

STARWAL

Stairway to AI: Ease the Engagement of Low-Tech users to the AI-on-Demand platform through AI, H2020

Experts and HW Providers Catalogue-1st version

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1. StairwAI – basic info

The goal of StairwAI is to facilitate the engagement of low-tech companies in the AI4EU platform and the implementation of Artificial Intelligence by enriching the platform services through a service layer that will enable natural multi-language interaction and perform automatic matchmaking between users' (SMEs) requirements and assets of the AI-on-demand platform (cloud providers, AI experts, AI tools, success stories, courses), to meet the users' business needs.

To test the above-mentioned new services, StairwAI targeted in the 1st Open Call low-tech SMEs that do not have immediate access nor knowledge on AI techniques, matching them with cloud providers and AI experts. These HPC cloud providers and AI experts have been previously validated by the StairwAI project.

2. Content of the document - Executive Summary

The objective of this deliverable is to present the Catalogue of the validated StairwAI HPC cloud providers and AI experts that will support low tech SMEs in the execution of their experiements.

The mechanism to involve external providers and experts was throught the launch of an Expression of Interest (EoI) with bi-monthly cut-off dates via the Fundingbox platform, and aligned with the Bonsapps project although with different evaluation criteria.

In the first cut off dates (Juanuary 2022, March 2022 and May 2022) a total of 176 AI experts and 11 HPC cloud providers were submitted.

The EoI addressed public and private cloud and HPC providers and AI experts sumitting the application as AI based SME or as invididual participants with the requirement to be established in the Member States of the European Union and its Overseas Countries and Territories (OCT), Associated Countries to H2020 or in the United Kingdom.

The validation of applicants was done under the T7.4 with one representative of each partner, using the Fundingbox evaluation mechanism and followed by a consensuns meetings. In the period of the **3 cut-off dates, 158 AI experts and 10 HPC cloud providers have been validated.** The catalogue is remaining private and will be published in the upcoming months.

3. Call for Expression of Interests

In December 2021 (M12) StairwAI and BonsAPPs projects decided to launch the common application form for HPC Providers and Experts that allowed potential applicants to submit only one application form that was evaluated by each project separately against their individual validation criteria.

Call for HPC Clour providers

The Call for HPC providers was launched in M12 to support the selected pilots by providing them with access to the hardware infrastructure required to run their experiments.



The application was managed under the Fundinbox platform (<u>www.HPC.Fundingbox.com</u>) and contains two main documents:

- Expression of Interest Guidelines that included the minimum technical requirements for validation, the elegibility criteria and evaluation criteria and the process and timeline for the selection. For more information see Annex 1.
 - Technical requirements
 - Performance in terms of CPU/GPU
 - Storage capacity (in GB)
 - Memory
 - Network
 - Reliability (redundancy and cross geo data replication)
 - Flexibility
 - Mixing physical and virtual machines
 - Possibility to grow and shrink even on short notice
 - Security
 - Eligibility criteria
 - Language: All applications should be submitted in English
 - Country: Applicants should have the registered residency or be established in EU member states, the UK, or in one of the Associated Countries
 - Experience: Have more than 5 years of experience
 - **Evaluation criteria.** The criteria, to homologate the entities which candidate to provide services to the pilots are:
 - C1. Proven expertise and experience supporting SMEs in similar activities (e.g. previous contributions to develop AI solutions for industry related organisations, etc).
 - C2. Access to APIs, datasets or other tools to allow the smooth implementation of the pilots.
 - C3.Good writing and oral skills in English.
 - C4. Discount offered in the price of the services regarding the market conditions.
- Application Form: <u>https://hpc.fundingbox.com/signin</u> and in Annex 2

Call for AI experts

The call for AI Talents Experts was launched in M11 to support the selected low-tech SMEs by providing them with knowledge and support on AI to run their experiments.

The application was managed under the Fundinbox platform (https://ai-talents.fundingbox.com/) and contains two main documents:

- **Expression of Interest Guidelines** that included the minimum technical requirements for validation, the elegibility criteria and evaluation criteria and the process and timeline for the selection. For more information see Annex 3.
 - **Technical requirements** Candidates should have following basic qualifications:



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- An Engineering Degree, Computer Science, Physics, Mathematics or equivalent
- 2+ years of relevant experience participating in AI projects
- Excellent written and verbal communications skills (English)
- Preferred Qualifications:
 - PhD. on any AI-related field.
 - Project Management Experience
 - Experience working with or in companies
- Eligibility criteria
 - Language: All applications should be submitted in English
 - Country: Applicants should have the registered residency or be established in EU member states, the UK, or in one of the Associated Countries
 - Experience: Have more than 2 years of experience
- **Evaluation criteria.** The criteria, to homologate the entities which candidate to provide services to the pilots are:
 - C1. Proven expertise and experience supporting SMEs in similar activities (e.g. previous contributions to develop AI solutions for industry related organisations, etc).
 - C2. Access to APIs, datasets or other tools to allow the smooth implementation of the pilots.
 - C3.Good writing and oral skills in English.
 - C4. Discount offered in the price of the services regarding the market conditions.
- Application Form: <u>https://ai-talents.fundingbox.com/signin</u> and in Annex 4.

Timeline

Both calls will remain open until May 30th 2023 but a mechanism of intermediate cut-off dates has been taken in place to generate interest in applicants:

- 1st cut-off date: 31 January
- 2nd cut-off date: 31th March
- $\circ \quad \text{3rd cut-off date: 31th May} \\$

Dissemination

The calls have been promoted through social media with the collaboration of WP8 and shared to the EGI Federation community with several dedicated activities.

