Akademia WSB

WSB University

Sustainable Development and Research

Report for 2023–2025



Contents

Executive Summary 7
Research and Sustainable Development Across 2023–2025 7
1. Climate, Water and the Green Transition 8
Research in Focus 9
Projects and Initiatives 10
Green Office and GPM Global responsible project management 10
Responsible Management Education Partner recognition 10
Silesian Sustainable Business Summer University 10
Sustainability teaching exchange with Nottingham Trent University 10
SHORE / Polish Blue HUB 10
Pomorskie Researchers' Night within SHORE 11
Mission Ocean & Waters Night second edition 11
Mission Arena / South Baltic blue economy 12
Forecasting climatic change factors against SDG 2030 12
Blue-green infrastructure in GZM cities 12
AI and satellite imagery for flood-control infrastructure 12
Climate and energy governance at Polish-Czech border 13
Turów mine crisis and cross-border cooperation 13
Low-carbon economy training on Polish-Czech border II 13
Solar renewable-energy sector skills centre in Żywiec 14
Energy-security and photovoltaic safety events 14
Urban energy independence / geothermal heating conference 14
Green technology ideas competition 14
Sustainable development and regional transformation conference debate 14
Energy-transition research institute 15
Comprehensive support for WSB University aligned with the green and digital economy 15
WSB University sustainable-development research recognition in GreenMetric 15
Cooperation with ALBA MPGK in waste management and skills 16
Scientific Research and Publications 16
Green finance and sustainable-development spillovers 16
Green country branding, digitalisation and ESG 16
Mapping green-energy and green-investment science 16
Technology transfer for climate-resilient development 17
Environmental-security indicators and thresholds 17

2. Sustainable Cities, Mobility and Innovation 17
Research in Focus 18
Projects and Initiatives 18
HEIsCITI sustainable inclusive cities 18
Metropolitan smart-city sustainability research 18
Smart Metropolis and Industry 4.0 ecosystem 19
Creative metropolis / creative-sector prospects 19
Electric/hybrid/combustion vehicle service costs 19
Sustainable transport travel behaviour in GZM 19
Przesiadka bez Barier / accessible interchange management 19
Accessibility index for integrated interchanges 20
Quality Indicators for Assistive Technology in schools 20
Metaverse/VR modelling of public-building safety 20
European metropolitan and city-development strategies 20
Design Observatory / Regional Innovation Observatory 21
Metropolitan Policy Lab teaching/research 21
AI deepfake detection research 21
European Middle Class Mass Housing COST 21
Placemaking and digitalisation in European cities COST 22
COVID-era social innovation and placemaking COST 22
Digital leadership at higher-education institutions 22
Job crafting and innovation in workplaces 22
REBUILD – Capacity Building for Sustainable Reconstruction 22
Scientific Research and Publications 23
Transport decarbonisation, innovation and renewable energy 23
Risk-based sustainability assessment for electric vehicles 23
Continuous improvement of railway safety culture 23
3. Equality, Accessibility and Community Wellbeing 24
Research in Focus 24
Projects and Initiatives 25
IN SITU social innovation for employability 25
Learning tools against functional/secondary illiteracy (ALPHABETTER) 25
ED-ON intercultural education for migrant children 25
ACTIVE citizenship in schools 25
EQUATION gender equality in university accreditation 26
Research into women's careers and institutional equality 26

Women in Tech Summit participation 26
Network skills of girls from smaller/restructured towns 26
mentUwell mental wellbeing in wartime migration 27
RESCUER mountain rescue and accessibility VR 27
Disability-inclusive university (completed MINI/MIDI model) 27
Education/Science without barriers 27
EduConnect: student persistence and Hy-Flex 28
'Universal Graduate' and virtual campus accessibility 28
Family-foster care contact rights research 28
'Learning from European Lives' (LEuLiv) 29
Third Age University educational-needs research 29
Children's University network 29
Third Age Universities for seniors 29
Polish-Czech AKCENT KOMP educational networks 30
ACTIVE, ED-ON and ALPHABETTER education inclusion cluster 30
European Solidarity Corps quality label 30
United in Action volunteer project 30
Student Volunteer Club / service learning 31
Student 4.0 against study drop-out 31
Employee/learner participation and support 31
Quality assurance and inclusion in learning 31
Youth vs Fake News: media-literacy outputs delivered 31
Inclusive education ecosystem: SCWEW Jaworzno launch 32
4. Health Research, Prevention and Care 32
Research in Focus 32
Projects and Initiatives 32
VR virtual-care model for cochlear implant children 32
Comparison of digital and classic stethoscopes 33
Smartphone support for chronic itching 33
Anaesthesia pressure and tissue-injury risk 33
BMI, medication adherence and chronic conditions 33
Reproductive/sexual-health knowledge study 34
Research on migration and religion narratives 34
Pro-social judo and youth health 34
COST physical activity determinants (DE-PASS) 34
Children's and young people's psychological health conference 35

Research training on medical AI and telemedicine 35
Healthcare training and clinical simulation 35
Research on PI3K/AKT/mTOR-related microRNAs in breast-cancer treatment 35
CODE-YAA@PC-EDU – Inclusive Palliative-Care Education 35
5. Education, Future Skills and Research-Based Learning 36
Projects and Initiatives 36
EduLider: green and digital economy 36
Teaching Excellence programme 36
EduTrend: contemporary practical education 37
ENTER-CBL / NextGen Entrepreneurs 37
ENTER-CBL student bootcamp / sustainable cities 37
GAME4CHANGE entrepreneurship gamification 37
ProjectGO VR sustainable project management 38
Science through the Eyes of WSB Researchers II 38
Inductive science and mathematics pedagogy 38
3D SMARTBOX school education 39
SmartStart Teacher Academy / AI in teacher education 39
SPARK-COIL pedagogical capability building 40
GITEKA competences for future learning 40
VR4Skills internationalisation training 40
Dual higher education in Moldova and Ukraine (COOPERA) 41
Science Festival 2023: community research engagement 41
Science Festival 2024: Tech for Good and diversity 41
Science Festival 2025: month-long programme 41
Job and Internship Fair 2024 41
Cross-border education for mountain rescuers (MREdu) 42
Nottingham Trent University and POLIMI sustainability teaching study visits 42
RESEARCH – Bringing Research to Schools 42
Scientific Research and Publications 42
Evidence about employee engagement and healthy working environments 42
6. Territorial Cooperation, Governance and Security 43
Research in Focus 43
Projects and Initiatives 43
Resilient Borders and cross-border planning 43
Territorial and inter-organisational cooperation institute 44
EUREGIO INFO knowledge platform 44

CBC in Ukraine and V4 best practices 44
EU–Ukraine freight border infrastructure 44
Minibreweries and regional tourism V4 45
COST religious diversity and migration network 45
Open and safe places of worship (ProSPeReS) 45
Mall-CBRN and SAFE STADIUM large-venue protection 45
University universal CBRNE safety framework 46
City-level violence and political drivers research 46
Public governance and climate conference 2023 'Green Silesia' 46
Higher-education and public-policy participation 47
European policy and social protection networks COST 47
Scientific Research and Publications 47
Public participation, audits and anticorruption governance 47
Comparative climate policy in cross-border regions 47
7. Research Partnerships, Innovation and Knowledge Transfer 48
Research in Focus 48
Projects and Initiatives 48
Research clubs/interdisciplinary scientific conference 48
Regional social and economic impact assessment 49
PERFECT Regional Initiative of Excellence 49
Research publications on security, management, and cities 49
ESG and responsible business conferences 2023 50
Q-Helix inclusive European University alliance 50
Q-Helix research and cross-sector work 50
Science4Business – Science for Business 50
Five newly funded Erasmus+ projects 51
Regional innovation ecosystem: Śląski Fundusz Rozwoju 51
8. Contribution to the Sustainable Development Goals 51
9. Perspectives for Sustainable Research and Innovation 52

Executive Summary

Between 2023 and 2025, WSB University advanced an interconnected agenda of research, education and partnerships addressing environmental sustainability, inclusive growth, human wellbeing and technological change. The University's work combines long-term research activity with practical collaboration involving regional government, schools, businesses, civil society and international institutions.

Its research portfolio covers climate-change governance, ocean and freshwater literacy, accessible transport, smart-city development, territorial cooperation, responsible management, prevention and care in health services, social inclusion, digital education and innovation transfer. Multi-country programmes such as SHORE, HEIsCITI, EQUATION, ENTER-CBL and Q-Helix connect these themes to the Sustainable Development Goals.

The period also brought concrete institutional activities and practical outputs. These include participatory city-design pilots, methodological research into the accessibility of assistive technologies, cross-border infrastructure analysis, university–school outreach, clinical and digital research initiatives, international training and research capacity building, and the introduction of new scientific partnerships.

WSB University's Sustainable Development Strategy to 2030 identifies seven areas of priority: SDG 4 (Quality Education), SDG 5 (Gender Equality), SDG 8 (Decent Work and Economic Growth), SDG 9 (Industry, Innovation and Infrastructure), SDG 11 (Sustainable Cities and Communities), SDG 12 (Responsible Consumption and Production) and SDG 17 (Partnerships for the Goals). The work described here also contributes to other goals, including good health, climate action, access to clean energy and reduced inequalities.

Research and Sustainable Development Across 2023–2025

The University's sustainability-oriented research grew from a strong base of territorial cooperation, social responsibility and regional engagement in 2023. The next phase broadened applied urban studies, research methods for accessibility, digital experimentation, professional development and collaborative educational innovation. By 2025, growing emphasis was placed on practical implementations, research dissemination, laboratory development, technology transfer, student-designed solutions and internationally connected projects. These strands reinforced one another: the education initiatives developed professional capacity, while research groups generated knowledge that could inform subsequent programmes and partnerships.

Across the three-year period, the relationship between research and implementation was especially visible in studies of metropolitan mobility, participatory reuse of neglected spaces, environmental learning, school science equipment, cybersecurity, AI-assisted infrastructure assessment and practical healthcare training. The University's role spans scientific coordination, research partnerships, academic publication, teaching innovation, community engagement and participation in policy discussions.

The breadth of this activity reflects the University's dual position as a research organisation and a regional educational partner. Scientific projects investigate questions that matter for policy and professional practice, while learning programmes translate research methods into formats suitable for students, school pupils, teachers, employees and the wider community. This

relationship is particularly clear in environmental work, where climate analysis is accompanied by river- and ocean-literacy initiatives, and in inclusive education, where studies of learning barriers support the development of new approaches to access. Sustainable development is therefore pursued through several connected routes: production of knowledge, strengthening institutional capacity, public participation and skills development. These routes frequently operate together within the same initiative rather than as separate activities.

Urban transformation illustrates how applied inquiry can link social and technical questions. Research into sustainable mobility and barrier-free interchanges considers the practical experience of transport users, while green-blue infrastructure studies connect environmental management with the quality of urban spaces. Participatory initiatives such as the Cieszyn HEIsCITI pilot involve students and local stakeholders in discussing uses for neglected places, providing opportunities for practical problem-solving and exchange with public decision-makers. Related studies address the creative economy, metropolitan entrepreneurship, energy systems and the implications of emerging technologies. The resulting portfolio recognises that cities are not simply networks of buildings, roads and services: they are communities whose long-term development depends on accessibility, environmental resilience, sound governance and opportunities to take part in decisions.

The University's work with learners and institutions extends beyond conventional teaching programmes. Inclusive initiatives seek to support people with disabilities, older learners, young people experiencing migration and students who face barriers to completing their studies. At the same time, professional-development and school-focused projects equip teachers and practitioners with tools for digital, research-based and interdisciplinary learning. More than one pathway leads from these interventions to sustainable development. The immediate activity may be a workshop, a redesigned learning resource or a technology-supported pilot, but its wider purpose is to broaden participation and strengthen the ability of individuals and organisations to adapt to social and technological change. Programmes such as Student 4.0, EduConnect, SmartStart and Teaching Excellence contribute to this broader educational direction in distinct ways.

Research capacity and international cooperation also reinforce the University's contribution. Collaboration with universities, public institutions, sectoral organisations and enterprises enables comparative studies of territorial problems, scientific exchange and the development of new methods and technologies. The University's research networks cover issues such as cross-border energy policy, social innovation, public safety, healthcare, the management of innovation and the role of digital tools in changing economic systems. Partnership structures including Q-Helix bring together different sectors, while Science4Business strengthens pathways between scientific findings and potential business applications. Together, these initiatives illustrate a model in which sustainability-related research is inseparable from relationships: knowledge is generated, exchanged, discussed and, where the projects allow, translated into practical initiatives that respond to identified needs.

