

# FELICITY - Supporting Bus Rapid Transit Mobility Improvements to Advance the Climate Footprint of Indonesia



## Project Profile



### Challenge

The transport sector accounts for around a quarter of CO<sub>2</sub> emissions globally. In Indonesia, the fourth most populous country in the world, traffic contributes not only to greenhouse gas emissions, but also to congestion, and high pollution. To address this, Indonesia's development plan from 2020-2024 prioritizes low carbon urban transportation in six metropolitan cities; including Bus Rapid Transit Systems (BRT) in Metropolitan Makassar and Metropolitan Batam.

Public transport systems must urgently meet the needs of growing populations, especially across metropolitan areas. Enabling transit to become more accessible and by following low-carbon pathways to reduce greenhouse gas emissions, Indonesia hopes to advance its mitigation efforts.



### Support

FELICITY provided capacity development and advisory services to city staff in developing the BRT systems in the metropolitan areas of Makassar and Batam. The BRT systems foresee the construction of corridors with segregated and mixed traffic lanes totalling approximately **32 km** in Makassar and **25 km** in Batam. The infrastructure projects include multimodal stations and bus depots, ticketing system and the procurement of a bus fleet equipped with low-carbon propulsion technologies. FELICITY supported Batam and Makassar to develop their bus rapid transit systems as an effective and climate friendly public transit solution, improving the quality of life of citizens and creating new green jobs.



### Partners

The technical studies and capacity development were carried out in cooperation with the administration and transport agencies of both metropolitan areas. Additionally, the GIZ projects SUTRI NAMA and INDOBUS made vital contributions

Furthermore, FELICITY supported the set-up of a Project Implementation Unit in both cities to ensure coherent preparation and implementation of the infrastructure projects while maintaining sustainability during operation.

**FELICITY** (Financing Energy for Low carbon Investment – Cities Advisory Facility) is a project preparation facility implemented by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and financed by the German International Climate Initiative (IKI) of the Federal Ministry for Economic Affairs and Climate Action (BMWK), between 2017-2022.

FELICITY works in close cooperation with the European Investment Bank (EIB) to support urban investment projects that significantly contribute to sustainable development and climate change mitigation. FELICITY offers technical assistance to cities in designing and structuring their infrastructure investment projects. FELICITY's support to cities has the potential to leverage EUR 541 million.

This is achieved through low-carbon project pipelining and preparation; capacity development for cities and national intermediaries such as National Development Banks (NDBs); policy recommendations on specific national framework conditions; and the development of knowledge networks for climate finance projects.



### In Detail

FELICITY's support to the Metropolitan areas included technical and economic feasibility studies, which assisted in defining the best-fit technological option for BRT implementation as well as the calculation of net greenhouse gas emission reduction possibilities. Additionally, environmental and social impact assessments, as well as financial modelling for the project were completed. All these advisory products and the trainings for implementation agencies at the city level are in line with national and international financing requirements.

Capacity development activities for city officials included topics such as project preparation, climate finance, and municipal management; all tailored to projects within the transportation sector.

Both BRT systems are expected to be financed through a sovereign loan facilitated by FELICITY between EIB, partner international finance institutions, the Ministry of Finance and Ministry of National Development Planning of Indonesia (BAPPENAS). The loan will also channel funds to other local projects in Indonesia.

In order to scale-up the two projects, FELICITY also advised BAPPENAS with a study on low-carbon subnational financing mechanisms and trained government officials on the use of the SOURCE software for infrastructure planning.

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The Government of Indonesia and Bappenas stand ready to support the successful implementation of the sustainable transport projects in Makassar and Batam, as the key elements of the country's strategy to reduce greenhouse gas emissions and contribute to global climate action.

Dr Raden Siliwanti  
(Director for Multilateral External Funding, Ministry of National Development Planning of Indonesia (Bappenas))



## Outlook and Scaling

Both projects will now proceed to the BRT design phase and continue with financing negotiations between EIB and BAPPENAS.

It is envisaged that both municipalities will initiate procurement for the BRT networks with work beginning in 2023. Further detailing of the operation will begin thereafter.



## Project in Numbers

- The BRT system in Makassar is expected to require an investment of **EUR 215 million**.
- The BRT system in Batam is expected to require an investment of **EUR 157 million**.
- The combined projects have the potential to reduce GHG emissions by **15,500 tCO2e/year**.

## FELICITY has Supported These Achievements:

### Enabling Access to Climate Finance

Both projects are included in Indonesia's Blue Book, that sets priorities for infrastructure across the country.

### Enhancing Bankability

FELICITY has provided tailored support for the two metropolitan areas in order to prepare documentation compliant with national and international financing standards.

### Developing Local Capacities

FELICITY has carried out trainings for more than 960 people, covering the administrations of both metropolitan areas and BAPPENAS.

### Knowledge Sharing

FELICITY and the two metropolitan areas organised webinars with the national government (BAPPENAS and Ministry of Transport) as well as other provinces in Indonesia to present their experiences and contribute to provincial plans to develop their own BRT systems.

## Contact

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