



International scientific conference

Sustainable Development and Other Paradigms and Concepts in the Context of Contemporary Civilizational Trends – Global and Local Dimensions

September 10 - 11, 2026, Lodz POLAND

Conference venue:

- ❖ September 10, 2026: Faculty of Economics and Sociology, University of Lodz; 3/5
Polskiej Organizacji Wojskowej Street, 90-255 Lodz, Poland
MAIN ENTRANCE: 41 Rewolucji 1905 r. Street
- ❖ September 11, 2026: Faculty of Management, University of Lodz, 22/26 Jana Matejki
Street, 90-237 Lodz, Poland

CONFERENCE PROGRAM



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Thursday, September 10, 2026

Conference venue: **Faculty of Economics and Sociology, University of Lodz; 3/5
Polskiej Organizacji Wojskowej Street, 90-255 Lodz**

MAIN ENTRANCE: 41 Rewolucji 1905 r. Street

08:00 – 09:00, Conference registration, the main hall at the auditorium No. T1

09:00 – 09:15, Conference Opening, Auditorium/lecture hall No. T1

- Małgorzata Burchard-Dziubińska, University of Lodz, Poland
- Welcome by Ewa Kusideł, University of Lodz, Vice-Dean, Faculty of Economics and Sociology

09:15 – 10:30, Keynote speech, Auditorium/lecture hall No. T1

Chad Boda, Malmö University: *From capital to capability in the pursuit of a Sustainable Development*

10:30 – 11:00, Coffee break, the main hall at the auditorium No. T1

11:00 – 13:00, Parallel sessions 01-05

Parallel session 1: “IT technologies for Sustainable Development” (Main Track)

11:00 – 13:00, Lecture room No. E13

Chairperson: Karol Mrozik, Poznań University of Life Sciences

- Larissa Koch de Souza and Martin Engstler: *Environmentally Informed GenAI Use in ITSM: A Problem Analysis of Organisational Use-Case Decision-Making*
- Friedhelm Hosenfeld and Kay Krüger: *Web-based management and analysis of nature conservation measures in Schleswig-Holstein – current developments*
- Lea Catharina Nicolaus, Marie Charlotte Epp, Kevin Jacob Bärwald, Mone Sinara Senz, Maximilian Deharde and Frank Fuchs-Kittowski: *A Web-Based VR-Testbed for Situated Urban Heat Visualization: GIS Data Pipeline, Visualization Variants, and Design Implications for Mobile AR*
- Houssam Kanso and Salim Khazem: *Sustainability-in-the-Loop for Artificial Intelligence: Integrating Sustainability into LLM Routing*

Parallel session 2: “Artificial Intelligence for Sustainability”

11:00 – 13:00, Lecture room No. E12

Chairperson: Grit Behrens, University of Applied Sciences, Bielefeld, Germany

- Aleksander Orłowski, Cezary Orłowski, Artur Ziolkowski and Grit Behrens: *Selection Method of AI-LLM for processing Big Data in the Development of Cities Strategic Environmental Documents*
- Kostas Karatzas, Theodosios Kassandra, Evangelos Bagkis, Thomas Tasioulis, Labrini Adamopoulou and Panagiotis Chrysosvitsiotis: *LLM-Assisted Information Provision for Urban Atmospheric Environmental Quality Based on Spatially Aware Machine Learning Data Fusion*
- Paul Schulze, Andreas Abecker, Matthias Budde, Stefan Lossow, Michael Nestler, Heino Rudolph and Frank Fuchs-Kittowski: *An AutoML Platform for Environmental Agencies: An Approach to Transferable Modeling Using Air Pollutant Forecasting as a Case Study*
- Krzysztof Wójcik, Dorota Kudlicka: *Developing an AI-assisted research tool for assessing policy coherence in municipal climate adaptation planning*

Parallel session 3: “Green Coding”

11:00 – 13:00, Lecture room No. E026

Chairperson: Volker Wohlgemuth, HTW Berlin, Germany

- Maximilian Jahns, Dennis Junger, Volker Wohlgemuth and Geerd-Dietger Hoffmann: *Windows Integration into the Green Metrics Tool: Energy Measurement of Native Windows Applications via RAPL*
- Dennis Junger, Volker Wohlgemuth and Hans-Knud Arndt: *Green Coding and ITSM: Literature Review and Integration Perspectives for ITIL and ISO/IEC 20000*
- Max Westing and Stefan Naumann: *Towards a Taxonomy of ICT and Software Sustainability Assessment Instruments*
- Dennis Junger, Nick Kriesing Garcia and Volker Wohlgemuth: *Joint Evaluation of the Green Coding Roadmap Training*
- Danila Valko and Jorge Marx Gómez: *Toward a Framework for Performance and Carbon Footprint Assessment of Payment Channel Network Solutions*
- Dennis Junger, Kevin Jacob Bärwald, Marie Charlotte Epp, Lea Catharina Nicolaus, Ramona Pangerl, Stefan Schlegel and Volker Wohlgemuth: *Green Browsing – Comparing Energy Consumption of Modern Web Browsers*

