ELEKTRONIKAS UN DATORZINĀTŅU INSTITŪTS

INSTITUTE OF ELECTRONICS AND COMPUTER SCIENCE

Kas mēs esam?

Elektronikas un datorzinātņu institūts (EDI)

ir valsts zinātniskais institūts, kurš veic pētījumus un izstrādes

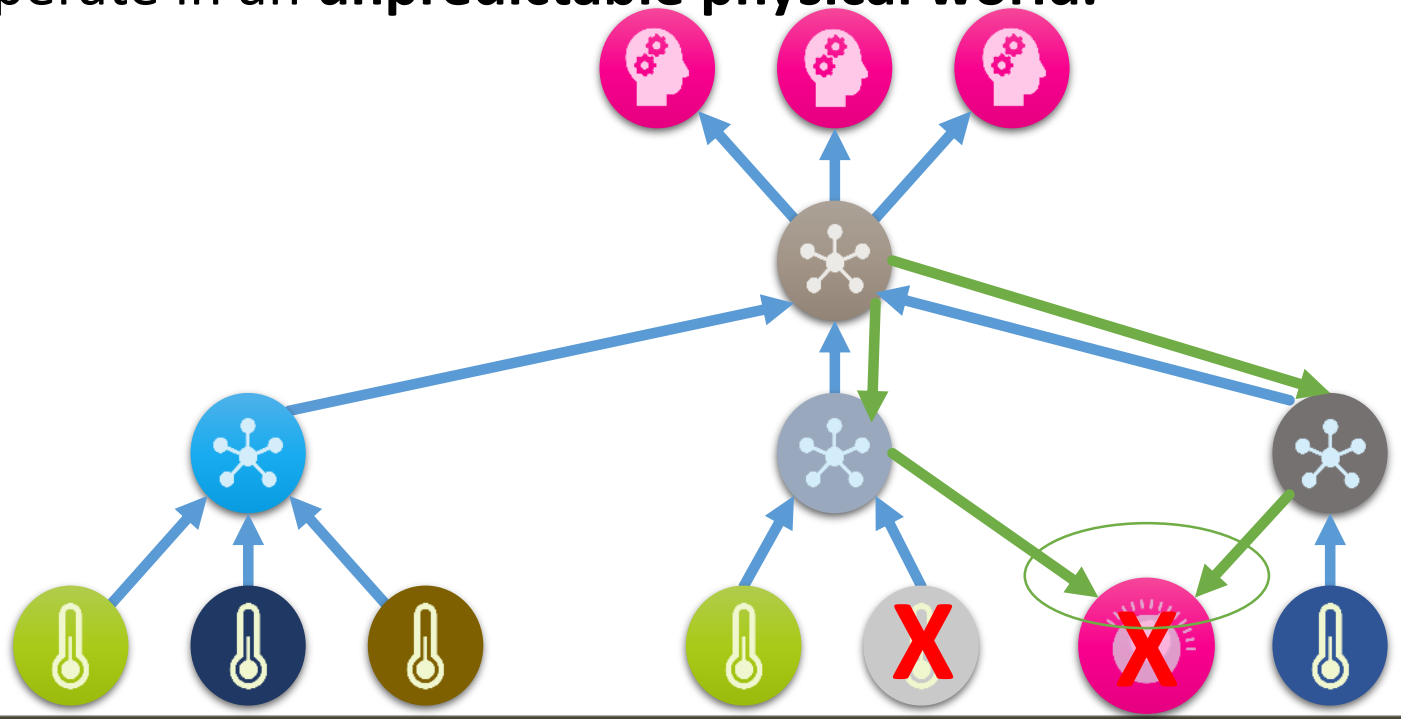
Viedu iegultu un tīklotu elektronisko sistēmu

attīstībā sekojošām pielietojuma jomām:

- **Viedais transports (H2020 «3Ccar», «Autodrive», PRISTYNA», LZA 2017 sasniegums)**
- **Industrija 4.0 (H2020 «I-MECH», ERAF «DIPA»)**
- **Nākotnes veselība (ERA-Net «CONVERGENCE»)**
- **Drošība (H2020 «ENACT»)**
- **Kosmoss (Eiropas Kosmosa Aģentūras projekti «On-board implementation of the multi-purpose Event Timer» un «Dynamic land use monitoring by fusion of satellite data»)**

