



**Hungary – National Webinar – January 12th, 2022**  
**Eureka Xecs Cluster Call on Electronic Components  
and Systems**

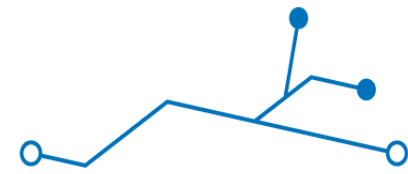
Patrick Cogez, AENEAS Technical Director



For more information:  
[www.eureka-xecs.com](http://www.eureka-xecs.com)

Follow us  

# Agenda



- X AENEAS association
- X The new Xecs Cluster
- X First call timeline
- X Identifying partners
- X Submitting a proposal
- X To conclude
- X Q&A

## AENEAS association

AENEAS is an Industrial Association representing its members in the **Electronic Components and Systems (ECS)** value chain:



- e Large industries, Small and Medium Enterprises, Research institutes, academia and associated org.

**AENEAS aims at:**

- e Fostering **R&D&I**
- e Creating an effective funding landscape

**The successful development of the Digital Economy in Europe is essential:**

- e To maintain a competitive position
- e To support its societal goals

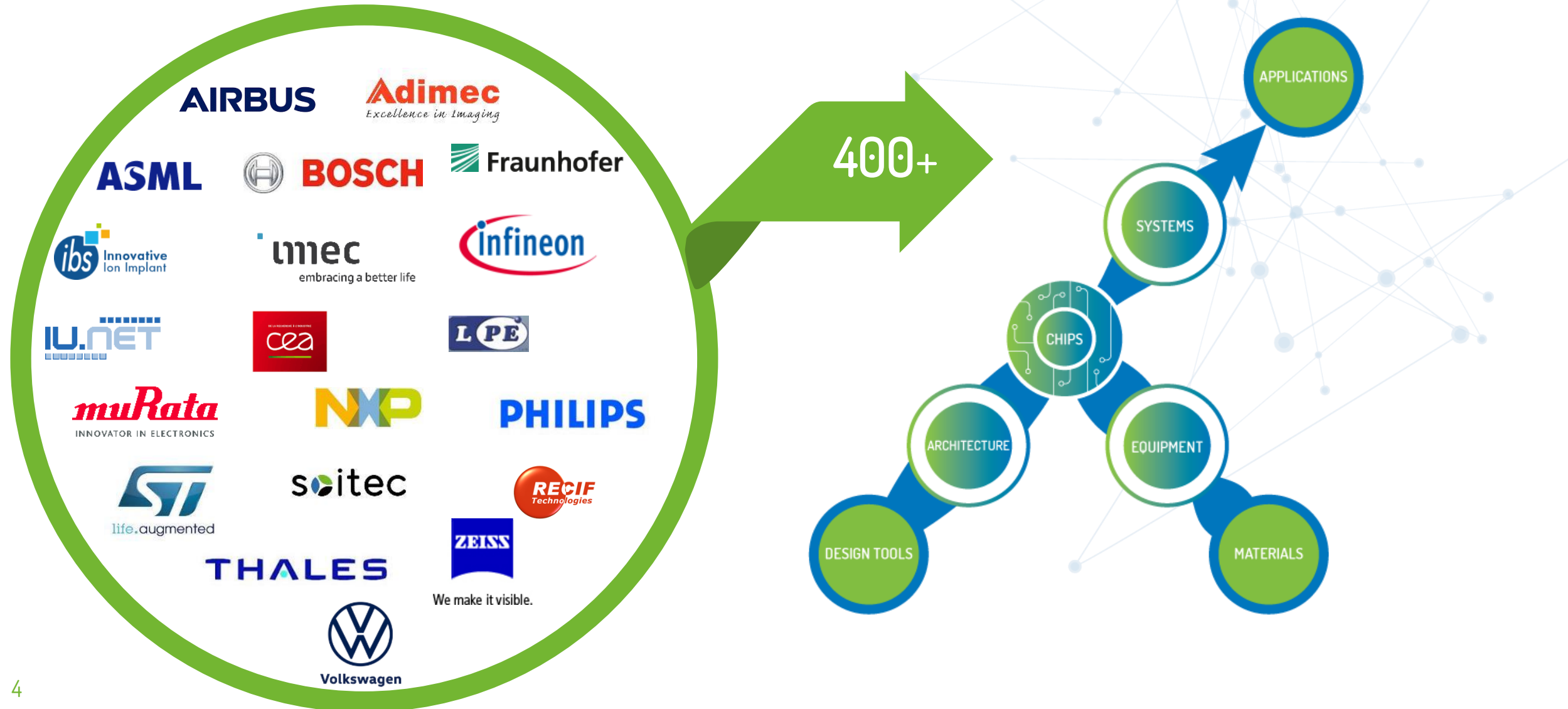
**AENEAS initiates and supports actions that:**

