

Newsletter

ICory-consortium in Singapore

ICory (Intelligent Customer-driven Solution for Orthopedic and Pediatric Surgery Care) is a Business Finland funded project consortium that consists of researchers, companies and hospitals from Finland and Singapore. The consortium aims to iteratively co-create an intelligent, coherent data-driven and patient-centric solution for surgery pathway with the selected partners from Finland and Singapore, by using the best ways of machine learning, robotics and gamification to assure the personalized patient experience during the whole surgery journey from home, to the hospital and back home (rehabilitation).

In September, ICory partners from Finland and Singapore took the collaboration to the next level by having together a half-day workshop, where the needs of the hospitals, the solutions of ICory companies and data integration and privacy issues were discussed. The workshop was opened by Riku Mäkelä from the Embassy of Finland in Singapore.

During the ICory project, we have identified several common challenges among healthcare providers in Finland and in Singapore. As an example, in both countries, there is a growing need for personalized information concerning the surgery journey for the patient, a need for feedback from healthcare team after the surgery and at home, and a need to convey information regarding pain, anxiety and fear during the surgery journey.

In the workshop, together with healthcare professionals from KK Women's and Children's Hospital (KKH) and National University Hospital, IHIS, and ICory company representatives and researchers from Finland and Singapore, we created a mutual understanding of orthopedic and pediatric surgery journeys in specific patient cases and identified what are the needs and challenges that healthcare professionals face in their daily work and that could be met with new innovative solutions and collaboration in ICory. As an example, there is a need for providing the patient with information and reminder when it is needed the most, such as reminding the patient to follow fasting guidelines. Many times, these guidelines are either misunderstood or not followed which leads to non-efficient use of healthcare professionals' and the patient's time and resources. In addition, enabling the treatment and care at home, e.g. supported by video communication and artificial intelligence solutions would reduce costs and the need for the patient to come to the hospital at all times during the surgery journey.

As another concrete need raising from the discussion was that nowadays, healthcare is rather decentralized meaning that coordination of care from home to the hospital and back home should be improved. The ICory solution, targeted to improving the patient experience, reducing fear during the surgery process and giving information for the patient, would be useful. There are also opportunities in improving the process of getting

the consent, managing with late arrivals and cancelled surgeries, reducing anxiety of the patients, moving the treatment more and more to home, and improving the efficiency of the whole surgery journey from home to hospital and back home.

With the expertise of ICory consortium and key players from Singapore, we will continue working together to find new ways to meet the needs of the hospitals and to improve patient experience and reduce the costs of the hospital and the society.

The partners attending to the workshop were the following:

- Senior Consultants and Staff Physicians from two public hospitals: KK Women's and Children's Hospital (KKH) and National University Hospital (NUH)
- Representatives from Singaporean firms: ESCO, Kinexcs Private Limited and KroniKare
- Representatives from Finnish firms: Buddy Healthcare, Solteq, NearReal, Rehaboo and Triumph Health
- Embassy of Finland in Singapore
- Enterprise Singapore
- Integrated Health Information Systems Pte Ltd. (IHIS)
- Researchers: University of Oulu, Oulu Business School and National University of Singapore

The workshop was facilitated by Prof. Minna Pikkarainen, and Ms. Laura Kemppainen from Oulu Business School, Finland and A/Prof. HE Hong-Gu from National University of Singapore. In the future, the collaboration with consortium partners from Finland and Singapore aims to: (1) open a market for all participating companies; (2) create more job opportunities in both countries; and (3) improve more rigorous collaboration among researchers and health care professionals from both countries.