Rural microgrids tallinn

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As a result of the Smart City Challenge 2024, we will launch three pilot projects to create new smart and research-based solutions.We welcome the participation of cities, researchers and developers who are interested in solving urban problems and creating smart solutions and services.See more about the upcoming events and the conditions for participating on the FinEst Centre"s homepage.

FinEst Centre is an international research and development centre where the main ambition is to create innovative and smart smart city solutions that improve the quality of life in cities.We are driven by passion to enhance the quality of life in urban areas. We firmly believe that the future of cities lies in creating smart, human-centric, and resilient environment that empower people to lead happy, fulfilling lives.

3rd round of the Smart City Challenge was started in 2023. The aim is to find 4 new ideas to pilot and implement. In the pilot projects, interdisciplinary scalable solutions for complex urban challenges will be developed to make cities better living environments.

In the spring of 2024, we also started the 4th round of the challenge. In this round, we want to launch three pilot projects and finance their implementation and the creation of new solutions with three million euros.

Six pilot projects have been implemented and new solutions created in cooperation between researchers and cities/municipalities. In June 2023, the created smart solutions were presented at the Smart City Demo Day. The created solutions are intended for use by cities and you can learn more about them here.

The idea is to offer a conceptual ecosystem solution to transport system management of the near future, where additionally to the existing means of transport, self-driving shuttles and micro mobility solutions are going to play an important role and user centric approach is highly required.

One of the main outcomes of the pilot project is a user-friendly data exchange platform for all required services by interconnecting existing and new solutions over unified data exchange-platform. Our pilot will test an interconnected on-demand based full transport solution from passenger"s home to capital city hub and beyond. The data exchange platform will be connected with existing governmental databases and creates open-access new data sets in order to offer personalized on-demand pro-active services.

The practical pilot includes self-driving AV shuttles on-demand service in sub-urban areas connected to main public transport and micro mobility service providers in the capital city. AV shuttles are going to be remanufactured from end-of-live electrical vehicles significantly reducing the environmental footprint and making AV shuttles affordable to local counties.

The final outcome of the project will be future city model tested in real urban environment and

implementation toolkit for cities and urban areas all over the world. Project main partners are City of Tallinn and Rae County, as well as a wide circle of external partners in government, private and non-profit organizations.

This project develops green elements for the digital twins of Tallinn and Helsinki, and additionally, creates a permanent hub for city planning in Tallinn centre. The world-class novelty of the project is the dynamic digital modelling of the green environment, a "green information model".

Today, the green is represented in digital environments by static images. In reality, the green environment is in constant temporal change, which has a major impact on urban comfort and the carbon balance of a city. Green environment is a primary quality factor of urban environment. It has a major impact on micro-climate and particle emissions, heat island effect and soundscape. Green-blue infrastructure is a measure for climate adaptation. Green environments create identity for cities and can offset greenhouse gas emissions towards carbon neutrality.

This team aims to improve operational energy performance and indoor climate through digitalization of facility management in large real estate portfolios. Continuous monitoring of energy, ventilation and indoor air quality in hundreds of buildings results in a big data for which performance analytics capable for benchmarking and identification of faults and malfunctions in building technical systems as well as in building operation will be developed.