

IENE @

18th Conference of the International Society for Ecological Economics and 11th International Degrowth Conference

SS124-1: Rethinking Infrastructure: Balancing Mobility, Biodiversity, and Sustainability in a PostGrowth World

Time: Thursday, 26/June/2025: 11:00am - 12:30pm

Session Chair: Andreas Seiler

Session Chair: Lazaros Georgiadis

Location: HE Seminarrom U36

Building: Helga Engs hus (HE) Capacity: 50 Floor: -1 MazeMap Link:
<https://use.mazemap.com/?campusid=797&sharepoi=BL20U36&config=uiu>

Session Abstract

A sustainable future requires a fundamental shift in how we approach transport and energy infrastructure. If global development trends continue unchecked, demand for transport and energy could more than double by 2050, justifying extensive expansion of road and rail networks. However, infrastructure investments traditionally emphasize economic growth by stimulating trade, energy use, and transportation, often sidelining externalities like ecosystem health, biodiversity, and human well-being. Without intervention, this trajectory risks devastating the last remaining roadless and biodiverse landscapes, undermining critical ecological processes and reducing the quality of life for both wildlife and human communities.

To create resilient, biodiverse, and livable landscapes where people can remain mobile without dependence on high-impact transport systems, we must move beyond growth-centered economic imperatives and foster new values anchored in sustainability. For the transport and infrastructure sectors, this shift involves reversing priorities: future land use and infrastructure projects must align within ecological and human boundaries rather than economic metrics. The initial question should therefore be whether a new infrastructure investment will genuinely benefit long-term regional sustainability or if alternative approaches offer greater net value for both communities and ecosystems.

To address these complex considerations, we must develop new non-monetary indicators and evaluative criteria that recognize and preserve ecological and social wealth, offering alternatives to traditional cost-benefit analysis. Such measures should assess diverse scenarios for regional development, focusing on ecological integrity and human well-being as primary objectives. Ultimately, this may require a redefinition of the sustainability concept that integrates biodiversity and ecosystem resilience directly into planning and decision-making frameworks.

This session will critically explore conventional impact assessment and mitigation approaches, examining how infrastructure planning can adopt non-monetary methods to evaluate biodiversity impacts. We will question who bears responsibility for integrating sustainability concerns into large-scale infrastructure planning and examine strategies for reducing the need for extensive transport networks by promoting mobility solutions that operate at local and regional scales. Through these discussions, we aim to highlight the potential for transformative change within the infrastructure sector, identifying pathways to reduce ecological footprints and enhance landscape connectivity.

The session will feature an introductory presentation of the work of the Infrastructure and Ecology Network Europe (IENE.info), followed by short presentations (15 min) on the topic (open to any participant) of e.g., non-monetary valuation, cumulative impacts, accountability mechanisms or sustainability. These

presentations will set the stage for an open discussion with the audience about innovative approaches to impact assessment, and actionable solutions for integrating biodiversity and ecosystem concerns into infrastructure development. Through this session, we aim to foster a deeper understanding of the role of infrastructure in sustainable development and inspire actionable strategies for creating infrastructure systems that respect ecological and social thresholds.

Designed for 30-50 attendees, the session will provide a forum for interdisciplinary exchange and collaborative problem-solving between infrastructure ecology and ecological economics. We intend to save presentations and slides, allowing us to share the insights with a broader audience, especially within the transport sector.

Presentations

Rethinking transport and energy infrastructure for a sustainable future

Andreas Seiler¹, Manisha Bhardwaj², Wendy Collinson-Jonker³, Ivo Dostal⁴, Denis Francois⁵, Lazaros Georgiadis⁶, Thierry Goger⁷, Eric Guinard⁸, Nicolas Hette-Tronquart⁹, Darryl Jones¹⁰, Nelo Molter Magalhães¹¹, Frederico Morelli¹², Radu Mot¹³, Sylvain Moulherat¹⁴, Vincent O'Malley¹⁵, Cristian-Remus Papp¹⁶, Carme Rosell¹⁷, Marguerite Trocmé Maillard¹⁸, Edgar van der Grift¹⁹, Rodney van der Ree²⁰, Yun Wang²¹

¹Swedish University of Agricultural Sciences, SE; ²University Freiburg, DE; ³University of Venda, SZ; ⁴Transport Research Centre, CZ;