1. Climate, Water and the Green Transition

WSB University addresses environmental sustainability through climate and energy research, freshwater and marine education, renewable-energy competences and partnerships supporting

industrial transformation. Its initiatives connect scientific expertise with schools, cities, companies and public authorities.

An important feature of the environmental portfolio is the combination of scientific inquiry with public learning. SHORE extends work on marine and freshwater ecosystems into classrooms and community events, with WSB coordinating the Polish Blue HUB. Its activities include river-basin workshops, ocean literacy, biodiversity education and international exchanges. At the 2024 researchers' event in Gdynia, practical demonstrations and experiments reached more than 600 young participants. These initiatives complement analytical work on climate drivers and environmental indicators. In combination, research and education strengthen the public understanding needed for water stewardship and long-term environmental decision-making.

The energy-transition strand links climate questions to skills development and regional adaptation. Projects address low-carbon economic activity on the Polish–Czech border, renewable-energy education in Żywiec, green and digital competencies, hydrogen-related cooperation and the management of energy systems. The University contributes specialist knowledge, learning infrastructure and cooperation with enterprises and public institutions. This approach recognises that decarbonisation is not only a technological process: workers, educators, local authorities and communities also require knowledge and organisational capacity to participate effectively in economic transformation.

Research in Focus

SHORE: ocean literacy and blue economy

Marine and inland-water pollution and insufficient public knowledge are addressed through the EU Mission to Restore Our Ocean and Waters by 2030.

The 2023–2025 sources identify multinational work across major seas and river basins, WSB's Polish Blue HUB role, school outreach, exhibitions, teacher/student involvement and grant-call opportunities for school ecological activities.

The yearbooks document a 2024 Gdynia outreach event (>600 young participants), a South Baltic event (>200 stakeholders and 17 workshops) and the 4 June 2025 international Ocean & Waters Night.

Green and digital workforce transition

Industrial transition generates new demand for renewable-energy skills, digital competences and education relevant to businesses and young people in Silesia.

EduLider combines knowledge transfer to enterprises, medical and simulation laboratories, cybersecurity, career advice and support to schools. A distinct PLN 9.14m programme covers institution-wide green/digital university development. Other measures include solar-sector education in Żywiec and Polish-Czech low-carbon professional learning.

Project values, timelines and proposed infrastructure are present. Output verification needs acquisition/delivery records, course completion, employer adoption and subsequent job outcomes.

Projects and Initiatives

Green Office and GPM Global responsible project management

WSB described implementing the Green Office approach to reducing office paper, water, energy use and waste; 18 research/teaching and administrative employees trained in Green Project Management and obtained GPM certification/registration.

Green Office links responsible administration with professional development. Eighteen academic and administrative employees participated in GPM-related certification training, while resource-management measures addressed paper use, water, electricity and waste. The initiative strengthens sustainability-related operational practices and staff competence.

SDGs: 12, 13, 17

Responsible Management Education Partner recognition

A GPM Global recognition is reported alongside the Green Office programme, signalling institutional integration of sustainability into management education.

The GPM recognition alongside initiatives for responsible project management and sustainability-oriented learning.

SDGs: 4, 12, 17

Silesian Sustainable Business Summer University

A NAWA SPINAKER summer school brought more than 40 international students together to work on sustainable business, circular-economy ideas and group projects aligned with the SDGs.

The international summer-school model combines discussion of responsible business, circular-economy principles and cooperative learning in multinational groups. More than 40 international students participated in 2023, working together on responsible business ideas and collaborative learning activities.

SDGs: 4, 8, 12, 17

Sustainability teaching exchange with Nottingham Trent University

WSB academics participated in training on sustainability pedagogy, summer-school design and sustainable business models, creating a basis for teaching improvements.

The academic-development strand included exchanges on the design of sustainability modules, responsible business models and modern teaching methods.

SDGs: 4, 12, 17

SHORE / Polish Blue HUB

Horizon Europe SHORE develops ocean and water literacy and student agency across the Baltic, Black and Mediterranean Seas and the Danube/Rhine basins; WSB coordinates the Polish Blue HUB. Later editions record dissemination workshops and events.

The consortium is financed under the Horizon Europe mission to restore oceans and waters by 2030 and covers the Baltic, Black and Mediterranean Seas as well as the Danube and Rhine catchments. WSB's specific responsibility is coordination of the Polish Blue HUB, intended to bring ocean and freshwater literacy to schools through workshops, exhibitions, seminars and open calls. school initiatives could obtain up to EUR 10,000 through calls; an overall project budget of EUR 2,998,518.75 and implementation dates of 1 August 2023–31 July 2026.

Additional activities and developments. Beyond the general Horizon Europe project title, a WSB article dated 23 August 2024 describes substantive research-based engagement. WSB ran the Polish BLUE HUB with Estonian counterparts in a Baltic Sea knowledge cluster, examining school ocean-literacy materials while engaging school pupils, teachers and seniors through fieldwork, exhibitions, webinars and science events. The hub links marine sustainability to freshwater systems and river catchments. The 7 June 2024 Mission Ocean & Water Night series included work in Kraków, Dąbrowa Górnicza and Cieszyn under the motto "Three Rivers – One Sea", drawing attention to the Vistula, Olza and Biała Przemsza and their downstream effects on marine waters. Themes included biodiversity, microplastics, pollution, climate pressures and water stewardship.

In the first consortium competition, 30 schools from Europe and the Mediterranean received grants, while schools could apply for up to EUR 10,000.

Additional activities and developments. SHORE incorporates school-facing environmental learning on river catchments, ocean literacy, biodiversity, pollution, climate and water resources, including the "Three Rivers – One Sea" workshop concept linked to the Wisła, Olza and Biała Przemsza. The school-grant programme operated across the international SHORE consortium.

SDGs: 4, 6, 13, 14, 17

Pomorskie Researchers' Night within SHORE

WSB and the Experyment Science Centre in Gdynia delivered marine/environmental experiments and workshops during the September 2024 event, reported to have engaged more than 600 young visitors.

WSB worked with the Experyment Science Centre in Gdynia during the September 2024 event, where hands-on demonstrations and workshops translated marine science into accessible activities for young visitors. More than 600 young participants are cited.

SDGs: 4, 14, 17

Mission Ocean & Waters Night second edition

The second multi-country Ocean & Waters Night occurred on 4 June 2025 online and in Romania, Türkiye, Poland and Italy, disseminating ocean literacy.

The second edition took place on 4 June 2025 with a hybrid format involving Poland, Romania, Türkiye and Italy. Its public-facing character is important: marine and inland-water protection was discussed across borders rather than only within the university. The programme created a shared public-learning forum focused on the protection of oceans and inland waters.

SDGs: 4, 6, 14, 17

Mission Arena / South Baltic blue economy

The SHORE account describes an arena in Sopot with more than 200 stakeholders and 17 workshops on a climate-neutral and sustainable blue economy.

The event centred on a climate-neutral and sustainable blue economy for the South Baltic area, bringing public, academic, business and civil-society stakeholders into discussion.

SDGs: 8, 13, 14, 17

Forecasting climatic change factors against SDG 2030

The international research consortium developed a methodology for estimating SDG indicators useful for forecasting drivers of climate change and compared country practices for reducing environmental harm.

WSB is identified as consortium leader alongside partners from Ukraine, Slovakia, Czechia, Hungary and Poland. The research design combines a method for estimating sustainable-development indicators with country-by-country examples of environmental policy; ideas are discussed in research seminars and with local-government and NGO representatives.

SDGs: 9, 13, 17

Blue-green infrastructure in GZM cities

The Metropolitan Science Support Fund financed Paweł Mrowiec's research into awareness and development of blue-green infrastructure as an element of urban management in the Upper Silesian-Zagłębie Metropolis.

The GZM-funded work, supervised by Paweł Mrowiec, ran from 4 March to 31 December 2024. Its stated research question concerns awareness of, and municipal management approaches to, blue-green infrastructure across metropolitan cities.

Additional activities and developments. A 2024 funding announcement identified four complementary studies: the QIAT assistive-technology index in special schools, inclusion in intermodal transport hubs, awareness and development of urban blue–green infrastructure in GZM cities, and foster children’s right to maintain contact with close relatives. The overall announced funding of PLN 108,036 refers to these four projects rather than a single initiative.

SDGs: 6, 11, 13, 15

AI and satellite imagery for flood-control infrastructure

The research led by Paweł Buchwald and Dawid Jurczyński develops a prototype for monitoring levees, dams and retention reservoirs using satellite data, AI and sensors to support early warning and flood-risk decisions.

The Metropolitan Science Support Fund grant ran from 5 February to 31 December 2025, with Paweł Buchwald and Dawid Jurczyński named as supervisors. Researchers analyse satellite imagery and apply information systems and AI to detect or evaluate potential maintenance and safety issues in embankments, dams and retention reservoirs. The rationale is to support earlier identification of flood-related risks and decision-making by infrastructure managers.

SDGs: 9, 11, 13

Climate and energy governance at Polish-Czech border

A NAWA-supported research stay examined cross-border low-carbon and climate policies; fieldwork reviewed the AirTritia cross-border climate project and transboundary cooperation in January 2023.

Activities undertaken in 2023 included field research and consultations on climate governance, energy management and low-carbon policy in the Polish–Czech borderland. A January 2023 research stay included consideration of the AirTritia initiative and interactions among regional stakeholders. The relevance is to coordination of environmental policies across an administrative border.

Additional activities and developments. Researchers from the WSB Institute for Territorial and Inter-Organisational Cooperation, including Francesco Cappellano, undertook comparative research on Polish–Czech energy-management and climate-policy contexts. The contemporary news confirms fieldwork and evidence collection in the AirTritia area from 9–13 January, alongside international collaboration.

SDGs: 7, 11, 13, 17

Turów mine crisis and cross-border cooperation

The completed Polish-Czech study used four field visits and focus-group interviews to examine effects of the Turów dispute on border-region relations; results appeared in a report and a stakeholder debate.

The study examined how the dispute concerning the Turów mining complex influenced the fabric of Polish-Czech cross-border cooperation. Researchers used four field visits and focus-group interviews to obtain perspectives of local stakeholders, then prepared a report and held a policy-facing debate. The distinctive contribution is evidence on social trust and governance under environmental conflict, rather than a technical environmental assessment of the mine.

SDGs: 7, 8, 13, 16, 17

Low-carbon economy training on Polish-Czech border II

The project with VŠB-TU Ostrava developed vocational competences in energy efficiency and low-carbon solutions across tourism, construction and automotive industries.

This cooperation with VŠB–Technical University of Ostrava addressed low-emission economy skills in sectors with substantial regional importance: tourism, construction and automotive services. Educational activities related to energy efficiency and low-carbon practices support workforce adaptation in border regions.

Additional activities and developments. The Polish–Czech conference panel on energy management and a low-carbon economy addressed regional air pollution, decarbonisation, hydrogen-related transport and risks of greenwashing. Its contribution lies in disseminating research and professional knowledge for cross-border policy and workforce skills.

SDGs: 4, 7, 8, 13, 17

Solar renewable-energy sector skills centre in Żywiec

WSB partnered with Żywiec County in creating a Sectoral Skills Centre for solar renewable energy; the reported total project value is PLN 13.7 million.

Developed with Żywiec County, the Sectoral Skills Centre initiative responds to the demand for technical competences in solar renewable-energy installations. The joint project has a total value of approximately PLN 13.7 million. The project connects vocational capacity with practical renewable-energy technology and the regional labour market.

SDGs: 4, 7, 8, 9, 17

Energy-security and photovoltaic safety events

Conferences examined fire safety of photovoltaic installations, energy storage and electric vehicles, as well as green energy and public-safety response.

The energy-security and photovoltaic-safety meetings bring practitioners and researchers together around reliable energy infrastructure and changing sources of power.

SDGs: 7, 9, 11, 16, 17

Urban energy independence / geothermal heating conference

Research-practitioner dialogue on geothermal district heating and local-government capacity for municipal energy transition.

The 2025 programme includes discussion of heat supply, geothermal options and greater local energy independence. These are significant research-to-policy subjects relevant to climate mitigation and urban resilience.

SDGs: 7, 9, 11, 13, 17

Green technology ideas competition

A green-technology competition supported the identification of sustainable environmental solutions; six projects advanced to a subsequent mentoring stage.

The student/innovation contest encouraged proposals involving green technologies and practical problem-solving.

SDGs: 8, 9, 12, 13

Sustainable development and regional transformation conference debate

WSB brought scientists, policymakers, entrepreneurs and communities into discussion on industrial transformation, the future of metropolitan governance and clean-energy systems.

Conferences on regional transition help connect research on urban governance, energy, industrial change and environmental responsibility to municipalities and business. They are reported as discussion and dissemination channels rather than as discrete completed scientific experiments.

