

“Europe will not be made all at once, or according to a single plan. It will be built through concrete achievements which first create a de facto solidarity.”
Robert Schuman

THE KDT JOINT UNDERTAKING. THE EUROPEAN PROGRAMME FOR RD&I IN ELECTRONIC COMPONENTS AND SYSTEMS.

INTERNATIONAL WORKSHOP ON EDGE ARTIFICIAL INTELLIGENCE FOR INDUSTRIAL APPLICATIONS (EAI4IA), VIENNA, AUSTRIA, 25-26 JULY 2022

Yves GIGASE
Head of Programmes
08 July 2022



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A tutorial for the next generation
of policy-makers and decision-takers.

Yves GIGASE
Head of Programmes
08 July 2022



KDT JU

KEY DIGITAL
TECHNOLOGIES
JOINT UNDERTAKING

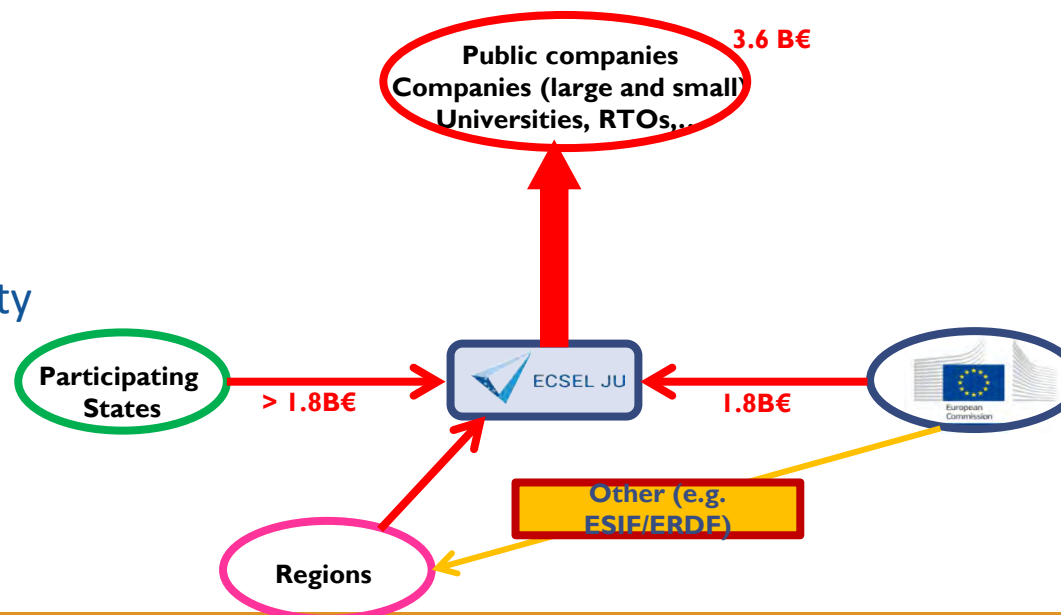


TAKEAWAY

- Programmes such as KDT are huge endeavours, lots of money, lots of work, lots of results, etc.
- But are build by people and **you** are part of this!
- **You** can influence such programme, **you** should influence this, it is **your** future!
- Invest some of **your** time in understanding what the Europe Union and programmes such as KDT are about.

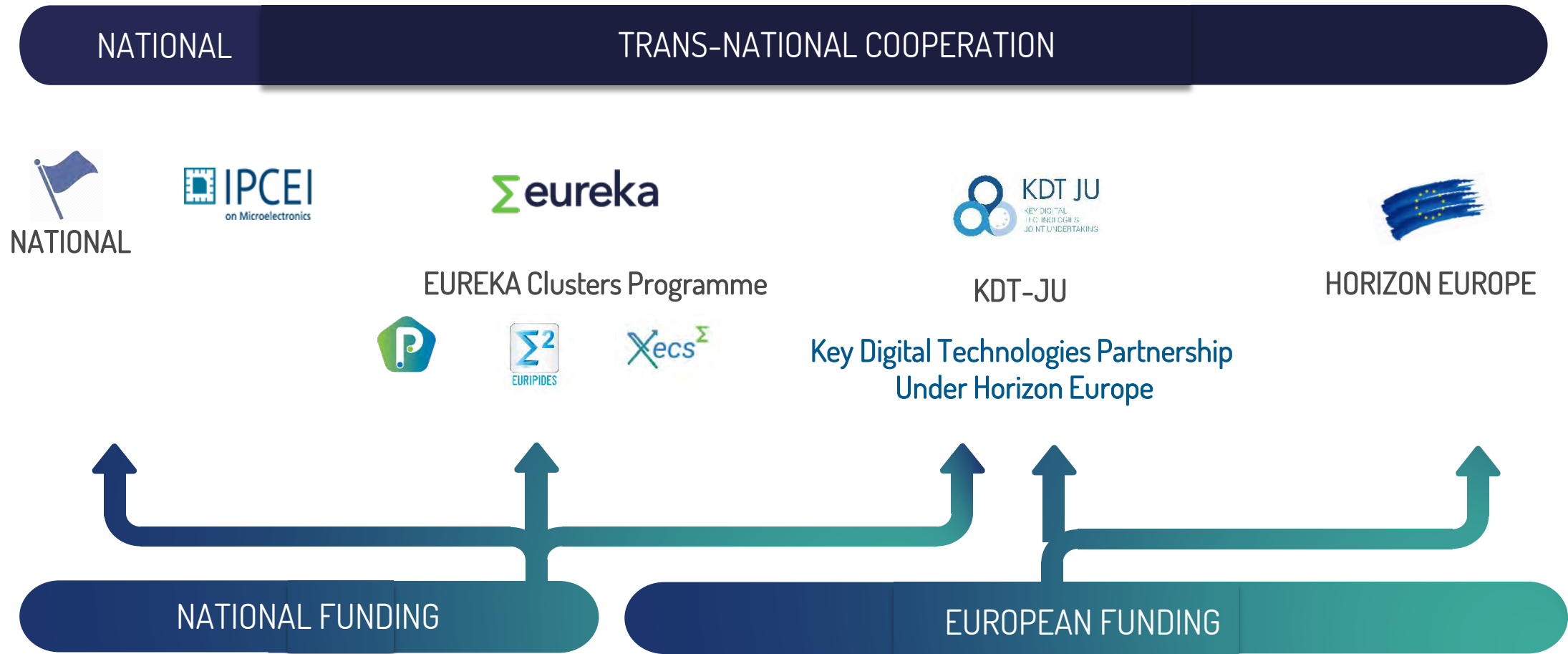
KDT JU 2021-2027

- Third generation JU (start 30/11/2021), predecessor was ECSEL JU
- KDT JU = Key Digital Technology Joint Undertaking
- Tripartite: Commission - Participating states – Industry associations
- Associations: AENEAS, INSIDE, EPoS
- Budget ambition : 7.2B€ funded by 1,8 B€ (EU)+1,8 B€ (national)
- Based on Horizon Europe
- **Bottom-up** programme with **top-down** focus topics
- “Value chain” approach
- **Pilot lines** (higher TRLs)
- **Critical mass** approach
- focussed on **Industrial leadership**
- **Common agenda** of Europe’s ECS community



