



# BOOK OF PROCEEDINGS

# INTERNATIONAL CONFERENCE SUSTAINABLE MOBILITY

**5-6 MARCH**

# 2026

The INTEC International Conference brings together academics, researchers, policymakers and industry experts to discuss innovative approaches and collaborative solutions for a sustainable future in engineering and mobility. The conference will be hosted by POLIS University in Tirana, Albania, and co-organized by partners from across the EU as part of the Erasmus+ CBHE Project 101081873-ERASMUS-EDU-2022-CBHE-STRAND-2.



INTEC International Engineering Competence Centres to push sustainable mobility development in Albania and Montenegro  
Project Reference: 101081873-ERASMUS-EDU-2022-CBHE-STRAND-2

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Project Partners:



**INTEC International Conference**  
February 2026  
POLIS University, Tirana, Albania

**INTEC**>>>



Co-funded by the  
Erasmus+ Programme  
of the European Union

**ISBN 9789928347268**

**DOI: 10.37199/c41001000**

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**INTEC International Conference**  
February 2026  
POLIS University, Tirana, Albania

**INTEC**>>>



Co-funded by the  
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University of Split (US), Croatia  
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University of Vlore "Ismail Qemali" (UV), Albania  
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## USE OF AI IN THE PROCESS OF GREEN TRANSFORMATION AND IMPACT ON PUBLIC HEALTH

DOI: [10.37199/c41001039](https://doi.org/10.37199/c41001039)

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### Abstract

*As we confront the complexities of the 21st century, the urgent need to address climate change and promote sustainability has a direct influence on public health. This presentation explores how green transformation initiatives, driven by Artificial Intelligence (AI) and sustainable practices, are positively impacting health outcomes across communities. We will examine how AI-driven data analytics enhances environmental health by predicting air quality and optimizing energy usage, ultimately leading to cleaner air and improved well-being. In agriculture, sustainable practices, supported by AI technologies, result in healthier food production, reducing exposure to harmful pesticides and promoting nutritional value. Waste management strategies that incorporate green transformation not only reduce landfill waste but also mitigate health risks associated with pollution. We will highlight examples of communities that have successfully implemented sustainable waste practices and the corresponding improvements in public health indicators. Additionally, transportation advancements, such as electric vehicles and intelligent traffic systems, contribute to reduced emissions and better air quality, further enhancing overall health outcomes.*

*In conclusion, while green transformation offers significant benefits for health, realizing its full potential requires collaboration among policymakers, public health officials, and industry leaders. By working together, we can create healthier environments that support both sustainable development and community well-being.*

**Keywords:** Green transformation, public health, Artificial Intelligence, sustainability, environmental health.

### I. INTRODUCTION

Climate change and environmental degradation represent some of the most pressing global challenges of the modern era. Rising temperatures, increased air and water pollution, biodiversity loss, and resource depletion have far-reaching consequences not only for ecosystems and economies but also for public health. According to the World Health Organization, environmental risk factors contribute significantly to the global burden of disease, particularly through respiratory illnesses, cardiovascular diseases, heat-related mortality, and food insecurity (WHO, 2021).

Green transformation refers to the systematic transition toward environmentally sustainable economic and social systems, emphasizing reduced emissions, efficient resource use, and ecological resilience. This transformation is increasingly viewed as a public health strategy, as healthier environments directly support healthier populations. Clean air, safe food systems, reduced exposure to pollutants, and sustainable urban environments are critical determinants of population health (Prüss-Ustün et al., 2019).

Artificial Intelligence has emerged as a powerful tool in accelerating green transformation. AI technologies enable advanced data processing, predictive modeling, automation, and optimization across multiple sectors. By supporting more efficient environmental management and informed decision-making, AI enhances the effectiveness of sustainability initiatives while simultaneously reducing health risks associated with environmental degradation (Rolnick et al., 2019).

This article aims to examine the use of AI in the process of green transformation and assess its impact on public health. The focus is placed on key sectors where AI-driven solutions have demonstrated significant potential: environmental monitoring, energy systems, agriculture, waste management, and transportation. Through this analysis, the study highlights both the opportunities and challenges associated with integrating AI into sustainability and public health strategies.

## **1. Main Approaches: AI-Driven Green Transformation**

### *1.1. AI in Environmental Monitoring and Air Quality Management*

Air pollution is one of the leading environmental determinants of morbidity and mortality worldwide. Exposure to fine particulate matter (PM<sub>2.5</sub>), nitrogen oxides, and ozone is closely linked to respiratory and cardiovascular diseases (HEI, 2020). AI-driven environmental monitoring systems enhance the ability to detect, predict, and manage air pollution.

