

***Sustainable infrastructure needs ecological solutions – it's time to work together!***

**We, the participants of the IENE 2020 International Conference, acknowledge that:**

1. We are facing a significant worldwide expansion of transportation networks; this is especially the case in countries with developing economies.
2. If no action is taken, this global expansion will entail a substantial increase in greenhouse gas emissions, wildlife mortality and landscape fragmentation and change, with devastating effects on climate, biodiversity and ecosystem services.
3. Globally, ecosystem services are estimated to yield more than the Gross World Product of 2019 (<https://www.worldometers.info/gdp/>).
4. Despite the development and implementation of environmental impact assessment legislation, many existing transportation infrastructure networks are not environmentally friendly. These impacts are far-reaching with a debt being paid daily through unnecessary risks extendable to human health and well-being.
5. The economic, social, and ecological consequences of biodiversity loss and the role of transportation infrastructure is increasingly acknowledged worldwide:
  - Conservation and restoration of ecological connectivity is a major flagship in the preparation of the upcoming United Nations “Post-2020 Global biodiversity framework” following the recognized failure of the Aichi Targets associated with the loss and fragmentation of natural habitats (Target 5) (<https://www.cbd.int/gbo5>).
  - The European Green Deal and the new European Biodiversity Strategy for 2030, adopted by the European Commission in May 2020, stresses the need to develop a resilient Trans-European Nature Network supported by ecological corridors allowing the free flow of genes and individuals ([https://ec.europa.eu/info/sites/info/files/communication-annex-eu-biodiversity-strategy-2030\\_en.pdf](https://ec.europa.eu/info/sites/info/files/communication-annex-eu-biodiversity-strategy-2030_en.pdf)).
  - The Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) states that since 1970, transportation infrastructure is an important driver of land use change and associated loss of terrestrial biodiversity (<https://ipbes.net/global-assessment>).
  - The World Economic Forum 2020 recognized that biodiversity loss is one of the major threats with ‘plausible higher than average impact’ on Global Economies (<https://www.weforum.org/reports/the-global-risks-report-2020>).
6. To achieve sustainability, infrastructure development must be decoupled from its negative effect on biodiversity. This requires immediate, stringent action and shared responsibilities from all stakeholders.
7. Regional, national, and worldwide networks of experts, including researchers, practitioners, landscape designers, managers, address such concerns through knowledge-sharing platforms that promote effective ecological solutions.

## **IENE 2020 INTERNATIONAL CONFERENCE DECLARATION**

8. The scarcity of collective and coordinated efforts such as joint decision-making processes involving environmental, transportation, energy, policy and financing agencies, is still a major obstacle to achieve sustainability in transportation infrastructure projects.

**Therefore, we, the participants of the IENE 2020 International Conference, call for an individual and collective endeavour to:**

1. Improve robust, science-driven methodologies and decision-support tools to aid sustainable transportation infrastructure planning, based on the no-net loss recommendations, considering cumulative anthropogenic impacts.
2. Mainstream biodiversity and ecological connectivity across all phases of infrastructure planning, development, construction, and maintenance.
3. Enhance collaboration among all relevant actors in transportation infrastructure development through the creation of a multilevel and multidisciplinary group including representatives from the sectors of transportation (e.g. DG Move, TEN-T), energy (e.g. DG Energy) and environment (e.g. DG Environment, TEN-G), as well as from all other relevant stakeholders.
4. Acknowledge that further development of new infrastructure needs to consider cumulative impacts within a larger landscape context; this requires integration with existing infrastructure to guarantee overall habitat integrity and connectivity, thus accounting for potential synergistic interactions between biodiversity impacts and ecological solutions.
5. Accelerate the ecological adaptation of rapid, transparent, and fair transference of scientific evidence-based knowledge to practitioners, managers and infrastructure designers, to avoid negative impacts of transportation infrastructure development on biodiversity.
6. Assure that investments in new transportation infrastructure projects are conditioned to an assessment of their sustainability, considering the no-net loss recommendations to meet biodiversity conservation targets.
7. Guarantee that new transportation infrastructure projects, allocate further funding for research and innovation, monitoring and evaluation, as well as knowledge-sharing.
8. Strengthen platforms that support cooperation among scientists, practitioners, and agencies, encouraging international studies that promote direct, rapid exchange of knowledge in a “learning together” environment as oppose to a “learning from each other” process.
9. Establish the foundation for an International “Observatory for the Ecological Effects of Transportation Infrastructure and related mitigation works and policies”, to compile standardized information from which new insights can be gained and new remedies can be developed.

These proposed actions are the responsibility of all of us, but the support and incentive of decision-makers is the main foundation upon which the provision, implementation and dissemination of the actions can take place, safeguarding a sustainable earth where biodiversity and people may thrive together.

## What are IENE Declarations?

Since 1996, IENE operates as an international and interdisciplinary forum to encourage and enable cross-boundary cooperation in research and mitigation and planning in the field of ecology and transport infrastructures. The IENE biannual international conference provides interdisciplinary discussion panels for these activities with the aim to present cutting-edge research, identify urgent questions and problems, discuss effective solutions, and outline the paths for upcoming activities in transport and infrastructure ecology. Since 2012, a Declaration is produced during each conference and focused on a topic that requires particular attention from transportation and nature conservancy stakeholders. This message represents a common statement by the participants and addresses decision makers, planners, technicians and researchers as well as the general public, by calling for actions that contribute to finding solutions to old and emerging conflicts, filling the research gap and overall minimising the impact that transport infrastructure exerts on nature.

See also previous IENE Declarations:

IENE Declaration 2012: Overcome Barriers: Europe-wide and now  
[http://iene2012.iene.info/?page\\_id=320](http://iene2012.iene.info/?page_id=320)

IENE Declaration 2014: Roadless Areas <http://iene2014.iene.info/iene-2014-declaration/>

IENE Declaration 2016: Habitats related to Transport Infrastructures <http://www.iene.info/iene-2016-declaration/>

IENE Declaration 2018: Connecting Europe, Connecting Nature <http://www.iene.info/wp-content/uploads/IENE2018-Final-Declaration-Def-14092018.pdf>