

## Expand Railway Safety Facilities

### Secure Public Safety by Expanding LTE-R

Commercializing KR LTE-R\* in the high-speed railway between Weonju and Gangneung, KR is expanding its application to nationwide railway network including three projects such as the Sosa-Weonsi section and Ulsan New Port in 2018. The LTE-R will enable the high-speed transfer of image and large-capacity data among train, control center, maintenance staff, and operating company. This change will improve the safety in train operation and sophisticate maintenance and logistics services through real-time monitoring. Moreover, it will enable the safety management service utilizing the IoT function and interface to the (PS-LTE), an integrated wireless communication network of agencies related to national disaster, will significantly contribute to coping with disaster situation and recovery promptly. KR plans to extend LTE-R to 4,726 km of railway routes nationwide by 2027 to ensure safety.

\* LTE-R (LTE based Railway wireless communication system): Localized technology tailored to the domestic railway environment which can significantly improve the safety and convenience of train operation by exchanging the information between the train, control center, maintenance staff, operating agency, and government agency

#### [LTE-R Construction Plan]

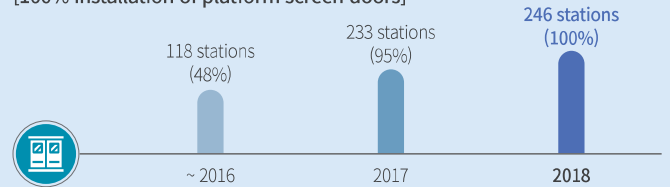
- **Period:** 2018~2027
- **Scope:** 4,726 km including high speed, conventional and regional rails
- **Cost:** Approx. KRW 1.1 trillion (incl. trackside equipment and mobile terminals)



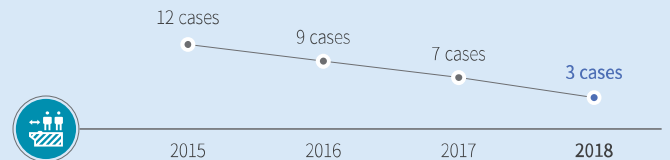
### Early Installation of 100% Platform Safety Door

As the accidents on the railway platform have rapidly increased (a total of 122 cases) in the past 6 years, KR is carrying out the “ZERO Accident” campaign and completes the installation of platform safe doors in June 2018, five years ahead of schedule. It was able to shorten the installation period by pre-investment through the issuance of industrial bonds after considering the investment trend and limited utilization of available resources when relying solely on government finance. As a result, KR was able to install the platform safety door in 246 stations of the metropolitan railway in the capital region, resulting 75% reduction of accidents on the platform in the past three years as well as the reduction of indirect social cost and the improvement of air quality in the station.

[100% installation of platform screen doors]



[Fatal platform accidents] • Down by 75% in past 3 years



### Railway stations customized for mobility disabled

KR is expanding facilities and services for mobility disabled persons so that everyone can use railways safely and conveniently. Public contest was held to hear ideas to make design changes to railway stations including designating at least 10% of chairs in waiting room for persons with mobility disability and preparing standards on path guiding systems inside stations to install beacons (mobile phone position transmissions) for visually impaired persons. In addition, 4 elevators and 16 escalators have been installed at 4 stations on Bundang Line and comfort zones for protection from the heat and cold have been opened at 9 stations on Gyeongbu Line to minimize inconveniences.