

ACHIEVEMENT OF THE SUSTAINABLE DEVELOPMENT GOALS

Report for 2022

Wroclaw University of Economics and Business



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Table of contents

Introduction – Rector’s foreword	4
Sustainable Development Goals of WUEB	6
Implementation of Goal 4	9
Implementation of Goal 8	24
Implementation of Goal 9	27
Implementation of Goal 11	34
Implementation of Goal 13	39
An attempt to measure the implementation of the Sustainable Development Goals	44
Plans for the coming years – dialogue with stakeholders	47
Summary	51



Introduction – Rector’s foreword

The Action Plan for Sustainable Development has been accompanying the University of Economics and Business for over 17 years, that is, since the leaders of UN Member States, including Poland, signed *Transforming Our World: The Agenda for Sustainable Development*. We have committed ourselves to implementing these actions, bearing in mind the 17 *Sustainable Development Goals*. Since that time, our University has proudly implemented the Agenda-defined goals that include people, planet, prosperity, peace and partnership.

Wroclaw University of Economics and Business occupies an important place in the life of the region and the local community. It is a major university of economics and business, a center of innovative research, a place of modern education, a work area for the most demanding, talented personnel and a modern organization that meets the challenges of the future. A better world can be built by influencing society through the identification of the results of scientific, didactic, expert and organizational work as part of the 17 Sustainable Development Goals.

The strategic intentions of Wroclaw University of Economics and Business are expressed by the academic community’s aspirations documented in *Strategy 2030*. The mission of our University, –“We educate experts and leaders of business, creating the settings of knowledge, competences and skills of the future”, which means

that our campus is a place of open debate. We want to be a University recognized nationally as an academic center leading in the achievement of all the Sustainable Development Goals.

The first two important goals for the Sustainable Development are the issues of poverty and hunger. Poverty is more than a lack of income, it involves malnutrition, limited access to education, social discrimination and exclusion. Wroclaw University of Economics and Business supports those who cannot overcome difficulties on their own and offers them financial, psychological and other support, to students, personnel and their families, as well as those not directly connected with the University. In addition, it can perceive the problems of people with health problems, supports and encourages the promotion of a healthy lifestyle, and runs campaigns for vaccination. Wroclaw University of Economics and Business is a signatory of the Diversity Charter, creates and promotes solutions for ensuring diversity in the work and study environments, undertaking actions for social cohesion and equality, counteracting discrimination, mobbing and harassment at the University, and takes part in the dialogue on the adopted diversity management policy.

The results of the scientific research conducted at the University elevate the quality of life in cities, while improving the management of their development.



Thanks to these advancements, solutions can be introduced in urban agglomerations and rural areas, contributing to the creation of special economic zones, attracting foreign investment, and digitalization. The University expert scientists offer assistance, which is invaluable in developing the strategies for municipalities and counties as it brings a measurable improvement in the quality of life for thousands of residents of the region. The University offers fields of study in which students acquire knowledge and skills to implement tasks related to sustainable development; therefore the University has a significant contribution to increasing public awareness and knowledge of sustainable development.

For some years, Wroclaw University of Economics and Business has been implementing pro-environmental activities that match the concept of sustainable development. The examples are not only the bee garden, the flower meadow and drinking water fountains located on its premises but also planting trees and shrubs, installing photovoltaic panels, thermal upgrading of buildings and pollution measurement stations. The international organization Climate Reality Project, which initiates and supports the green energy transition around the world, has chosen our University as a future leader in changing renewable energy sources.

The University participates in this process through scientific research and didactics, and, in practice, through the creation of a green campus and green projects. The last two goals of the Agenda, of promoting peace and establishing partnerships for realizing the goals, have become particularly important in the face of the war in Ukraine. Our University has also been very active in supporting these concerns.

I am very happy to present to you the new Report providing information on the implementation of the Sustainable Development Goals by our University in 2022. In this report, we focus on several key goals, the selection and implementation of which result from the WUEB assumptions given in the document *Strategy 2030*. These goals include: goal 4 – quality education, goal 8 – economic growth and decent work, goal 9 – innovation, industry, and infrastructure, goal 11 – sustainable cities and communities, and goal 13 – climate action.

The University is a community of people who create a better world through the development of science and the education of staff and function in harmony with the environment. It is a great honor for us to fulfill our role in the implementation of the Sustainable Development Agenda through everyday practical activities, and to spread our enthusiasm to others, creating better living conditions for all of us.

Professor dr hab. Andrzej Kaleta,
Rector of Wroclaw University
of Economics and Business

Sustainable Development Goals of Wroclaw University of Economics and Business

Sustainable development is one of the fundamental principles of the European Union Treaty. It is one of the priority objectives of the internal and external European Union policy. Adopted in 2015, the United Nations (UN) 2030 Agenda for Sustainable Development is an action plan for people and the planet. The scale and ambition presented in the Agenda are evidenced by the numbers: 17 Sustainable Development Goals detailed in 169 related implementation tasks, adopted by 193 UN Member States. The Sustainable Development Goals are intended to stimulate action in five key areas: people, planet, prosperity, peace, partnership. The intention of the signatories is to achieve the set goals by 2030.

Looking closely at Poland's achievements in realizing the Sustainable Development Goals, one can see significant progress in the case of Goals 1, 4, 10 and 17 (even exceeding the average level in the European Union) (Figure 1). Goals 2 and 6 are below the average progress level in the EU and indicate uncertainty with regard to implementation under the guidelines. It is also worth noting that these goals are currently at a level of implementation lower than the EU average while representing a trend of positive changes, which

suggests that those goals may move into the most advanced group; this applies to goals 3, 5, 8, 9, 11, 12, 13 and 16.

Awareness of existing problems and shortcomings in the social, economic and environmental dimensions obliges our University to actively contribute to actions aiming to mitigate the adverse effects of development and globalization. Our readiness to act in this direction is expressed in Strategy 2030 of Wroclaw University of Economics and Business, accepting the growing public pressure on the credibility of sustainable development activities to be one of the key strategic challenges. At one and the same time, we aspire to be a university of future competences, a university of business, a University of recognized research, a University that is effective and future-ready, and a university of a balanced future.

Our aspirations are put into practice through six strategic priorities, the action scope of which is defined in Strategy 2030. Table 1 presents the directions of action for these priorities.

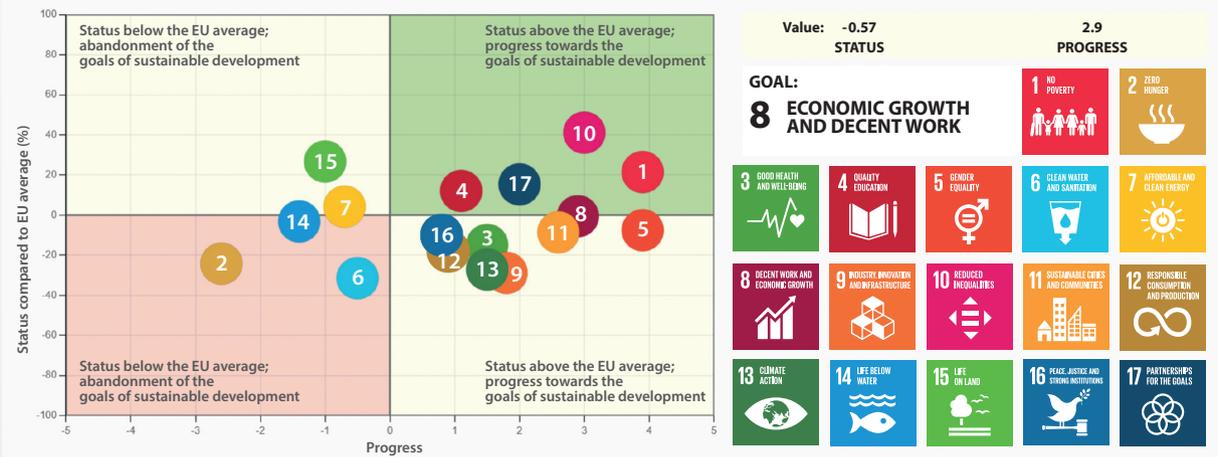


Fig. 1. Poland's progress in the achievement of the SDGs compared to the EU average in 2022

Source: prepared on the basis of <https://ec.europa.eu/eurostat/cache/infographs/sdg-country-overview/> (accessed 30.07.2023)

Table 1. Strategic priorities (SP) and directions of their activities in Strategy 2030 of Wrocław University of Economics and Business

Number and name of the strategic priority		Directions of action for the strategic priority
SP1.	Committed personnel	<ul style="list-style-type: none"> • The University provides attractive conditions for the growth and self-fulfillment of personnel in key areas: scientific, didactic, expert and organizational • The University allows them to individualize the path of career development in any or all of the above areas • The University recognizes outstanding achievements of personnel in any of the above mentioned areas, according to the individual path of development
SP2.	Modern organization	<ul style="list-style-type: none"> • The key processes implemented at the University correspond to the realities of the modern digital world • The space of the University reflects the realities of modern forms of work, combining the agora, coworking spaces and remote work • The University guarantees a fully digital experience in the fields of communication, cooperation, education and research activities • As part of its sustainable development, the University obtains energy from renewable sources, eliminates paper as an information carrier, and stops to use plastics
SP3.	Cooperation with business	<ul style="list-style-type: none"> • The University is a center for innovation processes and expert support for enterprises in our region • The University develops an innovative startup environment • aimed at students launching new ventures, and supporting their development in terms of capital and organization • The University is an effective platform for the transfer of knowledge and competences between science and economy.
SP4.	Recognized research inspired by practice	<ul style="list-style-type: none"> • The University addresses the most current and key research problems of economic and social significance • The University's long-term scientific and research achievements are based on intensive and efficiently conducted research, development and expert activities
SP5.	Distinctive education of experts and business leaders	<ul style="list-style-type: none"> • The University implements modern didactics, which draw on educational methods that combine individualization of the teaching process and innovative technologies • The didactic model of the University uses the approach called phenomenon-based learning and interdisciplinary projects • The University's didactic programmes are prepared and implemented in cooperation with its key stakeholders
SP6.	Continuous development of competences of the future	<ul style="list-style-type: none"> • The University is an environment for the continuous development of competences both for its graduates and for experts from other Universities • A special value of the University is the re-skilling and up-skilling of key competences for the changing economy model • Graduates are a special group of stakeholders, actively committed to developing the competences for the future and for the University itself

Source: prepared on the basis of Strategy 2030 of Wrocław University of Economics and Business.

Poland’s achievements in the studied area, the specifics of higher education, the analysis of our capabilities, the expectations of internal and external stakeholders, as well as the priorities set to be achieved as part of WUEB Strategy 2030 have influenced the selection of key sustainable development goals that we can foster.

Included among them are:

- Goal 4: Quality education,
- Goal 8: Economic growth and decent work,
- Goal 9: industry, innovation and infrastructure,
- Goal 11: Sustainable cities and communities,
- Goal 13: Climate action.

Creating a link between the sustainable development goals and the priorities laid down in Strategy 2030, as well as reference to the mission and vision of WUEB as presented in Table 2.

Table 2. Creating a link between the Sustainable Development Goals and the mission, vision and strategic priorities given in Strategy 2030 of Wroclaw University of Economics and Business

Sustainable development goal (SDG)	Reference to the mission and vision of the WUEB	Strategic priority of WUEB
Goal 4: Quality education	The University distinguished in the region, conducting original research that is relevant to international science The University campus is a place for open debate and shaping the future	SP5. Distinctive education of experts and business leaders SP4. Recognized research inspired by practice
Goal 8: Economic growth and decent work	The University that is an attractive environment for the work and growth of the most talented and committed personnel The University is a community of people who change the world, creating science and new personnel	SP1. Committed personnel SP3. Business cooperation
Goal 9: Innovation, industry, infrastructure	The University that is a valued business partner as a source of talent, competence and knowledge The University based on organization and technologies of the future	SP2. Modern organization
Goal 11: Sustainable cities and communities	The University that develops the competences of the future in a modern manner	SP6. Continuous development of competences of the future SP3. Business cooperation
Goal 13: Climate action	We grow in harmony with the environment, creating a better world	SP6. Continuous development of competences of the future

Source: prepared on the basis of Strategy 2030 of Wroclaw University of Economics and Business.



Goal 4:

Ensure quality education for all and promote lifelong learning

Ensuring quality education is the key to improving living conditions and sustainable development. From the perspective of an individual, education not only influences the knowledge that a person has, but also allows to acquire additional skills and competences in order to achieve more easily and effectively one's individual goals. From the perspective of social groups, society as a whole, as well as state institutions, education and high-quality educational services should all contribute to the elimination of socio-economic inequalities, raising awareness, tolerance, understanding and acceptance of different cultures, as well as foster a constant desire for growth and change for the better.

With a view to provide quality education, our University is implementing Sustainable Development Goal 4 based on two strategic priorities: **Outstanding education of experts and business leaders (SP5)** and **Recognized research inspired by practice (SP4)**.

