

KRAKÓW Poland

# INDUSTRIAL TECHNOLOGIES AND MATERIALS FOR A SUSTAINABLE EUROPE







Co-funded by the European Union





Conference is organized by the Ministry of Science and Higher Education, the Mineral and Energy Economy Research Institute of the Polish Academy of Sciences, and the Małopolska Region.

The event is held as part of the Polish Presidency of the Council of the European Union.

Conference is co-funded by Horizon Europe project number 101215869: TECHNOLOGIES AND MATERIALS FOR SUSTAINABLE EUROPE – EUIndTech2025



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# EUIndTech2025 Conference on Industrial Technology and Materials for A Sustainable Europe 2–4 June 2025 | Kraków, Poland

EUIndTech2025 is the European Union's flagship event, designed to foster international dialogue and the exchange of ideas on European policy. The conference will address key initiatives such as the *Clean Industrial Deal*, the *Omnibus Package*, and Polish presidency priorities. As one of the significant in-person events in 2025 under Horizon Europe, the conference will provide an excellent exceptional platform for networking, exchanging ideas, and collaborating on future projects. Activities will include matchmaking and pitching sessions, discussions on the *Horizon Europe Action Plan (2025–2027)*, and the strategic vision for the next EU research and innovation framework program (2028–2035). Notably, the event coincides with the anticipated opening of new EU funding calls, making it a timely opportunity to explore emerging opportunities.

EUIndTech2025 aligns with the EU's strategic goals, emphasizing the need to build competitive, sustainable, and resilient industrial sector for the future of Europe. Key discussions will focus on crucial areas such as the utilization of advanced and critical raw materials, the promotion of new technological solutions, the circular economy, and the role of science and innovation in strengthening the EU's industrial resilience and economic security.

EUIndTech2025 will feature a dynamic exhibition space and matchmaking sessions where organizations can showcase their latest innovations and technological breakthroughs. Exhibitors will have direct access to industry leaders, policymakers, and investors, while start-ups will benefit from expert insights, networking opportunities, and potential funding connections. This makes EUIndTech2025 a strategic platform for growth, collaboration, and investment in Europe's industrial future.

EUIndTech2025 is more than just a conference; it is a premier forum for innovation, collaboration, and economic advancement. Designed to facilitate engagement among scientists, start-ups, industry leaders, and policymakers, this event offers opportunities to shape the future of Europe's industrial landscape.

Participants will gain invaluable insights into funding opportunities, policy developments, and breakthrough technologies, fostering business expansion and strategic growth. Moreover, the conference serves as a platform for acquiring expert knowledge on emerging technologies, ensuring that attendees remain at the forefront of industrial innovation in an increasingly dynamic global environment.

# Agenda EUIndTech2025

# 1.06.2025 - Kraków Auditorium Maximum, street Krupnicza 33

16.00-19.00	Registration
17.00-19.00	Opening cocktail

# 2.06.2025 - Kraków Auditorium Maximum, street Krupnicza 33

8.00-17.00	Regist	ration						
9.00-10.00	A 1	Official opening ceremony						
10.00-10.15	A 2	Power speech						
10.15-11.30	A 3	Research and Innovation in I	Poland	for a Sustainable, Competitive,	and Re	silient Europe - From Science	to Indu	istry
11.30-12.00	Break							
12.00-13.30	M1	Research and Innovation for Clean Industrial Deal	11	Building Sustainable Business Models in the Manufacturing Sector	S1	Enhanced Dialogues EU – Japan on Advanced Materials	C1	What Can the Industry do to Attract Women and their Potential?
13.30-14.30	Netwc	orking/Lunch						
14.30-16.00	M2	Designing Safe and Sustainable Materials and Chemicals - SSbD Implementation and Digitization	13	Green Materials – Sustainable Choice for Competitive European Economy	S2	Circular Economy and Wellbeing: Driving Sustainability and Quality of Life	6	Raw Materials - New Sustainable Solutions to Societal Challenges in EU R&D
16.00-16.30	Break							
16.30-18.00	A 4	European Policies for Resear	rch and	d Technological Infrastructures to	o Stren	then Industrial Competitiven	ess	
19.00-22.00	Gala L	Dinner (street Józefa Kałuży 1, K	íraków.	- Cracovia Stadion)				

Site events								
9.30-13.00	Poste IATI 9	rr session <sup>oth</sup> Innovative Ideas of Young Sci	ientists: Sc	ience – Startup – Industry				
10.00-12.30	Envirc	onmental Management Systems	as a the B	est Available Technique. Upda	ates in	integrated environmental per	mitting.	g requirements
10.30-13.30	Innov	ative Plastics Industry Solutions	for Sustaii	nable and Competitive Europe	0			
14.00-18.00	SET P	lan IWG-Industry 2025 Annual	Event: Tov	vards Highly Efficient and Sust.	tainab	le Energy Use in Industry		
14.30-17.00	Greer	ר SME Sustainability Event						
14.30-16.30	Empo	wering Scholars with MDPI Aca	ademic Pub	olishing Workshop				
3.06.2025 -	Krakó	w Auditorium Maximum, <sup>s</sup>	street Kr	upnicza 33				
9.00-10.00	A 5	European Innovators – Innovat	itive Ideas	in Action: Central and Eastern	n Euro	pe and Małopolska Region		
10.00-10.15	Break							
10.15-11.30	M3	Global Challenges and Solutions in Advanced Materials Environmental Health and Safety	T T	le Future of Sustainable Si Mobility and Recycling	33	Al in Science	C	Achieving Competitive and Circular Manufacturing in Europe
11.30-11.45	Break							
11.45-13.00	M4	Advanced Materials at the Heart of Industrial Competitiveness	T4	Space Research and nnovation: Advancing Through the Space Technology Center	4	Eco-Innovation in Regions and Nations: Can Poland Afford Not to Be Eco- Innovative?	C4	Success Stories in the Use of European Funds and Horizon Europe Calls
13.00-14.00	Netwo	orking/lunch						
14.00-15.00	A 6	Where does the Competitiven	ness Comp	ass Point for R&I?				
15.00-15.15	Break							
15.15-16.30	M5	Developing Skills for High- Quality Jobs in Europe	Bric T5 Re, Sr	dging the Digital Divide: gional Collaboration for S mart Industrial Growth	5 C	Just transition and ircularity the Next Driver of Innovation	C5	The Role of Startups and SMEs in Building a Competitive European Economy
16.30-16.45	Break							

