



Quality Innovation Award 2020

Full list of awards:

Innovation of Innovations

The First Affiliated Hospital, Sun Yat-sen University / China

Ischemia-free organ transplantation with systemic device and surgical innovation

Ischemia-free organ transplantation, with systemic device and surgical innovation, transplants a donor organ completely avoiding the IRI and significantly improving transplant outcomes.

Potential innovations (Award shared)

Award Winner: Advanced Systems In MOBility, S.L. / Basque Country (Spain)

Digitization and automation of the regular road safety inspection for vertical traffic signs

Regular inspections of traffic signs today is being done manually. ASIMOB automates this task with new technology (IoT, AI), significantly improving incident detections, and optimizing maintenance tasks.

Award Winner: National Research University "Moscow Power Engineering Institute" / Russia

Flywheel energy storage device with high-temperature superconducting suspension

Flywheel energy storage device with a contactless magnetic suspension based on Meissner effect in high-temperature superconductors is a new environmentally friendly and efficient way to save energy.

Circular economy and carbon neutrality innovations

Award Winner: UBQ Materials Ltd. / Israel

UBQ Advanced Waste Conversion; landfill-destined waste transformed into a bio-based thermoplastic.

UBQ converts unsorted household waste – food, paper, cardboard, and mixed plastics, into a sustainable raw material substituting oil-based plastics in product manufacturing.

Prize Winner: SILON, s.r.o. / Czech Republic

Development of a new high-tech product

Thanks to continuous innovations, SILON has developed high-quality polyester fibre "SOFISIL", which is produced from PET bottles collected from the ocean and its coast.

www.laatukeskus.fi info@laatukeskus.fi

Prize Winner: Vaisala Oyj / Finland

Groundbreaking in situ instrument for biogas measurement



MGP261 Multigas Probe is the world's first in situ instrument that can measure multiple gases in demanding biogas process conditions where repeatable, stable, and accurate measurement is essential.

Prize Winner: [BMPower and National Research University "Moscow Power Engineering Institute" \(academic partner\) / Russia](#)

Zero-emission and lightweight air-cooled hydrogen fuel cell power sources for drones and robots

BMPower air-cooled hydrogen fuel cell is an alternative to lithium-ion batteries, which allows storage of up to 5 times more energy per unit mass of the power sources, thus increasing the drones flight time up to 12 hours (depending on the type).

Prize Winner: [Solar Bora AB / Sweden](#)

Next generation Solar Home System (NextGenSHS) with a circular business model

Solar Bora develops NextGen SHS to deliver grid quality electricity to areas of no grid. This enables cooking with induction stoves and productive usage of the electricity.

Health care sector innovations

Award Winner: [The First Affiliated Hospital, Sun Yat-sen University / China](#)

Ischemia-free organ transplantation with systemic device and surgical innovation

Ischemia-free organ transplantation, with systemic device and surgical innovation, transplants a door organ completely avoiding the IRI and significantly improving transplant outcomes.

Prize Winner: [GOGO Mobility Robots S.L / Basque Country \(Spain\)](#)

HANK exoskeleton by GOGO Mobility Robots

HANK exoskeleton is a medical device for the recovery of motor functions for patients with neurological problems due to spinal cord injuries, neurodegenerative diseases and stroke.

Prize Winner: [CORIFY CARE SL \(Corify\) / Spain](#)

ACORYS© Innovative and cost-effective medical device to characterise cardiac arrhythmias and improve interventions

The goal of Corify is the development and commercial exploitation of a medical device that solves one of the main problems of cardiovascular clinical practice: the prognosis and treatment of patients with Atrial Fibrillation, an arrhythmia that affects more than 10 million of patients in Europe.

www.laatukeskus.fi info@laatukeskus.fi



Education sector innovations

Award Winner: [China Mobile Group Zhejiang Co.,Ltd. Hangzhou Branch / China](#)

5G-based remote VR visiting and teaching application

The 5G-based VR remote teaching & quarantine remote visitation platform is an immersive VR teaching platform. Combined with 5G, cloud computing, big data, and artificial intelligence algorithms, it can conduct one-to-many virtual reality teaching on the hospital LAN or remote Internet.

Prize Winner: [Tallinn Health Care College / Estonia](#)

Roof garden “Hands-on”

The container garden has been created on the roof of Tallinn Health Care College’s (THCC) new wing. Plants of various purposes are cultivated there.

Educational aspect is considered when choosing the plants that are being introduced to THCC students and the public – plants as well as their characteristics, options to use and risk factors. Generated biowaste is composted and no synthetic plant protection products are used for plant cultivation. Virtual environment PlantsMap has been introduced to allow distance learning and to facilitate learning.

Prize Winner: [Red Cross Medical College of Rīga Stradiņš University / Latvia](#)

Hospital work simulation for Health care students in College environment

Classroom workshops for health care students are topic or field based. But real hospital routine is multidisciplinary. During the Covid-19 lockdown students faced lack of possibilities to practice at the hospital. Therefore, we developed a simulation where most activities that take part in hospital are built in classroom environment.

Public sector innovations

Award Winner: [EUSKAL TRENBIDE SAREA / Basque Country \(Spain\)](#)

Acoustic mini-barrier for low-speed railway lines.

Acoustic mini barriers provide noise reduction better than traditional noise abatement solutions, without the need for foundations or large works, with minimal visual impact, and at very competitive prices.

Prize Winner: [State Grid Suzhou Power Supply Company / China](#)

AI-based Dynamic Lightning Protection System in Power Distribution Network

A lightning protection technology utilizes lightning tracking, AI forecasting, distribution network control and renewable energies coordination to improve the power reliability and stability.

www.laatukeskus.fi info@laatukeskus.fi

Prize Winner: [JSC "Electronic Moscow" / Russia](#)



Moscow innovation ecosystem (testing of innovative solutions)

The project presents a concept for the comprehensive development of innovation in the urban environment. The concept includes synchronizing the work of the city, innovation developers and participants of the innovation infrastructure for conducting pilot testing of new solutions at urban and commercial facilities.

Business innovations (micro & startup companies)

Award Winner: Berkhof Construction s.r.o. / Czech Republic

Automatic X-ray inspection and imaging device

The new Berkhof X-rad product offers product control in fully automatic mode. Thanks to the new generation X-ray detector, it is possible to detect even light materials and fine internal defects, which has not been possible until now.

Prize Winner: ntClick Soluciones Tecnológicas SI / Basque Country (Spain)

Development of the Tooling Control platform: innovative product (R + D + i product)

Development of the Tooling control platform: an integrated solution with RFID technology for the traceability control of combined variable elements and safe data optimization in the manufacturing sector.

Prize Winner: SKROLLER S.L. / Spain

Skroller, the e-scooter backrest

Skroller S.L. (skroller-belt.com) is a Spanish startup that has developed and patented an innovative backrest for electric scooters that increases control, stability and comfort, reducing muscular fatigue and the risk of accidents.

Business innovations (small and medium sized enterprises)

Award Winner: Alias Robotics, S.L. / Basque Country (Spain)

RIS: Robots Immune System

RIS is a Robotic Endpoint Protection Platform (REPP) that detects, stops and reports on threats affecting these cyberphysical technologies. It protects robots and their components against malware and malicious attackers.

www.laatukeskus.fi info@laatukeskus.fi