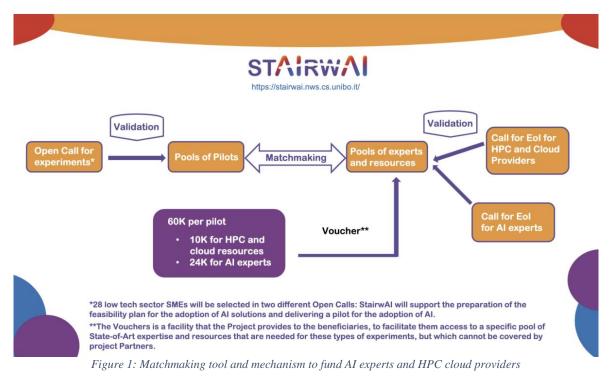
- StairwAI website: <u>https://stairwai.nws.cs.unibo.it/</u>
- Fundingbox platform: <u>https://stairwai.fundingbox.com/</u>
- StairwAI social media: <u>https://twitter.com/stairwai</u>
- Presentation EGI conference 2021 <u>https://indico.egi.eu/event/5464/contributions/15681/</u>
- EGI Newsletter, https://www.egi.eu/article/stairwai-1st-open-call/



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101017142

- Internal webinars to the EGI managers community (representatives from the different Computing centres of the EGI Federation)
- EGI social media: <u>https://twitter.com/EGI_eInfra</u>
- Mailing with contacts and potential applicants

During the dissemination it was highlighted the process to onobard the HPC Cloud providers and AI experts as follows:



It was relevant to highlight that the payment mechanism between the experiments and the providers and AI experts are made via a voucher mechanism to be consumed under a contract between the parties.

Evaluation

The evaluation of the proposals was made involving one representative of each entity participating in T7.4 (UNIBO, BCA, INFN, TIL, EGI) via the FundingBox application by distributing the applications between each representative.

The process was designed as a validation process (not as a competition between the candidates) as StairwAI needs different types and levels of expertise to be provided to the matchmaking tool. In addition, young researchers are also a target group of the project to create the community of users in the future. This means that all candidates fulfilling the minimum requirements were selected.

After the first review of applications, a consensus meeting after each cut-off date was organised to put in common the results, identified those cases with remarks from the evaluators and identify



those candidates to reject or that required further explanation or clarification about the information.

The following table summarise the number of applications have been submitted and selected in the three cut-off dates.

	HPC and Clou	d providers	Al ex	perts
Cut-off date	Submitted	Validated	Submitted	Validated
January 2022	8	8	70	62
March 2022	3	2	72	68
May 2022	1	1	28	27

Table 1: Summary of applications (submitted and validated)

Those applications that where not validated were mainly because of the follwing reasons:

- Lack of information on the price that made not possible to assess their fairness according to the profile / expertise and the country of origin.
- Weak description of the experience or uncomplete information

Both validated and not validated candidates have been notified via email. Validated candidates received information for their participation during July 2022, while rejected candidates were invited to resubmit their application and keep engaged with the StairwAI community.

4. Catalogue of HPC Cloud Providers and AI experts

From the multiple information provided from the applicants the following AI expert data model has been considered to feed the StairwAI matchmaking tool:

Field	Value
Id	Unique identifier from Fundingbox application
Name of the entity	(Free text)
Name of the contact person	(Free text)





Email of the contact person	(Free text)
Phone of the contact person	(Free text)
Legal name of the entity	(Free text)
Country of the company	(Free text)
City of the company	(Free text)
Brief infrastructure/services description	(Free text)
Sector(s) experienced sectors	(Free text)
Scope: National, European or International business	(Free text)
RDI Co-operation Experience	(Free text)
Performance in terms of CPU/GPU	(Free text)
If GPU o which NVIDIA CUDA Toolkit is compatible o driver version	(Free text)
Storage capacity (in GB)	(Free text)
Reliability (redundancy and cross geo data replication)	(Free text)
Flexibility	Multiple choice
	 Mixing physical and virtual machines Possibility to grow and shrink even on short notice
Security	(Free text)
Price	(Free text)

The full list of selected AI experts is in Annex 5 and available at https://liveunibo.sharepoint.com/:f:/r/sites/StairwAlproject/Shared%20Documents/WP7%20-%20Open%20Call%20Management/T7.4%20Call%20for%20providers/Evaluation/CATALOGUE?csf =1&web=1&e=Gtsw4d

5. Catalogue of AI experts



From the multiple information provided from the applicants the following AI expert data model has been considered to feed the StairwAI matchmaking tool:

Field	Value		
Id	Unique identifier from Fundingbox application		
Name of the applicant	(Free text)		
Email of the applicant	(Free text)		
Company	(Free text)		
Legal info	 Registered Legal Entity: Research and Technology Center Registered Legal Entity: SME Registered Legal Entity: Mid Cap Natural Person or a Team Other 		
Country of the applicant	(Free text)		
City of the applicant	(Free text)		
For each member of the	team:		
Name of the AI expert	(Free text)		
Short bio	(Free text)		
Profile	 Machine Learning Engineer Data engineer Data scientist Research scientist AI Data Analyst Business Intelligence Developer Product Manager Other 		
Years of experience	 Less than 1 year 1 to 2 years 2 to 3 years 3 to 5 years More than 5 years 		
Programming languages knowledge	 Python C++ JavaScript Java C# Julia Shell R 		





	D. TuneSeriet
	TypeScript Scribt
Technology domain	Self Assessment (1 poor – 5 excellent)
	• NLP
	Voice recognition
	Data mining
	Machine Learning
	Deep Learning
	Biometrics
	Image recognition
	Cybersecurity
	Neuronal networks
	Knowledge representation
Other technology skills	(Free tout)
Other technology skills	(Free text)
Application domain, market	(Multiple choice)
knowledge	Agriculture, forestry and fishing
	Mining and quarrying
	□ Manufacturing
	Electricity, gas, steam and air conditioning supply
	□ Water supply, sewerage, waste management and
	remediation activities
	□ Construction
	Wholesale and retail trade
	Transporting and storage
	Accommodation and food service activities
	□ ICT
	Financial and insurance
	Real estate activities
	 Professional, scientific and technical activities
	Administrative and support service activities
	Public admin and defense
	□ Education
	 Human health and social work
	 Arts, entertainment and recreation
Experience in similar projects	(Free text)
Other relevant skills	(Free text)
Price	Net cost per hour (Free text)

The full list of selected AI experts is in Annex 6 and available at https://liveunibo.sharepoint.com/:f:/r/sites/StairwAIproject/Shared%20Documents/WP7%20-%20Open%20Call%20Management/T7.4%20Call%20for%20providers/Evaluation/CATALOGUE?csf =1&web=1&e=Gtsw4d





6. Publication of catalogues and next actions

The catalogue remains private, only accesible for StairwAI members, waiting for being tested and validated with the Matchmaking tool.

In September 2022, before starting the execution of the experiments, the catalogue will be published in the StairwAI and AI4EU website, minimising the sharing of personal data and putting the focus on the experience and technology domain.



