be tested during project implementation phase:

✓ **Social Product Developmet**
1. General brainstorm on SYNERGY product idea
2. Micro-working approach on product development
3. Interested idea givers submit proposed design & prototype model
4. SYNERGY project awards the best 3-5 solutions with a voucher

✓ **Research & Innovation projects**
1. Platform user uploads project/research/innovation idea related to KPAs to the platform
2. The same platform user is searching for a partner from different CE region in order to solve the problem together
3. New partners present their common research plan
4. SYNERGY project selects the best research plan and awards the winner with the voucher
5. Awarded partners perform research and upload the results on the platform

✓ **Innovation and industrial challenges**
1. Platform users (companies, individuals, researchers) upload problems (e.g. technological, research) related to KPAs to be solved
2. SYNERGY project selects the most crucial problems (e.g. 5 of them)
3. Platform users solve selected problems and present their results
4. SYNERGY project awards the best 5 solutions with vouchers

✓ **Crowd innovation for companies**

1. A company uploads a problem related to KPAs to be solved and defines the budget
2. Platform users solve the problems and present their results
3. A company selects the best solution and awards the winner with the declared budget

✓ **Crowdfunding for research projects**
1. Platform user uploads research problem/ innovative idea to be solved and declares necessary budget
2. Other platform users (including companies) declare how much are they ready to spend in order to have the access to the results
3. SYNERGY project awards with the voucher the best 5 projects that reach the budget goal

✓ **Infrastructure sharing**

This service is provided by SYNPRO IT tool. Its description can be found in chapter 2.
1. User uploads offer related to robot infrastructure
2. Others declare needs for a short time robot solution
3. Tools &problems are merged, partners get in contact solving problems (sharing resources - HR &knowhow)
4. Virtual marked place is turned to a real network solving problem

- ✓ **Competences exchange**
  - This service is provided by SYNPRO IT tool. The main functions are:
    - Project registration
    - Registration of organizations (actors)
    - Analysis of the similarity of objects based on KPA
    - Associating actors with similar KPA - matchmaking
    - Set printouts
    - IT tool management - standard functions, including creating accounts for users, granting permissions to edit entries: reading, editing, etc.
    - Development of metadata: author of the entry, creation date, author of the last modification, modification date

1.2. Login / Registration and user's profile

In the navigation bar after selecting the tab "Register" the application redirects to the view where user can create a new user account (Fig. 3). Having created an account, one can click on the tab "Login" where after completing login details user can log in to account (Fig. 4). Both login and registration is also possible using a Google account.

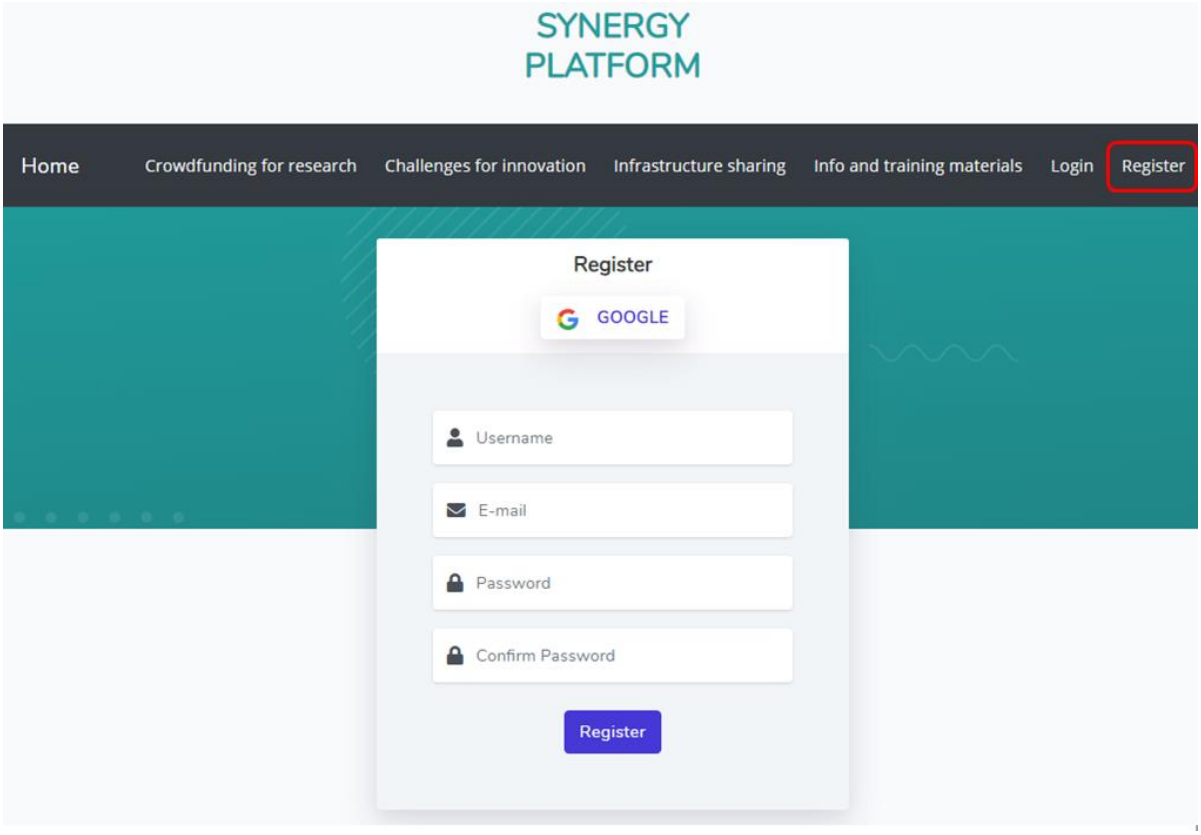

Fig. 3 Registering new account

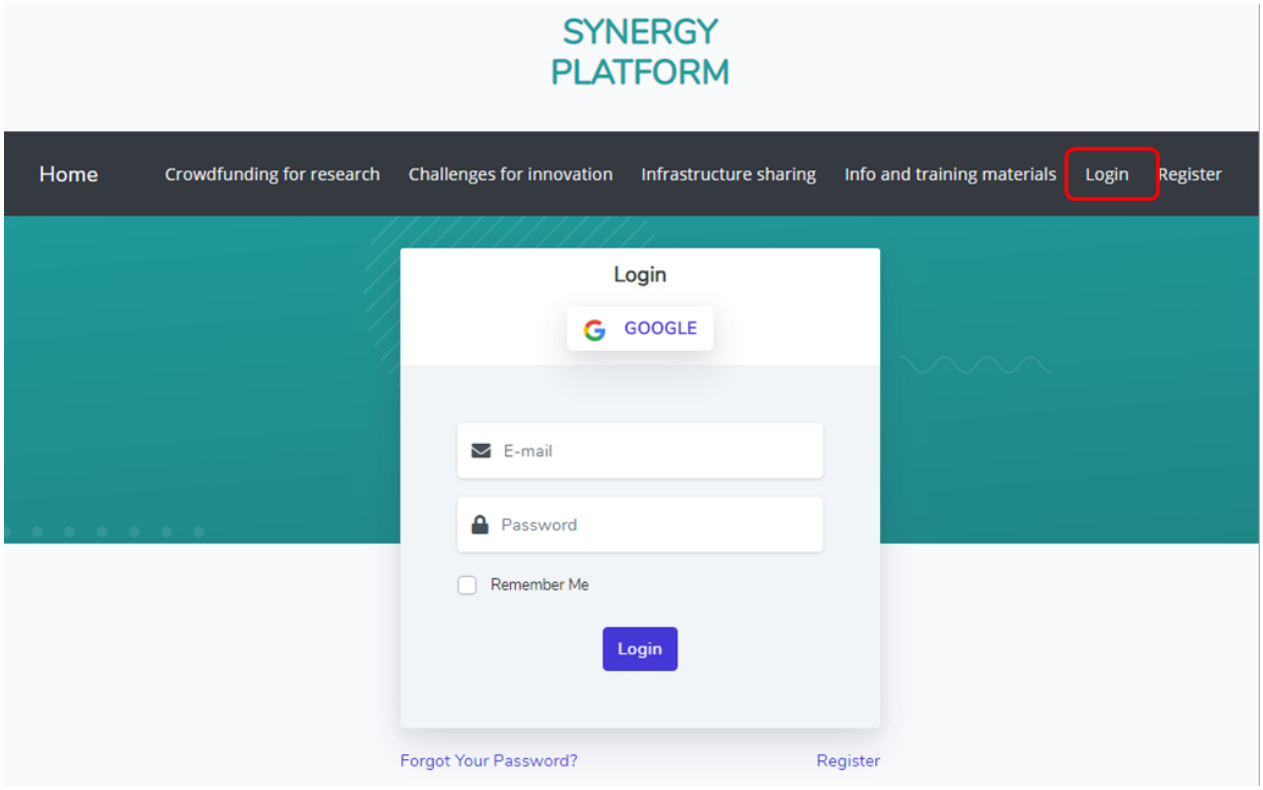

Fig. 4 Log-in to the platform

Logged in users can view their account details by clicking on the account avatar in the navigation bar and selecting “Profile” options and managing their data by selecting “Settings” (Fig. 5).

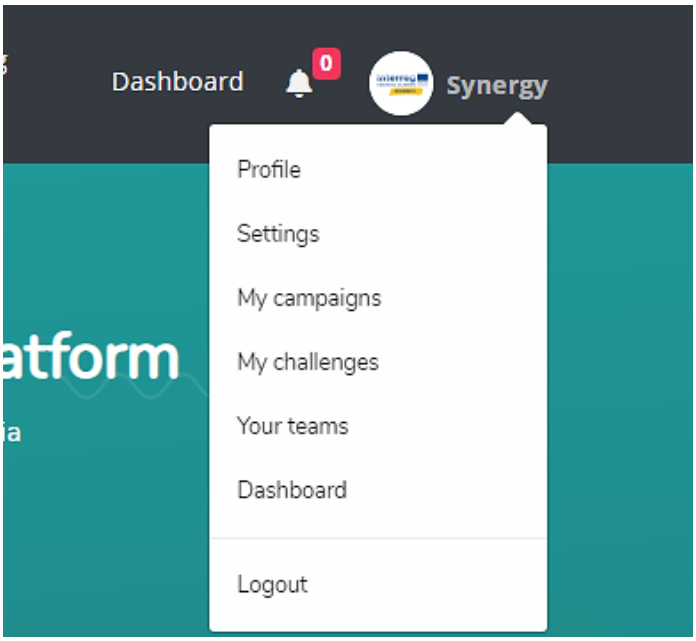

Fig. 5 Profile options for user account

Within different options of user account several sections can be entered:

- Profile – preview of the user’s profile (it also shows how other users will see this account)
- Settings – space for updating account information (Fig. 6)
- My campaigns – list of campaigns submitted by user

- My challenges – list of challenges submitted by user
- Your teams – list of teams that user belongs to
- Dashboard – space for users with appropriate permissions (administrator, authorizer, content moderator)
- Logout

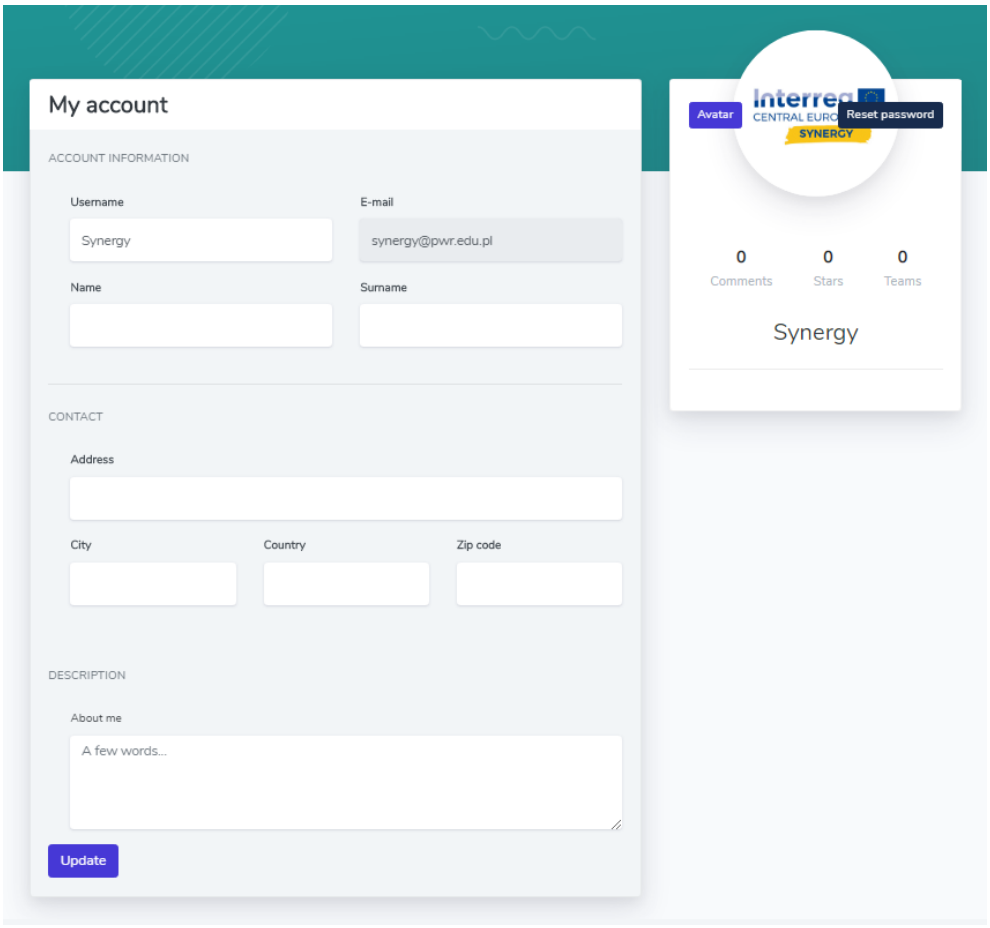

Fig. 6 Settings preview for updating user's profile

1.3. Functionality: Crowdfunding for research

In the navigation bar after selecting the tab "Crowdfunding for research" the application redirects to the view where the list of active crowdfunding campaigns can be seen. In general, the user may be interested in following paths (Fig. 7):

1. to add new crowdfunding campaign,
2. to browse campaigns submitted by other users,
3. to sort by publication date or campaign end date,
4. to search for campaigns by key words.