- e Promote networking
- e Encourage collaborative consortia work
- e Facilitate access to funding support

e Visit <https://aeneas-office.org/>

## AENEAS members are key industrial players

Kurt- Sievers, President and CEO of NXP Semiconductors, is AENEAS President



## Benefits joining AENEAS

More than a network, a global community

### Shape

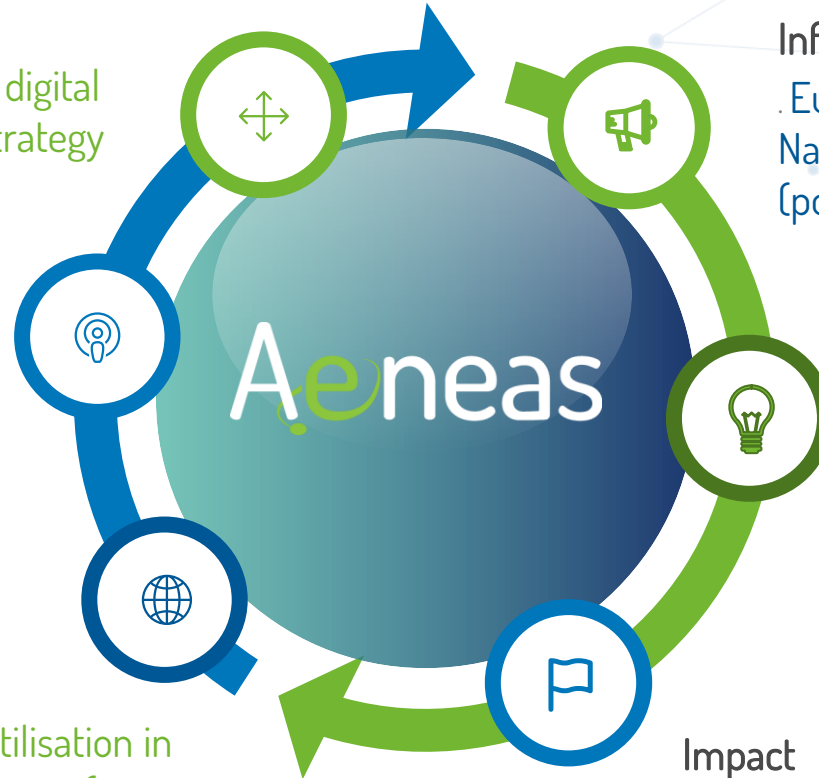
Together, shape the future of digital Europe and co-define RD&I strategy

### Community

- Belong to the Community of Electronic Components and Systems
- Participate in EF ECS yearly event
- Attend Brokerage / Consortium Building events

### Network

Benefit from cross-fertilisation in a global network of experts from large companies, SMEs, universities and Research organisations



### Influence

European Commission and Parliament, National and Regional Public Authorities (position papers, meetings, events, etc.)

### Create

- Build new partnerships / consortia
- Participate in the co-creation of new projects
- Fund your project with various instruments (e.g. Xecs, KDT)
- Run funded projects with AENEAS support

### Impact

- Economic impact on your activities (accelerate your time to market)
- Solve societal and economic challenges

Dedicated to AENEAS SME members, free of charge



**Hyperstone**

Created in 1990

Employees 65

Company Location  
Konstanz, Germany

Hyperstone is a fabless semiconductor company focusing on NAND flash and SSD controllers. Hyperstone's DNA for the past 30 years has been developing and delivering high quality, reliable and innovative solutions and striving to enable its customers to produce world-class storage systems for industrial, embedded, automotive and global communication applications. The firmware is supplied with the controllers and is customised for each flash application.