7. Annex 1: Guidelines for HPC Cloud applicants

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Guidelines

Expression-of-Interest for HPC cloud providers

October 2021 - 30th May, 2023

List of acronyms

Al: Artificial Intelligence EC: European Commission Eol: Expressions of Interest FSTP: Financial Support for Third Parties DoA: Description of Action GA: Grant Agreement HPC: High-Performance Computing SME: Small and Medium Enterprise



1. About StairwAl

The StairwAI project targets low-tech users, in particular SMEs with the goal of facilitating the uptake of AI and their engagement on the AI on-demand Platform. This will be achieved through a new service layer enriching the functionalities of the on-demand platform and containing:

- a multilingual interaction layer enabling conversations with the Platform in the user's own language,
- a horizontal matchmaking service for the automatic discovery of AI assets (tools, data sets, AI experts, consultants, papers, courses etc.) meeting the user business needs and
- a vertical matchmaking service that will dimension and provision hardware resources through a proper hardware provider (HPC, Cloud and Edge infrastructures).

These services are designed and implemented by using techniques in an AI for AI fashion. The AI techniques deployed in the development of the services are natural language processing for the multilingual interaction, constraint solving, optimization and machine learning for horizontal and vertical matchmaking, knowledge representation for organizing the platform AI assets, reputation and fairness mechanisms to improve the matching results.

2. Expression of Interest Call for HPC Cloud providers

2.1.Why a call for providers?

StairwAI is pushing a sustainable market building on automatic mechanisms for hardware resource dimensioning and provider discovery, that given an application or service corresponding to a set of AI algorithms and given end user preferences – time, cost, quality of service – identifies dimensions the hardware suitable for the application at hand and the hardware resource provider to satisfy end user needs. In this way, StairwAI expect to have a huge impact on providers of hardware resources – big companies, SMEs and public institutions - that will find on the AI-on-demand platform a marketplace for monetizing their resources and expand their business models.

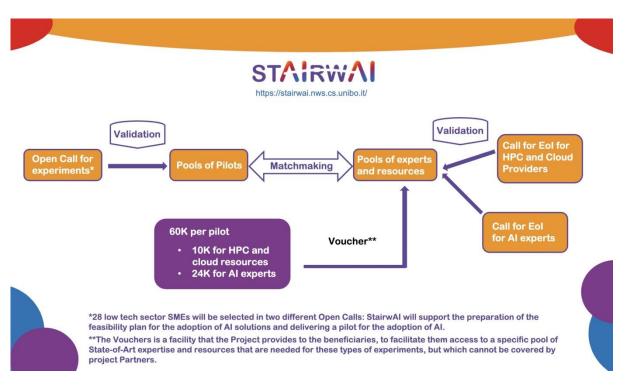
The project will make use of the Financial Support to Third Parties [FSTP] scheme to identify disruptive bottom-up projects contributing to the adoption of AI by SMEs in low tech sectors. To this end, a process has been defined to choose up to 60 SMEs in low tech sectors by launching 3 Open Calls (2 Pilot open call and 1 Adoper Open call). **Each Pilot will receive up to 60,000 EUR**, including up to 24,000 EUR to cover the AI experts¹ and <u>up to 10,000 EUR to cover the costs of HPC cloud infrastructure and services</u>.

In parallel to the 2 open calls for pilots, this **Expression of Interest call for External Providers** has been launched. The goal of the EoI call for External Providers is **to select the hardware resources providers (HPC cloud providers)** which the pilots will work with. The EoI call for External Providers focuses on the validation of **candidates to be included in a pool of providers to do the matchmaking between them and the Low-Tech SMEs at the beginning of the program**.

¹ Another call for AI experts has been launched.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101017142



2.2.Who are we looking for

We are looking for legal entities established in the EU member states, the UK, or in one of the Associated Countries to support the selected pilots by providing them with access to the hardware infrastructure required to run their experiments.

The HPC Cloud Providers from legal entities who want to participate in the process need to apply to this EoI and once validated they will be included in a pool of providers where the matchmaking between the SMEs needs and the providers will be done.

This call for HPC cloud providers will remain open from October 2021 until May 30th 2023.

2.3.The role of the providers

The amount of resources, methods and techniques to adopt AI is very high and there are a wide number of resources, therefore targeted support will be needed from HPC cloud providers. The Support Program is articulated as a totally customised service, where HPC cloud Providers will be specifically validated to fit the needs of the SMEs and guide them along the whole Program.

Validated HPC Cloud providers will:

- Analyse the requirements of the pilot and will sign the contract with the selected SMEs covering the conditions of the support.
- Name a representative that will be the main contact and interface with the pilot as well as with the StairwAl project.
- Direct pilots to ready use services and configurations to satisfy their requirements.
- Maintain a good relationship with the pilots (Satisfaction and service reviews; Handling complaints) with regular meetings.



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2.4.Technical requirements

The main criterion to select HPC Cloud providers entities to provide services to Use Cases is the availability of on-demand HPC and Cloud computing and data resources in order to allow AI model optimization/training/benchmarking needed to design Solutions for the deployment platform defined by each Industry Challenge.

The type of equipment that will be necessary for operating the services available on the StairwAI platform will be as follows:

- 1) High-end resources
 - Cloud resources made available at the IaaS level via APIs or Web GUIs
 - PaaS deployments on the Cloud infrastructure
 - HPC and parallel computing resources including low latency interconnected nodes equipped with computational accelerators

To increase heterogeneity, it should be possible to run on various architectures, i.e., X86, ARM, RISC-V for what concerns CPUs, and AMD or NVIDIA for accelerators.

- 2) Edge and low-power resources
 - Nodes/clusters based on X86 or ARM architecture in the range 4-80Watts, possibly equipped with accelerators, GPUs or NPUs. I.e.
 - NVIDIA Jetson-TX1/X2
 - Intel low-power system-on-chip (Avoton, Pentium, Apollo Lake, Gemini Lake)
 - Intel low-power, server-grade systems (i.e., XeonD processors)
 - Development boards powered by SoCs designed for the mobile market (i.e., Exynos processors)
 - In a higher power range, motherboard based on the AMD Threadripper processors

Concerning storage resources, it will be possible to preserve data at least in two QoS: spinning disk and low latency devices such as SSD.

