

EUROPE-INDIA TRANSPORT CLUSTER

2020

The Europe-India Transport Cluster supports collaborative growth to enhance the economic activity between Europe and India in the sphere of sustainable transport in urban areas, in multi modal connectivity, and in innovative technologies and frameworks.

The cluster is a unique model to facilitate demand-based business collaborations and joint value propositions leading to multi-stakeholder projects.

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EBTC, as one of its mandates, is fostering Europe-India collaborations for technologies, frameworks and best practices, as well as innovations to suit the local needs in India through various projects, programmes and initiatives. It also endeavours to support the governments and the private sector in India with in-depth information, knowledge of

available technologies, innovations, solutions and frameworks, developed and practiced in European countries.

EBTC, by catering to the demands of the public and private sectors, is uniquely positioned to promote sustainable economic development. Europe-India collaborations play a crucial role in such development, and by managing clusters of stakeholders in a variety of sectors, EBTC spearheads the implementation of innovative and sustainable development.

The Europe-India Transport Cluster is one such group of stakeholders which specifically focuses on creating project models by collaborative activities within capacity building, technology transfer, knowledge sharing, (pilot)-project development, monitoring and evaluation.

The cluster operates with demand focused sub-clusters and project based working groups/ Project Activation Groups (PAG).

EBTC, together with its European and Indian cluster partners, intends to support the ongoing (re)-development of transport systems in India, including sustainable mobility and multi modal connectivity.

“ We believe strongly in the ‘cluster’ approach. Together we stand stronger than individually. By means of collaboration we can succeed, and with the right partners, public as well as private, on board, we are able to accelerate the implementation of impactful initiatives. ”

Poul V Jensen, Managing Director EBTC

CLUSTER VALUE PROPOSITION

The cluster intends to bring together stakeholders of a project value chain and collectively engage such stakeholders towards joint efforts for sustainable projects.

- **Multi-stakeholder platform:** For organisations from India and Europe encompassing the complete value chain of the transport (sub)-sector;
- **Shared value:** Projects will be co-created based on contributions by relevant stakeholders, thereby minimising project costs, financial risks and enabling viability of the (pilot)-projects and project outreach;
- **Shared risk:** Projects are developed, managed and monitored by industry experts from within a controlled, guided business environment by engaging relevant stakeholders at the project conception level. The approach reduces the risk associated with (pilot)-projects from a strategic as well as policy and financial point of view;
- **Financing:** The cluster will engage with funding/financing agencies for funding, debt, guarantees, grants;
- **Stakeholder management:** The cluster secretariat will do the overall coordination and management together with sectoral experts, as well as ensure that the stakeholders’ expectations are met;
- **Advocacy:** The cluster will support multiple stakeholders in advocacy of innovative technologies and frameworks;

- **Thought Leadership:** The cluster facilitates a platform for thought leadership in the relevant sectors;
- **Conducive business environment:** The cluster secretariat will identify critical points of policy interventions which need to be addressed by decision makers from government bodies, regulators, and other stakeholders to support the cluster (pilot)-projects;
- **Market Development:** The cluster facilitates and supports opportunity to organise capacity building workshops, stakeholder consultations and networking sessions to provide exposure, thereby promoting the cluster and its members.

SUB-CLUSTERS



SUSTAINABLE MOBILITY CLUSTER

Project Activation Group: Hydrogen for Urban mobility

The challenges related to transport and environment are addressed across the world with new, innovative models and solutions. Globally, organisations are getting together to create a more sustainable environment through innovation, research and development.

It is of outmost importance to find sustainable solutions for man-made environmental issues and develop consensus to co create feasible initiatives, addressing the concerns related to environmental hazards like transport pollution and economics of adapting commercially sustainable, environment friendly and alternate energy solutions.

India as a developing economy needs to adapt and develop both sustainable and feasible models to address the environment and economic concerns.

