

Guidebook	for	potential	Synergic	Crowd	Version 1
Innovation	Platfo	orm users			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: <u>https://synergyplatform.pwr.edu.pl</u> (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
- \checkmark 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

- \circ 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.

		SYN PLAT	ERGY FORM			
Home	Crowdfunding for research	Challenges for innovation	Infrastructure sharing	Info and training materials	Login Registe	er
		Rey Confirm Password Rey Rey Rey Rey Confirm Password	gister GOOGLE rd gister			

Fig. 3 Registering new account





SYNERGY PLATFORM

Home	Crowdfunding for research	Challenges for innovation	Infrastructure sharing	Info and training materials	Login Register
		L C E-mail Password	GOOGLE		
		Remember Me	Login	egister	

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).

Dashboa	ard 🔎 📻 Synergy	
	Profile	
	Settings	
	My campaigns	
atform	My challenges	
a	Your teams	
	Dashboard	
	Logout	

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

My account			Avatar CENTRAL EURO Reset password
ACCOUNT INFORMATION			SYNERCY
Username	E	-mail	
Synergy		synergy@pwr.edu.pl	0 0 0
Name	s	umame	Comments Stars Teams
			Synergy
CONTACT			
Address			
City	Country	Zip code	
DESCRIPTION			
About me			
A few words			
		li	

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).





	Add campaign ×	
	Image *	
Home	Choose File No file chosen	synergy Synergy
(////	Picture credits	
	Title *	
	Short description (max 300 characters)	
+ ADD 0	Description	Search
la mandu		
io results	li li	
	Benefits for supporters	
	<i>li</i>	· .
	Final amount	inology
	€	
© 2019 Wroclav Developed by:	The end of the campaign	B 🛞 🖸
	Elles (antional)	
	Choose Files No file chosen	
	Draft version	
	O Released version	
	Add	
	Add	

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.





 the administrator accepts the campaign.
CAMPAIGN INACTIVE

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).

VrUST	IN	P -	A	T				
0 Supporters	0 Teams	0 Comments	2			1	Support nov	v with PayPal
Description Marta Rutkowska	and the br	others Wiktor ar	nd Fryderyk Rot	tt are studying at	the Faculty o	f Computer	Science	
worked on for the won the greatest i Suisce IncERT an	whole sen recognition	nester in the third of the jury - rep	d year of their of resentatives of the Academy of	computer science companies includ	degree progr ding Volvo, C	amme. The apgemini, C	r project redit	
		Fig	a. 11 Campa	aign's suppor	rt 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).





Home	Add challenge	×	Synergy
	Image *		10 ⁷
	Choose File No file chosen		
	Picture credits		
	Title *		
	Short description (max 300 characters)		
+ ADD 0			Search
	Description	h	
E	Ceschpoon		
	Evaluation criteria		
Flask Tie	Example text		h robot
Anti stress		1	with few robot solved
🗢 Priz	Prize		
			2020-01-07
	The end of the challenge		0 Solutions
_	₩		
	Files (optional)		125-1
	Choose Files No file chosen		
	Draft version		
	Keleased version		
Kto chce (Finished	Add veryshort	,	member

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.





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

	Your challenges	
+ ADD CHALLENGE	Sort by: Publication Descending	Q Search
SYNERGY more than the service of th		
Sending wishes form Synergy team (Finished)	Inteligent monitoring of stray dogs population	A mysterious mission in space
Sending wishes form Synergy team	The research will focus on (1) conventional detection technology, (2) the concepts and applications of the Internet of Things (IOT, in animal ecology, (3) advantages and	space. What is the purpose of your mission? How do you move in zero gravity? These are the challenges you will have to face if you enter the virtual world
Prize 2019-12-24	disadvantages of IOT	of Weightless - a game invented by
• · · · · · · · · · · · · · · · · · · ·		

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.

1	Comments 0	2	🏩 Teams 0	3	§ Solutions 1
0	Synergy				
	Add comment				
4	Public message Private message				COMMENT

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.

