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## ELECTRONICS AND SOFTWARE BASED



#### Who we are?

ESBS-Austria is an industry-driven national research, development and innovation platform representing the technology areas of micro and nanoelectronics, embedded - systems and systems integration.

- Founded 2013 based on ARTEMIS-Austria (embedded software and software architecture) and ENIAC-Austria (micro- and nanoelectronics)
- Legal Status: Verein
- currently **46 members**





#### **Our mission**

Secure supply of key technologies and critical knowhow in the field of electronic components and systems to support innovation in all major sectors of the economy and society in Europe.

#### **Our vision**

European leadership in electronics and software based systems



#### Electronics and Software Based Systems in Austria

Source: ,Electronic Based Systems – Update der Daten zu Unternehmen – Kurzanalyse 2023' Joanneum Research 100 R&D Organisations

> +4400 Researchers

+72.000 People employed in esbs-relevant companies



#### **Our network**

The network of ESBS-Austria consists of Austrian Stakeholders, Austrian Clusters and Silicon Alps, the BMK, RDI Framework and "Silicon Austria" Programme and the European RDI Framework.





#### **Our Strategic Goals & Objectives**

- strengthen the **international competitiveness** of Austrian companies in the European ESBS funding/innovation system creating added value
- **support cooperation, focus and performance** of Austrian R&D institutions and enterprises along the valuechain of ESBS
- develop inputs for the European and Austrian research programmes based on the strengths of Austrian ESBS eco system
- increase the international visibility of Austrian enterprises and R&D facilities due to leading edge technologies and solutions
- strengthen the Austrian ESBS eco system as valuable partner in large collaborative European projects



### Six areas of strength identified by the Austrian ESBS community

- Power electronics and control
- Hybrid integration & process
- Sensing, photonic sensors, quantum sensors
- Open software vehicle platform
- Development and testing of trustably AI based realtime systems
- Secure & energy efficient connectivity, communication
  & processing



#### **ESBS-Austria Technical Position Paper**

- Technical Positions Paper
  - Download the full document and abstract at <u>www.esbs-austria.eu/positionpaper1</u>







#### **KDT Calls – successful contributions from Austria**

#### KDT 1. Call

- Partners in 17 submissions
- 9 projects selected by EC
  - 6 funded by BMK/FFG
  - € 6 Mio national contribution

#### KDT 2. Call

- Partners in 18 submissions
- 11 projects selected by EC
  - 5 funded by BMK/FFG
  - $\mathbf{\in}$  7 Mio national contribution





### KDT 1. Call – successful contributions from Austria

A-IQ Ready	Artificial Intelligence using Quantum measured Information for realtime distributed systems at the edge
<b>AGRARSENSE</b>	Smart, digitalized components and systems for data-based Agriculture and Forestry
PowerizeD	Digitalization of Power Electronic Applications within Key Technology Value Chains
TRISTAN	Together for RISc-V Technology and ApplicatioNs
EdgeAl	Edge AI Technologies for Optimised Performance Embedded Processing
OPEVA	OPEVA - OPtimization of Electric Vehicle Autonomy
Listen2Future	Acoustic sensor solutions integrated with digital technologies as key enablers for emerging applications fostering society 5.0
<b>HICONNECTS</b>	Heterogeneous Integration for Connectivity and Sustainability
<u>SHIFT</u>	Sustainable tecHnologies enabling Future Telecommunication applications

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### KDT 2. Call – successful contributions from Austria

AIMS5.0	Artificial Intelligence in Manufacturing leading to Sustainability and Industry5.0
ALL2GaN	Affordable smart GaN IC solutions as enabler of greener applications
<b>ARCHIMEDES</b>	Trusted lifetime in operation for a circular economy
<u>EcoMobility</u>	Intelligent, Safe and secure connected Electrical Mobility solutions: Towards European Green Deal and Seamless Mobility
NEUROKIT2E	Open source deep learning platform dedicated to Embedded hardware and Europe
R-PODID	Reliable Powerdown for Industrial Drives
SUSTRONICS	Sustainable and green electronics for circular economy
Arrowhead FPVN	Arrowhead Flexible Production Value Networks
EECONE	European ECOsystem for greeN Electronics
<u>14AMI</u>	14 Angstroms Module Integration
ISOLDE	High Performance, Safe, Secure, Open-Source Leveraged RISC-V Domain-Specific Ecosystems



#### What we offer to our members?

- first level contact for stakeholder's issues in the area of R&D for ESBS
- a lively network offering various options for proactive participation
- a platform to share RD&I project ideas, get inspired by others and gain information
- active contribution to KDT programs and ESBS strategies
- joint preparation/coordination of common positions
- 2 symposia/conferences a year (international & national focus)



#### **ESBS-Austria**

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#### **THANK YOU!**

Federal Ministry Republic of Austria Climate Action, Environment, Energy, Mobility, Innovation and Technology