Priority 5 states that the University will implement high-tech didactics that draw on educational methods that combine individualization of the learning process and innovative technologies. Therefore, projects will be conducted that will allow the use of didactic models grounded on phenomenon-based learning and interdisciplinary projects. The University's didactic programs will be developed and implemented in collaboration with its key stakeholders, enabling the graduates to acquire knowledge and competences that will allow them to be professionally successful in the future.

Ambassador: dr Niki Derlukiewicz

Council of Priority:

- dr Magdalena Broszkiewicz, WUEB Professor,
- dr Iwona Czerska,
- dr Aleksandra Kuźmińska-Haberla,
- dr hab. Bogusław Pótorak, WUEB Professor (from 5.07.2021 to 23.12.2021),
- dr Jakub Sukiennik,
- dr hab. Łukasz Wawrzynek, WUEB Professor.

Along with the implementation of the tasks under Priority 5, work is carried out in accordance with the assumptions and projects that are related to Priority 4 **Recognized research inspired by practice**. Under this priority, projects and actions are implemented to support innovative scientific research conducted by the academic staff of WUEB. The assumption of the priority is that the University should take up the most current and key research problems of major economic and social importance. The long-term scientific and research achievements of the University will be based on intensive and efficient research, development and expertise. More specifically, our purpose is to conduct research and develop scientific texts, the subject of which is also related to sustainable development. Our publications related to the Sustainable Development Goals are presented quantitatively in Table 3.

To give more detail on the data shown in Table 3, we present a summary of high-impact articles, the topics of which are in line with the reported Sustainable Development Goals in 2022 (Table 4).

Table 3. Publications by the personnel of Wrocław University of Economics and Business that match the Sustainable Development Goals (2022) – quantitative summary

Sustainable Development Goal (SDG)	Number of documents in WoS	Number of citations	Number of documents in Scopus	Number of citations
01. No Poverty	15	12	5	46
02. Zero Hunger	4	5	4	9
03. Good Health and Well-being	35	52	17	64
04. Quality Education	10	12	9	75
05. Gender Equality	1	2	3	6
06. Clean Water and Sanitation	2	12	2	12
07. Affordable and Clean Energy	10	28	22	118
08. Decent Work and Economic Growth	10	12	51	164
09. Industry, Innovation and Infrastructure	32	48	31	113
10. Reduced Inequality	6	5	9	52
11. Sustainable Cities and Communities	11	7	7	2
12. Responsible Consumption and Production	8	9	26	78
13. Climate Action	5	4	13	88
14. Life Below Water	1	2	–	–
15. Life on Land	1	0	1	0
16. Peace and Justice Strong Institutions	–	–	5	18

Source: prepared based on Scopus database (SciVal tool) and Web of Science database (based on InCites) (accessed 09.08.2023).

Table 4. A list of high-impact publications that match the SDGs reported in 2022

Sustainable Development Goal (SDG)	Author/Authors	Title of article	Number of points
04. Quality education	Kwiatkowska-Ciotucha D., Załuska U., Kozyra, C., Grześkowiak A., Żurawicka M., Polak K.	Diversity of Perceptions of Disability in the Workplace vs. Cultural Determinants in Selected European Countries	140
08. Economic growth and decent work	Grzesiak S., Sulich A.	Car Engines Comparative Analysis: Sustainable Approach	140
	Dzikuć M., Piwowar A.	Economic Aspects of Low Carbon Development	140
	Piwowar A., Dzikuć M.	Water Energy in Poland in the Context of Sustainable Development	140
	Żuk P., Żuk P.	Energy/Power as a Tool that Disciplines and Reproduces the Energy Order and as a Critical-Analytical Perspective on Energy Policy	140
	Piwowar-Sulej K.	Environmental Strategies and Human Resource Development Consistency: Research in the Manufacturing Industry	140
	Niemczyk J., Sus A., Borowski K., Jasiński B., Jasińska K.	The Dominant Motives of Mergers and Acquisitions in the Energy Sector in Western Europe from the Perspective of Green Economy	140
	Sulich A., Sołoducho-Pelc L.	Changes in Energy Sector Strategies: A Literature Review	140

	Piwowar A., Dzikuć M.	Bioethanol Production in Poland in the Context of Sustainable Development-Current Status and Future Prospects	140
	Sobczak E., Głuszczyk D., Raszkowski A.	Eco-Innovation and Innovation Level of the Economy as a Basis for the Typology of the EU Countries	140
	Żuk P., Żuk P.	Energy Ageism: The Framework of the Problem and the Challenges of a Just Energy Transition	140
	Hadro D., Fijałkowska J., Daszyńska-Żygadło K., Zumente I., Mjakuškina S.	What do Stakeholders in the Construction Industry Look for in Non-Financial Disclosure and What Do They Get?	140
	Kwiatkowska-Ciotucha D., Załuska U., Kozyra C., Grześkowiak A., Żurawicka M., Polak K.	Diversity of Perceptions of Disability in the Workplace vs. Cultural Determinants in Selected European Countries	140
	Martusewicz J., Szewczyk K., Wierzbic A.	The Environmental Protection and Effective Energy Consumption in the Light of the EFQM Model 2020 – Case Study	140
	Bhatnagar A., Khatri P., Krzywonos M., Tolvanen H., Konttinen J.	Techno-Economic and Environmental Assessment of Decentralized Pyrolysis for Crop Residue Management: Rice and Wheat Cultivation System in India	140
	Kozar Ł.J., Matusiak R., Paduszyńska M., Sulich A.	Green Jobs in the EU Renewable Energy Sector: Quantile Regression Approach	140
	Sobocińska M.	Processes of Modernization of Consumption in Poland in the Context of the Sustainable Consumption and the Functioning of the Renewable Energy Market	140
	Piwowar A.	Energy Poverty as a Current Problem in the Light of Economic and Social Challenges	140
	Sobocińska M., Mazurek-Łopacińska K., Graczyk A., Kociszewski K., Krupowicz J.	Decision-Making Processes of Renewable Energy Consumers Compared to Other Categories of Ecological Products	140
	Owoc M.L.	Collective Intelligence of Honey Bees for Energy and Sustainability	200
09. Industry, innovation and infrastructure	Klimas P., Czakon W., Fredrich V.	Strategy Frames in Coopetition: An Examination of Coopetition Entry Factors in High-Tech Firms	140
	Niemczyk J., Sus A., Borowski K., Jasiński B., Jasińska K.	The Dominant Motives of Mergers and Acquisitions in the Energy Sector in Western Europe from the Perspective of Green Economy	140
	Dzikuć M., Piwowar A.	Economic Aspects of Low Carbon Development	140
	Aparicio J., Kapelko M., Ortiz L.	Enhancing the Measurement of Firm Inefficiency Accounting for Corporate Social Responsibility: A Dynamic Data Envelopment Analysis Fuzzy Approach	140
	Kapelko M., Harasym J., Orkusz A., Piwowar A.	Cross-National Comparison of Dynamic Inefficiency for European Dietetic Food Manufacturing Firms	140
	Piwowar A., Dzikuć M.	Water Energy in Poland in the Context of Sustainable Development	140

	Szozda N., Świerczek A.	Upstream and Downstream Dyad Governance within the Network Structures: Creating Supply Chain Governance for the Customized Products	140
	Czakon W., Klimas P., Kawa A., Kraus S.	How Myopic are Managers? Development and Validation of a Multidimensional Strategic Myopia Scale	140
	Kapelko M., Lansink A.O., Zofio J.L.	Endogenous Dynamic Inefficiency and Optimal Resource Allocation: An Application to the European Dietetic Food Industry	140
	Domagała P.	Barriers and Challenges of Knowledge Management in a Gas Company	200
	Ocicka B., Baraniecka A., Jefmański B.	Exploring Supply Chain Collaboration for Green Innovations: Evidence from the High-Tech Industry in Poland	140
	Ptak M., Skowrońska A., Pińkowska H., Krzywonos M.	Sugar Beet Pulp in the Context of Developing the Concept of Circular Bioeconomy	140
	Sobczak E., Głuszczyk D., Raszkowski A.	Eco-Innovation and Innovation Level of the Economy as a Basis for the Typology of the EU Countries	140
	Grzesiak S., Sulich A.	Car Engines Comparative Analysis: Sustainable Approach	140
	Hadro D., Fijałkowska J., Daszyńska-Żygadło K., Zumente I., Mjakuškina S.	What do Stakeholders in the Construction Industry Look for in Non-Financial Disclosure and What Do They Get?	140
	Martusewicz J., Szewczyk K., Wierzbic A.	The Environmental Protection and Effective Energy Consumption in the Light of the EFQM Model 2020 – Case Study	140
	Hanczar P., Azadehnanjbar Z.	A Bi-Objective Sustainable Supply Chain Redesign: What Effect Does Energy Availability Have on Redesign?	140
11. Sustainable cities and communities	Zaluska U., Kwiatkowska-Ciotucha D., Grześkowiak A.	Travelling from Perspective of Persons with Disability: Results of an International Survey	140
	Markowska M., Marcinkowski J.	Rural E-Customers' Preferences for Last Mile Delivery: Evidence from Poland	140
	Robakowska M., Ślęzak D., Żuratyński P., Tyrańska-Fobke A., Robakowski P., Prędkiewicz P., Zorena K.	Possibilities of Using UAVs in Pre-Hospital Security for Medical Emergencies	140
	Przybysz K., Stanimir A.	Tourism-Related Needs in the Context of Seniors' Living and Social Conditions	140
	Przysucha Ł.	Crowdsourcing and Sharing Economic in the Smart City Concept. Influence of the Idea on Development and Urban Resources	200
13. Climate action	Bhatnagar A., Khatri P., Krzywonos M., Tolvanen H., Konttinen J.	Techno-Economic and Environmental Assessment of Decentralized Pyrolysis for Crop Residue Management: Rice and Wheat Cultivation System in India	140
	Borowiak D., Krzywonos M.	Bioenergy, Biofuels, Lipids and Pigments – Research Trends in the Use of Microalgae Grown in Photobioreactors	140

Niemczyk J., Sus A., Bielińska-Dusza E., Trzaska R., Organa M.	Strategies of European Energy Producers. Directions of Evolution	140
Sulich A., Sołoducho-Pelc L.	Changes in Energy Sector Strategies: A Literature Review	140
Piwovar A., Dzikuć M.	Bioethanol Production in Poland in the Context of Sustainable Development-Current Status and Future Prospects	140
Żuk P., Żuk P.	Energy Ageism: The Framework of the Problem and the Challenges of a Just Energy Transition	140
Grzesiak S., Sulich A.,	Car Engines Comparative Analysis: Sustainable Approach	140
Kostecka-Jurczyk D., Marak K., Struś M.	Economic Conditions for the Development of Energy Cooperatives in Poland	140
Rabe M., Jakubowska A., Draskovic V., Widera K., Pudło T., Łopatka A., Kuźmiński Ł.	Comparative Analysis on the Performance and Exhaust Gas Emission of Cars with Spark-Ignition Engines	140
Piwovar A., Dzikuć M.	Water Energy in Poland in the Context of Sustainable Development	140
Markowska M., Marcinkowski J.	Rural E-Customers' Preferences for Last Mile Delivery: Evidence from Poland	140

Source: prepared based on Scopus database (SciVal tool) and Web of Science database (based on InCites) (accessed 09.08.2023).

The implementation of the assumptions of **Priority 4** is supported and directly supervised by the Ambassador and the members of the Priority Council composed of:

Ambassador: dr hab. Partycja Klimas, WUEB Professor

Priority Council:

- dr hab. Sebastian Bobowski, WUEB Professor,
- dr Karolina Daszyńska-Żygadło,
- dr Paweł Dobrzański, WUEB Professor (from 20.05.2021 to 1.03.2023),
- dr Radosław Kurach, WUEB Professor,
- dr hab. inż. Daniel Ociński, WUEB Professor,
- dr hab. Joanna Radomska, WUEB Professor.

Key projects

In 2022, Wrocław University of Economics and Business implemented several key projects that contributed to improving the quality of education. They are listed in Table 5.

Table 5. Projects that improve the quality of education at WUEB

Project / Venture	Characteristics
Individual Programme of Business Studies (BIPS)	<ul style="list-style-type: none"> Professional, personal and social growth of students through the teaching of key competences and individualization of educational paths Building Student–Science–Business relations
Mentoring for students	<ul style="list-style-type: none"> The process of shaping the personal brand of students based on their potential under the supervision of experienced mentors
DT HUB/ DTthon	<ul style="list-style-type: none"> Designing innovative solutions in various fields of science, didactics and business, as well as raising competences and teaching unique, practical skills DTthon – marathon of designing innovative solutions with the design thinking methodology
Leaders of knowledge – leaders of success	<ul style="list-style-type: none"> Lectures, workshops and meetings for secondary school students conducted by experienced academic teachers and business practitioners
Games and business simulations	<ul style="list-style-type: none"> The use of games and business simulations for the educational process in computer laboratories and in the Business Simulation Design Centre (CPSB)
International accreditations	<ul style="list-style-type: none"> International accreditations for institutions and programmes are the showcases of the University and guarantee it will be recognized, it conducts quality processes and quality institutional management
The Erasmus+ Programme	<ul style="list-style-type: none"> International mobility of students and personnel provides an opportunity to improve linguistic, didactic and intercultural competences as well as networking. It translates into the design and implementation of international didactic and scientific projects
Scientific mentoring	<ul style="list-style-type: none"> Personalized improvement of research competences in three key areas (publishing, research skills, international cooperation in team)
Researcher essentials	<ul style="list-style-type: none"> Compendium of information useful for academic teachers conducting research

Source: internal materials of WUEB.