⁵University Eiffel, FR; ⁶Environmental Consultant, GR; ⁷FEHRL, BE; ⁸Cerema, FR; ⁹OFB, FR; ¹⁰Griffith University, AU; ¹¹EHESSCNRS, FR; ¹²University of Life Sciences, CZ; ¹³Zarand, RO; ¹⁴Terroiko, FR; ¹⁵Transport Infrastructure Ireland, IE; ¹⁶WWF Romania, RO; ¹⁷Minuartia, ES; ¹⁸Federal Roads Office, CH; ¹⁹Wageningen Environmental Research, NL; ²⁰University Melbourne, AU; ²¹Academy of Transportation Sciences, China

The Infrastructure and Ecology Network Europe (IENE), established in 1995, aims to provide knowledge, tools, and strategies to mitigate the ecological impacts of transport infrastructure. From its inception, IENE has worked to balance mobility with biodiversity and long-term ecological resilience by fostering knowledge exchange and collaboration among stakeholders, integrating biodiversity values into transport infrastructure development, and, more recently, addressing the socio-ecological transformations required for a sustainable future.

IENE advocates for a paradigm shift in infrastructure development, prioritizing ecological integrity, social well-being, and resilience over traditional growth-oriented models. Conventional infrastructure development externalizes environmental and social costs, resulting in habitat fragmentation, biodiversity loss, and inequitable social outcomes. As we face a changing climate, declining biodiversity, demographic shifts, and the slowing pace of global economic growth, these practices are increasingly untenable. Instead, transport infrastructure development must adopt sustainability-focused strategies, emphasizing collaboration and systemic change.

This paper highlights three strategic objectives IENE promotes to guide future transport infrastructure development:

- 1) Mainstream ecological principles at every stage of transport infrastructure planning, design and implementation to avoid further impacts, preserve and restore biodiversity and ecological connectivity.
- 2) Embrace non-monetary valuation of biodiversity and social well-being, internalise costs and employ circular economy principles, while adopting innovative, low-impact practices.
- 3) Enhance communities and regional resilience by developing regionally adapted transport systems and localized production networks that reduce reliance on long-distance transport, strengthen local economies, and promote social equity.

Underpinned by concepts such as planetary boundaries and doughnut economics, IENE envisions infrastructure as a tool for ecological restoration and community resilience rather than disruption. This transformative vision aligns infrastructure development with global sustainability goals, helping to set a roadmap for creating resilient, equitable, and biodiverse societies for generations to come.

Impacts of large infrastructure developments on diverse values of nature: Insights from Nordhordland UNESCO Biosphere Reserve

Janne Katharina Thomsen^{1,2}, Jarrod Cusens^{1,2}, Inger Elisabeth Måren^{1,2,3}, Alicia D. Barraclough^{1,2}

¹Department of Biological Sciences, University of Bergen, Norway; ²Centre for Sustainable Area Management (CeSAM), University of

Bergen, Norway; ³UNESCO Chair on Sustainable Heritage and Environmental Management, University of Bergen, Norway

Land-use change is the greatest driver of biodiversity loss worldwide. As infrastructure demands of the green energy transition intensify, spatial planning must navigate diverse values of nature. This talk explores the potential of socio-cultural valuation of nature to inform sustainable spatial planning, drawing on social-ecological research conducted in Nordhordland Biosphere Reserve, Norway. Nordhordland is part of UNESCO's World Network of Biosphere Reserves that are envisioned to be learning places for sustainable development. Biosphere Reserves provide a framework for understanding and managing the diverse values of nature and navigating conflict in social-ecological systems.

Using proposed infrastructure developments such as a wind farm and a power line development as case studies, we use the IPBES values assessment as a methodological framework to identify the multiple value types and dimensions people ascribe to nature. Our mixed-methods approach integrates spatial analysis of data from formal spatial planning, a Public Participation Geographic Information Systems (PPGIS) study, where people mapped places they valued for ecosystem services, and qualitative, semistructured interviews. The interviews will be conducted with both local and regional actors whose values of nature are affected by the proposed infrastructure developments and governmental actors formally involved in the planning processes. This integrated approach aims to reveal (mis-)matches between the socio-cultural values for nature held by diverse actor groups in Nordhordland and the values represented in formal spatial planning processes. The study investigates how large-scale infrastructure projects affect both broad and specific values of nature, highlighting what and whose values are most impacted.

