



Cities where Automated Driving becomes Reality

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Department in Charge: **Automated Driving Policy Division**, MOLIT

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- Launched six new R&D projects including a Living Lab. to demonstrate the integration of various automated driving technologies on a city-by-city basis

- A City to be a Living Lab. with a budget of over KRW 100 billion will be recruited in September

Ministry of Land, Infrastructure and Transport (MOLIT, Minister WON Hee-ryong) revealed a plan to demonstrate automated driving technology through the creation of a living lab along with the results of selected research institutes for the 6 new projects in 2023, which has been conducted jointly by related ministries as the 'Automated Driving Technology Development and Innovation Project (hereinafter referred to as 'Inter-ministerial Project')'.

As the Inter-ministerial Project is a multi-ministerial (MOLIT, Ministry of Trade, Industry and Energy, Ministry of Science and ICT, and Korean National Police Agency) R&D project worth of KRW 1.1 trillion launched in 2021, it is being pursued to commercialize automated driving in 2027 at the convergence level (Lv.) 4/4+*, including infrastructure, laws & systems, and services, as well as fundamental technologies such as vehicles & components.

* Type of Convergence Lv.4+: Lv.4 refers to automated driving that can be operated without switching control (car → driver) in a specific section, and Lv.4+ means convergent automated driving that enables not only Lv.4-level automated driving but also public automated driving services through 'vehicle-infrastructure linkage'.

Within the Inter-ministry Project (total of 88 tasks), there are a total of 22 tasks for the MOLIT in charge, and 16 tasks (13 in 2021 & 3 in 2022) have been being promoted since the year of 2021, while 6 tasks including the task of 'Automated Driving Living Lab' will be started from 2023.

In particular, the Living Lab research project is a technology development project to comprehensively integrate and demonstrate technologies and services developed through multi-ministerial R&D, such as transportation support for the transportation disadvantaged and demand-response mini-shuttles, and a total budget of KRW 45 billion will be invested from April 2023 to 2027.

So far, new automated driving technologies have been researched and developed centering on self-driving test-beds such as K-City and C-Track domestically, and automated driving services such as cargo and passenger transportation have been demonstrated to a limited extent only in some routes of local governments selected as pilot operation districts.

In the automated driving Living Lab created this time, the demonstration area will be greatly expanded to the city level to provide various experience opportunities for citizens by comprehensively demonstrating automated driving core technologies, infrastructure, and public services, and through this, a systematic review of the effectiveness and commercialization potential of the achievements developed in the course of the Inter-ministerial Project is also planned.

MOLIT will derive urban conditions suitable for creating the Living Lab, evaluation criteria for selecting target cities, and demonstration methodologies for 6 months after the start of the research, and based on these, it will select target cities through an open recruitment in September 2023.

Especially, in the city selected as a Living Lab, an open type of Living Lab demonstration is planning to be promoted not only for the research results, but also for technologies and services from medium & small sized automated driving companies that have not participated in the project to be freely introduced as well.

Thus, the Living Lab City is expected to become a leading automated driving city that plays a pivotal role in the commercialization and activation of domestic automated driving in the future.

On the other hand, in addition to the task of Living Lab, the MOLIT promotes tasks such as developing a next-generation automated driving mobility center operation platform*, establishing a metaverse-based virtual test environment**, and public services (urban environment management, emergency vehicle traffic support) at the same time.

* As an essential part of the Living Lab operation, real-time monitoring and data collection of operating vehicles and mobility services are performed

** In the environment of various virtual scenarios that are difficult to test in reality prior to the demonstration of the Living Lab, ① AI learning data sharing for automated driving, ② performing verification of automated driving vehicle, and ③ evaluation & certification of automated driving vehicle are performed

MOLIT promotes the spread and revitalization of the automated driving mobility market through this Living Lab task expecting that it would be an opportunity to provide automated driving services as one of the daily transportation methods of citizens and to increase public acknowledgement of automated driving.

MOLIT Minister Won expressed, "Creating the world's first city-level automated driving Living Lab will be a stepping stone for Korea's automated driving technology to leap to the stage of a leading country along with the popularization of automated driving."

Adding, "MOLIT will take the lead so that automated driving services, the core business of future mobility, can become the daily lives of the people".