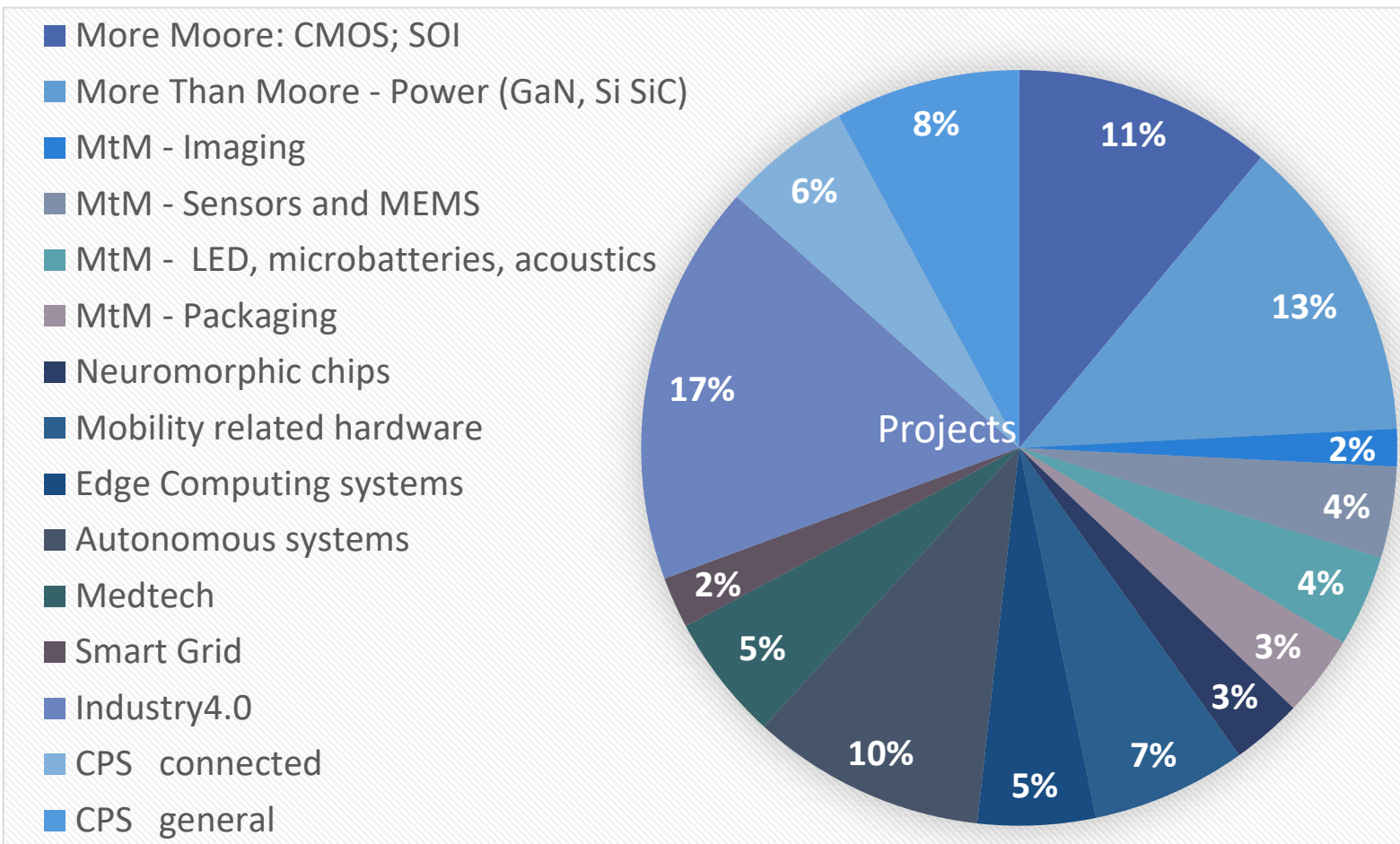
<https://www.kdt-ju.europa.eu/>

THE EU RD&I FUNDING LANDSCAPE FOR THE ECS INDUSTRY

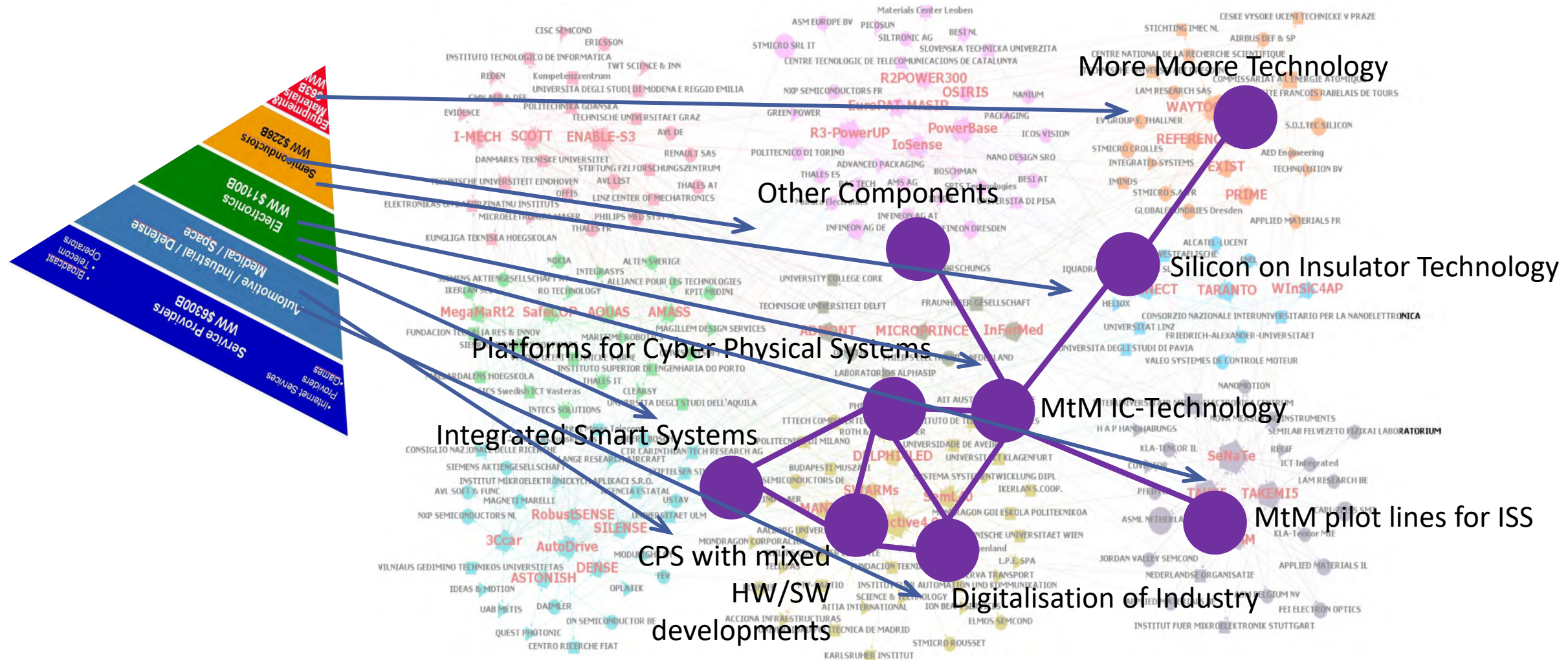


ECSEL JU 2014-2021

- 92 projects
- 3 220 beneficiaries
- 4 690 million Eur in total cost
- 2 280 million Eur in funding (EU+national)
- 408 500 persons-months
- 34 000 person-years
- 29 participating states



NETWORKS OF PARTNERS AND PROJECTS



EXAMPLES OF ECSEL PROJECTS.

PILOT LINE PROJECTS AND PROJECT SUITES

More Moore

The projects contribute directly to the European Strategic Roadmap for Micro- and Nano-Electronics Systems



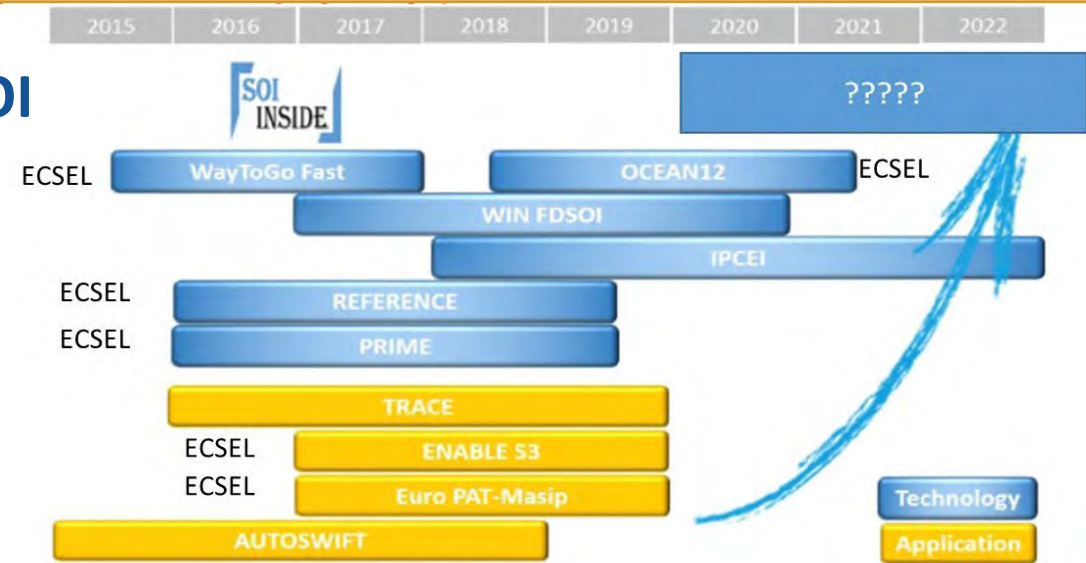
Power components



“Enabling Power technologies on 300mm Wafers” project was based on the concept of a **1:1 transfer approach** from 200 mm to 300 mm diameter silicon wafers.

from ASML

SOI



Power Semiconductor and Electronics **Manufacturing 4.0** smart, security, variation, simulation

excellence in speed and reliability for **More than Moore** technologies : **high volume** production and quick introduction.

5G GAN2

semiconductorTODAY
COMPOUNDS & ADVANCED SILICON



Industry's
HIGHEST Productivity and
LOWEST Cost of Ownership



ENHANCED BY Google



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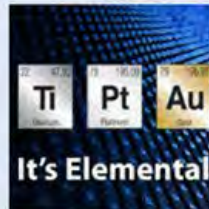
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News

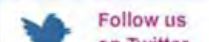
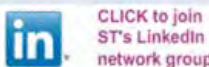
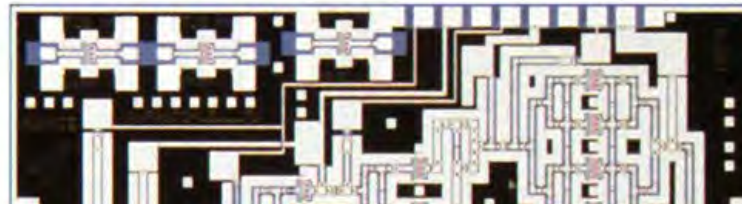
18 September 2018

5G GaN2 project developing 28GHz, 38GHz and 80GHz demonstrators for 5G cellular network base stations

The fifth-generation (5G) cellular network will enable data transmission between humans, devices and machines in real time, but so far no technology exists that allows for a reliable, fast and energy-efficient 5G network. In the European Union (EU) project '5G GaN2', 17 partners from research and industry have joined forces to develop cost-effective and high-performance technologies, based on gallium nitride, for the upcoming mobile communications standard. The consortium, which also includes the Fraunhofer Institute for Applied Solid State Physics (IAF) of Freiburg, Germany, started its work in July.

Besides Fraunhofer IAF, the project consortium partners include the complete value chain of mobile phone technology (wafer suppliers, semiconductor manufacturers and system integrators, together with universities and research institutes).

In the 5G cellular network, cars, devices and production machines will also transmit data in real time via the wireless radio network. In future, these high data rates will be covered by frequency bands in the millimeter-wave range (>24GHz), which provide a ten times higher bandwidth compared with currently available frequency bands (<3GHz) and have now been released internationally to significantly increase the bandwidth range.





Materials for Quantum Computing

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[ABOUT MATQU](#)

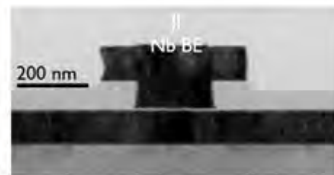
[PARTNERS](#)

[NEWS & MEDIA](#)

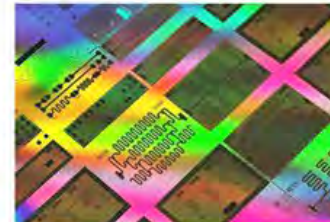
About MATQu

CMOS-based digital computing has given rise to ever-greater computational performance, big-data based business models and the accelerating digital transformation of modern economies. However, the increasingly larger amounts of data to be handled and the continuously growing complexity of today's tasks for high performance computing (HPC) are becoming unmanageable, as data handling and energy consumption of high-performance computers, server farms and cloud services are reaching unsustainable levels. New concepts and technologies for high-performance computing (HPC) are necessary.