Parallel session 4: “Environmental Management Software”

11:00 – 13:00, Lecture room No. E10

Chairperson: Tomasz Dorożyński, University of Lodz, Poland

- Moritz Homberger, Oskar Carstensen and Jochen Wittmann: *Automated Geoprocessing for Infrastructure-Coupled Pluvial Flood Risk Assessment*
- Łukasz Szatata, Grit Behrens, Cezary Orłowski and Rafał Grzeszczyk: *Air Quality Knowledge as a Driver of Computing Competences: An International Project-Based Learning Project*
- Martina Willenbacher and Volker Wohlgemuth: *Integrated Life Cycle Sustainability Assessment of a Hybrid Biochemical – Thermochemical Pathway for Slaughterhouse Waste Valorisation*
- Monika Komušanac, Borna Mažar, Ivan Nađ: *Population Ageing and Mortality Forecasting in Croatia: Implications for Sustainable Development*

Parallel session 5: “Polityczne i instytucjonalne rozwiązania na rzecz zrównoważonego rozwoju” (in Polish)

11:00 – 13:00, Lecture room No. E029

Chairperson: Andrzej Graczyk, Wrocław University of Economics and Business, Poland

- Bogusław Fiedor: *Sukces polskiego modelu transformacji i energetyczno-klimatyczne uwarunkowania jego trwałości – perspektywa ekonomii politycznej*
- Agnieszka Sobol: *Commons – refleksje nad złożoną kategorią ekonomiczną w ujęciu polityki klimatycznej*
- Urszula Motowidlak: *Budowanie odpornych łańcuchów dostaw dzięki dynamicznym możliwościom opartym na ESG: Studium porównawcze europejskich firm logistycznych*
- Barbara Pawłowska, Beata Chmiel, Agnieszka Szmelter-Jarosz: *Ekonomia obwarzanka jako narzędzie transformacji miasta w kierunku zrównoważonego rozwoju: doświadczenia Gdańska*
- Elżbieta Antczak, Agnieszka Rzeńca, Agnieszka Sobol: *Pomiar i ocena zrównoważonego rozwoju polskich miast – ujęcie zintegrowane*

13:00 – 14:00, Lunch Break, the main hall at the auditorium No. T1

14:00 – 15:30, Parallel sessions 06 - 11

Parallel session 6: „Środowisko przyrodnicze w budowaniu odporności systemu społeczno-gospodarczego” (in Polish)

14:00 – 15:30, Lecture room No. E13

Chairperson: Katarzyna Skorupińska-Cieślak, University of Lodz, Poland

- Wioletta Wrzaszcz, Konrad Prandecki: *Emisyjność rolnictwa towarowego – progres czy regres?*
- Karol Mroziak: *Cele środowiskowe a oczekiwania mieszkańców w procesie renaturyzacji strumieni miejskich. Wnioski z doświadczeń Poznania*
- Emilia Wysocka-Fijorek: *Usługi ekosystemów leśnych jako narzędzie wspierania decyzji w zrównoważonym zarządzaniu terytorialnym*
- Katarzyna Mydlarz, Marek Wieruszewski: *Konsekwencje polityki leśnej Unii Europejskiej dla sektora drzewnego w Polsce*
- Dorota Michalak: *Od adaptacji rolnictwa do odporności społeczno-gospodarczej: ekonomiczne i behawioralne aspekty zrównoważonego rozwoju w warunkach zmiany klimatu*
- Anna Kuczuk, Janusz Pospolita: *Stawy rybne jako infrastruktura ekologiczna krajobrazu – analiza produkcyjno-środowiskowa i scenariuszowa*

Parallel session 7: „Gminy i przedsiębiorstwa wobec wyzwań zrównoważonego rozwoju” (in Polish)