Add	solution	×
Solu	rtion	
Add	iftional people (optional)	~
Files	s (optional)	
(Choose Files No file chosen	
A	dd	

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,
- \checkmark 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: <u>https://synpro.e-science.pl</u> (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.



f in in

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 (<u>https://synpro.e-science.pl/infrastructures</u>) 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: <u>https://synpro.e-science.pl</u> and select "INFRASTRUCTURE SHARING" box (Fig. 21) or enter directly: <u>https://synpro.e-science.pl/infrastructures</u>.



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).

INTERREC CENTRAL EUROPE Home Projects Organizations Map Matc	hmaking Infrastructure sha		ND KNOWLEDGE DEVELOPMEN		OPE Examples
0				Register your infr	astructure
Free search			1		
Free search	Name +	Description	Organization	Possibilities of use	Updated
Infrastructure Type Additive Manufacturing Infrastructure Type Additive Manufacturing	2D gel cutter for proteomics sample preparation	equipment for biology and biochemistry	B1 - Biochemistry and molecular biology at Jozef Stefan Institute	Research performed by owner	2019-10- 28 13:46
Infrastructure Type Industry 4.0 Infrastructure Type Industry 4.0	3D Efficiency Lab	3D Metal Printing (SLM 125 HL, SLM 250 HL) Heat treatment and machining by CNC lathe and CNC milling	Chemnitz University of Technology	Usage according to agreement	2019-11- 05 20:52
Infrastructure Type Micro/Nano Manufacturing	3D printing farm	10 small and big FDM/FFF machines that can produce small batches in a very short time	Microfactory ltd.	Research performed by	2019-12- 11 23:23
Name of infrastructure					
Open Keywords Open Keywords	3D Scanning	KI I via others arreterint memoas of creating 30 models from small to large size objects; Models can be used to compare actual parts to CAD Data, reverse engineer production parts or optimize the topology of existing geometries for new production methods such as Additive Manufacturing.	Karlsruhe Institute of Technology (KIT)	Research performed by owner	2019-10- 30 14:46
Research Services					
Research Services	Atomic Layer				
Possibilities to rent Possibilities to rent	Deposition (ALD)	Device for a deposition of thin anorganic films, characterized with an excellent precision of thickness of deposited films (in A-nm range)	Centre for Micro- and Nanosciences and Technologies	Usage according to agreement	2019-11- 20 10:36

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).





		1	+ Register your in	frastructure
Name	Description	Organization	Possibilities of use	Updated 👻
Laboratory Rapid Product Development LRPD	The laboratory develops comprehensive technologies product development from consulting through concepts and design in CAD systems up to making models prototype. Many years of experience enables fast and professional implementation of research and development works implementation. For individual needs there is a possibility production of small prototype series and even small pre-production batches. Equipment: SL., Expand	Wroclaw University of Science and Technology, Faculty of Mechanical Engineering, Centre for Advanced Manufacturing Technologies	Research performed by owner Usage according to agreement Rental	2020-01-13 18:48
Formiga P110 (EOS)	Selective Laser Sintering equipment from EOS company. Materials: PA 2200, PA 3200 GF, Alumide. PA 2210 FR, PrimeCast 101 (lost cores for metal casting). PrimePart ST PEBA 2301 (TPA), iglidur® I3-PL, other (up to 190°C in processing chamber) Layer thickness: 0.1 mm Accessories: Mixing station. blasting cabinet. reduced working chamber (100x100x100 mm) More info: System Data Sheet for FORMIGA P 110	Wroclaw University of Science and Technology, Faculty of Mechanical Engineering, Centre for Advanced Manufacturing Technologies	Workshop for possible usage Usage according to agreement	2020-01-13 15:41
DMG Mori CLX 350 V4	Mill-Turn Lathe (with Y-axis)	Wroclaw University of Science and Technology, Faculty of Mechanical Engineering, Centre for Advanced Manufacturing Technologies	Workshop for possible usage Research performed by owner Usage according to agreement	2020-01-13 14:17

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).