One such HPC technology is Quantum Computing (QC). QC utilizes "quantum bits" (qubits) to perform complex calculations fundamentally much faster than conventional digital-bit computing can. First demonstrators and quantum computer prototypes have been created using various types of quantum bits. Superconducting Josephson junctions (SJJs) have been shown to be extremely promising qubit candidates to achieve a significant, nonlinear increase of computational power with the number of qubits in a quantum computer. Industrial market-introduction of novel materials, devices, and characterization represents a great challenge yet opportunity for Europe to create a complete value chain for Josephson junction technology and QCs. Such a complete value chain will be a significant contribution to Europe's technology sovereignty.



Josephson junction TEM cross-section (© IMEC)

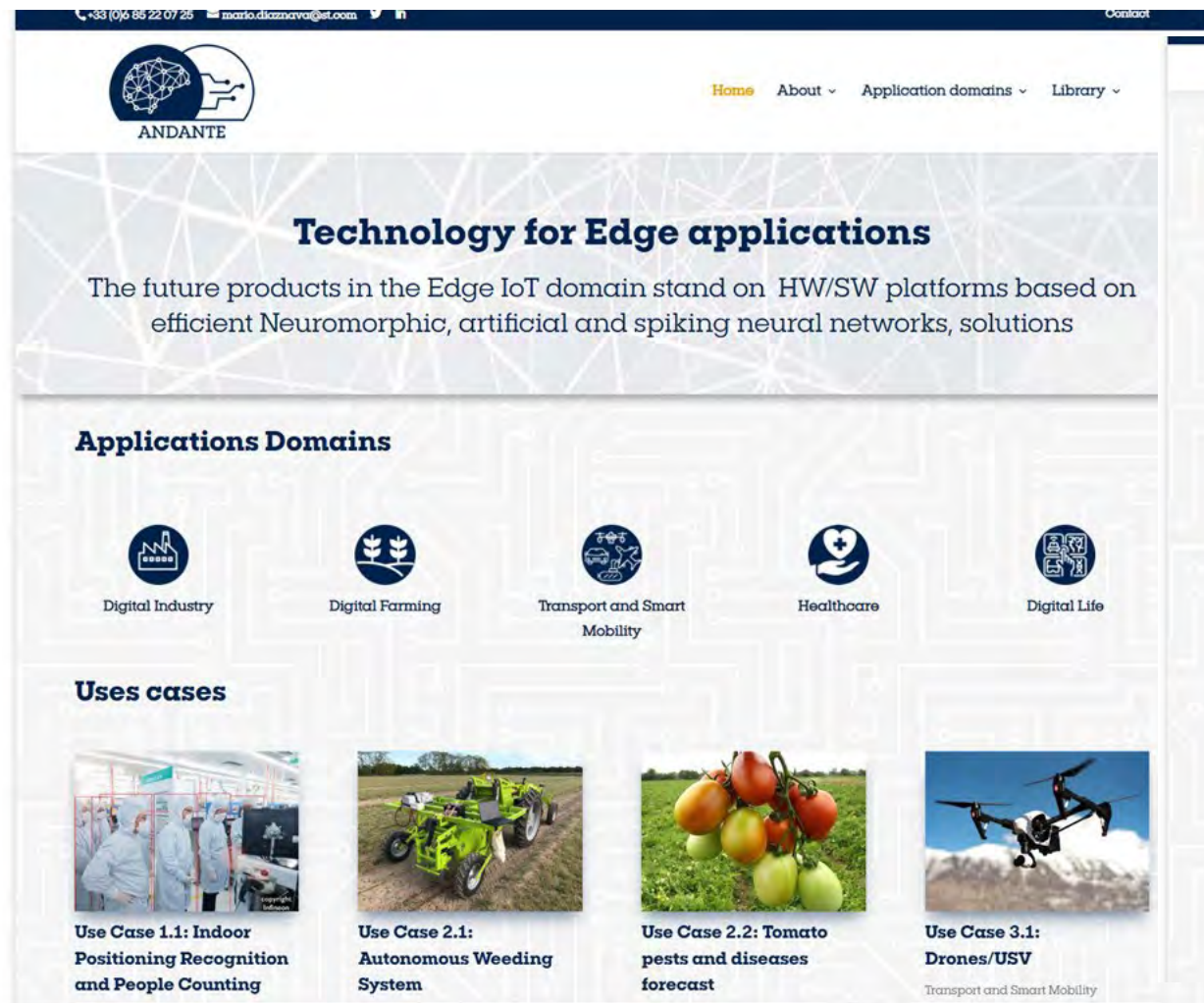


Testchip with superconducting qubits in a 300 mm integrated process prototype (© IMEC)

The MATQu project will validate technology options to produce SJJs on industrial 300 mm silicon-based process flows. The project addresses substrate technology, superconducting metals, resonator technology, through-wafer-via holes, 3D integration, and variability characterization. The substrate-, process- and test-compatibility will be assessed with respect to integration practices for qubits. Core substrate and process technologies with high quality factors, improved material deposition on large substrates, and increased critical temperature for superconducting operation, will be developed and validated.



ANDANTE



The screenshot shows the ANDANTE website homepage. At the top, there is a navigation bar with links for Home, About, Application domains, and Library. The main header features the ANDANTE logo and the text "Technology for Edge applications". Below this, a paragraph states: "The future products in the Edge IoT domain stand on HW/SW platforms based on efficient Neuromorphic, artificial and spiking neural networks, solutions". The "Applications Domains" section includes icons for Digital Industry, Digital Farming, Transport and Smart Mobility, Healthcare, and Digital Life. The "Uses cases" section displays four use cases: Use Case 1.1: Indoor Positioning Recognition and People Counting, Use Case 2.1: Autonomous Weeding System, Use Case 2.2: Tomato pests and diseases forecast, and Use Case 3.1: Drones/USV.

Technology for Edge applications

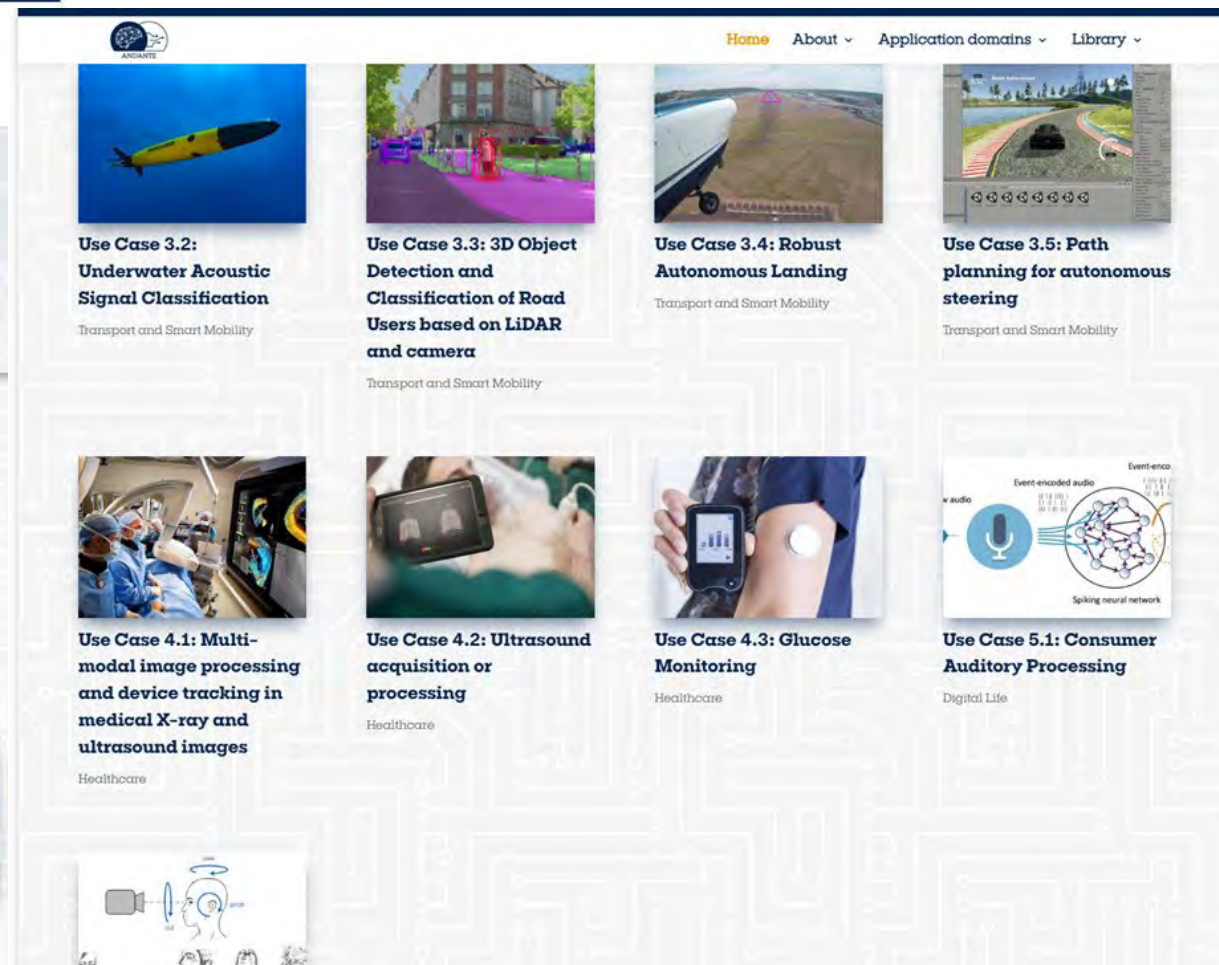
The future products in the Edge IoT domain stand on HW/SW platforms based on efficient Neuromorphic, artificial and spiking neural networks, solutions

Applications Domains

- Digital Industry
- Digital Farming
- Transport and Smart Mobility
- Healthcare
- Digital Life

Uses cases

- Use Case 1.1: Indoor Positioning Recognition and People Counting
- Use Case 2.1: Autonomous Weeding System
- Use Case 2.2: Tomato pests and diseases forecast
- Use Case 3.1: Drones/USV



This screenshot shows a detailed view of the ANDANTE website's use cases. It features a grid of eight use cases, each with a representative image, a title, and a category. The categories include Transport and Smart Mobility, Healthcare, and Digital Life. The use cases are: Use Case 3.2: Underwater Acoustic Signal Classification, Use Case 3.3: 3D Object Detection and Classification of Road Users based on LiDAR and camera, Use Case 3.4: Robust Autonomous Landing, Use Case 3.5: Path planning for autonomous steering, Use Case 4.1: Multi-modal image processing and device tracking in medical X-ray and ultrasound images, Use Case 4.2: Ultrasound acquisition or processing, Use Case 4.3: Glucose Monitoring, and Use Case 5.1: Consumer Auditory Processing.