On top of that, the following criteria will be reviewed:

- Performance in terms of CPU/GPU
- Storage capacity (in GB)
- Memory
- Network
- Reliability (redundancy and cross geo data replication)
- Flexibility
 - O Mixing physical and virtual machines
 - Possibility to grow and shrink even on short notice Security

3. How to submit an Expression of Interest

Those interested in submitting an application should register at the Funding Box platform and fill the Application form.



The Funding Box platform will be the main interface for managing the proposal application process and to solve any doubts related to the application.

4. Selection process

4.1.Eligibility criteria

- Language: All applications should be submitted in English
- **Country**: Applicants established in the EU member states, the UK, or in one of the Associated Countries.
- **Experience**: Have more than 5 years of experience

4.2. Evaluation criteria

The criteria, to homologate the entities which candidate to provide services to the pilots are:

- C1. Proven expertise and experience supporting SMEs in similar activities (e.g. previous contributions to develop AI solutions for industry related organisations, etc).
- C2. Access to APIs, datasets or other tools to allow the smooth implementation of the pilots.
- C3. Good writing and oral skills in English.
- C4. Discount offered in the price of the services regarding the market conditions

4.3.Selection process

A Selection Committee will be created to assess the Expressions of Interest of the candidates.

The proposal submission and selection procedure will be done through the 'FundingBox Platform'. All potential voucher suppliers will be validated by the following StairwAl consortium partners: EGI, UNIBO, BCA, INFN, TIL, according to the eligibility and evaluation criteria mentioned above. We will take into consideration the existence of potential conflict of interest among you and one or more of the Consortium partners. Consortium partners, employees and permanent collaborators cannot take part in the StairwAl programme. All cases of potential conflict of interest will be assessed on a case by case basis.

5. Becoming a StairwAl provider

5.1.Selection process (Timeline)

The timeline for involving the candidates in the StairwAI project follows the next process:

- This call for HPC cloud providers will remain open from October 2021, until May 30th 2023.
- The validated HPC cloud providers will be published on the AI4EU platform.
- Once the SMEs are selected and in the first phase of the support program (feasibility study), a matchmaking will be done between the beneficiary SMEs according to their needs and the Hardware resources providers.
- The Mentoring Committee will validate the matches.
- Once validated the low-tech SMEs will sign an agreement with the HPC cloud providers to agree on the conditions of the service.
- Once the agreements are signed, they must be provided to the coordinator of StairwAI UNIBO, and FBA.



• Payment will be done from the beneficiary SMEs to the HPC cloud providers once the service has been delivered and approved by the StairwAI consortium.

5.2. How the External Providers will be funded

A voucher mechanism will be articulated to provide support to FSTP beneficiaries in areas where the specific support needed cannot be covered by project partners. This Voucher is a resource that the Project provides to facilitate StairwAI beneficiaries access to a specific pool of State-of-Art expertise and resources. The beneficiaries of the FSTP will be the Low-Tech SMEs that will receive the voucher to pay the External Providers. **This means that the external providers will be directly paid by the SMEs running the pilots.**

For simplicity and transparency, the Financial Support to the SMEs will be paid against specific Deliverables and based on the results of the Milestone Reviews. Once the milestones and payments to each FSTP Beneficiaries are approved by the 'Selection Committee', the Coordinator will pay to the 3rd parties on behalf of the Consortium. Then the **SME will receive the money and they will pay the external providers**.

5.3.Participation rules

The following participation rules will be applied:

- Only proposals submitted through the online form will be evaluated.
- Applicants will have to verify the completeness of the form, as it won't be possible to add any further information after its submission.
- Only one proposal per entity is admitted in this StairwAI EoI call. If more than one application is identified, only the last application which has been submitted in order of time will be evaluated.
- All applications must be written in English in all mandatory parts to be eligible. Only parts written in English will be evaluated.
- All mandatory sections of the application must be completed. The data provided should be actual, true, complete and should allow assessment of the proposal.

6. Contact

For more information about the StairwAI EoI for HPC Cloud Providers and EoI for AI experts, please check our StairwAI EoI microsite: https://stairwai.fundingbox.com/

If you have any extra questions regarding our EoI process you can send us a message to <u>elisa.cauhe@egi.eu</u>.

In case of any technical issues or problems, please include the following information in your message:

- your username, telephone number and your e-mail address,
- details of the specific problem (error messages you encountered, bugs descriptions, i.e. if a dropdown list is not working, etc.),
- screenshots of the problem.

StairwAI will organize various Q&A Online Sessions for HPC Cloud providers and AI experts about this EoI. The events will be announced via the StairwAI official channels.



8. Annex 2: Application form for HPC Cloud providers



Eol for HPC and Cloud providers Application form

Basic Information

The following information will enable us to contact you

1. Name of your entity:

Name by which your entity is known

2. Title of the contact person:

Descriptive or distinctive appellation of the contact person

3. Name of the contact person:

Please, enter your complete name (first name and last name)

4. Contact person email address:

Please, enter your email address to contact you for further communications

5. Contact person phone number:

Remember to include your country code in brackets. E.g.: (+xx) xxxxxxxxx.

Legal Information

The following information will enable us to contact you and verify if you fill out the eligibility criteria for participating in the StairwAI project.

1. Legal name of your entity:

The legal name in the country where the entity is established.

2. Establishment/Registration country.

Take notice that only countries indicated in the Guidelines are eligible for application. There are too many possible choices for this field. Please, check the online form to see all of them.

- 3. Street name and number:
- 4. Postal code:

5. City:

Where your team or most of your team members will be based.

6. Are you an employee of or do you have any professional relationship with any of the StairwAI project partners? If the answer is yes, you are not eligible for this call. (Choose only one):

- Yes
- 🛛 No

7. Company registration number:



- 8. VAT number: (if applicable):
- 9. Website URL:

HPC Cloud service supplier information

1. Brief infrastructure/services description (max. 2000 characters including spaces):

Tell us more about your infrastructure / services and how you perceive your support for the Use Case Owners. (Max 2000 characters)

2. Sector(s):

Name the sector(s) your infrastructure / services are being applied. (Max 300 characters)

3. National, European or International business (max. 1000 characters including spaces):: Are you operating in national, European and international markets? What is the size of the market you are currently serving? Do you have operations outside your own country? Shortly describe your international business. (Max 1000 characters)

4. RDI Co-operation Experience (max. 1000 characters including spaces):

Do you have any experience in participating in national or international RDI co-operation projects? If yes, please provide a brief description of these projects. (Max 1000 characters)