Development, Operation, and Quality Assurance of Trustworthy Smart IoT Systems

- The next generation of **Smart IoT Systems** need to:
  - manage the closed loop **from sensing to actuation**,
  - be distributed accross **IoT, edge and cloud** infrastructures,
  - and operate in an **unpredictable physical world.**



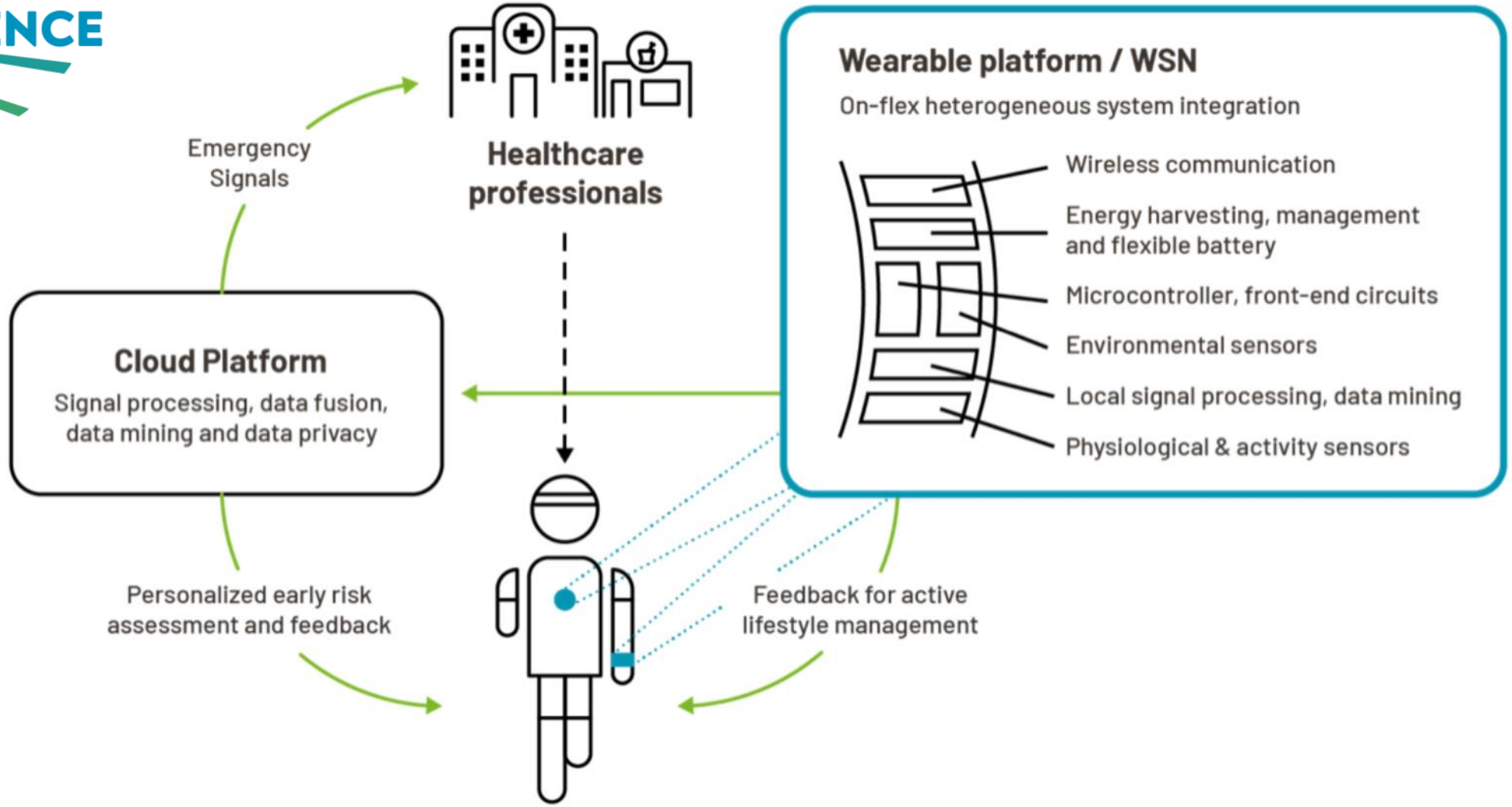
Trustworthiness (security, privacy, robustness)

Safe operational boundaries

Complex system, heterogeneity, connectivity and failures

Face situations not fully understood or anticipated

Frictionless Energy Efficient Convergent Wearables for Healthcare and Lifestyle Applications