Use Case 3.2: Underwater Acoustic Signal Classification
Transport and Smart Mobility

Use Case 3.3: 3D Object Detection and Classification of Road Users based on LiDAR and camera
Transport and Smart Mobility

Use Case 3.4: Robust Autonomous Landing
Transport and Smart Mobility

Use Case 3.5: Path planning for autonomous steering
Transport and Smart Mobility

Use Case 4.1: Multi-modal image processing and device tracking in medical X-ray and ultrasound images
Healthcare

Use Case 4.2: Ultrasound acquisition or processing
Healthcare

Use Case 4.3: Glucose Monitoring
Healthcare

Use Case 5.1: Consumer Auditory Processing
Digital Life

HiEFFICIENT



[OBJECTIVES](#) [USE CASES](#) [STAKEHOLDERS](#) [NEWS](#) [PUBLICATIONS](#) [CONTACT](#)



HiEFFICIENT stands for
Highly EFFICIENT and reliable electric drivetrains based on modular,
intelligent and highly integrated wide bandgap
power electronics modules.



ADVANCED WBG ELECTRONICS FOR AUTOMOTIVE INDUSTRY

HiEFFICIENT project makes a substantial contribution to the European Commission's "The European Green Deal" initiative, by ensuring **sustainable mobility** and **resource efficiency** for future transportation. Therefore, **highly reliable and integrated wide-bandgap (WBG) technologies** in electronic power circuits and systems of electrified vehicles and charging infrastructures shall be developed in the course of the project.



NEXTPERCEPTION



[Home](#) [About the project](#) [Consortium](#) [Events](#) [Results](#) [Contacts](#) [Blogs](#)



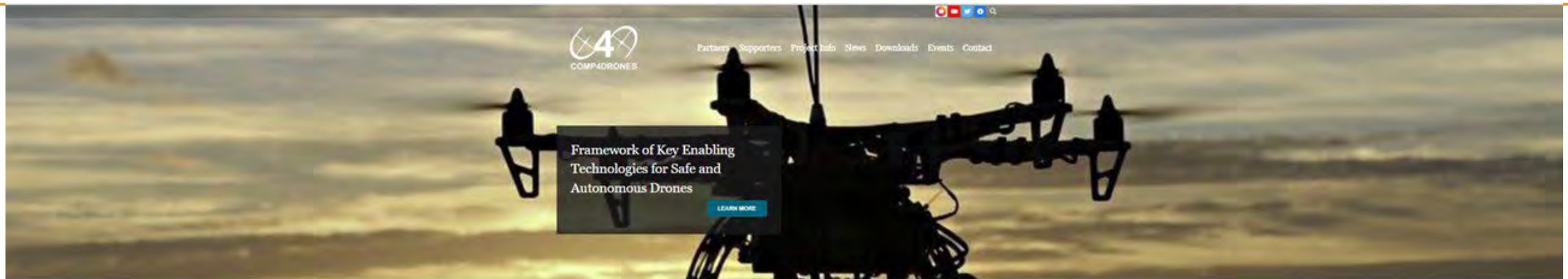
We put our lives increasingly in the hands of smart complex systems making decisions that directly affect our health and wellbeing. This is very evident in healthcare – where systems watch over your health – as well as in traffic – where autonomous driving solutions are gradually taking over control of the car. The accuracy and timeliness of the decisions depend on the systems' ability to build a good understanding of both you and your environment, which relies on observations and the ability to reason on them.

This project will bring perception sensing technologies like Radar, LiDAR and Time of Flight cameras to the next level, enhancing their features to allow for more accurate detection of human behaviour and physiological parameters. Besides more accurate automotive solutions ensuring driver vigilance and pedestrian and cyclist safety, this innovation will open up new opportunities in health and wellbeing to monitor elderly people at home or unobtrusively assess health state.

Blogs

- [Device Management for the Internet of Things](#) 6.5.2022
- [Communication infrastructure for patient monitoring](#) 20.4.2022
- [A Blockchain Architecture to Enhance Security in Health Monitoring Systems](#) 20.4.2022
- [Sleep Demonstrator](#) 16.3.2022
- [A new way of protecting vulnerable road](#)

COMP4DRONES



WHAT IS COMP4DRONES?

COMP4DRONES is an ECSEL JU project coordinated by Inria that brings together a consortium of 48 partners with the aim of providing a framework of key enabling technologies for safe and autonomous drones. It aims to bring a holistically designed ecosystem from application to electronic components, replicated as a tightly integrated multi vendor and compositional UTM embedded architecture solution and a test chain complementing the compositional architecture principles. The project will mainly focus on the following objectives:

- Ensure the **integration and customization** of embedded drone systems
- Enable drones to take **safe autonomous decisions**
- Ensure the deployment of **trusted communications**
- Minimize the **design and verification effort** for complex drone applications
- Ensuring **sustainable impact** and creation of an industry driven community



Demonstration and validation activities are essential to ensure the quality and relevance of innovations. COMP4DRONES will ease the development of new application and functionalities on the fields of transport, construction, surveillance and inspection, logistics, and agriculture.

Use Cases



Transport

Drones for optimization of transport routes, operation and infrastructure management



Construction

Drones for virtual design, construction and operation of transport infrastructure



Logistics

Logistics using heterogeneous space fleet



Surveillance and Inspection

Drones and advanced robotic systems for inspection, surveillance and rescue operations



Agriculture

Smart and Precision Agriculture: From global to cover

SWARMs



Smart and Networking Underwater
Robots in Cooperation Meshes

[HOMEPAGE](#)[OVERVIEW](#)[APPROACH](#)[USE CASES](#)[CONSORTIUM](#)[NEWS](#)[PUBLICATIONS](#)[USEFUL LINKS](#)[CONTACT US](#)

The primary goal of the SWARMs project is to expand the use of underwater and surface vehicles (AUVs, ROVs, USVs) to facilitate the conception, planning and execution of maritime and offshore operations and missions. This will reduce the operational costs, increase the safety of tasks and of involved individuals, and expand the offshore sector.

SWARMs project aims to make AUVs, ROVs and USVs further accessible and useful, making autonomous maritime and offshore operations a viable option for new and existent industries:

- Enabling AUVs/ROVs to work in a cooperative mesh thus opening up new applications and ensuring re-usability by promoting heterogeneous standard vehicles that can combine their capabilities, in detriment of further costly specialised vehicles.
- Increasing the autonomy of AUVs/USVs and improving the usability of ROVs for the execution of simple and complex tasks, contributing to mission operations' sophistication.

The general approach is to design and develop an integrated platform for a new generation of autonomous maritime and underwater operations, as a set of software/hardware components, adopted and incorporated into the current generation of maritime and underwater vehicles in order to improve autonomy, robustness, cost-effectiveness, and reliability of offshore operations, namely through vehicles cooperation.

SWARMs' achievements will be demonstrated in three field testing sites and occasions, taking into account different scenarios and use cases:

- Corrosion prevention in offshore installations
- Monitoring of chemical pollution

NEWS (more news here)

SWARMs)))
www.swarms.eu

The SWARMs project (video)
2015 - 2018



SWARMs 2nd (final) set of demonstrations (video)

AFARCloud

[HOME](#)[ABOUT THE PROJECT](#)[DEMONSTRATORS](#)[NEWS & EVENTS](#)[MEDIA](#)[CONTACT](#)

36 months, 54 Partners from 13 countries of European Union. Get the latest information about the project progress.



AFarCloud [Follow](#)

AFarCloud @AFarCloud · 13 Nov
Will AI Replace Farmers? Yes, and No. <https://t.co/1PL02nhbTi>

AFarCloud @AFarCloud · 13 Nov
The Glana hyperspectral camera from the AFARCloud project allows for hyperspectral 3D imaging. In this image, spruce seedlines are coloured yellowish by spectral matching and

AfarCloud H2020 project
1 year ago

Agritech: Monitoring cattle with IoT and Edge AI - Imagimob
Farming with AI on the Edge -- a write-up on collecting movement data from beef cattle from one of the AFARCloud 2nd year demonstrators, first article from Imagimob in a series aimed to cover ... See more
How to sample high-resolution biometric data, use low-powered, long-range networks (LPWAN) and still achieve high-quality results while powered by trickle-feed battery power alone? By using Edge AI ... See more