Individual Programme of Business Studies (BIPS) is aimed to:

- accelerate the personal, social and professional growth of students by increasing **individualization of their education** in such a way as to best respond to their specific needs, interests and aspirations,
- develop an educational culture based on master–student relations,
- prepare students to take on challenges of the future by paying more attention to key competences like teamwork, creativity, creative problem solving, critical thinking, competences in the use of new technologies,
- develop student entrepreneurship (e.g. initiating start-ups and social ventures) with the support of mentors from the world of business, social life and academia,



- strengthening the cooperation of Wrocław University of Economics and Business with practitioners (leading entrepreneurs and leaders of Lower Silesia),
- building lasting relations between students, personnel of the University and mentors; creating solutions that will foster effective communication and a friendly working atmosphere, sharing knowledge, experience and skills – to create an environment where ideas could connect, and concepts could grow in the proximity of WUEB.



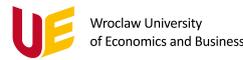
Diana Kolesnyk (Student of BIPS)

Thanks to BIPS I met several ambitious and intelligent people. Together with Jarosław Masel, we started our own business, in which our mentor, Marcin Deręgowski, helped us a lot. Our colleague from BIPS, Mateusz Wrzeszcz, created the logo. It is worth applying to this great programme, where you will find support for your ideas.



Michał Kozłowski (Student of BIPS)

The moment of joining the BIPS was for me an impulse to realize aspirations of my youth. At present, thanks to BIPS, I work on a project that makes dreams come true, giving me lots of fun and positive experience. BIPS is a community of phenomenally geeky peers



The BIPS programme has been realized since 2018, it has been completed by 122 people to date, and 31 people are currently participating:

- BIPS 1 – 20 persons,
- BIPS 2 – 19 persons,
- BIPS 3 – 26 persons,
- BIPS 4 – 27 persons,
- BIPS 5 – 30 persons,
- BIPS 6 – 31 persons (edition will end in December 2023).



Mentoring for students is the program conducted since 2010 by the Career Office at the Business Cooperation Center of WUEB. It provides participants with:

- professional support of specialists (of both genders) from various industries, working in different positions,
- access to current knowledge from business practitioners,
- understanding the practical aspects of action in various industries,
- support in specification of individual goals and plans,
- revision of an individual's ideas about a potential job, position, industry,
- planning the development of competences according to the chosen, planned career path,
- making informed vocational decisions,
- networking with new professionals,
- increasing interpersonal skills,
- strengthening self-esteem and confidence in one's own abilities,
- exchange of views, experiences, dreams and visions.

In 2021/2022 and 2022/2023, more than 100 students participated in the programme, with the support of over 90 mentors and more than 70 organizations. Table 6 shows details of the implementation of this programme.

This programme inspires students, helps them discover their needs, desires and opportunities for development. It delivers basic knowledge about self-development and self-improvement. The participant becomes a guide to their specialization by strengthening their sense of self-worth and gaining confidence in their abilities. The Mentoring Programme for students at Wrocław University of Economics and Business was awarded first place in the competition entitled "Super M" for educational institutions, for the best mentoring programme in Poland. The competition is organized by the European Mentoring & Coaching Council (EMCC).

Table 6. Mentoring programme for students in 2021/2022 and 2022/2023

Academic year	2021/2022	2022/2023
Number of mentors	59	32
Number of organizations	45	29
Number of students	67	40
Duration	6 months, 6h/mentee	5 months, 5h/mentee

Source: internal materials of WUEB.



DT HUB – Innovative Solutions Design Center is a facility that specializes in designing useful solutions to real-life problems that arise in organizations, based on the HCD (Human-centered Design) approach, using the design thinking methodology.

Since the launch of the DT HUB at Wroclaw University of Economics and Business, 32 workshops have been held with 78 participants:

- DT Tools – 16 workshops,
- DT Workshop – 6 workshops,
- DT Project Team – 10 workshops.



In October 2022, based on the assumptions of Strategy 2030, three facilitated project teams began their work on the rebranding of WUEB. The aim of the project is to develop a new (coherent, expressive, easy-to-apply) concept for the brand identity of WUEB, assumptions for its planned positioning and strategy for communication with the internal and external world. Thus, the project will identify actions to be taken, aimed not only at building an attractive brand image, but primarily at ensuring a positive user experience at different points of contact with the brand.

During the 2021/2022 academic year, documentation was prepared for proceedings to open a designated DT WORKSPACE creative activity space center. It will be a place for creative workshops and project teams' work. DT WORKSPACE will allow the free use of both analog and digital tools, creating an optimal environment for active collaboration.

To ensure the highest and repeatable quality of the workshops conducted by the DT HUB Centre, the DT HUB Education Package was created, which includes: (1) DT WORKSHOP MANUAL – manual designed for DT methodical workshops, (2) DT TOOLS MANUAL – manual designed for DT tool workshops, (3) DT PROJECT TEAM MANUAL – manual intended for DT design tools and (4) DT FACILITATION MANUAL – manual intended for a DT facilitator course. The package targets facilitators who deliver workshops within the DT HUB Centre. It allows for the standardization of high-quality educational services, providing greater comfort to successive trainees under the design thinking methodology; facilitators are supported with ready-made instructions to follow at any point of the project process.

A special event organized by DT HUB is DTthon, a marathon in the design of innovative solutions. The first such event was held on April 27-28, 2022. In such an event, similar to the Hackathon (programming marathon), student project teams face real business problems prepared by clients. Teams work in their presence, challenge owners and, with the support of facilitators, create solutions to business problems. Two DTthons were held in 2022, with nearly 100 students participating (Table 7).

Table 7. DTthons in 2022 – basic information

Edition	Date of the event	Number of participants	Companies participating
1st edition	27-28.04.2022	30	3M, HP, Olympus, Schaeffler
2nd edition	8-9.11.2022	68	3M, Cognizant, Whirlpool, Quiagen

Source: internal materials of WUEB.

REALIZATIONS IN THE ACADEMIC YEAR 2022/2023

■ LECTURES AND PRESENTATION OF PROGRAMMES OFFERED BY WUEB	49
■ ACADEMIC STAFF INVOLVED IN CLASSES/LECTURES/WORKSHOPS	26
■ PROMOTION OF SPECIALIZATIONS (MANAGERS)	15
■ SCHOOLS	25
■ STUDENTS	4290!

UNITS COOPERATING:

the Center for Business Cooperation, the International Cooperation Center, InQUBE, the Center for Didactics and Student Affairs, the Continuous Education Center, the DTHUB Center, Foreign Languages Department, the IT Center, the Library, the Student Dormitories Section

Recruitment:
LEADERS IN KNOWLEDGE – LEADERS OF SUCCESS

The **Leaders of Knowledge – Leaders of Success** is a programme provided at Wrocław University of Economics and Business that targets high school students. As part of this project, students have the opportunity to attend specially prepared lectures, practice classes and academic meetings. Young people can not only become familiar with the educational offer of the University, but also learn about new educational methods, career prospects and student life. This is possible thanks to:

- classes conducted by the scientific and didactic personnel of the University (leaders of knowledge),
- lectures with business practitioners who are graduates of our University (leaders of success),
- meetings with students who are involved in the activities of organizations and scientific clubs at our University (activity leaders).

Games and business simulations

Business Process Simulation Center (CSPB) specializes in broadly understood process management using the latest Business Process Modeling Software, IT solutions, and audiovisual tools, including VR technologies. The main task of the CSPB is to support education processes through the use of the latest technologies, in all forms of study and as part of training sessions and courses organized by Wrocław University of Economics and Business. The facility will ultimately serve to conduct scientific research and implement projects for entities from the University's business environment as an interactive simulation setting. This interactive computer laboratory serves for:

- designing,
- modeling,
- visual simulation,
- improvement of business processes.

Thanks to the commitment of the personnel of WUEB and funding from the PORTAL project, Virtual Decision Games (WGD) were introduced, which are played during teaching classes and are very popular with our students. Currently, CSPB offers 35 virtual games.





Another contemporary didactic tool that supports student educational processes at WUEB is **Business Challenger**, a strategic business game, in which student teams run virtual companies, operating on both domestic and foreign markets. During the business game, its participants are divided into teams that compete for position on the market. This allows them to gain practical experience in areas that include:

- Shaping development strategy,
- Team leadership,
- Communication,
- Solving problems in a team,
- Profitability of investments,
- Management of product development,
- Sales management,
- Value management.

The business simulation develops students' managerial skills and competences in the field of business management in the era of deep market transformations, especially digital transformation.

In the 2021/2022 academic year, three editions of Business Challenger were staged. In edition 4, there were 13 participants, in edition 5 – 121 participants, and in edition 6 (adapted for students of ZIIP), 74 participants. The editions were also attended by experts from companies affiliated with WUEB.



Centrum Współpracy Międzynarodowej International Cooperation Center

The level of services offered by higher education institutions largely depends on the quality of their management and compliance with the standards set by international accreditation bodies. According to the adopted Strategy 2030 and the Plan for Internationalization of the WUEB, the University implements strategic activities by acquiring international accreditations, a self-supporting quality mark being evidence of the University's pursuit of excellence in the areas of education, research conducted and organizational processes.

The international accreditations prove that the programs implemented at our University comply with the highest recognized standards. When the conditions necessary for obtaining accreditation are satisfied, we are assured that our actions provide both the personnel and students of WUEB with optimal working and learning environment in this multicultural world.

In the academic year 2022/2023, the Center for International Cooperation conducted and co-conducted six accreditation processes. During this period, we received institutional accreditation from the European University Association – Institutional Evaluation Programme (EUA IEP) and two field accreditations – Association of MBAs (AMBA) and European Foundation for Management Development (EFMD) in the field of International Business.



In the academic year 2021/2022, the **Center for International Cooperation** has obtained significant funds for international mobility for personnel and students of Wrocław University of Economics and Business under the **Erasmus+ Programme**.

One of the competences of the future, which we want to provide to the University's students and personnel as part of Strategy 2030, is the ability to work in intercultural and international teams. This is possible thanks to international mobility funded from the European Union resources. In 2022, we raised more than €1.5 million, which enabled our University to increase internationalization and allowed our students and personnel to gain international experience.

Erasmus+

Over 1.5 million euros to finance international visits by students and personnel!

International Cooperation Center obtained record funds from the Erasmus+ Programme

A key initiative aimed at expanding knowledge about the **Erasmus+ Programme** and scaling-up personnel mobility was the creation of the Erasmus Programme Experts Team. Its members include academic teachers and administrative staff with extensive experience in international mobility. They share knowledge and support with WUEB employees interested in foreign visits and extending their didactic and organizational competences.

These are our experts:



dr Piotr Luty



dr Magdalena Bywalec,
WUEB Professor



dr hab. inż. Joanna Harasym,
WUEB Professor



dr hab. Andrzej Raszkowski,
WUEB Professor



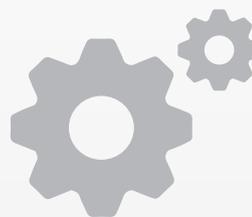
mgr Kamila Tworek



The objective of the **Scientific Mentoring** project is to develop scientific and research competences, which would result in improving the quality of participants' scientific publications. Scientific mentoring is carried out in three areas: *Academic writing* (support for the preparation of scientific publications in a high-impact journal, drafts of public speeches, *research proposals*, etc.), *Research skills* (increasing scientific competence by acquiring the practical skills in the use of research methods, techniques and tools) and *International team-working* (scientific commercialization of results of the implementation of teams' scientific and research works as well as networking).

In 2022, two editions of Scientific Mentoring were held, in which 6 selection-based mentoring pairs were formed.

- 6 mentoring pairs in two editions (2 mentoring events in *Academic writing*, 4 mentoring events in *Research skills*);
- 3 scientific seminars for project participants (goals, assumptions and results of cooperation);
- 2 scientific workshops with accredited mentors (work tools, good practices);
- 5 mentors from foreign countries (mentoring in *International team-working*);
- 5 mentors from WUEB (mentoring in *Academic writing* and *Research skills*).



The Researcher's Essentials is a periodical publication for people conducting scientific research, offering them useful information in an easily accessible and synthetic form. The content published in the Researcher's Essentials is the guideline related to funding that is granted for research and scientific publications under internal procedures at WUEB and information on available allowances and scholarships for research activities. It also provides academic teachers with advice on effective publishing, guidance on how to support scientific activities in the Internet, and with lists of specialist journals and publishers.

The materials and documents available in the Researcher's Essentials are sorted into several thematic areas and include: publishing guidelines, funding guidelines, lists of journals and publications, allowances and scholarships at WUEB, and a guide: Researcher on the Web. The journal presents substantive content in a synthetic and accessible manner, with explanatory graphic information, including valuable tips and examples. Scientists' knowledge is being increased, and their awareness shaped through dissemination and explanation of the possible support for the publishing and research activities of WUEB staff, including its financing and remuneration, and the importance of quality over quantity. All these actions are intended to contribute to increasing the publication activity of WUEB scholars and doctoral students.