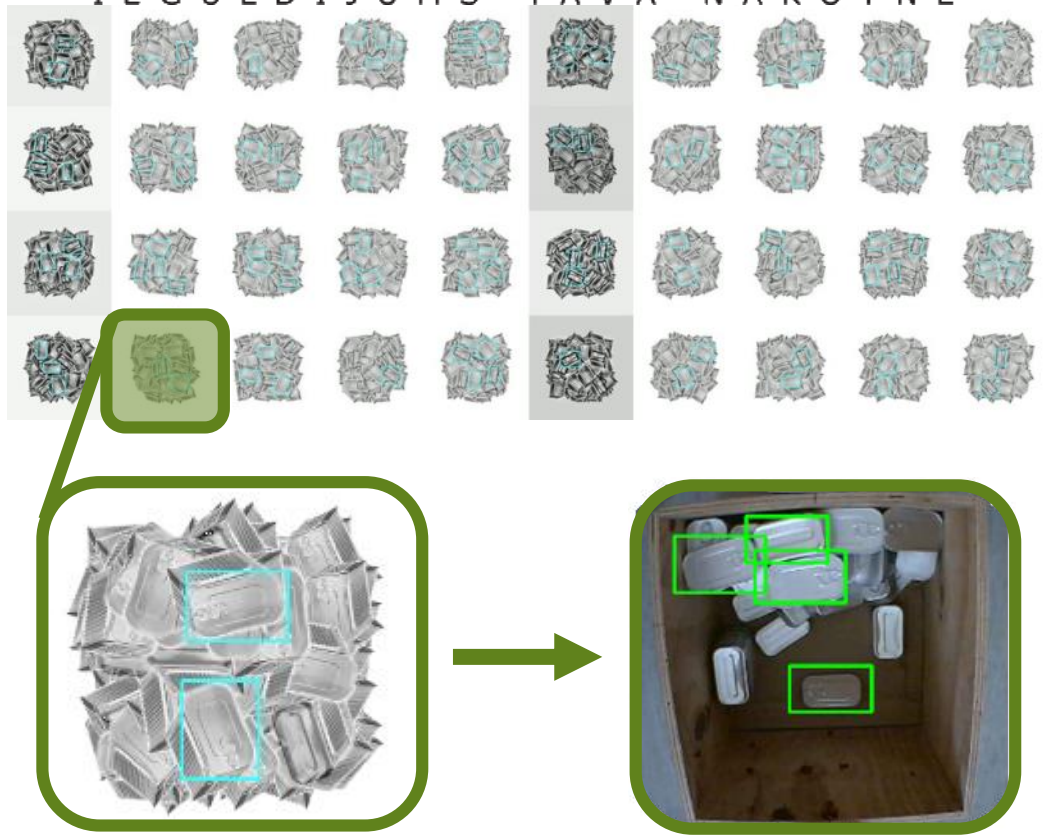


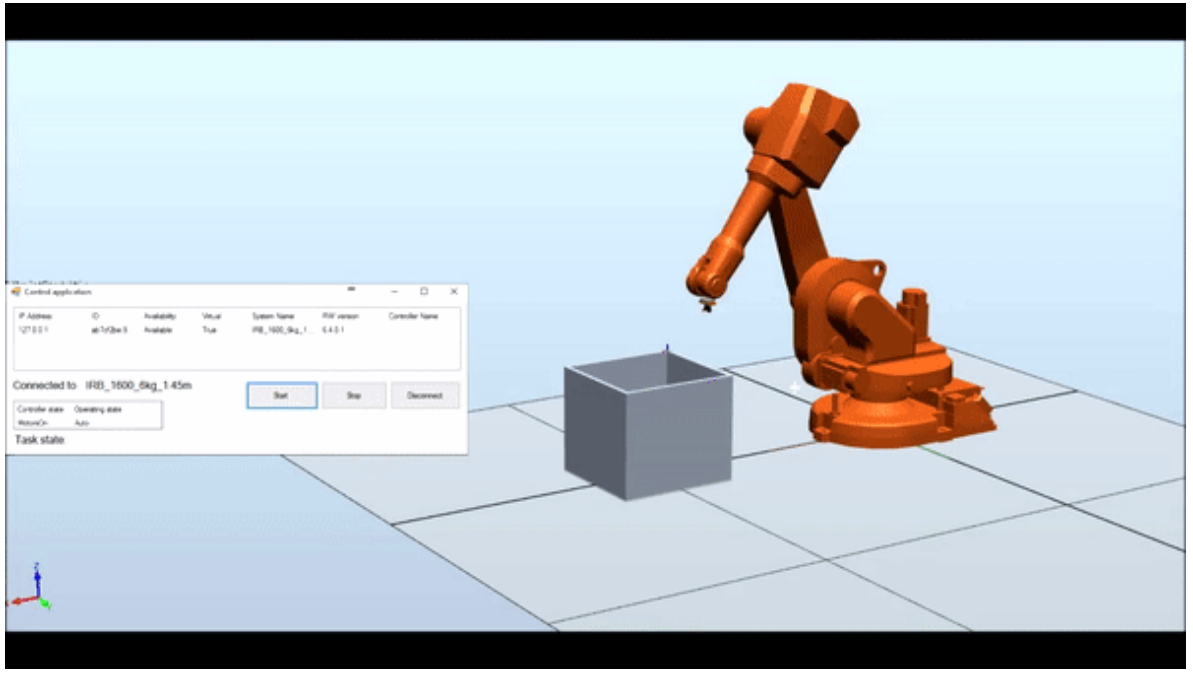
ERAF Nr.1.2.1.1/16/A/002 **Computer vision based solutions for robotic systems**