Machine learning algorithms process large volumes of data from satellite imagery, ground-based sensors, and meteorological models to provide real-time air quality assessments and forecasts. These systems enable early warning mechanisms that allow authorities to implement timely mitigation measures, such as traffic restrictions or industrial emission controls (Di et al., 2019).

From a public health perspective, improved air quality monitoring supports preventive health strategies by reducing exposure among vulnerable populations, including children, the elderly, and individuals with chronic respiratory conditions.

### *1.2. Intelligent Energy Systems and Renewable Integration*

The energy sector is a major source of greenhouse gas emissions and air pollutants, particularly in regions reliant on fossil fuels. AI plays a critical role in the green transformation of energy systems by optimizing energy generation, distribution, and consumption. AI-enabled smart grids improve the integration of renewable energy sources such as solar and wind power by forecasting supply and demand patterns and balancing loads in real time (IEA, 2023). These advancements reduce reliance on polluting energy sources and contribute to lower emissions. Cleaner energy systems yield significant public health benefits, including reduced respiratory illnesses and lower healthcare costs associated with pollution-related diseases (Markandya et al., 2018). AI-driven energy efficiency in buildings further improves indoor air quality and thermal comfort, particularly in urban areas.

## **2. AI and Sustainable Agriculture**

Agricultural practices have a direct impact on environmental sustainability and human health. Conventional farming methods often involve excessive use of chemical fertilizers and pesticides, contributing to soil degradation, water contamination, and food safety risks.

AI-supported precision agriculture enables farmers to optimize resource use by analyzing soil conditions, crop health, and weather patterns. This targeted approach reduces chemical inputs, minimizes environmental harm, and lowers exposure to harmful substances for both agricultural workers and consumers (Wolfert et al., 2017). In addition, AI enhances food security by improving crop resilience to climate variability. Predictive models help farmers anticipate extreme weather events, pests, and diseases, thereby stabilizing food production and supporting nutritional health.

## **3. AI-Enabled Waste Management**

Inefficient waste management poses serious risks to public health, including pollution, water contamination, and the spread of infectious diseases. AI-driven waste management systems support green transformation by improving waste collection, sorting, recycling, and disposal processes. Smart sensors and AI algorithms optimize waste collection routes, reducing fuel consumption and emissions. Automated sorting technologies increase recycling rates and reduce landfill use (Zhang et al., 2019). These improvements contribute to cleaner urban environments

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and reduced exposure to hazardous waste. Communities implementing AI-supported waste systems often report improvements in environmental quality and public health indicators, including reduced pollution-related illnesses.

#### **4. Green Transportation and AI**

Transportation is a major contributor to urban air pollution and greenhouse gas emissions. AI supports green transportation through intelligent traffic management systems, electric vehicle integration, and shared mobility platforms. AI-driven traffic optimization reduces congestion and emissions by managing traffic flow in real time. The adoption of electric vehicles, supported by AI-based charging infrastructure management, further decreases emissions and improves air quality (Creutzig et al., 2020). Cleaner transportation systems contribute to improved respiratory health and promote physical activity through better urban mobility planning.

### **II. RESULTS: PUBLIC HEALTH IMPACTS OF AI-DRIVEN GREEN TRANSFORMATION**

The integration of AI into green transformation initiatives has produced measurable public health benefits across multiple domains. Improved air quality resulting from AI-enhanced monitoring and cleaner energy systems is associated with reduced incidence of respiratory and cardiovascular diseases. AI-supported sustainable agriculture contributes to safer food production, reduced chemical exposure, and improved nutritional outcomes. Enhanced waste management systems lower pollution levels and reduce health risks in urban communities.

Transportation advancements driven by AI reduce emissions, improve urban air quality, and support healthier lifestyles. Collectively, these outcomes demonstrate that AI-driven green transformation serves as an effective preventive public health strategy. However, the results also highlight disparities in implementation. Regions with limited technological infrastructure or regulatory frameworks may struggle to fully realize these benefits, emphasizing the need for inclusive and coordinated policy approaches.

### **III. LIMITATIONS**

This study is subject to several limitations. First, it adopts a conceptual and literature-based approach and does not include original empirical data or quantitative analysis, which limits the ability to measure the magnitude of public health impacts associated with AI-driven green transformation. Second, the absence of a clearly defined methodological framework reduces the reproducibility and analytical rigor of the findings. Additionally, the broad, multi-sectoral scope of the study constrains in-depth examination of specific sectors or regional contexts. The analysis also

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places greater emphasis on potential benefits than on challenges, with limited discussion of ethical concerns, data governance, and inequalities in access to AI technologies. Finally, while positive associations between green transformation and public health are highlighted, causal relationships cannot be firmly established.

