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Smart port status and Prospect in Korea

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Introduction

The current government has selected “smart maritime logistics” as one of the core economic policies for the national growth. Smart maritime logistics is about developing the maritime autonomous surface ship, high speed maritime traffic network (e-navigation), and smart port in order to innovate maritime logistics. This article will give information on the current status and prospect of the smart maritime logistics development in Korea.

Current status and the government strategy

While the world is focusing on the applying innovative technologies to develop fully automated smart port, Korea has been remaining “semi-automated” where still the labor is highly involved in the logistics and operation section. As it is proven that fully automated service brings more efficiency in managing and operating the port, the Korean Ministry of Oceans and Fisheries (MOF), municipalities and port authorities are trying hard to establish smart port system to gain global competitiveness.

MOF is preparing a ten year plan to strategically develop and manage the port. By doing so, they would like to gain global competitiveness. Following the trend of the 4th industrial revolution era, MOF will support applying artificial intelligence, internet of things, robotics technologies in the port area, and facilitate value added service such as installing LNG bunkering and reducing fine dust by adapting shore side power supply and so on. This plan will enable Korea’s port to strengthen the competitiveness to become the logistics hub in the North East Asian countries, and create jobs and added value in the port service.

The Korean government’s aim is to become the Global Top 2 transshipment hub in the North East Asia by 2025. In order to do so, MOF is working together with the Korean Maritime Institute (KMI) to develop a fully automated cargo system. The first stage of development was completed recently which was to develop a concept and produce it as a small scale module. After 2025, the actual development will be constructed at the local port which will be soon selected by the Korean government.

Busan’s ambitions

This summer, a new Busan mayor was elected. He is the former Minister of MOF and was the president of Korea Maritime and Ocean Universities (located in Busan). With his deep understanding of maritime



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industry in Busan, it is expected that he will take the lead in making a smart port in Busan and become the global leading logistics cities.

Furthermore, Busan Port Authority (BPA) is taking fast initiatives to transform Busan into Korea's first smart port. From 2019 to 2024, BPA will conduct research and development projects on artificial intelligent port and will connect smart city technology to reduce the traffic congestions and cost of logistics. Furthermore, to gradually realize zero emission on port side, the BPA is also planning to develop eco-friendly transport system using LNG yard tractor, utilizing renewable energy such as building solar and wind power plants. BPA will also consider citizen's involvement in their port side by creating leisure, financial and other related services. The organization has an ambition to make their port to become the world leader of logistics hub.

Cooperation with the Netherlands

As the Netherlands is a leading country for the Smart Port system, there are many business and technical cooperation opportunities in Busan. In the mid November, the Embassy of the Kingdom of the Netherlands in South Korea has co-organized "the International LNG Fueled Ship & Bunkering Conference" with Korea LNG Bunkering Industry Association, Korea Research Institute of Ships & Ocean Engineering, Busan Marine Equipment Association, LINC+ Korea Maritime and Ocean University and Korea Association of Marine Industry which was hosted by the MOF. Furthermore, it is expected that there will be a stronger bond between the Netherlands and Busan as the first Honorary Consul was appointed in Busan last summer.

Source

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