

BRIGHT

Erasmus+ strategic partnership for Higher Education BOOSTING THE SCIENTIFIC EXCELLENCE AND INNOVATION CAPACITY OF 3D PRINTING METHODS IN

REPORT for E2 - Multiplier Event

***BRIGHT personalized teaching method for Higher education,
organized by University of Poznan, on 25th February 2022***



1. Description of BRIGHT Project

The main objective of the BRIGHT project is to provide teaching resources & methods for professors coming from Higher Education institutions that are interested to find ways in providing their students relevant knowledge, skills & competences in the field of 3D printing methods used for producing medical parts, by providing e-courses that sustains the BRIGHT project curriculum, e-toolkit manuals for digital learning which are the required steps to follow starting from CAD, CAE & continuing with 3D printing & testing.

Erasmus+ is the European program focused on education, training, youth and sport in the period 2014-2020. The project has been funded under Key Action 2, Cooperation for innovation and exchange of good practices in Action type Strategic partnership for higher education.

The 2nd multiplier event has been organized by Technical University of Poznan (PUT), Poland, online and was free of charge.

2. Summary of the multiplier event

The Multiplier Event_E2 organized by the **University of Poznan** was held on 25th February 2022 to present and share the results reached in IO 3, related to the e-learning virtual laboratory platform which was built by the BRIGHT consortium.

The target groups of the Multiplier Event organized was colleagues involved in teaching 3D printing/ CAD / CAE / Materials Science and Strength of Materials / Flexible manufacturing systems/ Process optimization and software



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control / Medical Engineering, including teaching staff, students and other people involved in teaching 3D printing in Higher education in their respective organizations. The 2nd Multiplier event was also opened to other partners that are interested about developing, producing and testing of medical parts by 3D printing methods (medical institutes, clusters, City hall institution).

The objective of this multiplier event was to present and share the results reached in intellectual output 2, related to the toolkit manual. The toolkit manual was realized by the BRIGHT consortium in order to emphasize on different case studies coming from the medical sector. Different companies presents results in the field of 3D printing for medical products. Was presented the plan regarding the project activities in 2022 (Learning Teaching Training, Transnational Project Meetings, Multiplier Events) and the BRIGHT virtual laboratory rooms, which has to be finished until July 2022.

In the context of the pandemic the event was organized online, using TEAMS and e-platform of the BRIGHT project (BRIGHT project website).

The focus in presentations was also on implementation of some topics directly in business community.

The adopted agenda for multiplier event has been shown below.

 <p>BRIGHT project – Boosting the scientific excellence and innovation capacity of 3D printing methods in pandemic period</p> 	
<p align="center">MULTIPLIER EVENT E2</p> <p align="center">AGENDA</p> <p align="center">Friday, 25th February 2022 – Poznań, POLAND</p>	
10:00 – 10:15	Welcome speech Dr eng. Remigiusz LABUDZKI, BRIGHT coordinator on behalf of Poznan University of Technology, Poland
10:15 – 11:00	Using 3D printing methods in pandemic period – BRIGHT experience Prof. Razvan PACURAR, BRIGHT project coordinator, TUCN, Romania Prof. Filip GÓRSKI, Head of 3D printing and VR systems, PUT, Poland
11:00 – 11:30	Medical and Industrial use cases of FDM/FFF 3D printing MSc. Krzysztof KARDACH, Chief Technologist, OMNI3D Sp. z o.o., Poland
11:30 – 12:00	3D scanning and 3D modeling as a crucial enhancement of orthopedic medical treatment process MSc. Paweł WOŹNIAK, Chief Technology Officer, B3D s.c., Poland
12:00 – 12:15	Coffee break
12:15 – 12:45	Bioresorbable Implants for medical applications obtained by 3D printing method MSc. Łukasz MIKŁOWSKI, Chairman of the Board, Finnotech Sp. z o.o., Poland MSc. Mateusz STOJKO, CMPW PAN, Poland
12:45 – 13:15	Zeus - the strongest bionic hand MSc. Hugo JAMES, Aether Biomedical, Sp. z o.o., Poland
13:15 – 13:45	Personalization of the technological cycle for the production of Cyberbone Implants Dr eng. Jacek ANDRZEJEWSKI, Syntplant Sp. z o.o., Poland
13:45 – 14:15	Stratays and Xact Metal Biocompatible 3D Printing Materials MSc. Krzysztof BRODZIK, Pro Solutions, Sp. J., Poland
<p>The meeting will be held on the MS TEAMS platform.</p> <p>The organizers will send a link to the meeting.</p> <p>Presentation in English.</p>	