16.45-17.45	A 7 Final session: – Main Messages from the Session and Conclusions – National Contact Point and NCBR – Quiz
17.45-19.00	Closing cocktail
Site events	
9.30-17.00	Matchmaking for 2025 HE Industry Calls supported by NCP4Industry network
9.30-13.00	Sustainable Economy in Horizon Europe. Discover New Opportunities with the Industry Contact Point & European Partnerships
10.30-14.00	Poster session IATI 9 <sup>th</sup> Innovative Ideas of Young Scientists: Science – Startup – Industry
14.00-15.00	The Destruction of Sustainable Development Principles During Armed Conflicts
14.30-16.00	Danone competition and awards ceremony

A	Main session
Т	Technologies
Σ	Advanced Materials
S	Science & Business
U	Community in Action

nmunity in Action and Innovation nce & Business

**Conference** Partners



# 1.06.2025 – Kraków Auditorium Maximum, street Krupnicza 33

16.00-19.00	Opening cocktail
17.00-19.00	Registration

# 2.06.2025 – Kraków Auditorium Maximum, street Krupnicza 33

8.00-17.00	Registration
	Official opening ceremony
	Moderator: Karolina Bielawska
9.00-10.00 (A1)	Guests: Maria Mrówczyńska (Undersecretary of State, Ministry of Science and Higher Education), Maria Cristina Russo (Directorate General Research and Innovation, European Commission), Krzysztof Galos (Undersecretary of State, Chief National Geologist, Ministry of Climate and Environment), Łukasz Smółka (Marshal of the Malopolska Region), Natalia Sobczak (Vice President of Polish Academy of Science), Magdalena Wdowin (Director of the Mineral and Energy Economy Research Institute PAS) Joanna Kulczycka (Mineral and Energy Economy Research Institute PAS) – Acknowledgements to our conference partners
10.00-10.15 (A2)	Piotr Moncarz: Inspiring talk on role of science and international cooperation
	Research and Innovation in Poland for a Sustainable, Competitive, and Resilient
	Europe – From Science to Industry
10.15-11.30 (A3)	This session will focus on translating scientific excellence into industrial impact. It will showcase how Polish universities and businesses are driving the development of sustainable technologies, strengthening industrial resilience, and enhancing global competitiveness. From emerging technologies to circular economy solutions, the session will highlight concrete pathways for bridging science and industry—contributing to a sustainable, innovative, and resilient Europe.
	Moderator: Jerzy Hausner
	Panelists: Krzysztof Galos, Magdalena Kołodziejska, Wojciech Macyk, Krzysztof Mendrok, Piotr Krzyżewski, Bartłomiej Wojdyło
11:30-12.00	Coffee break
	Research and Innovation for Clean Industrial Deal
12.00-13.30 (M1)	This session will showcase how R&I contributes to the Industrial Clean Deal and the importance of moving into high-level TRL R&I in order to sustain the transition of the energy-intensive industries. Moderator: Jürgen Tiedje
	Panelists: Andrzej Drozd, Griet Lannoo, Gerd Löhden, Angels Orduna
	Building Sustainable Business Models in the Manufacturing Sector
12.00-13.30 (T1)	The transformation of manufacturing industries is essential to achieving Europe's green and digital transition goals. This session will explore how sustainable business models can be designed and implemented across the manufacturing sector, balancing environmental responsibility with economic competitiveness. We will examine innovative practices and policy frameworks that enable companies to integrate circular economy principles, resource efficiency, and climate-neutral strategies into their core operations. This interactive session aims to inspire cross-sector collaboration and provide actionable insights for advancing sustainable innovation in manufacturing.
	Mouerator, Joanna Kuiczycka Speakers: Peter Klein, Franz Pirker, Arkadiusz Majoch
	Panelists: Salim Belouttar, Gianni Campatelli, Tomasz Drzal, Piotr Młynarz, Barbara Piontek, Bartłomiej Samardakiewicz