CONNECT



CONNECT

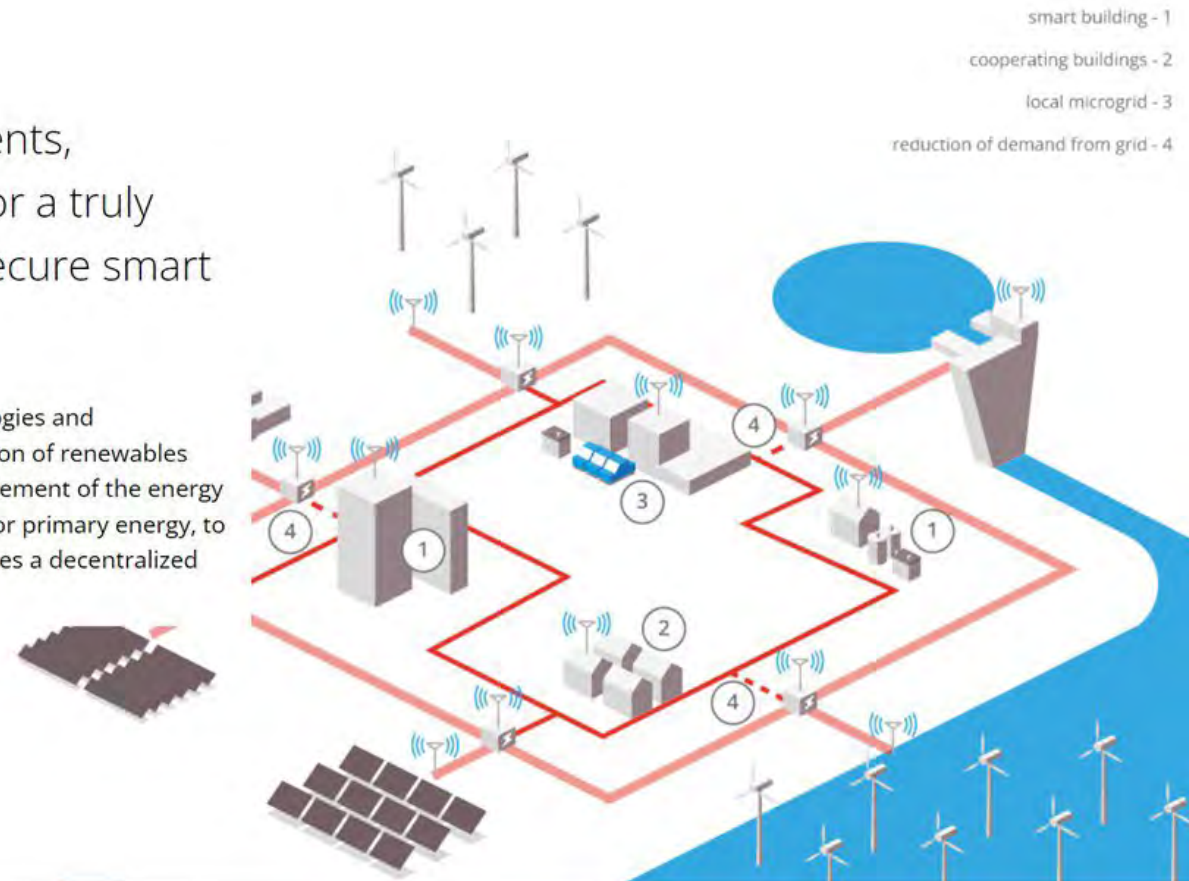
[Home](#) [Project](#) [Consortium](#) [Deliverables](#) [News](#) [Publications](#) [Contact](#)

Find out more on [f](#) [t](#) [in](#)

CONNECT

Innovative smart components, modules and appliances for a truly connected, efficient and secure smart grid.

CONNECT aims to provide concepts, technologies and components that support enhanced integration of renewables and storage combined with intelligent management of the energy flow and thus allows to reduce the demand for primary energy, to reduce carbon dioxide emissions and facilitates a decentralized energy infrastructure.





Highly Efficient and Trustworthy Electronics, Components and Systems for the Next Generation Energy Supply Infrastructure



Next Generation Smart Grid to reduce Greenhouse Gas Emissions and Grid Peak Power

The high-power requirements of ultra-fast charging stations give rise to special challenges when designing smart charging infrastructure. In support of Europe's 2030 climate targets, the EU-funded PROGRESSUS project aims to introduce a next-generation smart grid demonstrated by the application example of a smart charging infrastructure integrating seamlessly into current smart-grid architecture concepts. To do so, it will research new efficient high-power converters that

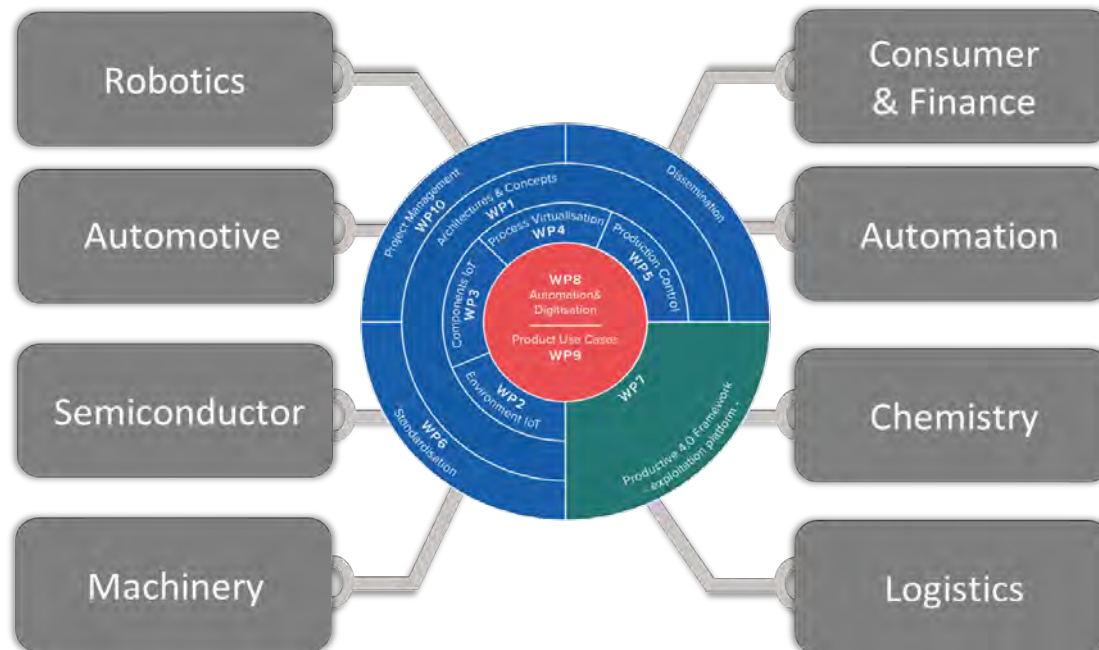
support bidirectional power flow. New DC microgrid management strategies for energy efficiency and service provision that consider renewable energy sources, storage and flexible loads will be investigated. It will also explore novel sensor types, inexpensive high-bandwidth communication technologies and security measures based on hardware security modules and blockchain technology to protect communication and services. The project's solution will promote a more environmentally friendly and efficient next-generation energy supply infrastructure.

PRODUCTIVE 4.0

Productive 4.0

Significant improvement in digitalizing the European industry by means of electronics and ICT.

- aiming at suitability for everyday application
- various industrial domains with same approach of digitalization.



ELECTRONICS AND ICT AS ENABLER FOR DIGITAL INDUSTRY AND OPTIMIZED SUPPLY CHAIN MANAGEMENT COVERING THE ENTIRE PRODUCT LIFECYCLE

108 Partners
19 countries
Budget: 106 Mio €



2016,
115 partners,
105MEuro cost

Key partners: BMW, Philips, Infineon, ABB, NXP, STM, BOSCH, Thales, AVL, VOLVO, CEA, BetterSolutions, IMA, KIT, AIT, FhG, Sysgo, DANOBAT, MONDRAGON, ERICSSON, VTT, SINTEF, LTU, LFOUNDRY, TNO, TTTech, Siltronic, VIF and many more..

ARROWHEAD TOOLS



[Home](#) / [Why & How](#) / **[What is it](#)**

What is it

The Arrowhead Framework is addressing IoT based automation. The approach take is that IoT's are abstracted to services. This to enable IoT interoperability in-between almost any IoT's. The creation of automation is based on the idea of local automation clouds. A local Arrowhead Framework cloud can compared to global cloud provide improvements and guarantees regarding:

- Real time data handling
- Data and system security
- Automation system engineering
- Scalability of automation systems

Below you will find links to architecture, code examples, working code and working systems plus documentation on how to use the Arrowhead Framework and how to implement your own IoT automation services and systems. This wiki is aimed to support the wider usage of the Arrowhead Framework.

POSITION II



HOME ABOUT LIGHTHOUSE MEDIA CONTACT Q

POSITION

Accelerating innovation in medical devices through open technology platforms

Towards

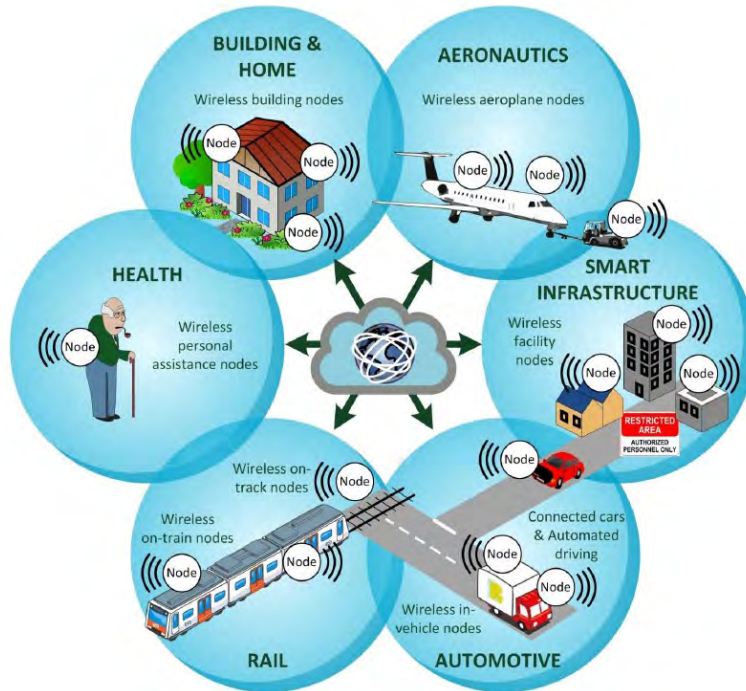
THE NEXT GENERATION SMART CATHETERS AND IMPLANTS

*It is the ambition of **POSITION** project to enable innovation in **Smart Catheters** and **Implants** by the introduction of **open technology platforms** for: miniaturization, in-tip AD conversion, wireless communication, MEMS transducer technology and encapsulation. These platforms are **open to multiple users and for multiple applications**.*

SCOTT

Secure COnnected Trustable Things

One of the objectives: Evaluate compatibility and interoperability with other reference standards and architectures, validating the global applicability of SCOTT reference architecture (HLA). (incl.5G)



2016,
57 partners,
39MEuro cost



8 GOOD REASONS TO PARTICIPATE IN ECSEL PROJECTS

1. **Critical mass**
2. **Value chain projects:** including value chain partners is the motorway to accelerate co-innovation and market adoption
3. **Building trust**
4. Creating project pipelines for **long-term continuity**
5. Pushing new products/technologies in **new markets**, starting new companies
6. Exploitation of **synergies** across application and technology domains
7. Support working across competition, benchmarking technologies and **sharing innovation risk**
8. Allow the **education** of engineers/scientists in new technologies.