Additional activities and developments. WSB researcher Dr Krzysztof Wrana was appointed to a team tasked with preparing a White Paper on coal-region transformation. The policy-research remit connects regional innovation, economic diversification and social dimensions of transition.

SDGs: 7, 8, 11, 13, 17

Energy-transition research institute

An Institute for Energy Transition and its academic/industry leadership, adding specialised institutional capacity for energy-related research and dialogue.

The energy-transition research institute and associated discussions indicate a sustained multidisciplinary interest in regional heat supply, energy autonomy, efficiency and technology policy. The initiative contributes research expertise and specialist dialogue on infrastructure, policy and energy efficiency.

Additional activities and developments. The Energy Platform initiative, inaugurated with WSB and industry partners including Veolia, aims to connect expertise on renewable and decentralised systems, resilient power infrastructure, regulation and cyber-security. The confirmed 2025 achievement is the intersectoral platform's inauguration and collaboration agenda.

SDGs: 7, 9, 13, 17

Comprehensive support for WSB University aligned with the green and digital economy

The European Funds for Silesia 2021–2027 / Just Transition Fund project is designed to strengthen higher-education delivery in response to the needs of the green economy. the University gives an overall project budget of PLN 9,141,530.20 and implementation from 1 September 2024 to 29 June 2026.

This is separate from the EduLider project, despite their shared policy and funding context. The published description presents comprehensive institutional support as an intended result but gives limited item-level performance evidence; neither the full value nor the planned outputs should be interpreted as WSB expenditure completed by September 2025.

Additional activities and developments. The project "Comprehensive Support for WSB University's Development According to the Needs of the Green and Digital Economy", FESL.10.25-IZ.01-078F/23-002, is co-funded by the Just Transition Fund within the European Funds for Silesia 2021–2027. It builds competences aligned with economic restructuring in seven transformation subregions of Silesia. Target groups include university students, doctoral candidates, faculty and secondary school pupils. Its intervention logic links improved educational capacity and applied learning to green-economy labour demand, digital skills and the long-term resilience of communities affected by industrial transition.

Verified total project value PLN 9,141,530.20 (EU contribution PLN 8,227,377.18 plus Polish national budget contribution PLN 914,153.02).

SDGs: 4, 8, 9, 12, 13

WSB University sustainable-development research recognition in GreenMetric

The annual publications discuss the university's participation and positioning in UI GreenMetric, including recognition of education and research for sustainable development.

The publication years and ranking editions are explicitly distinct.

SDGs: 4, 12, 13, 17

Cooperation with ALBA MPGK in waste management and skills

WSB and waste-management company ALBA MPGK formalised collaboration encompassing educational activities, practical placements, research engagement and exchange of expert knowledge. This is relevant evidence for a circular-economy and skills ecosystem.

Scientific Research and Publications

Green finance and sustainable-development spillovers

Scientific publication: Aleksy Kwiliński, Oleksii Lyulyov and Tetyana Pimonenko. “Spillover Effects of Green Finance on Attaining Sustainable Development: Spatial Durbin Model”. Computation 11(10), 199.

The authors used a spatial Durbin model on EU-country data for 2008–2021 to assess regional spillovers between green finance and sustainable development. The results indicated a positive relationship but heterogeneous effects between European regions.

SDGs 7, 8, 9, 13, 17

Green country branding, digitalisation and ESG

Scientific publication: Aleksy Kwiliński, Oleksii Lyulyov and Tetyana Pimonenko. “The role of country's green brand and digitalization in enhancing environmental, social, and governance performance”. Economics and Environment 87(4), pp. 1–22.

Using partial least squares structural equation modelling on EU data for 2016–2020, the paper examined relationships between national green branding, digitalisation and ESG performance. It reports a positive role for digitalisation in governance and links green reputation to sustainable investment.

SDGs 9, 12, 13, 16

Mapping green-energy and green-investment science

Scientific publication: Aleksy Kwiliński. “Mapping Global Research on Green Energy and Green Investment: A Comprehensive Bibliometric Study”. Energies 17(5), 1119.

The paper applies PRISMA-informed bibliometric methods, Scopus data and VOSviewer to map the development of research on the relationship between renewable energy and green investment. It identifies three major themes: renewables and sustainable development, government and green energy, and investment as an enabler of green energy. This is a research landscape study that supports strategic research planning rather than a new renewable-energy deployment.

SDGs 7, 9, 13, 17

Technology transfer for climate-resilient development

Scientific publication: Laeeq Janjua and international co-authors. “Breaking barriers: Assessing technology transfer for climate-resilient development”. Environmental Technology & Innovation 33, 103471.

The publication concerns institutional and technological barriers to knowledge transfer for climate-resilient development. The study contributes to scientific discussion of technology transfer and climate-resilient development.

SDGs 9, 13, 17

Environmental-security indicators and thresholds

Scientific publication: Aleksy Kwiliński, Paweł Czart and international co-authors. “System of Indicators for the Environmental Component of Sustainable Development in the Security Dimension”. Sustainable Development (2025).

This research develops a structured assessment system of 40 environmental-security indicators organised into seven domains: biodiversity and land use, air pollution, climate adaptation, impacts of energy/industry/transport, environmental health, waste and water resources. Its methodological contribution combines an extended homeostatic-plateau concept with statistics and AI-assisted clustering to identify gradations and threshold values.

SDGs 3, 6, 7, 8, 11, 13, 15

2. Sustainable Cities, Mobility and Innovation

Cities and metropolitan areas are living laboratories for new transport solutions, accessible public space, environmental infrastructure, creative economies and digital tools. The University contributes applied studies, research methods and co-designed initiatives shaped by local needs.

WSB University’s metropolitan studies investigate several interconnected dimensions of urban sustainability, including transport access, regional competitiveness, environmental infrastructure and digitally supported decision-making. Research on interchange accessibility and barrier-free journeys considers the needs of passengers who face mobility, organisational or information-related obstacles. Other studies examine travel choices, the service costs of electric and conventional vehicles, green-blue urban infrastructure and metropolitan innovation systems. Together, they provide a research-oriented perspective on how infrastructure, social inclusion and environmental quality can be considered in local development strategies.

Participatory methods are especially visible in HEIsCITI. During the 2024 pilot in Cieszyn, university students, representatives of the city and other local participants developed concepts for the reuse of neglected urban spaces. The activity demonstrated a form of learning and applied research grounded in real urban challenges. Alongside studies of smart cities and regional innovation, such initiatives position the city as a space where academic knowledge can be discussed, tested and adapted with those who use urban services daily.

Research in Focus

Sustainable metropolitan governance

How can transport design, urban infrastructure, public participation and ecological management together support resilient, inclusive metropolitan development?

The studies integrate GZM-supported smart-city research, transport cost comparisons, accessible interchange indexes, municipal green-blue infrastructure and policy modelling. A distinct 2025 study tests satellite imagery, AI and informatics for maintenance assessment of flood protection assets.

Projects and Initiatives

HEIsCITI sustainable inclusive cities

WSB-led Erasmus+ consortium prepares teaching methods and city–citizen dialogue tools for inclusive urban development, with European-Asian experience exchange and planned municipal pilots.

HEIsCITI connects higher-education institutions and urban stakeholders around practical ways to make cities more inclusive and sustainable. The documents describe methodologies for participation, citizen–municipality dialogue and teaching on community-based urban development, with international knowledge exchange across Europe and Asia.

Additional activities and developments. On 22–24 May 2024, WSB students in Cieszyn piloted participatory methods for addressing neglected or abandoned urban spaces. Under Prof. Joanna Kurowska-Pysz, student teams prepared and publicly presented ideas and proposals for reconnecting these sites with community needs. Residents and local government representatives participated in the presentation and feedback process; the event was also streamed for wider partner participation. This was a hands-on test of co-creation methodology: students generated local spatial-development concepts and collected feedback rather than merely attending a lecture about sustainability.

Additional activities and developments. The HEIsCITI pilot brought university students, city authorities and local stakeholders together in Cieszyn (22–24 May 2024) to generate proposals for revitalising underused urban spaces. Ideas were presented as prototypes or concepts in a co-creation exercise.

SDGs: 4, 10, 11, 16, 17

Metropolitan smart-city sustainability research

Within seven GZM-funded research subprojects, Grzegorz Kinelski analysed sustainable development in selected metropolitan cities from a smart-city perspective.

The GZM-funded research portfolio treats a smart city as a social and environmental governance system, not simply a collection of digital devices. Grzegorz Kinelski’s component investigated sustainable development in selected metropolitan cities, supplying an analytical contribution to metropolitan decision-makers.

SDGs: 9, 11, 12

Smart Metropolis and Industry 4.0 ecosystem

Krzysztof Wrana's GZM-funded research examined the smart metropolis as a development ecosystem for Industry 4.0.

Krzysztof Wrana’s study examined the Upper Silesian-Zagłębie Metropolis as a smart regional ecosystem capable of supporting Industry 4.0. Its relevance lies in innovation ecosystems, place-based economic development and the relationship between business competitiveness and city governance.

SDGs: 8, 9, 11

Creative metropolis / creative-sector prospects

Mariusz Raczek studied development prospects for the creative sector across GZM cities as part of a seven-study metropolitan research portfolio.

Mariusz Raczek investigated the conditions and potential of the creative sector across cities of the metropolis. The study shifts the sustainable-development discussion beyond physical infrastructure to local entrepreneurship, cultural capital and economic diversification.

SDGs: 8, 9, 11

Electric/hybrid/combustion vehicle service costs

The work led by Iwona Krzyżewska compares selected cost characteristics of servicing electric, hybrid and combustion-engine vehicles. This cost-based perspective is relevant to citizens’ mobility choices and fleet management.

SDGs: 9, 11, 12, 13

Sustainable transport travel behaviour in GZM

A Metropolitan Science Support Fund project involving transport scholar Maria Kamargianni studied travel behaviour and citizen needs relating to sustainable transport across GZM.

The study with Maria Kamargianni of University College London ran in June–November 2022 and was highlighted in the 2023 edition. It included four online lectures and consultations on technology and social-demographic changes affecting transport, as well as qualitative and quantitative approaches to involving citizens in planning mobility systems. During her October 2022 visit, the scholar also advised doctoral researchers on research instruments, literature and funding applications. These documented exchanges build research capacity for evidence-led, citizen-centred mobility planning.

SDGs: 9, 11, 13

Przesiadka bez Barier / accessible interchange management

The 'Transfer without Barriers' system addresses accessibility at integrated transport interchanges, helping reduce obstacles for passengers with specific needs.

The local partnership addresses passenger interchange design through the experience of people with mobility and accessibility barriers.

Additional activities and developments. An expert debate associated with the barrier-free intermodal transfer-hub management project brought accessibility researchers and stakeholders, including people with disabilities, together to discuss requirements and evaluation methods. The debate supported an expert consultation and recommendations process focused on the accessibility of intermodal transport.

SDGs: 9, 10, 11

Accessibility index for integrated interchanges

Researchers developed a methodology to evaluate accessibility and inclusion at five major transfer hubs in GZM using indicators relevant to users with special needs.

The metropolitan research theme proposes an accessibility index for integrated interchange nodes, allowing planners to evaluate whether transport connections work for a range of users.

SDGs: 9, 10, 11

Quality Indicators for Assistive Technology in schools

GZM-funded research examined the quality and consistency of assistive-technology provision in special schools and rehabilitation/education centres using the QIAT approach.

Quality Indicators for Assistive Technology (QIAT) is treated as an assessment approach within school settings, connecting special-needs education with systematic evaluation of assistive tools and their use.

SDGs: 4, 9, 10

Metaverse/VR modelling of public-building safety

An ITLogis student-research project aims to produce a virtual/Unity 3D simulation tool for testing public-space and building-infrastructure safety.

The ITLogis student team, supervised by Paweł Buchwald, was scheduled to work from 27 May 2024 to 27 May 2025 under the scientific-club innovation scheme. The work tests how three-dimensional modelling, Spatial.IO, Unity 3D and VR can be used to inspect the safety implications of public spaces and building infrastructure.

SDGs: 9, 11, 16

European metropolitan and city-development strategies

WSB's Regional Development Centre supported city-development strategies, revitalisation programmes and sectoral/transformation policies for municipalities of the Silesian agglomeration.

The strategies prepared or studied through WSB’s regional work connect academic urban analysis with municipal development priorities. The studies inform planning quality and development priorities for cities and regions.

SDGs: 8, 11, 16, 17

Design Observatory / Regional Innovation Observatory

The Design Observatory is described as part of a regional specialised-observatory network; by 2025 it contributes to the PPO WSL 2030 regional innovation-observatory framework.