	Enhanced Dialogues EU – Japan on Advanced Materials
12.00-13.30 (S1)	The EU-Japan Dialogue on Advanced Materials was launched in April 2024. It builds on the success of EU-Japan collaboration in R&I in material sciences in areas such as electronics, energy, construction, mobility, and data-driven science. It aims to create a platform for sharing information on policy developments and exploring opportunities to pursue collaborative research in areas of mutual interest. During the session experts from Japan and the EU will discuss key technological challenges related to advanced materials from their point of view. Moderator: Maria Cristina Russo Panelists: Takafumi Noguchi, Maddalena Rostagno, Tejs Vegge, Tetsuo Tsuchiya
	What Can the Industry do to Attract Women and their Potential?
12.00-13.30 (C1)	The industry needs a skilled workforce at all levels with "skills", including a profound education, an open mind to innovation and new technologies as well as enthusiasm and passion for a job in new team structures and innovative job formats. The EU Commission, e.g., led by EIT Raw Materials, has set up programs attracting women to technical jobs and supporting them in their needs and ambitions. Highly qualified women graduate from universities inside and outside Europe, and yet, they are still underrepresented Europe's industry. The panel will explore what stops women from applying for jobs in industry. It will discuss measures that can drive change to a more diverse workforce. Overall, the panel aims to identify actions that will help the industry to attract and retain women and their skills to close existing gaps. Moderator: Sabina Grund Speakers: Antonious Schroeder, Doris Jovovic Panelists: Doris Jovovic, Milena Ferrari, Gabriella Quaranta, Edyta Satchell,
13:30-14:30	Networking/Lunch
10.00 14.00	Designing Safe and Sustainable Materials and Chemicals - SShD Implementation
14.30-16.00 (M2)	and Digitization Designing safe and sustainable by Design (SSbD) materials and chemicals is crucial for advancing environmentally responsible practices in various industries. Effective implementation of SSbD principles requires integrating safety- and sustainability-related aspects at the earliest stages of product design. Here, digitization can play a vital role in providing innovative tools for data analysis, multi-objective-driven material selection processes, and prospective lifecycle assessment. These interdisciplinary technologies need to be based on collaboration among different stakeholders along the value chain, enabling the sharing of knowledge and best practice facilitating and enhancing decision-making. Leveraging digital platforms enables materials and chemical value chains to continuously monitor and improve the sustainability of their products. The NSC session will address the importance of integrated approaches, data-related expectations, advantages, and challenges for ultimately balancing ecological and economic goals for a more sustainable future. Moderator: Martin Himly Speakers: Eugenia Valsami-Jones, Andreas Künkel, Garbiñe Guiu Etxeberria Panelists: Andreas Falk, Daniel Hubert, Peter Klein, Jacek Szymanski, Mary B. Walsh
	Green Materials – sustainable choice for competitive European economy
14.30-16.00 (T2)	Description: The session will cover a wide range of aspects connected to green materials, including innovative technologies and intersectoral cooperation as key factors of the success. Starting from considering what "green" really means from the perspective of different stakeholders, the panelist will seek for the answers for such

	<ul> <li>questions as: Why do we need green materials? Do green materials always have to be technically advanced? How could industry, science, and legislators cooperate to provide the efficient and scalable development of green materials in this area, and can we all can profit from using them?</li> <li>Moderator: Anna Kozera-Szałkowska</li> <li>Speakers: Mirona Coropciuc, David Carroll</li> <li>Panelists: David Carroll, Mirona Coropciuc, Martino Gabellich, Paulina Kaczmarek, Justyna Zyga</li> </ul>
	Circular Economy and Wellbeing: Driving Sustainability and Quality of Life
14.30-16.00 (S2)	The circular economy is not just an environmental or economic model—it is increasingly seen as a pathway to improving overall well-being. Various actors—such as NGOs and the scientific community—play a key role in ensuring accountability, inclusivity, and public acceptance of this transition, which can be further supported by a range of AI tools. A well-implemented circular economy can lead to a fairer, healthier, and more sustainable society. The upcoming discussion will focus on the key changes and challenges related to the transition toward a circular economy. By identifying barriers and opportunities, the goal is to propose the most effective and inclusive policy recommendations to support a prosperous and equitable shift toward circularity at both national and European levels.
	Moderator, Agnieszka sznyk Speakers: Natalia Konchakova, Karolina Bielawska, Magdalena Betin
	Panelists: Karin Huber-Heim, Cathrine Barth, Huub van Draabe
14.30-16.00 (C2)	Raw Materials – New Sustainable Solutions to Societal Challenges in EU R&D Raw materials are essential for Europe's green and digital transitions, and the EU is investing heavily in sustainable, circular, and resilient solutions through research and innovation. This includes reducing the environmental and social impacts of extraction and processing, advancing responsible sourcing—particularly from secondary (urban) sources—and ensuring secure access to critical raw materials for clean technologies and digital industries. EU programs that support both investors and researchers in this area will also be discussed during the panel. Moderator: Krzysztof Kubacki Speakers: Witold Kurylak, Tobias Kampmann Panelists: Daniel Cios, Rafał Czubiński, Robert Makieła, Aurela Shtiza, Paweł Torbus
16.00-16.30	Coffee break
16.30-18.00	Quiz European Policies for Technological Infrastructures to Strengthen Industrial Competitiveness and Economic Security This session will explore how Technology Infrastructures (TIs) can strengthen European industrial competitiveness and enhance security and resilience. Experts will discuss how TIs can accelerate R&D to market, support dual-use technologies, and identify areas for improvement to leverage the EU's competitive edge, ultimately informing a European strategy on TIs that promotes tech sovereignty and innovation. Opening remarks: Maria Cristina Russo Moderator: Marek Gorgoń Panelists: Filip Gabryelewicz, Michał Goszczyński, Jarosław Grobelny, Christina Jönsson, Piotr Młynarz, Natalia Sobczak
19.00-22.00	Gala Dinner (street Józefa Kałuży 1, Kraków – Cracovia Stadion)