	-		<u>.</u>	
D			+ Register your in	frastructure
lame	Description	Organization	Possibilities of use	Updated
aboratory Rapid roduct Developmer RPD	The laboratory develops comprehensive technologies product development from consulting through concepts and design in CAD systems up to making models prototype. Many years of experience enables fast and professional implementation of research and development works implementation. For individual needs there is a possibility production of small prototype series and even small pre-production batches. Equipment: SL.: Expand	Wroclaw University of Science and Technology, Faculty of Mechanical Engineering, Centre for Advanced Manufacturing Technologies	Research performed by owner Usage according to agreement Rental	2020-01-1 18:48
ormiga P110 (EOS)	Selective Laser Sintering equipment from EOS company. Materials: PA 2200, PA 3200 GF, Alumide. PA 2210 FR, PrimeCast 101 (lost cores for metal casting), PrimePart ST PEBA 2301 (TPA). iglidur® I3-PL other (up to 190°C in processing chamber) Layer thickness: 0.1 mm Accessories: Mixing station, blasting cabinet, reduced working chamber (100x100x100 mm) More info: System Data Sheet for FORMIGA P 110	Wroclaw University of Science and Technology. Faculty of Mechanical Engineering. Centre for Advanced Manufacturing Technologies	Workshop for possible usage Usage according to agreement	2020-01-1 15:41
MG Mori CLX 350	4 Mill-Turn Lathe (with Y-axis)	Wroclaw University of Science and Technology: Faculty of Mechanical Engineering. Centre for Advanced Manufacturing Technologies	Workshop for possible usage Research performed by owner Usage according to agreement	2020-01- 14:17

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).

	Formiga P110 (EOS)			
Genera	al information		Specifications/Technical Details/Pictures	
ame of infrastructure				a
Formiga P110 (EOS)				
nort description of Infrastructur	e			
Selective Laser Sintering equip Materials: PA 2200, PA 3200 GF, Alumide, PrimePart ST PEBA 2301 (TPA) chamber) Layer thickness: 0,1 mm Accessories: Mixing station. blasting cabine More info: System Data Sheet for FORMII reanization	ment from EOS company. .PA 2210 FR. PrimeCast 101 (lo . igilidur® I3-PL. other (up to 1 .t. reduced working chamber (1 SA P 110	ost cores for metal casting). 90°C in processing 100x100x100 mm)		Vroctaw I echnolog ngineerii Janufacti
Wroclaw University of Science	and Technology, Faculty of Me	chanical Engineering, Centre	for Advanced Manufacturing Technologies	
Location of infrastructure				Vroclaw
Address				echnolog
Stanisława Wyspiańskiego 2	:7			Aanufacti
	City			
Zip code				
Zip code 50-370	Wrocław			
Zip code 50-370 Country	Wrocław	Region		
Zip code 50-370 Country Poland	Wrocław	Region • Dolnośląskie	•	
Zip code 50-370 Country Poland Latitude	Wrocław	Region - Dolnośląskie Longitude	-	Wroclaw I

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).

INTERREC CENTRAL EUROPE Home Projects Organizations Map Matchm	Not logged	T Interre CENTRAL EURO SYNER	RCY		
Free search			-		
Free search	Name 🔺	Description	Organization	Possibilities of use	Updated
Infrastructure Type Additive Manufacturing	2D gel cutter for proteomics sample preparation	equipment for biology and biochemistry	B1 - Biochemistry and molecular biology at Jozef Stefan Institute	Research performed by owner	2019-10- 28 13:46
Infrastructure Type Industry 4.0	3D Efficiency Lab	3D Metal Printing (SLM 125 HL, SLM 250 HL) Heat treatment and machining by CNC lathe and CNC milling	Chemnitz University of Technology	Usage according to agreement	2019-11- 05 20:52
Infrastructure Type Micro/Nano Manufacturing Infrastructure Type Micro/Nano Manufacturing Name of Infrastructure	3D printing farm	10 small and big FDM/FFF machines that can produce small batches in a very short time	Microfactory ltd.	Research performed by owner	2019-12- 11 23:23
Name of Infrastructure Open Keywords Open Keywords	3D Scanning	KIT IAI offers different methods of creating 3D models from small to large size objects; Models can be used to compare actual parts to CAD Data, reverse engineer production parts or optimize the topology of existing geometries for new production methods such as Additive Manufacturing.	Karlsruhe Institute of Technology (KIT)	Research performed by owner	2019-10- 30 14:46
Research Services	1				
Result/SerVos Possibilities to rent Possibilities to rent	Atomic Layer Deposition (ALD)	Device for a deposition of thin anorganic films, characterized with an excellent precision of thickness of deposited films (in A-nm range)	Centre for Micro- and Nanosciences and Technologies	Usage according to agreement	2019-11- 20 10:36

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).