#### **IV. CONCLUSIONS**

Artificial Intelligence plays an increasingly important role in advancing green transformation and improving public health outcomes. By enabling more efficient environmental monitoring, cleaner energy systems, sustainable agriculture, improved waste management, and greener transportation, AI contributes to healthier environments and populations.

The findings of this study suggest that AI-driven green transformation initiatives can significantly reduce environmental health risks and support sustainable development goals. Nevertheless, technological innovation alone is insufficient. Effective implementation requires strong policy frameworks, ethical data governance, and collaboration among policymakers, public health authorities, researchers, and industry stakeholders. As societies continue to confront climate change and public health challenges, integrating AI into green transformation strategies offers a promising pathway toward healthier, more resilient, and sustainable futures.

#### **REFERENCES**

- Creutzig, F., et al. (2020). *Towards demand-side solutions for mitigating climate change*. *Nature Climate Change*, 10(4), 275–281.
- Di, Q., et al. (2019). *Air pollution and mortality in the Medicare population*. *New England Journal of Medicine*, 376(26), 2513–2522.
- Health Effects Institute (HEI). (2020). *State of Global Air 2020*.
- International Energy Agency (IEA). (2023). *Digitalization and Energy*.
- Markandya, A., et al. (2018). *Health co-benefits from air pollution and mitigation costs*. *The Lancet Planetary Health*, 2(3), e126–e133.
- Prüss-Ustün, A., et al. (2019). *Preventing disease through healthy environments*. WHO.
- Rolnick, D., et al. (2019). *Tackling climate change with machine learning*. *ACM Computing Surveys*, 55(2).

WHO. (2021). *Climate change and health*.

Wolfert, S., et al. (2017). *Big data in smart farming*. *Agricultural Systems*, 153, 69–80.

Zhang, D., et al. (2019). *AI-enabled smart waste management*. *Waste Management*, 85, 33–45.

UNEP. (2022). *Artificial intelligence and environmental sustainability*.

OECD. (2021). *AI and the environment: Policy perspectives*.

IPCC. (2022). *Climate change 2022: Impacts, adaptation and vulnerability*.

European Commission. (2020). *A European Green Deal*.

World Bank. (2023). *Green digital transformation and development*.

**International conference on sustainable mobility**

**Agenda**

**Project title:** International Engineering Competence Centres to push Sustainable  
 Mobility Development in Albania and Montenegro  
**Acronym:** INTEC

<b>Work package</b>	
<b>WP11</b>	<b>International conference</b>
<b>TASK</b>	
11.4	Community Building Events

<b>Dates</b>	05.03.-06.03.2026
<b>City</b>	Tirana
<b>Meeting venue</b>	POLIS University Entrance Hall
<b>Address</b>	Rr. Bylis 12, Kodi Postar 1051, Kutia Postare 2995, Tirana, Albania

<b>05.03.2026</b>	
Entrance Hall, POLIS University	
<b>8:30 - 9:00</b>	<b>Registration</b>
<b>9:00 - 9:30</b>	<b>Opening Performance</b>
<b>Welcome session - Auditorium A5 (Ground floor)</b>	
<b>9:30 - 10:00</b>	<b>Opening Remarks</b> Dr. Elona Karafili (Vice Rector, POLIS University) Dr. Flora Krasniqi (Head of Office of Projects and Internationalization, POLIS University) DI Daniela Wenzl (INTEC Project Coordinator)
<b>Auditorium A5 (Ground floor)</b>	
<b>10:00 - 11:00</b>	<b>Keynote speakers</b> DI Horst Pflügl AVL Collaborative Research for sustainable Mobility DPSHTRR Representative - (General Directorate of Road Transport Services in Albania)
<b>11:15 - 11:30</b>	<b>Coffee break (Moving into parallel sessions)</b>