The institute-based observatory work focuses on the study of regional innovation, design and urban competitiveness. The research is relevant to how cities adopt services and solutions that meet residents' needs, and it supports analysis of new services and solutions for local communities.

SDGs: 8, 9, 11, 17

Metropolitan Policy Lab teaching/research

The GZM-funded POLAB initiative trained nine WSB staff in Policy Lab methodology, with students exposed to the approach by international experts.

The initiative introduces metropolitan policy challenges into teaching and research on public management and regional development. It connects academic analysis with the framing of practical policy problems.

Additional activities and developments. The university announced POLAB, a teaching and stakeholder-participation initiative supported by the Upper Silesian–Zagłębie Metropolis. The educational approach uses Policy Lab methods to allow students and stakeholders to jointly explore public-policy challenges.

SDGs: 4, 11, 16

AI deepfake detection research

Metropolitan research first studied identification of fake news in manipulated images; in 2025 WSB describes testing characteristics of 20 common deepfake types against benchmark datasets.

In 2025 researchers assessed synthetic-media detection methods against prepared material and major test repositories, including DFDC, FaceForensics+, Celeb-DF and DeeperForensics-1.0. The project seeks to understand the relative strengths of algorithms and develop practical recommendations for more reliable detection.

SDGs: 9, 16

European Middle Class Mass Housing COST

WSB researchers participated in COST work examining Europe's middle-class mass housing stock and related social/urban questions.

This European research network addresses housing estates and mass housing through urban-development perspectives. Where linked to the SDGs, the appropriate contribution is knowledge about the built environment and housing quality.

SDGs: 10, 11, 17

Placemaking and digitalisation in European cities COST

Research-network participation covers placemaking, digitisation and transformations of European urban spaces.

The COST networking work examines practices of placemaking and digital tools in European cities, bringing together urban researchers and practitioners.

SDGs: 9, 11, 16, 17

COVID-era social innovation and placemaking COST

The university reports COST participation on multidisciplinary innovation for social change and city placemaking, indicating research network contribution rather than direct measurable field impact.

This network explores how the COVID-19 period affected public-space use, social interaction and innovation in cities. The publication describes a research-network contribution to shared knowledge and collaboration; no specific WSB-produced digital platform or local impact number is documented.

SDGs: 9, 10, 11, 17

Digital leadership at higher-education institutions

Sabina Ratajczak's metropolitan research subproject examined digital leadership in universities.

The metropolitan research portfolio examines leadership and governance of higher-education digital transformation, where organisational change matters alongside technology. The 2024 summary indicates the research theme but gives no quantitative cross-university adoption statistics.

SDGs: 4, 8, 9

Job crafting and innovation in workplaces

Magdalena Kot-Radojewska's GZM-funded study assessed job crafting as a source of employee engagement and innovation in metropolitan enterprises.

Job crafting and workplace innovation research explores how employees and organisations adapt roles to new requirements. Its most direct relation to SDG 8 is skills and quality of work, rather than an empirically established rise in employment or wages.

SDGs: 8, 9

REBUILD – Capacity Building for Sustainable Reconstruction

REBUILD (project no. 101182786; ERASMUS-EDU-2024-CB-VET) began on 1 January 2025 and is coordinated by the Bologna construction vocational-education institute IIPLE. It is an international capacity-building programme with WSB University and academic and vocational-training partners from Italy, Ukraine, Moldova and Georgia. It addresses the competencies required for the safe and sustainable reconstruction of buildings, settlements and infrastructure in territories affected by natural disasters and conflict. Its educational agenda links reconstruction

techniques, construction regulations, engineering standards, vocational training and exchange of European practice.

A documented 2025 activity was the international study visit to Bologna, Ravenna, Spoleto and Preci, 9–11 September 2025. WSB participants Małgorzata Kasjaniuk and Lubomira Trojan examined post-earthquake reconstruction of heritage buildings and infrastructure and sustainable construction practices. The visit and training exchange are documented results; the long-term reconstruction outcomes and training system roll-out were still forthcoming.

Scientific Research and Publications

Transport decarbonisation, innovation and renewable energy

Scientific publication: Aleksy Kwiliński, Oleksii Lyulyov and Tetyana Pimonenko. “Reducing transport sector CO2 emissions patterns: Environmental technologies and renewable energy”. Journal of Open Innovation: Technology, Market, and Complexity 10(1), 100217.

This journal article examines transport-related CO2 emission patterns in relation to environmental technology and renewable energy.

Research-related SDGs SDGs 7, 9, 11, 13

Risk-based sustainability assessment for electric vehicles

Scientific publication: Katarzyna Chruzik and Iwona Krzyżewska. “An advanced method for assessing the significance of change in electric vehicles as a new tool for sustainability and operational reliability”. Archives of Transport 74(2), pp. 117–129.

The study extends transport change-management risk methods using failure mode and effects analysis (FMEA), uncertainty parameters and structured registers. Applied to the integration of electric vehicles in urban traffic, the model identified emerging hazards, including secondary battery fires, while its overall change-assessment result was non-significant.

Research-related SDGs SDGs 9, 11, 13

Continuous improvement of railway safety culture

Scientific publication: Marzena Graboń-Chałupczak and Katarzyna Chruzik. “A Conceptual Model of Safety Culture Indicators for Railway Transport: Integrating Continuous Improvement and Sustainability”. Sustainability 17(24), 11169.

The article synthesises relevant research into a conceptual system of railway safety-culture indicators, integrating Kaizen, Six Sigma and DMAIC approaches with Safety Management System and Maintenance Management System processes. The model includes risk assessment, change management, competences, reporting and monitoring. This is a structured conceptual proposal; claims of field validation, railway implementation or lower accident rates would require further practical assessment.

Research-related SDGs SDGs 3, 9, 11

3. Equality, Accessibility and Community Wellbeing

The University promotes participation in education and community life across generations and backgrounds. Research and collaborative programmes address barriers related to disability, age, migration, gender, social exclusion and learning opportunities.

The University's inclusion agenda is reflected in both institutional measures and project-based research. EQUATION works on gender-responsive governance and accreditation; other initiatives explore the quality of assistive technologies in schools, digital accessibility, intercultural learning, support for migrants and opportunities for women and girls in education and employment. Projects focused on learners with additional needs combine educational methods with practical attention to physical, digital and organisational barriers. These strands connect equality with the everyday functioning of institutions and their capacity to create accessible learning environments.

Intergenerational participation is another distinctive feature. Educational-needs research involving older people informed work associated with Third Age Universities, while community programmes bring science into contact with children, young people and adults outside conventional university study. The Student 4.0 programme combined digital learning support for almost 5,000 first-year students with interdisciplinary activities involving participants from several degree programmes. These initiatives illustrate an educational model that treats access, persistence and lifelong learning as complementary dimensions of sustainable social development.

Research in Focus

EQUATION and gender-responsive accreditation

Structural barriers in recruitment, promotion, retention and quality assurance affect gender equality within higher education.

The Erasmus+ consortium links CEEMAN and European business/technical schools. The project develops plans and instruments for assessing gender practices, accreditor guidance and training of quality evaluators.

Gender Equality Plans, accreditation guidance, training programmes and more than 20 specialists trained. These are verified outputs; whether gender gaps later declined must be monitored separately.

Older people and inclusive tourism

Ageing populations encounter changing educational needs and physical/digital barriers in mobility and leisure.

A student research project surveyed and interviewed seniors and prepared a new Third Age University learning model using SPSS and ATLAS.ti. RESCUER designed and tested VR mountain-safety exercises, drawing on field assessments, first-aid techniques and feedback from older adults.

The UTW study produced a research report, model and two research papers; RESCUER reports workshops and VR trial sessions in 2025. No controlled reduction in mountain accidents or long-term health outcomes is established.

Inclusive and participatory education

Migrant learners, people at risk of functional illiteracy and young citizens need new teaching

methods that support agency and learning equity.

ED-ON developed an intercultural teaching strategy and online platform. ALPHABETTER designed educator courses, methodology and digital tools; ACTIVE developed materials for critical and responsible citizenship for pupils aged 12–18.

Projects and Initiatives

IN SITU social innovation for employability

WSB describes Central European IN SITU strategies to increase employment opportunities for long-term unemployed people, especially labour-market entrants and people aged 50+.

The IN SITU social-innovation work addresses long-term unemployment and difficult labour-market entry by considering solutions designed around the circumstances of local users and communities.

SDGs: 1, 8, 10, 17

Learning tools against functional/secondary illiteracy (ALPHABETTER)

WSB-led international consortium including UC San Diego built methods, courses and an online platform to counter functional and secondary illiteracy; the University confirms project completion in January 2024.

WSB led a partnership with the University of California San Diego and European organisations. The 2023 issue describes a methodology, educator courses, an online learning platform and pilots intended to counter secondary and functional illiteracy, drawing on experience in migrant communities on the US–Mexico border.

SDGs: 4, 10, 17

ED-ON intercultural education for migrant children

The completed project delivered a strategy and online teaching platform for educators working with migrant children in remote and blended contexts.

The Erasmus+ partnership with institutions in Finland, Lithuania and Czechia supported teachers and pedagogy students working with children from migrant families. The reported outputs include an intercultural teaching strategy and an online educational platform. Because the project closed in February 2023, it provides a concrete completed example of teaching-resource development for a diverse student population.

SDGs: 4, 10, 16, 17

ACTIVE citizenship in schools

Schools and international partners developed tools fostering critical thinking, responsible citizenship and informed dialogue among pupils aged 12-18.

The international ACTIVE project targeted pupils aged 12–18 and developed methods for civic reasoning, critical thinking, constructive discussion and evaluating consequences of actions. Its

partners included schools and education organisations from Czechia, Austria, Italy and Slovakia. The causal link is to education for responsible citizenship; there is no reported longitudinal evidence that pupils' civic participation subsequently increased.

SDGs: 4, 16, 17

EQUATION gender equality in university accreditation

Partners researched gender barriers in higher education, designed self-learning resources and tools for gender equality plans and inclusive accreditation approaches (GE SELFIE).

EQUATION involved CEEMAN, IEDC-Bled, Riga Technical University, WSB and Vistula University to address structural and cultural barriers affecting women's careers in higher education and to integrate gender considerations into accreditation and quality-assurance processes. A digital self-assessment and learning instrument, GE SELFIE, was envisaged in the project design. By 2025, activities included Gender Equality Plans, accreditation guidelines, evaluator-training programmes and training for more than 20 specialists.

SDGs: 4, 5, 10, 16, 17

Research into women's careers and institutional equality

The EQUATION surveys and interviews involved WSB students, staff, university management and accreditation specialists, to diagnose bias and improve recruitment, retention and careers for women.

Work under the equality project covered institutional procedures such as recruitment, retention and career progression, with the intention of helping business schools identify and remove systemic barriers. The research and review activity should be distinguished from any claim of a measured elimination of gender pay gaps across participating universities.

SDGs: 5, 8, 10

Women in Tech Summit participation

WSB publicised women in technology and science through engagement with Women in Tech Summit and related initiatives, including a 2025 edition.

Participation in Women in Tech-related events connects the university's staff and students with discussion of digital skills, visibility and professional pathways for women in technology.

SDGs: 4, 5, 9

Network skills of girls from smaller/restructured towns

An international project develops digital, social and networking competences of girls in post-industrial areas to support future participation in the Economy 4.0 workforce.

The 2025 initiative focuses on equipping girls from smaller or post-industrial cities with networks and competences useful for education and employment pathways. It focuses on access to opportunity and stronger educational and professional networks.

SDGs: 4, 5, 8, 10

mentUwell mental wellbeing in wartime migration

WSB-led consortium develops a methodology and toolkits for teachers, volunteers and NGOs supporting adolescent mental wellbeing amid war-driven migration.

WSB coordinates the Erasmus+ mentUwell partnership with universities and organisations in Lithuania, Finland, Romania, Italy, Ukraine and Austria. It develops guidance for teachers, NGOs, volunteers and other professionals who support young people affected by wartime migration and displacement. The consortium envisages testing its tools in institutions in Poland, Romania and Lithuania.

Additional activities and developments. WSB University coordinated the Erasmus+ initiative “Preserving Youth Mental Wellbeing in Wartime Migration Crisis” (MentUwell), with an international partnership spanning Europe and Australia. The consortium set out to develop methods and educational tools for educators supporting displaced adolescents.

SDGs: 3, 4, 10, 16, 17

RESCUER mountain rescue and accessibility VR

WSB-led RESCUER develops four VR rescue scenarios for mountain teams dealing with older people and persons with disabilities in cross-border terrain.

