



**SELSUSTAINED CROSS-BORDER CUSTOMIZED  
CYBERPHYSICAL SYSTEM EXPERIMENTS  
FOR CAPACITY BUILDING AMONG EUROPEAN STAKEHOLDERS**

# **SMART4ALL**

An extensive network of Digital Innovation Hubs for boosting technology and business development in South, Eastern and Central Europe

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Co-funded by the Horizon 2020 programme  
of the European Union

DT-ICT-01-2019  
Smart Anything Everywhere Area 2

[www.smart4all-project.eu](http://www.smart4all-project.eu)  
Grant Agreement: 872614

# SMART4ALL ID Card



Funded by the Horizon 2020  
Framework Programme of the  
European Union



**DT-ICT-01-2019: *Smart Anything low energy computing Everywhere – Area 2: Customized powering CPS and the IoT***

10 September  
2021

[www.smart4all-project.eu](http://www.smart4all-project.eu)

## Project information

# SMART4ALL

**Grant agreement ID: 872614**

Status  
**Ongoing project**

Start date End date  
**1 January 2020** **31 December 2023**

Funded under:  
**H2020-EU.2.1.1.**

Overall budget:  
€ 8 660 872,50

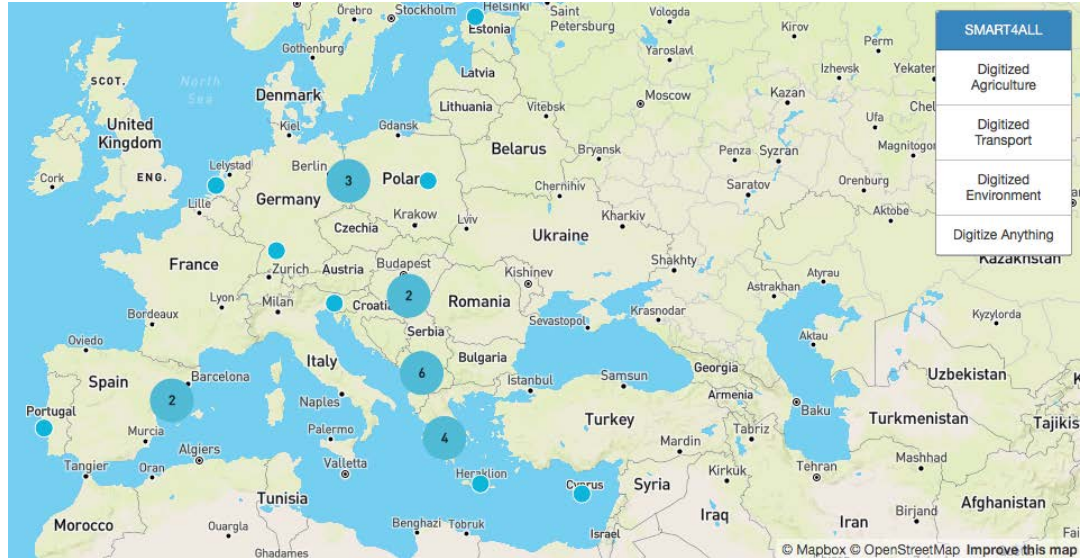
**EU contribution**  
€ 7 997 647,50



Coordinated by:  
**UNIVERSITY OF PELOPONNESE**  
 Greece

# SMART4ALL Consortium

- 25 partners originated from **South, Eastern & Central Europe**
- The consortium is composed of universities, research institutes, investors, networking organizations, SMEs, Innovation Hubs and NGOs