- 5. Performance in terms of CPU/GPU (max. 2000 characters including spaces):
- 6. Storage capacity (in GB):
- 7. Reliability (redundancy and cross geo data replication):

(max. 4000 characters including spaces)

- 8. Flexibility (Multiple answers possible) (Choose only one):
- □ Mixing physical and virtual machines
- Possibility to grow and shrink even on short notice
- 9. Security:

Please describe your security procedures (max. 4000 characters including spaces)

10. Pricing:

Please describe your pricing and fill the following table. (max. 4000 characters including spaces)

	Regular Price	Offered StairwAl	price	for
CPU hour				
GPU hour				
Storage per GB				
Technical Support (PM)				

11. Document attachment (pdf brochure / presentation.

(Optional). You can upload a presentation in pdf of your entity and your infrastructure, product and services (Max. 10MB):

Information consent form



In case I am validated as Voucher Supplier:

I agree to share my personal data with StairwAI to publish the provided information in the StairwAI website. The consent may be withdrawn at any time by contacting the Controller at the e-mail address: privacy@fundingbox.com. The withdrawal of consent does not affect the lawfulness of processing based on a consent before its withdrawal: (Choose only one):

Yes

Processing of Personal Data

I confirm that I read and understood the information clause concerning processing of the personal data provided above:

Yes

I will pass the information clause provided above to all team members mentioned in the application form*: Yes



9. Annex 3: Guidelines for AI experts

STAIRWA

Guidelines

Expression-of-Interest for AI experts

October 2021 - 30th May, 2023

List of acronyms

AI: Artificial Intelligence EC: European Commission EoI: Expressions of Interest FSTP: Financial Support for Third Parties DoA: Description of Action GA: Grant Agreement HPC: High-Performance Computing SME: Small and Medium Enterprise



1. About StairwAl

The StairwAI project targets low-tech users with the goal of facilitating their engagement on the AI ondemand Platform. This will be achieved through a new service layer enriching the functionalities of the ondemand platform and containing:

- a multilingual interaction layer enabling conversations with the Platform in the user's own language,
- a horizontal matchmaking service for the automatic discovery of AI assets (tools, data sets, AI experts, consultants, papers, courses etc.) meeting the user business needs and
- a vertical matchmaking service that will dimension and provision hardware resources through a proper hardware provider (HPC, Cloud and Edge infrastructures).

These services are designed and implemented by using techniques in an AI for AI fashion. The AI techniques deployed in the development of the services are natural language processing for the multilingual interaction, constraint solving, optimization and machine learning for horizontal and vertical matchmaking, knowledge representation for organizing the platform AI assets, reputation and fairness mechanisms to improve the matching results.

2. Expression of Interest Call for AI experts

2.1.Why a call for AI experts?

StairwAI is pushing a sustainable market building on automatic mechanisms for support and expertise provision that, given an experiment and given the user skills of the company, identifies the best AI expert to satisfy the end user needs. In this way, StairwAI expects to have a relevant impact on how AI experts collaborate to support innovation finding on the AI-on-demand platform a space for expanding their networks.

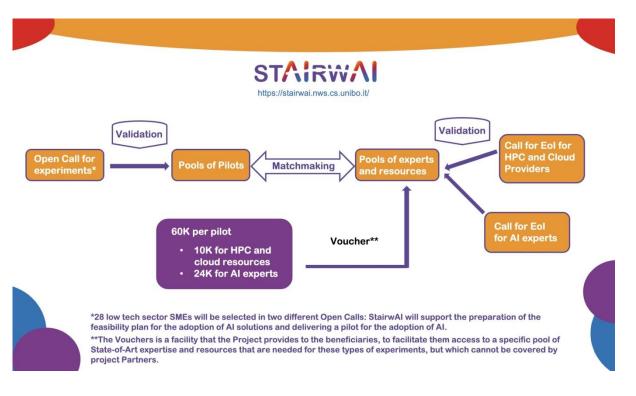
The project will make use of the Financial Support to Third Parties [FSTP] scheme to identify disruptive bottom-up projects contributing to the adoption of AI by SMEs in low tech sectors. To this end, a process has been defined to choose up to 60 SMEs in low tech sectors by launching 3 Open Calls (2 Pilot open call and 1 Adopter Open call). **Each Pilot will receive up to 60,000 EUR,** including up to <u>24,000 EUR to cover the AI</u> <u>experts</u> and up to 10,000 EUR to cover the costs of HPC cloud infrastructure and services².

In parallel to the 2 open calls for pilots, this **Expression of Interest call for External AI experts** has been launched. The goal of the EoI call for External AI experts is **to select AI experts who will work and support** the SMEs in executing their pilots. The EoI call for External AI experts focuses on the validation of **candidates to be included in a pool of experts to do the matchmaking between them and the Low-Tech SMEs at the beginning of the program**.

² Another call for AI providers has been launched.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101017142



2.2. Who are we looking for

We are looking for natural persons and legal entities with the registered residency established in EU member states, the UK, or in one of the Associated Countries to support the selected low-tech SMEs by providing them with knowledge and support on AI to run their experiments.

This call for AI experts will remain open from October 2021 until May 30th 2023.

The AI Experts who want to participate in the process need to apply to this EoI and once validated they will be included in a pool of AI experts where the matchmaking between the SMEs needs and the AI experts will be done.

Al experts should provide their specific expertise in Al techniques so that the matchmaking is as accurate as possible.

2.3.The role of the AI experts

The amount of resources, methods and techniques to adopt AI is very high and there are a wide number of resources, therefore targeted support will be needed from AI experts. The Support Program is articulated as a totally customised service, where AI Experts will be specifically validated to fit the needs of the SMEs and guide them along the whole Program. Validated AI experts will:

- Analyse the requirements of the pilot and sign an agreement with the selected SMEs, covering the conditions of the support.
- Contact and interface with the pilot as well as with the StairwAI project.
- Direct pilots to use tools, algorithms, services to satisfy their requirements and solve the doubts in the process.
- Maintain a good relationship with the pilots with regular meetings.





2.4.Technical requirements

Candidates should have following basic qualifications:

- An Engineering Degree, Computer Science, Physics, Mathematics or equivalent
- 2+ years of relevant experience participating in AI projects
- Excellent written and verbal communications skills (English)

Preferred Qualifications:

- PhD. on any AI related field.
- Project Management Experience
- Experience working with or in companies

3. How to submit an Expression of Interest

Those interested in submitting an application should register at the <u>Funding Box platform</u> and fill the Application form.