RESCUER develops VR-assisted mountain-safety training with particular attention to older adults and people with disabilities. Training in Carinthia covered access-barrier assessment, hiking checklists, first aid and rescue simulations; a 2025 visit to Oščadnica included seniors testing a trial VR application and demonstrations of rescue technologies. July 2025 workshops in Čadca reviewed interfaces, accessibility and simulated environments, with examples of drones and adapted vehicles.

Additional activities and developments. Following the international conference “Actions to Improve the Quality of Life of People with Special Needs in Poland and Around the World”, WSB publicised a scholarly publication covering legal and practical dimensions of accessibility, mobility and inclusion.

SDGs: 3, 9, 10, 11, 17

Disability-inclusive university (completed MINI/MIDI model)

The completed 'Sprawny model' project strengthened disability-support services, accessibility of premises and software, accessible procedures and staff awareness.

The earlier 'Accessible University' model addressed organisational, digital and physical barriers and supported disability-aware institutional services.

SDGs: 4, 10, 11

Education/Science without barriers

New programme ('Rozwój, Edukacja, Nauka bez barier') aims to embed long-term support for people with special needs across eight accessibility areas; total value PLN 8,277,731.

The project 'Development, Education, Science without Barriers' runs from 1 January 2025 to 31 December 2028 with a reported value of PLN 8,277,731. It seeks a lasting university support

model across eight accessibility domains, including communication, buildings, digital tools, technology and procedures. A key organisational change is the proposed transformation of the disability office into a Centre for People with Special Needs. The target group extends beyond degree students to staff, doctoral candidates, postgraduate learners, senior learners and children's university participants.

Additional activities and developments. The WSB project "Development – Education – Science Without Barriers: WSB University Accessible and Supportive for All Stakeholders" addresses systemic accessibility in higher education. It combines removal of physical and digital barriers with improved support processes, including assistance for users with disabilities and diverse learning requirements. Infrastructure actions include changes to lifts and facilities, while academic and administrative work includes digital learning systems, assistive technology and organisational readiness. Its relevance is broader than individual accommodations: it aims to make institutional processes, campus environments and education routes accessible by design. The published targets include accessibility modernisation of two university buildings and the training of 180 participants; these remain planned multiannual outputs unless supported by dated completion evidence.

The multiannual budget for 2025–2028 is PLN 8,277,731. The programme covers a phased implementation of accessibility improvements, support services and organisational development.

SDGs: 4, 5, 10, 16

EduConnect: student persistence and Hy-Flex

A new effort to reduce premature study discontinuation describes early risk diagnostics, blended Hy-Flex delivery and support adapted to work/study/life constraints.

EduConnect addresses persistence and learning continuity through more flexible learning services and Hy-Flex-type delivery models. It is structured around identifying obstacles to study progression and providing tailored educational support.

Additional activities and developments. The FERS-supported EduConnect initiative envisaged early risk detection, flexible HyFlex study pathways, learning tools and staff support for more inclusive continuation of university studies. The 2025 announcement is evidence of planned intervention and funding, whereas actual retention-rate improvement requires future evaluation. It is distinct from the completed Student 4.0 programme.

SDGs: 4, 10

'Universal Graduate' and virtual campus accessibility

The 'Absolwent Uniwersalny' initiative and VR campus information were designed to improve accessibility and study experience for students with diverse needs.

SDGs: 4, 9, 10

Family-foster care contact rights research

Karolina Walancik's Metropolitan Science Fund study concerns children's right to contact their birth parents while in foster care and an academic monograph for practice/policy dialogue.

The family-support research considers the actual operation of arrangements designed to preserve or strengthen contact and support for families. It links socio-legal inquiry to protections for children and caregivers.

SDGs: 3, 10, 16

'Learning from European Lives' (LEuLiv)

An Erasmus+ project develops biographical-learning methods for older adults aged 60+, for use in geragogy, gerontology, social work and nursing education.

The Erasmus+ 'Learning from European Lives' project (2024–2027) prepares biographical learning methods for understanding the lives of adults over 60. WSB University plans to integrate the methods into geragogy, gerontology, social work and nursing courses so future specialists can better understand ageing and lived experience. The project value is EUR 42,500, and course integration forms part of its planned outputs.

SDGs: 3, 4, 10, 17

Third Age University educational-needs research

Student researchers surveyed older people's educational, cultural and physical-development needs, producing an education model and reports for Third Age University programmes.

Artur Fabiś supervised a student-led study in 2023–2024 to identify the educational, cultural and physical-activity needs of older people taking part in Third Age Universities in Silesia and Lesser Poland. Members trained in SPSS and ATLAS.ti, conducted qualitative and quantitative research and individual interviews, then prepared a research report and a model for senior-learning offers with an emphasis on new technology. two scholarly papers and conference presentations, giving the project a clearly described method-to-output pathway.

SDGs: 3, 4, 10

Children's University network

WSB's Children's University network broadens access to scientific workshops; the 2023 issue notes the fifteenth anniversary of the Dąbrowa Children's University.

The Children’s University network provides sustained access to scientific workshops and lectures outside ordinary school curricula.

SDGs: 4, 10, 17

Third Age Universities for seniors

Senior universities and courses address lifelong learning, social participation and digital competence among older adults, complemented by empirical research on their needs.

Third Age Universities offer learning, social contact and competence development for older residents, including digital-skills education. The network should be considered both an education service and a platform for studying older people’s learning needs.

SDGs: 3, 4, 10

Polish-Czech AKCENT KOMP educational networks

Interreg Polish-Czech initiative strengthens school-to-school cooperation, teacher placements and cross-border learning networks.

Under Interreg Poland–Czechia, AKCENT KOMP ran from November 2024 to October 2027, with a published overall project value of EUR 327,317.19. It supports teacher networks through exchange, workshops and job shadowing. In May 2025, Polish and Czech teachers met near Racibórz to exchange practical experience of cross-border educational partnerships.

SDGs: 4, 10, 17

ACTIVE, ED-ON and ALPHABETTER education inclusion cluster

Across three Erasmus+ streams, WSB addresses civic competence, migrant-child inclusion and adult literacy, producing curricula, online learning and educator tools.

This combined label reflects three separately listed Erasmus+ interventions: ACTIVE for civic education, ED-ON for migrant-inclusive teaching and ALPHABETTER for functional literacy.

SDGs: 4, 10, 16, 17

European Solidarity Corps quality label

WSB received lead-organisation quality-label recognition for European Solidarity Corps volunteering and reported complementary hosting/support accreditation.

The European Solidarity Corps Quality Label permits the university to undertake volunteering activities in organisational roles recognised by the programme. It is best classified as a quality/eligibility milestone enabling future community projects rather than proof of how many people have already benefited from volunteering.

Additional activities and developments. A 13 January 2025 institutional announcement specifies the first WSB initiative supported by the European Solidarity Corps, scheduled for January–December 2025. The university intended to host volunteers from European countries in Dąbrowa Górnicza, Cieszyn and Kraków. The planned educational and civic activities covered diversity and inclusion, environmental awareness, digital literacy, youth dialogue and community involvement. WSB was to provide participant support through its academic library, social innovation hub, career office and research development units.

SDGs: 4, 10, 16, 17

United in Action volunteer project

European Solidarity Corps project focuses on inclusion, diversity, digital competences and social participation; the planned activity includes a cohort of 12 volunteers and an EUR 23,458 grant.

'United in Action' was financed by the European Solidarity Corps for 1 January–31 December 2025 and lists a value of EUR 23,458. Its plan combines intercultural inclusion, intergenerational dialogue, digital literacy, cultural events, environmental workshops and counter-disinformation tools.

SDGs: 1, 4, 10, 16, 17

Student Volunteer Club / service learning

The Student Volunteer Club supports community organisations serving people affected by poverty, homelessness and loneliness, with volunteer learning activities.

Student-volunteer activities address isolation, material hardship and community need, often combining practical service with reflection and cooperation with external organisations.

SDGs: 1, 3, 4, 10, 17

Student 4.0 against study drop-out

Alumni and Student Association's project addressed the risk of leaving university early and peer support/academic integration.

Student 4.0 is described as an intervention to identify and remove reasons students disengage from higher education, including digital and hybrid-teaching challenges. The programme developed e-learning materials and support mechanisms.

Additional activities and developments. The completed Student 4.0 programme reports e-learning components on distance-education competencies for nearly 5,000 first-year students, and interdisciplinary design-thinking participation by 20 students from seven degree programmes. Ministerial funding was PLN 57,248 against a total project value of PLN 63,609. The intervention combined large-scale digital support with smaller interdisciplinary activities.

SDGs: 4, 10

Employee/learner participation and support

The university describes participatory development of its strategic roadmap, services supporting students and disabled learners, and employee-development measures; results are mainly descriptive rather than annually comparable.

The participatory-university approach under the university’s 2021–2026 strategy involves consultation and support for students, staff, alumni and external stakeholders.

SDGs: 4, 8, 10, 16

Quality assurance and inclusion in learning

The institution highlights accessible blended teaching, financial/legal/psychological guidance, and course design responsive to learner needs as part of educational quality and inclusion.

Blended teaching, quality-assurance arrangements and practical disability accommodations help widen participation.

SDGs: 4, 5, 10, 16

Youth vs Fake News: media-literacy outputs delivered

An international Polish–Lithuanian initiative involving WSB and SMK College Vilnius delivered practical fact-checking and deepfake-awareness workshops. According to the completion notice, the teams created three social-media educational campaigns and a film, providing verifiable learner outputs against disinformation and for civic resilience.

Inclusive education ecosystem: SCWEW Jaworzno launch

WSB representatives contributed to a conference marking the development of specialised support for inclusive education in Jaworzno. The discussion addressed functional educational assessment, collaboration with parents and support for learners with complex needs. The University contributed specialist knowledge and discussion of inclusive education practices.

4. Health Research, Prevention and Care

Health research spans medical diagnostics, rehabilitation, clinical simulation, psychological wellbeing and patient-centred education. Student-led scientific projects combine healthcare questions with modern technology and practical training.

Health-related activities link clinical practice, student research and digital methods. The portfolio includes a tele-rehabilitation approach for children with cochlear implants, comparisons of traditional and digital stethoscopes in patient assessment, mobile support for chronic skin itching and studies concerning chronic conditions and treatment adherence. The relevant research questions are practical: whether technology can improve access to support, strengthen assessment or assist patients and healthcare professionals. These projects are complemented by scientific training and student research activities that help new researchers acquire methodological and clinical competencies.

WSB University also develops training conditions for healthcare fields through medical simulation and specialist laboratories. High-fidelity simulation allows learners to practise procedures and decisions in educational environments designed to resemble clinical situations. Interdisciplinary work in psychological wellbeing, physical activity, prevention and patient experience reinforces the connection between scientific inquiry and the preparation of future professionals. This combination provides a basis for responsible healthcare innovation that remains attentive to users, practitioners and the public health context.

Research in Focus

Applied research in health and inclusion

Children using hearing implants, patients needing timely assessment and people managing chronic dermatological symptoms can face access and care-continuity barriers.

Student teams tested a tele-rehabilitation care model with qualified cochlear-implant users and clinical visits; designed a comparative digital-stethoscope assessment and planned app-based monitoring of itching and scratching.

Projects and Initiatives

VR virtual-care model for cochlear implant children

Students designed a telemedicine-supported follow-up rehabilitation model for early-school-age children with cochlear implants, combining remote and traditional visits.

This student research-club project led by Patrycja Mickiewicz ran from 29 April 2023 to 29 April 2024. The model was built around early-school-age children with cochlear implants in Silesia,

including qualification visits, training on communicating with deaf people and on implant sound-processor settings, remote rehabilitation appointments using specialist telemedical infrastructure, and standard rehabilitation visits. A scientific conference presentation and a publication reporting results are described in the 2024 volume. The activities document a concrete applied-rehabilitation model, without reporting a controlled comparison of speech-development outcomes.

SDGs: 3, 9, 10

Comparison of digital and classic stethoscopes

Student medical rescue research planned to compare diagnostic usefulness of digital and conventional stethoscopes for pre-hospital patient care.

The medical-rescue student team ('360J') proposed a comparative study of digital and conventional stethoscopes, supervised by Kamil Skubis (29 May 2024–29 May 2025). Its central question is whether a digital device enables faster, more accurate prehospital assessment and improves referral to an appropriate treatment provider. The planned activities included research-skills training, a scientific article and an information brochure for professionals.

SDGs: 3, 9

Smartphone support for chronic itching

A student cosmetology project proposed remote monitoring of scratching episodes and skin-care recommendations through a mobile app and care model.

The cosmetology student research group, supervised by Marta Skorek and Ewa Szmaj-Kupny, sought to test remote assistance for adults experiencing persistent itching (27 May 2024–27 May 2025). The planned smartphone tool would record frequency and severity of scratching episodes and engagement with education and care advice, supporting a more individualised care model. intended scientific and practitioner reports.