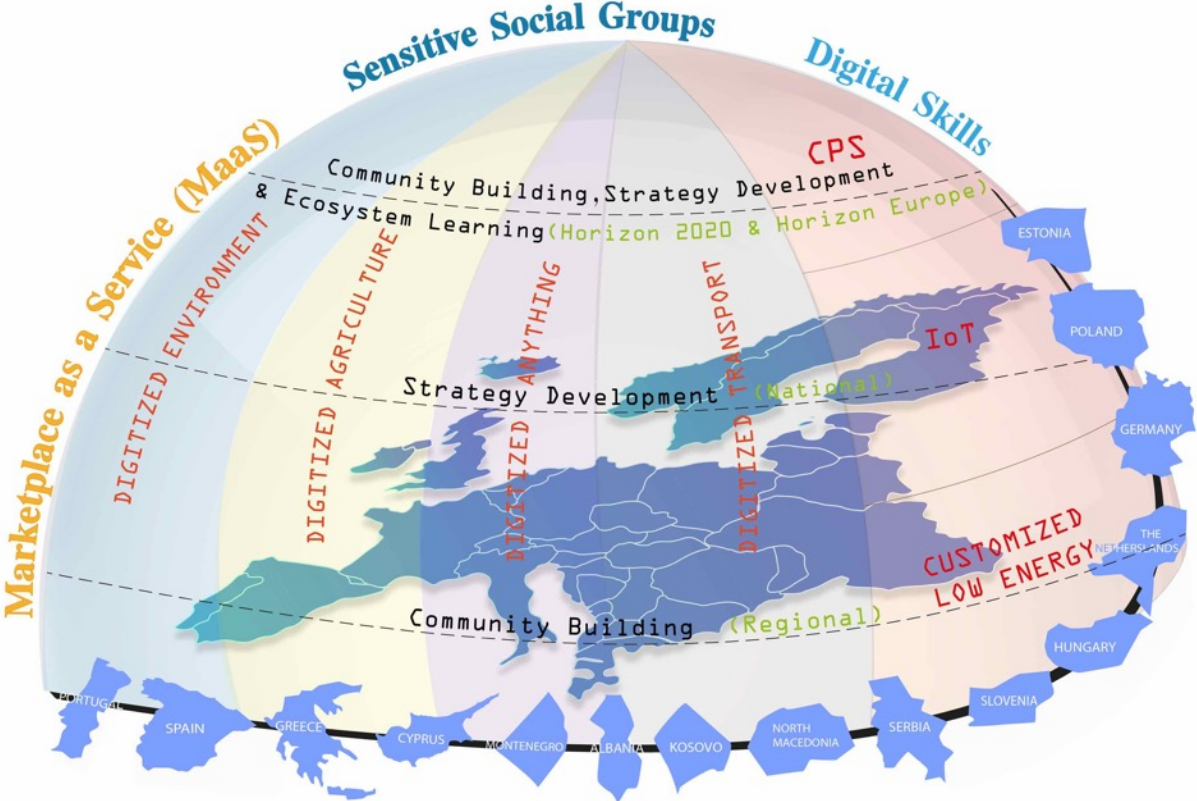
Diversity in Partners Expertise		Geographic Diversity (15 countries)	
Universities: 10	Research institutes (R&D): 3	Albania: 1	Montenegro: 1
Research institutes (BizDev): 1	SMEs (R&D): 6	North Macedonia: 2	Poland: 2
SMEs (BizDev): 2	Innovation Hubs: 1	Cyprus: 1	Portugal: 1
NGOs: 1		Estonia: 1	Serbia: 1
		Germany: 3	Slovenia: 1
		Greece: 5	Spain: 1
		Hungary: 1	The Netherlands: 1
		Kosovo: 2	

10 September  
2021

# SMART4ALL in a Nutshell

- **Vision:** To build capacity amongst European stakeholders by joining different cultures, different policies, different geographical areas and different application domains
- **How:** Through the development of self-sustained, cross-border experiments that transfer knowledge and technology between *academia* and *industry*
- **Technological Areas:** Customized low energy computing (CLEC) & IoT
- **Application Areas:** Digitized Environment, Digitized Agriculture, Digitized Anything and Digitized Transport

# SMART4ALL Vision



10 September  
2021

# SMART4ALL Objectives

- Bring innovative Customized Low Energy Computing (CLEC) CPS and the IoT technologies to **underrepresented business sectors**
- Unlock South-Eastern parties' potentials through **links to investors** across value chains and regions in order to accelerate CLEC CPS/IoT solutions development and industrialization
- **Develop/offer novel tools** to boost the use of CLEC CPS and the IoT technologies Europewide
- To **ensure post-project sustainability and growth** of the SMART4ALL experiments & DIHs network
- To bring innovative CLEC CPS and the IoT technologies in the lives of **sensitive social groups**
- To support **Digital Skills & Jobs policy of European Commission**

# SMART4ALL An Extensive Network of DIHs

An extensive network of Digital Innovation Hubs for boosting technology and business development in South, Eastern and Central Europe

## Ecosystem Services:

- Access to SMART4ALL network/ecosystem
- Identify funding opportunities
  - ✓ SMART4ALL Open Calls
  - ✓ Local and European funding frameworks
- Application oriented **ethics coaching**
- Interconnection with other networks/ecosystems