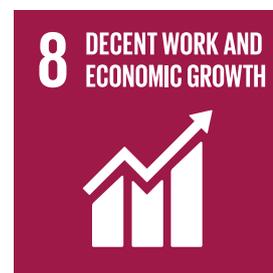
A measurable result of the actions taken under Goal 4 is research projects that address the issues of sustainable development, which are being implemented or initiated in 2022 by scientists at WUEB (Table 8).



Table 8. Research projects that match the issues of sustainable development goals, implemented at Wroclaw University of Economics and Business in 2022

Title	Project manager	Commencement date	Completion date
Pilot studies of consumer attitudes towards sharing goods and services on the German market	Maja Leszczyńska	14.12.2021	13.12.2022
Identification and measurement of inter-organizational relations of humanitarian organizations in a macrologistic perspective	Jakub Marcinkowski	30.09.2021	29.09.2022
Corporate social responsibility and efficiency and changing the productivity of businesses	Magdalena Kapelko	29.09.2017	28.09.2022,.
Socio-economic, environmental and technical determinants of energy poverty in rural areas of Poland	Arkadiusz Piwowar	5.07.2019	4.07.2022
Smart Kłodzko (SMAK)	Barbara Mróz-Gorgoń	1.06.2019	30.11.2022
Sustainable regional power industry – measurement of the implementation and selection of development strategies	Magdalena Ligus	28.10.2019	27.10.2022
Friendly space for inhabitants – Smart Nowa Ruda	Barbara Mróz-Gorgoń	1.06.2019	30.09.2022
Environmental Goods and Services Business Ecosystem in Poland	Adam Sulich	17.02.2020	16.02.2022
Integrated reporting for transparency of small and medium-sized enterprises	Joanna Dyczkowska	1.11.2019	31.08.2022
Economic, social and institutional determinants of water management in Polish agriculture while adapting to climate change	Arkadiusz Piwowar	7.07.2022	6.07.2025
Bonus on Horizon 2, Energy Citizenship and Energy Communities for the Transition to Clean Energy	Bożena Ryszawska	26.10.2021	in progress
Development models of smart cities from a sustainable development perspective	Alicja Kozak	1.10.2019	30.09.2023
Sustainable last mile urban logistics and reverse logistics on the e-commerce market. The perspective of different stakeholder groups	Maja Kiba-Janiak	16.07.2019	15.07.2023

Source: internal materials of WUEB.



Goal 8:

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Inclusive economic growth requires shaping the conditions that enable people to work with dignity. This entails not only the need to stimulate the development of entrepreneurship and innovation of entities, but also the development of competences of the future such as emotional intelligence, ability to cooperate in a team, comprehensive problem solving and image-building.

Since our University is aware of the importance and necessity of promoting stable, sustainable and inclusive economic growth, full and productive employment and decent work, we implement two strategic priorities: Priority 1. Committed personnel (SP1) and Priority 3. Cooperation with business (SP3) – thereby, we support actions aimed at the implementation of Goal 8 of sustainable development.

We understand the **Committed personnel** priority as stimulation of the creation of attractive conditions for the development and self-fulfillment of personnel in four key areas: scientific, teaching, expert and organizational. Development and self-fulfillment will take place if it is possible to follow an individual path of development in these areas, and outstanding achievements of personnel are recognized and appreciated. As part of SP1, we aim to increase:

- the participation of personnel in significant national and international bodies,
- the number of personnel winning awards and prizes for their achievements,
- outstanding initiatives of our personnel, with a significant impact on the social, economic and knowledge dissemination spheres.

The purpose of SP1 actions is to increase personnel satisfaction and increase personnel commitment. Efficient and effective implementation of ventures of Priority 1 **Committed personnel** was supervised by the Ambassadors and Strategy Council composed of:

Ambassador: dr hab. Agnieszka Skowrońska, WUEB Professor

Priority Council:

- dr Mikołaj Klimczak,
- dr Dawid Kościewicz,
- dr hab. Katarzyna Piwowar-Sulej, WUEB Professor,
- dr hab. Patrycja Kowalczyk-Rólczyńska, WUEB Professor,
- mgr Monika Siurdyban,
- dr Agnieszka Żarczyńska-Dobiesz (from 20.05.2021 to 1.03.2023).

In the implementation of Goal 8, Priority 3: Cooperation with Business is equally important. As part of this priority, actions are being initiated to make our University a center of innovation processes and a center of expert support for Lower Silesian businesses. An innovative environment for start-ups is also being developed, aimed at launching new ventures by students from various universities, as well as supporting them with funds and organization. The initiatives undertaken create an effective platform for the transfer of knowledge and competences between science and the economy.

As a result of SP3 activities, we aim to:

- increase the share of revenue from projects and expert services in the University’s budget,
- build the University’s distinctive position in the region as a platform for funding innovative development projects,
- launch start-ups as part of the inQUBE University Business Incubator, of which more than half were founded by entrepreneurs and students from outside of WUEB.
- promote start-ups originating from the inQUBE University Business Incubator,
- encourage the University personnel’s active participation as experts in important business events.

Actions of WUEB, supported by initiatives undertaken under priorities **Committed Personnel and Business Cooperation**, contribute significantly to stable, sustainable and inclusive economic growth, full and productive employment and decent work. The Ambassador and the Priority Council are responsible for initiating such activities and ensuing their implementation under SP3:

Ambassador: mgr Ała Witwicka-Dudek

Priority Council:

- dr Tomasz Brzozowski,
- dr Aleksandra Burdukiewicz,
- mgr Jan Jakub Cendrowski,
- dr hab. inż. Joanna Harasym, WUEB Professor (from 11.01.2022 to 1.03.2023),
- dr Maja Leszczyńska, WUEB Professor,
- Patrycja Modrzejewska (from 20.05.2021 to 11.01.2022),
- dr hab. Barbara Mróz-Gorgoń, WUEB Professor,
- dr Łukasz Olipra.

Key projects

In 2022, as part of the activities undertaken at WUEB that match the strategic priorities: **Committed Personnel and Business Cooperation** and Sustainable Development Goal 8, several key projects have been initiated or implemented, as indicated in Table 9.

Table 9. Projects that support the implementation of goal 8 of sustainable development

Projects/Venture	Characteristics
ACTIVATOR	Activation of expert teams
GROWTH	Individualized system of incentive, development and rating of personnel
Communication activities (e.g., Internal communication, Fridays for projects)	Regular and gradual improvement of University’s communication with stakeholders in the following groups: authorities – personnel; personnel – personnel; University – students/student candidates/alumni.
Lex Database of documents	Sharing internal WUEB regulations in a single location
HR manual	Information platform for WUEB personnel
Department of Professional Competences	Creation of a unit whose task is to diagnose expectations and take actions adapted to personnel needs

Source: internal materials of WUEB.



ACTIVATOR



We activate teams of experts, and meet the needs of our environment by knowledge transfer and commercialization.

ACTIVATOR is a strategic project aimed at building a community of University staff implementing and supporting the transfer of knowledge and consistent and comprehensive service for enterprises. It is aimed at creating a coherent range of activities and developing paths and a transparent procedure of cooperative commercialization of knowledge.



In the same location, scientists will find support in the commercialization of their scientific work and subject-matter knowledge, find a company interested in cooperation, and finalize the transfer of knowledge based on professional, legal, accounting and administrative expertise of WUEB staff.



In a similar way, entrepreneurs will find an up-to-date know-how, relevant range of services and contact to the mentors, who will guide them through the whole cooperation with various departments of the University. The cooperation between the University and business will be based on a CRM tool.



GROWTH is a key project of the **Committed Personnel** priority. Its goal is to build an integrated community, including all the employees of Wrocław University of Economics and Business. In the initial stage of the project, an important task is to examine the level of commitment of research, didactic and administrative personnel. As a result of the study, we will identify areas that generate high personnel commitment and those that weaken it. Based on the knowledge from the personnel commitment survey, it will be possible to implement solutions to strengthen personnel commitment, and broaden their competences and support the professional development of all WUEB personnel. The duration of this project is planned for the period from 01.01.2022 to 30.06.2024, to allow the observation of the results of the actions implemented. The project will also develop professional profiles and prepare motivation and development recommendations.

It is worth noting that in May/June 2022, in line with the assumptions of the GROW project, a personnel commitment survey was conducted at WUEB, and sets of recommendations were developed for selected divisions and organizational units of our University. On this basis, decisions were made on the implementation of subsequent projects.

With a view to increase the commitment of WUEB personnel, other activities were undertaken that support SP1. This includes access to information and improving the flow of information at all tiers, levels and directions. This is why the WUEB Intranet has been launched, key information is sent via Internal Communication, the most important information about ongoing projects is published regularly in the section "Fridays for Projects"; and all the basic information that may be needed by an employee for the efficient implementation of tasks is then collected in the Personnel Manual.

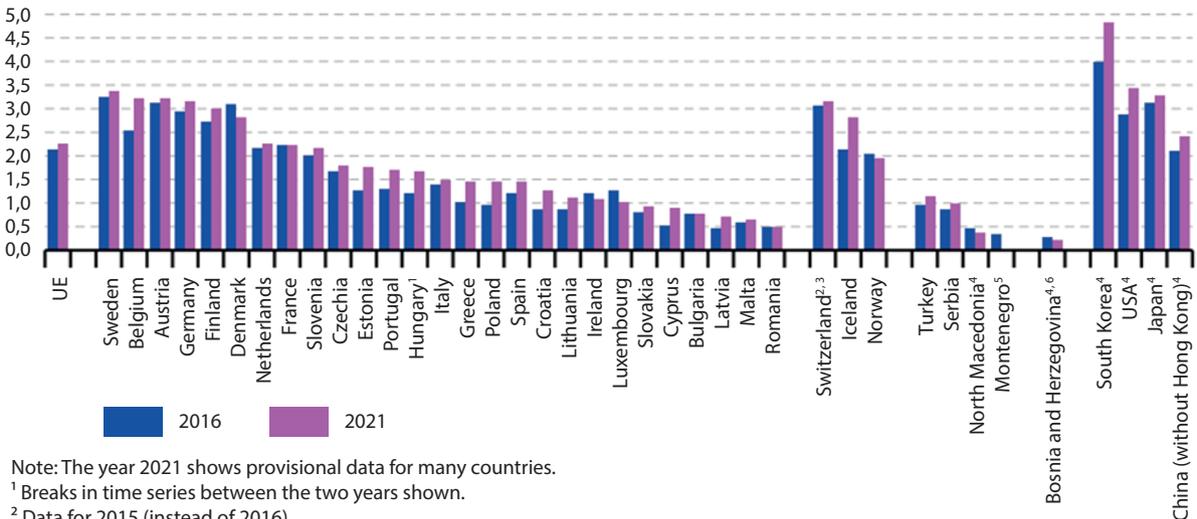


The development of all WUEB employees is supported by the Professional Competence Department, established in October 2022. Its tasks include the implementation of the following activities: diagnosing expectations, suggesting ways to improve professional competences, monitoring current processes of competence development paths, developing and updating professional development paths.

Goal 9:

Build a resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

This objective challenges the processes of industrialization, creating an infrastructure and innovation, while respecting the natural resources of the environment. In addition, by analyzing the indicators of the implementation of the Sustainable Development Goals published in the report “Sustainable Development in the European Union Monitoring Report on Progress towards the SDGs in an EU context, 2023 edition”, one can clearly see that a strong emphasis is placed on research and development (R&D), compilation and filing of patents treated as an engine of economic growth. The charts presented below show that in both cases, Poland still has a lot to make up (Charts 1 and 2). It is worth adding that the indicator showing the number of patent applications refers to patent protection of an invention submitted to the European Patent Office (EPO), regardless of whether or not they have been granted. Applications are assigned by the country of residence of the first applicant mentioned in the application form (first applicant rule) and by the country of residence of the inventor.



Note: The year 2021 shows provisional data for many countries.

¹ Breaks in time series between the two years shown.

² Data for 2015 (instead of 2016)

³ Data for 2019 (instead of 2021).

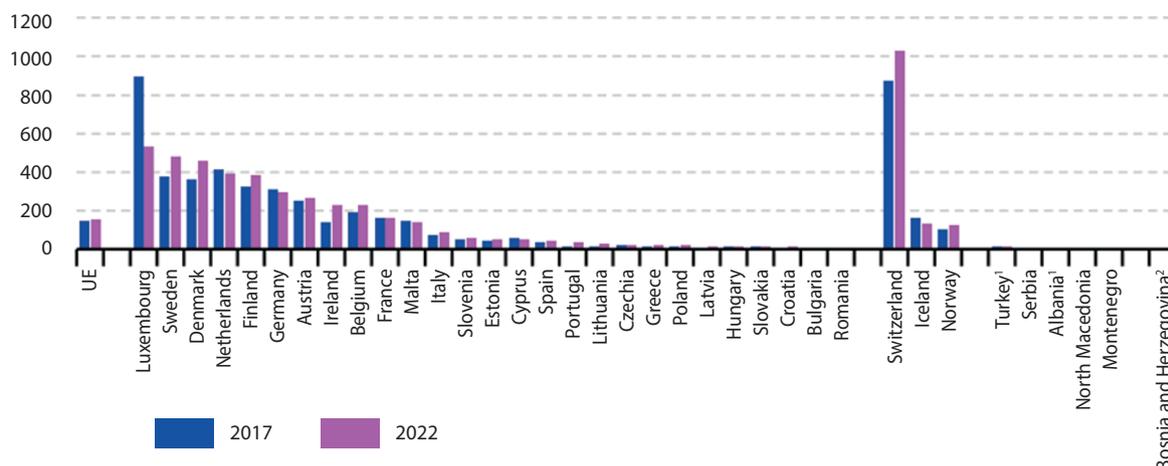
⁴ Data for 2020 (instead of 2021).

