

Call: HORIZON-WIDERA-2021-ACCESS-03/Twinning

Project SustDesignTex (GA No. 101079009), title: „Sustainable Industrial Design of Textile Structures for Composites” funded by the European Union

Deliverable Report

SUSTainable industrial DESIGN of TEXTile structures for composites (SustDesignTex)

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Project title: Sustainable Industrial Design of Textile Structures for Composites

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Project coordinator name, title, and organization: Marcin Barburski, DSc, prof. TUL, Lodz University of Technology

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02	12/04/2024	The report has been modified
03	18/03/2024	Presentation schedule
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Deliverable Title	D7.3 (Report from First Business Forum)
Deliverable Lead:	Wademekum (WAD)
Related Work Package:	WP7
Related Task(s):	Task 7.3
Author(s):	Tomasz Balcerzak, Małgorzata Żmigrodzka, Katarzyna Kostur, Paweł Lubecki, Rafał Orłowski
Dissemination Level:	Public
Due Submission Date:	30/04/2024
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Abstract	The first business forum was organized by Wademekum company at Lazarski University in Warsaw, Poland, on 19th March 2024. The event was conducted in a hybrid form. Representatives of various SMEs and universities took part in the forum. During the forum, experts from Wademekum and Lodz University of Technology delivered presentations in different areas based on the agenda provided in this report. The presentations and discussion during the forum gave the participants insight about the activities that have been carried out in the SustDesignTex project and emphasis on developing an enduring network between SMEs, large companies, and universities in order to produce sustainable textile-reinforced composites and develop a robust collaboration between academia and industry. A recording of the first business forum presentations is provided in this report.

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Detailed description

The Business Forum was based on the Industry-Research Dialog Platform, the project website, including online knowledge exchange platform and survey tool for cooperation with SMEs. This tool allows recognition of the needs of companies in new technologies and innovation solutions for the dissemination campaign targeted at the industry and SME stakeholders. The database of companies from transportation, aerospace, marine etc.

The first business forum was organized by Wadamekum company on 19th March 2024 at the Lazarski University. The forum represented a significant milestone in a collaborative initiative involving several esteemed institutions: Lodz University of Technology (TUL) from Poland, University of Borås (HB) from Sweden, RWTH Aachen University (ITA) from Germany, University of Zaragoza (UZ) from Spain, and Wadamekum Company, also based in Poland. This deliverable entails the establishment of a Business Forum within the ambit of the Industry-Research Dialog Platform, an integral component hosted on the project's website. This forum is multifaceted, comprising an online knowledge exchange platform and a survey tool meticulously crafted to foster cooperation with Small and Medium Enterprises (SMEs).

The primary aim of this platform is twofold: firstly, to discern and understand the exigencies of companies operating within various sectors, including transportation, aerospace, and marine industries, concerning new technologies and innovative solutions. Secondly, it endeavors to orchestrate a dissemination campaign meticulously tailored to address the needs of stakeholders within the industry and SME sphere.

In terms of thematic focus, the Business Forum predominantly centers on automotive, chemistry, textile, and aeronautical enterprises. It endeavors to realize its overarching objective by capitalizing on the vast potential inherent in networking for excellence through the seamless transfer of knowledge in the domain of industrial design, specifically in innovative textile structures for composites.

Integral to the achievement of these objectives is the joint execution of a research microproject and a preliminary exchange of best practices between TUL and its esteemed partners. A series of meticulously planned coordination and support activities revolve around this microproject, aimed at facilitating a seamless transfer of knowledge and expertise.

Researchers hailing from TUL, ITA, HB, and UZ are slated to engage in a multifaceted array of activities designed to facilitate knowledge exchange and skill enhancement. These activities include short-term visits, expert consultations, lectures, training sessions, joint research endeavors, and participation in conferences. A pivotal aspect of this collaboration involves the conduction of a joint research microproject focused on the design and assessment of novel Textile Reinforcement Composites (TRCs).

Deliverable D7.3 represents a pivotal juncture in a collaborative endeavor aimed at fostering innovation and technological advancement within the automotive and aeronautical sectors. Through meticulous planning and coordinated efforts, the consortium comprising esteemed academic institutions and industry partners aims to harness the collective expertise and synergies to drive tangible advancements in industrial design and composite material development.