FOR KDT ADD:

1. Participate to projects that **make a difference** to the planet and humanity
2. Leverage your participation through **cooperation across programmes**

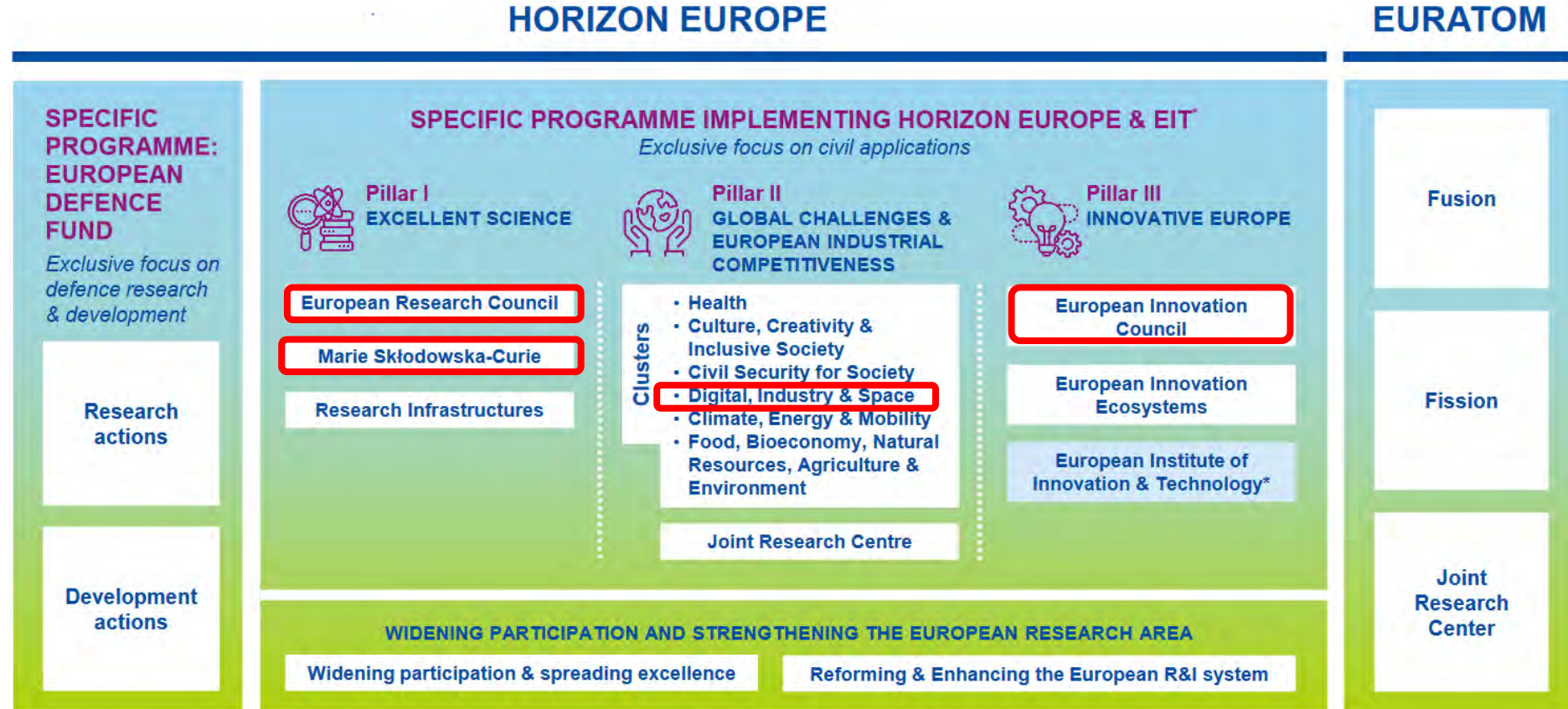
THE PROGRAMME OF KDT

DO YOU NEED A NEW STRATEGY?

HORIZON EUROPE

Accelerate the **twin green and digital transitions** and associated transformation of our economy, industry and society.

Special attention will be given to ensuring vibrant cooperation between **universities, scientific communities and industry, small and medium enterprises.**



* The European Institute of Innovation & Technology (EIT) is not part of the Specific Programme

COOPERATION ASPECTS

Potential for synergies through cooperative actions are multiple :

- Smart Networks & Services: initiative on 5G and 6G connectivity
- European High Performance Computing: initiative on underlying supercomputing capacities
- Photonics, AI, data, robotics, Global competitive space system and Made in Europe: synergies are needed where EU industry has to develop leadership and competitiveness in the global digital economy.
- Digital Europe Programmes with testing facilities, skills development and capacity building activities in specific digital domains, similar for Connecting Europe Programmes
- Health, Mobility and Energy partnerships
- IPCEI, other national programmes
- Eureka clusters
- Coordination with regional clusters such as Silicon Europe, Silicon Saxony (Dresden), Minalogic (Grenoble), and DSP Valley (Leuven-Eindhoven)

European Partnerships

HORIZON EUROPE PILLAR II - Global challenges & European industrial competitiveness

CLUSTER 1: Health	CLUSTER 4: Digital, Industry & Space	CLUSTER 5: Climate, Energy & Mobility	CLUSTER 6: Food, Bioeconomy, Agriculture, ...
Innovative Health Initiative	Key Digital Technologies	Clean Hydrogen	Circular Bio-based Europe
Global Health Partnership	Smart Networks & Services	Clean Aviation	Rescuing Biodiversity to Safeguard Life on Earth
Transformation of health systems	High Performance Computing	Single European Sky ATM Research 3	Climate Neutral, Sustainable & Productive Blue Economy
Chemicals risk assessment	European Metrology (Art. 185)	Europe's Rail	Water4All
ERA for Health	AI-Data-Robotics	Connected and Automated Mobility (CCAM)	Animal Health & Welfare*
Rare diseases*	Photonics	Batteries	Accelerating Farming Systems Transitions*
One-Health Anti Microbial Resistance*	Made in Europe	Zero-emission waterborne transport	Agriculture of Data*
Personalised Medicine*	Clean steel – low-carbon steelmaking	Zero-emission road transport	Safe & Sustainable Food System*
Pandemic Preparedness* <i>Co-funded or co-programmed</i>	Processes4Planet	Built4People	
	Global competitive space systems**	Clean Energy Transition	
		Driving Urban Transitions	

Orange Institutionalised Partnerships (Art 185/7)