## Business Services:

- Application oriented **coaching for business development**
- Partner search and business matchmaking
- Online training courses

## Technological Services:

- Application oriented **technological coaching**
- Access to state-of-the-art infrastructures & services
- Technological matchmaking
- Online training courses



# SMART4ALL PAE Types

## PAE

### *Pathfinder Application Experiments*

#### KTEs

*Knowledge Transfer Experiments*

**Funding:** 8K Euros

**Type:** Internship

#### FTTEs

*Focused Technology Transfer Experiments*

**Funding:** 80K Euros

**Type:** Project

#### CTTEs

*Cross-domain Technology Transfer Experiments*

**Funding:** 80K Euros

**Type:** Project

- **Internal:** 21 FTTE (vertical) will be developed by SMART4ALL
- **External:** 67 KTEs/FTTEs/CTTEs will be developed via open call funding



# SMART4ALL PAE Cut Off Dates

PAE Type		Call 1	Call 2	Call 3
Knowledge Transfer Experiments (KTE)	Call Announcement	Apr 15th, 2020	Mar 2021	Mar 2022
	Submission Deadline:	Jul 15th, 2020	May 2021	May 2022
Focused Technology Transfer Experiments (FTTE)	Call Announcement	Jul 1st, 2020	Jun 2021	Jun 2022
	Submission Deadline:	Sep 30th, 2020	Aug 2021	Aug 2022
Cross Domain Technology Transfer Experiments (CTTE)	Call Announcement	Dec 2020	Sep 2021	Sep 2022
	Submission Deadline:	Feb 2021	Nov 2021	Nov 2022

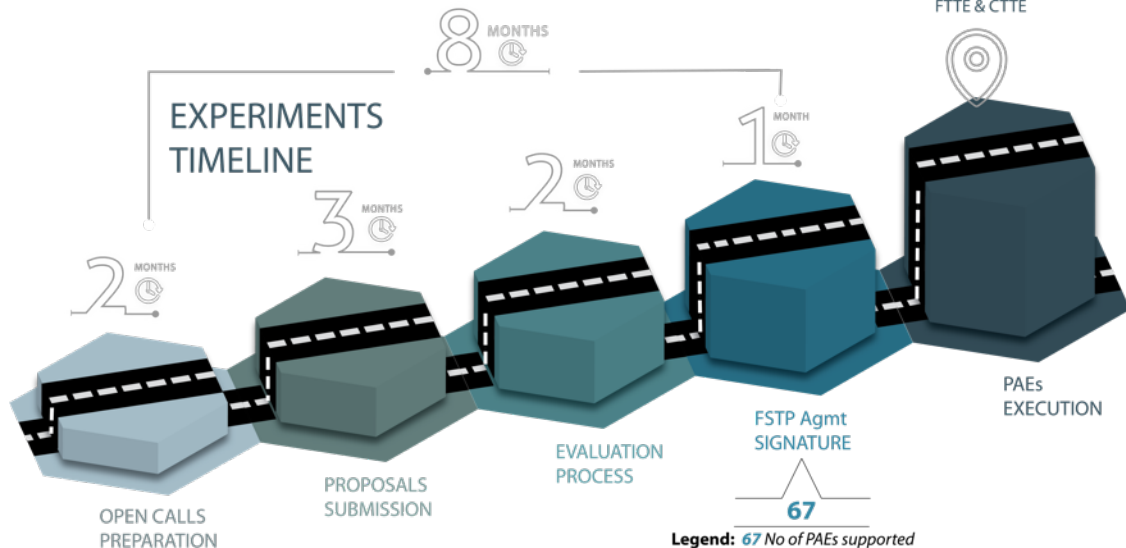
# SMART4ALL PAE Application Stages

APPLY NOW



## Fast Turn-around

Submissions are managed by FBA in an efficient and rapid way that is transparent, free of conflicts of interest, confidential and non-discriminatory, in order to ensure equal treatment of all participants.