Site Events		
9.30-13.00	Poster session IATI 9 <sup>th</sup> Innovative Ideas of Young Scientists: Science – Startup – Industry	
10.00-12.30	Environmental Management Systems as the Best Available Technique. Updates in integrated environmental permitting requirements	
10.30-13.30	Innovative Plastics Industry Solutions for Sustainable and Competitive Europe	
14.00-18.00	SET Plan IWG-Industry 2025 Annual Event: Towards Highly Efficient and Sustainable Energy Use in Industry	
14.30-16.30	Empowering Scholars with MDPI Academic Publishing Workshop	
14.30-17.00	Green SME Sustainability Event	

# 3.06.2025 – Kraków Auditorium Maximum, street Krupnicza 33

	European Innovators – Innovative Ideas in Action: Central and Eastern Europe and Małopolska Region
	Moderator: Łukasz Cioch
9.00-10.00 (A5)	The panel on innovators and innovations is aimed at drawing the attention of event participants to innovations that are important from the perspective of the EU's development, but above all, those that are particularly significant and, therefore are being developed in Central and Eastern Europe. It also serves as an introduction to Panel C3, which is why it will highlight the role of start-ups in the innovation-shaping process. During the panel, we will discuss critical industries, the ways in which they are developing, and how they can be used to ensure the well-being and security of the community's citizens.
	Moderator: Zbigniew Bartuś
	Opening remarks: Marina Zanchi
	Speakers: Jakub Szlachetko, Barbara Kopczyńska
	Panelists: Marek Magryś, Piotr Moncarz, Tomasz Palacz, Dominika Walec
10.00-10.15	Coffee break
10.15-11.30 (M3)	Global Challenges and Solutions in Advanced Materials Environmental Health and Safety The rapid development and introduction of advanced materials raise essential health and safety concerns that require international collaboration. One key area where coordinated efforts are essential is the global challenge of plastic pollution. Additionally, the increasing use of nano-enabled materials worldwide introduces previously unknown risks to both the environment and human health. This session will explore emerging challenges related to exposure to both intentional (advanced) and unintentional (incidental) nanomaterials. Topics will include exposure and hazard assessment, as well as the application of artificial intelligence in the rational design and characterization of incidental and next-generation materials. US and EU environmental health & safety researchers have leveraged expertise in nanomaterial safety to guide innovation in advanced materials and Safe-and-Sustainable-by-Design strategies. The collaborative and interdisciplinary research community will continue the same trajectory as it applies to topic areas such as advanced manufacturing and plastic pollution. The panel will discuss how to prioritize goals and coordinate efforts among governments, manufacturers, regulators, investors, and research institutions to address societal needs effectively. Moderators: Thomas Exner Speakers: Antreas Afantitis, Vladimir Lobaskin, Tomasz Puzyn, Christie Sayes

	The Future of Sustainable Mobility and Recycling
10.15-11.30 (T3)	This session will focus on the critical role of sustainable mobility and advanced recycling technologies in achieving global changes and Europe's climate and circular economy goals. Experts will discuss innovations in vehicle electrification, IA, battery value chains, and end-of-life strategies that minimize environmental impact and resource dependency. The conversation will explore policy, investment, and industrial collaboration needed to accelerate the transition to clean, circular transport systems. Special attention will be given to twin smart and sustainable solutions. Moderator: Filip Gabryelewicz Speakers: Yousef Nazzal, Laskarakis Argiris Panelists: Marcello Colledani, Anna Kornecka, Paweł Ochyński, Olaf Pannenbacker, Robin Szustkowski
	Al in Science
10.15-11.30 (S3)	Artificial Intelligence is rapidly transforming the way scientific research is conducted, offering powerful tools to accelerate discovery, improve predictive capabilities, and solve complex global challenges. This session will explore the transformative potential of AI across disciplines, from materials science and energy systems to climate modeling, healthcare, and industrial research. We will discuss how AI is enabling faster data analysis, smarter experimentation, and the design of next-generation solutions through simulations, digital twins, and autonomous research systems. The session will also highlight the ethical and governance challenges associated with AI-driven science, including transparency, bias, reproducibility, and data sovereignty.
	Moderator: Joanna Jaworek
	Opening remarks: Maria Cristina Russo
	Panelists: Tomasz Jaworski, Piotr Moncarz, Maryna Storozhenko, Riikka Virkkunen, Michał Wonchała
	Achieving Competitive and Circular Manufacturing in Europe
10.15-11.30 (C3)	The Draghi report emphasizes that Europe must boost innovation to maintain manufacturing leadership and develop breakthrough technologies. There is a need to move from the "mid-tech trap" to "high-tech" products made in the EU. This session will explore how advancements in manufacturing technologies – such as the uptake of AI and robotics – will enable competitive manufacturing of strategic products in Europe. Achieving circular products is of key importance for the EU to become more sustainable. Panel discussion will reflect on what is still missing to achieve this. Discussions will also address needs from industry and policymakers to increase European leadership and resilience in the production of high-value and critical products, increasing sustainable competitiveness of EU.
	Moderator: Andrew Lynch
	Speakers: Kai Peters, Virpi Puhakka, Wide Hogenhout Panelists: Sotiris Makris, Vasiliki Panagiotopoulou, Kai Peters, Virpi Puhakka, Marcello Urgo
11.30-11.45	Coffee break
	Advanced Materials at the Heart of Industrial Competitiveness
11.45-13.00 (M4)	This session will explore how advanced materials are driving the transformation of European industry—boosting performance, sustainability, and resilience. Experts will highlight the strategic role of materials innovation in sectors such as energy, mobility, health, and digital technologies. The discussion will also cover the importance of