14:00 – 15:30, Lecture room No. E10

Chairperson: Urszula Motowidlak, University of Lodz, Poland

- Elżbieta Lorek, Wiesław Koczur, Agnieszka Lorek: *Dekada zmian w lokalnej polityce zrównoważonego rozwoju – doświadczenia polskich gmin*
- Paulina Legutko-Kobus: *Budowanie odporności miast jako odpowiedź na wyzwania migracyjne*
- Ewa Jastrzębska, Paulina Legutko-Kobus: *Przemysł 5.0 w ujęciu zrównoważonego rozwoju*
- Artur Gajdos, Elżbieta Antczak: *Bariery rozwoju zielonych miejsc pracy w przedsiębiorstwach w Polsce – ujęcie regionalne i sektorowe*
- Paulina Grabowska: *Zielone finanse jako instrument konkurencyjności przedsiębiorstw w opinii przyszłych finansistów*
- Paweł Lorek: *Determinanty powstawania e-odpadów związane z oprogramowaniem: analiza przypadku Polski*
- Marzena Szewczuk-Stępień, Aneta Grzegocka: *Asymmetry of Organisational Resilience: Human Capital and Technological Dimensions in Local Government Units and Enterprises*

Parallel session 8: “ESG and other Institutional Solutions for Sustainable Development”
(Main Track)

14:00 – 15:30, Lecture room No. E026

Chairperson: Barbara Pawłowska, University of Gdańsk, Poland

- Frank Fuchs-Kittowski, Maximilian Deharde, David Starzl, Marius Poppel and Simon Burkard: *Common and Domain-Specific Design Patterns for Mobile AR Applications to Visualize Measures on Building Facades in an Environmental Context*
- Agnieszka Karman: *ESG productivity assessment method: a non-parametric approach*
- Xuesong Wang, Tomasz Dorożyński, Rolf D. Schlunze: *Competitive spatial behavior in the adaptive cycle: what MNE and BEO managers actually do to sustain cross-border businesses*
- Agnieszka Rzeńca, Kamil Brzeziński: *Participatory urban adaptation to climate change – experiences from cities in Central and Eastern Europe*
- David Tchiotashvili, Khaliana Chitadze: *Harmonization, integration and challenges of the Georgian insurance system with EU insurance legislation and directives*
- Emilia Jankowska-Ambroziak, Arkadiusz Niedźwiecki, Katerina Toshevska-Trpchevska: *Environmental Regulation, Firm Adaptation and Export Resilience in the Construction*

Parallel session 9: “Environmental Management Software”

14:00 – 15:30, Lecture room No. E029

Chairperson: Paweł Bartoszczuk, SGH, Poland

- Edgar Espitia, Viktoria Pauw, Emilio Sánchez-León, Ishani Banerjee and Kai Zosseder: *Framework for assessment of hydrothermal plants in Bavaria*
- Markus Lechner, Helena Wehner, Viktoria Pauw and Jan Schmidt: *SOS - Earth Observation Workflows*
- Ágoston Vilmos Tordai and Róbert Mészáros: *Event-Dependent Bias in Low-Cost PM Sensors for Indoor Environmental Monitoring*
- Katarzyna Mazur-Włodarczyk, Katarzyna Łukaniszyn-Domaszewska: *New technologies in contemporary craft enterprises*
- Lena Gryz: *What is industrial heritage and why is it important for sustainable development?*

Parallel session 10: “Sustainable Transformation of the Energy Sector”

14:00 – 15:30, Lecture room No.E008

Chairperson Małgorzata Burchard-Dziubińska, University of Lodz, Poland

- Dariusz Pieńkowski: *Black Diamonds and Green Dreams: Poland’s Coal Sector Through Sustainability Lens*

- Michał Napierata, Daniel Pilarczyk: *The role of discounting methods in assessing the profitability of small-scale wind power projects*
- Olga Świniarska: *Value assessment model in the context of sustainable development of fuel and energy sector enterprises – conceptual assumptions*
- Natalia Świdzińska, Mirosława Witkowska-Dąbrowska: *The use of financial support for energy purposes in rural and urban areas at risk of energy poverty*
- Karolina Blagovisna: *Strategic bottlenecks in the green energy transition: Assessing the scalability of local renewable energy communities in post-industrial regions*

Parallel session 11: “Circular Economy for Sustainability”

14:00 – 15:30, Lecture room No. E12

Chairperson: Karol Kociszewski, Wrocław University of Economics and Business, Poland

- Magdalena Radzikowska: *Attitudes Toward The Deposit-Refund System In Poland From October 2025 To September 2026*
- Małgorzata Rutkowska, Jolanta Pakulska: *Green innovations as a key to the circular economy*
- Judyta Lubacha, Jakub Sułuja: *The Implementation Of Circular Economy Practices In The Food Industry*
- Paulina Szyja: *Eco-innovations for socio-economic development – the case of Singapore*
- Justyna Dziewota-Jabłońska: *Second-generation phosphorus as the fertilizer of the future*