Finally, we discuss the utility of the IPBES values framework in operationalizing nature valuation for spatial planning in these specific cases. By addressing potential value (mis-)matches, we outline ways to foster more inclusive spatial planning approaches.

Degrowing car culture: calculating the material demands of car-dependent society

Bart Hawkins Kreps

York University, Canada

Abstract: The environmental destructiveness of car culture – defined here as a way of life in which the private car is the dominant tool for personal mobility – is widely acknowledged. But because of the way production and consumption sectors are categorized, the full environmental impact of car culture may be greater than typically recognized. A common categorization of sources of greenhouse gases, for example, includes transportation, commercial buildings, residential buildings, industry, and agriculture. Within transportation, the sub-category of emissions from personal vehicles may range from less than 10% of total emissions to more than 15% depending on the country. Yet a substantial proportion of emissions from other sub-sectors – steel, plastics, quarrying, cement, and freight transport – occurs in the production of cars and the production and maintenance of the roads, bridges and parking lots. Approaching the issue from another angle, Life Cycle Assessments are an important reference for the embodied emissions of new cars. Car culture, however, is neither a single industrial sector, nor the single product “cars”; it is a socio-technical system that overlaps sectoral and product boundaries. This presentation will provide a more realistic estimate of the total energy and material demands of car culture in Ontario, Canada. Such an estimate can also provide perspective on the significance to degrowth of a transition away from car culture. Although the direct carbon emissions from personal cars are expected to drop dramatically through electrification, other impacts – through the production of roads, production of steel, and mining of lithium and other minerals critical to electrification – will remain high as long as car culture remains dominant. By contrast, a shift in emphasis from efficiency to sufficiency in transportation – using vehicles that are appropriately matched in size and power for their required use, and organizing cities in ways that minimize the need for engine-powered mobility – is well aligned with degrowth principles. A calculation of how such a shift can contribute to sustainability, broadly understood, can provide concrete empirical evidence of the importance of degrowth perspectives in building a sustainable future.

Technical requirements: I plan to use my own computer with an HDMI port to project slides. If there is no compatible projector in the venue I would like to know that well in advance.

Rethinking an Inclusive Future for Inland Water Transport: Balancing Sustainability and Development in the Brahmaputra River Basin

Gitima Das, Anamika Barua, Debanga Raj Neog

Indian Institute of Technology Guwahati, India

While traditional neoclassical economics prioritises economic growth, often treating environmental issues as externalities, environmental economists argue for adopting green growth ideology. Green growth emphasises decoupling economic growth from environmental harm through technological innovation, resource efficiency, and cleaner production methods, representing a departure from neoclassical economics by internalising environmental sustainability into economic decision-making. However, green growth does not explicitly account for ecological limits, such as limits to growth, biodiversity loss, and the subsequent rebound effect, which are implications of technological progress and other human-made alternatives. Therefore, green growth underpins weak sustainability, which assumes that natural capital can be substituted by human-made capital while economic growth continues indefinitely. In contrast, strong sustainability, rooted in ecological economics, asserts that natural capital has intrinsic value and cannot be entirely replaced by human-made alternatives. This perspective emphasises living within the bounds of ecological limits and addressing growth-driven development's social and ecological consequences. Thus, with global calls for a post-growth world demanding reductions in resource use and increasing economic output gaining traction, exploring pathways that integrate green growth with strong sustainability into infrastructure planning and development is crucial.

This paper examines the Inland Water Transport (IWT) system in the Brahmaputra River Basin (BRB) to evaluate whether its shift to green growth aligns with strong sustainability. The IWT operations in the BRB are boosting regional trade and connectivity between India and Bangladesh and are praised for their lower carbon footprint compared to road and rail transport. Recent investments in greener fuels in the IWT sector further promote green growth. However, semi-structured interviews with government and nongovernment experts in India and Bangladesh, conducted via purposive and snowball sampling, reveal that the sector's focus on decarbonization neglects long-term ecological and social impacts. Specifically, the findings highlight inadequate considerations for biodiversity, including the endangered Ganges River Dolphin, an indicator species for healthy river ecosystems. Additionally, concerns of river-dependent communities are often overlooked when addressing local ecological and cultural needs.

