Section 2 Regional Revitalization

The issue of a declining birthrate and aging population is even more serious in rural areas. Measures are urgently required to address issues such as the exhaustion of rural economies and the maintenance of rural social infrastructure. It is important to fully leverage digital technologies and new technologies for promoting initiatives to maintain and improve the living environment in rural areas and revitalize rural economies. In this context, the "Basic Plan for Regional Revitalization 2.0," approved by the Cabinet in June 2025, sets out the thorough utilization and social implementation of new technologies such as AI and digital technologies as one of the basic approach and perspectives of Regional Revitalization 2.0, with the aim of creating sustainable local communities where local residents can enjoy a safe and comfortable living environment, as well as leading to sustainable growth and strengthening of the competitiveness of the local economy.

The MIC is implementing Regional Community DX Promotion Package Project in order to realize Regional Revitalization 2.0 using ICT technologies. This project aims to create good examples of digital implementation through comprehensive measures such as supporting the securing of digital human resources and systems, demonstrating advanced solutions such as AI and autonomous driving, and advanced wireless systems, and subsidizing the development of regional communications infrastructure, as well as to quickly put digital technologies into practical use nationwide by disseminating the necessary information effectively and efficiently.

1. Improving the living environment in rural areas

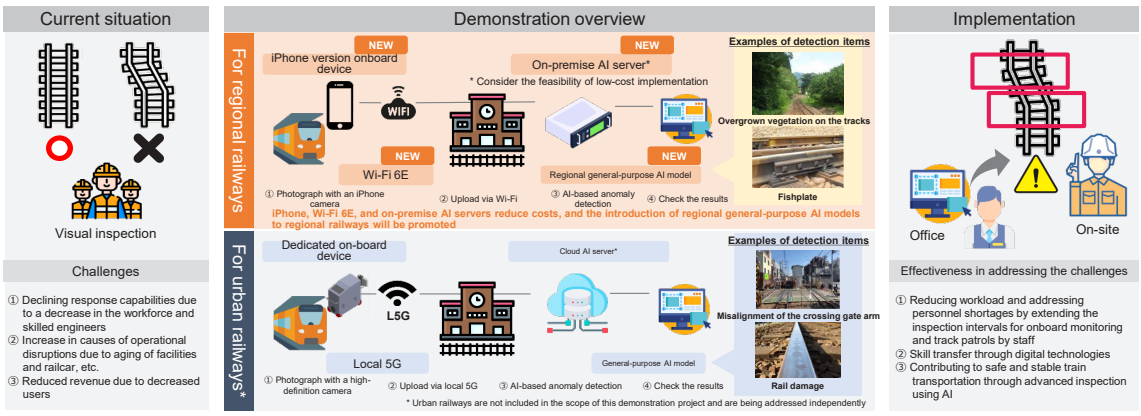
Labor shortages caused by a declining birthrate and aging population are having a negative impact on the living environment in rural areas. In order to maintain and ensure an environment in which people can live safely in rural areas, it is necessary to ensure stable maintenance and management of infrastructure and to ensure that public and quasi-public services are accessible when needed.

(1) Infrastructure maintenance and management

In Japan, the problems of aging infrastructure and a decline in the workforce are becoming more serious. To address this issue, there is a growing need to improve the sophistication and efficiency of infrastructure maintenance and management through technologies such as AI.

For example, regional railways face challenges in ensuring business continuity due to declining ridership and a shrinking pool of job applicants, which weakens their operational capacity. At the same time, the growing risks of accidents caused by intensifying natural disasters and aging infrastructure raise further concerns, making it increasingly difficult to rely on traditional visual inspection methods for future operation and maintenance. In response to this, a demonstration project is being carried out as part of the MIC's' FY2024 Regional Digital Infrastructure Utilization Promotion Project (demonstration project) to build a system in which high-resolution video data from a train's front-facing camera (on-board device) is transmitted to an AI server and analyzed for abnormalities in track facilities, etc., replacing patrol work that normally takes several hours with AI, and by checking only the necessary areas on-site, reducing the workload and shortening the time required. To build a general-purpose AI model, joint verification is being carried out with 30 railway companies nationwide in collaboration with urban railways, and solutions for regional railways are being developed **(Figure 1-3-2-1)**.

Figure 1-3-2-1 Overview of the "joint creation of railway digital innovation project utilizing Wi-Fi 6E, AI, etc. for regional railway operators"



