

Memorandum of Understanding  
(Daegu – DLR – BVM)

Memorandum of Understanding (MoU)

Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Linder Höhe, 51147 Köln, Germany,  
represented by its Executive Board, acting for its Institute of AI Safety and Security, Ulm, Germany

- DLR -

and

Free and Hanseatic City of Hamburg, Ministry of Transport and Mobility Transition (BVM)  
represented by the Department for Transport of the Ministry of Transport and Mobility Transition, Alter  
Steinweg 4, 20459 Hamburg, Germany

- BVM -

and

Daegu Metropolitan City, represented by Ph.D Ryu, Dong Hyun - Director of ABB(AI, Blockchain & Big  
Data) Industry Division  
Daegu Metropolitan City  
41542, #40, Yeonam-ro, Buk-gu, Daegu, Korea

- Daegu -

Recitals

This Memorandum of Understanding (MoU) is a signed non-obligating and legally non-binding document that describes the intentions of Deutsches Zentrum für Luft- und Raumfahrt e.V., Ministry of Transport and Mobility Transition and Daegu Metropolitan City to participate in future research cooperation.

Deutsches Zentrum für Luft- und Raumfahrt e.V.

DLR is the national aeronautics and space research center of the Federal Republic of Germany. Its extensive research and development work in aeronautics, space, energy, transport, digitalisation and security is integrated into national and international cooperative ventures.

DLR also acts as Germany's space agency. In this function, DLR has been given responsibility by the federal government for the planning and implementation of the German space programme.

In respect of this MoU, DLR wishes to express its intent in its function as the national aeronautics and space research center.

The DLR Institute for AI Safety and Security focuses on the research and development of AI-centric methodologies, algorithms, technologies, and operational environments. A critical aspect of the Institute's work is managing the organization, storage, and exchange of security-sensitive data within distributed data infrastructures. In this domain, the Institute prioritizes data sovereignty, transparency, and the trustworthy distribution of data. Specifically, the Institute addresses challenges in Industry 4.0, and other digital transformation areas that rely on distributed data and service ecosystems, or are poised to benefit from a future-oriented platform and data economy.

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### **Ministry of Transport and Mobility Transition**

As Germany's second largest city, Hamburg boasts a unique blend of modernity and tradition. With more than 2,500 bridges, it has the highest number of bridges in all of Europe. Hamburg's public transport system is efficient and reliable, connecting residents and visitors within the city and to the surrounding metropolitan region, boasting 6 suburban railway and 4 metro lines, 69 suburban railway and 93 metro stations, more than 200 bus lines, 8 ferry lines and around 10,000 bus stations.

The Ministry of Transport and Mobility Transition is one of the eleven ministries in Hamburg and responsible for improving the overall traffic conditions and reconciling social participation through individual mobility with the improvement of the quality of life in Hamburg. Hamburg has set ambitious goals for the mobility transition, the decarbonisation and digitalisation of transport. In 2023, Hamburg was already placed first in the Smart City Index regarding Mobility. Hamburg aims to reduce CO<sub>2</sub>-emissions by 55% by 2030 compared to the baseline year 1990 and to become climate-neutral by 2045. In the mobility sector alone, this means that 1.4 million tons of CO<sub>2</sub> emissions will need to be cut. The Ministry of Transport and Mobility Transition initiates and implements a variety of strategies and projects to strengthen a future-oriented mobility in Hamburg. The "Hamburg-Takt" strategy aims to increase the modal share of walking, cycling, and all forms of collective and shared mobility to 80% by 2030. This will be achieved through an expansion of public transport and the extensive integration of shared mobility modes. Hamburg also aims to deploy an autonomous ride-pooling system. All these measures are part of Hamburg's mobility transition, aiming to create a sustainable, reliable, affordable, safe, efficient, and easy-to-use future of mobility.

The Ministry of Transport and Mobility Transition is responsible for the planning, implementation, and management of transportation systems in the FHH.