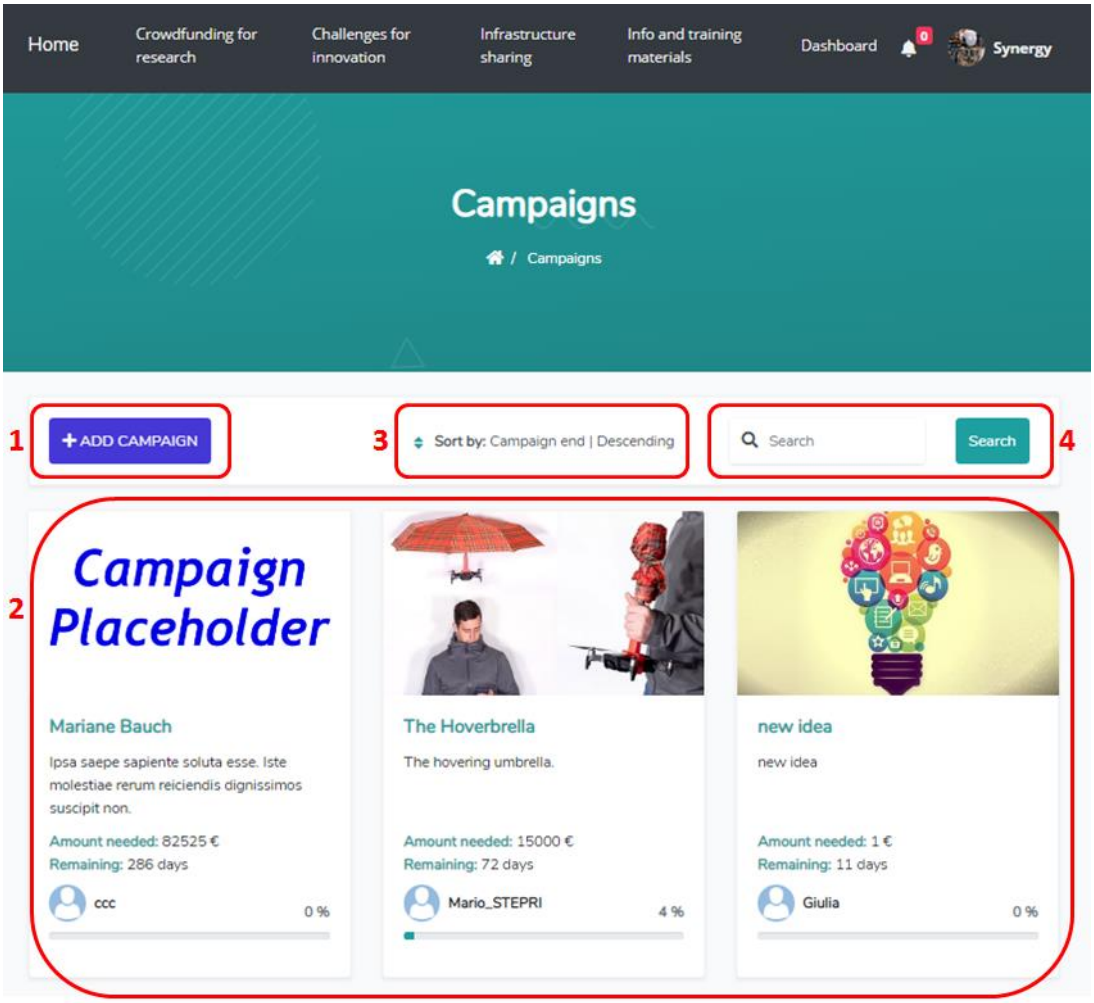

Fig. 7 Paths within "*Crowdfunding for research*" functionality

1.3.1. Adding new campaign

The user that is logged-in can add a new campaign by clicking the button "Add campaign"', then a pop up will appear with a form where the details about the campaigns should be filled in. There is a possibility to save the form as a "Draft version" (not all of the information has to be provided). The finished version of the campaign's information form shall be submitted as "Released version" where all required data have to be filled in (otherwise submitting is not possible) (Fig. 8).

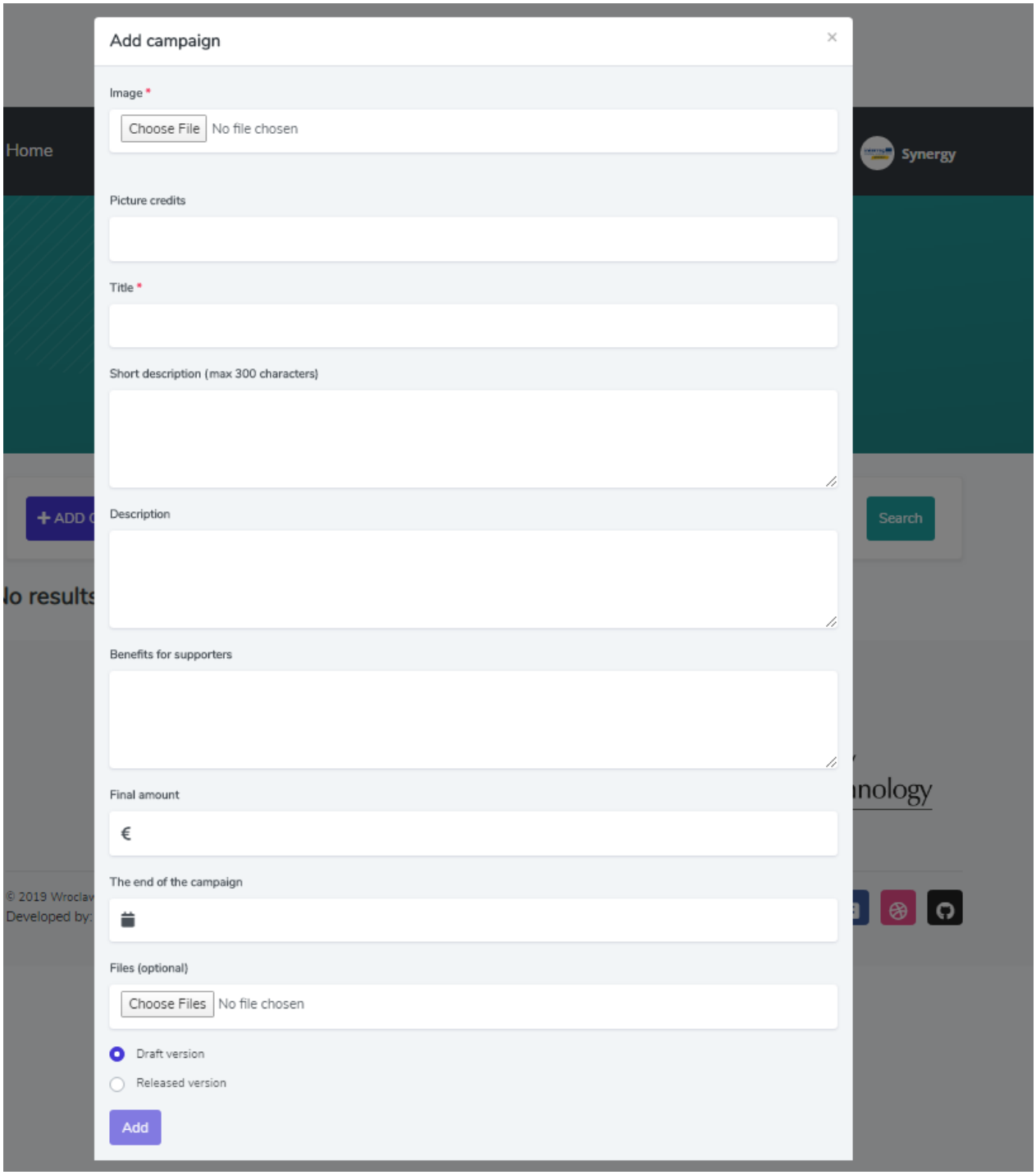

Fig. 8 Adding new crowdfunding for research campaign

After saving the campaign is registered but not yet approved – the information about “campaign inactive” is provided (Fig. 9), and a notification will be sent to platform administrators informing about new campaign. The administrator will verify the campaign’s content and will approve it – after this the campaign will be visible on the campaign list in the “Crowdfunding for research” functionality.

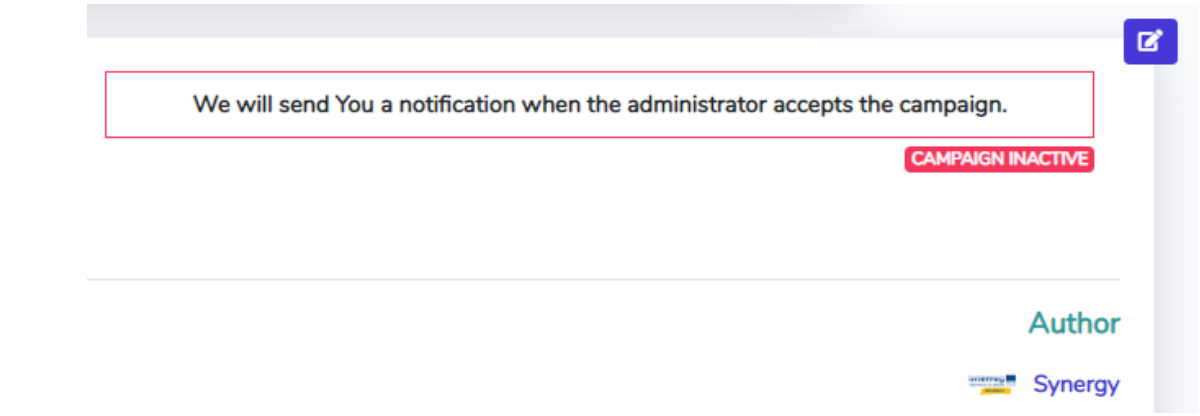

Fig. 9 Notification about inactive campaign

The “Released version' is visible in the list of campaigns within “user’s section”. To view all campaigns created on a given account, one has to click on the account avatar in the navigation bar and select option “My campaigns”.

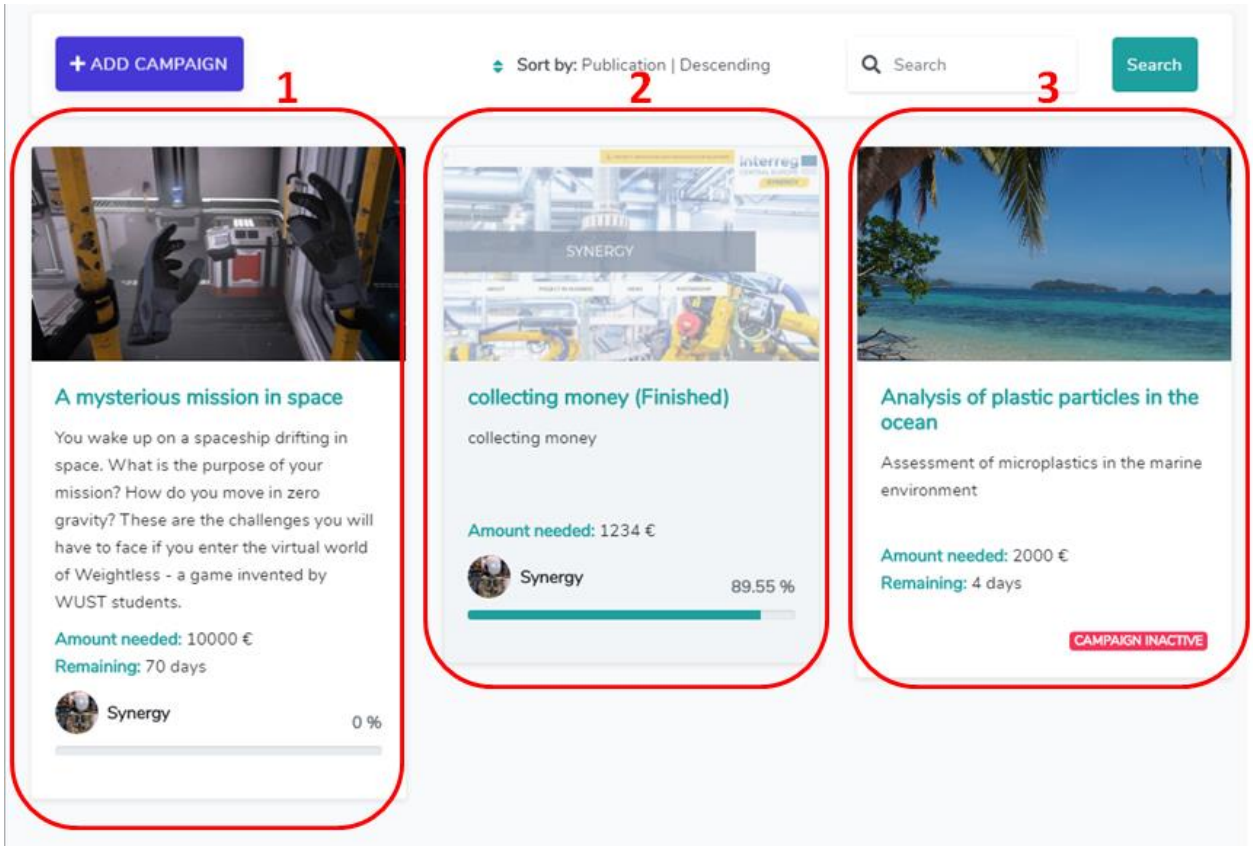

Fig. 10 Campaigns’ statuses

On the list of “My campaigns” different statuses of campaigns can be seen (Fig. 10):

1. running campaign
2. finished campaign
3. inactive campaign

1.3.2. Supporting campaigns

After selecting a campaign, the application redirects to its view (Fig. 11). By clicking the button "Support now with PayPal" (1) users can support a given campaign. To do so, the amount has to be entered in the field displayed after pressing the button. Also, some stats can be seen in the brief summary of the campaign (2).