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3. Attendance



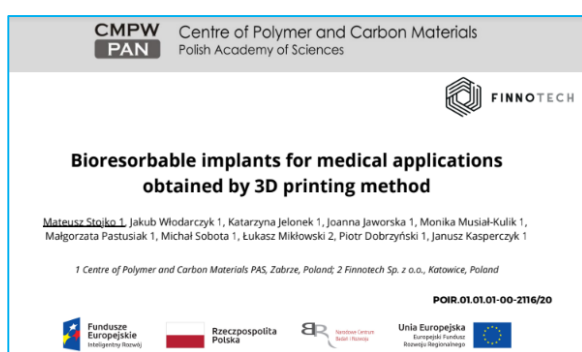
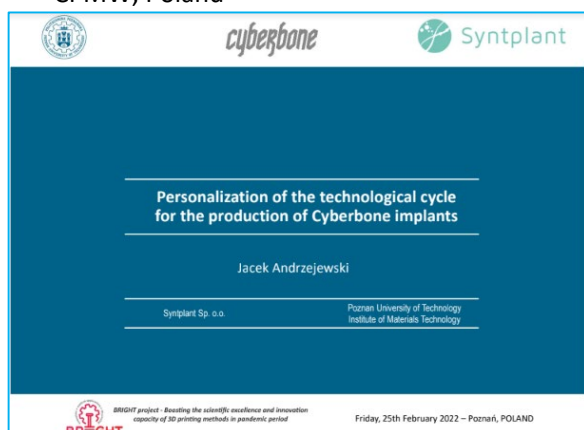
Co-funded by the
Erasmus+ Programme
of the European Union

There were over 40 participants from different institutions / companies, Poznan University and some partners from the consortium.

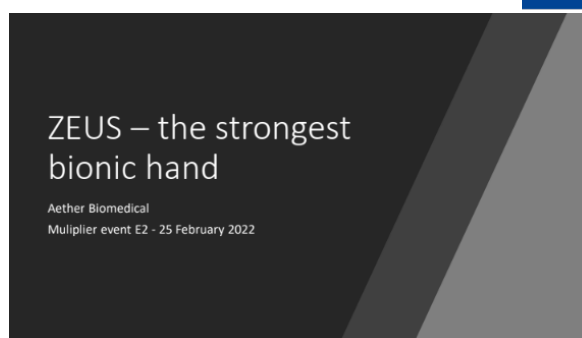
For inviting participants, PUT sent e-mails directly to regional companies and regional Institutions who was interested in the project and for academic staff and students, a press release was published on the PUT website.

The following institutions and companies were present at the event:

- University of Nis
- Technical University of Cluj-Napoca, Romania
- Omni 3D, Poland
- UNIPU, Croatia
- BM Plast doo, Croatia
- Stratays company
- CPMW, Poland



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4. Questionnaire/Inquiry data and results

The attendees were kindly asked to complete anonymously the following questionnaire. In this questionnaire were included questions about the organizational part of the event, about the materials that were presented and the overall impressions about attending the Multiplier Event E2. Also, the attendees could give suggestions about the aspects that can be improved.

Feedback form

Instructions: Please indicate your level of agreement with the statements listed below, on a scale from 1 to 5, where:

1 - Strongly disagree

3 – Neutral

5 – Strongly agree

2 – Disagree

4 – Agree

A. Objectives of the meeting

Statement	Score				
	1	2	3	4	5
1. The objectives of the meeting were clearly defined.					
2. The objectives were met during the meeting.					
3. All the relevant topics were covered during the meeting.					
4. The content was well organized and easy to follow.					
5. I obtained useful information and knowledge that will help me in my activity at work.					