The study highlights the need to integrate biodiversity and ecosystem concerns into decision-making by complementing IWT's green growth strategies with strong sustainability principles. This involves a transformative approach using AI/ML-based biodiversity monitoring tools, early warning systems, capacity building, and community-driven conservation rooted in traditional knowledge. Such initiatives will ensure that IWT development aligns with ecological and social thresholds rather than solely economic metrics and foster a pathway to strong sustainability, where economic development and the river ecosystem coexist harmoniously.

The global economy is missing from rebound effect measurements, and that's a problem

Kendrick Hardaway¹, John Mulrow^{1,2}, Jason Barahona-Rosales², Kanaan Hardaway¹

¹Purdue University, United States of America; ²The Degrowth Institute

Motivation

Proposals for addressing the planet's most pressing environmental issues, such as climate change, tend to center on rapidly transitioning to more efficient technological and infrastructure systems. A major critique of this approach centers on the Jevons Paradox, whereby more efficient technologies stimulate additional impact-driving activities that offset expected reductions. This "rebound effect" has been suggested as one reason for why efficiency gains do not yield global-scale reductions in pollution. In turn, many sustainability researchers and practitioners are attempting to quantify potential rebound effects so that they can be factored into global-scale environmental policymaking. We are motivated to assess the current state of rebound effect measurement and its utility for supporting degrowth narratives and policy proposals.

Background

Researchers and practitioners have sought strategies to measure and mitigate rebound effects. Rigorous quantitative methods for evaluating the rebound effect have been developed, and researchers have proposed frameworks for understanding the spatial and temporal features of distinct types of rebound effects. Is it best to measure by industry, by country, or by the global economy? Which units should be used—energy use, greenhouse gas emissions, vehicle kilometers traveled?

Methods

We performed a systematic review of the transportation research literature for rebound effects. We compared methods of rebound effect estimation, how the measurements fit into existing frameworks, and what gaps remain in understanding rebound effects. We consider the motivation for measuring rebound effects: climate change, environmental compliance, energy projections, etc. We asked questions about what fields are studying rebound

effects, what suggestions are made to mitigate rebound effects, and what best practices exist going forward for understanding rebound effects.

Results

Our key finding is that despite best efforts to quantify rebound effects, most research is heavily focused on an isolated industry or region thereby neglecting the global economy and global environmental challenges. This neglect can lead to misunderstandings about the feasibility of decoupling emissions and economic growth and what strategies might mitigate the rebound effect.

We find that the current state of rebound effect measurement techniques is insufficient for **drawing conclusions about the magnitude of the rebound, at least with respect to global climate change**. We find that the most common suggestions for mitigating rebound effects are localized carbon taxes and better estimation of the rebound effect, both of which ignore the effects of global economic growth. This research indicates the current limitations of our quantitative approaches for advising environmental policy.

Power lines for nature, wellbeing and interconnectivity: Integrative Vegetation Management as a Paradigm for Ecological Linear Infrastructure

Liam Innis, Ourania Papasozomenou

Renewables Grid Initiative, Germany

Conventional infrastructure planning frameworks often prioritize economic growth, sidelining critical ecological and social considerations. Our work highlights how Integrative Vegetation Management (IVM) in electricity grids, and beyond, offers a practical, scalable model for embedding ecological and social well-being into infrastructure planning and evaluation.

IVM prioritises ecological integrity by managing vegetation under electricity grids (and other utility corridors) to enhance biodiversity, promote ecosystem resilience, reduce maintenance impacts and benefit local communities. Through European case studies, we will demonstrate how electricity grid operators are successfully implementing IVM to create multifunctional landscapes that benefit both nature and local communities. These examples also expose challenges, particularly in establishing non-monetary evaluation frameworks that capture the true ecological and societal value of infrastructure projects and reflect a long-term planning.

A shift to non-monetary indicators in planning and evaluation offers a way forward. Criteria such as biodiversity preservation, local community benefits, sustainability, and innovation are already gaining traction in sectors like offshore wind energy and are increasingly relevant for terrestrial infrastructure. By integrating these criteria into the planning process, we can ensure that infrastructure projects align with ecological and human boundaries, rather than narrowly defined economic metrics.

The European Union's Corporate Sustainability Reporting Directive (CSRD) adds further impetus to this transition, mandating greater accountability for the sustainability impacts of infrastructure projects and most importantly brings unprecedented obligations for biodiversity conservation. In this context, IVM not only demonstrates the feasibility of ecologically integrated approaches but also provides a template for rethinking transport infrastructure planning.