SDGs: 3, 9

Anaesthesia pressure and tissue-injury risk

Research examines effects of medication-administration pressure during regional anaesthesia on tissue damage and proposes precise measurement to make procedures safer.

The 2025 applied health-research account examines how pressure and patient positioning during anaesthesia or clinical procedures relate to tissue damage and patient safety.

SDGs: 3, 9

BMI, medication adherence and chronic conditions

WSB researchers presented findings examining BMI and adherence to medication in chronically ill patients at an international research congress.

At the 2025 European Association for the Study of Obesity conference in Málaga, Monika Bąk-Sosnowska presented research on the relationship between body-mass index and medicine-taking behaviour among people with chronic conditions. The annual reports a more complex

pattern than a simple stereotype: while lower BMI correlated with adherence in one respect, participants with obesity displayed strong engagement in treatment.

SDGs: 3

Reproductive/sexual-health knowledge study

A WSB researcher presented student knowledge and opinions about emergency contraception at the 25th World Meeting on Sexual Medicine.

Daria Jorg presented a follow-up study on student knowledge and opinions concerning emergency contraception during the 25th World Meeting on Sexual Medicine in Rio de Janeiro in September 2024. The work compares a new stage with an earlier study initiated in 2016, illustrating longitudinal attention to health literacy.

SDGs: 3, 4, 5

Research on migration and religion narratives

Paulina Polko presented research on religious/nonreligious migration narratives and their implications for social integration at international academic meetings.

During a research visit to Daugavpils University in Latvia, Paulina Polko combined desk research, expert interviews and visits to the Belarus–Latvia border to examine migration governance and border protection. the University also documents participation in COREnet discussions and co-authored work about religious and political narratives of migration in Central and Eastern Europe.

SDGs: 10, 16, 17

Pro-social judo and youth health

WSB-led Judo project uses training and education to strengthen young people's health habits, social inclusion, confidence and pro-social attitudes beyond competitive performance.

The international pro-social judo consortium includes partners from Italy, Sweden, Spain and Czechia. The project involves assessment of healthy-lifestyle knowledge, club audits, joint workshops and youth-led health-promotion activities, followed by an international camp. Its aims include social inclusion of young athletes who may not have elite sporting results, illustrating a health-and-community approach beyond competition.

SDGs: 3, 4, 10, 17

COST physical activity determinants (DE-PASS)

Participation in COST CA19101 connects university researchers with comparative work on physical activity in different settings.

The DE-PASS COST network investigates determinants of physical activity through comparative, interdisciplinary research.

SDGs: 3, 17

Children's and young people's psychological health conference

WSB convened a research/practitioner conference on recognising and helping young people experiencing mental-health difficulties.

The conference on young people’s psychological health provided a platform for researchers and practitioners to exchange knowledge.

SDGs: 3, 4, 17

Research training on medical AI and telemedicine

The medical-research projects and conference programme describe empirical applications of digital tools, patient monitoring, clinical simulation and digital medical learning.

Across these student-club initiatives WSB offers research-methods training, supervised data collection and applied clinical or health-technology questions. The range includes tele-rehabilitation, diagnostic equipment and smartphone-supported care, but maturity and evidentiary strength differ by project.

SDGs: 3, 4, 9

Healthcare training and clinical simulation

The medical teaching infrastructure includes high-fidelity clinical simulation environments and technology for emergency and health-care instruction.

SDGs: 3, 4, 9

Research on PI3K/AKT/mTOR-related microRNAs in breast-cancer treatment

At the European Congress of Obstetrics and Gynaecology in Frankfurt in June 2025, WSB researchers presented molecular-medicine work on microRNAs associated with the PI3K/AKT/mTOR pathway and possible targeted therapeutic strategies for breast cancer.

The conference account characterises the research as a promising direction for reducing toxicity and treating aggressive cancer.

SDGs: 3, 9

CODE-YAA@PC-EDU – Inclusive Palliative-Care Education

WSB researcher Dr Aneta M. Kochanowicz participated in a Working Group 1 meeting in Helsinki, 16–18 March 2025, as a Polish Management Committee member of COST Action CA22127. The international action is designing a culturally appropriate, ethical and inclusive self-assessment instrument for palliative-care education. The research programme seeks to define quality indicators and a common assessment language across differing professional systems and cultural contexts. It connects pedagogy, healthcare education and equitable access to training.

5. Education, Future Skills and Research-Based Learning

Educational innovation connects research, interdisciplinary challenges and entrepreneurial practice. Programmes foster teacher development, student research, digital capabilities, science outreach, game-based learning and lifelong educational opportunity.

Innovative teaching projects develop the University's capacity to connect sustainability challenges with student learning. ENTER-CBL uses challenge-based approaches to entrepreneurship and responsible business models, while Game4Change explores game-based learning and participation in sustainability-oriented challenges. In 2025, a Game4Change event involved 60 students and 10 teachers in collaborative educational activities. Teaching Excellence, international study visits and programmes for school educators extend such approaches into faculty development, hybrid learning and digitally enabled pedagogy.

Learning innovation is also linked to equipment, experimentation and outreach. The 3D SMARTBOX initiative delivered six 3D printers to three schools in 2025, creating opportunities for practical technology education. Scientific festivals, public lectures, student research circles and research-oriented teaching programmes widen access to academic knowledge. These initiatives support the development of curiosity, collaboration, critical thinking and technological skills, while giving schools and communities opportunities to participate in research-informed education.

Projects and Initiatives

EduLider: green and digital economy

A Just Transition Fund-backed programme of PLN 5,145,206 supports students, secondary pupils, staff and businesses across Silesian transition subregions, including circular-economy training, laboratory equipment and transfer activities.

EduLider is funded from the European Funds for Silesia 2021–2027 under the Just Transition Fund and was scheduled for 1 February 2024–30 June 2026, with a reported project value of PLN 5,145,206. Activities include knowledge-transfer projects delivering applicable solutions for Silesian enterprises, improvements to teaching laboratories, and support for secondary-school pupils. Activities include high-fidelity medical-rescue simulators, a PBL/gamification virtual laboratory, logistics and traffic-management simulation, a cybersecurity laboratory, career-service development, mentoring and preparatory courses for young people. These are planned/project-scope components unless delivery is separately recorded.

SDGs: 4, 8, 9, 12

Teaching Excellence programme

The programme of faculty development integrates green and digital competences, problem-/challenge-based learning and SDG-oriented teaching; 2025 issue gives total project value PLN 3,366,575.67.

The programme places faculty capacity at the centre of sustainability-oriented curriculum change, with study visits, teaching-design workshops and digital pedagogical development. A November 2024 visit to Nottingham Trent University explored sustainability learning, curriculum practices,

green competences and stakeholder participation; a separate visit to POLIMI Graduate School of Management examined AI-supported learning and hybrid teaching environments. Both exchanges formed part of the Teaching Excellence project. Study visits are completed activities; later university-wide learning outcomes require separate evaluation.

SDGs: 4, 8, 12, 17

EduTrend: contemporary practical education

This project revises selected degree curricula, strengthens applied learning and incorporates green/digital competences, project-based methods and sustainability into instruction.

EduTrend extends curriculum transformation into more practice-based delivery, educator competence and learning environments. updating study programmes and methods to reflect changing industrial needs, digital technology and green competencies; it is a programme of reform rather than a completed evaluation of student achievement.

SDGs: 4, 8, 9, 12

ENTER-CBL / NextGen Entrepreneurs

Erasmus+ consortium develops Challenge-Based Learning for entrepreneurship and sustainable/circular business models; WSB reports international conferences and a bootcamp on sustainable cities.

The Erasmus+ EnterCBL consortium develops a Challenge-Based Learning approach in entrepreneurship education. Instead of asking students only to reproduce business concepts, the course model has teams frame real challenges, investigate their context, generate viable proposals and reflect on the sustainability of business models. the University describes international presentations of the project and the Istanbul student bootcamp; broader course outcomes should be separated from those documented events.

SDGs: 4, 8, 11, 12, 17

ENTER-CBL student bootcamp / sustainable cities

International teams worked on real-world urban problems and sustainable-city challenges within the ENTER-CBL student bootcamp.

At Istanbul Aydın University on 23–26 April 2025, international teams explored urbanisation, environmental protection and quality-of-life problems. WSB staff and students participated in a challenge-based learning process involving problem identification, research and the development of practical responses. The pilot focused on sustainable-city questions and collaborative learning.

SDGs: 4, 11, 12, 17

GAME4CHANGE entrepreneurship gamification

Partners developed gamified entrepreneurship modules, training and an openly accessible learning platform; 2025 reports a 'G4C Wars' learning activity focused on sustainable business.

The Game4Change partnership brings together institutions in Germany, Belgium, Slovenia, the Netherlands and the United Kingdom with WSB. Its design covers lecturer training in course gamification, student testing of selected modules and an open-access platform for sharing materials. During the G4C Wars bootcamp at WSB on 14–16 April 2025, 60 students and 10 teachers from more than seven countries used design workshops, a crisis simulation and a final pitch exercise to build sustainability-oriented business ideas.

Additional activities and developments. A Game4Change learning event brought together 60 students and 10 teachers to develop and discuss sustainability-oriented games, challenges and design-thinking concepts. Its value for the SDG report is the documented reach of hands-on learning.

SDGs: 4, 8, 9, 12, 17

ProjectGO VR sustainable project management

Students tested project-management scenarios in virtual reality, trained in qualitative research and surveys, wrote scientific papers and held an interdisciplinary conference; funded under 'Student Research Clubs Create Innovations'.

The student research team under Anna Śmiglewicz received support from the Polish 'Student Scientific Clubs Create Innovations' programme, with work running 29 April 2023–29 April 2024. Participants learned individual interviewing, the ATLAS.ti qualitative-analysis environment and online survey development before implementing an investigative scenario in virtual reality. They also prepared research papers, took part in a national project-management conference and organised an interdisciplinary research conference at WSB. These are unusually concrete research-training and dissemination outputs.

SDGs: 4, 8, 9, 12

Science through the Eyes of WSB Researchers II

This public-science project ran workshops for children in physics, chemistry, biology, ecology, IT and logistics, career workshops for young people and methodological training for teachers.

The second 'Science through the Eyes of WSB Researchers' project, financed under Poland’s Social Responsibility of Science programme, ran from November 2022 to October 2024. It organised workshops for children in physics, chemistry, biology, ecology, computing, logistics and transport; older pupils attended seminars on languages, economics and career choices; teachers were offered contemporary teaching and pedagogical-therapeutic approaches, including a methodology forum.

SDGs: 4, 9, 10

Inductive science and mathematics pedagogy

A transnational project develops science-teaching resources and trials that emphasise student observation, experimentation and induction.

This Erasmus+ programme develops practical methods for learning science and mathematics by observation, experimentation and analysis rather than teacher-led memorisation aloneThe programme includes curriculum and materials review, development of quality criteria, lesson

scenarios, experiment instructions and visual resources, educator workshops and pilot teaching activities in primary schools. The model anticipates assessing pilot usefulness before recommendations are released.

SDGs: 4, 9, 17

3D SMARTBOX school education

The project integrates 3D printing into schools to support hands-on interdisciplinary STEM/arts learning, teacher training and student engagement.

3D SMARTBOX appears as a technology-enhanced learning initiative to make complex topics more engaging through three-dimensional resources.

Additional activities and developments. Within the Erasmus+ 3D Smartbox initiative, WSB University transferred six 3D printers to three schools: III Bilingual Secondary School in Zabrze, Primary School No. 8 in Dąbrowa Górnicza and III Secondary School in Dąbrowa Górnicza. Teachers from the participating schools had already undertaken international training on the technical and pedagogical uses of 3D printing. The intervention was designed to enable hands-on, problem-oriented lessons and to connect curriculum content with practical design and prototyping.

The equipment distribution to named schools and teacher training are documented 2025 outputs. The classroom piloting, pupil learning outcomes and forthcoming Design Thinking Lab workshops were future activities at the reporting date.

Additional activities and developments. Within Erasmus+ 3D SMARTBOX, WSB reported transferring six 3D printers to three schools in Zabrze and Dąbrowa Górnicza and organising preparation for teachers.

SDGs: 4, 9

SmartStart Teacher Academy / AI in teacher education

Erasmus+ Teacher Academy consortium, with WSB as a partner, develops teachers' and student teachers' capacity to integrate AI-supported digital media into pedagogy; 2025 edition reports a consortium of 12 partners and a planned 36-month period.

SmartStart Teacher Academy addresses professional learning for educators, including how AI-enabled methods can be integrated into classroom practice. The initiative recognises the need for educator judgment alongside digital tools; the 2025 report gives the programme direction rather than measured student attainment results.