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# SMART4ALL Infrastructure

## ESDA Lab Data Center

8 Rack Mounted High Performance Servers

Total CPUs: **164**

Total Memory: **1.216 GBytes**

Type 1 Hypervisors: VMWARE ESXi / Proxmox  
Virtualization Technologies

Next Generation Firewalls (HGFW) -  
Hardware / High Availability Cluster  
Double hardware firewalls

Storage Area Network (SAN) - Fibre  
Channel (FC @ 16 Gbps) Infrastructure  
Capacity: **20 TBytes**

Network Attached Storage (NAS @  
1 Gbps) Infrastructure  
Capacity: **30 Tbytes**



Specialized High Performance Computing Nodes  
FPGA and GPU Cluster Provision



ΠΑΝΕΠΙΣΤΗΜΙΟ  
ΠΕΛΟΠΟΝΝΗΣΟΥ  
UNIVERSITY of the PELOPONNESE

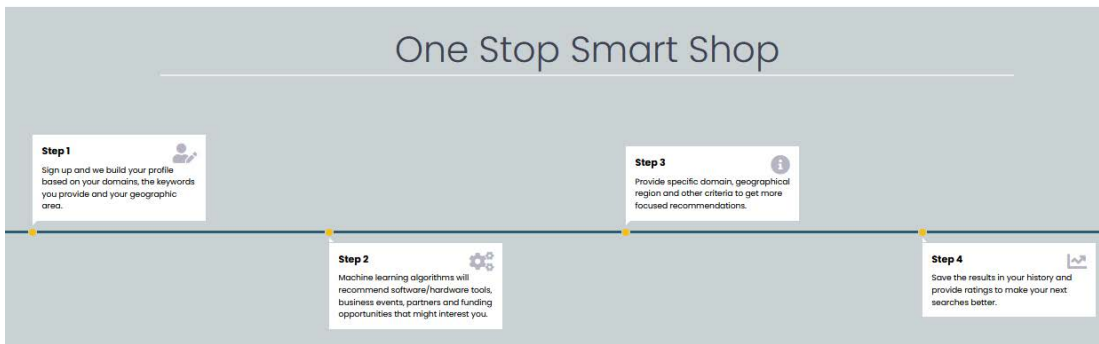
10 September  
2021

## Marketplace as a Service Concept is one the cornerstones/flagships of Smart4ALL

- **What is it ?** A novel one-stop-smart-shop for experts and non-expert third parties seeking (open-source mainly) ICT technologies
- **What is its main target ?** reduce the development time of an startup /SME/mid-cap that is doing business in one of the four SMART4ALL thematic areas
- **Unique selling point:** AI based match-making and collaboration activities will be hosted in the MaaS

# The MarketPlace SW infrastructure

<https://marketplace.smart4all-project.eu>



Marketplace follows the **microservices** paradigm where all the functionality is given as a set of **loosely coupled services powered by containerization technology**

## MaaS includes:

- Open and proprietary cloud services
- Open and proprietary computing and communication platforms
- Open-source tools and middleware frameworks
- Open-source design tools Training (model-based) open course

# The MarketPlace SW infrastructure

<https://marketplace.smart4all-project.eu>

## Repository

Repository

**Filters**

Select Domain:  Education  Select Type:

enter keyword...

Favourites  Liked

RESET

**DSpace-CRIS**

DSpace is the free repository of the University of Novi Sad that captures, distributes and preserves digital research products. Here you can find articles, working papers, preprints, technical report... conference papers and data sets in various digital

Domain: Anything  
Category: Education  
Type: N/A

Like Favourite

**Red Pitaya - test and measurement instruments**

This is about test and measurement instruments that can help engineers to develop electronic projects and how they are used. The artifact will covers topics like: What is an oscilloscope, Spectrum analyzer, VN... and more

Domain: Anything  
Category: Education  
Type: N/A

Like Favourite

**Red Pitaya - circuits and electronic lectures**

This artifact is about how to use STEMlab platform to teach circuits and electronics, by first explaining the theoretical background of a circuit and its elements and then doing practical work.

Domain: Anything  
Category: Education  
Type: N/A

Like Favourite

**STMicrocontrollers Educational Platforms**

Open-source tutorials based on professional tools to help you develop the skillset you need to succeed with a career in electronics.

**STMicroelectronics - Internet of Things and Embedded Machine Learning**

Based on the STMicroelectronics Sensortile development kit, this curriculum provides young engineers and techies with the foundations required to build Internet of Things systems such as wearable... consumer devices, wearable medical devices...

**STMicroelectronics - Low Level Firmware Programming with Drones**

Based on the STMicroelectronics Drone kit, this curriculum guides young engineers and techies through the hurdles of flying a drone, while also teaching the key skills required to navigate... microcontroller architecture.