Economics and Business: The Indian automotive industry is one of the fastest growing industries globally. The need for passenger vehicles, commercial vehicles and two wheelers is increasing at a rapid pace rendering India the third largest vehicle market in the world.

Environment: The transport sector is contributing to 20 per cent of the greenhouse gases and accounting for 30 per cent of the total crude oil consumption. The increase in number of the vehicles and challenges with respect to the increase in demand for fossil fuels needs to be addressed.

Challenge: Co-create efficient and viable models and new solutions to address environmental and financial challenges of the transport sector.

Hydrogen as a clean and viable business solution

Government point of view: The Government of India has been supporting projects for cleaner mobility, as evident, among other policy efforts, from schemes like FAME (Faster Adoption & Manufacturing of Electric (and hybrid) vehicles) 1 and 2, bringing about various incentives in terms of tax benefits and -reductions.

- The Ministry of Road Transport and Highways is supporting the idea to amend the Central Motor Vehicles Rules and include standards for safety evaluation of vehicles that use hydrogen fuel cell technology.
- **Market:** Currently there are no hydrogen-powered cars in India, but certain car manufacturers are actively exploring the possibility of introducing such fuel cell electric cars in the Indian market.
- **Solution:** Personal Rapid Transport (PRT) an innovative public transport system supports the decongestion of the roads and can simultaneously help to reduce the CO2 emissions. New initiatives, such as PRT, can provide long distance travel solutions as well as last mile connectivity. Such forms of transport can be run on alternate fuels like Hydrogen. Even traditional transport systems like buses, cars and trucks can be transformed to run on non emissive fuels, which will help to further reduce the emissions of pollutants into the atmosphere.



In the event hydrogen fuel cell solutions for transport and mobility have the potential to become feasible and viable, then the associated infrastructure – manufacturing and supply chains – will be required.

An example of a project where a substantial size project can come to life and where there are opportunities for all solution providers in the entire chain come together can be the 'Hydrogen Highway'. This innovative infrastructure solution is currently being investigated in Europe (Scandinavia) and North America. Also in India initial discussions have commenced on the topic. Which is why this Project Advisory Group is formed with a proactive leader, to further develop this impactful project.

A **hydrogen highway** is a chain of hydrogen equipped public filling stations, along a road or highway, that allows hydrogen powered vehicles to travel.

Required expertise in the PAG for Hydrogen Highways is, but not limited to:

- Hydrogen production, transportation, and large storage
- Hydrogen fuelling systems
- Green energy generation: solar, wind, waste to hydrogen
- Hydrogen truck and bus
- Logistic centres
- Engineering firms
- EPC firms
- O&M for movement of goods and people
- Sustainable financing Institutions


Thankfully, and inevitably, rapid disruption has begun in the transport industry, which has shaped our lives for more than a century. This inflection point presents us with an historic opportunity to make the right choice of energy, for the future of our planet. That choice can, and must, be hydrogen based mobility. And it makes compelling business sense too.


Ranbir Saran Das, CEO, Ultra PRT Ltd.

HOW TO BE PART OF THIS EXCITING INITIATIVE

Express your interest to sign up for the cluster by writing a mail to projects@ebtc.eu

EUROPEAN BUSINESS AND TECHNOLOGY CENTRE

EBTC is a project facilitation and advisory company, enabling development cooperation and collaborations between Europe and India. As a service provider to public and private sector projects, EBTC focuses on enhancing the economic activity and supporting internationalisation of businesses in India and Europe. EBTC's initiatives are guided by standards of sustainability and innovation.

EBTC was constituted as an outcome of an EU-India Summit in 2008, where it was decided to create a body that would support cross-border collaborations to drive clean and sustainable solutions. Whilst EBTC thereby started as a Project co-funded by the EU, with a mandate to enhance multilateral cooperation in the area of sustainability and climate change, EBTC transformed itself into a self-sustainable not-for-profit company headquartered in New Delhi, India.