By adopting IVM principles and expanding the use of non-monetary evaluation frameworks, we can redefine infrastructure development to prioritize long-term ecological health and social well-being. This approach challenges the status quo of growth-driven planning and opens pathways to create resilient landscapes that align with the values of a post-growth world.

Energy and Transport poverty in European Union: A bibliometric and systematic literature review

Gabriel Navarro Tilloca^{1,2}, Giacomo Marzi², Angelo Facchini²

¹University of Florence; ²IMT Lucca

Social challenges such as Energy poverty (EP) and Transport poverty (TP) highlight the complexity of achieving a more equitable society, particularly in regions that are struggling to adapt to the energy transition policies.

Over the past 15 years, research on the impact of EP and TP on households adopted a multidimensional and multidisciplinary approach, expanding considerably. Studies often combine insights from different disciplines - such as economics, engineering, health sciences, anthropology, politics and psychology - to address these issues. However, research examining both EP and TP together remains limited, especially in less studied geographies greater islands and inner areas.

In this work we map the intellectual structure of EP and TP research in the European Union with the aim to provide a better integration of the current knowledge between the two topics. We focus on the main articles published between 2011 and 2024, following a set of well-structured methodological guidelines for the bibliometric

and the systematic literature analysis. The application of rigorous tenstep processes, utilising tools such as Bibliometrix and VOSviewer, ensures the work's reproducibility and robustness.

Our analysis highlights the gap in the literature covering the geographical area of the Mediterranean Sea and its major islands (Sardinia, Corsica, Balearic Islands, Cyprus). We observe that quantitative or qualitative research on EP and TP needs to be better developed and expanded. Moreover, an additional analysis of non-academic literature comprising national and regional legislation and policies from three islands reveals discrepancies with the academic literature. These discrepancies are often attributed to a lack of indepth studies and research in inner areas and regions. Furthermore, the implementation of policy recommendations aimed at improving the situation is challenging in regions that differ from those where the majority of case studies are concentrated.

Preliminary results of the bibliocouplig analysis indicate that studies on energy poverty mainly aggregate into six clusters. Similarly, transport poverty research is divided into five clusters. In both cases we can reveal a strong multidisciplinary nature of research for each cluster. Papers that simultaneously explore both social issues often occupy the edge of the clusters to which it belongs, a phenomenon attributable to the novelty of the study.

Decarbonization of the German Automotive Industry: Gendered Impacts on Labor and Alternative Discourses of Transformation

Zeynep Nettekoven

European Academy of Work at Goethe University Frankfurt, Germany

The German and EU automotive industry is facing a crisis due to fierce global competition and decarbonization measures. As a key industry with a substantial environmental impact, it is at the center of the debate on socio-ecological transformation (Nettekoven 2023). Powertrain electrification has emerged as the dominant decarbonization strategy, representing a profound shift in automotive history. While macro-level projections suggest that electrification will not drastically reduce employment and may even create jobs in the long term, at the micro-level it entails job displacement and evolving skill requirements.

Despite a growing body of research on the environmental, economic and social impacts of electrification, its gendered impacts remain under-researched. Industrial transformations are never gender neutral due to existing segregation in labor markets and education systems. A recent example is the expected gendered impacts of automation and artificial intelligence on jobs (Gmyrek et al. 2023; Brussevich et al. 2019). Current just transition strategies lack a gender transformative lens. Feminist and masculinities scholars criticize male dominance in climate research and policy, by labels like 'ecomodern masculinities', 'mantrophocene' and 'petromasculinity' (Raworth 2014; Dagget 2018; Hultman/Pulé 2020).

This paper investigates, through seven expert interviews and secondary data, in what ways electrification as an ecological modernization strategy (potentially) affects gender inequalities in the automotive industry in Germany. It also presents the discourses on mobility system transformation according to three alternative but intertwined approaches in the literature: democratic conversion approach, the degrowth approach and the eco-feminist political economy.