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This Business Forum covered mainly the field of automotive and aeronautical enterprises; the main companies, that are involved: Bowi-styl; Gedeon; Moratex; Tricomed; Łukasiewicz Research Network – Textile Institute; Łukasiewicz Research Network – Institute of Biopolymers and Chemical Fibres; Łukasiewicz Research Network – Institute of Leather Industry; Texpol; Dywilan; Baltex; Wigolen; MDH; Rymatex; Pabiantex; Sempertrans; Corning; Glassfiber Krosno; Krosglass; Technotex; Saertex – MILAR; Miejskie Przedsiębiorstwo Wodociągów I Kanalizacji; Hydro Extrusion Poland; AWP Nordic Products; Brownin; BSH; Delia Cosmetics Distribution; DELL Products; LUMILEDS; Łódzka Specjalna Strefa Ekonomiczna; MIRBUD; MITMAR; Ceramika Paradyż; Pietrucha; Rossmann; VEOLIA; Wielton; Związek Przedsiębiorców Przemysłu Mody Lewiatan; Gedeon; Top Secret; Teofilów; Recte-Komes; Marilyn; Polexim; WOLA; Ariadna; TZMO; Ogólnopolska Izba Branży Skórzanej; Oh!Zuza; Vanilla night&day; Deni Cler; BOWI-STYL; Biliński; Kastor; Air Force Institute of Technology; Royal Star; Eurotech; NDH Sprzęt Medyczny; NFM Group; Malco Company; Summit Polska; MST Company; Compreum; JAKUSZ Company; AIRBUS; SCANWAY; THALES; LOT AMS; STER COM; ODBAS; Lublin Airport; 5TX Surf company.

Agenda of the first business forum event

Pos.	Part	Time
1	<p>Welcoming- Greeting guests and participants. Presentation of the purpose and assumptions of the conference and the SustDesignTex Project.</p> <p>Opening remarks:</p> <ul style="list-style-type: none"> • Prof. Katarzyna Grabowska – Dean of the Faculty of Materials Technologies and Textile Design, Lodz University of Technology • Prof. Marcin Barburski – SustDesignTex Project Manager, Lodz University of Technology • Prof. Anna Konert/Tomasz Balcerzak PhD – Dean of the Faculty of Law and Administration, Lazarski University 	10:00 – 10:30
2	<p>First panel:</p> <ul style="list-style-type: none"> • Prof. Zbigniew Stempień, Lodz University of Technology - "LS-Dyna in the analysis of impact resistance of composite structures - modeling and simulation processes" • Dr. Eng. Tomasz Balcerzak, Wademekum – "Challenges and the use of composites in the aviation sector" • First presentation of the registered company • Second presentation of the registered company 	10:30 – 11:30
3	Break - coffee/tea/snacks (showing advertising films/other promotional materials for conference participants)	11:30 – 12:00

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4	<p>Second panel:</p> <ul style="list-style-type: none"> • Agnieszka Michałowska-Dutkiewicz, Lodz University of Technology – "Offer of the Lodz University of Technology in the field of cooperation and joint projects" • Andrzej Marcinkowski, Lodz University of Technology - "Life cycle assessment and carbon footprint - similarities and differences" • Third presentation of the registered company • Fourth presentation of the registered company 	12:00 – 13:00
5	Discussion/exchange of opinions	13:00 – 13:40
6	<p>Summary and conclusion of the "Science Business Forum"</p> <ul style="list-style-type: none"> • Prof. Marcin Barburski – SustDesignTex Project Manager, Lodz University of Technology 	13:40 – 14:00

In accordance with the agenda provided in the above table, the first business forum the presentation and discussion was conducted during the two panels planned. The details of the presentations delivered during the forum can be found under the following link (https://lazarski-my.sharepoint.com/:f/g/personal/m_charucka_lazarski_pl/EmbAIMYQ-2NDu1uUhB6cgkBw39DQg_i-n0UV3ZTq6E9Rg?e=AJL7rc) (The videos are in Polish).

Conclusions

The First Business Forum was effective and fruitful in terms of disseminating the SustDesignTex project and creating a network between the academia and industry. As dissemination and exploitation the results of the business forum will be published in Scientific Journal of Safety and Logistics.

The Scientific Journal of Safety and Logistics (SJSL) is a free-of-charge, open-access peer-reviewed, interdisciplinary academic journal focused on advancing research and discussions at the intersection of safety and logistics. The journal aims to publish original research, reviews, case studies, and commentary that contribute to the understanding and improvement of safety practices and logistics management in various industries, including but not limited to aerospace, maritime, manufacturing, transportation, supply chain, healthcare, and construction.

