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Quality Innovation Award 2020 - international winners announced

The First Affiliated Hospital at Sun Yat-sen University and Ischemia-free organ transplantation is the winner of 2020 Award

The Innovation of Innovations prize was awarded to The First Affiliated Hospital at Sun Yat-sen University from Guangzhou, China. Ischemia-free organ transplantation marks the arrival of the "warm organ transplantation" era.

Quality Innovation Award was organized for the 14th time by the Finnish Quality Association and the national quality organizations. Partner organizations were from Basque Country, Botswana, China, Czech Republic, Estonia, Hungary, India, Israel, Kazakhstan, Latvia, Lithuania, Ruanda, Russia, South-Africa, Serbia, Spain, Swaziland, Sweden and Zimbabwe.

A total of 416 innovations participated in the competition and the best 25 were recognized with Awards or Prizes. Due to the COVID-19 pandemic, the traditional Award Ceremony was postponed. It will be hosted by the Serbian Quality Association (SRMEK) later in April.

As always, the winners of the Award in each category passed a strict methodology of evaluation based on their novelty value, usability, learning, customer orientation and effectiveness. The winners were chosen by the participating national Quality Associations via a rigorous voting process.

"We systematically promote innovation and sustainable development also among our international partner organizations. Individual countries have increasingly submitted their innovations first to national and then international evaluation. This way, innovations will automatically gain visibility in numerous countries. This year, we welcomed India as a new member to our network", says Mr. Juha Ylä-Autio, Chairman of the Quality Innovation Award.

For more information, please see www.qualityinnovation.org or contact

LAATUKESKUS EXCELLENCE FINLAND

Juha Ylä-Autio

Chairman, Quality Innovation Award

+358 40 752 3312

juha.yla-autio@laatukeskus.fi



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.



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 donor 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.



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.



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.



Prize Winner: Radalytica a.s. / Czech Republic

Quality 4.0 - Robotic non-destructive inspection using NDT imaging methods. – “RadalyX”

A unique robotic platform capable of non-destructive testing in a wide area of interest across industries with the possibility of immediate evaluation thanks to various imaging options that can be combined.

Prize Winner: PiBond Oy / Finland

Silicon-Rich Materials for Advanced Semiconductor Fabrication

PiBond developed novel resist solution that simplify EUV lithography. This increases the throughput, improves the yield, and enhances the quality of EUVL process. Also, the need of chemicals is reduced.

Business innovations (large companies)

Award Winner: TSK Electronica y Electricidad, S.A. “TSK” / Spain

SIXPERIENCE: Virtual reality-based system for the operation and maintenance of industrial facilities

SIXPERIENCE is a virtual reality-based system allowing the verification and actuation of every element of an industrial installation through an immersive virtual environment.

Prize Winner: SORALUCE S.COOP. / Basque Country (Spain)

DWS – Dynamic Workpiece Stabiliser

Device that eliminates chatter that is usually generated when machining flexible workpieces. That chatter is caused by the excessive flexibility of the workpiece.

Prize Winner: Dell (China) Company Limited / China

Dell Digital Quality Command Center (DQCC)

Establish a decision system through big data analysis to enable the visual display of real time quality data of all production processes, intelligent detection and prediction of any quality abnormality, and automatically manage quality activities in digital way.