The Funding Box platform will be the main interface for managing the proposal application process and to solve any doubt related to the application.

4. Selection process

4.1.Eligibility criteria

- Language: All applications should be submitted in English
- **Country**: Applicants should have the registered residency or be established in EU member states, the UK, or in one of the Associated Countries
- **Experience**: Have more than 2 years of experience

4.2. Evaluation criteria

The criteria, to homologate the entities which candidate to provide services to the pilots are:

- C1. Proven expertise and experience supporting SMEs in similar activities (e.g. previous contributions to develop AI solutions for industry related organisations, etc).
- C2. Access to APIs, datasets or other tools to allow the smooth implementation of the pilots.
- C3.Good writing and oral skills in English.
- C4. Discount offered in the price of the services regarding the market conditions.

4.3.Selection process

A Selection Committee will be created to assess the Expressions of Interest of the candidates.

The proposal submission and selection procedure will be done through the 'FundingBox Platform'. All potential voucher suppliers will be validated by the following StairwAI consortium partners: EGI, UNIBO, BCA, INFN, TIL, according to the eligibility, evaluation criteria mentioned above and the selection process (timeline). We will take into consideration the existence of potential conflict of interest among the applicants



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and one or more of the Consortium partners. Consortium partners, employees and permanent collaborators cannot take part in the StairwAI programme. All cases of potential conflict of interest will be assessed on a case by case basis.

5. Becoming a StairwAl Al expert

5.1.Selection Process (Timeline)

The timeline for involving the candidates in the StairwAI project follows the next process:

- This Call for External AI experts will remain open from October 2021 until May 30th 2023.
- The validated AI experts will be published on the AI4EU platform.
- Once the SMEs are selected and in the first phase of the support program (feasibility study), a matchmaking will be done between the beneficiary SMEs –according to their needs- and the AI experts.
- The Mentoring Committee will validate the matches.
- Once validated the low Tech SMEs will sign an agreement with the AI experts to agree the conditions of the service.
- Once the agreements are signed they must be provided to the coordinator of StairwAI UNIBO, and FBA.
- Payment will be done from the beneficiary SMEs to the AI expert once the service has been delivered and approved by the StairwAI consortium.

5.2. How the AI experts will be funded

A voucher mechanism will be articulated to provide support to FSTP beneficiaries in areas where the specific support needed cannot be covered by project partners. This Voucher is a resource that the Project provides to facilitate them access to a specific pool of State-of-Art expertise and resources. The beneficiaries of the FSTP will be the Low-Tech SMEs that will receive the voucher to pay the AI experts. **This means that the AI experts will be directly paid by the SMEs running the pilots (24000 Eur).**

5.3.Participation rules

The following participation rules will be applied:

- Only proposals submitted through the online form will be evaluated.
- Applicants will have to verify the completeness of the form, as it won't be possible to add any further information after its submission.
- Only one proposal per entity is admitted in this StairwAI EoI. If more than one application is identified, only the last application which has been submitted in order of time will be evaluated.
- All applications must be written in English in all mandatory parts to be eligible. Only parts written in English will be evaluated.
- All mandatory sections of the application must be completed. The data provided should be actual, true, complete and should allow assessment of the proposal.

6. Contact



For more information about the StairwAI EoI for HPC Cloud Providers and EoI for AI experts, please check our StairwAI EoI microsite: <u>https://stairwai.fundingbox.com/</u>

If you have any extra questions regarding our EoI process you can send us a message to elisa.cauhe@egi.eu.

In case of any technical issues or problems, please include the following information in your message:

- your username, telephone number and your e-mail address,
- details of the specific problem (error messages you encountered, bugs descriptions, i.e. if a dropdown list is not working, etc.),
- screenshots of the problem.

StairwAI will organize various Q&A Online Sessions for HPC Cloud providers and AI experts about this EoI. The events will be announced via the StairwAI official channels.



10. Annex 4: Application form for AI experts

STARWA

Eol for Al experts Application form

Basic Information

The following information will enable us to contact you

1. Name of your entity:

Name by which your entity is known

2. Title of the contact person:

Descriptive or distinctive appellation of the contact person

3. Name of the contact person:

Please, enter your complete name (first name and last name)

4. Contact person email address:

Please, enter your email address to contact you for further communications

5. Contact person phone number:

Remember to include your country code in brackets. E.g.: (+xx) xxxxxxxxx.

Legal Information

The following information will enable us to contact you and verify if you fill out the eligibility criteria for participating in the StairwAI project.

1. Legal name of your entity (if you are applying as a natural person, please repeat your name below):

The legal name in the country where the entity is established.

- 2. Please confirm your legal status: *
 - □ Registered Legal Entity: Research and Technology Center
 - Registered Legal Entity: SME
 - Registered Legal Entity: Mid Cap
 - □ Natural Person or a Team
 - Other

3. Establishment/Registration country.

Take notice that only countries indicated in the Guidelines are eligible for application. There are too many possible choices for this field. Please, check the online form to see all of them.



- 4. Street name and number:
- 5. Postal code:

6. City:

Where your team or most of your team members will be based.

7. Are you an employee of or do you have any professional relationship with any of the StairwAI project partners? . (Choose only one):

- Yes
- **No**

8. If yes, please describe the nature of the relationship, each relation will be reviewed case by case.

11. Website URL:

AI expertise information

AI Talent Introduction

Introduce you (or your team) that will develop the AI solution. Skills should be balanced and demonstrate the capacity to execute both AI development and AI deployment/integration tasks. (max. 1000 characters)

This is the necessary information for us to check your expertise necessary to support the pilots. Please, Introduce yourself (or your team). Skills should be balanced and demonstrate the capacity to support the AI pilots (max. 1000 characters).

Team Members. If you apply as an entity press the green (+) button to add other team members.