It aims to promote sustainable and efficient mobility solutions. It is also working on the reduction of traffic congestion and improving road safety.

The ministry oversees public transportation networks, including busses and trains as well as the cabs.

The authority is involved in the development of cycling and pedestrian infrastructure.

It supports the integration of new technologies, such as electric vehicles and smart traffic management systems.

The authority collaborates with various stakeholders, including government agencies, private sector partners, and the public.

### **Daegu Metropolitan City**

Daegu Metropolitan City is focusing on securing future growth engines by expanding AI-based infrastructure and promoting industrial AI transformation (AX).

To achieve this goal, the city is actively working to become an innovation hub for AI, Big Data, and Blockchain (ABB).

Additionally, since 2023, Daegu has been collaborating with Germany's DLR AI Security to continuously carry out global data business demonstration projects in the fields of future mobility and smart cities.

### **1. Declared Intentions**

The parties intend:

- to establish a regular exchange on scientific know-how especially in the fields of Hamburg's digital Mobility Strategy with a focus on the development path mobility twins
- jointly to plan projects in the field of mobility twins, data and geo portals e.g. presenting, combining, evaluating of and simulating with mobility data
- a cooperation to promote international data standards policies and strategies
- physical, administrative and technical cooperation support for data space demonstrations and Base-X deployment
- exchange in the context of congresses (e.g. UITP 2027 in Hamburg, Daegu FIX, Hannover-Messe)
- Expanding the community in smart city and mobility

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2. Potential Future Projects

Any specific future research project(s) will be subject to the mutual agreement of the parties and the availability of funds for both parties. For the avoidance of doubt, where the parties agree to conduct future research activities, separate contracts will be needed to govern these activities.

3. No Agency Clause

The parties agree that this MoU does not create any new legal entity involving the parties, nor does it establish any other legal entity or corporate body or relationships of a similar nature. No party is entitled to represent the other party in relation to a third party.

4. Export

The Parties are aware of the fact that this MoU and all future activities involving the Parties may be subject to export controls and all legal requirements relating thereto. Both parties agree to abide by all relevant export control regulations, especially when exchanging technical information.

5. Liability

This MOU does not constitute, nor is it intended to be a legally binding arrangement or contract. It does not create any legally binding or enforceable obligations, express or implied. It serves only as a record of each party's declared intentions.

6. No Reimbursement

The parties specifically acknowledge that this MoU creates no obligation for either party to contribute funds to any specific activity or project. Each Party shall bear its own costs in relation to the preparation, negotiation and execution of this MOU.

7. No Licenses

Each party's rights, title and interest in its intellectual property and information remains unaffected by the existence of this MOU. Detailed clauses covering Intellectual Property Rights and Publication shall be drafted and agreed as part of the envisaged future contracts / cooperation agreements between the parties.

8. Term

This MoU is non-binding in nature and drawn up in the English language, it comes into effect as of the date of signing and will be effective for a period of two (2) years from the date of execution by all parties. It may be renewed by written agreement between the parties for subsequent terms. Amendments must be made in writing, with such amendment to be agreed and executed by the parties before becoming effective.

Each Party has the right to terminate this MoU by written notice to the other Parties ninety (90) days in advance of the intended termination date.

The Parties agree that original written signatures on this document and on any amendments are considered necessary for the requirement of written signatures.

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Signatures

Signed for and on behalf of

Deutsches Zentrum für Luft- und Raumfahrt e.V.

Date

02.04.2025



Prof. Dr. Frank Köster  
Founding Director



Daegu Metropolitan City

Date



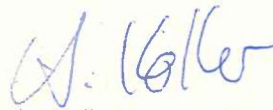
Ph.D Ryu, Dong Hyun  
Director

02.04.2025

Ministry of Transport and Mobility  
Transition

Date

2.4.2025



Anke Koller  
Head of Department