16:00 – 18:30, Walking Tours

- ❖ 1-hour walking tour: a walk around the immediate vicinity of the Faculty of Economics and Social Sciences, including the New Centre of Łódź, in particular the Łódź Fabryczna railway station and EC1 – examples of recent investments in area revitalisation and giving new functions to post-industrial buildings
- ❖ 2.5-hour walking tour: a walk along Włókiennicza Street to Piotrkowska Street, Wolności Square, Staromiejski Park and (only visible from a distance) Manufaktura. A story about area revitalisation, 19th-century urban planning in Łódź, the dramatic history of World War II and the Łódź ghetto, the approach to urban greenery in Łódź, and art in the city space (Pasaż Róży)

19:00, Conference Dinner

Venue: **Faculty of Economics and Sociology of the University Lodz, the hall on the ground floor of building T**

Friday, September 11, 2026

Conference venue: **Faculty of Management, University of Lodz, 22/26 Jana Matejki Street, 90-237 Lodz**

09:00 – 09:15, Opening of the second day of the conference, Auditorium/lecture hall No. A0

- Dean of the Faculty of Management, University of Lodz, Poland – to be confirmed
- Dominik Drzazga, University of Lodz, Poland

09:15 – 10:30, Keynote speech, Auditorium/lecture hall No. A0

Edmond Byrne, University College Cork: *The Sustainable Development Paradigm Misalignment? From environmental crisis to climate crisis to polycrisis to metacrisis*

10:30 – 11:00, Coffee break, atrium of the Faculty of Management, University of Lodz

10:30 – 11:00 “Poster Session by Coffee” (poster presenters should be at their posters during the coffee break)

Venue: **atrium of the Faculty of Management, University of Lodz**

- Viktoria Pauw and Markus Lechner: *SOS Serverless Computing for Earth Observation*
- Labrini Adamopoulou, Evangelos Bagkis, Theodosios Kassandros, Kostas Karatzas, Lasse Johansson and Ari Karppinen: *Automated, on-demand Sentinel imagery retrieval through a service-based workflow*
- Giacomo Nicoletti, Antonia Longobardi, Evangelos Bagkis, Theodosios Kassandros and Kostas Karatzas: *Streamflow reconstruction in Southern Italy: Hydrological Models versus Machine Learning Approaches*
- Irina Wipf, Gianni Ardielli, Alina Sophia Leupi, Hamed Jalilian and Marin Röösl: *RFDose: R Package and Shiny Interface for Open, Reproducible RF-EMF Dose Calculations*

11:00 – 13:00, Parallel sessions 12 - 17

Parallel session 12: “Natural Resources as a Factor of Sustainable Development
(Main Track)

11:00 – 13:00, Lecture room No. 101 (first floor)

Chairperson: Anna Wronka, University of Lodz, Poland

- Karol Kociszewski, Joanna Krupowicz and Andrzej Graczyk: *Barriers to the development of the supply side of the organic food market in Poland*
- Margaret MacDonell: *Environmental risk analyses for new materials and systems*
- Agata Rudnicka, Jakub Brzeziński, Janusz Reichel, Błażej Socha: *Biodiversity as a Strategic Resource for Business*
- Michał Napierała, Tymoteusz Hagno: *Profitability of rainwater harvesting systems in individual farms on the example of cattle breeding*
- Konrad Prandecki, Wioletta Wrzaszcz: *A Methodological Approach to Measuring GHG Emissions in Agriculture: Challenges and Scale of the Problem at the Farm Level*

Parallel session 13: “Artificial Intelligence for Sustainability”

11:00 – 13:00, Lecture room No. 102 (first floor)

Chairperson: Piotr Sosnowski University of Lodz, Poland & Grit Behrens, University of Applied Sciences, Bielefeld, Germany

- (24) Nicole Werner, Heiko Thimm and Leonie Hammann: *Application of Artificial Intelligence in German Municipal Wastewater Facilities*
- (12) Paweł Kobiela, Jarosław Stańczak and Paweł Bartoszczuk: *AI model of a photovoltaic installation*
- (21) Jason Rietzke and Stefan Naumann: *Efficiency Optimization Through Symbolic–Subsymbolic AI Integration: An Empirical Energy and Performance Study*
- Maroun Tabbal: *From Goals to Graphs: Operationalizing SDG Indicators through Actor-Network Ontologies*

Parallel session 14:” Institutional, Technical and Managerial Challenges of Sustainable Development” (Main Track)