securing raw material value chains, promoting circular design, and accelerating industrial adoption. The session combines forward-looking presentations with insights from industry, research, and policy stakeholders. Moderator: Eva Schillinger Opening remarks: Maria Cristina Russo Panelists: Kostas Kostarelos, Gerd Loehden, Nicola Piccirelli, Herbert Wirth
Space Research and Innovation: Advancing Through the Space Technology Center
This session will highlight the pivotal role of the Space Technology Center in driving forward space-related research, innovation, and industrial applications. It will explore how cutting-edge developments in satellite systems, data analytics, materials science, and space sustainability are being supported through collaboration between academia, industry, and government. By showcasing successful projects and strategic priorities, the session will underline how space technologies contribute to broader goals, such as environmental monitoring, security, and the digital transformation of European and global industry.
Moderator: Łukasz Wilczyński
Speakers: Tadeusz Uhl, Ema Gatti
Panelists: Marek Banaszkiewicz, Hugo Wai Leung Mak, Magdalena Ostasz, Piotr Szeląg
Eco-Innovation in Regions and Nations: Can Poland Afford Not
This session will focus on how eco-innovation, knowledge exchange and cooperation between private sector, academia and public administration can drive sustainable industrial development across Europe and beyond and on strategies to measure progress effectively. By highlighting practical initiatives and cross-border collaborations, the session will explore how regions can support industrial transformation, raise public environmental awareness and, as a result, enhance the competitiveness and resilience of local ecosystems and support efforts to improve national security. Moderator: Grzegorz Maliszewski
Speakers: Grzegorz Maliszewski, Chris Lo
Panelists: Maria Andrzejewska, Janusz Cieślak, Michał Nowosielski, Agnieszka Wicha, Krzysztof Śmierciak
Success Stories in the Use of European Funds and Horizon Europe Calls
The goal of this panel will be not only to present the successes that Poland and other European countries (especially those in Eastern Europe) can boast in terms of successfully planning and implementing projects co-financed by European funds (activities related to scientific, economic, and social development), but above all, to reflect on the methods that enabled us to use these funds effectively. The discussion will focus, among other things, on a general analysis of common mistakes and how they were corrected. It will then move toward exploring the future of EU funding—how it is designed, allocated, and spent in the context of the EU's shifting economic and social priorities. The speakers will consider how to maintain the momentum gained in implementing innovation, including how to redirect efforts toward acquiring funding from nonEU sources. They will also discuss the future direction of the innovation investment market, including joint ventures, collaborative initiatives, and similar efforts. Moderator: Zbigniew Bartuś Opening remarks: Natascia Lai Speaker: Nuno Varandas Panelists: Bartosz Bursa (tbc), Katarzyna Baliga-Nicholson, Anna Mlost, Maria Śmiotanka. Nuno Varandas

13.00-14.00	Networking/lunch	
	Where does the Competitiveness Compass Point for R&I?	
14.00-15.00 (A6)	This session will give a glance at how the call to bring research and innovation to the heart of our economy and use it to boost European competitiveness triggers new opportunities. We will hear how the new political focus on competitiveness sparks new thinking amongst stakeholders while maintaining a green transition cap. Moderator: Jürgen Tiedje Opening remarks: Cristina Maria Russo Panelists: Justyna Gorzoch (tbc), Vedran Kujundzic, Henrik Larsen, Wibke Lölsberg	
15.00-15.15	Coffee break	
	Developing Skills for High-Quality Jobs in Europe	
15.15-16.30 (M5)	In today's competitive job market, cultivating the right skills is essential for securing and excelling in high-quality roles. Key topics include: Identifying the most in-demand skills for high-quality roles; The impact of automation on workforce development; Navigating career transitions and growth opportunities; The role of well-being and emotional resilience in career success; How companies can use employee benefits to attract and retain talent. Whether you're a professional looking to grow your career or an HR leader seeking strategies for workforce development, this session will offer valuable perspectives on building a thriving career and supporting employee success in Europe's dynamic job market. Moderator: Edyta Satchell Speakers: Przemek Szuder, Maroš Halama Panelists: Maros Halama, Rafał Kunaszyk, Mateusz Kozłowski, Željko Pazin, Johan Stahre	
	Bridging the Digital Divide: Regional Collaboration for Smart Industrial Growth	
15.15-16.30 (T5)	This session will explore how cross-regional cooperation can help close the digital gap between industrial hubs and less-developed regions. By sharing digital infrastructure, know-how, and policy frameworks, regions can foster inclusive innovation and strengthen Europe's smart industrial growth. The discussion will focus on practical strategies for accelerating digital transformation in manufacturing, supporting SMEs, and aligning regional strengths with technological and sustainability goals. Moderator: Wojciech Piontek Speakers: Reuben Egolf, Adrian von Mühlenen	
	Panelists: Reuben Egolf, Sławomir Olejnik, Monika Machowska, Adrian von Mühlenen, Anna Larson	
	Just transition and Circularity the Next Driver of Innovation	
15.15-16.30 (S5)	Circular innovation has the potential to accelerate a just transition by fostering local, inclusive, and resilient economies. Circular business models and innovative technological solutions can help organizations identify win-win strategies – reducing environmental impact while simultaneously unlocking new pathways to economic prosperity. Policymakers, businesses, and research institutions are increasingly aligning their strategy around this dual agenda – recognizing that resilience, competitiveness, and legitimacy now hinge on creating value that is both circular and just. According to the EU the Just Transition Mechanism (JTM) is a key tool to ensure that the transition towards a climate-neutral economy happens in a fair way, leaving no one behind. It provides targeted support to help mobilize around €55 billion over the period 2021– 2027 in the most affected regions to alleviate the socio-economic impact of the transition. Good practices and challenges in both policy and implementation will be discussed.	