Green Institutionalised Partnerships / EIT KICs

Blue Co-Programmed

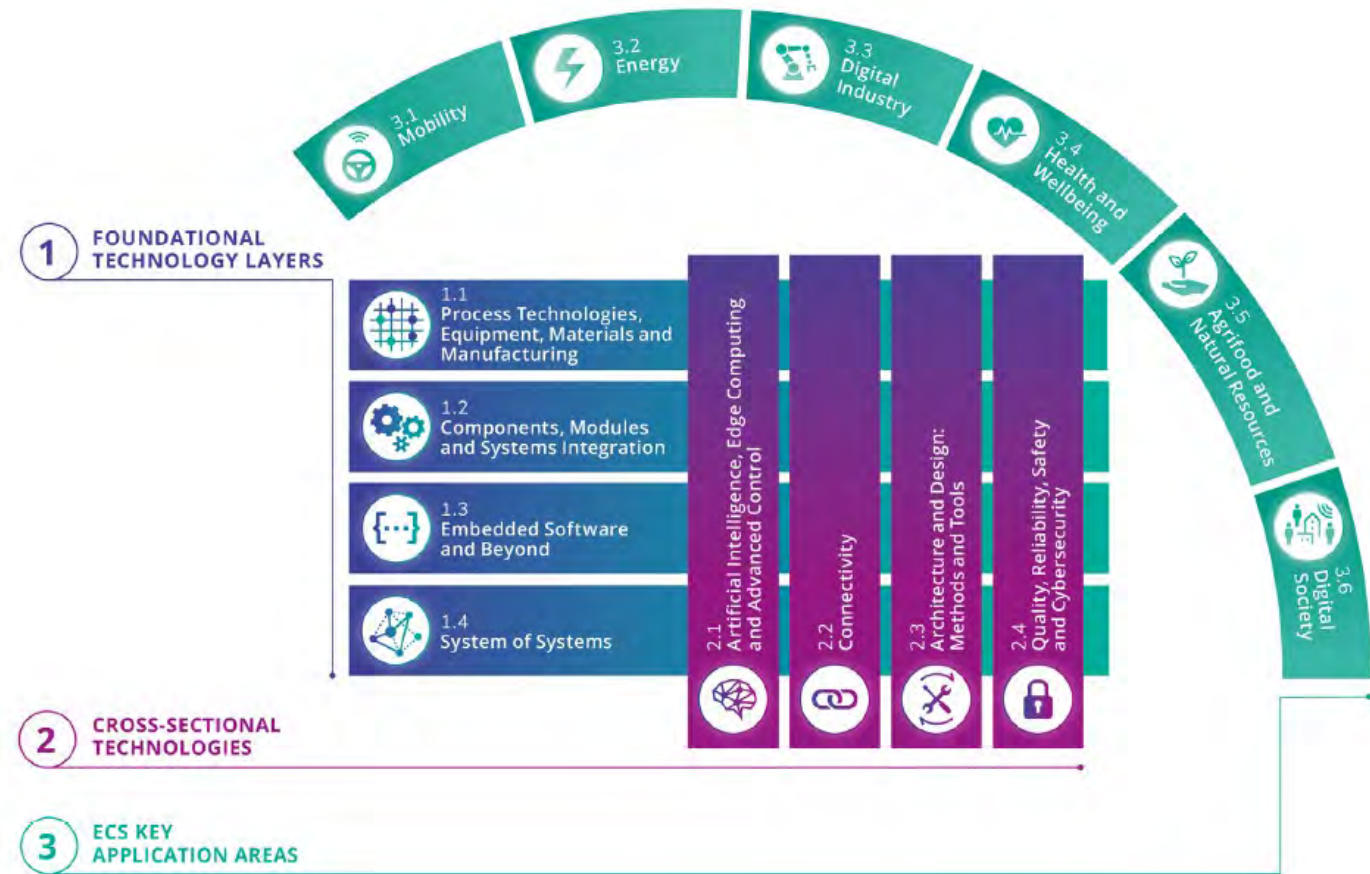
Light Blue Co-Funded

* Calls with opening dates in 2023-24

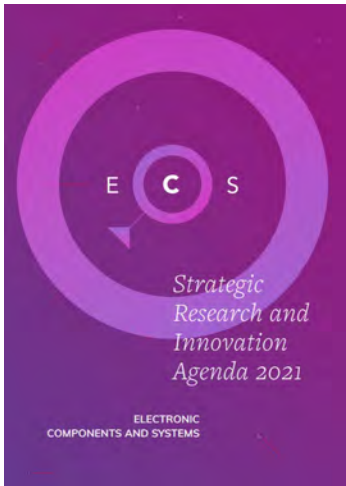
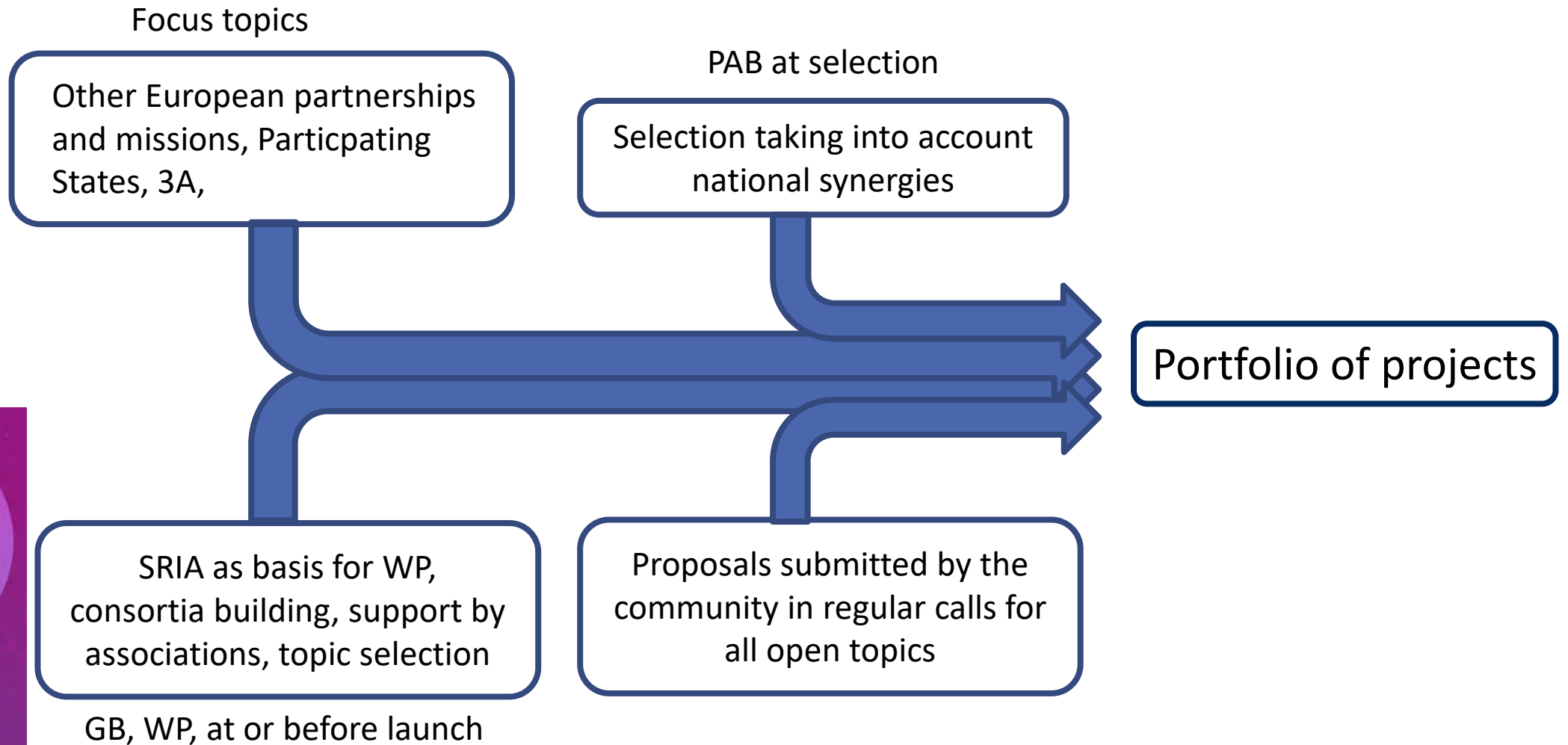
** Calls with opening dates not before 2022

ECS SRIA

- Boost **industrial competitiveness** through **interdisciplinary** technology innovations.
- Ensure/reinforce **EU strategic autonomy** through secure, safe and reliable ECS supporting key European application domains.
- Establish and strengthen sustainable and resilient ECS value chains supporting the **Green Deal**.
- Unleash the full potential of intelligent and autonomous ECS-based systems for the **European digital era**.



BOTTOM UP VERSUS TOP DOWN - EU VERSUS NATIONAL SYNERGIES

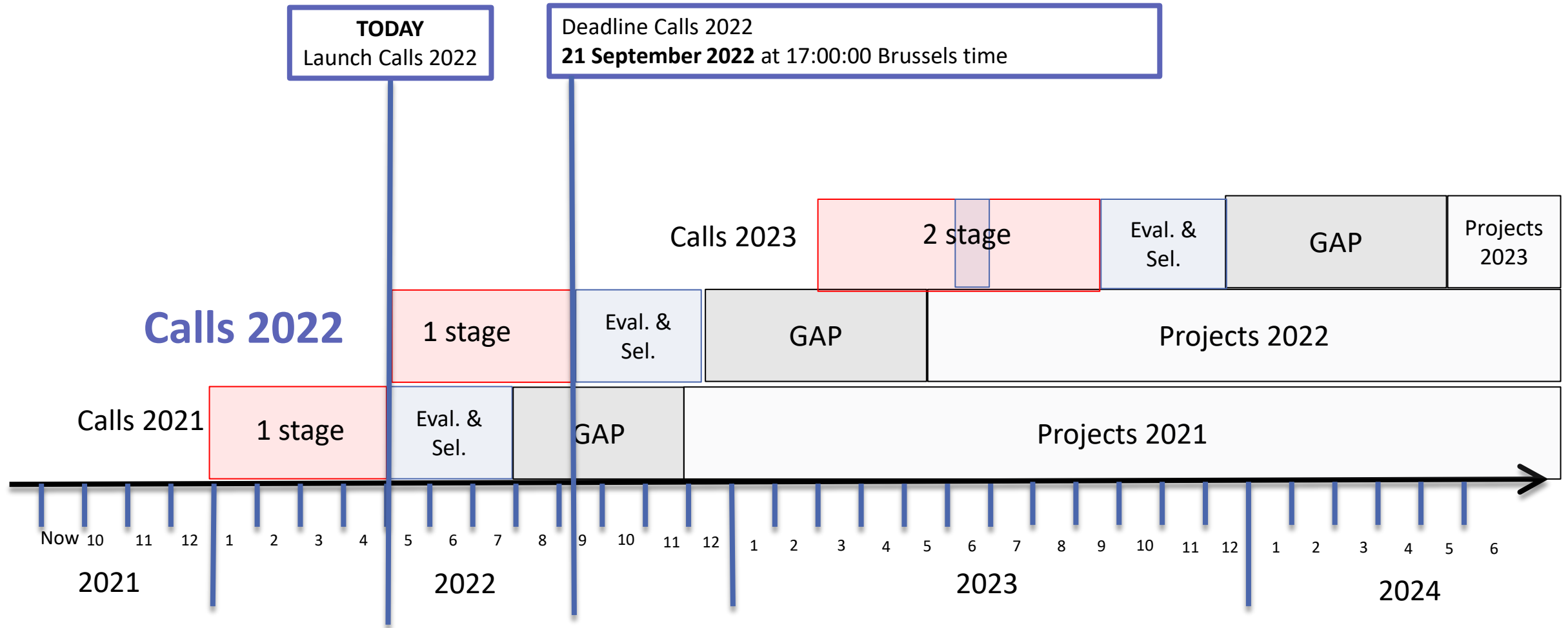


STRATEGY FOR THE EDGE-AI COMMUNITY

- Edge-AI pluses and minuses
 - The topic is there to stay
 - The community needs to grow
- Define clear and simple objectives
 - Ask the right questions, put the right focus, no time to loose
- Use that to improve and detail roadmaps
 - Be ambitious, create impact
- Reach out to other PPPs and other communities
 - Design community (chips act)
 - 6G community (SNS JU)
- Align your RM with RMs of the other PPPs/communities
- Help define focus topics and submit proposals!

How do I participate?

KDT CALL PLANNING



<https://www.kdt-ju.europa.eu/current-call>

EU ESTIMATED EXPENDITURE FOR THE CALLS 2021-1 TO 2021-3

Action		EU funding (M€)
Call 2021-1 IA	General according to SRIA 2021	108.0 M€
Call 2021-1-IA-Focus Topic	Development of open-source RISC-V building blocks	20.0 M€
Call 2021-2 RIA	General according to SRIA 2021	50.0 M€
Call 2021-2-RIA-Focus Topic 1	Processing solutions for AI at the edge addressing the design stack and middleware	20.0 M€
Call 2021-3-CSA	A Pan-European chip infrastructure for design innovation	10.0 M€
	Total	208.0 M€
Action	Topic	EU funding (M€)
Call 2022-1 T1	Topic 1 General according to SRIA 2022 (IA)	120.0
Call 2022-1 T2	Topic 2: Focus topic on Industrial supply chain for silicon photonics (IA)	20.0
Call 2022-1 T3	Topic 3: Focus topic on Design of Customisable and Domain Specific Open-source RISC-V Processors (IA)	20.0
Call 2022-2 T1	Topic 1: General according to SRIA 2022 (RIA)	74.5
Call 2022-2 T2	Topic 2: Focus topic on Ecodesigned smart electronic systems supporting the Green Deal objectives (RIA)	20.0
	Total	254.5 M€

HOW TO PARTICIPATE?