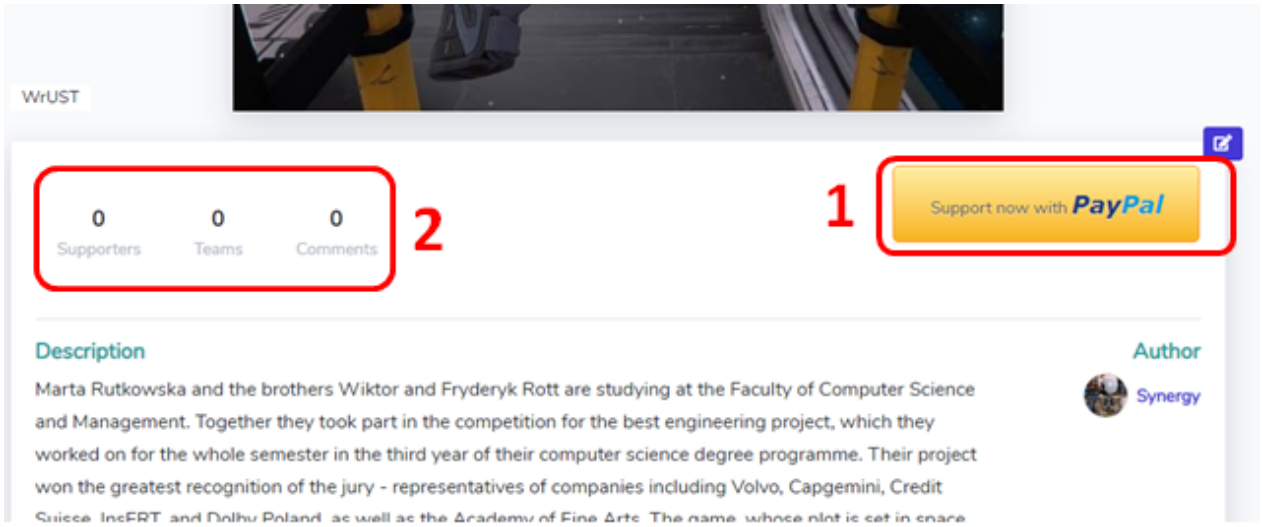

Fig. 11 Campaign's support options 1

Below the campaign information (Fig. 12) it is possible to send public comment (1) visible to everyone and private visible only by the author of the campaign. After clicking the tab "Supporters" (2) a list of people supporting the campaign along with the amount they sent can be seen. By clicking the tab "Teams" (3) campaign author can add a team member consisting of platform users.

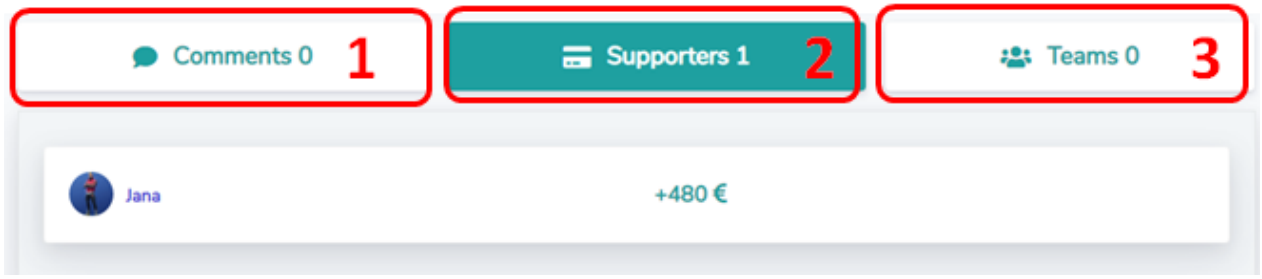

Fig. 12 Campaign's support options 2

1.4. Functionality: Crowdsourcing challenges for innovation

In the navigation bar after selecting the tab “Challenges for innovation'” the application redirects to the view where the list of active challenges can be seen. In general, the user may be interested in following paths (Fig. 13):

1. to add new challenge,
2. to browse challenges submitted by other users,
3. to sort by publication date or challenge end date,
4. to search for challenge by key words.

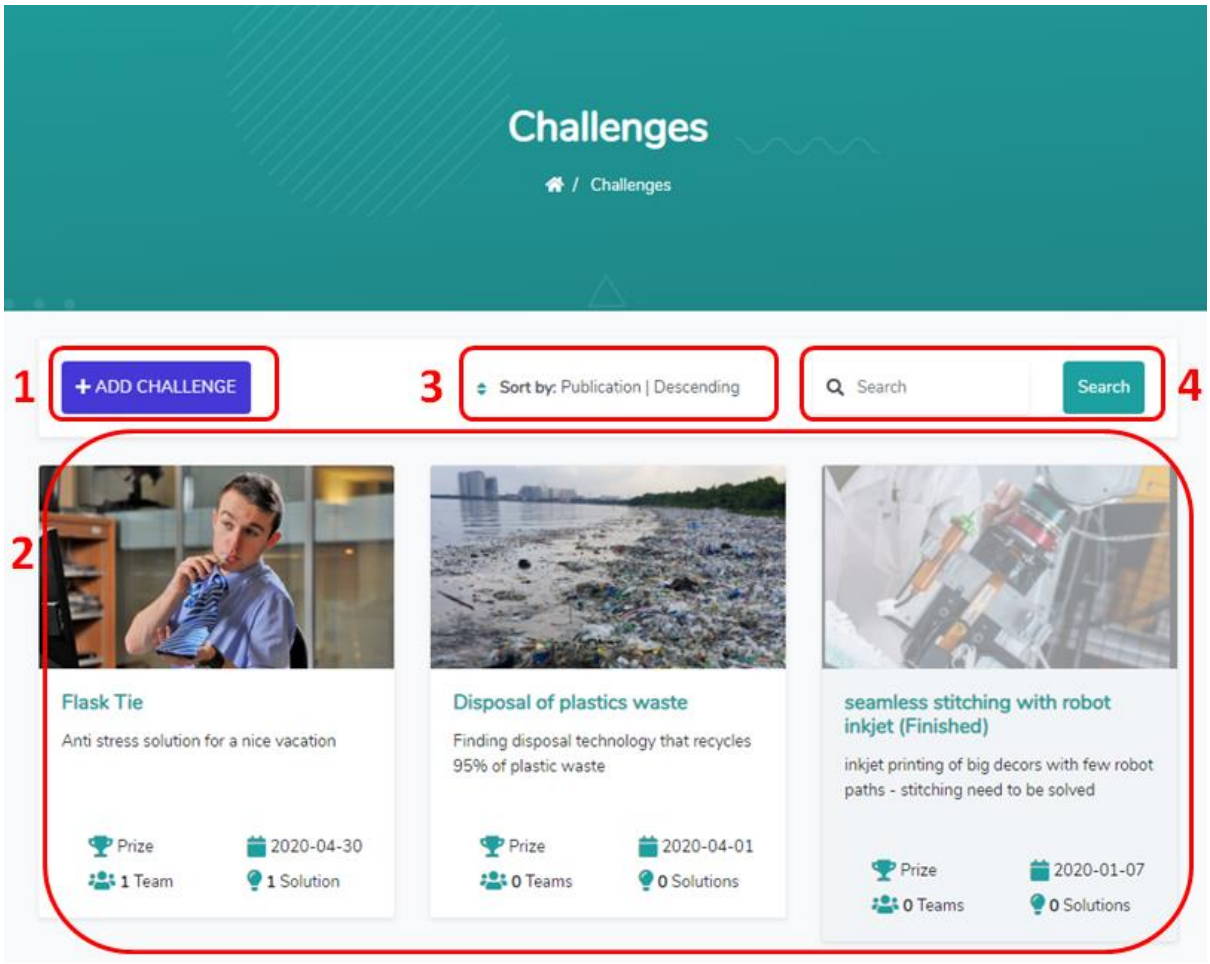

Fig. 13 Paths within „Challenges for innovation” functionality

1.4.1. Adding new challenge

The user that is logged-in can add a new challenge by clicking the button “Add challenge”', then a pop up will appear with a form where the details about the challenge should be filled in. There is a possibility to save the form as a “Draft version” (not all of the information has to be provided). The finished version of the challenge’s information form shall be submitted as “Released version” where all required data have to be filled in (otherwise submitting is not possible) (Fig. 14).

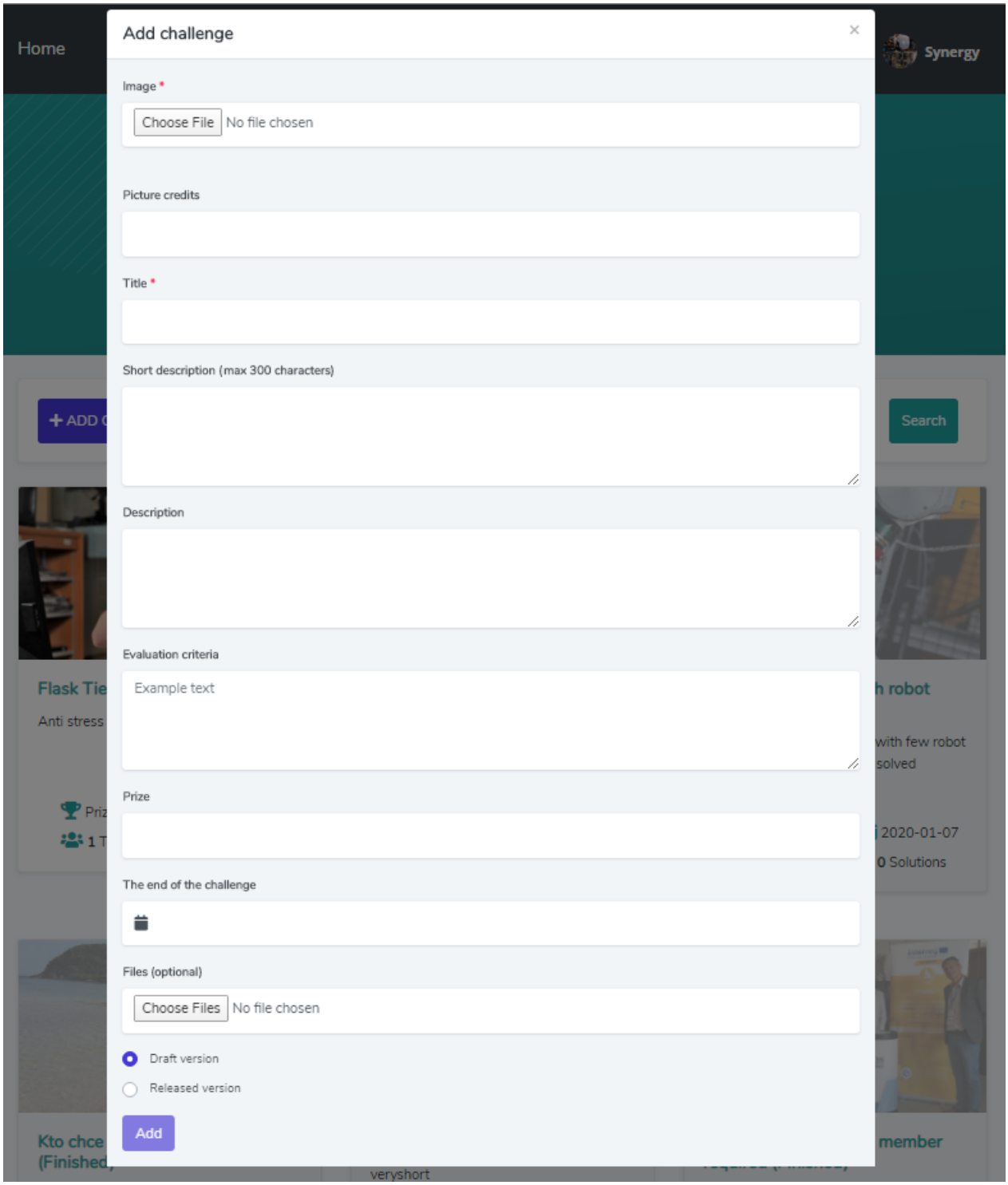

Fig. 14 Adding new „Challenge for innovation”

After saving the challenge is registered but not yet approved – the information about “challenge inactive” is provided (Fig. 15), and a notification will be sent to platform administrators informing about new challenge. The administrator will verify the challenge’s content and will approve it – after this the challenge will be visible on the challenge list in the “Crowdsourcing challenges for innovation” functionality.