B. Organization of the meeting

Statement	Score				
	1	2	3	4	5
6. The meeting was well organized.					
7. The facilitators were knowledgeable about the discussed topics.					
8. The facilitators were dedicated and supportive.					
9. Participation and interaction were encouraged.					

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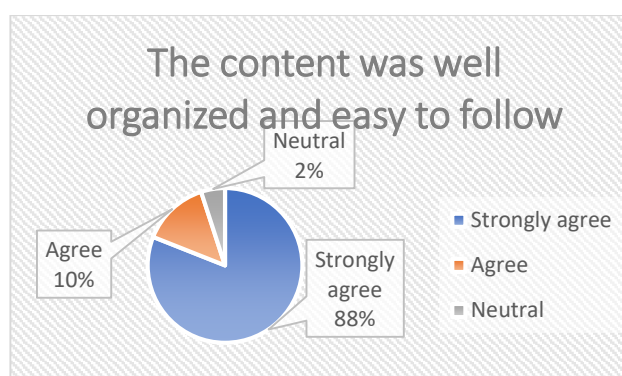
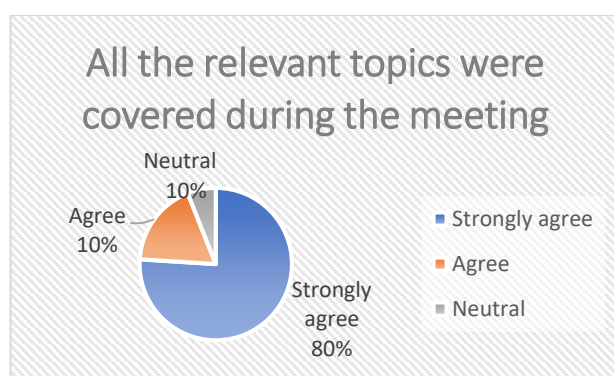
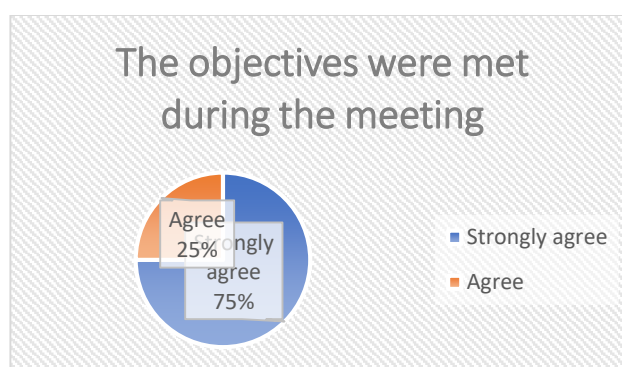
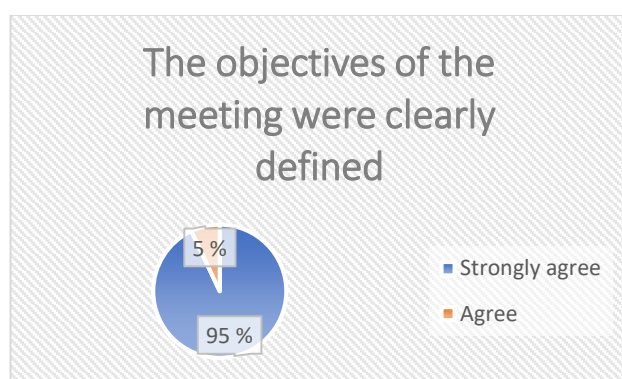
10. The schedule and the agenda were observed throughout the meeting.					
11. The materials distributed were useful.					
12. The time allocated for the meeting and for the activities, was sufficient.					
13. The meeting room and facilities were adequate and comfortable.					