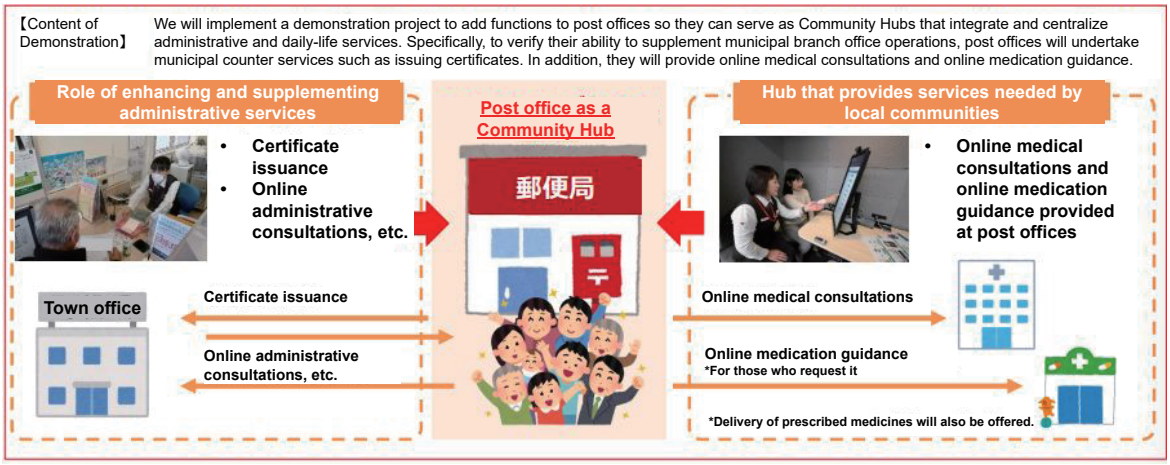
(Source) MIC (2025) "Report on the result of the joint creation of railway digital innovation project utilizing Wi-Fi 6E, AI, etc. for regional railway operators"

(2) Public and quasi-public services

The declining population due to a declining birthrate and aging population is threatening the maintenance of public local infrastructure such as administrative services and medical care, as well as residents' access to those services. For this reason, there is a need to provide sustainable services that utilize digital technologies and are tailored to the lifestyles of residents.

For example, the MIC has been conducting demonstration projects in which post offices and local public infrastructure such as local governments work together to solve various regional issues, and has been implementing the "Project for Promotion of Public Regional Infrastructure Cooperation of Post Offices, etc." since FY2022, with the aim of promoting model cases nationwide. One of the demonstration themes for this project in FY2024, "Providing Services Essential to Local Communities, with Post Offices as 'Community Hubs'" was carried out in Akiota Town, Hiroshima Prefecture. Post offices will act as "community hubs" that provide a variety of services in a centralized manner, offering services such as online medical consultations, medication guidance, and counter services for local government organizations **(Figure 1-3-2-2)**.

Figure 1-3-2-2 Providing Services Essential to Local Communities, with Post Offices as "Community Hubs"



(Source) MIC material[1]

(3) Digital infrastructure

In order to use advancing digital technologies, communications infrastructure that can stably carry out large-capacity, ultra-high-speed communications is necessary even in rural areas. In the future, traffic volume is expected to increase dramatically due to the growing need for real-time exchange of large volumes of high-definition video and image data for the use of AI and other technologies, and the need for advanced communication infrastructure such as 5G and optical fiber to support this is thought to be greater than ever before.

For example, in its "Advanced Wireless Environment Development Promotion Project," the MIC subsidizes part of the costs when local governments, telecommunications carriers, etc. develop optical fiber, etc., which is a prerequisite for high-speed, large-capacity wireless communication, in disadvantaged areas, with the aim of realizing advanced wireless environments such as 5G and IoT, and when local governments maintain and manage optical fiber, etc., in remote island areas[2].

2. Revitalizing rural economies

In regions facing serious labor shortages, improving productivity through the use of digital technologies is an urgent priority, and efforts are underway across various sectors. In addition, for the development of regional economies, it is essential to create high-value-added services by utilizing digital technologies in industries that leverage the characteristics and appeal of each region. In this regard, approaches can be considered from a variety of fields, such as creating and branding local specialties in the agriculture, forestry and fisheries industries, and improving the brand value of traditional crafts.

For example, smart agriculture measures are being taken in the agricultural field, which is facing a shortage of successors. Obihiro City in Hokkaido utilized a demonstration project under the MIC's "FY2024 Regional Digital Infrastructure Utilization Promotion Project," along with grants for the Vision for a Digital Garden City Nation, to develop and test a communication environment and agricultural machinery tailored to the region. Through this project, Obihiro City built cooperative rela-

[1] MIC "Implementation of the Demonstration Project for 'Providing Services Essential to Local Communities, with Post Offices as Community Hubs' as part of the 'Project for Promoting Collaboration between Post Offices and Regional Public Infrastructures' for FY 2024" <https://www.soumu.go.jp/menu_news/s-news/01ryutsu13_02000134.html> (Reference March 24, 2025)
[2] MIC "Broadband Infrastructure Development" <https://www.soumu.go.jp/main_sosiki/joho_tsusin/broadband/index.html> (Reference March 25, 2025)

tionships with private companies and universities, and is promoting labor-saving and efficiency improvements using new digital technologies, such as crop management that combines drones and AI, and demonstration of simultaneous operation of multiple unmanned tractors[3].

[3] MIC "Simultaneous control of four tractors! Smart agriculture evolving in Obihiro" <https://dx-navi.soumu.go.jp/index.php/support_r6/digital_kiban/article/005> (Reference Marc 27, 2025)