

European Network for Additive Manufacturing in Industrial Design for Ukrainian Context

#### REPORT – ME 3

**AMAZE** 

#### MULTIPLIER EVENT ON APPLIED RESEARCH METHODS FOR ADDITIVE MANUFACTURING IN ARCHITECTURAL DESIGN

hosted by Yuriy Fedkovych Chernivtsi National University (Ukraine) in cooperation with the AMAZE project consortium partners Date: 20.06.2024, between 9.00-16.00, Yuriy Fedkovych Chernivtsi National University Kotsyubynskyi Str 2 58012, Chernivtsi, Ukraine

The Third Multiplier Event (ME3) of the project - Agreement number 2023-1-RO01-KA220-HED-000155412, Acronym: AMAZE with the title "European Network for Additive Manufacturing in Industrial Design for Ukrainian Context", Erasmus+ Programme Key Action 2 Cooperation Partnerships for Higher Education (KA220-HED), took place on 20 June 2024 and were participated 20 persons from different institutes (not involved in project and out of Yuriy Fedkovych Chernivtsi National University, Ukraine), and were invited professors and students from Yuriy Fedkovych Chernivtsi National University. The event was hosted by Yuriy Fedkovych Chernivtsi National University, Ukraine.













European Network for Additive Manufacturing in Industrial Design for Ukrainian Context

The event was attended by representatives of the all AMAZE consortium partners: Yuriy Fedkovych Chernivtsi National University – Ukraine, Poznań University of Technology (PUT) – Poland (on-line MS Teams), National University of Science and Technology Politehnica Bucharest - Romania (on-line MS Teams) and EDIBON International S.A. Madrid – Spain (on-line MS Teams).



The participants at the Multiplier Event ME3, hosted by Yuriy Fedkovych Chernivtsi National University – Ukraine, were from different Ukrainian companies as: Chernivtsizhytlobud company, Vodogray LLC, Chernivtsi, Three A Studion, Dar Group, Urbanhause, Addline Group, SAGA Software company, DataWiz IT company, Symbols Fund and Association Joseph Schumpeter Bukovynian Innovative Technology Cluster and professors and students from Yuriy Fedkovych Chernivtsi National University – Ukraine.











**AMAZE** 

European Network for Additive Manufacturing in Industrial Design for Ukrainian Context

The Mulitplier Event ME3 of AMAZE project had a great visibility, very much personalities from Chernitvsi region, Ukraine participated at this event, such as: Mr. Vasyl Zazulyak (Deputy mayor of Chernivtsi), Mr. Yaroslav Pavlik (Head of the department of housing and communal services in Chernivtsi), Mr. Yaroslav Kushniryk (Deputy General Director of the utility enterprise Chernivtsivodokanal for the development), Mr. Dmytro Domitryuk (Chef architect of the Chernivtsi), Mr. Oleg Pikuschenko (Head of the Architectural Chamber of Ukraine), Mr. Yaroslav Boyko (Head of the Ukrainian National Union of Architects in the Chernivtsi region), Mr. Marian Stasyuk (Guild of designers in construction in Chernivtsi region), Mr. Doctor Viktor Polyovyi (Head of the General Surgery Department in Bukovinean State Medical University, Chernivtsi) and Mr. Doctor Petro Kovalchuk (Head of the Traumatology and Orthopedics Department in Bukovinean State Medical University, Chernivtsi).

The Multiplier Event on "Applied research methods for Additive Manufacturing in Architectural Design" started at 9.00, having the participants registration, the event was opened by Mr. Dean Prof. Igor Fodchuk, the Responsible of AMAZE project, from Yuriy Fedkovych Chernivtsi National University – Ukraine and was realized the AMAZE project presentation, showing main aims, actions, activities and results of the project.













European Network for Additive Manufacturing in Industrial Design for Ukrainian Context

The coordinator of AMAZE project, Mrs. Assoc.Prof.Dr.Eng. Diana Băilă from National University of Science and Technology Politehnica Bucharest, Romania presented the Intellectual Output 2 (IO2) results concerning the e-toolkit publishing into AMAZE consortium, and disseminated all results, activities and perspectives of Erasmus+ project. She presents the new research in Additive Manufacturing domain on superalloy INCONEL and Ti6Al4V metallic powders fabricated by Selective Laser Melting (SLM) technology for the industrial parts, that will be published in 2 articles at International Journals. She presented the modality to manufacture a chip 3D hybrid printer (do it yourself) and the electrical compounds necessary that is presented in Sensors and Electronics chapter from AMAZE e-toolkit, in IO2.



#### MULTIPLIER EVENT OF APPLIED RESEARCH METHODS FOR ADDITIVE MANUFACTURING IN ARCHITECTURAL DESIGN Organized by Yuriy Fedkovych Chemivtsi National University (Ukraine)

#### Agenda Schedule

Date: 20.06.2024, between 9.00-16.00, Yuriy Fedkovych Chernivtsi National University