ECS Collaboration Tool

A networking tool for project ideas and potential partners.

Inside and AENEAS have now merged their collaboration support tools into a single co-managed service: the ECS Collaboration Tool. AENEAS and Inside Industry Association wanted to create one tool to facilitate easy information exchange within the ECS community and allow the collection and management of all relevant data, ideas and project proposals in one place.

Three industry organisations:
AENEAS
INSIDE Industry Association
EpoSS

<https://aeneas-office.org/collaboration/ecs-tool/>
<https://www.inside-association.eu/>
<https://www.smart-systems-integration.org/>



Create a project idea

Initiate a project idea in the ECS Collaboration Tool, invite partners and browse other project ideas.





Look for a partner

Use the partner search on ECS Collaboration Tool to look for possible partners based on their expertise and invite them to join your project idea.

HOW TO START? GO TO KDT CALL WEBPAGE!


KDT JU
Key Digital Technologies Joint Undertaking

MEMBERS in  

Participate ▾ Events Media ▾ About ▾ Documents Contact

Current call

Information about the Calls of 2021 will be available here shortly.



2021

KDT JU Calls 2021

The KDT JU Calls for 2021 are open as of 16 December 2021 with deadline for submissions on 27 April 2022. The KDT JU Programme is open to any organisation that can make a contribution to the RD&I objectives of the programme.

[View details](#)

All information under this button!

What is next?

A NEW DEVELOPMENT: EUROPEAN CHIPS ACT



The screenshot shows the European Commission's press corner page. At the top, there is the European Commission logo and a search bar. Below the logo, the text "European Commission" is visible. The search bar contains the word "English" and a language selector "EN". To the right of the search bar is a "Search" button. Below the search bar, there is a blue banner with the text "Home > Press corner > Digital sovereignty: Commission proposes Chips Act". Below the banner, there is a section titled "Available languages: English" with a dropdown arrow. Below this, there is a section titled "Press release | 8 February 2022 | Brussels". The main headline reads "Digital sovereignty: Commission proposes Chips Act to confront semiconductor shortages and strengthen Europe's technological leadership". Below the headline, there is a section titled "Page contents" with links to "Top", "Print friendly pdf", "Related media", and "Press contact". To the right of these links, there is a paragraph of text: "Today, the Commission proposes a comprehensive set of measures to ensure the EU's security of supply, resilience and technological leadership in semiconductor technologies and applications. The [European Chips Act](#) will bolster Europe's competitiveness, resilience and help achieve both the digital and green transition."

Home > Press corner > Digital sovereignty: Commission proposes Chips Act

Available languages: English

Press release | 8 February 2022 | Brussels

Digital sovereignty: Commission proposes Chips Act to confront semiconductor shortages and strengthen Europe's technological leadership

Page contents

- Top
- Print friendly pdf
- Related media
- Press contact

Today, the Commission proposes a comprehensive set of measures to ensure the EU's security of supply, resilience and technological leadership in semiconductor technologies and applications. The [European Chips Act](#) will bolster Europe's competitiveness, resilience and help achieve both the digital and green transition.

https://ec.europa.eu/commission/presscorner/detail/en/ip_22_729

The context: we are in a crisis...

1

Severe shortage of semiconductor chips

In a context of...

- Accelerated digital transition
- Increased demand for semiconductors
- Concentration of production in Asia (Taiwan, Korea)

2

Security supply risk in the EU

Due to...

- Limited capabilities in manufacturing
- Insufficient expertise in manuf. at < 20 nm
- High entry fees / cost for new facilities
- Geopolitical tensions (e.g. South China Sea)

3

Detrimental effect across industries

Leading-edge semiconductor technology is central to...

- Competitiveness
- Security, safety and data protection
- Energetic performance of digital systems



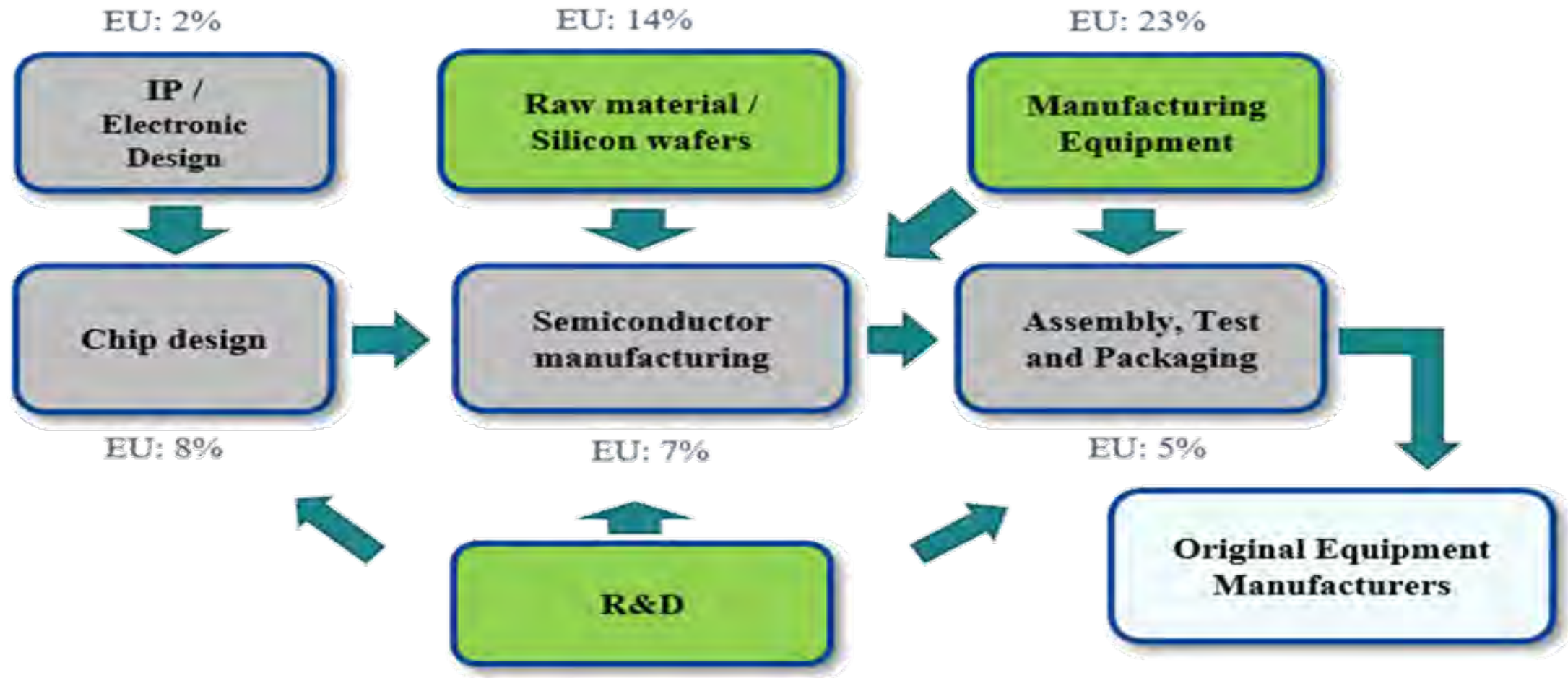
*No single Member State can face these problems alone, need for:

- EU & international partnerships
- Public subsidies



Minus 11 million cars produced globally and 23% drop in German car sales in 2021.

SEMICONDUCTORS VALUE CHAIN IN EUROPE



THE EUROPEAN CHIPS ACT

3 Pillars

Chips for Europe Initiative:

pool resources from EU, MS and other, as well as the private sector, through: the “**Chips Joint Undertaking**”

New framework to ensure security of supply by:

A. Attracting **investments** and enhanced **production capacities**.

B. **Chips Fund** to facilitate access to **finance** for start-ups to help them mature their innovations and attract investors.

C. **Dedicated semiconductor equity investment facility** under InvestEU to support scale-ups and SMEs to ease their market expansion.

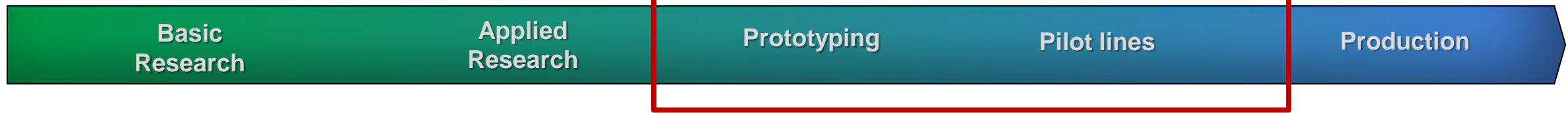
Coordination mechanism between the Member States and the Commission for monitoring the supply of semiconductors, estimating demand and anticipating the shortages.

- **monitor** the semiconductor value chain
- **common crisis assessment**
- coordinate **actions to be taken** from a new emergency toolbox
- **react swiftly and decisively together**

CHIPS FOR EUROPE INITIATIVE

Bridge the gap *from lab to fab*
Create **large innovation capacity** and **a resilient and dynamic semiconductor ecosystem**

- Build up **large-scale design innovative capacities** for integrated semiconductor technologies
- Enhance existing and developing new **pilot lines**
- Build advanced technology and engineering capacities for accelerating the development of **quantum chips**
- Create a network of **competence centres** across Europe
- Establish a **Chips Fund** to facilitate access to loans and equity by start-ups, scale-ups and SMEs and other companies in the semiconductor value chains



- Programmes such as KDT are huge endeavours, lots of money, lots of work, lots of results, etc.
- But are build by people and you are part of this!
- You can influence such programme, you should influence this, it is your future!
- Invest some of your time in understanding what the Europe Union and programmes such as KDT are about.

Thank you!
Questions ?