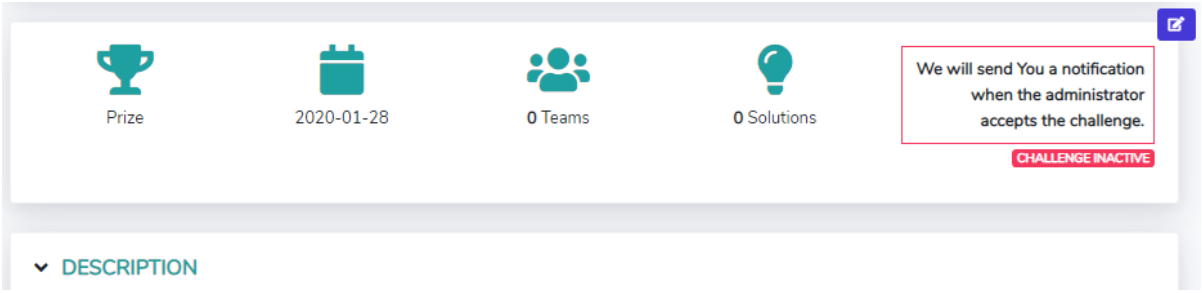

Fig. 15 Notification about inactive challenge

The “Released version' is visible in the list of challenges within “user’s section”. To view all challenges created on a given account, one has to click on the account avatar in the navigation bar and select option “My challenges”. On the list of “My challenges” different statuses of campaigns can be seen (Fig. 16):

1. finished challenge
2. running challenge
3. inactive challenge

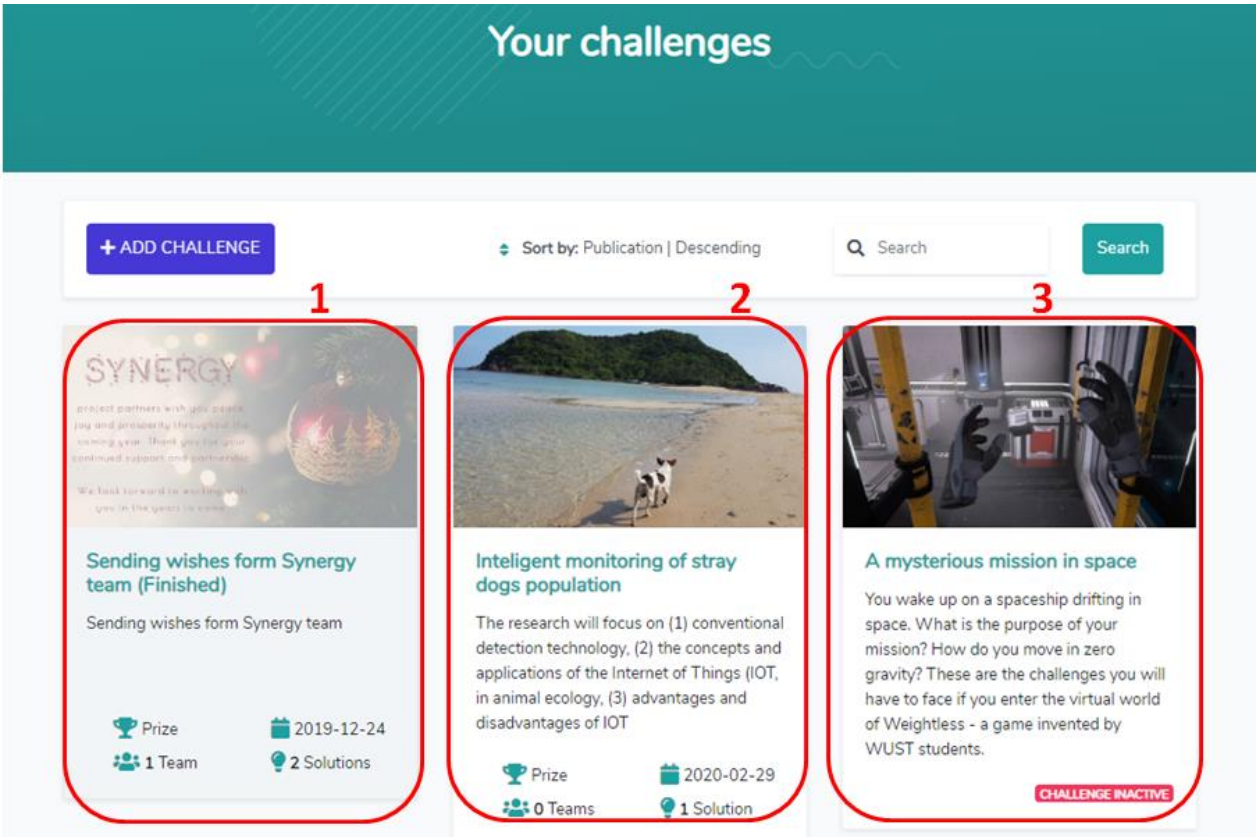

Fig. 16 Challenges’ statuses

1.4.2. Supporting campaigns

After selecting a challenge, the application redirects to its view (Fig. 17). Below the challenge data in the comments section (1) it is possible to send public comment visible to everyone and private visible only to the author of the campaign (4). After clicking the tab “Teams” (2) platform users can add a team that would like to solve the challenge. Non-team users can send a request to be added to the team. After clicking the tab “Solutions” (3) the list of submitted solutions of the challenge can be seen and users can add a new solution challenge.

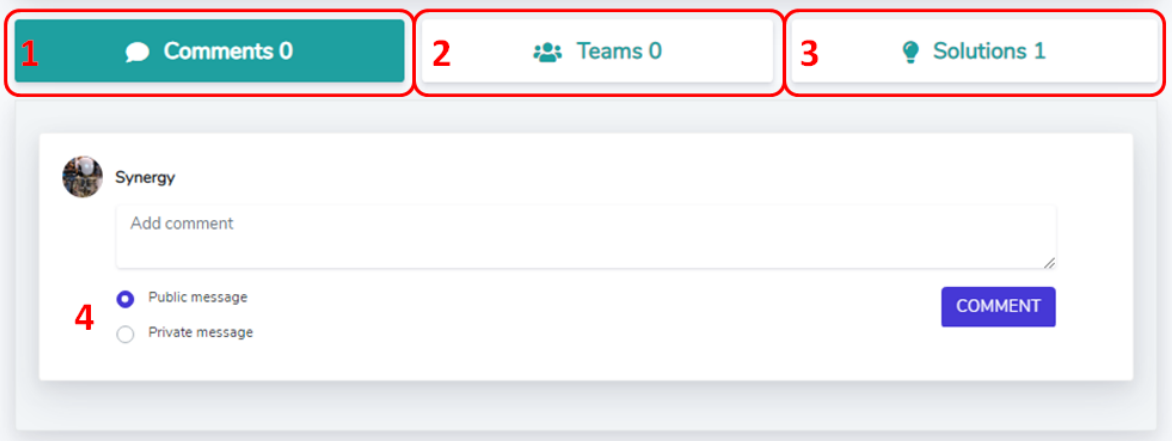

Fig. 17 Challenge support options

If the user would like to submit a new solution the button “Add solution” within “Solutions” section should be pressed. New window will pop-up with files to be filled that should describe the proposed solution. It is also possible to attach files in different formats.

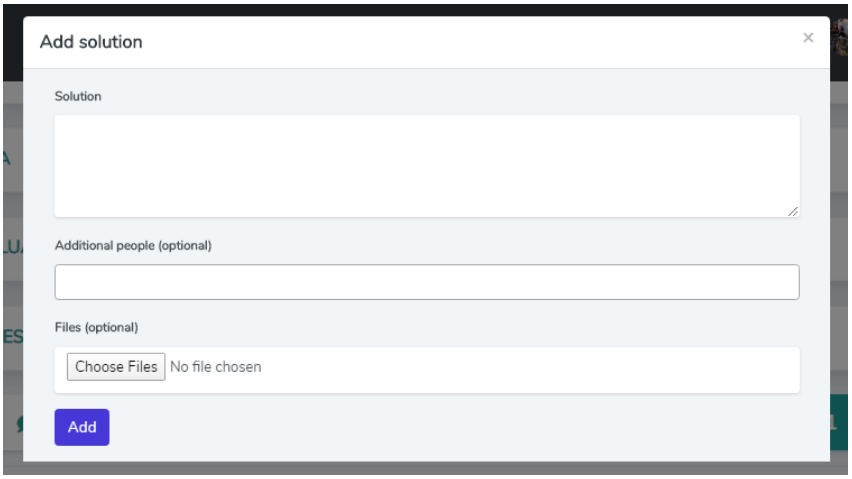

Fig. 18 Adding solution option.

The author of the challenge can evaluate the solution and change its status to make the solution visible to everyone (by default each submitted solution is visible only by the submitter and challenge giver).

1.5. Functionality: Infrastructure sharing

The functionality of “Infrastructure sharing” is currently operated by SYNERGY PROFILING TOOL. For more information please see the chapter 2 of this guidebook.

2. Manual of the INFRASTRUCTURE SHARING functionality

2.1. Introduction to the SYNERGY PROFILING TOOL

SYNERGY PROFILING TOOL is a software tool that analyses multiple project features and organizations competences in order to create synergy effect between entities:

- ✓ looking for new contacts,
- ✓ wanting to establish wider, international cooperation,
- ✓ which are interested in finding a partner in the fields of additive manufacturing, micro- and nanotechnologies and industry 4.0.

SYNERGY PROFILING TOOL can be entered via link: https://synpro.e-science.pl (Fig. 19). The tool is divided into four main sections: PROJECTS, ORGANIZATIONS, MAP and INFRASTRUCTURE SHARING. The infrastructure sharing functionality has been developed recently and has enriched the tool.

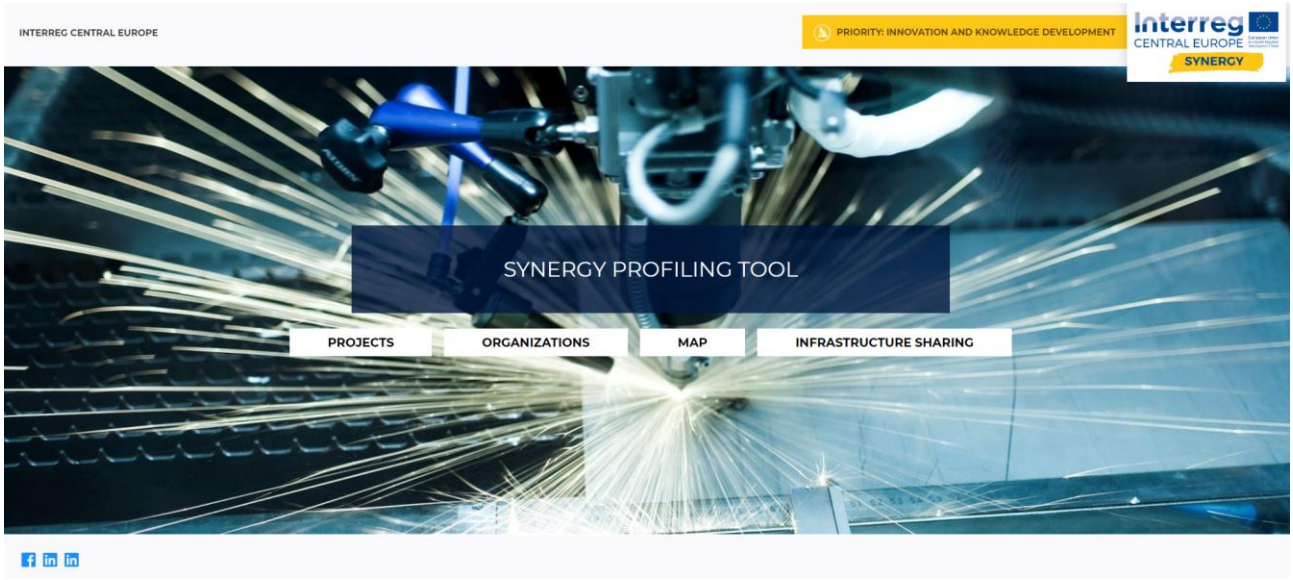

Fig. 19 Screenshot of SYNERGY PROFILING TOOL

Investing in an infrastructure often poses difficulties for organizations and raises i.e. following questions:

- how can we use the infrastructure properly?
- which use cases exist in our company or research organization for this technology?
- how can we ensure that the infrastructure is fully used?

In order to answer these questions SYNERGY has developed the model and software for infrastructure sharing, which offer the user the possibility to test infrastructure and gives the possibility to better utilize and commercialize offered technologies. This new business model can help companies make the right technology investment decision and increase the infrastructure utilization rate. What is more, the infrastructure sharing solution supports:

- promoting organization's technology and competences,
- testing a new business model,
- increasing organization's turnover, reduce costs,
- increasing the utilization of their infrastructure,
- establishing new business partnerships,

- advertising organization's technologies.

Section INFRASTRUCTURE SHARING (https://synpro.e-science.pl/infrastructures) is a living database of infrastructure located mainly in Central Europe. The infrastructure in majority can be assigned to one (or more than one) of the three Key Project's Areas KPA:

- additive manufacturing and 3D printing,
- micro- and nanotechnology-related processes and materials,
- industry 4.0.

The following scheme (Fig. 20) presents the main functionality of the INFRASTRUCTURE SHARING section.

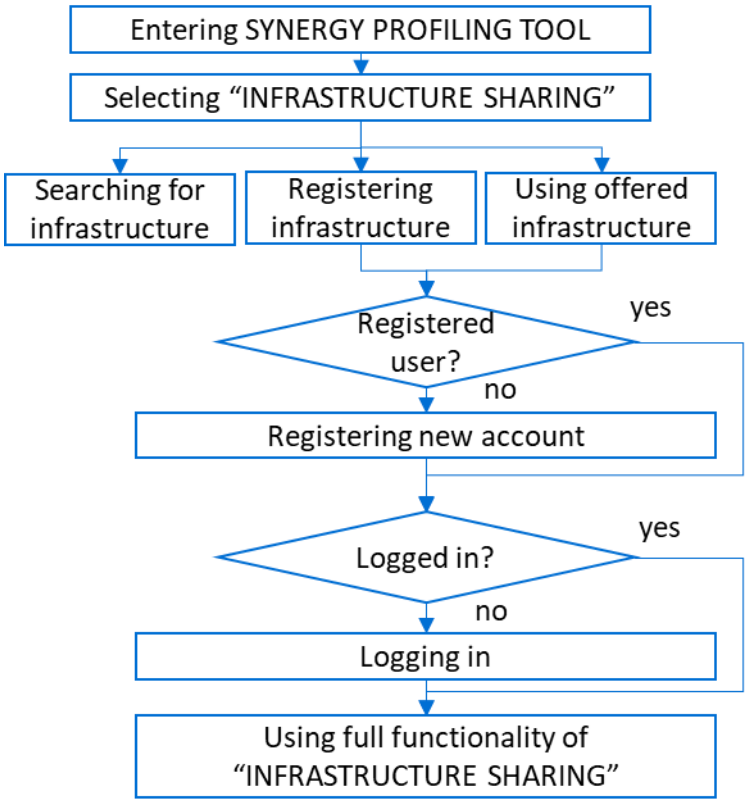

Fig. 20 Scheme presenting main functionality of the INFRASTRUCTURE SHARING section

In general, the user may be interested in three following paths:

- to search existing database of infrastructure (to do this one does not have to be logged in at the platform),
- to register their own infrastructure (to do this one has to be registered at the platform and logged in),
- to use already registered infrastructure – which in fact means contacting a person who is offering the particular infrastructure (to do this one has to be registered at the platform and logged in).

Detailed presentation of each path is discussed in next chapters.

2.2. Functionality: searching for infrastructure

To access functionality of the infrastructure sharing one needs to enter: https://synpro.e-science.pl and select "INFRASTRUCTURE SHARING" box (Fig. 21) or enter directly: https://synpro.e-science.pl/infrastructures.