⁵ No data for 2021.

⁶ Data for 2014 (instead of 2016).

Chart 1. Gross national expenditure on research and development by country in 2016 and 2021 (% of GDP)

Source: Sustainable development in the European Union. Monitoring report on progress towards the SDGs in an EU context 2023 edition, Luxembourg: Publications Office of the European Union 2023, p. 173.



Note: Data for 2022 are provisional. Liechtenstein was not shown, with 11 600 applications per million inhabitants.
¹ Data for 2021 (instead of 2022).
² No data for 2022.

Chart 2. Patent applications to the European Patent Office by applicant country in 2017 and 2022 (per million inhabitants)

Source: Sustainable development in the European Union. Monitoring report on progress towards the SDGs in an EU context 2023 edition, Luxembourg: Publications Office of the European Union 2023, p. 175.

The importance of the issues in goal 9 of sustainable development is also crucial for Wroclaw University of Economics and Business, hence its authorities expressed this by implementing Priority 2. **Modern organization** (SP2). As a growing organization, our University conducts projects that must respond to the challenges of the modern digital world. Its space should be adapted to the possibilities of providing work in modern realities, combining the agora, coworking spaces and remote work. In the near future, our University will guarantee a fully digital experience for our stakeholders in terms of communication, collaboration, education and scientific and research activities. Additionally, by implementing SGDs, the University will obtain energy from renewable sources and eliminate paper in transferring information.

In terms of IT improvements, a start was made by mapping the needs of WUEB personnel in the research, academic and organizational areas. This action will diagnose needs and combine them into common areas that are fed by the same databases. In terms of sustainable development, Priority 2 will support and implement initiatives that will enable energy conservation, diversification of energy sources and use of plastics. The imperative goal of the mentioned activities is to build WUEB as a modern organization.



DOI

Even better administration services online. We are perfecting the platform with access to the most important IT tools of the University.

Priority 2, **Modern Organization**, is led by the Ambassador and the Priority Council:

Ambassador: dr hab. Krzysztof Nowosielski, WUEB Professor

Priority Council:

- dr inż. Zdzisław Kes,
- dr Joanna Macalik (from 20.05.2021 to 1.03.2023),
- Maciej Miś,
- mgr inż. Marek Piotrowski,
- dr inż. Maciej Pondeł, WUEB Professor (from 20.05.2021 to 1.03.2023),
- dr hab. Dariusz Wawrzyniak, WUEB Professor (from 20.05.2021 to 1.03.2023),
- dr Marek Wąsowicz, WUEB Professor.

Key projects

The activities that match the implementation of Goal 9 of Sustainable Development and the Modern Organization Priority are presented in Table 10.

Table 10. Projects and ventures for the implementation of Goal 9 of The Sustainable Development at Wrocław University of Economics and Business

Project / Venture	Characteristics
Digitization of Stakeholder Service (DOI)	Digitization and digitalization of WUEB in terms of serving the students and personnel of WUEB
Electronic Document Management (EZD)	Faster documentation flow, University's agility in decision-making and reduced paper consumption
Activities in commercialization of the University's intellectual potential	Sale of research and development services, including expert opinions, analyses, opinions
Center for Knowledge Transfer, Innovation and Commercialization	Comprehensive support of WUEB scientists in implementing knowledge into economic practice
Business Process Simulation Center (CSPB)	Interactive simulation of business processes takes place in the completed Business Process Simulation Center for internal and external stakeholders
Activities related to the infrastructure of WUEB	Upgrade of the campus towards greater efficiency in the use of its infrastructure resources

Source: internal materials of WUEB.

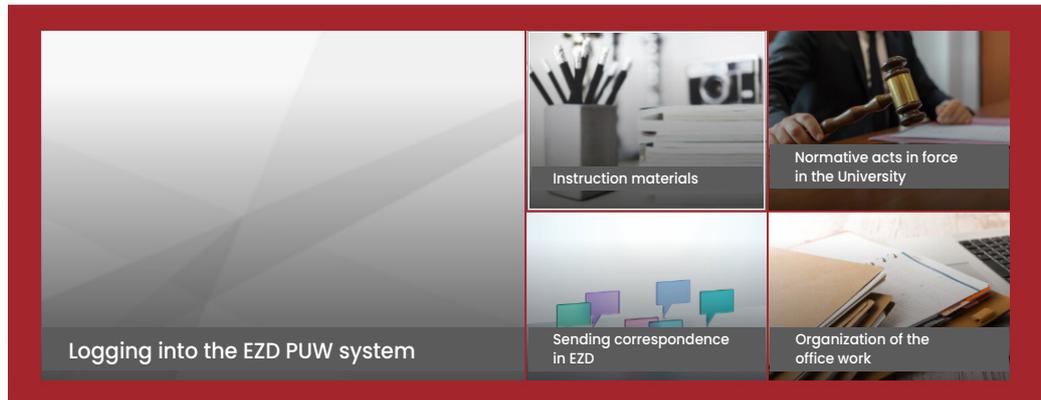
The Project named Digitization of Stakeholder Services includes the digitization of processes taking place between the University's units and internal and external stakeholders. It also assumes the merging of multiple systems into one larger, centralized computerized system, which will enable the merging of the flow of information from different sources.

The project was divided into stages aimed at:

- identifying the requirements for IT tools,
- preparing a roadmap of the tools owned and those to-be-developed,
- the separation and systematization of micro-projects,
- the incorporation of micro-projects into the general system and digitization of subsequent areas of the University's functioning.

Ultimately, the project assumes merging systems from the areas of:

- project management system,
- CRM system,
- process management platform,
- the system of the Center for Continuing Education (CKU),
- Personnel Repository,
- the WUEB intranet,
- Virtual Didactics Platform (PWD),
- the Internet,
- Electronic Document Management (EZD).



The University implements an electronic documentation circulation system. Its objective is to reduce paper consumption and minimize the cost of storing such documentation. Therefore, employees are trained to implement the Central System for **Electronic Document Management (EZD)**. The introduction of the EZD will ensure faster circulation of documents within the organization to increase the University's agility in decision-making and the comprehensive monitoring of the documentation circulation. The added value of the implementation of the EZD is that it will be possible to map the process of document circulation in line with internal legal regulations, in order to simplify and shorten the process as much as possible. EZD will also minimize the risk of losing documentation as it circulates within the University, delay in payments (no downtime) and reduce, ultimately eliminating it, paper consumption, which will significantly lower the costs of administrative handling of its circulation (paper, toners, equipment depreciation) and archiving (documentation storage in the paper version). In this undertaking, WUEB is partnered with Warsaw School of Economics, with which the University has signed a cooperation agreement. The test version of the EZD system was launched on 1 October 2022.

The implementation of the EZD and DOI projects would not be possible without the co-financing received by the University from the European Union under the project entitled "Integrated Programme for University Development".

Activities in commercialization of the University's intellectual potential

The most typical form of commercialization of fields undertaken at WUEB is the sale of research and development services, including expert opinions and assessment of innovation; for example, in 2022, a total of 13 research and development services were provided to entrepreneurs for the net amount of PLN 696,888.79.

In five cases, these were services in the field of food and nutrition technology, two projects completed were in the field of management and quality, and six in economics and finance.

In 2022, three agreements were also concluded to provide entrepreneurs with the University's research infrastructure for a total net amount of PLN 74 000. The entire infrastructure available was in the census entries of the departments of the Production Engineering Faculty: the Department of Biotechnology and Food Analysis and the Department of Agricultural Engineering and Quality Analysis. Entrepreneurs rent the above facilities for their research and development projects¹.

¹ Report of the Rector of Wrocław University of Economics and Business for the academic year 2021/2022.



Centre for the Transfer of Knowledge and Innovation and Commercialization

Center for the Transfer of Knowledge, Innovation and Commercialization

The Center for Transfer of Knowledge, Innovation and Commercialization has a range of services offered to external stakeholders of WUEB. Thanks to the Center's activity, our University is increasingly recognized as a hub providing implementation services for business and local governments.

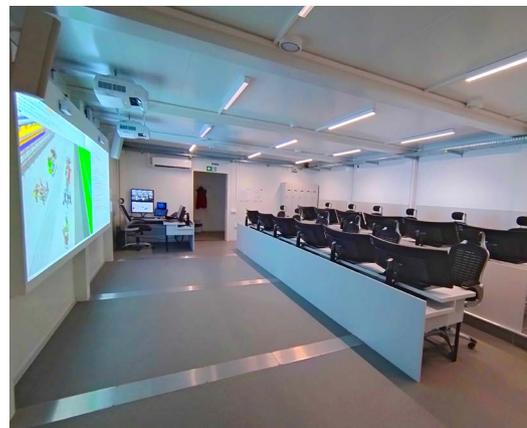
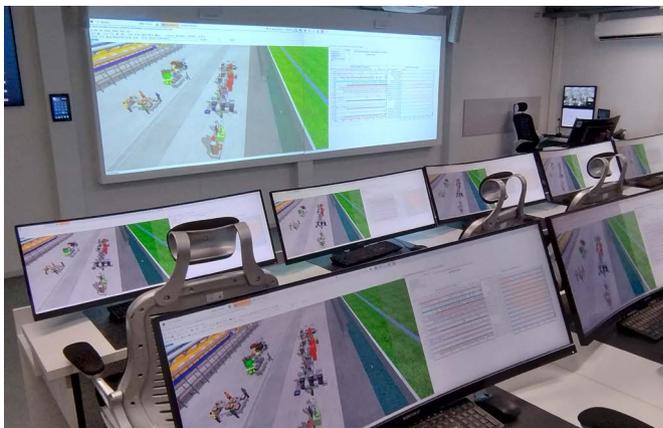
The Center is a member of the Polish Association of Centers for Technology Transfer (PACTT), a nationwide organization that connects entities responsible for intellectual property management and commercialization. The Director of the Center is involved in the working group initiated by the European Commission, which aims to create a code of conduct on the smart use of intellectual property as part of Action 7 of the ERA Policy Agenda "Upgrade EU Guidance for better knowledge valorization". At the same time, a representative of the Center participated in the work of the sub-group "IP in international cooperation and projects". This working group produced recommendations that the European Commission adopted on 01.03.2023 in Commission Recommendation (EU) 2023/498 of 1 March 2023 on a Code of Practice on standardization in the European Research Area (C/2023/1320).

The team of the Center for the Transfer of Knowledge, Innovation and Commercialization prepared a catalog of the services offered by WUEB experts in the field of research and development for business and local governments, which was subsequently presented during the PACTT Science-Business Innovation Expo (PSBI) 2022 in Lodz, from 18 to 19 May 2022. The event was organized on behalf of the Ministry of Education and Science by the Lodz University of Technology, in conjunction with PACTT. This was the first event where scientific institutions from all over Poland presented innovative solutions and services with implementation potential they had developed. The services on offer were also presented at the WUEB stand during the 31st Economic Forum in Karpacz in September 2022.

These selected initiatives, undertaken by the Center for the Transfer of Knowledge, Innovation and Commercialization, are aimed at creating a platform for cooperation and flow of intellectual output of WUEB researchers between science and business.

Business Process Simulation Center (CSPB)

In addition to its activities in the didactic area, the Center is also active in the area of innovation. The modular CSPB building in its current form consists of a main practice room equipped with 12 computer stations, two interactive whiteboards, six VR cabins, a technical module, as well as a cloakroom and a restroom. The main practice room provides a comfortable environment for work with models of processes, from the design phase to modeling,



measurement and process improvement. Thanks to CSPB's visual, interactive process simulation based on the Flexsim simulation environment, it is possible to watch process flow in both the graphic (3D model) and logical (process flow) layers. The VR zone gives users the opportunity to actively participate in selected production, service (including logistics) and commercial processes. The entire venture creates a unique solution with a wide range of applications, and is a response to the growing demand for the implementation of modern simulation technologies in the University's operations, and creates the possibility of providing commercial services to external stakeholders.

Activities related to the infrastructure of WUEB – upgrading the campus

In the case of the University, whose technical infrastructure consists of 23 buildings in Wrocław with a total usable space of 83 954.26 sqm and two buildings in Jelenia Góra with a usable space of 6 708.20 sqm, the main challenge is to reduce the energy consumption needed for heating, cooling and lighting the facilities. The University's campus also includes a large area between buildings, which requires significant expenditure on lighting and maintenance of greenery.