Hour	Activity
9:00	Registration of participants to the Multiplier Event ME3
9:15	Opening and Welcome ceremony - Yuriy Fedkovych Chernivtsi National University (Ukraine), Dean Prof. Igor Fodchuk
9:30	AMAZE project and Erasmus+ KA Programme – Serhii Lukaniuk, Head of the Department of International Relations, Yuriv Fedkovych Chernivtsi National University (Ukraine)
9:40	AMAZE project overall presentation – progress, actions, KPIs, perspectives / results and details about the event – Additive Manufacturing & Sensors and Electronics
	Assoc. Prof. Diana Băilă (National University of Science and Technology Politehnica Bucharest, Romania)
10:10	AMAZE – Applied research methods for Additive Manufacturing in Architectural and Industrial Design/ Smart (Intelligent) Materials – e-book and e-toolkit - Yuriy Fedkovych Chemivtsi National University, Ukraine Mr. Dean Prof. Igor Fodchuk/ Mrs. Prof. Mariana Borcha
10:30	AMAZE – Applied research methods for Additive Manufacturing in Architectural and Industrial Design/ CAD/CAM/CAE—c-book and c-toolkit - Yuriy Fedkovych Chemivtsi National University, Ukraine / Mrs. Prof. Natalia Vatamaniuk
10:50	AMAZE – Applied research methods for Additive Manufacturing in Architectural and Industrial Design/ Reverse Engineering/Smart (Intelligent Materials) – e-toolkit – Poznau University of Technology, Poznan, Poland Mr. Prof. Remisusz Labudzki/Mrs. As. Prof. Natalia Wierzbicka
11:10	AMAZE – Applied research methods for Virtual Reality/Augmented Reality/Computer Programming – e- toolkir – EDIBON International S.A., Madrid, Spain Mr. Fernando Martínez & Mr. Sergio Vizcaino
11:30	Mr. Pernando Martinez & Mr. Sergio Vizcaino  Coffee Break
12:00	Modern technologies in Architectural and Building design – Mr. Yaroslav Boyko, Head of the Ukrainian National Union of Architects in the Chernivtsi region, Chernivtsi, Ukraine
13:00	3D construction in rehabilitation measures of civilian and military patients – Prof. Petro Kovalchuk, Head of the Traumatology and Orthopedics Department in Bukovinian State Medical University, Chemivtsi, Ukraine
13:30	The life cycle management of the development project - Mr. Igor Zhytar, Head of the planning and financial department of Vodogray LLC, Chernivtsi, Ukraine
14:00	Visit to the laboratories of the Faculty of Architecture, Construction and Applied Arts the Department of Information Technology and Computer Physics
15:00	Q&A with partners comments and discussions on the possibility of joining different projects / EU consortium Horizon Europe open calls Networks Closine words / ending of Multiplier Event
16.00	Light hugh











Mr. Serhii Lukaniuk, Head of the Department of International Relations, Yuriy Fedkovych Chernivtsi National University (Ukraine) presented ERASMUS + KA programme.

Mrs. Prof. Mariana Borcha from Yuriy Fedkovych Chernivtsi National University – Ukraine presented Applied research methods for Additive Manufacturing in Architectural and Industrial Design/ Smart (Intelligent) Materials – AMAZE e-book and e-toolkit, Yuriy Fedkovych Chernivtsi National University having very high competences in Industrial Design and Architecture fields.











European Network for Additive Manufacturing in Industrial Design for Ukrainian Context

Prof. Natalia Vatamaniuk presented Applied research methods for Additive Manufacturing in Architectural and Industrial Design/ CAD/CAM /CAE— e-book and e-toolkit.

Mrs. As. Prof. Natalia Wierzbicka from Poznań University of Technology from Poland presented his institution and their research experiences in Reverse Engineering, Smart (Intelligent) Materials, Industrial Design, and in Additive Manufacturing, for Intellectual Outputs 2 (IO2), Poznań University of Technology having a great experience in Additive Manufacturing and in Reverse Engineering technics.

EDIBON International company, represented by Mrs. Mirian Bonilla, Mr. Fernando Martinez and Mr. Sergio Vizcaino Sanz, presented the e-toolkit chapters in the Virtual Reality/Augmented Reality platform and in the Computer Programming fields, realized into AMAZE project.

At 11.30, was realized a Coffee Break.

Mr. Yaroslav Boyko, Head of the Ukrainian National Union of Architects in the Chernivtsi region, Chernivtsi, Ukraine sustained a presentation concerning "Modern technologies in Architectural and Building design". Prof. Petro Kovalchuk, Head of the Traumatology and Orthopedics Department in Bukovinian State Medical University, Chernivtsi, Ukraine realized a presentation about "3D construction in rehabilitation measures of civilian and military patients".

Mr. Igor Zhytar, Head of the planning and financial department of Vodogray LLC, Chernivtsi, Ukraine, made an interesting discussion about "The life cycle management of the development project". All participants visited the laboratories of the Faculty of Architecture, Construction and Applied Arts and the Department of Information Technology and Computer Physics from Yuriy Fedkovych Chernivtsi National University (Ukraine).

At the final project was realized the round table discussions about the future potential collaboration with the companies in the Industrial Design, Additive Manufacturing, Architecture with Mr. Dean Prof. Igor Fodchuk and the event participants.

All Ukrainian representants and companies participants, respectively professors and students that assisted to this impressive Multiplier Event ME3, hosted by Yuriy Fedkovych Chernivtsi National University (Ukraine), were interested by the AMAZE project results.

More information about AMAZE project - **Agreement number 2023-1-RO01-KA220-HED-000155412** can be found on the following link: <a href="www.amaze2023.eu">www.amaze2023.eu</a>.

#### Contact:

Assoc.Prof. Diana-Irinel BĂILĂ (<u>baila\_d@yahoo.com</u>; <u>diana.baila@upb.ro</u>) - Coordinator National University of Science and Technology Politehnica Bucharest, Romania - Promoter

20.06.2024, Chernivtsi, Ukraine