The findings suggest that while job losses will primarily affect men due to the male dominance of the automotive industry, women face specific risks: automation through electrification replacing routine tasks, under-representation in STEM, limited training, weak networking and work-life balance challenges. However, the complementarity of technology with women's roles and the growing demand for STEM skills could create new opportunities for female workers - if supported by proactive transformation strategies. Electrification alone does not offer a sustainable exit strategy from the socio-ecological crisis of the automotive industry today. Alternative transformation approaches strongly address the climate crisis, inequality and global asymmetries. By involving environmental, labor and feminist movements, they promote democratic decision-making, public transport and alternative production. They advocate exit strategies that create 'green' jobs in sectors such as renewable energy, public transport, medical equipment or care work, while ensuring better working conditions. There are some important concrete historical and contemporary projects of transformation in the automotive industry along these lines.

Crises as Catalysts for Sustainable Urban Mibility: A Systematic Review of Long-Term Impacts

Ilya Sogolov

TU-Berlin, Germany

This work examines the long-term impacts of economic crises on sustainable urban transportation systems, focusing on the 2008 economic crisis and the COVID-19 pandemic. Both crises lasted around two years and had a great variation of impact between countries and regions. While mobility practices are often resistant to change, crises can disrupt established patterns and create opportunities for promoting sustainable modes like cycling and public transport.

The review analyzes 57 peer-reviewed articles and non-refereed reports published between 2009 and 2024. The research questions address the main findings regarding the long-term impact of economic crises, particularly the

modes most affected, lessons learned, best practices, and research gaps. A key focus is on identifying mobility changes that persisted after crises and understanding the contributing factors.

The study employs the PRISMA flow diagram for systematic literature reviews, using Web of Science and Scopus databases. Data sources used in the reviewed studies include surveys, automatic bicycle counters, bike-sharing data, interviews, GPS data, and crowd-sourced data. The methodologies employed exhibit a wide range of approaches including Empirical Case Studies, Quantitative Modeling, Systematic Literature Reviews and Documentary Analysis, Forecasting and Demand Analysis, Policy Review and Analysis, and Survey-Based Analysis.

Preliminary findings indicate that while the 2008 economic crisis led to temporary shifts towards cycling and public transport, these changes did not persist after the crisis. The COVID-19 pandemic, however, presents a more complex picture. The pandemic's impact on remote work and the implementation of pro-cycling policies have the potential for more lasting effects on sustainable mobility. In both crises, public transportation emerged as a critical infrastructure for society. However, in both crises, it has sustained damage, either from budget cuts or loss of ridership. In both cases, the crisis has exposed income and gender inequalities which can be addressed in future crisis management.

The review includes studies of a few interventions such as investment in public transport or in cycling infrastructure during the crisis, however, such studies are few in number. Further investigation is needed to understand the interplay between policy interventions, individual behavioral changes, and the persistence of sustainable mobility patterns post-crisis.

In light of the ongoing climate crisis, the ongoing Russian invasion of Ukraine, and potential crises in the future, understanding the factors that contribute to lasting change can inform policy decisions and promote a transition toward more resilient and sustainable urban mobility systems even in times of peril.

Discussion

Overall, the participants emphasised the importance of adapting transport and infrastructure to human wellbeing rather than to technology, favouring walking, cycling over cars and even public transport. This implies creating neighborhoods that allow for access to essential resources within short distances, shortening supply chains and re-localizing production-consumption. The transport system must be inclusive and sufficient, rather than aiming at higher speeds and long-distance travel. This allows for more bottom-up approaches and lower investments.

While this is relatively easy to accomplish in urban settings, examples from Berlin were discussed, it is still a challenge to find suitable solutions for rural environments. Here, car sharing, on-demand public transport, and collaboration in designing transport solutions for small communities may help. In both cases, governments are expected to provide better transportation services, enabling a fairer and more affordable transport system for all, not only the rich.

To gather the diverse perspectives, IENE launched an interactive survey during the session, using [Mentimeter.com](https://www.mentimeter.com), to collect input from participants. The aim was to co-create a shared vision of sustainable infrastructure and to identify both the barriers and enabling tools for its implementation.

Participants were invited to respond with keywords to the following four questions:

1. Characterize your vision of a sustainable transport and energy infrastructure?



2. What potential negative impacts of that vision can you foresee?



3. What barriers do we need to overcome to accomplish the vision?



4. What tools and rules do we need to overcome these barriers?



IENE now continues this approach and publishes a **complementary survey** on the future of transport and infrastructure:

 To participate in the survey, please visit: <https://forms.office.com/e/RPxjpK8qFA>