	AND KNOWL	EDGE DEVELOPME	C		
	Organizat	Log in Register new a ion	ccount Possibi	egister your infra	structure Updated
5 Kg of payload and 6 e; 3 medium size, 3 small size vider power of 24V with 6A urable I/O (8 input, 8 output), 16 t) and 4 Tool digital I/O (Expand	Italian Tech	nnology Industry	Rental		2019-11- 13 17:56
			D	<i></i>	2010 12

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).

AL EUROPE ES Organization Map Matchenaking Infrastructure sharing C Loach advanture lare Registructure Hame - Dog-in to Synergy Cuber name Bo Plasmont D P				
Name +			Possibilities of use	
	Log-in to Synergy			
	Luser name			
	Password			
	Login	hort time		
	Register new account	objects: Models can		
3D Scienting	topology of existing geometries for new production methods such as a	its or optimize the idditive Manufacturing.		

Fig. 30 Log-in to the platform

INTERREG CE	ENTRAL EUR	OPE					S PRIORITY: INNOVATION AND KNOWLEDGE DEVELOPMENT	
Home P	Projects	Organizations	Map	Matchmaking	Infrastructure sharing		Not logged 👻	
						Register new account		
						Login		
						Login		
						Password		
						password		
						First Name		
						First Name		
						Last Name		
						Last Name		
						E-mail		
						E-mail		
						Create		
f in in	00							

Fig. 31 Registering new account

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





INTERREC CENTRAL EUROPE Home Projects Organizations Map Matchm	Name - Description arch Name - Description arch 2D gel cutter for proteomics sample proteomics sample proteomics sample proteomics sample and biochemistry 2D gel cutter for proteomics sample and biochemistry ture Type Additive Manufacturing 3D Efficiency Lab 3D Metal Printing (SLM 125 HL, SLM 250 HL) ture Type Industry 4.0 3D Efficiency Lab 3D Metal Printing (SLM 125 HL, SLM 250 HL) ture Type Moor/Name Menufacturing 3D D finting farm 10 small and big FDM/FFF machines that can produce small bia infrastructure # Mineatructure 3D printing farm 10 small and big FDM/FFF machines that can produce small bia can be used to compare actual parts to CAD Data, reverse engine the topology of existing geometries for new production method manufacturing. Services Atomic Layer Atomic Layer	C PRIORITY: INNOVATION AN Logged as wroclawuniversity	ID KNOWLEDGE DEVELOPMEN		
Q. Search infrastructures			4	Register your infra	astructure
Freesearch	Name +	Description	Organization	Possibilities of use	Updated
Infrastructure Type Additive Manufacturing Infrastructure Type Additive Manufacturing	2D gel cutter for proteomics sample preparation	equipment for biology and biochemistry	B1 - Biochemistry and molecular biology at Jozef Stefan Institute	Research performed by owner	2019-10- 28 13:46
Infrastructure Type Industry 4.0	3D Efficiency Lab	3D Metal Printing (SLM 125 HL, SLM 250 HL) Heat treatment and machining by CNC lathe and CNC milling	Chemnitz University of Technology	Usage according to agreement	2019-11- 05 20:52
Infrastructure Type Micro/Nano Manufacturing infrastructure Type Micro/Nano Manufacturing	3D printing farm	10 small and big FDM/FFF machines that can produce small batches in a very short time	Microfactory Itd.	Research performed by owner	2019-12- 11 23:23
Name of infrastructure Open Keywords Open Keywords	3D Scanning	KIT IAI offers different methods of creating 3D models from small to large size objects: Models can be used to compare actual parts to CAD Data, reverse engineer production parts or optimize the topology of existing geometries for new production methods such as Additive Manufacturing.	Karlsruhe Institute of Technology (KIT)	Research performed by owner	2019-10- 30 14:46
Research Services					
Research Services :	Atomic Layer Deposition (ALD)				
Possibilities to rent		Device for a deposition of thin anorganic films, characterized with an excellent precision of thickness of deposited films (in Å-nm range)	Centre for Micro- and Nanosciences and Technologies	Usage according to agreement	2019-11- 20 10:36

