

How Can Key Digital Technologies Partnership Support Manufacturers?

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Why Electronics?

- Electronic systems are driving the world's growth
- Electronics is one of the foundations of digital transformation
 - Computers, communication, control, automation are based on electronics
- Leading position in the other sectors is impossible without one in electronics

€4.5
trillion

All Regions Are Building Resilient Value Chains

- Electronics industry is heavily globalized
 - There are more than 50 points across the semiconductor value chain where one region holds more than 65% of the global market share.
 - Fully self-sufficient local supply chains in each region would require \$1 trillion in upfront investment and result in a 35% to 65% overall increase in semiconductor prices

“These chips are a wonder of innovation and design that power so much of our country and enable so much of our modern lives.... We need to make sure these supply chains are secure and reliable.”

*-President Biden
Feb. 24, 2021*

What About Europe?

- European Electronics industry has impact on 20% of the European GDP
- EU recognizes crucial role of electronics and has initiated several programs to secure digital technology leadership:
 - presence in key areas of electronic value chains
 - reach excellence in emerging components and systems technologies
 - addressing societal and environmental challenges

“Digital technologies (...) are transforming the world at an unprecedented speed. (...) it is not too late to achieve technological sovereignty in some critical technology areas.”

*Ursula von der Leyen,
President of the European
Commission*

Key Digital Technologies (KDT)

- “*Strategic Research and Innovation Agenda 2021. ELECTRONIC COMPONENTS AND SYSTEMS*”
- The term covers all **electronic and photonic components and systems (ECS)**, and the software that defines how they work
- These technologies underpin **all digital systems** - building blocks of digital industry and society, including Artificial Intelligence and the Internet of Things



European Partnership for KDT

- A new Horizon Europe Joint Undertaking planned to take over the activities from the ECSEL JU in late 2021
- Built on an industrial foundation: [AENEAS Association](#), [ARTEMIS Industry Association](#) and [EPoSS Association](#)
- “The core activity of the KDT partnership will be the funding of the R&I actions to be performed by project participants”

How Does the KDT Partnership Work?

- A tripartite financing scheme EC + MS + project consortium (1:1:2) amplifies R&I investments of the participants while helping to build a European cooperation network
- Project calls: Innovation Actions (IA) include **higher TRLs**
 - “... to better align R&I and industrial policies and achieve synergies among its participating countries”
- SMEs should account for at least a third of the total number of participants in a KDT initiative and receive at least 20% of public funding

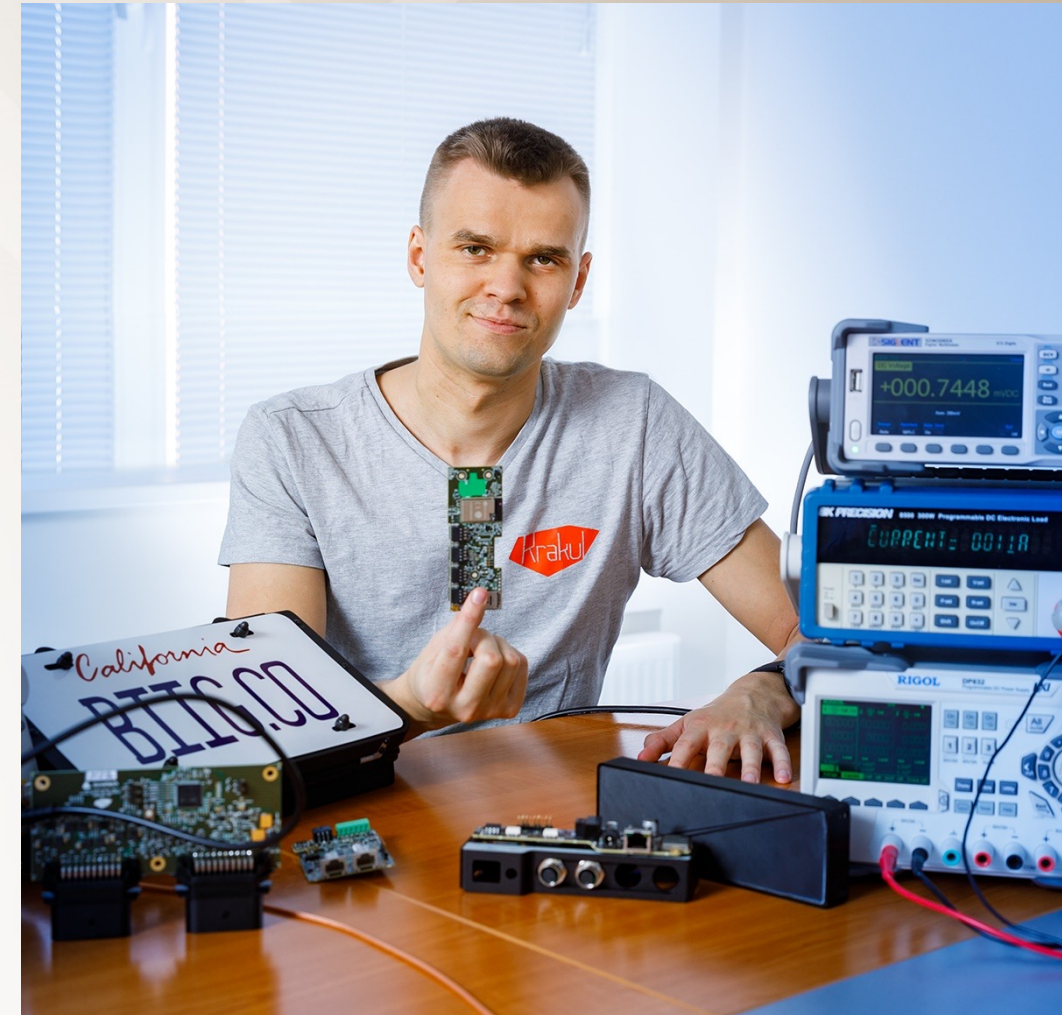
Estonian Electronics Industry Today

- **Small but powerful – 23%** of Estonian industrial export
- **12 000** employees
- Turnover **EUR 2 billion**
- **Key segments**
 - Telecom, Industrial, Automotive
 - Medical, railway, aerospace, defense & security etc.



Estonian Electronics Industry Value Proposition:

- Professional engineering, manufacturing and **aftersales services**
- **Electronics and IT for other industries**
 - adding „brains“ and connectivity to anything
- A perfect **test site**
- **Speed, agility and resilience**
- **KDT** provides funding and networks



Let's go digital together!