Wrocław University of Economics and Business conducts regular actions towards a significant reduction of all the utilities (the first step was to adjust the working hours of the WUEB to the actual possibilities of their use, simultaneously aimed to reduce the consumption of utilities as regulated in the Rector's Decree No. 166/20 22). Along with other work (more detail below), the possibility of producing energy from alternative sources has been explored on the occasion of new investments or renovations. This will result in the installation of the 22 kW photovoltaic panels on the roof of Building D, covering 14% of its electricity demand.

The energy needs of the buildings have been most significantly reduced thanks to **thermal upgrading works**. The buildings were insulated by installing additional layers of insulation, including thermal insulation of the existing roof, replacing the central heating system, installing new window joinery with low heat conduction coefficient, as well as replacing the external door joinery. After the thermal upgrading works of buildings C and G, completed in 2021, the final energy demand in these buildings decreased by about 806 MWh/year (65%), while CO₂ emissions decreased by nearly 243 Mg/year (51%). The referenced data were compiled on the basis of an ex-post audit after the completion of upgrade works.

In addition to thermal upgrading works, the gradual replacement of **traditional lighting with solutions based on LED technologies** is also of great importance for reducing costs. As a result of these activities, electricity consumption in 2022 decreased by about 8% compared to 2021.



Moreover, Wrocław University of Economics and Business conducted the following infrastructural works in 2022:

- the continued thermal upgrading work on the University's facilities, such as the vertical extension and thermal upgrading of Building D (the estimated total value of the construction work will be PLN 21,480,000.00; own funds). The work began in the first quarter of 2022, and its completion is scheduled for the first quarter of 2024. According to the ex-ante audit for Building D, the building's final energy demand will decrease by about 282 MWh/year (71%), and CO₂ emissions will decrease by about 107 Mg/year (70%);
- the measures to make efficient use of rainwater (irrigation in the dry season), ground heat (heat pumps), and solar radiation (solar and photovoltaic panels). It is worth mentioning the photovoltaic panels, which were installed on the building of the Dormitory "Przegubowiec II" (estimated cost: PLN 171,500; own funds);
- the replacement of traditional lighting with LED lighting;
- the commissioned projects to use alternative energy sources;
- the implementation of energy-efficiency/economic efficiency as tender criteria.

The main campus of our University is to be transformed into a green space for relaxation for students and personnel. In 2022, the terms of the tender were established for the creation of a coherent concept of the spatial development of the University campus, particularly focusing on the environmental, social and economic aspects.





Goal 11:

Make cities and human settlements safe, stable, sustainable and fostering social inclusion

Goal 11 of the sustainable development states it is of great importance to develop cities in such a manner to make them safe, stable, sustainable and inclusive. This will result in the pursuit of creating new and nurturing existing cultural and scientific centers, industry and productivity, and social development, and, with it, new ideas. Proper urban area planning and management are therefore important for the effective implementation of these assumptions and adequately addressing the challenges of urban development (such as safe disposal and waste management). Wrocław University of Economics and Business may pursue the implementation of Goal 11 through two strategic priorities: Priority 6. **Continuous development of competences of the future** (SP6) and Priority 3. **Business cooperation** (SP3). Supporting the activities carried out by PS3, our University will strive to implement innovative processes and offer expert support for regional companies, to launch new start-ups and to act as mediators in the transfer of knowledge and competences between science and the economy. Meanwhile, through the activities implemented by SP6, the University will systematically and comprehensively provide interested personnel with the opportunity to develop competences in accordance with the changing economic model and labor market challenges.

Priority 6, **Continuous development of competences of the future**, is implemented under the supervision of the Ambassador, together with the Council of Priority, consisting of:

**Ambassador: dr hab. Janusz Lichtarski, WUEB Professor (from 6.06.2023 until now),
dr Jakub Marcinkowski (from 20.05.2021 to 6.06.2023).**

Priority Council:

- mgr Izabela Beno (from 20.05.2021 to 1.03.2023),
- dr Łukasz Jurek,
- mgr Agnieszka Pietrus-Rajman,
- dr hab. Katarzyna Piwowar-Sulej, WUEB Professor (from 20.05.2021 to 1.03.2023),
- mgr inż. Agata Pluta (from 1.03.2023 until now),
- dr Wioletta Turowska,
- dr Sylwia Wrona, WUEB Professor,
- dr Agnieszka Żarczyńska-Dobiesz (from 1.03.2023 until now).

Key projects

In 2022, key projects/ventures in the area discussed were initiated and/or implemented at Wrocław University of Economics and Business, presented in Table 11.

Table 11. Projects and ventures that are part of the implementation of the Sustainable Development Goal 11 at Wrocław University of Economics and Business

Projects/ventures	Characteristics
Friendly space for inhabitants – Smart Nowa Ruda	Creating solutions for the town as a friendly space to live
SMART KŁODZKO	Smart and innovative solutions for city management
WRO4digiTal EDIH Wrocław	Digital transformation in Lower Silesia
The Virtual Laboratory of Space	Spatial design as the response to the individual requirements of the Lower Silesia municipalities
Mercedes-Benz Architectural Competition	Competition for drawing up a concept of spatial land development
Educational campaign raising public awareness	A series of educational events raising public awareness of sustainable development

Source: internal materials of WUEB.

Project entitled Friendly Space for Inhabitants – Smart Nowa Ruda

This project was implemented under the Technical Assistance Operational Programme 2014-2020 and co-financed by the European Union, and the European Cohesion Fund, and ended in September 2022.

As part of this project, energy-saving city lighting and a system of collecting data on air quality were designed, and energy audits of public buildings were carried out. In addition, the project resulted in the following outcomes and smart solutions developed. Namely:

- energy consumption was reduced, and air pollution was lowered by improving energy

- management in public buildings,
- energy consumption and pollution were reduced by improving the management of municipal lighting,
- a system for collecting and transmitting air quality data was implemented in the form of a comprehensive city-wide air quality monitoring system with warnings for residents.

The Municipality of Nowa Ruda led the project, partnering with Wrocław University of Economics and Business and the Municipality of Świdnica.

The SMART KŁODZKO Project

This project was implemented under the Technical Assistance Operational Programme 2014-2020 and co-financed by the European Union, and the European Cohesion Fund. The aim of the project was a permanent and comprehensive transformation of Kłodzko into a smart city that will use human and technological potential for sustainable development. As a result, nine complete implementation dossiers were drawn up, which indicated smart solutions being a response to the diagnosed problems.

The Eco Harmonogram [Eco Schedule] application (databases and development of city information resources) was implemented, resulting in improved

access to information for residents and local authorities. An intelligent traffic management system was also introduced. This has contributed to a reduction of vehicle traffic and, subsequently, to improved air quality. Green walls were made in three locations in the centre of Kłodzko. The project included educational activities aimed at spreading knowledge on the application of intelligent and innovative solutions in city management.

The leader of the project was the Municipality of Kłodzko, and the partners were WUEB and the County of Kłodzko.

WRO4digiTal European Digital Innovation Hub Wrocław

In 2022, our University, as one of 22 partners, signed a consortium agreement for the implementation of the project entitled: “WRO4digiTal European Digital

Innovation Hub (EDIH) Wrocław – Ecosystem for Sustainable Digital Growth of Lower Silesia”.

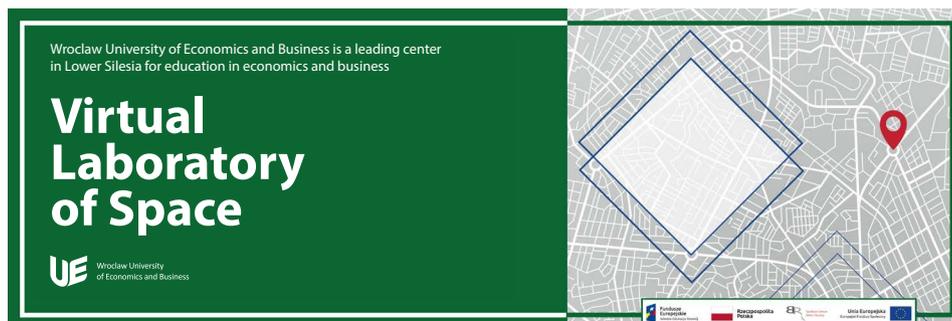


The Polish Network of Digital Innovation Hubs

As part of the project, the **Digital Innovation Hub** will be established as one of the 136 centers selected by the European Commission under the Digital Europe Programme Competition titled Initial Network of European Digital Innovation Hubs. In Poland, 25 candidates applied for the pre-selection stage. From them, the European Commission selected 11 consortia to receive funding covering 50% of the costs of the planned activities over the next three years. The remaining 50% of the costs are covered by the Member State, Poland, in this case, through financing from the Cohesion Policy. The selected consortia (11) form the Polish Network of Digital Innovation Hubs, which includes the following entities:

1. CyberSec – National Center for Secure Digital Transformation (its leader is the Institute of Bioorganic Chemistry PAS Poznan Supercomputing and Networking Center)
2. EDIH-SILESIA – EDIH SILESIA SMART SYSTEMS (led by the Katowice Special Economic Zone)
3. h4i – hub4industry (led by the Krakow Technology Park)
4. HPC4Poland EDIH (led by the Institute of Bioorganic Chemistry PAS Poznan Supercomputing and Networking Center)
5. Center)
6. Mazovia EDIH – European Digital Innovation Hub of Mazovia (led by the Łukasiewicz Research Network – Industrial Research Institute for Automation and Measurements)
7. PDIH – Pomeranian Digital Innovation Hub (led by the Pomeranian Special Economic Zone / Gdansk Science and Technology Park)
8. re_d – rethink digital Central Poland Digitalization Hub (led by Lodz Special Economic Zone)
9. Smart Secure Cities – Creating Smart Secure Cities for EU citizens (led by the Polish IoT Cluster & AI SINOTAIC)
10. TKDIH – Technopark Kielce DIH (led by the Kielce Technology Park)
11. WAMA EDIH – WaMa Innovation Hub (led by the Coalition for Polish Innovations – Foundation)
12. WRO4digITal European Digital Innovation Hub Wroclaw (led by the Wroclaw Technology Park)

Wroclaw Digital Innovation Hub will offer expert support in the implementation of digital solutions and innovative transformation of business models for small and medium-sized enterprises (SMEs). The consortium has a key objective of implementing a project for creating a complete ecosystem of competent institutions capable of providing expert support for the digital transformation in Lower Silesia.



The programme, **Virtual Laboratory of Space**, is an action targeted at small teams of students who design a spatial development of a specific plot of land indicated by a municipality from Lower Silesia chosen for the project.

The programme is implemented in two stages, and the goal is the improvement of competences in spatial design. With these activities one can become familiar with tools and acquire knowledge beyond the scope of classes taught in the study field of spatial management.

In the first stage, workshops are conducted to shape the soft skills and seminars are led by mentors in the field of planning and design (totaling 2x4 hours of instruction). Each participant can choose one of three types of training. Therefore, within the project, students have the opportunity to develop their skills in:

- building an effective team,
- fostering creativity and innovation in action,
- planning and accomplishing project objectives.

The second, practical phase, entails collaborative action with a specific municipality (totaling 34 hours of workshops and 8 hours of panel classes with JST). This action is based on a case study involving the analysis of the designated area and its development purpose. Participants in the Virtual Lab of Space are tasked with acquiring information about the area from JST experts, accurately diagnosing and analyzing the conditions. Students engage in dialogue to understand the needs and propose spatial solutions accordingly.

Teams working on the task prepare:

- functional-spatial analysis,
- land development concepts,
- visualizations of proposed solutions.

At each stage of the project, teams can participate in consultations to aid project implementation, clarify raised concerns, and enhance their proficiency in using specific computer programs.

All teams develop specific projects, and then the resulting works are presented to invited representatives of the municipality during the contest, which ends the programme.

It is worth noting that programme graduates, equipped with new competences, are more and more competitive on the job market and achieve success in various contests. For instance, Ms. Iwona Czeszejko, a graduate of the 1st edition of the Virtual Laboratory of Space, and a student of *Spatial management* at Wrocław University of Economics and Business, won first prize in the architectural competition of the Mercedes-Benz factory in Jawor in January 2022. The task was to develop a spatial and architectural concept of two squares adjacent to the main gate of the engine and battery factory in Jawor in Lower Silesia.



FROM THE CONCEPT TO INTERNSHIP ARCHITECTURAL COMPETITION



Competition for developing spatial and architectural concepts for two squares near the main entrance of the Mercedes-Benz engine and battery factory in Jawor, Lower Silesia.

"It was a big challenge, especially because of timing, as the competition coincided with the end of the year, when the University starts buzzing because of the upcoming exam session. I am delighted to have incorporated the Mercedes-Benz philosophy into the project, and I'm grateful for the recognition. Such awards are always motivating," – said Iwona Czeszejko, the competition's winner.