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,

Register your infrastructure

G	eneral information		Spe	ecifications/	Technical Details/Pictures
Name of infrastructure *					
Name of infrastructure				h	
Short description of Infrastr	ucture 😯 *			0/750	÷
Short description of Infras	structure			h	Lu Colort au dana main nintura of unun
Organization *					select or drop main picture of your infrastructure
Search for organization				Q	
- Location of infrastructu	ire				
Address *					
Address					
Zip code*	City *				
Zip code	City				
Country *		Region			
Country	-			~	
Latitude		Longitude			
Latitude		Longitude		1	
Research Services 😮					0/500
Research Services					
Possibilities of use *					
Possibilities of use					•
Website					
Website					1

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).

Open Keywords*																																																						
Open Keywords																																																					7	
Possible Application 😮																																																		(0/	5	00)
Possible Application																																																					7	
Infrastructure Type Additive Manufacturing																																																						
Infrastructure Type Additive Manufacturing •																																																						
Infrastructure Type Industry 4.0																																																						
Infrastructure Type Industry 4.0	•																																																					
Infrastructure Type Micro/Nano Manufacturing																																																						
Infrastructure Type Micro/Nano Manufacturing 🔹	·																																																					
Year of production																																																						
Year of production																																																					7	;
Price of usage (EUR) *																																																						
E.g. 30 per hour, for negotiation, 500/day																																																					7	
Responsible person *																																																						
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Responsible person email *																																																						
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																																					P	ra	ce	ec		>		×	5	0	a	in	C	el				

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).

General information	Specifications/Technical Details/Pictures	
스 Select or drop files (graphics, pdf, other)	Description/copyright	
	Description/copyright	

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).

Z Edit infrastructure Multitool - From master to mass fabrication: fast, resource efficient and precise

Gen	eral information	Specifications/Technical Details/Pictures
ame of infrastructure		
Multitool - From master to r	mass fabrication: fast, resource efficient and	precise
hort description of Infrastruc	ture	
The central question in micr the small and expensive ma with the necessary precision PROFACTOR offers with "M process optimization, step-a The Multitool enables the p whereby the imprint resist is the master can be used as s as for prototype/small back	o/nano structuring of surfaces/products is: ster to the mass-produced product quickly, ? ultitool" customer-specific equipment for m and-repeat replication of the master onto a recise and fast replication of micro- and nar s dosed individually for each imprint. The er tamps in roll-based UV-NIL manufacturing n production and systematic material testing	How do I get from efficiently and aterial selection, large area. hostructures, larged copies of processes as well g.
rganization		
PROFACTOR		
Address	2	
Zip code	City	
4407	Steyr-Gleink	
Country		Region
Austria	π.	Region
Latitude		Longitude
Latitude		Longítude
search Services		

manufacturing sensors, micro lenses or functionalized products. The tool can be tested in laboratory workshops.

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





	*
Nebsite	
www.profactor.at	
Open Keywords	
Nanoimprint, replication of micro-/nanosti	uctures, customized tools
Possible Application	
Applications range from the nanostructurin optics.	ng of glasses and displays to the microstructuring of products and the manufacturing of micro-
nfrastructure Type Additive Manufacturing	
nfrastructure Type Industry 4.0	
nfrastructure Type Micro/Nano Manufacturi	ng
nano-imprint lithography	
Year of production	
Year of production	
Year of production Year of production Price of usage (EUR)	
Year of production Year of production Price of usage (EUR) Price on demand	
Year of production Year of production Price of usage (EUR) Price on demand Responsible person	,
Year of production Year of production Price of usage (EUR) Price on demand Responsible person Sonja Kopp	
Year of production Year of production Price of usage (EUR) Price on demand Responsible person Sonja Kopp Responsible person email	
Year of production Year of production Price of usage (EUR) Price on demand Responsible person Sonja Kopp Responsible person email Sonja.kopp@profactor.at	
Year of production Year of production Price of usage (EUR) Price on demand Responsible person Sonja Kopp Responsible person email Sonja.kopp@profactor.at Responsible person phone	

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.





