Second United Nations Global Sustainable Transport Conference
"Sustainable Transport, Sustainable Development"

Virtual Forum on Science, Technology and Innovation (STI) for Sustainable Transport
Friday, 15 October 2021, 4:00 – 5:00 p.m. (BJT)

Draft Concept Note

Co-organizers: UN Department of Economic and Social Affairs and the Ministry of Transport of China, in collaboration with scientific and engineering organizations.

Objective

The Forum will serve as a platform for academic leaders, heads of international scientific, technology and engineering organizations, young innovators and other relevant stakeholders to present innovative solutions to sustainable transport-related challenges and to identify areas where additional efforts are necessary from the science, technology and engineering perspective.

Substantive Focus

The Forum will identify priority options, policies and measures for achieving *sustainable* – i.e. efficient, inclusive, safe, resilient, low-carbon and environmentally friendly – transport systems at a large scale, in particular through the application of science, technology and engineering. It will focus on addressing gaps in sustainable transport innovation and technology development through multi-stakeholder action, including by involving policy makers, science and engineering communities, the private sector and civil society organizations. It will also showcase and discuss partnerships by organized science and engineering communities that aim to build on science, technology and engineering for the achievement of sustainable transport.

The COVID-19 pandemic has spurred the creation and adoption of science and technology solutions at an unprecedented scale. Above all, it has accelerated digitalization. This includes immediate COVID-19 response solutions. For example, in public transport, we have seen the deployment of disinfection robots, thermometer robots, smart tunnels, automatic passenger counting and ultraviolet lamps.

Others have gone far beyond this and accelerated persistent past trends, notably, intelligent transport systems and smart city concepts. Some of these advances may raise additional questions of a social, ethical or environmental nature, even as the availability of viable technology solutions for decarbonization vary considerably across transport modes, as do the options for sustainable consumption and production. Against this background, it is important to take stock of the current and potential future roles of science and technology in the global transport system.

The Forum will address a number of new and emerging transport-related technologies in terms of their impacts on SDG achievement and climate action. These will include COVID19-related solutions, alternative fuels, batteries, recycling methods, autonomous transport, artificial intelligence applications, among others. The event will also highlight and call for actionable

solutions promoted by scientific, technological and engineering organizations in partnerships with other stakeholders to advance the sustainable transport agenda, going above and beyond 'business as usual' while leaving no one behind.

Guiding Questions

1. What policies and other measures can be used to accelerate and scale up emerging sustainable and low-carbon transport innovations to support SDG achievement and climate action?
2. What gaps exist regarding sustainable transport innovation and technology development and how can these be addressed, including through multi-stakeholder action and support for developing countries?
3. What partnerships are being organized by science and engineering communities for the achievement of sustainable transport? How can these be scaled up and/or duplicated?
4. What are some lessons-learned from COVID-19 regarding STI for sustainable transport?

Format

The Forum will be organized as a moderated panel discussion, with opportunity for interventions from the floor. Five (5) panelist presentations will be followed by questions and interventions from the floor. There will be an option to submit longer statements/presentations/documents electronically.

Presentations and discussions would be expected to focus on STI-related aspects of sustainable transport, ideally connecting to the topics of the six thematic sessions of the Conference, and would elaborate on practical scalable examples of how these could be addressed, and areas where significant additional efforts are needed. The enabling environment for facilitating the development and deployment of such solutions at all levels would also be featured. There will be an attempt to maintain gender/regional/country balance in the panel.

Discussions at the Forum will be complemented by side events to further showcase relevant approaches and ideas. The thematic sessions will also provide technical background information for this Forum.

Participants

All registered Conference participants.

Outputs

The primary output of the Forum will be a summary report on its deliberations. The Forum also welcomes announcements of impact-oriented sustainable transport initiatives and voluntary commitments by participating stakeholders. To compile information of both new and existing initiatives made by all Governments, the UN system entities and all other relevant stakeholders, the Secretariat of the Conference has created an online platform available at: https://www.un.org/en/conferences/transport2021/commitments.

Speaker selection criteria

- Relevance and impact: made concrete and significant contributions to sustainable transport and the SDGs from the STI-related policy standpoint;
- Balance in terms of gender, geography, substantive expertise and perspective, professional roles, seniority and size of institutions represented.

Programme

Co-Chairs:

- H.E. Mr. Wang Zhiqing, Vice Minister of Transport, China
- Ms. Maria-Francesca Spatolisano, Assistant Secretary-General for Policy Coordination and Inter-Agency Affairs, United Nations Department of Economic and Social Affairs, and Officer-in-Charge, United Nations Office of the Secretary-General's Envoy on Technology

Moderator:

- Mr. Gong Ke, President, World Federation of Engineering Organizations

Panelists:

- Mr. Peter Newman, Professor of Sustainability, Curtin University, Australia
- Ms. Jennifer Holmgren, Chief Executive Officer, LanzaTech and Member, National Academy of Engineering, USA
- Mr. Nebojsa Nakicenovic, Deputy Chair, Group of Chief Scientific Advisors to the European Commission; former member, 10-Member-Group of High-level Representatives of civil society, private sector and scientific community in support of the Technology Facilitation Mechanism
- Mr. Ryan Janzen, CTO and Co-Founder, TransPod Inc., Canada
- Mr. Guo Shougang, Deputy Director-General, Ministry of Industry and Information Technology, China

Other stakeholders:

- Mr. Michiharu Nakamura, Counselor to the President, Japan Science and Technology Agency; former member, 10-Member-Group of High-level Representatives of civil society, private sector, and scientific community in support of the Technology Facilitation Mechanism
- Mr. Sun Ziyu, Vice President of China Communications Construction Company Ltd