

D.C. 4.2 PARTICIPATION TO EXTERNAL EVENTS

D.C. 4.2 Report - Participation on a
digitalization workshop organised in the
S3HubsinCE project

FINAL VERSION
03/2021





1. Name of the event, implementing date and place

Name: S3HubsinCE project: Mobility Action→ Digitization competences at am-LAB;
International event

Date: 27th October 2020 09:00-12:25

Place: ONLINE format (ZOOM)

Host: PBN and its DIH (am-LAB)

2. Number and types of participants/target groups

In the international event we reached 44 participants all together, and 37 of them filled the registration form in advance. The following target groups were reached from 11 countries:

- Local public authority (how many: 0)
- Regional public authority (how many: **2 participants from 2 different organisations**)
- National public authority (how many: **2 participants from 1 organisation**)
- Higher education and research (how many: 11 participants from 5 organisations)**
- Education/ Training Centre and Schools (how many: **1 participant from 1 organisation**)
- Large Enterprises (how many: 0)
- SMEs (how many: **2 participants from 2 different organisations**)
- Business Support Organizations (how many: 19 participants from 10 different organisations)

3. Topics tackled and links to deliverables, outputs

Since one of the session was dedicated to 4STEPS, this event can be considered as an indicator at D.C4.2 “ *Participation at external international events*” since we promoted the activities of 4STEPS for an international audience

The attendees of the international meeting could experience am-LAB (PBN’s) DIH operation in the following fields:

- High Growth Company (HGC) Programme- carried out by PBN/am-LAB to enhance digitization level of Hungarian SMEs
- 3D scanning
- Additive manufacturing



- Business Animation
- AR technology
- Sensor development
- Robotics development (drone / Communication of various robotic devices)
- **Advanced Data Analytics** → **Presentation of the conclusions of transnational analysis with 350 companies carried out in the 4STEPS project**

Apart from the topics mentioned above, the aims of the event were:

- Knowledge transfer about am-LAB digitalisation services, solutions and best practices in the thematic areas mentioned above
- Sharing the model adopted by am-LAB how to approach manufacturing SMEs nationally and how to provide 4.0 services to these companies
- Possible future cooperation among the partners institutions
- the benefits of the digital transformation for the companies (optimization of production, cost efficiency etc.)

4. Expected effects and follow up

- am-LAB shared its digitization competences with the attendees, which might be utilized in their own eco-system
- Participants can widen their knowledge and experience in the mentioned Industry4.0 pillars
- PBN (am-LAB) to develop and improve the digitalization solutions and services based on the participants' feedbacks
- Future cooperation projects might be initiated and launched between the participants and PBN
 - Disseminate the results of the transnational company analysis carried out in the first half of the 4STEPS project,

5. Annexes: e.g. agenda of the event, pictures, media coverage web- links etc



S3HubsinCE: Mobility Action
Digitization competences at am-LAB

27th October 2020
ONLINE via ZOOM

Agenda



Time period	Session
8:45 - 9:00	Registration of the participants (technical check)
09:00 -09:35	Welcome speech and the general introduction of the Advanced Manufacturing Laboratory: PBN's official DIH (PBN)- The history and rapid development of am-LAB+ HGC
09:35-09:50	3D scanning and its opportunities in the field of R&D.
09:50-10:10	The usage of recycled plastic in 3D printing
10:10-10:25	am-LAB best practices in the field of additive manufacturing
10:25-10:45	Business animation using Cinema 4D
10:45-11:00	Demonstration of product concept with AR technology
11:00-11:10	<i>Coffee break, online networking</i>
11:10-11:25	Sensor development, sensor data visualisation, sensor data analysis for sensor calibration, Phyton programming
11:25-11:40	Communication of various robotics devices for automated tasks
11:40-11:55	Drone – Indoor logistic solution
11:55-12:10	4STEPS project: Advanced data analytics – transnational data analysis of 350 companies' Industry 4.0 related data in 7 CE countries
12:10-12:25	RECAP Q&A and main experience of the mobility action-



