



## Abstract

# A Study on the Types of Station Areas for Smart Shrinkage

The station area is a space that shows the overall history of the urban development process that has rapidly changed through a sharp rise in floor area ratio, complexization, and three-dimensionalization. As population declines and aging progresses in the future, distributing limited resources to effective places will be the most important priority for future urban planning strategies. In the meantime, in the process of development of the station area, it is essential to pay attention to the relative shortage of the station area and decide what facilities should be supplied in consideration of the local characteristics in order to improve the quality of life of the local residents.

Smart shrinkage is an urban strategy that has been mentioned in the recent trend of research on reduced cities since the 2010s, from managing excess land to managing vacant houses and idle spaces, reorganizing unnecessary excess resources, and rearranging them into public facilities needed in the future. it means. Summarizing the existing smart city planning strategies, the appropriate scale plan, location plan, vacant house, green space of idle land, and doctor support system for vacant land management, regeneration of the neighborhood environment, supply of attractive places that can improve the quality of life. And the creation of public spaces. The reason why this smart shrinkage strategy should be applied to the station area is that the

station area is a core resource of cities that must actively respond to these future demands and is a space where conflicts of many stakeholders related to development gains are concentrated.

In this study, the smart reduction strategy to supply limited resources to the optimal location in the era of population decline was reviewed, and in order to apply this strategy according to the regional characteristics of the station area, the types of station area were classified based on regional level and station area level. At the regional level, it was classified into 9 types based on the population, industry, and building data measuring the degree of decline, and in the case of the station area, it was classified into 6 clusters as data that could identify surrounding resources including the population using stations. Based on this analysis of regional characteristics, we suggested some alternative strategies to apply smart reduction strategies for each type of station area.

**Keyword** Smart Shrinkage, Station Area, Classification, Population Decline