

NT AND EEC JOIN FORCES TO LAUNCH THAILAND'S FIRST 5G PILOT PROJECT IN BAN CHANG, RAYONG

On March 12, 2021, at 9:00 am. Dr. Kanit Sangsubhan, Secretary-General of [Eastern Economic Corridor Office of Thailand](#), chaired the official press conference of “Ban Chang, Thailand’s First 5G Pilot City” to launch the first 5G pilot of Thailand in Ban Chang, Rayong. [Eastern Economic Corridor \(EECO\)](#), in collaboration with [National Telecommunications Public Company Limited](#) (NT), the prestigious event was presided by Mr. Chan Na Iamsang, Governor of Rayong Province, and Mr. Piya Pituthecha, President of Provincial Administrative Organization (PAO) of Rayong, to witness the significant partnership between the public and private sectors towards creating the first use case and step towards a fully functional Smart City powered by 5G.

With this step, Ban Chang will be the first of Thailand’s progressive Smart City within the EEC, and the first in Thailand. Apart from the public conference, an educative seminar on 5G Smart City and its benefits to the local Rayong community was paneled by participating experts such as Djitt Laowattana, Ph.D. Special Advisor, Education/ Human Capital and Technology Development and Mr. Paramintra Sangsaksittharot Deputy Permanent Secretary of Ban Chang Subdistrict Municipality.

Dr. Kanit Sangsubhan, Secretary-General of Eastern Economic Corridor Office of Thailand, further updated the developments of the Smart City infrastructures within the EEC on its mission and progress. The new infrastructure improvements is being developed around Ban Chang Subdistrict Municipality to prepare the area for various communications systems including frequency technologies that supports the industrial development of 5G technology, in alignment with the cooperation agreement between the Eastern Economic Corridor Policy Commission (EECO) and the National Telecommunications Public Company Limited (NT) who has been identified as the main government entity in the development of this telecommunications infrastructure development and will work with other business operators under the infrastructure sharing concept to reduce investment duplication between the public and private sectors, and to fully utilise government assets to provide maximum benefits to the people without monopolising the markets.

This will yield in the highest benefit of the EEC industrial population as well as citizens and to lay the groundwork into becoming a fully functional smart city.

Smart Cities are no longer just a model or a concept any longer. Ban Chang’s Smart City Phase 1 project is the kick off of what a true Smart City can be.

To great innovations and Internet of Things (IoT), municipal governments are leveraging the sophisticated cellular and wireless technologies to connect, improve, and implement infrastructure, for more efficiency, convenience, and overall quality of life for residents. It connects people, communities, government services, and private sector services through local government data combined with new data acquired through IOT, sensors, drones, and external collected data, to fully analyze it for proper city management and citizen knowledge.

With efficiency at heart, smart technologies can ease the transfer and collection of information systematically. When used in conjunction of a large database of incidents, populations, and geographic information, a predictive and analysis can continuous be developed for policies and action plans for the public and private sectors. Given the trend, it is essential to implement 5G technology equipped with state-of-the-art artificial intelligence processing system, connecting 100x stronger than 4G network. A data center can even be created for heightened data security and create display platforms with information readily and easily accessible for the government and private sectors, and citizens alike.

Ban Chang Municipality is located in the Rayong Province in between U-Tapao Airport and Map Ta Phut Industrial Estate. The town consists of 10 sq. kilometers and is connected to Highway No. 7, or the Motorway. Ban Chang is an appointed destination to become the first Smart City in Thailand due to its close proximity to 3 international airports (Don Mueang, Suvarnabhumi, U-Tapao), and the potential of being a high-value economic zone within the ASEAN5 area. As Ban Chang is a part of the EEC Economic Zones (EEC), it's crucial the 5G technology elevates into the smart industrial city of the future known for industrial robots, biology and biological chemistry, digital, medical, aviation, logistics and agriculture. Smart City is a city of the future, starting here and now.

Recently, EECO And NT have installed a device to test the 5G Smart Pole system. The Smart Pole has been tested to capture over 10+ real time functions. For example, the intellectual functions include the detection system of airborne toxins and PM 2.5 dust levels within Ban Chang area for 24 hours a day, in which the data is sent to concerned parties in government and private sector to monitor and resolve any predicted issues.

For every municipalities, safety is priority. An SOS button is implemented into every 5G Smart Pole in the area to ensure the safety of the local community. Whether it's car accidents, robbery, or any incidents that require help, local residents can manually press the SOS button from the nearest Smart Pole or in the future, activate SOS in Ban Chang dedicated mobile application. With this captured data, relevant officers can monitor the data or the incident through the AI cameras to analyze criminals' faces and even detect missing persons. Through 5G network signals, Smart Poles can transfer and sync data with the government with ease in order to provide real-time access to information and provide timely assistance.

More excitingly, the 5G system can be maintained by using unmanned drone to secure areas such as beaches, harbors, at-sea navigations, and line-up of moored boats that are likely to encourage illegal immigration or locate accidents at sea.

Dr. Nattawut Sattrawahha, Executive Vice President Wireless Communication Line 2 of National Telecommunications Public Company Limited, said that the company has signed a Memorandum of Understanding (MOU) to provide telecommunication infrastructure services to support various network channels and 5G technology within the EEC. With the goal to make Ban Chang Thailand's first ideal Smart city, NT had successfully installed pipes, poles, transmission line, fiber optic system for the 5G network, particularly to support the latest High Band allocated 26 GHz frequency spectrum from NBTC, alongside NT's other products and services. All of the above are considered as a part of Infrastructure Sharing in telecommunication services that can be used by both government agencies and the private sector to greater optimize and utilize shared investments and resources, within the industry in the EEC area.

Being the first Smart City pilot in Thailand with 5G in place, Ban Chang has developed various uses of the 5G infrastructure. Local residents receive 100x faster internet than traditional 4G internet. Government and private sectors can connect and share instant information. A 5G Core technology from [Mavenir Systems](#), the industry's only end-to-end, native cloud network software provider, was selected to focus on acceleration on software network transformations and redefines networking for communication service providers. With Open-RAN and Open API technology standards, it works in sync with the native cloud solutions to provide heightened security for 5G infrastructure- allowing full connectivity to VoLTE, VoWiFi, Advanced Messaging (RCS), Multi-ID, vEPC and Virtualized RAN systems, with the highest level of security in data protection.

Additionally, NT has received tremendous cooperation from the private sector, namely [5G Catalyst Technologies Company Limited](#), [Planet Communications Asia Public Company Limited](#), and [Cisco Systems \(Thailand\) Company Limited](#).

Together, our partners have provided leading technologies from around the world and a variety of solutions to design Thailand's 5G solutions for an urban management system that works. Today, we are pioneering the development of the country's first 5G infrastructure, piloting a leading Smart City model powered by 5G starting with Ban Chang, and leading towards a smart future for Thailand as a whole.