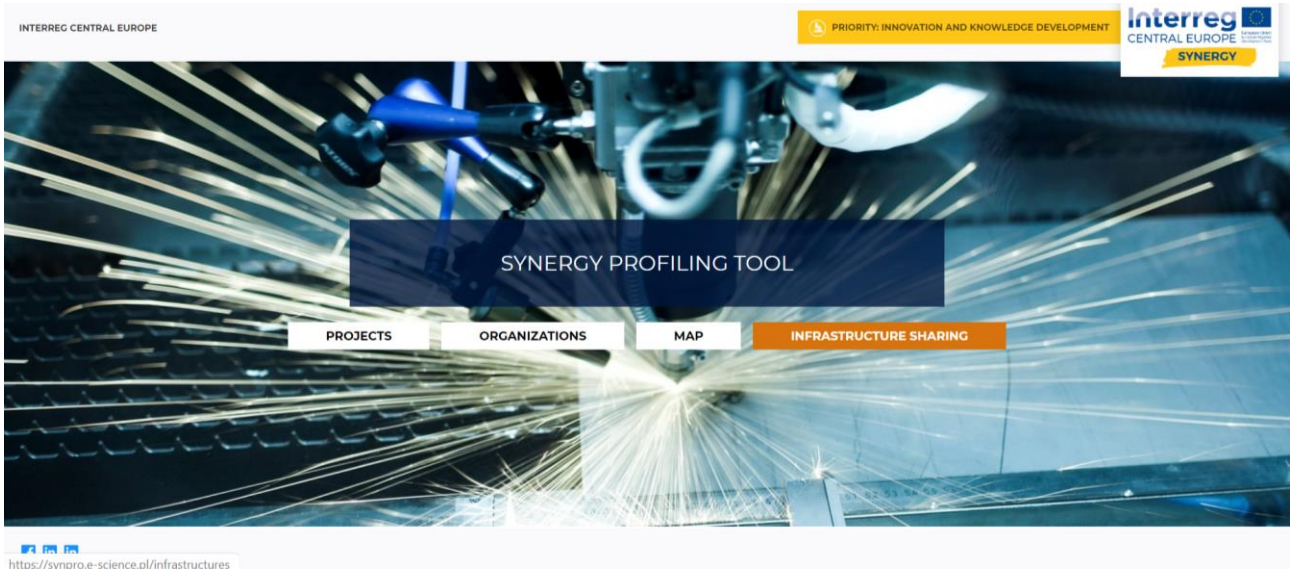

Fig. 21 Selecting "INFRASTRUCTURE SHARING" functionality

Fig. 22 presents the print screen of the infrastructure sharing functionality. On the left hand side, a number of searching criteria is listed (including free search, search according to type of infrastructure divided into Additive Manufacturing, Industry 4.0 and Micro/Nano Manufacturing, search by name of the institution which has registered the infrastructure, search by open key words, search by research services and search by possibilities to rent – drop down list).

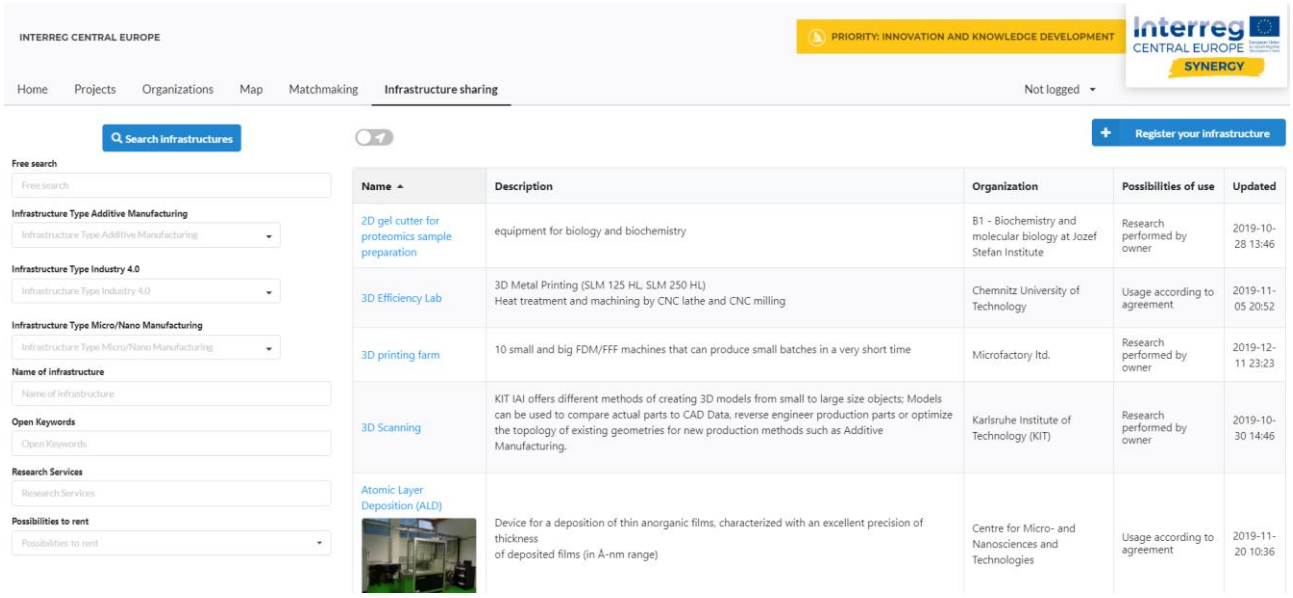

Fig. 22 Overview of the INFRASTRUCTURE SHARING section

On the right-hand side, a preview of already registered infrastructure is presented. It can be sorted in the preview table according to Name, Description, Organization, Possibilities of use. To see the details, one has to click the name of the infrastructure. To search for already submitted infrastructure the user does not have to be registered or logged in on the platform. There is also a possibility to search for infrastructure through map view. To do this one should click the arrow located above "Name" column (Fig. 23, Fig. 24).

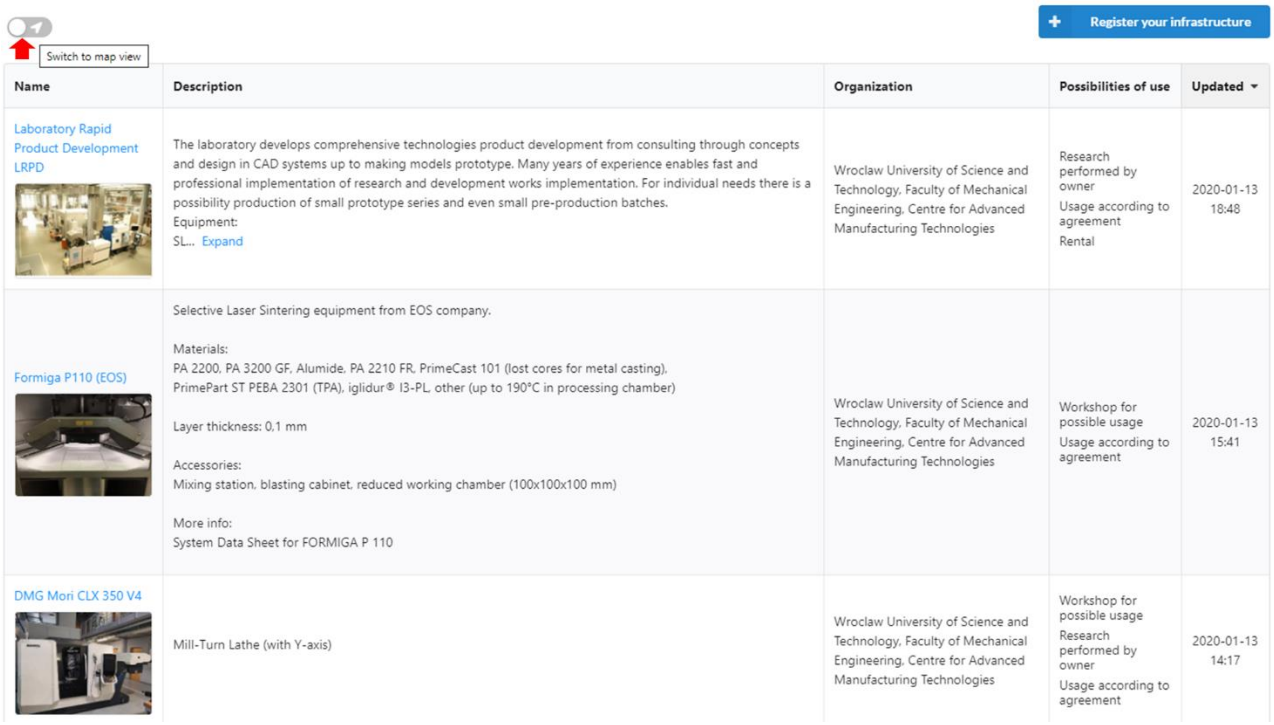

Fig. 23 Overview of the INFRASTRUCTURE SHARING section – selecting map view

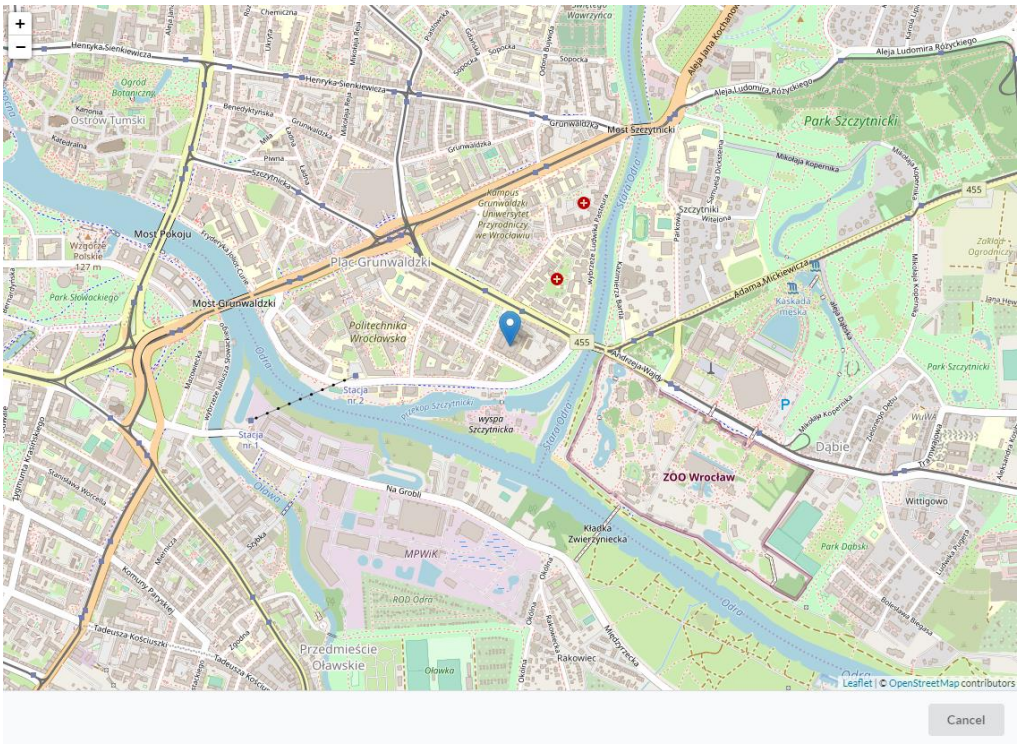

Fig. 24 Overview of the INFRASTRUCTURE SHARING section – map view

To look into details describing the particular infrastructure one has to click on its name (Fig. 25).

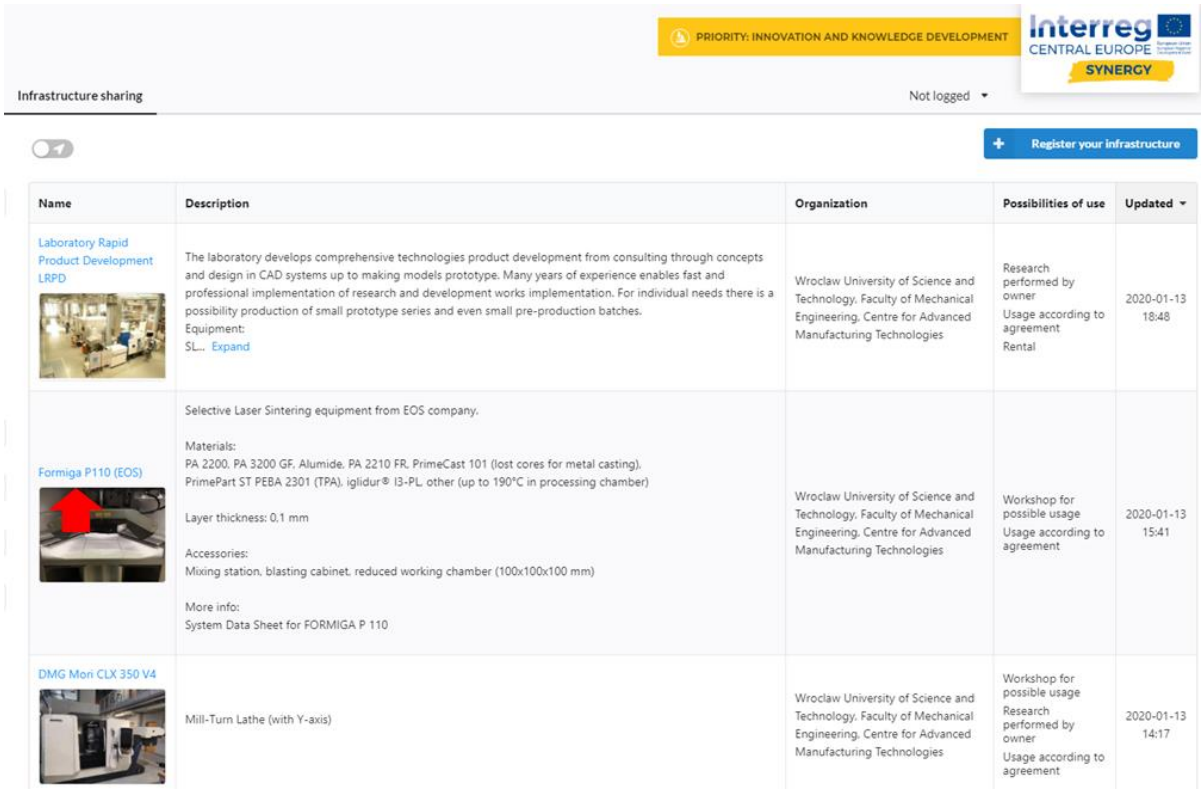

Fig. 25 Overview of the INFRASTRUCTURE SHARING section – selecting particular infrastructure

Next, the preview of the selected infrastructure is shown (Fig. 26). When clicking on the arrow at the right down corner, one can see the location of the infrastructure on the map (Fig. 27).