**POSITIONING IN THE ELECTRONICS VALUE CHAIN**

Supplying chips, reference systems and application firmware.

**R&D & COLLABORATIVE INNOVATION INVOLVEMENT**

H2020-FP7 / ELITE (leader): Technology development for vertical die stacking/interconnect  
 BMBF / 03FH025IX5 (participant): ECC and Compression  
 PENTA / XSR-FMC (leader): platform to develop POC silicon for advanced flash memory controller

<p><b>TECHNOLOGICAL EXPERTISES</b></p> <ul style="list-style-type: none"> <li>○ NAND Flash memory controllers</li> <li>○ NAND Flash Technology</li> <li>○ Error Correction Coding (ECC)</li> <li>○ Flash Translation Layer (FTL)</li> <li>○ Security (AES, SHA, Elliptic Curve, TCG Opal)</li> </ul>	<p><b>MARKETS</b></p> <ul style="list-style-type: none"> <li>○ Industrial Automation, Industrial IoT</li> <li>○ Automotive (IVI, DashCam, ADAS...)</li> <li>○ Transport solutions</li> <li>○ Telecom Infrastructure (24/7 uptime)</li> <li>○ Smallcells, nanocells</li> <li>○ Energy (distribution, grid management...)</li> <li>○ PoS, Kiosk, Gaming</li> <li>○ Secure storages (all markets), Medical</li> </ul>
--	--

**LOOKING FOR PARTNERS AND EXPERTISES**

- Firmware development (security expertise)
- COT flow & Automotive Certifications
- Error Correction Coding
- Automotive Tiers-1 project partner for Disk-on-Board (DoB) solution development
- Channel modelling for flash memory
- Integrators and users of Flash based storage solutions (customisation, know-how transfer)

**MORE INFORMATION**

[www.hyperstone.com](http://www.hyperstone.com)

Damien Col, EU Program Manager  
dcol@hyperstone.com

AENEAS SME Members Directory

15





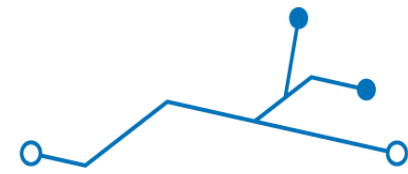
# Xecs<sup>Σ</sup>

The new Xecs Cluster

Aeneas

Σ eureka

For more information:  
[www.eureka-xecs.com](http://www.eureka-xecs.com)



# What is $\Sigma$ eureka ?

The world's biggest public network for international cooperation in RD&I, present in over 45 countries.

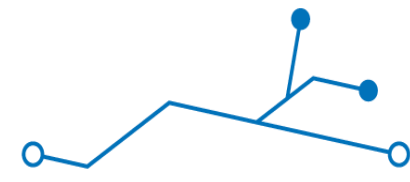
Mainly European, but also including  
Canada, Israel, Singapore, South Africa and South Korea

Intergovernmental organisation for market-driven industrial RD&I aiming to boost the productivity & competitiveness of European industries