	Moderator: Aleksander Rajch			
	Opening remarks: Juergen Tiedje			
	Speakers: Yiannis Bakouros, Justyna Dziewota-Jabłońska			
	Panelists: Katarzyna Bałucka, Małgorzata Greszta, Zygmunt Krasiński, Luís Martines			
	The Role of Startups and SMEs in Building a Competitive European Economy			
15.15-16.30 (C5)	The discussion will focus on the development of the ecosystem for innovative companies and startups in the Małopolska region. The panel will provide an opportunity to showcase existing businesses and business ideas from various sectors. The discussion should center around market expectations for running a business in an innovation- driven environment, as well as the growing competitive pressure—both in the context of global processes and large tech corporations. Particular emphasis will be placed on topics such as the need to take risks as one of the key success factors, and how to break free from rigid, well-established patterns of action—along with the question of whether such an approach is truly a recipe for success. The discussion should lead to conclusions about the current state of the startup ecosystem in Poland (and Central and Eastern Europe), and the conditions that must be met to catch up with global leaders—is that even possible?			
	Moderator: Beata Staszków			
	Opening remarks: Sean O'Reagain			
	Speakers: Joanna Wagner, Jan Ludvik			
	Panelists: Małgorzata Chmielewska, Margarita Haller de Hallenburg-Biovalley, Lech Kaniuk, Anna Ogar, Tomasz Trześniowski			
16.30-16.45	Coffee break			
	Quiz			
16.45-17.45	Final session: Main Messages from the Session and Conclusions National Contact Points and NCBR			
17.45-19.00	Closing cocktail			

Site events		
9.30-17.00	Matchmaking for 2025 HE Industry Calls supported by NCP4Industry network	
9.30-14.00	Poster session IATI 9 <sup>th</sup> Innovative Ideas of Young Scientists: Science – Startup – Industry Danone competition and awards ceremony	
10.30-13.00	Sustainable Economy in Horizon Europe. Discover New Opportunities with the Industry Contact Point & European Partnerships	
14.00-15.00	The Destruction of Sustainable Development Principles During Armed Conflicts	

# 4.06.2025 – Kraków

Jioo 10.00 Study visits/ culture events
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А	Main session
т	Technologies
М	Advanced Materials
S	Science & Business
С	Community in Action and Innovation

# Grzegorz Maliszewski Bank Millennium

Green transformation is not only a matter of environmental responsibility but also a strategic direction for economic development. The economic model that has dominated so far, in which the source of competitive advantages was access to cheap labor, cheap energy, and easy access to mineral resources, is changing. Currently, there is a growing belief that access to cheap and green energy, high efficiency in the use of electricity and raw materials will be/should be the source of competitive advantages.

Discussion on green transformation should complement not only the discussion on economic models and sources of competitiveness but also the discussion on national security. A resilient and strong economy has access to cheap energy sources. Changing the energy mix and reducing reliance on fossil fuels is not just about climate protection but also about safeguarding the economy. Economic security also includes access to mineral resources, including critical raw materials. Here, it is not only the smooth functioning of supply chains but also a highly efficient use of the resources we have. Therefore, increasing resource productivity and supporting the circular economy are crucial. Hence, Eco-innovation plays a crucial role in strengthening national security by reducing dependency on foreign resources and enhancing environmental resilience. In such an environment, eco-innovation is becoming a key element of a competitive, strong and resilient economy.

# Why eco-innovations in regions?

Poland's eco-innovation performance steadily increases, as reflected in the Eco--innovation scoreboard prepared by the European Commission. However, the gap between Poland and the EU average is widening, indicating that other EU countries are more active in this field. Poland should intensify its eco-innovation activities to maintain its competitiveness.

Thanks to more detailed policies and databases, monitoring a country's performance in eco-innovation and progress towards a circular economy is gaining popularity. There are many indicators that measure eco-innovation performance on the national level. However, there is no widely acceptable single measurement index of eco-innovation or circular economy on the regional level. To identify the changes and eco-innovation performance in the Polish regions, the Eco-Index Millennium was developed for the first time in 2022. The Eco-Index Millennium facilitates a shift in the discussion on eco-innovations from the national level (voivodeships), as investment decisions of particular companies and decisions of particular consumers about expenditures and behavior determine the ecoinnovation potential of the whole country. This is especially important in the context of Polish society's extremely low ecological awareness.

# **Environmental attitudes of Poles**

- 18% of Poles say it is important to buy smaller quantities and reduce food waste
- 22% of people believe that using public transport, cycling or walking is important to reduce greenhouse emissions

## Source: "Ecological attitudes of Poles", a survey carried out on behalf of Bank Millennium by the research agency SW Research on a representative sample of 1,000 people using the CAWI method in August 2024

Such a discussion is becoming more and more critical as eco-innovation is an essential factor determining the sustainable development of regions and their investment attractiveness. Investors are increasingly looking for areas where the pursuit of sustainable development through eco-innovation is visible.