Educational campaign raising public awareness

In 2022, the WUEB's Jelenia Góra branch initiated an educational campaign aimed at regularly raising the awareness of the local community with respect to sustainable development. The following educational events were organized as part of the activities:

- **Combating violence. Where to look for help?** On 3 October 2022, WUEB's Jelenia Góra Branch hosted a lecture for first-year students delivered by Ms. Marta Barnaś from the Department of Crisis Intervention, Violence, and Addiction Prevention at MOPS in Jelenia Góra.
- **Equal opportunities and non-discrimination policy – principles related to gender equality and non-discrimination of individuals with disabilities.** The following day, on 4 October 2022, as part of the Adaptation Days programme at WUEB's Jelenia Góra Branch, Dr Artur Trzebinski, Ombudsman for Anti-Discrimination from WUEB, conducted a workshop.
- **Mirosław Machalski's Photo exhibition, Silence – Ed. 4,** in which the artist explored and investigated the everyday street life and its apparent unattractiveness. The photographs were taken during the author's journey to the Far East. The exhibition was held on 10 October 2022, at WUEB's Jelenia Góra Branch.



Goal 13:

Take urgent action to combat climate change and its impacts

The discourse surrounding climate change and its consequences has become a crucial and prevalent topic in various social spheres. Notably, this is no longer surprising but often becomes one of the most important subjects of a discussion. Importantly, this problem does not concern just one country, it transcends borders, becoming a global issue that needs a solution.

At University level, guided by Goal 13 of Sustainable Development, **we can, and we are indeed responsible** for mitigating this problem by: increasing the education level, adequately shaping the institutional and human capacities, raising awareness of climate change, adaptation and impact of this change and implementing early warning systems. This goal is fostered by Priority 6 measures.

Continuing development of competences of the future (SP6), was previously discussed in this report. Through this priority, the University will strive to continuously provide opportunities for the development of competences, including green competences, to all stakeholders in line with evolving environmental challenges.

Examples of projects

In 2022, as in previous years, WUEB initiated or continued the activities that fostered the achievement of the goal 13 of sustainable development. The key projects and activities undertaken in this area are presented in Table 12.

Table 12. Projects and ventures that match the implementation of Goal 13 of The Sustainable Development at Wroclaw University of Economics and Business

Projects/Ventures	Characteristics
Cooperation with DB Energy SA	Improving the energy efficiency of WUEB
Inter-university Green Energy Group	Establishing a group of Lower Silesia universities that will generate green energy
Upgrading the infrastructure of WUEB	Replacement and/or installation on the WUEB campus of LED lighting, photovoltaic panels, and thermal upgrading of buildings, water saving
Green campaign	Information campaign about resource saving
Green training sessions and workshops	Sustainable public procurement; being responsible for climate; how to educate leaders in change; Sustainable Development Week
Participation of WUEB experts in climate education in Wroclaw	Contribution by presenting a paper, voicing opinion in the discussion, moderation of meetings

Source: internal materials of WUEB.



Cooperation of Wroclaw University of Economics and Business with DB Energy SA

On 27 October 2022, Rector of WUEB, Professor dr hab. Andrzej Kaleta signed a letter of intent with DB Energy SA, represented by the Chairman of the Board, dr hab. Krzysztof Piontek, WUEB Professor, concerning the future cooperation in energy efficiency.

By establishing the cooperation, our University will reduce its energy consumption and related costs. Additionally, the initiatives undertaken by DB Energy SA will contribute to bolstering WUEB's energy security and reducing greenhouse gas emissions. The initial phase of work involves identifying potential energy-saving opportunities at our University.

Inter-university Green Energy Group

Moreover, on 10 November 2022, on the initiative of the two largest universities in the region – the University of Wroclaw and Wroclaw University of Technology – rectors from ten universities in Wrocław and Opole signed a letter of intent, forming the Inter-University Green Energy Group. It was decided that universities will strive to eliminate their carbon footprint, promote the generation of green energy, and increase energy efficiency. Other initiatives include plans to build a photovoltaic farm. Furthermore, the consortium aims to jointly seek funding from the European Union to facilitate the advancement of renewable energy, transforming consumers into producers of green energy.

The signatories of the signed document are the following universities:

- Wroclaw University of Economics and Business,
- The University of Wroclaw,
- Wroclaw University of Science and Technology,
- Wroclaw Medical University,
- Wroclaw University of Environmental and Life Sciences,
- The Karol Lipiński Academy of Music in Wroclaw,
- The Eugeniusz Geppert Academy of Art and Design in Wroclaw,
- Wroclaw University of Health and Sport Sciences,
- The University of Opole,
- Opole University of Technology.





Many projects implemented at WUEB have had a positive impact on the activities of our University in various ways. Projects that match the implementation of Goal 9 of Sustainable Development concerning changes in the infrastructure of WUEB also fit into the implementation of Goal 13 of Sustainable Development by counteracting climate change. Therefore, with this in mind, it is worth listing here the projects detailed in this report, namely:

- replacement of conventional lighting with LED solutions (notably, in 2022, electricity consumption at WUEB decreased by about 8% compared to 2021),
- installation of photovoltaic panels on the building of Student Dormitory “Przegubowiec II”,
- thermal upgrading of buildings C, G and D.

Water saving

The Facilities Maintenance Department installed 880 aerators on faucet spouts on the WUEB campus in the dormitory rooms and bathrooms, as well as in the bathrooms of both WUEB dormitories. In the dormitory bathrooms, 490 reducers for hand-held shower sprays were also installed to use less water. This initiative should contribute to a 15% reduction in water consumption in the coming years. WUEB is also taking measures to make efficient use of rainwater (irrigation with rainwater during dry periods of the year).

The Flower Meadow project

For the sake of the habitat and to provide bees with variety of food, in 2022 we cultivated and returned to the natural state an area within the campus of our University. A flower meadow was created with perennial plants producing abundant nectar and pollen. Specially selected plant species bloom at different times, ensuring that bees have access to food throughout the productive season.

Green campaign

In 2022, Wrocław University of Economics and Business conducted an eco-friendly campaign targeted at personnel and students. In student houses and University buildings infographics were placed as a reminder to save water and electricity.



AGENDA OF COACHING ON THE PRINCIPLES OF SUSTAINABLE DEVELOPMENT IN PUBLIC PROCUREMENT

Group I

Principles of Sustainable Development in the contracting procedures regarding design and construction services

Training agenda:

- 1) Principles of Sustainable Development in the contracting procedures regarding design and construction services and the related legislation;
- 2) Inclusion of the environmental aspects in the stage preceding the commencement of the procedures (e.g. in terms of the requirements analysis);
- 3) Inclusion of the environmental aspects in the stage of the procedure of obtaining public procurement contracts (the possibility of defining the environmental aspects in a description of the procurement subject; the application of ecological/environmental/social labels in a description of the procurement subject and in terms of criteria of appraising the offers; the non-price related criteria of appraising the offers connected with the social and environmental aspects; examples of the environment-related criteria in the appraisal of the offers in light of the act on the principles of sustainable public procurement);
- 4) Cost accounting of the life cycle, in particular the life cycle of buildings;
- 5) Integrated design;
- 6) Environmental requirements linked with the realisation of the procured project;
- 7) Subject classification of the contractors and the principles of sustainable development;
- 8) Documentation of the fulfilment of the requirements on the part of the contractor.



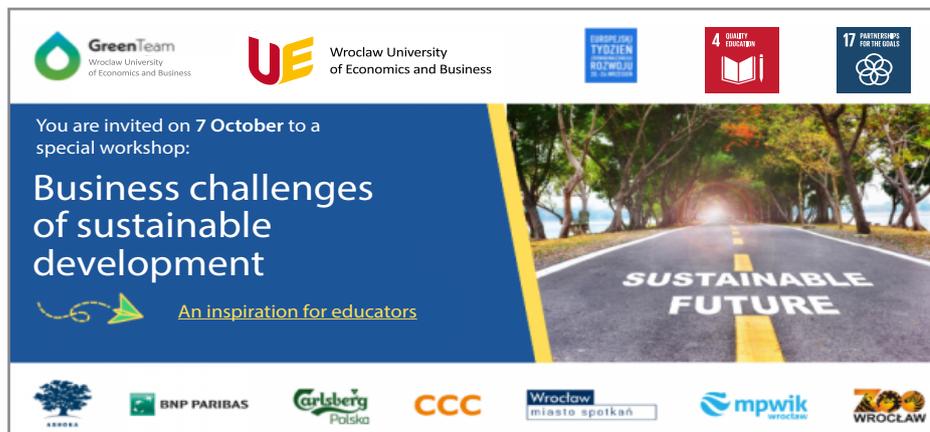
Green training sessions and workshops

In 2022, WUEB conducted numerous training programmes and workshops targeted at internal and external stakeholders of our University, with the aim of raising awareness and promoting knowledge of sustainability.

One such initiative was a **series of training courses on sustainable public procurement** targeted at administrative staff who operate in supplies and services. Engaging 57 participants, the course imparted knowledge about integrating social and environmental considerations into any description of objects of the contracts.

The Green Team of the Sustainability Competence Center of WUEB in 2022 offered its educational activities to the University's personnel and students. On 22 April 2022, as part of the Earth Day celebrations, the center held a discussion panel entitled **"Responsible for climate. How do we educate change leaders?"** on climate education at primary and secondary levels, at universities and in professional education. The panel was moderated by dr Karolina Daszyńska-Żygadło, a representative of the Green Team.

This led to interesting conclusions on how ecological awareness of future generations will be formed, as well as for the didactic process implemented at various levels of education in Poland. It was agreed that business needs informed employees at every level of employment, and with the forthcoming new regulations on non-financial reporting, all large companies will have to report their impact on the climate starting from 2024, so university graduates with adequate knowledge and competences are needed. Climate-related topics should be systematically integrated into the content of individual subjects in primary, secondary and university education, rather than isolated into separate subjects. There is a growing interest among students in climate change and environmental protection issues.



As part of the **Sustainable Development Week**, the Green Team organized a meeting on 7 October 2022, bringing together representatives from businesses, local government units, and non-governmental organizations with the teaching personnel of the university. The workshop aimed to present ESG (Environmental, Social, and Corporate Governance) case studies applicable across various economic science disciplines such as banking, economics, finance, logistics, accounting, nutrition technology, insurance and management. The workshop was attended by representatives of: Ashoka, BNP Paribas, Carlsberg, CCC, Sustainable Development Department of the Wrocław City Hall, MPWiK Wrocław, and ZOO Wrocław. The event comprised a presentation segment followed by a workshop where the teachers had the chance to ask the guests questions, and discuss the possibility of inviting specific participating entities to their classes. The workshop was attended by 35 people from our University.

Participation of Green Team experts in climate education in Wrocław

- **School Climate Conference.** From 17 to 19 March 2022, this significant event hosted over 500 participants and featured 40 speakers. The School Climate Conference was primarily centered on educating about climate and its anthropogenic changes. It was targeted, in particular, at secondary school teachers who deal with climate education. Notably, the lecturers included renowned national experts in the field. One of them was Dr hab. Bożena Ryszawska, WUEB Professor, who delivered a lecture entitled “Green economy – challenges and opportunities”.
- **Finance and Accounting for Sustainable Development – People, Responsibility, Environment.** On 20-21 April 2022, the Department of Finance and Accounting of WUEB Jelenia Góra Branch, together with the Department of Financial Management from UMK in Toruń, organized the 9th National Scientific Conference, which was held remotely due to the COVID-19 pandemic.
- **Positive Economy: Business on the way to Agenda 2030.** On 12 May 2022, a conference was held, organized by CSR Consulting, implementing the campaign of the 17 Sustainable Development Goals. During the conference, discussions were held, and answers were sought to key questions: Why is it time for ambitious action, and what does it mean? Why should every company see its current position, what should it be, and how fast is it moving toward Agenda 2030? What challenges are we facing, what opportunities exist,

and why is 'do no harm' not enough? One of the panel discussions was entitled "Responsible for climate. How should we educate?" moderated by Dr Karolina Daszyńska-Żygadło from the Green Team.

- **365 Timing Economic Congress.** On 17 May 2022, the third edition of this conference was organized within our University on the initiative of Dr hab. Bogusław Półtorak, WUEB Professor. The congress agenda included the topics of energy security of the European Union, energy transformation, renewable energy sources, modern transport, green investments, economic and social entrepreneurship, and pro-ecological, including start-ups. Dr hab. Bożena Ryszawska, WUEB Professor participated in the panel entitled "Energy security and the green economy in current geopolitical circumstances".
- **Debate on climate education.** On 13 June 2022, a debate was organized by the Youth Climate Dialogue (consisting of: Youth Climate Council, Youth Environmental Council, Polish Council of Youth Organizations, Youth Strike for Climate and Council of Children and Youth). The debate's guest was Professor Bożena Ryszawska, from the Green Team. More than 50 people participated in the online meeting.
- **Climate Change: Science & Society.** On 28-30 September 2022, a climate conference was organized at the University of Wrocław, which was actively joined by Dr hab. Bożena Ryszawska, WUEB Professor. The title of her speech was: "The Green Team as a Social Innovation for Climate"; it was delivered in the session on "Tackling climate change challenges at the academia and institutions in Poland".