## Repository goal:

- Offer multifaceted artefacts
- Offer a way to retain the most useful of them
- Interconnect the artefacts to the matchmaking service

20 September  
2021

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14

# The MarketPlace SW infrastructure

<https://marketplace.smart4all-project.eu>

## Match Making

↳ Match Making

**Filters**

Select Domain: IoT  
Select Organization Type: SME, Big Company, NPO, DIH, University, Research Institute  
Select Country: [Empty]  
RESET EXPORT

**Digiotouch**  
Mr. Soumya Kant Datta: soumya@digiotouch.com  
Digiotouch (DT) is an SME located in Tallinn, Estonia and has been founded based on the philosophy of "Smart Anything Everywhere". DT provides sustainable and secure Digital Transformation to Smart City, Mobility, Healthcare, and Manufacturing & Logistics domains. DT's core competence is to digitize customers' legacy business processes, operations, and assets using its Cloud based, secure Paradise IoT Platform. It includes several IoT common service functions (e.g. remote monitoring, device management, etc.).

Domain: Anything | Type: SME | Size: 1-9 | Keywords: IoT

**Dynamic Ambient Intelligent Sociotechnical Systems**  
Theodor Panagiotakopoulos: panagiotakopoulos@ecp.gr | Greece | EU3  
The DAISSy group has accumulated longtime R&D expertise in Ambient Intelligence, Pervasive Systems, Middleware, Service Oriented Architectures, Ontologies, Knowledge Extraction and Representation, Multi Agent Systems, Social Systems, Peer Learning Platforms, 3D Games, ICT in Education and Skills Definition and Profiling for ICT related Jobs.

Domain: Anything, Environment | Type: N/A | Size: 50-249 | Keywords: Academic Research

**IOTA Foundation**  
Dominik Schwenner: contact@iota.org | Germany | EU3  
IOTA Foundation is a non-profit organization and creator of the Tangle, a permissionless, multi-dimensional distributed ledger, designed as a foundation of a global protocol for all things connected.

## Matchmaking goal:

- Based on filters and keywords suggest suitable candidates from SMART4ALL network
- Offer all the necessary information
- Include at the matchmaking process artefacts
- Use AI to continuously increase accuracy and efficiency



# The MarketPlace SW infrastructure

<https://marketplace.smart4all-project.eu>

Browse through SMART4ALL network by:

- Vertical
- Location
- Name

Network

🏠 • Network

mapbox

13.Jul-Plantaze s.d. Podgorica	3D Arch	SM ICT d.o.o.	A. FLEKOSTAS & SIA E.E.	AAI Scientific Cultural Services Ltd
ABZERO	AMANT COMPOSITE	M	ADRINE	AOTECH

10 September  
2021

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16

# The MarketPlace SW infrastructure

<https://marketplace.smart4all-project.eu>

## Events Mark the date! Events & Happenings

< > today **September 2021** month week day list day list week list month list year

<b>September 1, 2021</b>	<b>Wednesday</b>
all-day ● FPL - 31st International Conference on Field-Programmable Logic and Applications, Dresden, Germany	
<b>September 2, 2021</b>	<b>Thursday</b>
all-day ● FPL - 31st International Conference on Field-Programmable Logic and Applications, Dresden, Germany	
<b>September 24, 2021</b>	<b>Friday</b>
all-day ● 6th South-East Europe Design Automation, Computer Engineering, Computer Networks and Social Media Conference (SEEDA-CECNSM 2021) - 24 - 26 September, Preveza (Greece)	
<b>September 25, 2021</b>	<b>Saturday</b>
all-day ● 6th South-East Europe Design Automation, Computer Engineering, Computer Networks and Social Media Conference (SEEDA-CECNSM 2021) - 24 - 26 September, Preveza (Greece)	

10 September  
2021

# SMART4ALL Tools – Project Website

<https://www.smart4all-project.eu>



- Project news
- Access to SMART4ALL services
- Access to SMART4ALL Network in SEE
- Open call announcement
- Apply for SMART4ALL Open Calls

First Open Call for Knowledge Transfer Experiments - Submission Countdown

42	04	09	15
Days	Hours	Minutes	Seconds

10 September  
2021

[www.smart4all-project.eu](https://www.smart4all-project.eu)