# What is the Eco-Index Millennium and how Eco-Index Millennium is constructed?



An inspiration for the construction of the Eco-Index Millennium was the eco-innovation index developed by the European Commission, which examines the potential of eco-innovation at the national level within the EU. The Eco-Index Millennium consists of 21 variables that are grouped into five categories: eco-innovation input, eco-innovation output, social-economic activities in eco-innovation, resource efficiency, and in 2024, the additional subindex, circular economy, was implemented. The inclusion of an additional sub-index was intended to highlight the role of the circular economy in the process of transformation to a green and resilient economy.

## **Composition of Eco-Index Millennium**



Composition of Eco-Index Millennium Source: Bank Millennium

A wide range of indicators included in the Eco-Index Millennium enables it to reflect different aspects of eco-innovation on the regional level and holistic approach to eco-innovation – energy transformation, energy efficiency, circular economy. It is worth to add that one of the variables – share of eco-patents – was prepared by the Polish Patent Office especially for the needs of the Eco-Index Millennium.

It is worth adding that the Eco-Index Millennium was prepared in cooperation between Bank Millennium, AGH University of Science and Technology in Kraków, Warsaw School of Economics and Polish Patent Office. It is a unique manifestation of cooperation between the private sector, academic community, and public institutions for eco-innovation. It proved that the broad collaboration of various groups of stakeholders can have real effects and support the progress in eco-innovativeness. It was reflected not only in the report and publication of the index but also in a publication of unique data about eco-innovation patents in Poland on the regional level prepared by the Polish Patent Office on a special request of the authors.

The availability of data, data quality, and continuity remain among the main challenges for the reliable measurement of the eco-innovation potential of Polish regions. Material productivity, which is one of the key variables in the analysis of eco-innovation, is still not available on a regional level. This is why when using the Eco-Index Millennium, especially for rankings, one should bear in mind the limitations, mainly in the form of imperfections of regional databases. Therefore, it is essential to add qualitative analysis to the analysis of eco-innovation performance.

# Data quality and availability as a challenge in measurement of eco-innovation performance on regional level

For each data group, a sub-index has been calculated, which is the arithmetic mean of the standardized variables that are part of a given category (each of them has the same weight in the subindex). The general ranking of the Eco-Index Millennium is the arithmetic mean of all 21 variables included in the index while maintaining their equal weights.



Source: EU Eco\_innovation Index 2024

# Check out the Eco-Index Millennium in details (in Polish)



# The main conclusions

Regions with big businesses and academic centers remain leaders in eco-innovation. Access to human resources and financial capital largely determine the potential for ecoinnovation. This is why the group of leaders in eco-innovative regions has been relatively stable over the last years in the general ranking – these are Małopolskie, Pomorskie, and Mazowieckie Voivodships. The mix of a strong economy with high financial resources and big academic centers providing high-quality human resources is conducive to increasing eco-innovation activity. The value of Eco-Index Millennium above the national level was also recorded in Dolnośląskie, Podkarpackie, Śląskie, Podlaskie, and Warmińsko--Mazurskie voivodeships.

However, there are noticeable differences in the distribution of accents toward ecoinnovation. These accents are primarily determined by geographical, natural or economic condition of the regions. Podpadpackie voivodeship is a leader in greenhouse emission intensity, Zachodniopomorskie is a strong leader in the generation of renewable energy, Łódzkie is among the leaders in the share of value added generated in green sectors, Wielkopolskie has a strong position in energy productivity, Śląskie is among the leaders in water productivity, Świętokrzyskie has the lowest generation of municipal waste, Warmińsko--Mazurskie is among regions with the highest share of recycled municipal waste, etc.

# Leaders in particular sub-indexes of eco-innovation

# How to use Eco-Index Millennium?



## Leaders in particular sub-indexes of eco-innovation Source: Bank Millennium

The conclusions from the Eco-Index Millennium might be a valuable follow-up of the analysis of the Regional Innovation Scoreboard that enables the extension of the analysis of eco-innovation performance to the issues related to environmental protection, resource efficiency, or circular economy. The joint analysis of The Regional Innovation Scoreboard and the Eco-Index Millennium gives the possibility of a multi-sectional analysis of performance in innovation and eco-innovation potential, as well as the assessment of the degree and scope of implementation of regional policies in both aspects.

# Strengths and weaknesses of the region

Eco-Index Millennium enables the identification of the strengths and weaknesses of regions in eco-innovations. The identification of the strengths and weaknesses of the areas might allow the focusing of resources on the most critical aspects from the point of view of the regional development strategies. It might help to reshape the targets in the regional policies. This is especially important in smaller regions with limited financial resources. The Eco-Index Millennium, by identifying the strengths and weaknesses of areas, can be a helpful tool that allows to focus on key drivers of sustainable development of regions and to facilitate the transition from linear to circular.





Małopolska is a region where you can experience something unique, thanks to its rich historical heritage, extraordinary nature, and attractive educational and cultural offer.

The region and its inhabitants form a perfectly functioning connection that has been generating enormous potential for years. Thanks to this, innovative entrepreneurship develops, bonds between the academic and business communities are formed, experienced practitioners refine their skills, exciting artistic projects are created, remarkable cultural events take place, and thriving social organizations operate dynamically.

The capital of Małopolska, Kraków is one of those places in the world that one simply must see! Kraków is not only a city of monuments, works of art, and historical relics but also a modern metropolis, a university center, the residence of regional, national, and international institutions, as well as an economic, business, scientific, and innovation hub. Additionally, Kraków is a city where you will find over 100 museums, green spaces, festivals, rich culinary traditions, and a welcoming atmosphere for people from around the world. We are especially proud that the city is hosting this year's EUIndTech2025.