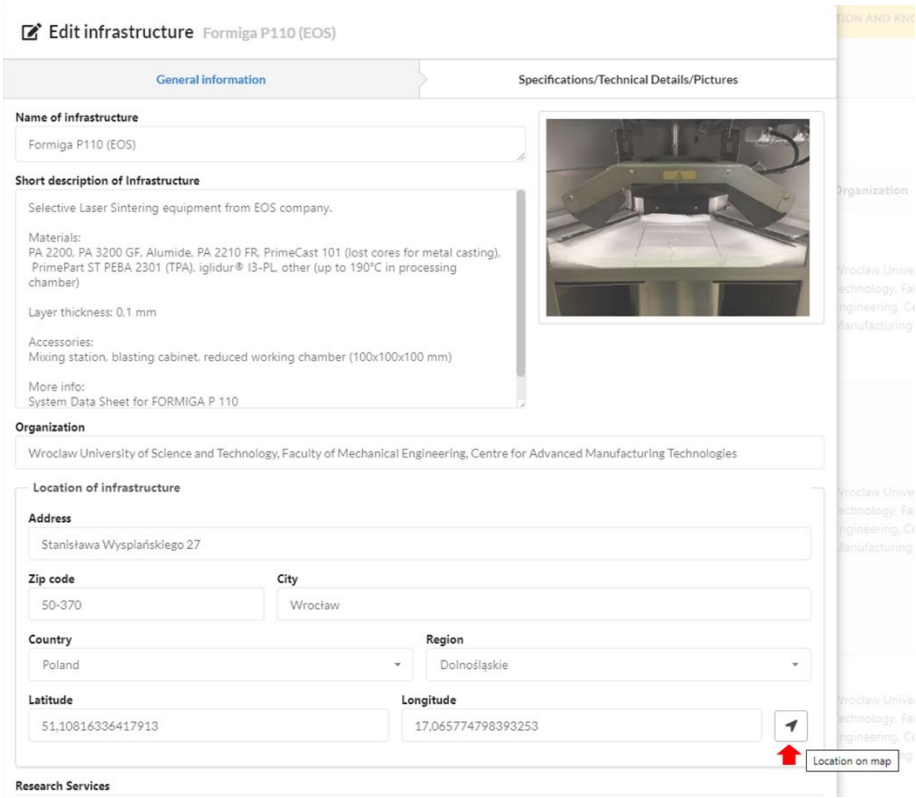

Fig. 26 Preview of the selected infrastructure

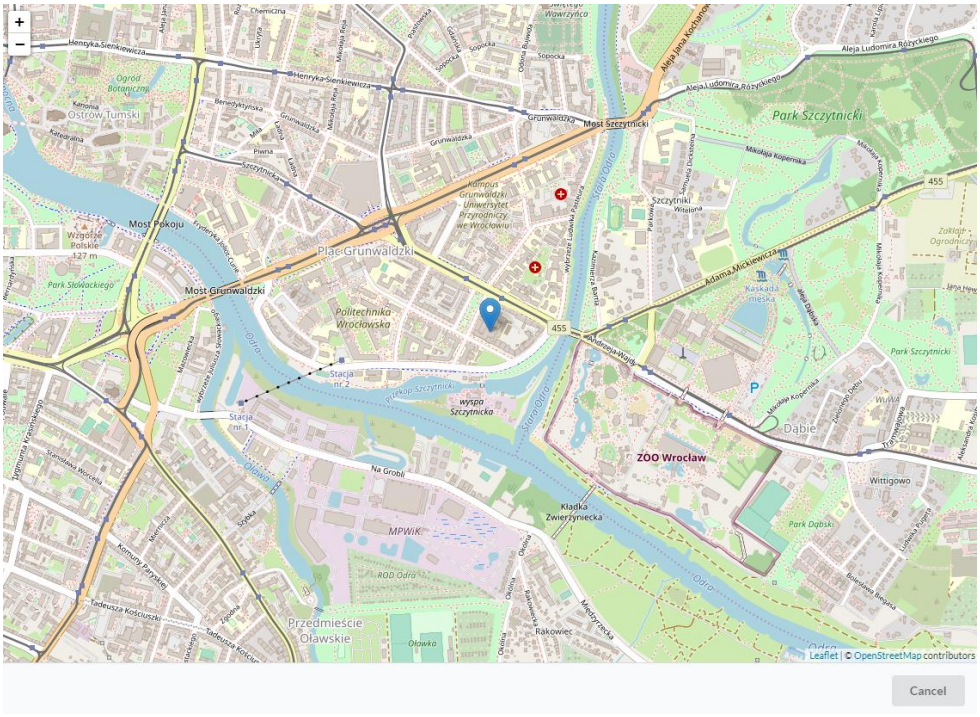

Fig. 27 Preview of the selected infrastructure – location on the map

The location of the infrastructure is marked with the blue pin.

2.3. Functionality: registering infrastructure

In order to register new infrastructure on the platform the user has to be registered and logged in. To check the status, one has to look at the right top corner of the website (Fig. 28).

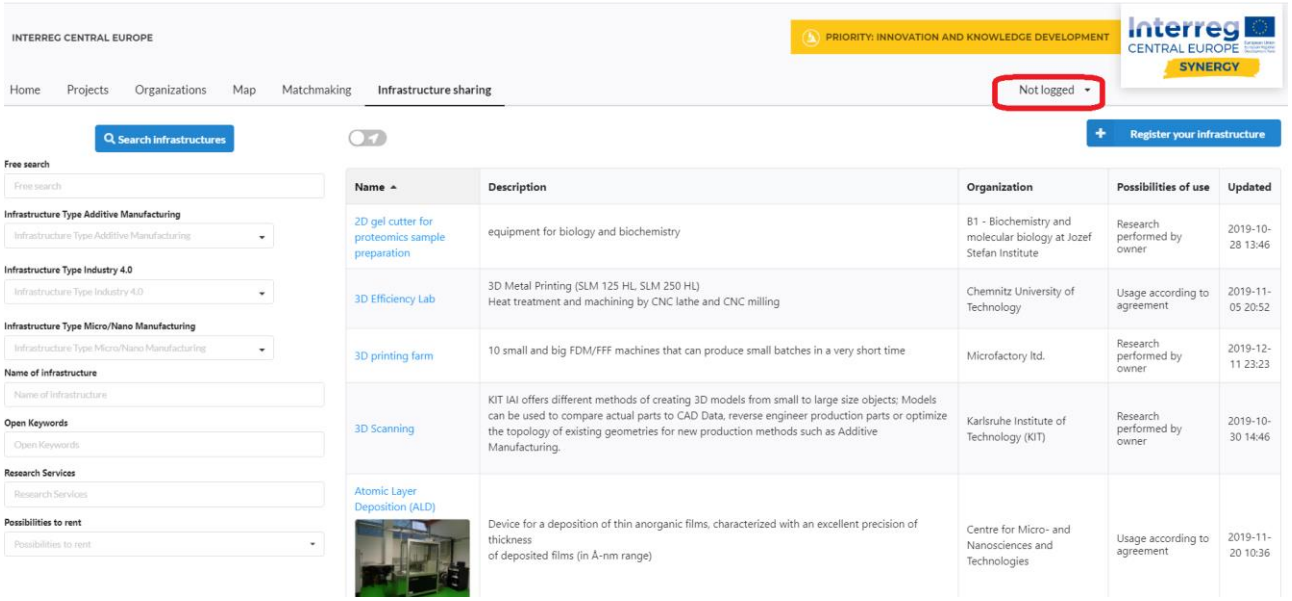

Fig. 28 Overview of the INFRASTRUCTURE SHARING section

Next, the user can choose – either to “log in” or – if the account on the platform is not set up yet – to “register new account” (Fig. 29).

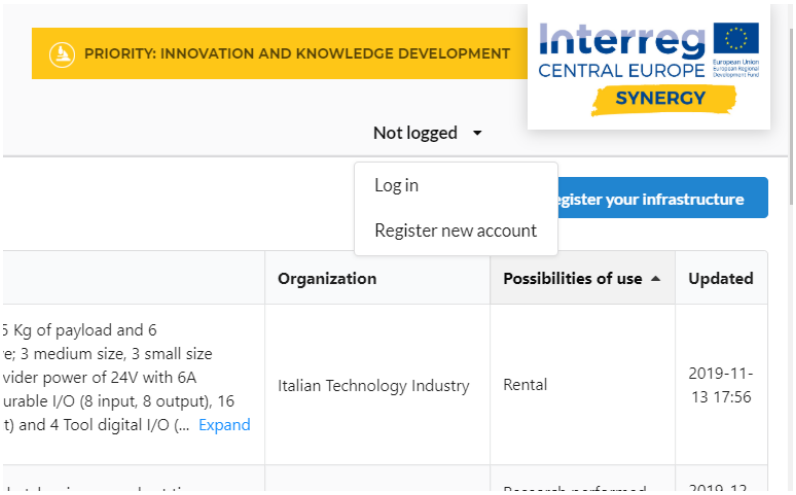

Fig. 29 Selection of logging or registering option

If the account is already set up, the user has to log in (Fig. 30). Otherwise one has to set up an account first (Fig. 31).

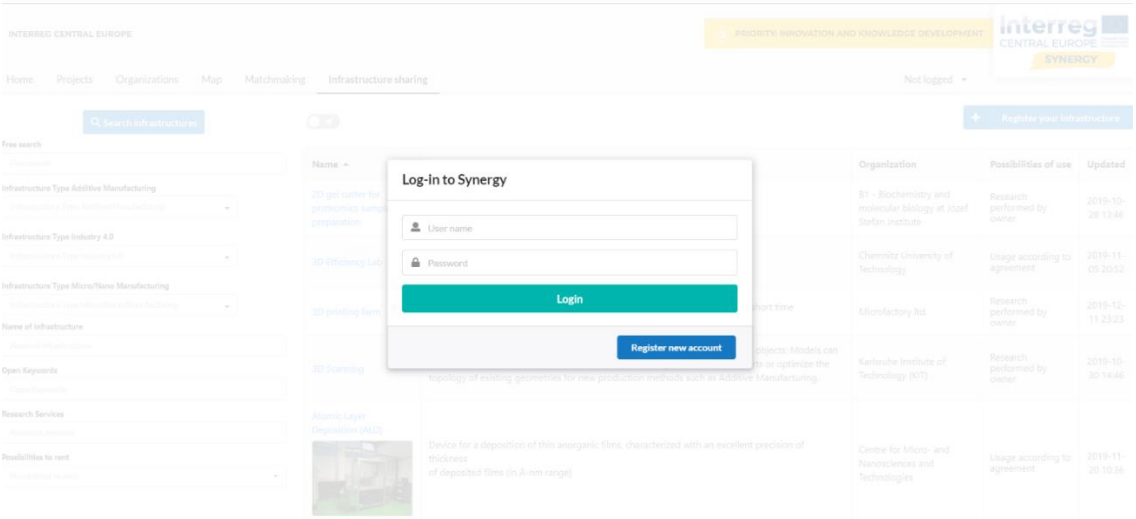

Fig. 30 Log-in to the platform

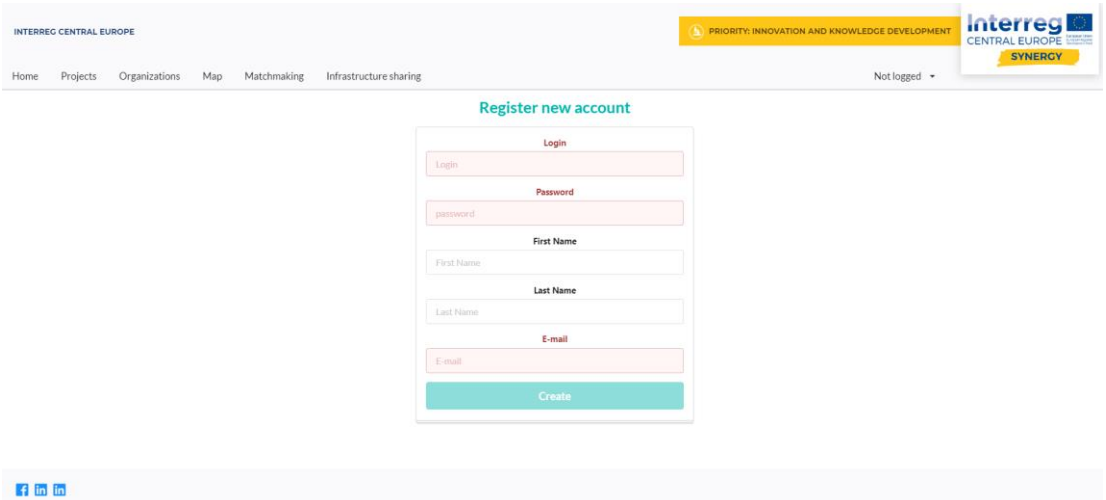

Fig. 31 Registering new account

After registering and logging in (Fig. 32), one can use the full functionality of the platform.