14. What did you like the most about how the meeting was organized?

15. What aspects of the organization could be improved?

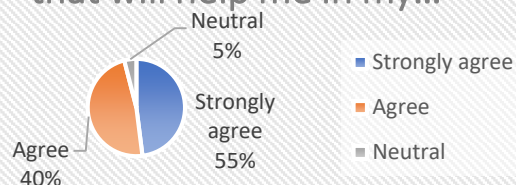
16. Please share other comments and suggestions that were not covered in the previous questions:

A total of 25 participants completed the feedback questionnaires and the result are presented in the following graphs:

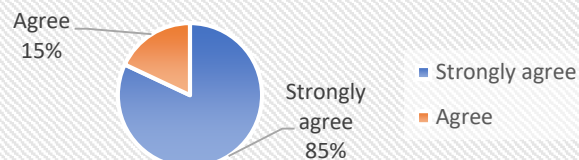


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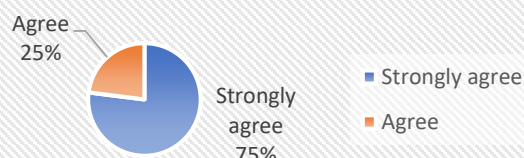
I obtained useful
information and knowledge
that will help me in my...



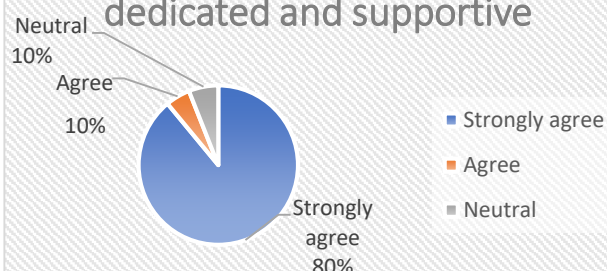
The meeting was well
organized



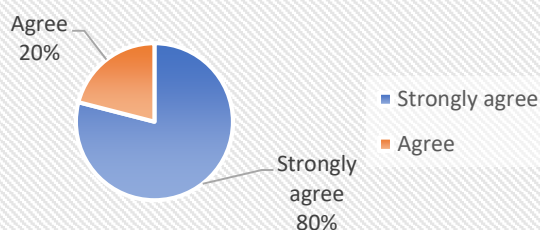
The facilitators were
knowledgeable about the
discussed topics



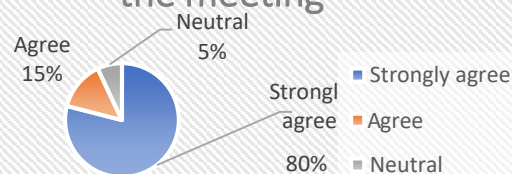
The facilitators were
dedicated and supportive



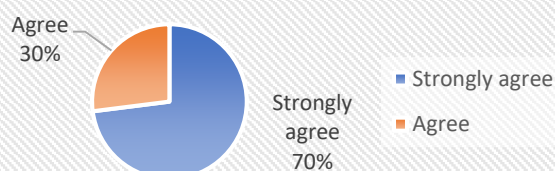
Participation and interaction
were encouraged



The scedule and agenda
were observed troughout
the meeting



The materials distributed
were useful



The time alocated for the
training event and for the
activities, was sufficient



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The meeting room and facilities
were adequate and comfortable.

meeting 
online 

For the questions 14, 15, 16 the answers were:

What did you like the most about how the meeting was organized?

- Knowledgeable and professional lecturers
- Content of presentations and covered subjects
- The presenters were dedicated and answered all the addressed questions

What aspects of the organization could be improved?

- The project should be advertised more
- More time meeting like this

Please share other comments and suggestions that were not covered in the previous questions:

- Organize this kind of meeting more often by online since Covid-19 exists
- Thank you for the invitation

5. Conclusion

The results of the questionnaire show that the attendees were mostly satisfied with the organization part of the event (the place and time), the objectives of the Multiplier Event were clearly presented and achieved at the end of the event.

Also, the materials of the presentations were well structured, and it was easy to follow the aspects that was discussed, even for the participants that weren't familiar to producing medical devices.

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