



# Smart Infrastructure for resilient and sustainable city in Korea

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## Introduction

In September 2017, two Korean ministries, the Ministry of Science and ICT (MSIT) and the Ministry of Land, Infrastructure and Transport (MOLIT), have agreed to collaborate with each other to build a smart infrastructure in Korea. The result of this agreement was to form a SOC-ICT (Social Overhead Capital-Information Communication Technology) Association in January 2018. The operating organization is the [National Information Society Agency \(NIA\)](#) which is a government agency under the MSIT. This association is a public-private partnership in order to promote the convergence of SOC (infrastructure) and ICT (Smart). This concept is very much similar to the Dutch smart city where the smart technologies (IoT, sensors, etc.) are applied to the existing infrastructure.

## Current Status in Korea

Smart City in Korea often means building a new city on an empty piece of land. MOLIT has announced two national smart city test beds in Busan and Sejong. The cities will be built on a plain land with the most innovative cutting edge technologies. On the other hand, there is a movement in Korea that aims for existing cities to apply smart systems to operate the city more effectively and efficiently. To support this second movement, the SOC-ICT Association was founded in 2018. Most of the existing infrastructure (transportation, public space, supply, disaster prevention, health & hygiene and environmental foundation facilities, energy supply etc.) in Korea was quickly built in 1970s to 1990s due to the economic boost. Due to the poor construction and lack of maintenance, the infrastructures are starting to degenerate. Deterioration of the infrastructure is directly linked to the citizen's safety, so it is required to well monitor and maintain the existing facilities. In order to do so, the two Korean ministries are trying to apply smart technologies (ICT, IoT, sensor, AI, Big data, etc.). They also want to optimize the resilience of any incidents from natural disasters.

At the moment, Korean public corporations such as LH (building), K-Water (water related) and KEPCO (electricity) have their own initiatives for smart city plans focusing on their own themes, but they do not collaborate with each other to complement their weaknesses. In addition, there is an information gap between the owner and the operator; therefore, it requires continuous effort to educate the relevant stakeholders to fill in the gap. Most importantly, the governments has to work together to stimulate the public-private partnership in this SOC-ICT development.

Thus, the vision and the goal of the SOC-ICT Association is to strengthen safety, become more sustainable and save costs by realizing a smart infrastructure in existing cities via the convergence of SOC-ICT. The goal for smart infrastructure is to strengthen safety, sustainability and saving costs.



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## Opportunities for Dutch companies

Resilience has become one of the topics that the Korean governments are focusing on. The Korean government is also interested in collaborating with foreign experts in this field in order to develop and spread the intelligent SOC model to the entire country. As the Dutch has a historic fame for its innovation in resilience, there will be numerous opportunities for cooperation. The Embassy of the Kingdom of the Netherlands to the Republic of Korea is actively involved in Smart City collaboration between the Netherlands and South Korea. Upcoming Smart City Innovation Mission is expected to be held in September, 2019. For more information on this event, please contact Jeong Eun Ha Officer for Innovation, Technology and Science ([jeha@nost-korea.com](mailto:jeha@nost-korea.com), +82-(0)2-311-8623).

## Source

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