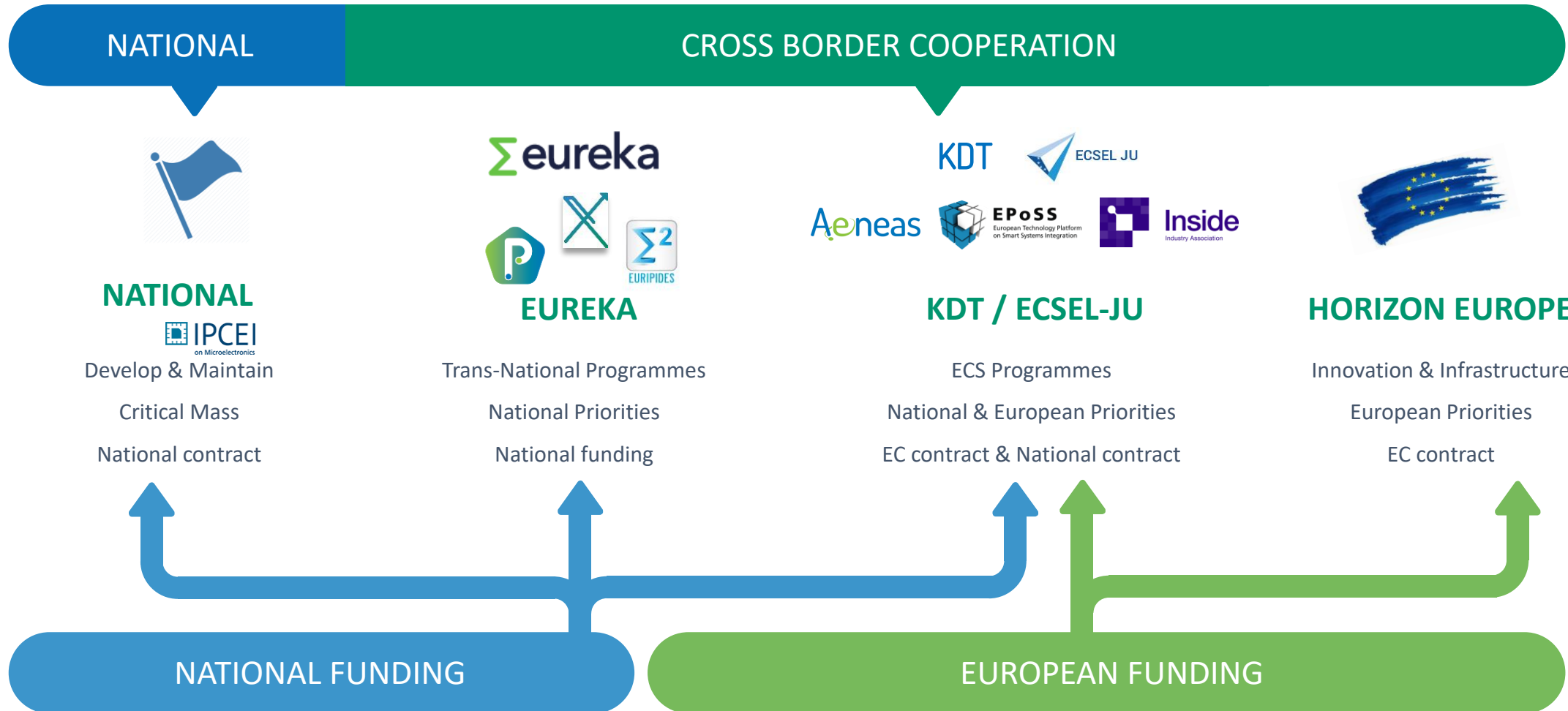
A transnational network facilitating the coordination of national priorities on innovation and providing access to national funding