Additional activities and developments. SmartStart Teacher Academy (project no. 101196580) connects 12 universities and education organisations across seven European countries under an Erasmus+ Teacher Academy initiative. Its purpose is to research and implement pedagogically appropriate applications of AI-based digital media in primary and secondary classrooms, including approaches to personalised learning and linguistic diversity. WSB University and the University of the National Education Commission in Kraków co-lead research concerning the integration of AI-enabled media into day-to-day teaching. A proposed AI-assisted translation instrument is intended to facilitate multilingual classroom practice and international professional exchange.

The SmartStart Teacher Academy programme runs from 1 April 2025 to 31 March 2028. It has an EU contribution of EUR 1,499,898.54 and a total consortium value of EUR 1,874,873.16. Activities begun in 2025 established the partnership and its research and teacher-development agenda.

SDGs: 4, 9, 17

SPARK-COIL pedagogical capability building

WSB delivered Champions Training under the capacity-building SPARK-COIL project and participated in the Philippines launch to build capacity for collaborative online international learning.

The SPARK-COIL Capacity Building in Higher Education partnership is coordinated by Ateneo de Manila University and involves four other Ateneo network institutions plus Xavier University, WSB and the University of Alicante. At the 19–21 February 2025 launch, WSB representatives contributed sessions on quality assurance, internationalisation and practical Collaborative Online International Learning. A hybrid closing session reached more than 100 online attendees. these completed activities; development of institutional COIL ecosystems remains the longer-term project objective.

SDGs: 4, 8, 9, 17

GITEKA competences for future learning

WSB took part in a Cluj-Napoca project visit oriented towards building future-oriented competences and educational cooperation.

At a May 2025 study visit in Cluj-Napoca, GITEKA partners from Poland, Albania, Kosovo and Romania discussed bridging higher education with industry needs. Workshops explored labour-market relevance, green competences, design and creativity, inter-institutional exchange, microcredentials and alternative learning pathways. These are project-development activities rather than evidence that new qualifications had already been awarded.

SDGs: 4, 8, 9, 17

VR4Skills internationalisation training

A VR-enabled training framework for internationalisation staff was tested and showcased at a concluding conference in 2025.

VR4Skills targets experienced university administrative staff working on internationalisation. The consortium plans a competence-gap assessment, training modules and virtual-reality scenarios to help staff respond to complex intercultural and organisational situations. Partners include institutions from Belgium, Slovenia, Türkiye and the Netherlands. The work focuses on developing training resources and a practical competence framework.

SDGs: 4, 9, 17

Dual higher education in Moldova and Ukraine (COOPERA)

An international capacity-building project explores dual higher education, links between studies and employment, and improved graduate employability in Moldova and Ukraine.

The COOPERA partnership links institutions and public education authorities in Moldova and Ukraine with European universities to align degree learning with actual work-based skills. It focuses on dual study formats, smoother transitions into employment and stronger university-enterprise relationships

SDGs: 4, 8, 9, 17

Science Festival 2023: community research engagement

The 19th Science Festival delivered 80 talks, debates, scientific demonstrations and performances across 20-25 March 2023, with participation reported by the university.

The 2023 Science Festival connected research topics with public lectures, debates and hands-on activities, extending academic discussion to residents, pupils and local partners. Its SDG relevance is public engagement.

SDGs: 4, 9, 17

Science Festival 2024: Tech for Good and diversity

The 20th Science Festival organised 60 events with 11,200 participants; strands included diversity/equality, technology and sustainable development ('Tech for good').

The 20th Science Festival, held 18–22 March 2024 and organised with the City of Dąbrowa Górnicza, comprised 60 lectures, discussions and demonstrations attended by 11,200 participants. Themes included equality and diversity, people and technology, 'Tech for good', the digital transformation and the digital economy.

SDGs: 4, 5, 9, 10, 12, 17

Science Festival 2025: month-long programme

A broader programme of science popularisation across the university’s communities and partner locations. It provides science-focused events and learning activities for school and community audiences.

SDGs: 4, 9, 17

Job and Internship Fair 2024

The fifteenth fair involved 50 employers presenting nearly 1,200 job/internship opportunities and offered 17 trainings, 10 presentations and 60 interview simulations.

The job and internship fair connected university learners with employers and career opportunities. Its relevance to decent work is support for labour-market entry.

SDGs: 4, 8, 10, 17

Cross-border education for mountain rescuers (MREdu)

WSB describes cross-border mountain-rescue education for Polish and Slovak teams within its sustainable-development-oriented applied-project portfolio.

The MREdu strand of Polish-Czech mountain-rescue cooperation supports cross-border exchange of rescue competencies and public safety training. Its connection to sustainability is safer access to natural environments and regional cooperation.

SDGs: 3, 4, 11, 17

Nottingham Trent University and POLIMI sustainability teaching study visits

Through the Teaching Excellence programme, WSB lecturers completed two study visits in November 2024, to Nottingham Trent University and POLIMI Graduate School of Management.

The Nottingham programme examined the design of sustainability-oriented teaching, green competences and engagement of stakeholders. POLIMI provided examples of hybrid classrooms, educational uses of AI and campus development conceived with sustainability considerations. The visits are demonstrable faculty development activities, while their influence on subsequent curricula would require follow-up evidence.

SDGs: 4, 9, 12, 17

RESEARCH – Bringing Research to Schools

This Erasmus+ cooperation project (2025-1-CZ01-KA220-SCH-000363078) was inaugurated with a transnational project meeting in Prague on 14 November 2025. Its target group is pupils aged 13–18 and their teachers. The consortium seeks to integrate the full research cycle into secondary education: asking questions, collecting and assessing evidence, interpreting data and reporting findings. Planned resources include a RESEARCH School Toolkit, classroom research tasks, piloting in partner schools and a practical guide for scaling inquiry-based education. WSB contributes methodological support and planned evaluation of teaching effectiveness through Prof. Artur Fabiś and Dr Michał Szyszka.

Work initiated in 2025 included the project launch, work planning, allocation of responsibilities and the design of research and evaluation activities. Classroom pilots were scheduled for subsequent stages.

Additional activities and developments. WSB joined partners in Prague for the RESEARCH project to build student-centred research skills in secondary schools for pupils aged 13–18. A toolkit and practical school trials were proposed for subsequent project stages.

Scientific Research and Publications

Evidence about employee engagement and healthy working environments

Scientific publication: Katarzyna Szczepańska-Woszczyna and Regina Bogaczyk. “Klimat organizacyjny i zaangażowanie pracowników – perspektywa pracownika i menedżera w przedsiębiorstwach międzynarodowych”. Przegląd Organizacji (2023), pp. 294–308.

The authors analysed a CAWI survey of 835 employees connected with multinational enterprises and found a strong positive association between organisational climate and employee engagement. Relevant aspects include autonomy, fairness in rewards, flexibility and psychological safety.

SDGs SDGs 3, 8

6. Territorial Cooperation, Governance and Security

Research into regional development and cross-border cooperation supports more capable public institutions, territorial resilience and sustainable governance. Projects also investigate infrastructure, transport corridors, crisis preparedness, civic participation and information security.

Borders, institutions and public safety form a distinctive area of WSB University research. Comparative research explores cooperation among neighbouring regions, the governance of shared environmental problems and the effects of economic and political change on cross-border relationships. The Polish–Czech context includes studies connected with the Turów mining dispute, low-carbon economic development and the institutional conditions of regional resilience. Research on the EU–Ukraine transport border has also produced analytical work concerning freight routes, railway and road capacity, multimodal terminals and bottlenecks in transport infrastructure.

Public-security work addresses preparedness and organisational cooperation in settings such as large public facilities, events and transport systems. Projects concerned with CBRN and CBRNE readiness, crisis management and safer public spaces combine technology with institutional procedures and professional competence. Other research examines governance, public participation, political drivers of urban violence and the reliability of information. Together, these activities demonstrate why sustainable communities depend on trusted institutions, coordinated decision-making and the ability to manage complex risks.

Research in Focus

Cross-border environmental disputes and territorial trust

Conflicts around energy, transport and national borders can compromise trust and collaborative problem-solving within the same functional region.

The Turów research combined field visits and focus groups with local stakeholders to study effects of a mining dispute. Related studies examined energy/climate governance on the Polish-Czech border, EU–Ukraine freight crossings and usable cross-border cooperation practices.

Projects and Initiatives

Resilient Borders and cross-border planning

WSB researchers were involved in 'Resilient Borders' and cross-border functional-area planning, including Polish-Lithuanian cooperation and shared planning guidance.

The territorial-resilience strand examines the capacity of neighbouring border regions to preserve cooperation through administrative, security and economic disruption. This research considers cross-border policy, institutions and territorial relationships alongside technical infrastructure.

SDGs: 11, 16, 17

Territorial and inter-organisational cooperation institute

The Institute researches cross-border governance, borderland resilience and inter-organisational coordination, participates in scientific networks and produces comparative publications.

The Institute for Territorial and Inter-Organizational Cooperation is a multi-year research structure bringing together comparative work on borders, local policy, cross-border transport and regional development. The Institute sustains collaboration, projects and scientific dissemination. Its continuing work provides a platform for interdisciplinary inquiry and international exchange.

SDGs: 8, 11, 16, 17

EUREGIO INFO knowledge platform

The Czech-Polish EUREGIO INFO project created a cross-border information/knowledge platform for institutions and local public bodies in the Cieszyn Silesia Euroregion.

EUREGIO INFO is described as an information and knowledge-exchange mechanism to make border-region practices and policy analysis accessible across institutions.

SDGs: 9, 11, 16, 17

CBC in Ukraine and V4 best practices

Research partners in Visegrad countries and Ukraine sought to identify transferable cross-border cooperation practices relevant to Ukrainian border communities and EU integration.

A Visegrad–Ukraine consortium of five research organisations sets out to identify workable examples of cross-border cooperation that could help Ukrainian border communities in the context of prospective EU integration.

SDGs: 11, 16, 17

EU–Ukraine freight border infrastructure

A multi-country research partnership assessed Ukraine-EU border-crossing capacity and options to increase land-based freight exports and institutional cooperation.

This project investigates infrastructure and procedures on EU–Ukraine freight crossings, where administrative and transport bottlenecks can affect trade, regional economic resilience and sustainable logistics. Its findings support improved analysis of border connectivity rather than providing a measured decline in emissions or travel time.

SDGs: 8, 9, 11, 17

Minibreweries and regional tourism V4

Research across Visegrad countries examines regional tourism and SME development associated with small breweries, with a planned transnational database.

The Visegrad study examines microbreweries in Poland, Czechia, Slovakia and Hungary as local enterprises embedded in tourism networks. The partners planned to compile a comparative database across four countries over three years and examine how small producers contribute to tourism and community-level economies. The work contributes to understanding local entrepreneurship, tourism networks and regional economies.

SDGs: 8, 9, 11, 12

COST religious diversity and migration network

Researchers participated in European COST actions examining migration, religion and cultural diversity; engagements relate to transnational knowledge exchange rather than directly measured policy impact.

The COREnet network investigates religion, migration, integration and public narratives across European societies. The 2025 coverage names co-authored research on narrative cafés and changing political narratives regarding refugee crises in several Central and Eastern European countries. Its principal contribution is comparative and interdisciplinary knowledge useful to dialogue and public institutions.

SDGs: 4, 10, 16, 17

Open and safe places of worship (ProSPeReS)

The EU security project developed a 'Security by Design Guidebook for Religious Sites' and brought stakeholders from diverse faith communities together to improve safety while retaining access.

The ProSPeReS project on open and safe religious spaces explored how sites open to the public can maintain accessibility while addressing security risks. This is a policy-and-practice issue balancing freedom of religion, community inclusion and safety.

SDGs: 9, 11, 16, 17

Mall-CBRN and SAFE STADIUM large-venue protection

EU collaborative research explored risks in shopping centres and major sports facilities involving chemical, biological, radiological and nuclear threats; the 2024 issue documents closing conferences.

SAFE STADIUM and related CBRN/large-venue research address emergency preparedness at public gatherings through scenario work, organisational practices and technology. The 2024 issue records a project final conference on integrated protection of large sports facilities. Participation and delivered research activities should be distinguished from operational effectiveness under real attacks.

Additional activities and developments. Contemporary communications on SAFE STADIUM and related European security initiatives describe research and training supporting CBRN risk preparedness at large venues, including guidelines for emergency management, evacuation and audience safety. This is a significant SDG 11/16 application of research beyond campus. Distinguish deliverables prepared by WSB from wider consortium outputs.

SDGs: 9, 11, 16, 17

University universal CBRNE safety framework

An Internal Security Fund consortium plans shared threat assessment, procedures and testing for safer yet open campuses; total project value is reported as EUR 3,333,332.48 for the project.