NACIONĀLAIS ATTĪSTĪBAS PLĀNS 2020

EIROPAS SAVIENĪBA
Eiropas Savienības struktūrfondi un Kohēzijas fonds

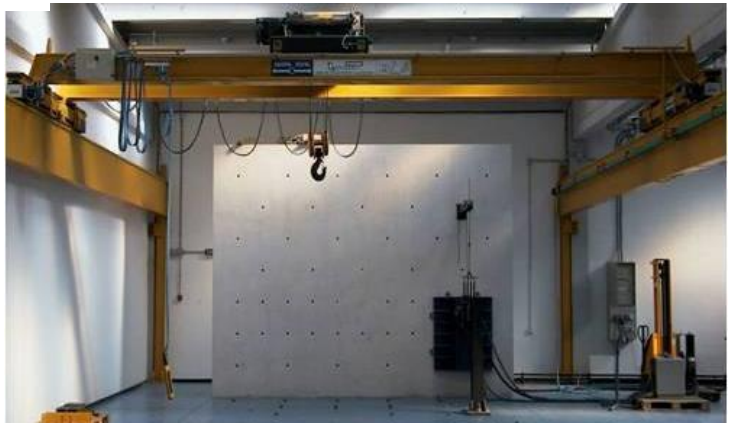
IEGULDĪJUMS TAVĀ NĀKOTNĒ

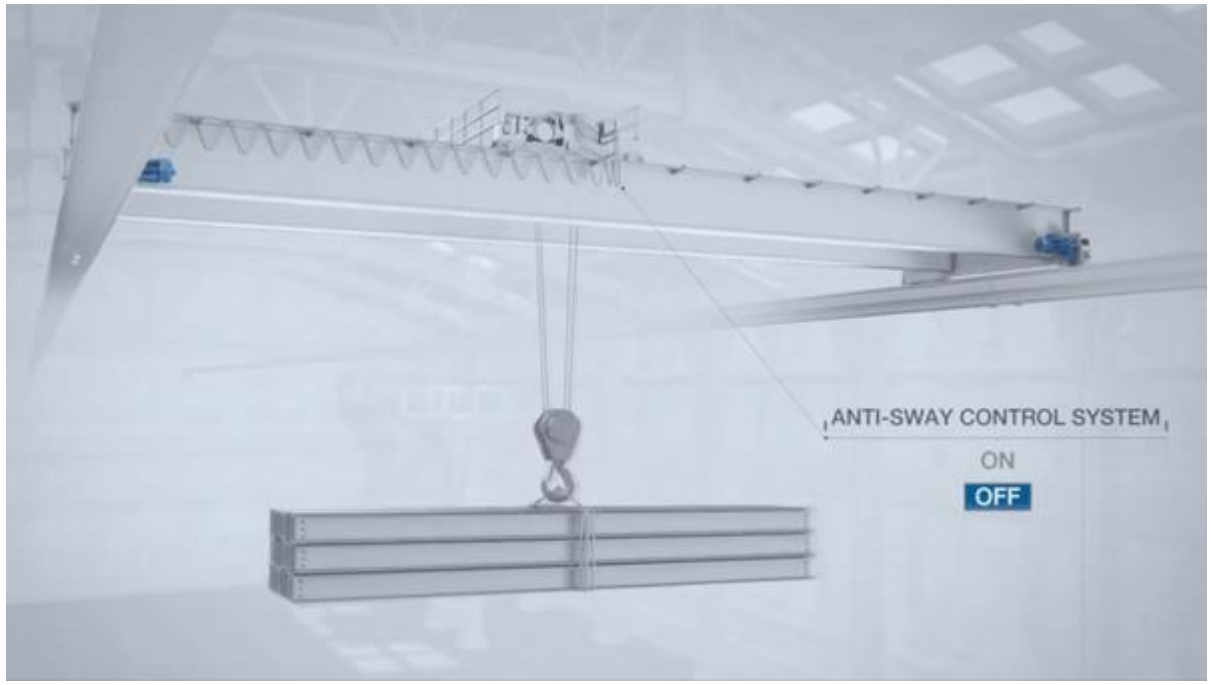




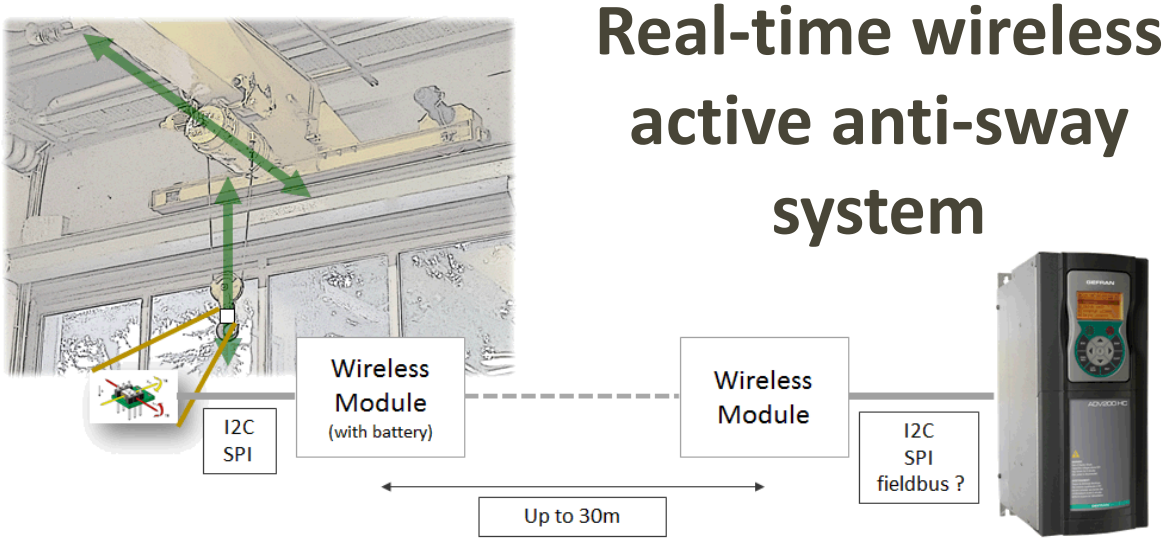
- Recognition and localization of objects to be removed from the box/pile
- Industrial manipulator control
- Machine Learning / Deep Learning

Intelligent Motion Control Platform for Smart Mechatronic Systems





Real-time wireless active anti-sway system



The system is able to recognize acceleration and angle position of the load, thus allowing to:

- eliminate load oscillations
- improve displacement time
- non-skilled operator to use the machine

2018.gada sadarbībai:

Meklējam partnerus H2020,
ERAF līdzfinansētiem u.c. kopējiem pētniecības projektiem saistībā ar:

- Mākslīgais intelekts un «big data»;
- Datorredze industrālos u.c. procesos;
- IoT risinājumu attīstība un validācija;
- Savienots pašbraucošs transpors;
- un citas jomas!

Līgumpētījumi ERAF Tehnoloģiju pārneses aktivitātes **vaučeru programmā**

<u>Uzsāksim</u> ES H2020 projektu «Programmable Systems for Intelligence in Automobiles»

Esam ieinteresēti iesaistīties nozares **izglītības un popularizēšanas** pasākumos!

PALDIES PAR UZMANĪBU! Modris_Greitans@edi.lv