PBN
advanced management

PANNON BUSINESS NETWORK
advanced management

am-LAB
advanced manufacturing



S3HubsinCE: Regional Mobility Action: Digitization competencies at am-LAB

27th October 2020 (ZOOM Platform)

4STEPS project: Advanced data analytics
transnational data analysis of 350 companies' Industry 4.0 related data in 7 CE countries



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OUTPUT




Figure 9: Distribution of the motivation of Hungarian companies for the digital transformation

Question 15: Strategy for digital transformation

In the analysis, companies were asked not only their motivation in relation with digital transformation, but also they were asked about different internal strategies for digital transformation. As Figure 10 clearly presents, mostly by the question concerning evaluation, the majority of the involved Hungarian companies are partly or mostly agree with the strategies listed in connection with digital transformation. As it can be seen in Figure 10 the most outstanding result is that almost 65% of the Hungarian companies partly, and further about 29% mostly agree that risk assessment for I4.0 is available which is a remarkable result. Furthermore, 97.8% of the Hungarian companies stated (partly or mostly) that Industry 4.0 technology strategy is crucial for the future work.

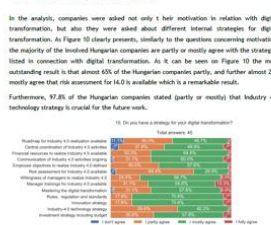


Figure 10: Distribution of the strategy of Hungarian companies for their digital transformation




Figure 11: Technology Readiness Level of Hungarian regular companies

5. Other enabling factors

Question 5: Development of products and services

Apart from the above mentioned specific technology oriented results, further enabling factors may be taken into consideration when we scrutinize the innovation readiness factors. In the analysis, some questions were also asked which should be also known when a company is classified in terms of innovation and digitization readiness. Among others, at the 5th question of the analysis, companies were asked how their most important products and services have been developed. 100% in all regions were allowed to choose multiple answers. Regarding the Hungarian results, as Figure 18 depicts, the support of the technical office is crucial (30.3 % of the companies have chosen this answer). Apart from this, an improvement of technologies existing on market have been implemented internally to 22% of the companies. According to the Hungarian companies, the support of suppliers/customers is also remarkable (17%). Besides, Hungarian companies (11.6 %) have implemented a technology which had been already used by one of the competitors.





Figure 12: Distribution of proper involvement


Question 7 accurately asked the number of involvements in public funded projects, as well as the ongoing number of cooperations with research labs and other associations. According to the results, the majority of the Hungarian companies (78%) have been involved between 1-5 public funded projects in the last five years taking into account EU, national and regional level as well. Regarding the ongoing cooperations with research institutions, 80% of the Hungarian companies have at least one, but max. ten cooperations with such associations as Figure 22 illustrates.



Zoom Meeting Recording



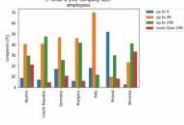
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DATA UNDERSTANDING AND DATA VISUALISATION

- Simple graphs
- Heatmaps
- Distribution plots
- Geographical data

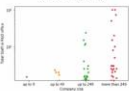
3. What is your company size?



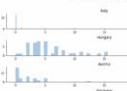
Country of origin



Total staff in R&D office



Total staff in R&D office




Turnover / year - employees


Year	2016	2017	2018	2019
Small	100%	100%	100%	100%
Medium	100%	100%	100%	100%
Large	100%	100%	100%	100%

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Zoom Meeting Recording

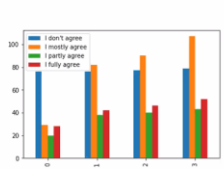


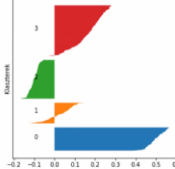
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SEGMENTATION

- Find coherent groups in the database which separated from each others
- Algorithm selection
- Future selection
- Cluster check
- Profiling





11:52 2020. 10. 27.