11:00 – 13:00, Lecture room No. 103 (first floor)

Chairperson: Maciej Turata, University of Lodz, Poland & Jochen Wittmann, HTW Berlin Germany

- Mashhur Gheni, Henner Kerskes and Konstantinos Stergiaropoulos: *Simulation-Based Analysis of a Liquid-Cooled Data Center with Heat Pump-Assisted Waste Heat Reuse*
- Monika Paradowska: *Who Is the Citizen of the EU Mobility Transition? A Critical Analysis of Behavioural Assumptions in Sustainable Mobility Policies*
- Katarzyna Dośpiat-Borysiak: *From Sustainable Development to Sustainable Governance: Rethinking Policy Capacity in Contemporary Europe*
- Małgorzata Burchard-Dziubińska: *Sustainable Development and Growing Military Expenditure – How to Reconcile the Impossible?*
- Dominik Drzazga: *Evolutionary barriers of social behavior mechanisms limiting the effectiveness of institutional actions aimed at achieving sustainable development – symptoms and causes*

Parallel session 15: “Sustainable Urban Development”

11:00 – 13:00, Lecture room No. 104 (first floor)

Chairperson: Beata Banachowicz, University of Lodz, Poland

- Katarzyna Leśniewska-Napierała, Tomasz Mikołajczyk: *Socio-Spatial Transformation of Stara Praga in Warsaw: Insights from Local Stakeholders*
- Ewa Boryczka-Kubiak, Maria Olbert, Jakub Majewski: *Public Participation in Urban Climate Change Adaptation: Łódź and Cork*
- Beata Wieteska-Rosiak, Maciej Jewczak: *Circular Economy Solutions in Housing Development in the Context of Urban Resilience in Poland*
- Przemysław Tomczyk, Kamil Jawgiel: *Similar but different – comparative case study of three post-industrial cities from distinct geographies and climates: Bilbao, Łódź and Aarhus*
- Magdalena Ślebocka, Beata Wieteska-Rosiak, Adrianna Ślebocka: *Revitalisation as a Tool for Strengthening Urban Resilience – A Case Study of Lodz*
- Wawrzyniec Rudolf, Nguyet Luong Tran, *Greenwashing in Tourism and Hospitality: A Multi-Level Hybrid Review of Sustainability Claims, Consumer Responses, and Governance Mechanisms*

Parallel session 16: “Education for Sustainable Development”

11:00 – 13:00, Lecture room No. 109 (first floor)

Chairperson: Izabela Różańska-Bińczyk, University of Lodz, Poland

- Tsiuri Duruli, Maia Bolashvili: *Education for Sustainable Development in the Context of Higher Education Institutions: The Case of Georgia*
- Ruizan Mekvabidze: *Thoughtful Approaches to the Country’s Socio-Economic Sustainable Development: Synergy quest between HEIs and employers to enhance graduates’ employability*
- Diana Rokita-Poskart: *Internationalisation of Higher Education and Sustainable Development of Academic Cities: The Role of Public and Private Universities in Poland*
- Joanna Guziatowska-Tic, Katarzyna Mazur-Włodarczyk, Qiuyue He: *Green competencies in career development and market needs – the Chinese context*
- Srna Jenko Miholić, Višnja Rajić, Alena Letina, Sanja Canjek Androić: *A Comparative Analysis of the Representation of Learning Outcomes of the Economic and Ecological Dimensions of Civic Education in Initial Teacher and Educator Training Programs in the Republic of Croatia*

Parallel session 17: “Social, Cultural and Behavioral Aspects of Sustainable Development”

11:00 – 13:00, Lecture room No. 116 (first floor)

Chairperson: Agnieszka Orankiewicz, University of Lodz, Poland

- Anna Bernaciak, Iwona Werner, Arnold Bernaciak, Wojciech Trempała: *When Emotions Mobilise and When They Paralyse: Climate Affect, Value Priorities and Pro-Environmental Behaviour Among Polish Adults*
- Katarzyna Łukaniszyn-Domaszewska, Katarzyna Mazur-Włodarczyk: *Social and Cultural Determinants of Development in Craft Enterprises*
- Siqi Li: *The Role of Environmental NGOs in Environmental Governance: Rethinking China's Environmental Public Interest Litigation System*

13:00 – 13:30 Conference Closing Address, Auditorium/lecture hall No. A0

- Małgorzata Burchard-Dziubińska, University of Lodz, Poland
- Dominik Drzazga, University of Lodz, Poland

13:30 – 14:30, Lunch break

Atrium of the Faculty of Management, University of Lodz (underground floor)