

LuxTurrim5G solutions ready for global smart city markets

- The R&D phase of the LuxTurrim5G concept including smart poles and related infrastructure, data platform and smart city services is now successfully completed
- The development consortium is planning more extensive pilots in real urban environments and is starting to commercialize the solution

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Espoo, Finland – The extensive joint development of LuxTurrim5G ecosystem led by Nokia has reached a key milestone, as the development phase of the smart pole, data platform and related smart city services is successfully completed. The multi-disciplinary consortium of 26 partners has achieved solid results showcased today in a [webinar](#).

The LuxTurrim5G solution forms ‘the digital backbone for cities’ helping them become smart and sustainable. The main elements, modular smart poles, exist as a pre-commercial product family serving the various needs of cities. The poles are equipped with 5G base stations providing fast, reliable and secure connections. Video cameras, radars, lidars, and sensors needed for navigation, weather, temperature, air quality or carbon dioxide measurement can be integrated into the poles.

The solution includes a data platform that processes large masses of data from the poles and other sources in a reliable and efficient manner, and a data marketplace to enable data-based services. The platform allows cities and companies to utilize data for their specific needs and to create holistic situational awareness. Furthermore, several digital services related to public safety, green last-mile logistics, autonomous transport and healthy living, among others, have been piloted and prepared for commercialization.

The ecosystem partners have also worked intensively to tackle data privacy issues as well as designing guidelines for smart cities, building new business and operational models, and developing understanding of the complex business landscape.

The solution, including 19 smart poles, two smart and safe bus stops and more than 250 connected IoT devices with a complete digital twin has been piloted around Nokia campus in Espoo, and additional pilots in real urban environments are planned. Readiness for smart pole deliveries has been fine-tuned from technical standpoint and multiple business models are being prepared, as the group is starting to commercialize the solution.

Through the Espoo pilot, the LuxTurrim5G consortium shares an ambitious target to expand to global smart city markets, predicted to reach 1 000 billion euros by 2025. An important gateway to the global market is the Expo 2020 Dubai, where the LuxTurrim5G joint offering and two functional smart poles are being showcased by Nokia and partner companies. Several discussions are currently on-going for implementations of the LuxTurrim5G solution with potential customers.



Richard Cooper, Global CTO Smart Cities and Public Sector, Nokia, said: "Smart cities need this kind of data platform to foster cross-departmental co-operation, as well as to share vital data sets with private enterprise and academia. This provides the basis for an efficient city operation and the creation of intelligent digital services that improve quality of life in the city. In a competitive global environment, businesses and residents will be drawn to safer, greener and more data-driven cities. The 5G smart pole network enables the creation of this rich data marketplace, thus also giving the city a competitive edge over its peers."

Hannamari Jaakkola, Global Market Manager of Urban Weather and Environment, Vaisala, said: "Together with data on traffic flow and vehicle classification, weather and environmental observations serve to analyze dependencies between traffic, weather, and air quality. Practical benefits of such systems include weather and street dust information to street maintenance contractors and weather warnings to drivers. And, as traffic lights are also integrated into the system by creating green waves, the system can reduce traffic emissions by avoiding unnecessary accelerations."

Reijo Smolander, International Business Innovations, Business Finland said: "Building a smart city is a challenging task involving large number of different counterparts. LuxTurrim5G approach delivers the digital backbone as part of an integrated smart city infrastructure, decreasing complexity, reducing the number of parties involved and making it easier to build a smart city. This customer-focused approach has created a lot of interest in LuxTurrim5G worldwide. Growing urbanization creates enormous business opportunities globally. Rapid acceleration from R&D phase to business is now central for the LuxTurrim5G solution."

Images:

- [LuxTurrim5G Smart pole](#)
- [Modular LuxTurrim5G smart pole](#)
- [LuxTurrim5G Smart and safe bus stop](#)
- [LuxTurrim5G Smart route at Nokia campus](#)
- [Autonomous Gacha bus](#)

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Background info:

www.luxturrim5g.com

[LuxTurrim5G video](#)

[White paper](#), 25.5.2020

LuxTurrim5G ecosystem partners: Nokia Bell Labs, Nokia, Premix, Teleste, Vaisala, Indagon, Rumble Tools, Orbis, Tehomet, Destia, Sitowise, Caruna, A-Insinööri (AINS Group), Link Design & Development, Vediafi, Agora Networks, Sensible 4, L7 Drive, City of Espoo, Finnish Transport and Communications Agency Traficom, VTT, Aalto University, Tampere University, University of Helsinki and Spinverse as ecosystem leader. The project is funded by the participating companies and Business Finland.

The results of the project are presented on 16 December 2021 in a webinar [Digital backbone and services for sustainable smart cities](#)