How do you want to use the infractructure?*	
low do you want to use the infrastructure?*	
ow do you want to use the initialitation.	
How do you want to use the infrastructure?	
/hat is the possible time slot when you want to use the infrastructure?	
ow long do you plan to use the infrastructure? (e.g. 2 weeks) *	
organisation (according to the notion of "single undertaking" as defined in Article 2(2) of Regulation (EU) No 1407/2013 on not been granted with more than 200.000 € (de minimis threshold) de minimis aid during the current and the previous two Yes, I took part in any other Synergy activities	de minimis aid) h fiscal years.
	X Cancel
Submit so establish contact with the infrastructure's owner	
 Submit 38 Form allowing to establish contact with the infrastructure's owner Contact Sonja Kopp <sonja.kopp@profactor.at> Infrastructure Multitool - From master to mass fabrication: fast, resource efficient and precise</sonja.kopp@profactor.at> 	
 g. 38 Form allowing to establish contact with the infrastructure's owner Contact Sonja Kopp <sonja.kopp@profactor.at> Infrastructure Multitool - From master to mass fabrication: fast, resource efficient and precise</sonja.kopp@profactor.at> ease give a short description of your company and describe your interest in the infrastructure* 	
Submit g. 38 Form allowing to establish contact with the infrastructure's owner Contact Sonja Kopp <sonja.kopp@profactor.at> Infrastructure Multitool - From master to mass fabrication: fast, resource efficient and precise ease give a short description of your company and describe your interest in the infrastructure*</sonja.kopp@profactor.at>	
Submit g. 38 Form allowing to establish contact with the infrastructure's owner Contact Sonja Kopp <sonja.kopp@profactor.at> Infrastructure Multitool - From master to mass fabrication: fast, resource efficient and precise ease give a short description of your company and describe your interest in the infrastructure* ow do you want to use the infrastructure?* How do you want to use the infrastructure?</sonja.kopp@profactor.at>	
yummed as the infrastructure of the infrast	
Submit g. 38 Form allowing to establish contact with the infrastructure's owner Contact Sonja Kopp <sonja.kopp@profactor.at> Infrastructure Multitool - From master to mass fabrication: fast, resource efficient and precise ease give a short description of your company and describe your interest in the infrastructure* ow do you want to use the infrastructure?* How do you want to use the infrastructure? hat is the possible time slot when you want to use the infrastructure? ow long do you plan to use the infrastructure? (e.g. 2 weeks)*</sonja.kopp@profactor.at>	

Please provide a short cost/benefit analysis of sharing the infrastructure?

Yes, I took part in any other Synergy activities

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

🗸 Submit

X Cancel





Contact Sonja Kopp <Sonja.kopp@profactor.at> Infrastructure Multitool - From master to mass fabrication: fast, resource efficient and precise

Yease give a short description of your company and describe your interest in the infrastructure st				
low do you want to use the infrastructure?*				
How do you want to use the infrastructure?	•			
Vhat is the possible time slot when you want to use the infrastructure? e.g. from 03.2020 to 05.2020)	YYYY-MM-DD			
iow long do you plan to use the infrastructure? (e.g. 2 weeks) *				
Yes, I would like to apply for a voucher of 5000 EURs and declare tha organisation (according to the notion of "single undertaking" as definot been granted with more than 200.000 € (de minimis threshold) delease describe your plan in more detail, how would you like to use the in	t my organisation and all other entities belonging to the same group as my ned in Article 2(2) of Regulation (EU) No 1407/2013 on de minimis aid) has le minimis aid during the current and the previous two fiscal years. frastructure? (Organization of sharing, use case)			
/hat is the technological potential for your company? How will the techr	nology improve your business?			
lease provide a short cost/benefit analysis of sharing the infrastructure?				
Yes, I took part in any other Synergy activities				
lease specify				
	✓ Submit X Cance			

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.