Team Member 1*(obligatory)

- 1. Name and Surname*
- 2. Link to the LinkedIn, ORCID, Scholar profile*
- 3. Please select the most accurate profile description (select maximum 3)*
- □ Machine Learning Engineer (AI Dev)
- Data Engineer (Data Scientist)
- Data Scientist (Data Scientist)
- Research scientist (AI Dev)
- AI Data Analyst (Data Scientist)
- Business Intelligence Developer (BIzz&PM)
- Product Manager (Blzz&PM)
- Other: _____

Years of experience in applying AI to practical and comprehensive technology solutions:*

- □ Less than 1 year
- 1 to 2 years
- 2 to 3 years



- □ 3 to 5 years
- □ More than 5 years

Education degree(s) and name of institution (s) achieved. * text

Programming languages knowledge: (multiple choice)*

- Python
- C++
- JavaScript
- Java
- □ C#
- Julia
- Shell
- □ R
- TypeScript
- Scala

4. Technology domain. Assess (1 poor – 5 excellent) your knowledge of the following technologies related to AI.

	-0				
NLP	1	2	3	4	5
Voice recognition	1	2	3	4	5
Data mining	1	2	3	4	5
Machine Learning	1	2	3	4	5
Deep Learning	1	2	3	4	5
Biometrics	1	2	3	4	5
Image recognition	1	2	3	4	5
Cybersecurity	1	2	3	4	5
Neuronal	1	2	3	4	5
networks					
Knowledge	1	2	3	4	5
representation					

5. Application domain. Select the markets where your AI expertise may have been applied (multiple choice).

Agriculture, forestry and fishing	1
Mining and quarrying	1
Manufacturing	1
Electricity, gas, steam and air conditioning supply	1
Water supply, sewerage, waste management and remediation	1
activities	
Construction	1
Wholesale and retail trade	1
Transporting and storage	1
Accommodation and food service activities	1
ICT	1
Financial and insurance	1



Real estate activities	1
Professional, scientific and technical activities	1
Administrative and support service activities	1
Public admin and defense	1
Education	1
Human health and social work	1
Arts, entertainment and recreation	1

6. Expertise description in project management (max. 2000 characters including spaces): *Tell us about your expertise in project management (Max 2000 characters)*

7. Experience in supporting SMEs in similar activities

(e.g. previous contributions to develop AI solutions for industry related organisations, etc).(max. 1000 characters).

8. Please provide information about your APIs, datasets or other tools that could be used while working with SMEs:

9. Other relevant skills:

(max. 500 characters).

10. RDI Co-operation Experience. References/similar projects to confirm the ability to perform the tasks* (max. 1000 characters including spaces):

Do you have any experience in participating in national or international RDI co-operation projects? Include information about your previous experiences like research projects or EU projects that will contribute to developing the AI Solution.

11. Pricing:

Please describe your pricing.

12. Document attachment (pdf brochure / presentation). You can upload a presentation in pdf of your profile or CV (Max. 10MB):

Information consent form

In case I am validated as AI expert:

I agree to share my personal data with the StairwAI partners to publish the provided information in the StairwAI website. The consent may be withdrawn at any time by contacting the Controller at the e-mail address: <u>privacy@fundingbox.com</u>. The withdrawal of consent does not affect the lawfulness of processing based on a consent before its withdrawal:

Yes

Processing of Personal Data

I confirm that I read and understood the information clause concerning processing of the personal data provided above:

Yes

I will pass the information clause provided above to all team members mentioned in the application form*: Yes



11. Annex 5: HPC Cloud providers catalogue

Entity	Country
CloudFire Srl	Italy
DataCrunch Oy	Finland
Akenes SA	Switzerland
OVH Sp. z o.o.	Poland
Consejo Superior de Investigaciones Científicas	Spain
Arctur d.o.o.	Slovenia
BitNet Bilisim hizmetleri ltd sti	Turkey
Ss. Cyril and Methodius University in Skopje	North Macedonia
Fundacion CESGA	Spain
Universidad de Zaragoza	Spain
Moonshot Technology GmbH	Switzerland

12. Annex 6: AI experts catalogue

Name of the applicant	Entity	Country
Erwin Entrich	Entrich Technologies GmbH	Austria
Cristian Hofmann	Zühlke Engineering (Austria) GmbH	Austria
Adrian Bella	RoutePatch Kft.	Hungary
Andrés Bel Alonso	Inceptive	France
Coralia Zotic	CreditSky SA	Romania
Paulius Klyvis	MB Laivo kilis	Lithuania
Lucas Steigberger	craftworks GmbH	Austria
Thibaut Soubrié	Preste	France
Mauro Lenzi	e-Soft s.r.l.	Italy
Amine Chakhchoukh	0	United Kingdom
Grigore Stamatescu	Applied Research Solutions	Romania
Elisabet Capon Garcia	ENTERPRISE-WISDOM, S.L.	Spain
Luca Marchesotti	Sparkd.ai	Ireland
Eduardo Pena Vina	Alisio Computing GmbH	Germany
Gaetano Volpe	Latitudo 40	Italy



Axel Ngonga	0	Germany
Tomás Jáudenes	0	Germany
Dr. Houssem Jerbi	Smart PMO	Ireland
Jaka Cikač	Otsala, Jaka Cikač, s.p.	Slovenia
Jaroslav Frnda	University of Zilina	Slovakia
Žiga Gosar	ELVEZ, d.o.o.	Slovenia
Igor Kotsiuba	0	Ukraine
Amir Jahanshahi	iThermAl B.V.	Belgium
Thomas Gerbaud	AltGR	France
Daniel Hofman	0	Croatia
Dr. Günther Hoffmann	AvailabilityPlus gmbH	Germany
JOAQUIN LOPEZ HERRAIZ	Complutense University of Madrid	Spain
Daniele Miorandi	U-Hopper srl	Italy
Michele Dallachiesa	0	Germany
Alireza Taravat	0	United Kingdom
Manuele Monti	Techbricks Srl	Italy
Debmalya Biswas	0	Switzerland
cristina cabanas	Nyuron Synaptics, S.L	Spain
Abdullah Taha Arslan	0	Turkey
Matthias P. Wagner	Panopterra	Germany
Zeynep Topaloglu Calkan	IND	Turkey
Lampros Sp. Mouselimis	Monopteryx	Greece
Jacob Kortbek	Danish Technological Institute	Denmark
Alberto Bert	Kiwifarm Srl	Italy
Evalds Urtans	SIA ASYA, RIGA TECHNCIAL UNIVERSITY	Latvia
Mihai Postelnicu	Thiaper Systems SRL	Romania
Francesco Epifania	Social Things srl	Italy
Álvaro Herrero	University of Burgos	Spain
Dr Vladimir Vukovic	V-Lab Ltd	United Kingdom
Elisabet Capon Garcia	ENTERPRISE-WISDOM, S.L.	Spain
Marija Latifovic	MNO d.o.o. Belgrade	Serbia
Luca Gilli	CLEARBOX AI SOLUTIONS	Italy
Pedro Branco	Obsidian Innovation Institute - Associação	Portugal
Hiroshi Doyu	0	Finland
Matteo Pozzi	Optit srl	Italy
Haci Mehmet Güzey	0	Turkey
Paschalis Panteleris	FORTHSight	Greece
Muhammed Akif AGCA	LIST PhD // TOBB ETU	Luxembourg
Carlos Bousoño	0	Spain
Dr Jacqui Taylor	FlyingBinary Limited	United Kingdom
Omer Ozdinc	Novitopia	Turkey
Selim Kalayci	0	Turkey
Katharina Rasch	0	Germany
Marko Krstic	0	Serbia
Francesco Lelli	0	Netherlands