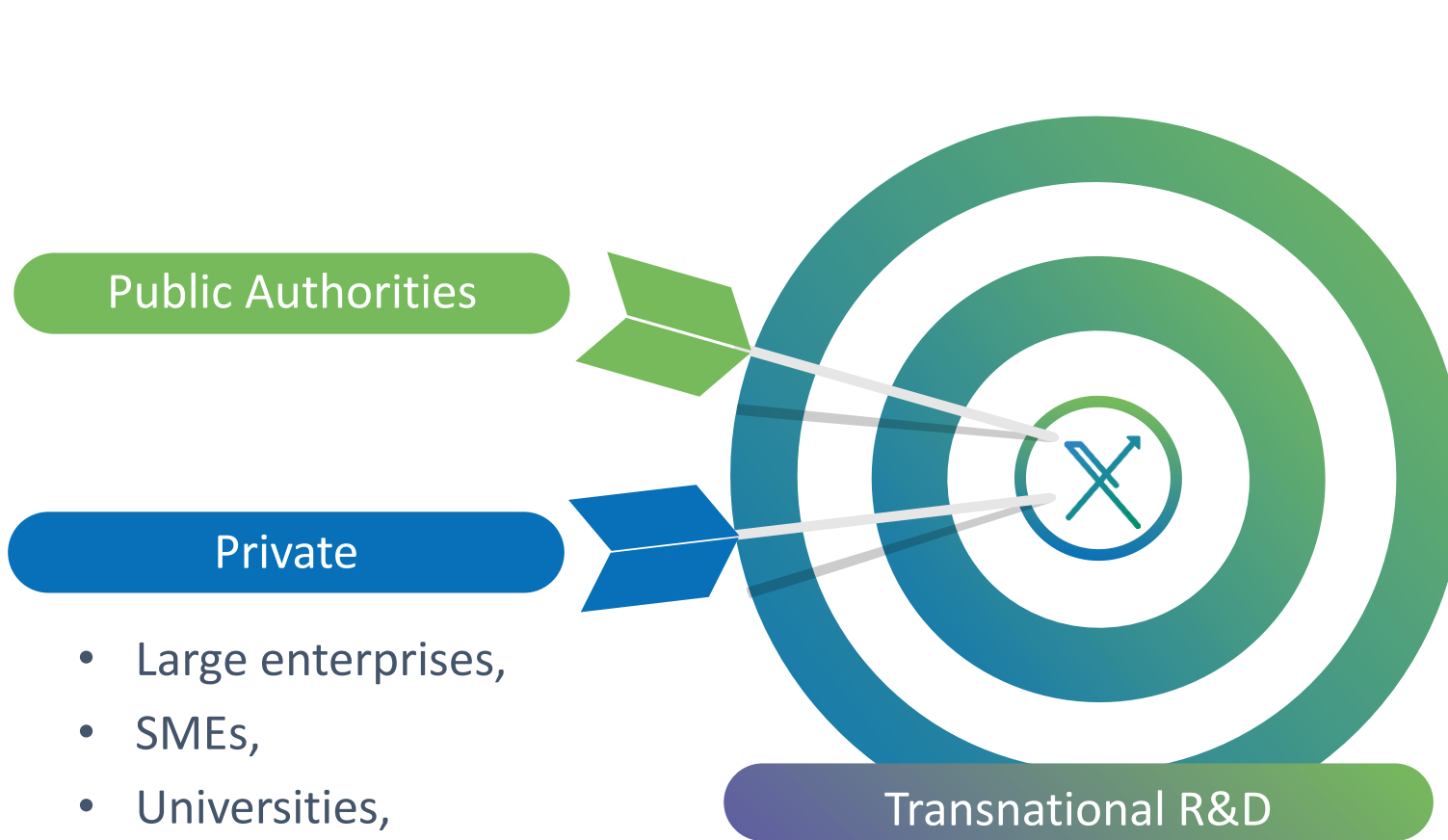
# Funding instrument landscape

Positioning Xecs in the European Funding Landscape





# Xecs - A EUREKA Cluster



Public Authorities

Private

- Large enterprises,
- SMEs,
- Universities,
- RTOs

Transnational R&D

A EUREKA Cluster supporting:

- ✕ RD&I in the field of Electronic Components & Systems

**Xecs is managed and operated by the AENEAS Industry Association, benefiting from:**

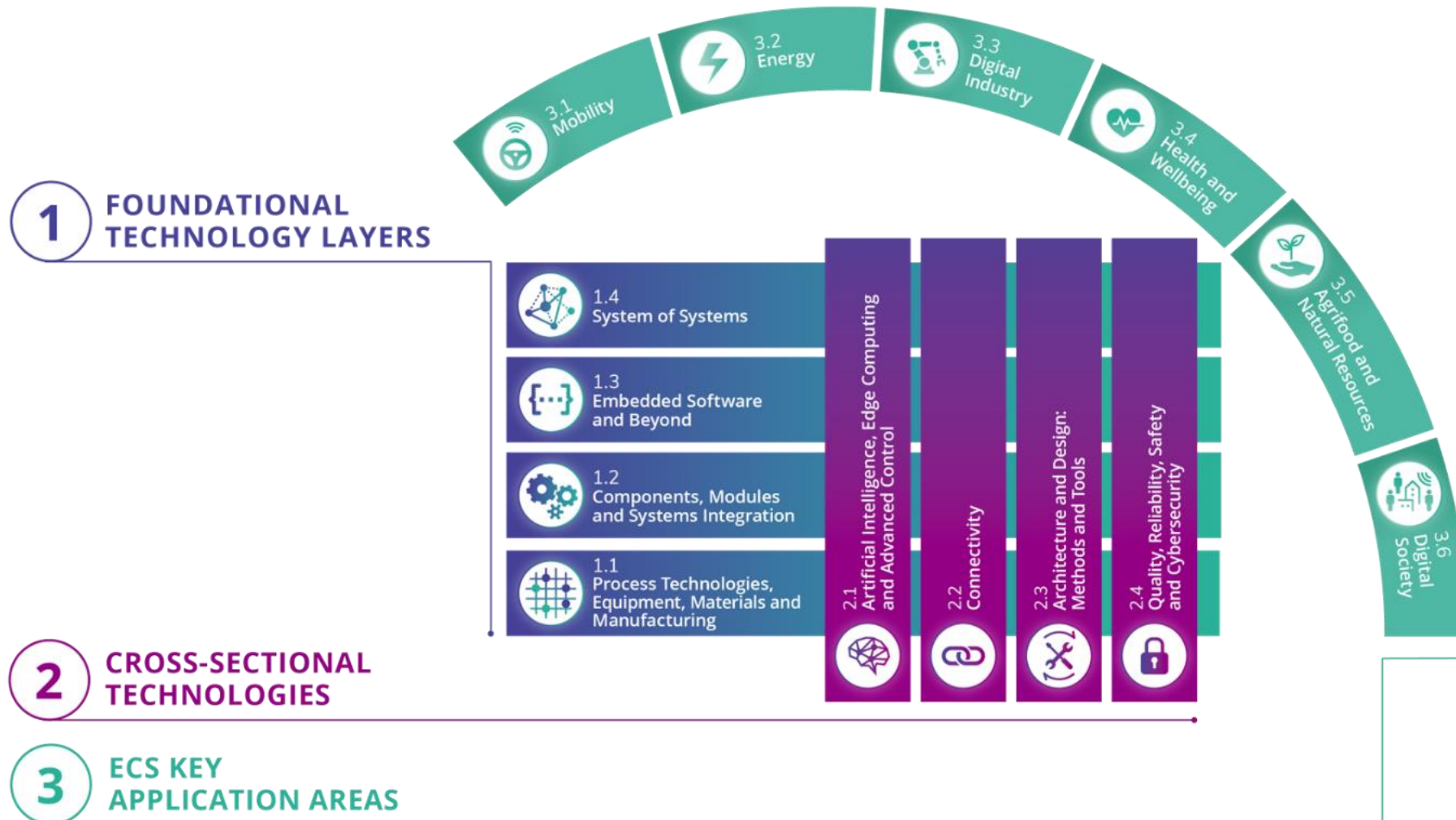
- ✕ Complementary activities within the ECSEL/KDT Joint Undertaking
- ✕ Direct experience from CATRENE, Euripides<sup>2</sup> and PENTA Clusters
- ✕ Close cooperation with National Authorities

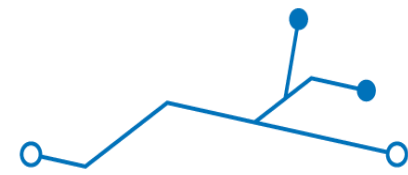
**Supported also by EPOSS and Inside Industry Associations**