11:30	SESSION 1: POLITICAL AND REGULATORY FRAMEWORK AULA B1	SESSION 2: TECHNOLOGICAL INNOVATION AULA B4
11:30 - 11:45	<b>Opening Session:</b> Prof. Emeritus dr Nataša Gospić (FSKL)	<b>Opening Session:</b> Associate Prof. Ivan Tolj (US)
11:45 - 12:00	<b>Integrating Event Data Recorder (EDR) Technology into Sustainable Road Safety Frameworks within the European Green Deal</b> Eriselda Alimeti, Parid Milo, Mentor Çejku, Anis Sulejmani, Odhisea Koça	<b>Empirical Comparative Study of Structural CFRP Sandwich Structure Inserts for Out-of-Plane loads</b> Imre Kovács
12:00 - 12:15	<b>Infrastructure Readiness for Sustainable Mobility: EU Frameworks and the Case of Albania</b> Ervin Kalemaj, Parid Milo, Mentor Çejku, Anis Sulejmani, Odhisea Koça	<b>The Role of Intermodal Transportation for the Sustainable Mobility</b> Márton Kovács
12:15 - 12:30	<b>Review of the Evolution of International Ship Energy Efficiency Regulations and the Albanian context</b> Dr. Blenard Xhaferaj, Doklejda Hodaj	<b>Impact of Heat Pump Systems on Winter Energy Use and Driving Range in Battery Electric Vehicles</b> Luis Henrique Pereira Martins
12:30 - 12:45	<b>Renewable Energy Procurement (CPPA) and Transport Electrification: European Perspectives and Albanian Challenge</b> Antonio Ndoci, Anis Sulejmani, Odhisea Koça, Mentor Çejku, Parid Milo	<b>Liquid Cooling Systems for Electric Vehicle Batteries: Improving Safety, Performance and Sustainability</b> João Miguel de Almeida Ribeiro Silva
12:45 - 13:00	<b>The Current Status of Autonomous Vehicle</b>	<b>Analysis of Battery Charging and Discharging Behavior for Electric Vehicle Applications</b> Leona Markic, Luka Filipović

	<b>Technology Adoption in the Balkan Region</b> Darjana Lopičić, Oliver Popović, Miloš Ilić, Bojan Kocić	
<b>13:00 - 14:00</b>	<b>Lunch</b>	
<b>14:00 - 14:15</b>	<b>Reviewing the European Green Deal in Energy, Mobility and Industry</b> Veselinka Calasan, Ivana Ognjanović	<b>Automotive Cooling Systems Sustainability: A Focus on the Expansion Tank</b> Ana Inês Barbeiro Casimiro
<b>14:15 - 14:30</b>	<b>The European Green Deal and its National Implementation: From Strategy to Practice</b> Blerina Bektashi, Andi Bektashi	<b>Design and Development of a Constant-Volume Combustion Chamber for Optical Investigation of Hydrogen and Water Injection Under Engine-like Conditions</b> Julius Hollerith, Prof. Dr. Bhavin Kapadia
<b>14:30 - 14:45</b>	<b>From Prediction to Regulation: Evidence Production Approaches in Autonomous Mobility Research and Their Policy Implications</b> Sadmira Malaj	<b>Emission Reduction of Marine Propulsion Systems in SECA Zones Through the Integration of Hydrogen Technologies</b> Motaleb Miri, Ivan Radaš, Marija Mandić, Ivan Tolj
<b>14:45 - 15:00</b>	<b>Questions and Discussion</b>	<b>A Comprehensive Analysis of Ventilation System for Enhanced Energy Efficiency in Marine Propulsion Applications</b> Sara Blašković, Gojmir Radica, Jakov Šimunović

15:00 - 15:15		<b>Design and Topology Optimization of a Lightweight Chain Sprocket for Electric Motorcycle Applications</b> Teo Čolović, Ivo Marinić-Kragić
15:15 - 15:30	<b>SESSION 3: ECONOMIC AND BUSINESS PRESPECTIVES + CASE STUDIES AND GOOD PRACTICES</b> Aula B1	<b>Questions and Discussion</b>
	<b>Opening Session:</b> Dr. Anis Sulejmani (PUT)	
15:30 - 15:45	<b>Managing Renewable Energy Resources as a Foundation for Sustainable Mobility Transitions</b> Deivi Sinanaliaj, Martin Bektashi	
15:45 - 16:00	<b>Feasibility of Electric Bus deployment in Montenegro: A Case Study of Budva (Erasmus+ INTEC / IECC Context)</b> Anastasija Mrkajic, Vinko Nikic.	
16:00 -16:15	<b>Children Paths as an Urban Regeneration Strategy: Naim Frasheri Study Case</b> Dejvi Dauti	
16:15 - 16:45	<b>Questions and Discussion</b>	

## International conference on sustainable mobility

# Agenda

**Project title:** International Engineering Competence Centres to push Sustainable Mobility Development in Albania and Montenegro  
**Acronym:** INTEC

<b>Work package</b>	
WP11	International conference
<b>TASK</b>	
11.4	Community Building Events

<b>Dates</b>	05.03.-06.03.2026
<b>City</b>	Tirana
<b>Meeting venue</b>	POLIS University Entrance Hall
<b>Address</b>	Rr. Bylis 12, Kodi Postar 1051, Kutia Postare 2995, Tirana, Albania