The 'Universal CBRNE Protection System Supporting the Safety and Open Nature of Higher Education Institutions' runs from 1 March 2025 to 29 February 2028, financed from the Internal Security Fund, with a listed total value of EUR 3,333,332.48. Its challenge is to preserve universities' open culture while addressing chemical, biological, radiological, nuclear and explosive risks.

Additional activities and developments. The international UNICOPS initiative was publicly introduced as a collaboration intended to strengthen open and safe higher education in the face of CBRNE hazards. Planned activities included vulnerability assessment, staff training and virtual reality-enabled learning.

SDGs: 4, 9, 16, 17

City-level violence and political drivers research

Metropolitan research with visiting scholar Eduardo Moncada investigated how local political factors shape urban violence and public safety.

During May 2023, WSB hosted Eduardo Moncada of Columbia University for comparative research on urban violence. Researchers analysed available crime statistics for GZM cities and conducted interviews with the mayors of Katowice, Dąbrowa Górnicza and Sosnowiec. This was the first phase, followed by planned comparisons with Latin American cities and scientific publications. The work connects public safety with local political institutions rather than a measured fall in crime.

SDGs: 11, 16

Public governance and climate conference 2023 'Green Silesia'

The second 'Transformation of Silesia: Green Silesia' conference presented innovations and perspectives on regional green transition.

The 'Green Silesia' debate and local-government-facing conference discussions examine sustainable transformation of post-industrial areas, including institutional choices and the relationship between research and regional development. The event supported dialogue and knowledge exchange on the sustainable transformation of post-industrial regions.

SDGs: 7, 11, 13, 17

Higher-education and public-policy participation

WSB reports involvement in policy labs, university strategy stakeholder dialogue and research on governance systems, including international border-region policymaking.

University contributors participate in local-development strategy work, research councils and consultations connecting scholarship to public policy. The relevance to SDGs 11, 16 and 17 is better capacity for evidence-informed choices.

SDGs: 4, 11, 16, 17

European policy and social protection networks COST

Participation in COST actions on citizenship documents, non-territorial autonomy, social diversity and human-machine languages provides an international interdisciplinary research platform.

Other COST and international policy networks support comparative research in social welfare, migration, regional governance and cross-border arrangements. Their activities support academic networks, shared analyses and scholarly exchange.

SDGs: 4, 10, 16, 17

Scientific Research and Publications

Public participation, audits and anticorruption governance

Scientific publication: Oleksii Lyulyov and Tetyana Pimonenko with international co-authors. “Good Governance within Public Participation and National Audit for Reducing Corruption”. Sustainability (2023).

The study used panel and regression analysis of 30 Chinese provinces over 2008–2017 to examine how participation in national auditing relates to anticorruption governance. It identifies institutional mechanisms through which audit oversight and public participation may deter corrupt behaviour.

SDGs 16, 17

Comparative climate policy in cross-border regions

Scientific publication: Francesco Cappellano, Joanna Kurowska-Pysz and Andrzej Jakubowski. “A comparative policy approach to climate change in cross-border regions”. Regional Science Policy and Practice 17(12), 100241.

This peer-reviewed 2025 research contributes a comparative public-policy perspective to the study of climate change in cross-border areas. It is of particular relevance to territorial cooperation, local adaptation governance and harmonisation challenges in border regions.

SDGs 11, 13, 16, 17

7. Research Partnerships, Innovation and Knowledge Transfer

Sustainable impact emerges from collaboration among higher education, government, business, civil society and international research networks. The University coordinates or joins alliances that expand research capacity, share specialist knowledge and develop applied innovations.

International and regional partnerships enable the University to bring together varied forms of knowledge and to undertake more complex work than a single institution could pursue alone. Q-Helix is structured around the Quintuple Helix model, connecting universities, business, government, communities and the environment. Other consortia address educational innovation, technological skills, participation and scientific excellence. Such partnerships support both research development and the adaptation of methods across countries and disciplines.

Collaboration is also visible in research capacity building and engagement with enterprises. The PERFECT programme supported 26 research grants, more than 170 scientific papers and extensive academic development and international cooperation across its implementation period. Science4Business, which WSB joined in November 2025 in a consortium with KOMAG and Jan Długosz University, extends the focus to commercialisation opportunities and technology transfer. These activities connect research production with pathways through which new knowledge may contribute to institutions, industry and wider society.

Research in Focus

Q-Helix as a Quintuple Helix research agenda

Sustainability problems require integration of scientific capability with industry, government, civil society and environmental considerations.

WSB leads an 11-university, 10-country European Universities alliance proposal. the University describes research strands in health, security, environmental conservation and smart cities, including IoT-based environmental sensors and assistive smart-home concepts.

Research capacity and measurable programme outputs

The ability to perform long-term sustainability research depends on trained staff, funded research work and collaboration with external users.

PERFECT provided academic development and research-grant support within a Regional Initiative of Excellence, intersecting with the work of WSB’s institute focused on territorial and inter-organisational cooperation.

Cumulative programme activity: 26 research grants, >170 journal papers, >130 conference participations and 240 research staff development participations. .

Projects and Initiatives

Research clubs/interdisciplinary scientific conference

The second Interdisciplinary Student Research Clubs Conference showcased cross-disciplinary student projects and collaborative methods.

Student scientific clubs provide students with opportunities to formulate projects, present findings and develop cross-disciplinary skills. A 2025 conference disseminated student research, some of which relates to health, sustainability and technology.

Additional activities and developments. Three supported student research projects targeted comparison of digital and traditional stethoscopes (PLN 60,400), smartphone-based tools for assessing persistent skin itching (PLN 64,700) and simulated public-building safety in the Metaverse (PLN 40,000).

Additional activities and developments. International blended-intensive teaching hosted by WSB brought participants from multiple European universities to examine urban regeneration, demographic change, social participation and environmental problems. Student teams designed, tested and presented prototypes for social innovation.

SDGs: 4, 9, 17

Regional social and economic impact assessment

University representatives reported regional-impact assessment using 120 indicators across seven areas, including social, economic, academic and image effects.

The institution's regional-impact exercise assessed its contribution across 120 indicators and seven broad fields of regional impact, covering education, the economy, research, society and reputation.

Additional activities and developments. WSB announced three GZM Metropolitan Science Support Fund grants, covering research into urban violence, ethical-finance approaches and outreach to secondary education, with international academic collaborators.

SDGs: 8, 11, 17

PERFECT Regional Initiative of Excellence

The concluded programme reports 240 staff development trainees, 130+ conference participations, 26 research grants, more than 170 journal papers, 37 stakeholder organisations cooperating with institute experts, and 43+ visiting foreign researchers.

The 2019–2023 Regional Initiative of Excellence (PERFECT) strengthened WSB University's research capacity. Cumulative activities included 26 research grants, more than 170 scientific papers, more than 130 conference participations, 240 staff-development participations and collaboration with over 43 international scholars.

SDGs: 4, 9, 16, 17

Research publications on security, management, and cities

WSB books and indexed journals, including Security Forum and Forum Scientiae Oeconomia, as channels for publishing research relevant to governance and social outcomes.

The University showcases research dissemination through scientific articles and international presentations in security studies, management, health and urban questions. Individual publication titles should be mapped to SDGs only when their subject is explicit; an article's existence is evidence of scholarly activity.

SDGs: 4, 9, 11, 16

ESG and responsible business conferences 2023

Conferences on female perspectives on ESG, socially responsible business and the economic, social and ecological aspects of sustainable enterprises.

Responsible-business and ESG-themed conference participation offers public dissemination of sustainable management topics. Such conferences can support shared understanding of reporting, circular business models and corporate responsibility.

SDGs: 5, 8, 12, 13, 17

Q-Helix inclusive European University alliance

WSB leads 11 universities from 10 countries developing a Quintuple-Helix agenda in security, health, environmental restoration, smart cities and education; European Commission Seal of Excellence recognises the proposal.

The Q-Helix concept is built on the Quintuple Helix model, explicitly linking higher education, business, public authorities, civil society and the natural environment. WSB leads a consortium of 11 universities from 10 European countries, and the European Commission awarded the proposed European Universities alliance a Seal of Excellence.

SDGs: 3, 4, 9, 10, 11, 13, 16, 17

Q-Helix research and cross-sector work

The alliance's proposed approach links stakeholder-engaged fieldwork and interdisciplinary teams with conferences, thematic schools and knowledge outputs for its strategic pillars.

Interrelated research and education pathways covering security, holistic health, conservation and restoration of the environment, and smart-city systems. Illustrations include connected air and climate sensors, household energy monitoring, smart access systems and assistive smart homes for older people.

SDGs: 3, 9, 11, 13, 17

Science4Business – Science for Business

The university joined this partnership on 7 November 2025 under the Polish Science4Business programme financed through European Funds for a Modern Economy. WSB University leads a consortium with the Mining Technology Institute KOMAG and Jan Długosz University. The initiative aims to identify applied research and experimental-development outcomes with commercial potential, build links between researchers and enterprises, assess technical and market readiness, and support the transfer of know-how to business. Its planned work includes mapping university research capabilities, promoting technology portfolios, assisting industrial research and experimental development, and developing technology-transfer staff and shared tools.

The wider Science4Business programme totals PLN 296.7 million, while the WSB/KOMAG/UJD consortium project has a value of PLN 9,399,862. WSB University joined the consortium in November 2025 to develop knowledge-transfer capacity and cooperation with enterprises.

Five newly funded Erasmus+ projects

WSB announced GIRLS4ECONOMY (young women and economic opportunity), 3D SMARTBOX (school 3D printing), REBUILD (sustainable rebuilding after disasters/conflict), GITEKA (green industrial skills) and SPARK-COIL (collaborative international online learning).

Regional innovation ecosystem: Śląski Fundusz Rozwoju

A cooperation letter between WSB and the Silesian Development Fund outlined plans to support entrepreneurship and startups through workshops, mentoring, financing information and specialist knowledge exchange.

8. Contribution to the Sustainable Development Goals

The projects, programmes and scientific activities described above contribute to a range of Sustainable Development Goals. The table highlights specific areas of work and representative initiatives, focusing on objectives for which identifiable research or practical activity was undertaken.

SDG	Area	WSB University initiatives
SDG 1	No Poverty	Social innovation, student employability, social inclusion and community volunteering.
SDG 3	Good Health and Well-Being	Telemedicine and rehabilitation research, diagnostic tools, psychological wellbeing and clinical simulation.
SDG 4	Quality Education	Accessible learning, Challenge-Based Learning, AI-supported teaching, lifelong learning and student research.
SDG 5	Gender Equality	EQUATION, institutional gender equality planning and women's academic and professional development.
SDG 6	Clean Water and Sanitation	Water literacy through SHORE, river-basin education and studies of environmental protection.
SDG 7	Affordable and Clean Energy	Renewable energy education, low-carbon cross-border cooperation and energy-transition partnerships.
SDG 8	Decent Work and Economic Growth	Workforce skills, enterprise innovation, professional training and just-transition research.
SDG 9	Industry, Innovation and Infrastructure	Technology transfer, digital infrastructure, smart-city research and applied student innovation.
SDG 10	Reduced Inequalities	Disability access, inclusive education, migration support and intergenerational learning.
SDG 11	Sustainable Cities and Communities	HEIsCITI, metropolitan research, barrier-free transport and urban resilience.
SDG 12	Responsible Consumption and Production	Green management, responsible business, circular practices and environmental education.
SDG 13	Climate Action	Climate governance studies, energy transition, flood-safety research and regional resilience.
SDG 14	Life Below Water	SHORE environmental education and ocean and freshwater awareness.
SDG 15	Life on Land	Interdisciplinary research on environmental security, nature protection and land-use considerations.

SDG 16	Peace, Justice and Strong Institutions	Cross-border trust, research on public safety, responsible governance and media literacy.
SDG 17	Partnerships for the Goals	Q-Helix, regional research ecosystems, international consortia and university–industry collaboration.

9. Perspectives for Sustainable Research and Innovation

The activities pursued from 2023 to 2025 demonstrate the breadth of WSB University's role in knowledge development and practical problem-solving. Research on the climate transition, smart cities, accessible services and responsible institutions complements programmes that develop the skills needed to turn knowledge into action.

For the period ahead, the work of international alliances and local partnerships provides opportunities to deepen cooperation between scientific teams, students, regional authorities, community organisations and industry. Scientific collaboration, digital and green innovation, and inclusive educational models remain complementary foundations of sustainable development.

Through research, teaching and community engagement, WSB University seeks to connect academic excellence with tangible opportunities for healthier communities, responsible technological change, resilient regions and wider access to knowledge.