<https://www.sjsl.net/index.php/journal/index>

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Participant list

Nº	Institution	Participant Name	Signature/ Participation	Consent for image publication
1	Lodz University of Technology	prof. dr hab. inż. Katarzyna Grabowska	ONLINE	YES/NO
2	Lazarski University	dr hab. Anna Konert, prof. UŁa	ONLINE	YES/NO
3	Lodz University of Technology	dr hab. inż. Marcin Barburski, prof. PŁ	IN PERSON	YES/NO
4	Wademekum	dr inż. Tomasz Balcerzak	IN PERSON	YES/NO
5	Wademekum	Dr Paweł Lubecki	ONLINE	YES/NO
6	Wademekum	Dr Andrzej Skwarski	ONLINE	YES/NO
7	Wademekum	Dr Natalia Moch	ONLINE	YES/NO
8	Wademekum	Dr inż. Katarzyna Kostur	ONLINE	YES/NO
9	Wademekum	Dr Małgorzata Żmigrodzka	ONLINE	YES/NO
10	Wademekum	Rafał Orłowski	ONLINE	YES/NO
11	Wademekum	Ireneusz Konieczny	ONLINE	YES/NO
12	Wademekum	Filip Konieczny	ONLINE	YES/NO
13	Wademekum	Prof. Jan Rajchel	ONLINE	YES/NO
14	Lodz University of Technology	dr Monika Malinowska-Olszowy, prof. PŁ	ONLINE	YES/NO
15	Lodz University of Technology	dr hab. inż. Małgorzata Koszewska, prof. PŁ	ONLINE	YES/NO
16	Lodz University of Technology	dr hab. inż. Zbigniew Stempień, prof. PŁ	ONLINE	YES/NO
17	Lodz University of Technology	dr Emil Saryusz-Wolski	ONLINE	YES/NO

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Nº	Institution	Participant Name	Signature/ Participation	Consent for image publication
18	Lodz University of Technology	dr hab. inż. Andrzej Marcinkowski, prof. PŁ	ONLINE	YES/NO
19	Lodz University of Technology	mgr Agnieszka Michałowska-Dutkiewicz	ONLINE	YES/NO
20	Lodz University of Technology	mgr Natalia Popłonikowska	ONLINE	YES/NO
21	Lodz University of Technology	dr inż. Tsegaye Lemmi	IN PERSON	YES/NO
22	Lodz University of Technology	mgr in. Agata Poniecka	ONLINE	YES/NO
23	Eurotech LTD.	Janusz Michalcewicz	ONLINE	YES/NO
24	Malko LTD.	Andrzej Białas	ONLINE	YES/NO
25	Royal Star LTD.	Krzysztof Pawełek	ONLINE	YES/NO
26	Royal Star LTD.	Paweł Zawisza	ONLINE	YES/NO
27	POZBUD LTD.	Paweł Piotrowski	ONLINE	YES/NO
28	Air Force Institute of Technology	Prof. Krzysztof Dragan	ONLINE	YES/NO
29	Air Force Institute of Technology	Prof. Michał Sałaciński	ONLINE	YES/NO
30	Air Force Institute of Technology	Prof. Andrzej Żyluk	ONLINE	YES/NO
31	Comprenum LTD.	Pawel Piotrowski	ONLINE	YES/NO
32	WARSAW UNIVERSITY OF LIFE SCIENCES	Prof. Elżbieta Szymańska	ONLINE	YES/NO
33	Air Com LTD.	Eugeniusz Piechoczek	ONLINE	YES/NO
34	Summit Polska LTD.	Bartosz Grabowski	ONLINE	YES/NO

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Nº	Institution	Participant Name	Signature/ Participation	Consent for image publication
35	NFM Group AS	Michalina Warska	ONLINE	YES/NO
36	NFM Group AS	Anders Mattsson	ONLINE	YES/NO
37	NFM Group AS	Magdalena Wojciechowska	ONLINE	YES/NO
38	MDH LTD.	Jan Szary	ONLINE	YES/NO
39	MDH LTD.	Paweł Knysak	ONLINE	YES/NO
40	MST LTD.	Jarosław Sachryn	ONLINE	YES/NO
41	Cyclone LTD	Andrew Sochaj	ONLINE	YES/NO
42	Park Lotniczy	Irena Marek	ONLINE	YES/NO
43	Leonardo Company	Mariusz Panko	ONLINE	YES/NO
44	Scale Wings LTD.	Tomas Machowski	ONLINE	YES/NO
45	Politechnika Śląska	Robert Koniczka	ONLINE	YES/NO
46	Airotec	Jakub Świętosławski	ONLINE	YES/NO