COMMISSION ON SCIENCE AND TECHNOLOGY FOR DEVELOPMENT (CSTD)

Geneva, Switzerland

Contribution by

Latvia

to the CSTD call for information sharing on initiatives against COVID-19

Five Latvian technology based solutions in response to Covid-19

COVIDBOTS, virtual assistant for reliable information regarding Covid-19, www.covidbots.lv
Purpose: to provide reliable inquiries and to answer citizens' questions about Covid-19 in Latvia round-the-clock. Initiative led by two Latvian technology companies TILDE and TET. While Tilde provides the development and maintenance of the virtual assistant, TET coaches and updates the virtual assistant's knowledge base. Virtual assistants are posted on both companies' websites as well as public and local authority Internet portals. To add - government has established and runs official portal covid19.gov.lv where all official information on Covid-19 gathered in one place and published online.

ARANET Large-Scale Wireless Body Temperature Monitoring Solution for Hospitals Battling COVID-19, aranet.com/products/
Purpose: constantly monitor patients' body temperature. System consists of a base station and 100 wireless battery powered body temperature sensors. Sensors can send their measurements to the centralised monitoring point wirelessly once every minute. The historical data can be viewed for each individual patient, as well as alerts can be set up to inform the medical staff of the most acute cases that require immediate attention. All functionality is available through an easy-to-use phone app. Company has also developed Aranet Medical Thermometers which are wireless, clinical-grade human body thermometers for safe remote monitoring in hospitals battling COVID-19. Sensors perform highly accurate measurements as well as they are flexible and easy to setup.

EMERGENCY FACE SHIELDS, 3D printed face protectors approved by medical professionals, www.shield48.eu
Purpose: to provide additional prevention tool to avoid infection of Covid-19. In consultation with medical specialists, the first prototypes of facial protectors were produced during the first Latvian virtual hackathon HACKFORCE that took place on 17-19 March 2020 virtually. Shields are approved by medical professionals and put in production. Products are designed to be printed on a 3D printer and primary are aimed for medical workers, however they can be used by any person who has interaction with customers. The set consists of 3 items – a plastic screen, a frame and two adjustable straps. The face shield is an additional barrier which reduces the risk of viral transmission via airborne droplets.

EMERGENCY VENTILATOR treating patients with short-term respiratory failure, info@lungmate.eu
Purpose: to provide simplified and functional model that would help medics save lives of patients with short-term respiratory failure. Latvian engineers and medical experts team LUNGMATE have developed an affordable, automated ventilator that can be used during COVID-19 pandemic. Ventilator design is in the certification process with manufacturing aimed to be initiated in mid-May.

TAVA KLASE (Your Classroom), government-run TV remote school tool for students Grade 1-12, www.tavaklase.lv
Purpose: to assist teachers and parents in distance learning for students Grade 1-12. To prevent spread of Covid-19 in schools, distance learning is organized in all public and private schools across the country since 13 March 2020. Schools are independent to choose the method of organizing a distance learning (there are at least 4 interactive distance learning portals and range of other tools available in Latvia), but the mentioned tool assists and complements arrangements done by schools. The tool is made to create the effect of presence and provide a systematic approach to learning. "Tava klase" focuses on mathematics, Latvian and foreign languages, as well as IT, sports, singing and art classes. Two TV channels and Internet website tavaklase.lv broadcast the lessons every weekday. All archive available online. Project is run by the Ministry of Science and Education.