06.03.2026		
First Floor Hall, POLIS University		
8:30 – 9:00	Registration	
9:00– 9:15	SESSION 4: SOCIAL AND ENVIRONMENTAL IMPACT AULA B1	SESSION 5: FUTURE SCENARIOS AULA B4
9:00 – 9:15	Opening Session: Prof. Dr. Bhavin Kapadia (FHF)	Opening Session: MA Adrian Millward-Sadler (FHJ)
9:15 – 9:30	Comparison of Lifecycle Emissions of a SUV with Fuel Cell and Battery Electric Powertrains - Bhavin Kapadia, Alper Sayin, Sandra Eisenträger	GENAI Literacy as a Transversal Skill for Emerging Professionals: Implications for Sustainability- Critical Knowledge Work - Adrian Millward-Sadler
9:30 – 9:45	Smart Mobility Technologies and their Impact on Urban Sustainability: Insights from	Effects of Technical Traffic Calming Measures – Filip Perović

	<b>European and Western Balkan Cities –</b> Alma Gjonaj, Vjola Ziu	
<b>9:45 – 10:00</b>	<b>The Disappearing Squares: Social and Environmental Impacts of Urban Mobility Planning in Durres –</b> Arjola Sava	<b>Cybersecurity Vulnerabilities in Electric Vehicle Operating Systems: A Global Awareness Analysis –</b> Aleksa Radević
<b>10:00 – 10:15</b>	<b>The City that Demands Continuous Movement: The Disappearance of the Right not to Move within the Framework of Sustainable Mobility –</b> Avrili Meshi	<b>Development of a risk assessment model for the transport of hazardous materials using ALOHA and GIS software tools –</b> Marko Radetić
<b>10:15 – 10:30</b>	<b>Between Rhetoric and Reality: Discursive Framings, Greenwashing and Outcomes in Sustainable Mobility –</b> Kejsi Veselagu	<b>Mapping Distance and Time Leveraging Isochrone Intelligence in Emerging Cities –</b> Andia Vllamasi, Erjon Cobani
<b>10:30 – 10:45</b>	<b>Reimagining the City Through Green Mobility Strategies: The Case of Tirana –</b> Vjola Ziu, Alma Gjonaj	<b>Can AI develop its Own “Taste” Automotive Design? –</b> Gregor Andoni, Kristjana Meço
<b>Coffee Break</b>		
<b>11:00 – 11:15</b>	<b>Linking Morphology, Perceived Safety, and Sustainable Mobility in Post-Socialist Urban Contexts–</b> Sindi Doce	<b>Optimizing Public Transport Corridors Using AI-Based Scenario Modelling: A case Study on Tirana’s Ring Road –</b> Erjon Çobani, Julian Beqiri, Merita Guri
<b>11:15 – 11:30</b>	<b>Towards Sustainable Transport: A Comparative Analysis of Electric Vehicle Adoption in Montenegro and Albania –</b> Radmila Milić	<b>Threat Landscape and Multi-Layered Protection Mechanisms for Autonomous and Electric Vehicle Systems –</b> Marko Asanovic, Oliver Popović, Zoran Avramović, Nataša Gospić

11:30 - 11:45	Questions and Discussion	Cybersecurity Challenges in Modern Vehicular Communication Networks - Aleksandar Grgurević, Nataša Gospić, Oliver Popović
11:45 - 12:00		Green Transition in Albania: Challenges and Future Actions - Erik Kushta, Andi Hyka, Enea Nasto
12:00 - 12:15	SESSION 6: CONTROVERSIES AND CHALLENGES Aula B1	Use of AI in the Process of Green Transformation and Impact on Public Health - Esmeralda Hamiti, Federika Alliaj, Kristi Metushi
	Opening Session: Prof. Kristofor Lapa (UV)	
12:15-12:30	The Adoption of Electric Vehicles in Albania: A Comparative Study with Other Western Balkan Countries - Doklelda Hodaj, Andrea Lapa	Development of an Automatic Traffic Sign Detection System Using YOLOv8 - Valentina Vojinović, Luka Filipović
12:30-12:45	Application of Quality Tools in the Analysis of Factors Influencing the Development of Electromobility in Montenegro - Jelena Šaković Jovanović, Draško Jovanović, Mirjana Grdinić Rakonjac, Marko Lučić, Miloš Perović, Aleksandar Vujović, Gordana Radulović	The Historical Development of Artificial Intelligence and Its Influence on the job market in Automotive Engineering - David Josef Pilgram
12:45 - 13:45	Questions and Discussion	Questions and Discussion
13:45	Lunch	