## UNESCO World Heritage Site - Kraków's biggest attraction

- In 1978, the historic center of Kraków was added to the UNESCO World Heritage list. With an area covering nearly 150 hectares, including the Old Town area, Wawel Hill, Kazimierz and Stradom districts, Kraków was included in the List as one of the first 12 sities. At the same time, as many as 14 are located in Lesser Poland [Małopolska region].
- The historic Main Square of the Old Town (the largest medieval market in Europe) is at the heart of the city and is dominated by the Renaissance Cloth Hall [*Sukiennice*], where merchants have been selling their goods for more than 700 years, while at the western end you can spot St. Mary's Basilica. The bugle call is played from one of the church's towers to the four corners of the world every hour throughout the day; if you're lucky, the bugler will also wave to you. The newly restored altarpiece by Veit Stoss [*Wit Stwosz*] in St. Mary's Basilica is one of the greatest masterpieces of medieval art.
- History lovers cannot miss the Wawel Castle a hill with a magnificent Royal Castle and Cathedral. Dating back more than 900 years, it not only represents Polish identity but is also considered a national treasure for its history as a coronation site and residence of Polish monarchs.
- A City of Jewish Heritage explore Kraków's Jewish roots on a walking tour of the Kazimierz district to see the amazing architecture and discover the rich history. Once a thriving center of Jewish life and culture in Kraków, the district was almost destroyed during World War II, having undergone a revival in recent years. Visit the Remuh Synagogue, one of two synagogues in Kraków that are still in use, with a cemetery containing tombstones dating back to the 16<sup>th</sup> century. The Old Synagogue, also known as the "Fortress Synagogue", is the oldest in Poland, and today it is a fascinating museum of the history and culture of Kraków's Jews. In the evenings, Kazimierz is one of the city's most fashionable and vibrant districts, with bustling cafes, bars, and restaurants.

# Mineral and Energy Economy Research Institute of the Polish Academy of Sciences (MEERI PAS)



The Mineral and Energy Economy Research Institute of the Polish Academy of Sciences (MEERI PAS), based in Kraków, is a leading scientific institution in Poland. It employs over 120 staff members, including scientific personnel organized into five departments and fourteen specialized research laboratories. The Institute conducts interdisciplinary research in areas such as mining, energy (including renewable energy sources and geothermal energy), geophysics, applied geology, environmental engineering and protection, as well as chemical technology and materials engineering. MEERI PAS is a pioneer in the use of geothermal energy in Poland, notably through the design and construction of the country's first experimental geothermal plant in Bańska Niżna–Biały Dunajec. MEERI PAS carries out numerous research projects, both national and international, including over 20 international projects and several domestic ones, as well as dozens of research service contracts for industrial stakeholders.

The Institute provides innovative, economic, environmentally friendly, and socially responsible solutions that support the sustainable development of the country and its regions in the field of raw materials and energy.

The Division of Strategic Research of Energy Economy Research Institute of the Polish Academy of Sciences led by Professor Joanna Kulczycka, the Division specializes in interdisciplinary research in the fields of the circular economy (CE), sustainable development, energy transition, and environmental management.

The Division of Strategic Research team conducts comprehensive strategic analyses, including the assessment of business models in the context of the CE, investment eco-efficiency, environmental management using the life cycle assessment (LCA) method, and research on raw material and waste markets. The Division employs an interdisciplinary team of researchers with expertise in economics, environmental management, chemical technology, and environmental engineering. Their work supports both scientific advancement and the practical implementation of innovative solutions in the economy and public administration. The Division is involved in both national and international projects, such as: BattValue



The Division cooperates with International Resource Panel – recommended reports: Contact us : kulczycka@meeri.pl, euindtech2025@meeri.pl





# **PolSCA PAS Brussels**

The **Polish Science Contact Agency (PolSCA) PAN Office in Brussels** is a liaison office of the Polish Academy of Sciences (PAS) present within the European Union bubble. Its mission is to promote and strengthen the participation of Polish R&I community, including PAS institutes, in European research and innovation initiatives, most notably within **Horizon Europe**.

Situated at the heart of EU policymaking, PolSCA monitors, analyses, and disseminates strategic developments relevant to science and innovation within the Polish stakeholders. The office also acts as a platform for science-policy dialogue, enhancing the visibility of Polish research and fostering collaboration across borders and disciplines.

In 2025, in relation to the **Polish presidency of the Council of the EU**, PolSCA has organised multiple flagship activities, including: introducing Poland's key research and innovation priorities to the Brussels-based R&I community (*IGLO Open: R&I Priorities of the Polish EU Presidency – January 2025*); promotion of innovative food systems (*Advancing food systems in Europe – March 2025*); discussion on the green transition (*Towards a Fair Green Transition – June 2025*)

PolSCA also organizes briefings and training events on EU research landscape for researchers as well as institutional stakeholders.

In recent months, the PolSCA Office hosted two study visits: *Science for Policy* (for researchers) and *Focus on MSCA* (for research managers).

Along with our partners PolSCA Office organises a three day event – V4 Training for Research Project Managers twice a year.

We launched informal network of research managers across PAS, i.e. **Horizon Europe Navigators**, as a platform for knowledge sharing, exchange of experience, and capacity building.

For more information about the PoISCA Office, please visit: our website, Facebook (PL), and Linkedin (EN).



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