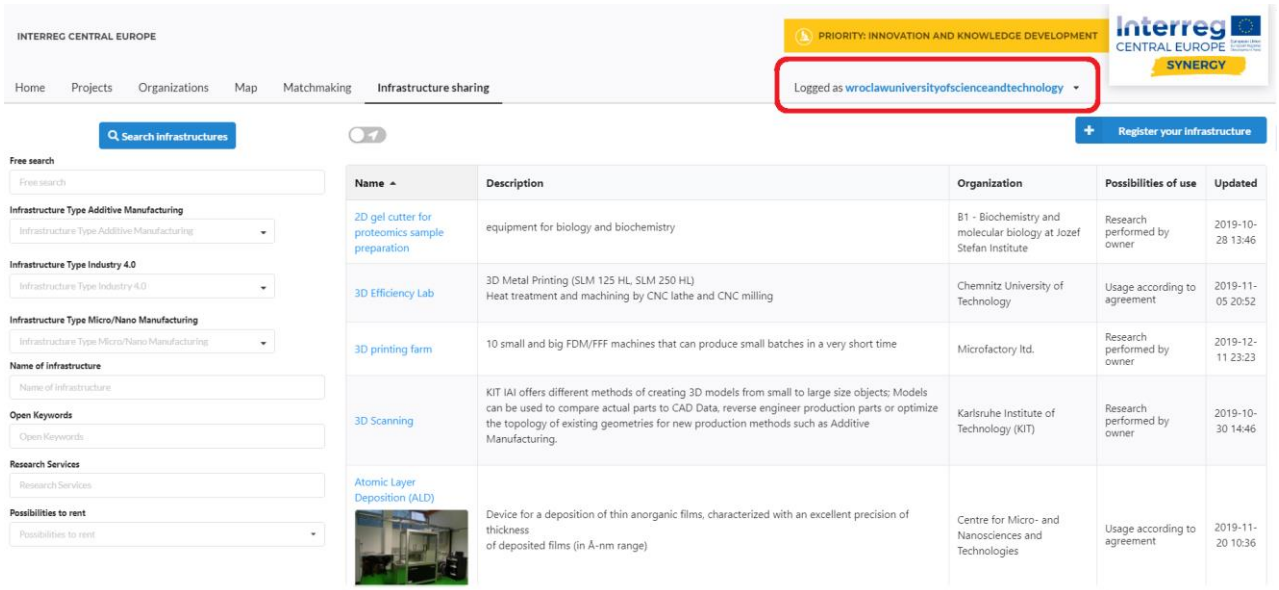

Fig. 32 Screen shot presenting logging status (user logged in).

By clicking on the blue box in the right top corner the user may register their own infrastructure. Next,

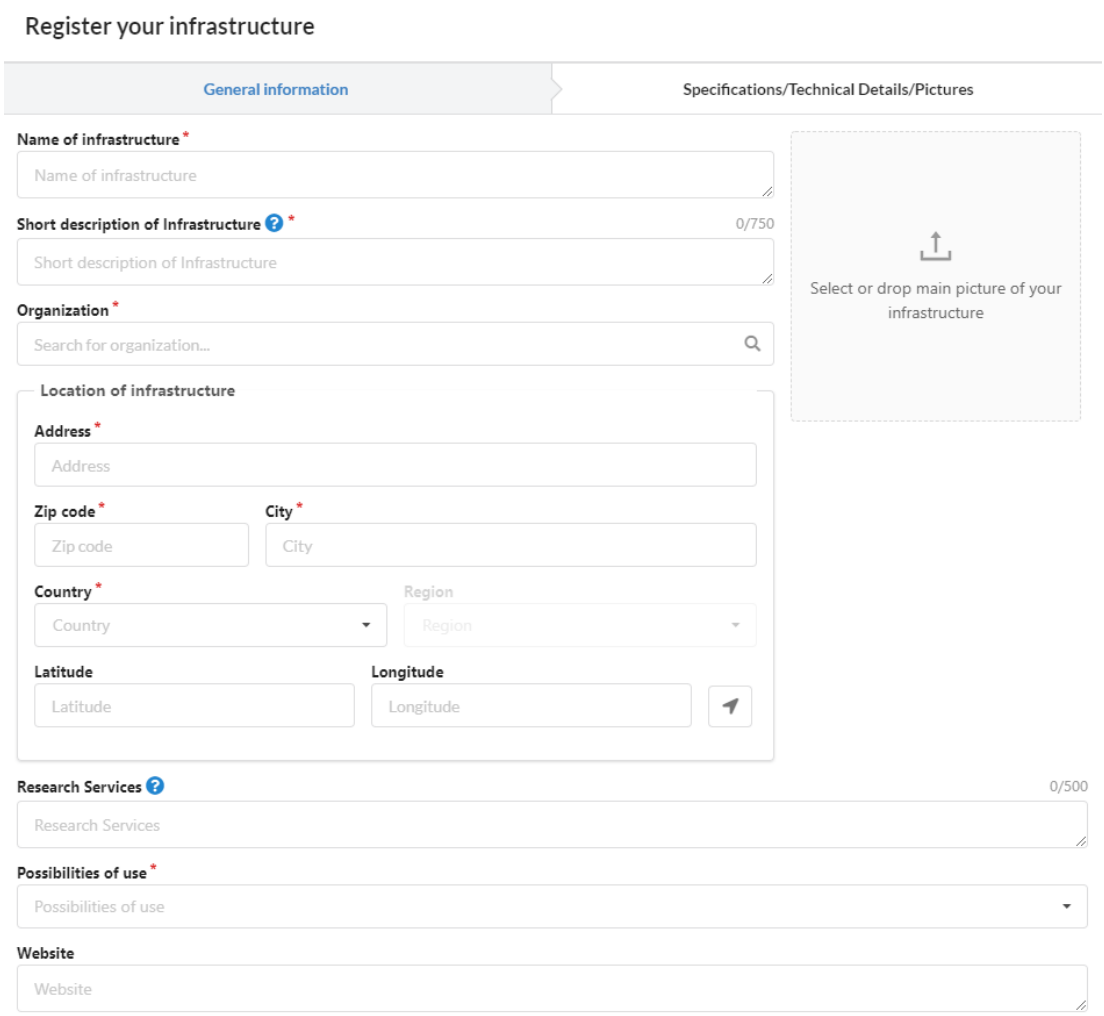

Fig. 33 A form for infrastructure registration (part 1)

a form including all necessary information and data describing the registered infrastructure is opened (Fig. 33, Fig. 34).

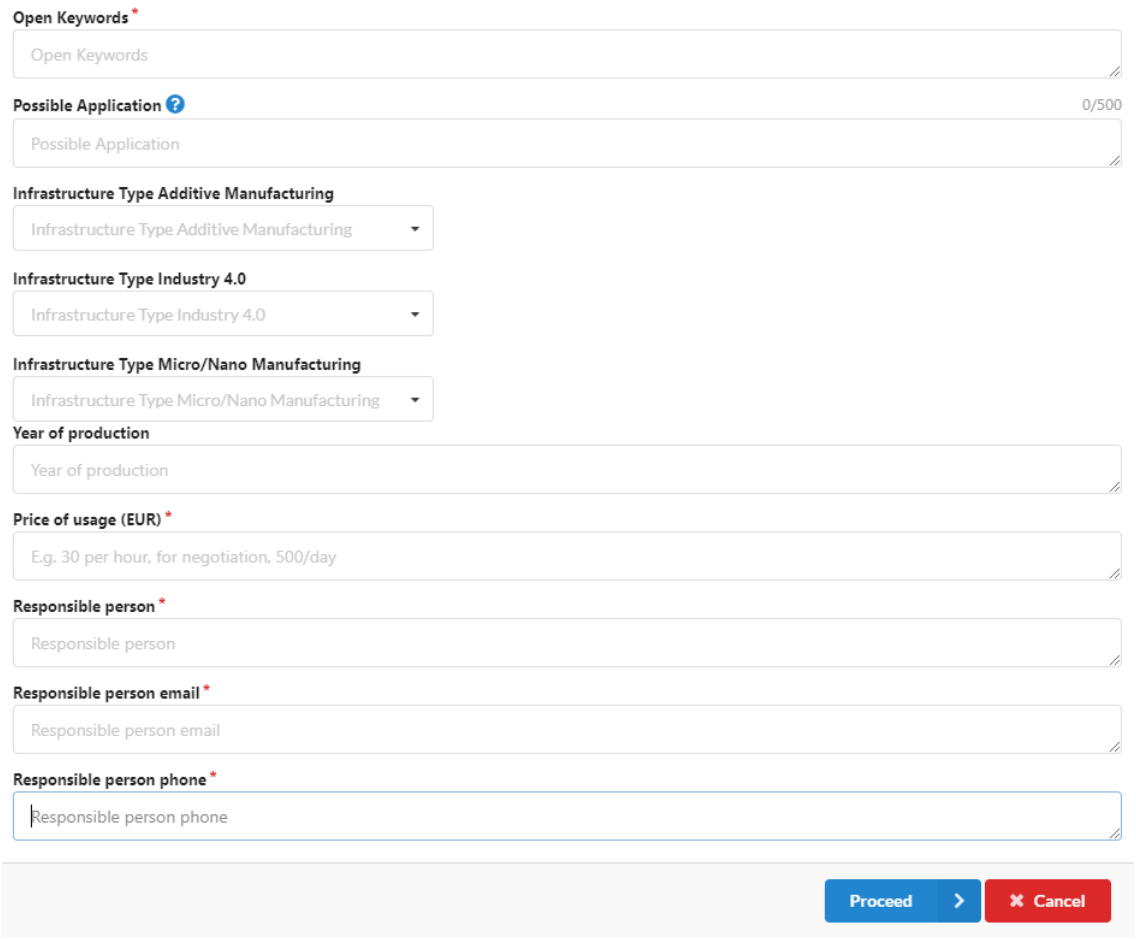

Fig. 34 A form for infrastructure registration (part 2)

After filling all the required data and information, the user should click “Proceed” box. Next, the user should upload files corresponding to the registered infrastructure (Fig. 35).

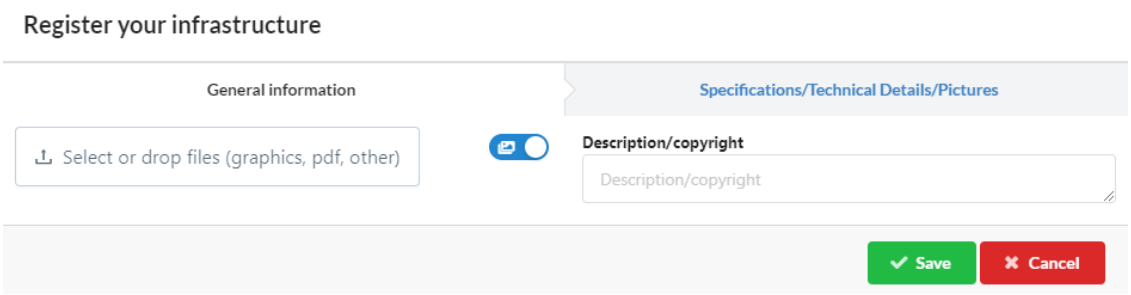

Fig. 35 A form for infrastructure registration – the second page (part 3)

The final step of the registering process is clicking the green button – “save”.

2.4. Functionality: using offered infrastructure

Another functionality available on the platform is matchmaking of registered infrastructure with those who need to use it. In this process the user who would like to rent, use, or perform research on the particular infrastructure, can contact directly the person who has registered it (infrastructure's owner). To do this one should select the infrastructure in which they are interested in and click on its name.

Next, the user should select the button located at the down left corner of the form – "Contact with owner" (Fig. 36, Fig. 37).

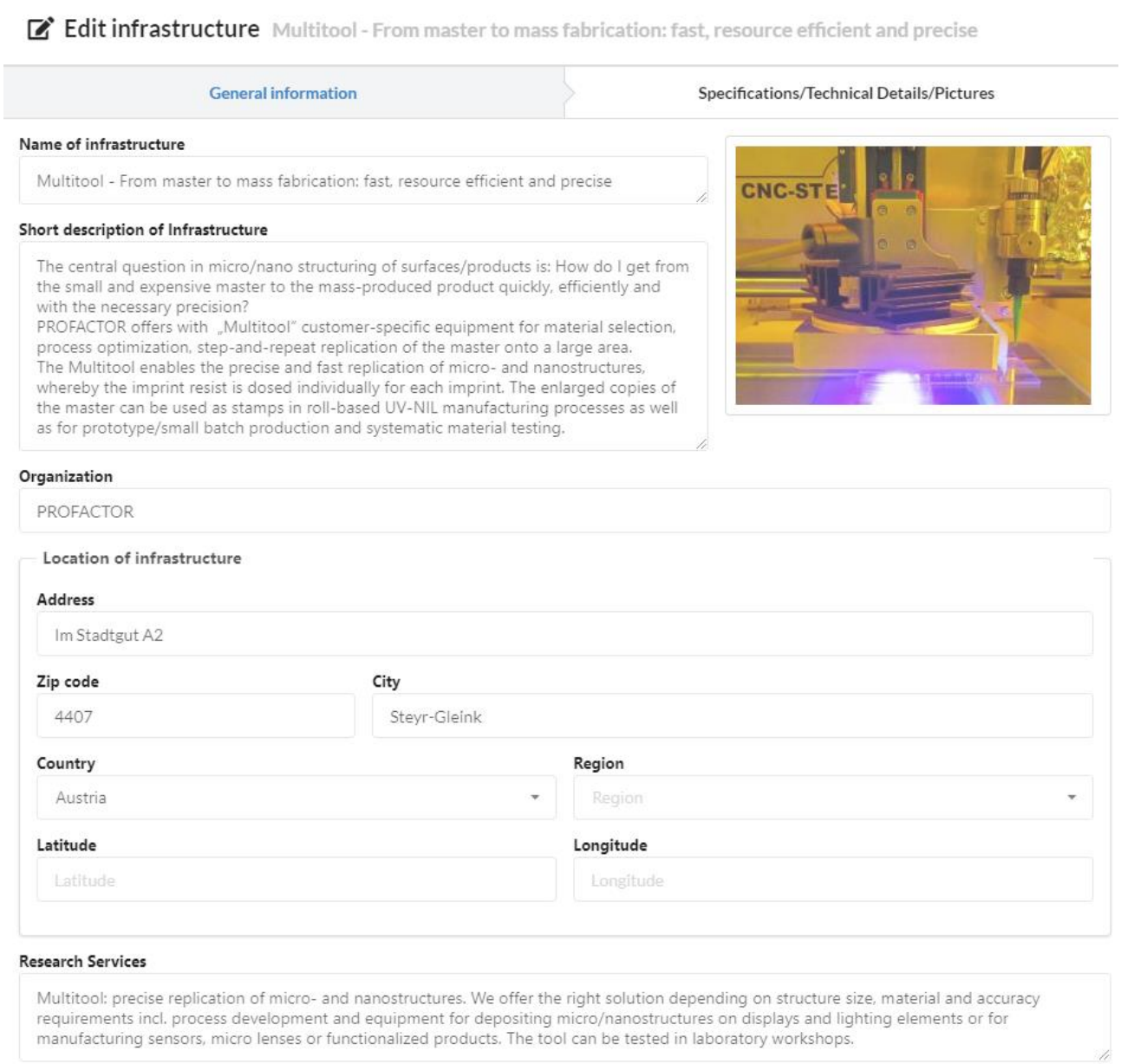

Fig. 36 Preview of the selected infrastructure – establishing contact with the infrastructure's owner (part 1)