18

# SMART4ALL Tools – Project Website

<https://www.smart4all-project.eu>

The screenshot shows the website's navigation menu at the top: Project, Marketplace, Network, Open Calls, Resources, Publicity, Meet our Team, Join Us, Winners, and CONTACT. The main heading is 'OPEN CALLS'. Below this is a horizontal menu with categories: Experiment types, Who can apply, Application stages, Cut off dates, Webinars & Training Courses, Success Stories, and Application Kit. The 'Webinars & Training Courses' category is selected, displaying a section titled 'SMART4ALL overview and proposal preparation' with three bullet points: 'Smart4all overview and funding opportunity (pdf, vid)', 'How can I write a successful KTE proposal (pdf, vid)', and 'How can I write a successful FTTE/CTTE proposal (pdf, vid)'. To the right of the text is a graphic featuring a globe, the SMART4ALL logo, and a lightbulb with 'FAQ' written on it. Below this is a section for 'Current Open Call' titled '2nd FTTE open call:' with a bullet point: 'Regional\_2nd\_FTTE\_Webinar (pdf1, pdf2, pdf3, vid)'. At the bottom left of the screenshot, the date '10 September 2021' is visible.

## Webinars & Training

- Important information regarding Open Calls
- Useful insights on how to prepare a competitive proposal

10 September  
2021

# SMART4ALL Tools – Project Website

<https://www.smart4all-project.eu>

Experiment types	Who can apply	Application stages	Cut off dates	Webinars & Training Courses	Success Stories	Application Kit
<b>1st Open Call</b>						
<b>KTEs – Knowledge Transfer Experiments:</b>						
<ul style="list-style-type: none"><li>Capacity building for development of innovative system for prediction of Medical Device performance (<a href="#">vid</a>)</li><li>EPATHLON – A robotic system for soil laboratory testing (<a href="#">pdf</a>, <a href="#">vid</a>)</li></ul>						
<b>FTTEs – Focused Technology Transfer Experiments:</b>						
<ul style="list-style-type: none"><li>EDIoT – Energy Disaggregation on IoT Smart Meters (<a href="#">pdf</a>, <a href="#">vid</a>)</li><li>EmBrace – Social Distancing Bracelet (<a href="#">pdf</a>, <a href="#">vid</a>)</li><li>SMartY – Smart Metering &amp; Artificial intelligence for SaMMY IoT Platform (<a href="#">pdf</a>, <a href="#">vid</a>)</li></ul>						
<b>CTTEs – Cross-domain Technology Transfer Experiments:</b>						
<ul style="list-style-type: none"><li>RADIUS – Autonomous micro-mobility parking and positioning management system for hospitality operators (<a href="#">pdf</a>)</li></ul>						

## Success Stories:

- Presentations of funded experiments
- Insight on how the proposal was structured wrt
  - Excellence
  - Impact
  - Implementation

10 September  
2021

# Join now SMART4ALL Network !

Join now SMART4ALL Network in South, Eastern and Central Europe by:

- Employing SMART4ALL marketplace:  
<https://smart4all-project.eu/marketplace>
- Subscribing to SMART4ALL newsletter:  
<https://smart4all-project.eu/joinus>
- Applying to SMART4ALL Open Calls:  
<https://smart4all-project.eu/opencalls-apply-now>
- Get all information from SMART4ALL Site:  
<https://www.smart4all-project.eu>



# SMART4ALL Social Media

Follow SMART4ALL on:



<https://www.linkedin.com/groups/12369183>



[https://twitter.com/Smart\\_4All](https://twitter.com/Smart_4All)

facebook

<https://www.facebook.com/SMART4ALL.Project>



<https://www.youtube.com/channel/UCwmSl9LCl2vNBO-3k75dvJA>

***... and stay up to date for the latest SMART4ALL news, activities & funding opportunities !***



# SMART4ALL Contact persons

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10 September  
2021

# Thank you for your attention – Questions?



<https://seeda2021.uowm.gr/smart4all/>



## SMART4ALL



**SMART4ALL – An extensive network of Digital Innovation Hubs for boosting technology and business development in South, Eastern and Central Europe**

#### Short Description & Goals

SMART4ALL is funded by the EU program Horizon 2020 (Grant Agreement No. 872654) and aims to bring together a Digital innovation Hub across Europe. It comprises a consortium of 25 partners from 18 countries but aims to reach out many more.

10 September  
2021

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