Milan Cabarkapa	0	Serbia
Ali Serdar Atalay	0	Turkey
Alessandro Varini	0	Italy
Axel Ngonga	0	Germany
Aytun ONAY	Inovasyon Muhendislik	Turkey
Blerina Spahiu	0	Italy
Celestino Alvarez	Mandarine Juice	Spain
Davide Mezzogori	0	Italy
Demetris Gerogiannos	0	Greece
Diego Montoliu	Delta Al	Spain
Dimitrios Kourtesis	Ideas Forward PC	Greece
Dionizije Fa	0	Croatia
Dominik Dominkovic	Al-nergy	Denmark
	selvai (No. BE0774816303 & Web:	Definition
Dr. Selvakumar Ulaganathan	www.selvai.com)	Belgium
Efthimis Vaiopoulos	0	Greece
Elena Varini	NCS Lab Srl	Italy
Enrico Bellocchio	Red Lynx Robotics	Italy
Ferdinand von den Eichen	Kineo GmbH	Germany
Fernando Navarro	Aerial Insights	Spain
Francesco Costantino	0	Italy
Gabriele Bani	Intrical AI	Netherlands
Giacomo Vissio	INVENTIO.ai	Italy
Gianfranco E. Modoni	0	Italy
Giuliano Fabris	Bluetensor Srl	Italy
GREGORY PHILIPPATOS	DIRECTING INTELLIGENCE	Greece
Grigorios Tsoumakas	Medoid Al	Greece
IAGO SEIJO	LOGICMELT TECHNOLOGIES SL	Spain
	BioAsys Group, Aristotle University of	
Ioanna Chouvarda	Thessalonik	Greece
Irene Baena	UPintelligence SL	Spain
Ivan Jacobs	AI4U	Luxembourg
Ivan Tankoyeu	Al Superior GmbH	Germany
Javier Prieto	Universidad de Salamanca	Spain
Jeanne-Sophie Goyer	Artfact - Lumenai	France
Joao Paulo Diogo	Arkhein Digital	Portugal
Juan Bautista Tomás Gabarrón	Cubic Fort Consultores SL	Spain
Juan M. Corchado	AIR Institute	Spain
Kamer Kaya	Dakik Software Technologies	Turkey
Laurenz Strothmann	0	Germany
Loris Roveda	0	Switzerland
Lucas Spreiter	Unetiq GmbH	Germany
Lucas Vandroux	VU Engineering	Switzerland
Magdalena Surowka	Datali	Switzerland
Mara Tsoumari	SentiGeek	Cyprus



Marco Bertini	Università degli Studi di Firenze - MICC	Italy
Maria Xilouri	JADBio - Gnosis DA S.A.	Greece
Mario Jojoa	0	Spain
Marta Porroy Chocarro	Alchemy Machine Learning S.L.	Spain
Mattia Neroni	0	Italy
Michał Czubenko	0	Poland
Mircea Hotoleanu	0	Romania
mitja pajek	tri sense d.o.o.	Slovenia
Mohamad Hasan Bahari	Sensifai	Belgium
		Bosnia an
Noah Weber	387 Labs	Herzegovina
Panagiotis Kasnesis	ThinGenious PC	Greece
Paul Isaris	SciFY	Greece
Ruben Miranda	MIFOOD	Poland
Salih Ergüt	OREDATA Yazilim Limited Sti	Turkey
Shadi Saleh	0	Czech Republic
Simon Benjaminsson	Smartera AB	Sweden
Stefan Reuther	Unetiq	Germany
Stella Bazdani	ena Development Consultants	Greece
Stéphane DUPONT	Depthen	Belgium
Thierry SILBERMANN	0	France
Tommaso Vicarelli	Weedea s.r.l.	Italy
TUBA ARSLAN KIR	SESTEK	Turkey
Vildan Düdükçü	0	Turkey
Wael Al Masri	Innaton Technologies Ltd.	Cyprus
Xavier Blanch	Connecthink Innovation	Spain
Zdenek Novotny	Amitia	Czech Republic
Zerina Koplikaj	Sorint.tek srl	Italy
Alvaro Lopez Garcia	Spanish National Research Council (CSIC)	Spain
Antonio Vidal	0	Spain
Ilias Tsoumas	0	Greece
Alessandro Pedori	n/a	Germany
Pedro Arques	CENTIC	Spain
Denia Kanellopoulou	NCSR "Demokritos"	Greece
Spyros Kosmidis	NA	United Kingdom
Frederik Strothmann	0	Germany
		Bosnia an
Noah Weber	387 Labs	Herzegovina
Mozhde Aliakbari	Taktify	Netherlands
Paul Byrnes	0	Ireland
, Sokratis Nifakos	0	Sweden
Christopher Dahlin	Xuu AS	Norway
Theofrastos Mantadelis	Ph.D. Theofrastos Mantadelis	Cyprus
Sekalski Przemyslaw	Inn4U	Poland
Noelia Rascón	Biyectiva S.L.	Spain



Tomas Krilavičius	MB Krilas	Lithuania
Antonio Calegari	Artificialy SA	Switzerland
Mykhailo Novotarskyi	0	Ukraine
Georgios Albanis	MOVERSE PC	Greece
Vincenzo Lavorini	0	Italy
Luka Bradeško	Sovesall	Slovenia
Enrique Onieva	0	Spain
Georgios Retsinas	0	Greece
Dr. Spyridon Thermos	A.C Codewheel Ltd	Cyprus
Valeriy Borovyk	Altus techicus	Lithuania
Rosen Dimov	0	Hungary