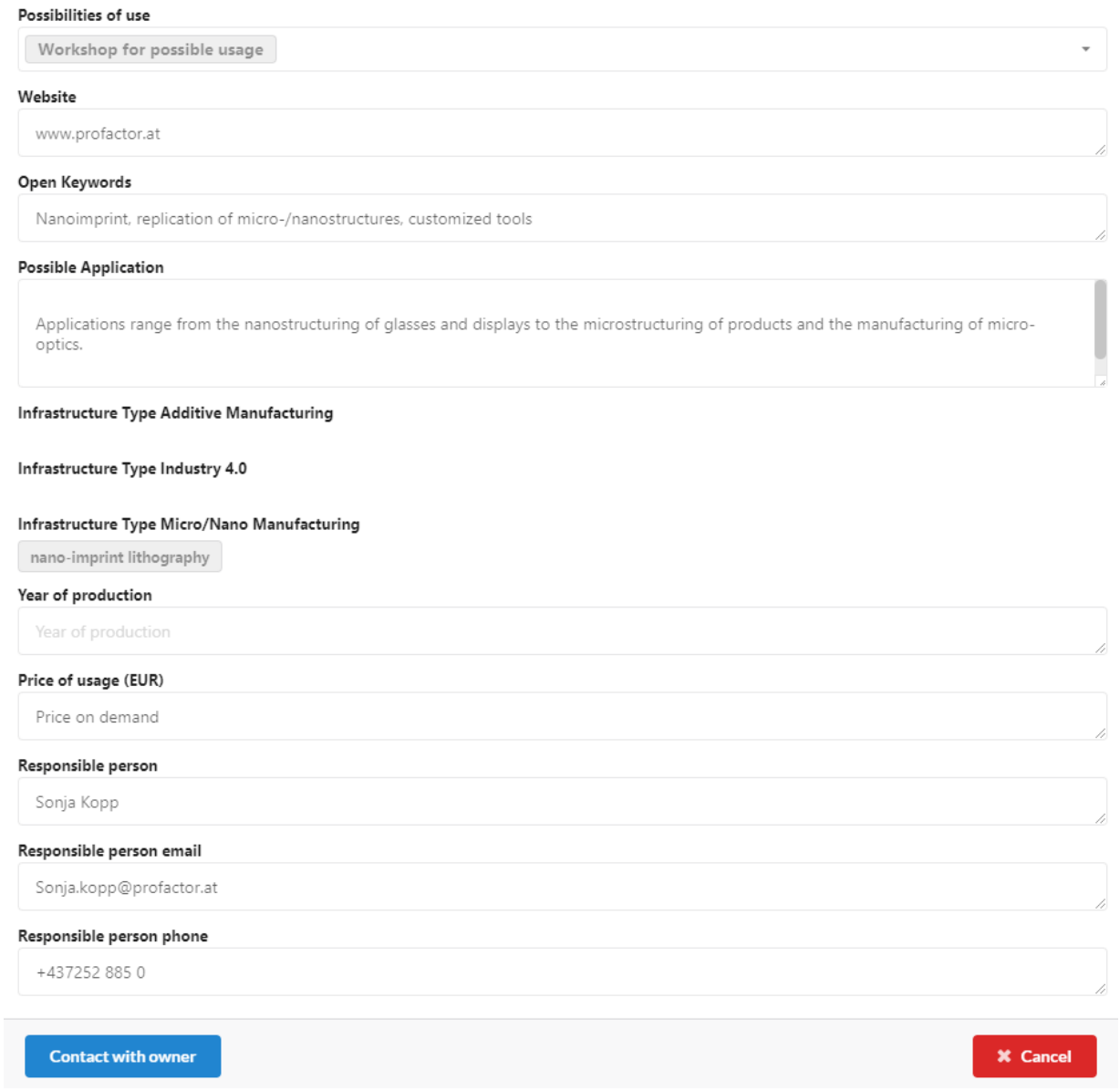

Fig. 37 Preview of the selected infrastructure – establishing contact with the infrastructure's owner (part 2)

After clicking the "Contact with owner" button, the user should fill in a short contact form presented in Fig. 38. The form includes the basic information which should help to specify expectations of the person wanting to use the infrastructure.

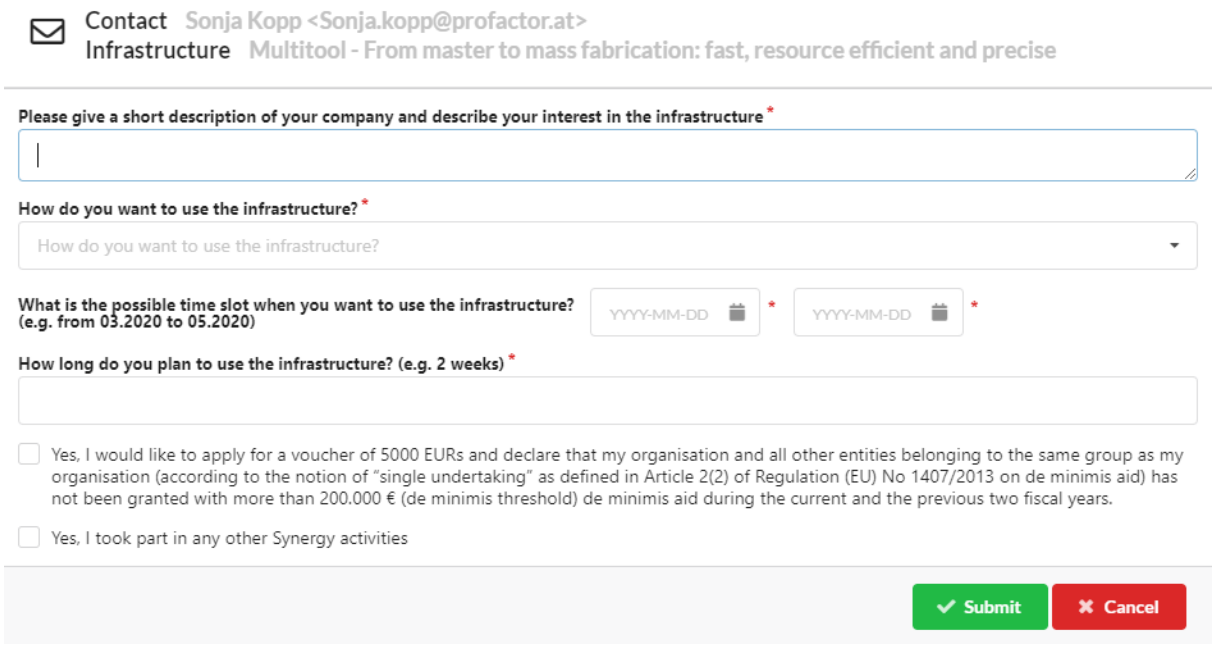

Fig. 38 Form allowing to establish contact with the infrastructure's owner

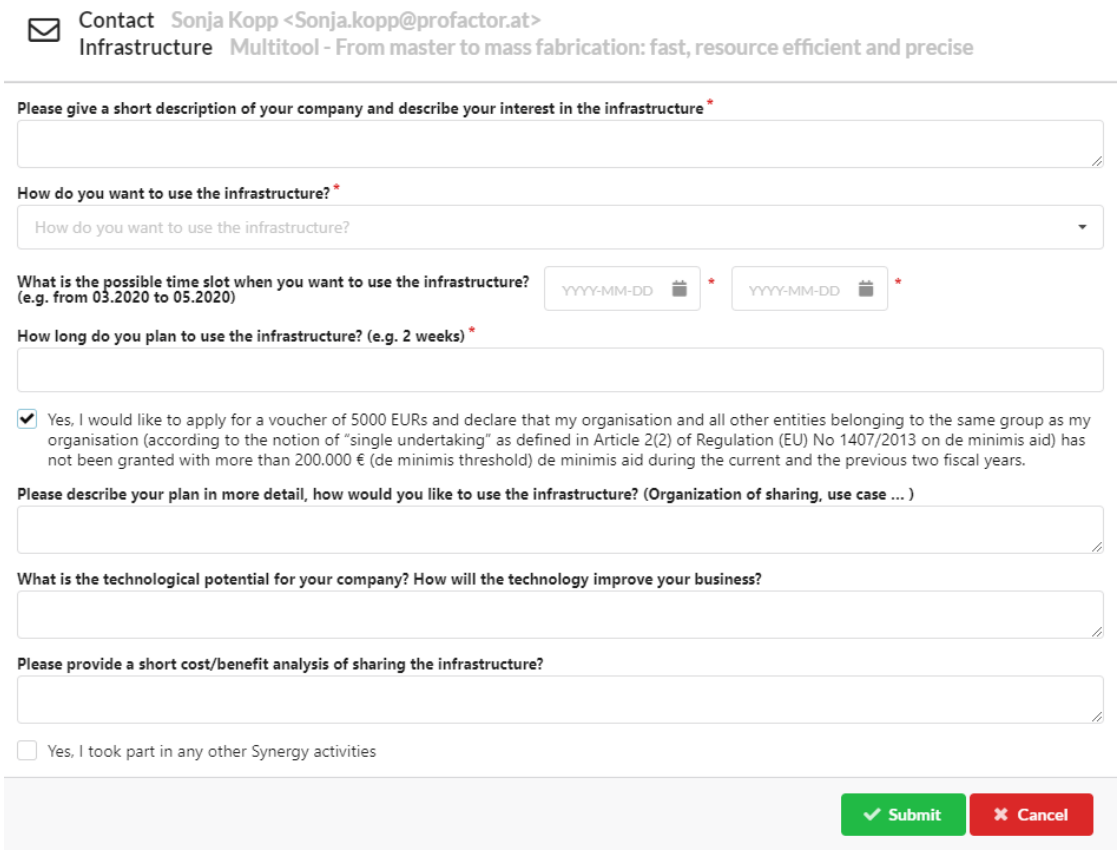

Fig. 39 Form allowing to establish contact with the infrastructure's owner – preview if the first "yes" option is marked

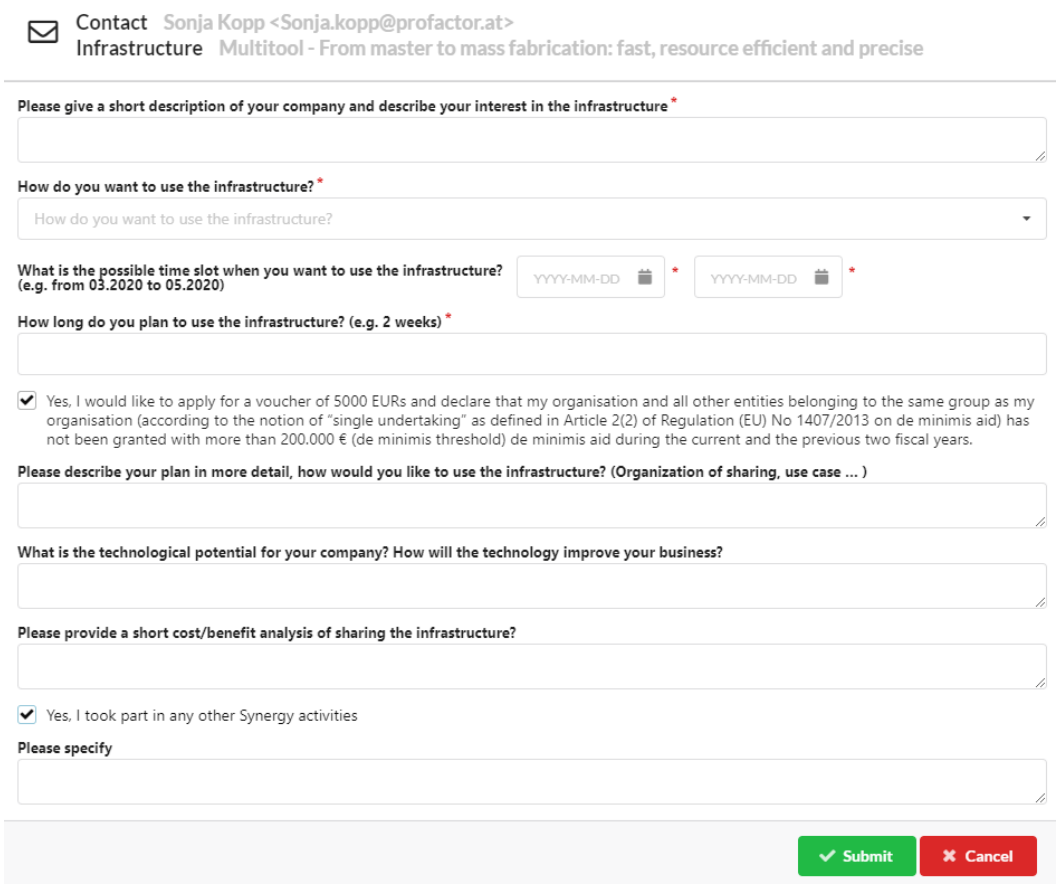

Fig. 40 Form allowing to establish contact with the infrastructure's owner – preview if the second "yes" option is marked

Fig. 39 and Fig. 40 present the form allowing to establish contact with the infrastructure's owner in two options – the first (Fig. 39) concerns a situation when a person interested in using the infrastructure would like to apply for a voucher supporting the matchmaking process. The second preview (Fig. 40Fig. 39) concerns a SYNERGY project-related question: if a person has taken part in any activities of the SYNERGY. The owner of the infrastructure will get the filled in form by email.