An attempt to measure implementation of sustainable development goals

Achieving the Sustainable Development Goals is an ambitious and rewarding yet unusually difficult endeavor, because of both the often innovative nature and the uncertainty and variability of the official requirements facing organizations. Moreover, the lack of previous experience in this realm, but also the lack of specific benchmarks in the area of higher education, can further exacerbate uncertainty and difficulties. Despite the complex and dynamic environment in which modern universities operate, Wrocław University of Economics and Business strives to take up the challenges of the Sustainable Development Goals and implement them in the best possible way. The awareness and the necessity of accomplishing these goals, despite limitations and difficulties, are evident among the members of our University's community. This is manifested in the debates, published works, and classes and in the activities undertaken for the community and our planet. This motivates us to continue working and is also a reward for what we have already achieved.

This report highlights the most important achievements of Wrocław University of Economics and Business within several selected sustainable development goals

that were implemented in 2022. This choice was made because of both WUEB's role in society and the adopted Strategy 2030. However, anticipating the obligation to report non-financial aspects in the coming years in compliance with EU guidelines, efforts were made to develop indicators to measure goal achievement and identify potential risks. Measurement indicators in 2022 were assigned only to selected projects or projects, as the others were in the conceptual phase (Table 13).

Moreover, the University operates within a particular environment influenced by social, economic, and political changes, impacting the achievement of specific sustainable development goals, namely demographic changes which may be manifested in changes in the demographic structure of both students and personnel. Technological progress plays a huge role, demanding the acquisition of knowledge and the development of technological and communication competences by our internal and external stakeholders. Difficulties in continuing with the current priorities and the resulting tasks may also be associated with the lack of sufficient financial resources.

Table 13. Suggested measurement indicators and potential risks of implementing the SDGs at Wrocław University of Economics and Business

SDG	Project / Venture	Indicator	Potential risk
Goal 4: Quality education	Individual Programme of Business Studies (BIPS)	<ul style="list-style-type: none"> • Number of students in the edition, but not more than* • Students', tutors' and mentors' opinions about the programme (increasing trend) • Achievement of goals five years after the programme 	Demographics Return of feedback Reaching out to respondents and getting answers, relevance and the existence of a link between participation in the project and achievement of objectives
	Mentoring for students	<ul style="list-style-type: none"> • Number of students in the edition • Students' and mentors' feedback on the programme (upward trend) 	Demographics Return of feedback
	DT HUB / DTthon	<ul style="list-style-type: none"> • Number and range of projects • Feedback of beneficiaries • Effectiveness of project implementation 	Demographic Return of feedback Difficulty of measurement
	Leaders of knowledge – leaders of success	<ul style="list-style-type: none"> • Number of participants in the edition • Students' feedback about the programme (upward trend) • Effectiveness of project implementation 	Demographics Return of feedback Difficulty of measurement
	Games and business simulations	<ul style="list-style-type: none"> • Number of new games • Number of students • Number of external stakeholders – range of impact • Share of didactic hours of games and simulations among the total classes offered • Feedback from participants 	Personnel's readiness to develop games The ability to reach new beneficiaries
	Erasmus+	<ul style="list-style-type: none"> • Number of students • The number of personnel leaving and arriving • Number and range of travel possibilities 	Reaching out to students and personnel
	Scientific Mentoring	<ul style="list-style-type: none"> • Number of participants in the edition, but not more than • Feedback from participants (mentees, mentors) about the program (upward-trending • feedback on the programme) • Number of planned objectives compared to those achieved 	Return of feedback Efficiency
	Researcher's Essentials	<ul style="list-style-type: none"> • Number of posts/articles/topical instruction • Number of views, resulting in checking if this translates into: <ul style="list-style-type: none"> – the number of published texts with a high IF – grant applications submitted – the number of grants awarded 	Effectiveness

Goal 8: Economic growth and decent work	ACTIVATOR	<ul style="list-style-type: none"> Indicator prepared by the Strategic Priority Council (RPS) 	Plan for 2023
	GROWTH	<ul style="list-style-type: none"> Indicator prepared by RPS 	Plan for 2023
	Communication activities, Lex database of documents, HR, Department of Professional Competence	<ul style="list-style-type: none"> Support and information activities Measurement by collecting user feedback and the ability to report improvements Number of changes implemented 	Inspiring a desire to commit
Goal 9: Industry, innovation and infrastructure	DOI, EZD,	<ul style="list-style-type: none"> Indicator prepared by RPS 	Plan for 2023
	Activity in the area of commercialization of the intellectual potential of the University	<ul style="list-style-type: none"> Number and value of contracts concluded for the preparation of expert opinions, analyses, opinions, etc. Number of contracts with new contractors The range of the resulting impact (local, regional, national, international), Diversity of topics addressed in projects being implemented (number of new topics) 	Effectiveness
	Business Process Simulation Center (CSPB)	<ul style="list-style-type: none"> Number of cooperation agreements concluded The value of the cooperation agreements implemented Diversity of topics/trades Number of implementations in enterprises Range of solutions implemented (local, regional, national, international) 	Effectiveness
	Activities related to the infrastructure of WUEB	<ul style="list-style-type: none"> The efficiency of using the available resources (the ratio of costs incurred to the benefits obtained) 	Monitoring insufficiencies The effectiveness in alleviation of insufficiencies
Goal 11: Sustainable cities and communities	Projects addressing sustainable cities and communities	<ul style="list-style-type: none"> Number of new projects, Topical diversity of projects (number of topics addressed), Project range (local, regional, national, international) The beneficiaries' feedback after implementation of projects (usefulness of changes) 	Effectiveness, ability to influence the diversity and range Reaching out to beneficiaries and getting feedback
Goal 13: Climate action	Cooperation with business and Institutions	<ul style="list-style-type: none"> Number of new cooperation agreements Scope of cooperation agreements 	Effectiveness, ability to influence diversity and range
	Upgrading the infrastructure of WUEB	<ul style="list-style-type: none"> Ecological efficiency after introduced upgrades (e.g. decrease in energy consumption) 	Measurement accuracy and capability

Green campaign	<ul style="list-style-type: none"> • Number of campaigns carried out • Number of campaigns in cooperation with other entities • Number of new cooperating entities • Topical diversity of campaigns • Campaign range (local, regional, national, international) 	Finding new organizations to collaborate
Green training sessions and workshops	<ul style="list-style-type: none"> • Number of training sessions and workshops delivered • Number of participants in training sessions and workshops • Topical diversity • Diversity of the training form • Range (local, regional, national, international) • Opinion of participants after participation in training sessions 	Reaching out to beneficiaries and getting feedback Effectiveness in raising awareness after training
Participation of WUEB experts in climate education in Wrocław	<ul style="list-style-type: none"> • Number of initiatives attended by WUEB experts • Range of initiatives (local, regional, national, international), in which WUEB experts participated 	Efficiency

* Upper limit of admissions due to the nature and specificity of the programme.

Source: prepared by authors on the basis of WUEB internal materials.

Plans for the coming years – dialogue with stakeholders

Every WUEB report not only reflects specific actions towards selected sustainable development goals, but is also based on permanent monitoring of pursuits and surveying our stakeholders' feedback in this area. Thanks to this, we want to make sure that we direct our efforts toward the goals our University can achieve in the best possible way. Since we realize that our stakeholders, representatives of variant social groups, of different ages and with different life and professional experiences, can perceive differently the goals of sustainable development chosen by the University, we organized a workshop session and posed two fundamental questions: (1) which sustainable development goals should we communicate? and (2) how should we communicate them?

On 23 May 2023, workshops were held, conducted by Dr Artur Trzebiński and Mgr Anna Wojciechowska, representing the DT HUB Center for Design of Innovative Solutions. The workshop was attended by ten people, including:

- representatives (one of each gender) of academic teachers,
- two female representatives of administrative staff,
- representative of business,
- two female representatives of the University of the third generation,
- a female high school student and two male high school students.



The workshop programme

The workshops were divided into two parts, and the participants worked in three teams. The workshop is based on *design thinking methodology*, which allows creative searching for solutions. The introduction was to present the essence of the SDGs and to show their role in the activities of WUEB.

During the first part, Team 1 worked on selecting those SDGs that WUEB should communicate. At the same time, Team 2 considered how to communicate the SDGs with a facilitator's support, using the method of artificial assumptions. They began with Stone Age tools and progressed through iterations, including the stagecoach, telegraph, telephone, and finally email. Then, the teams exchanged the solutions and refined the results using the same methods.

High School Team (3rd) focused on selecting SDGs and ways of communicating them, because this was a natural course of thinking for them. Halfway through the working time, the team encountered a blockage and could not generate further solutions. They were supported by their facilitator who, using the "What if..." hints (several different scenarios with conditions that allow one to look at a given solution broadly), helped them generate new ideas. She also encouraged them to look for existing solutions. At the end of the work, the team prototyped the three best solutions.

In the second part of the workshop, participants shared their solutions and discussed, enhancing the ideas and directions of action.

Solutions developed

All participants of the workshop agreed that WUEB should have a single, selected, prevailing SDG. Goal 4 was indicated: **Quality education**, and within its framework, Wroclaw University of Economics and Business should:

- be open to cooperation (broadly understood),
- expand international connections,
- broaden the educational scope,
- develop student exchange.



The participants then identified the following goals:

- Goal 3: Good health and quality of life
 - new socio-economic paradigm (increase the role of WUEB and other universities in education and civic education), work-life balance, OTE policy (openness, transparency and equality), support the development of interests and passions, promote healthy lifestyles;
- Goal 5: Gender equality and reduced inequalities
 - Gender Equality Plan (GEP), the possibility of continuing education at the University, pointing to other forms of inequality (not only gender, but also income, environment, background), respect for diversity;
- Goal 8: Economic growth and Goal 9: Innovation
 - comprehensive training of personnel at various levels, development and support of start-ups, the University offers solutions, the University is a development site for specific solutions and their application, strengths and weaknesses verified;
- Goal 2: Zero Hunger and Goal 12: Responsible consumption
 - Researchers' knowledge and the research facilities of the Faculty of Production Engineering should be used to seek solutions for counteracting hunger, conducting joint activities with other universities, such as WUEB and the University of Environmental and Life Sciences, and promoting responsible consumption;
- Goal 16: Strong institutions
 - ethical conduct, social justice, and WUEB's support for public institutions.

Among the tools for communicating SDG goals were listed: Social media, posters, large screens at the University, messages and other standard communication tools. The participants also pointed to addressing SDG-related content within various subjects taught at WUEB, as well as the creation of SDG-related postgraduate studies.

An interesting idea suggested by one participant was to create green walls on buildings to show that WUEB is socially responsible and supports environmental activities.

The high-school students proposed three tools. The first is information campaigns using social media (articles, interviews and other written forms with links to more materials). The second is organizing events to encourage participants to join and perform a specific activity together, such as collecting garbage. The third tool is UN debates, which resulted in drafting a resolution and forwarding it to the appropriate institution. This tool was considered by high school students to be the best, because UN debates are already taking place in different cities and countries, and they make young people involved and want to come up with concrete solutions, while realizing that the resolutions submitted are not binding.

Dialogue with stakeholders – conclusions

- The participants of the workshop stated that one dominant SDG and two or three other goals should be communicated. It is important to consider alternately communicating the chosen goals, in intervals such as once a month.
- The university can create a platform dedicated to SDGs and publish information on how to put individual SDGs into economic practice. This should be a platform that showcases WUEB as an expert and business partner in the realm of SDGs, which, for a fee, can support implementing these goals into business operations.
- UN debates related to the SDGs should be organized, involving different stakeholder groups.
- Participants were very positive about the diversity of the workshop attendees based on their age, experience and points of view.



Summary

Wroclaw University of Economics and Business conducts not only didactic, scientific and organizational activities, but also actions that inspire and shape the awareness of its internal and external stakeholders. This report focuses on presenting how the selected Sustainable Development Goals are reflected in the University's Strategy 2030 and indicating the most important actions and activities towards the goals' implementation. The following goals were selected: 4 – quality education; 8 – economic growth and decent work; 9 – innovation, industry, infrastructure; 11 – sustainable cities and communities; and 13 – climate action. These were identified through mapping of the University's activities and through dialogue with stakeholders.

An attempt was also made to measure the achievement of the goals and to analyze opportunities and risks. Some of the activities described apply to the entire organization, while others apply to a selected audience. The report shows changes and developments in didactics, scientific research and research projects, educational and awareness-raising activities, as well as those relating to infrastructure.

The University has been a signatory to the United Nations Principles for Responsible Management

Education (UN PRME) in business schools since 2019. Every year, we conduct more and more activities in harmony with these principles.

Wroclaw University of Economics and Business holds an important place in the life of the region and the local community, and as an academic community, we are aware of the responsibility and our important role in shaping attitudes toward achieving the goals of sustainable development. Scientific research addresses business practice, modern education promotes creativity of students and shaping leadership attitudes, and changes in the structure of our organization foster the creation of decent working conditions and meet the challenges of the future. We are striving to increase our commitment to the implementation of the Sustainable Development Goals and measure the results of these actions.

In the near future, we plan to take further actions so that our University is a leading academic center dedicated to sustainable development goals. To address these challenges, we will have a regular and extensive dialogue with our stakeholders to identify pertinent topics in this domain. Collaborating with internal stakeholders, we will work to improve the metrics for measuring and verifying sustainability goals.



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