# Addressing all ECS-SRIA domains

Strategic directions from the AENEAS, EPoSS and Inside Industry Associations





# Involved countries so far

19 countries supporting Xecs

? *Austria*



? *Belgium*



? *Canada*



? *Czech Republic*



? *Finland*



? *Germany*



? *Hungary*



? *Ireland*



? *Israel*



? *Latvia*



? *Malta*



? *Poland*



? *Portugal*



? *South Korea*



? *Spain*



? *Sweden*



? *Switzerland*

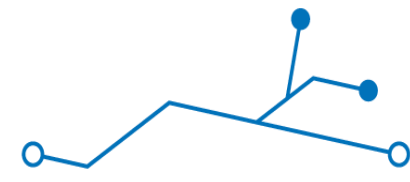


? *The Netherlands*

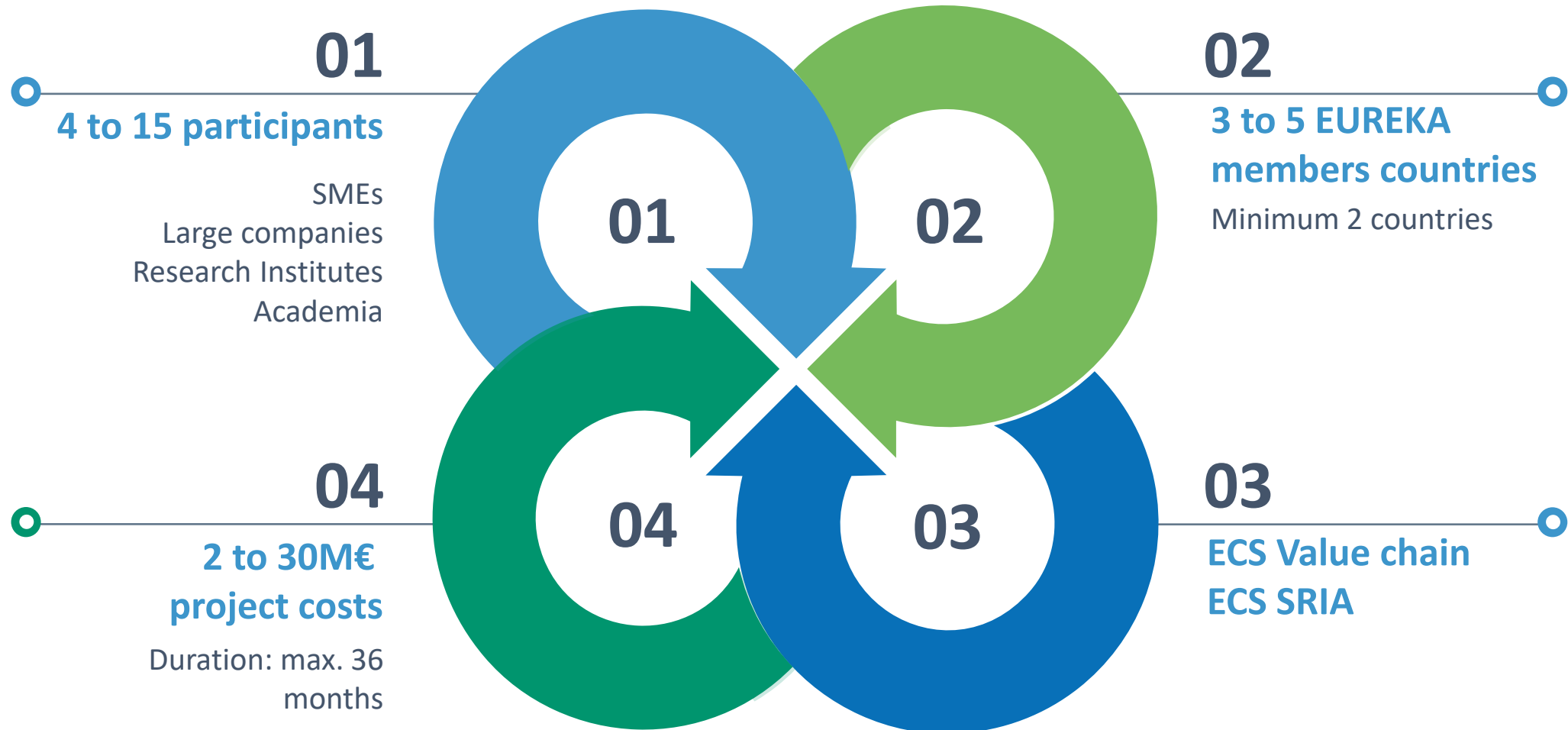


? *Turkey*



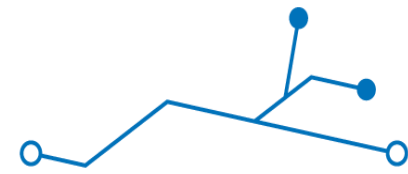


# Xecs typical project



# PENTA ongoing success story

CAVIAR project



- ✕ Started in March 2019
- ✕ Belgium, France, Hungary, The Netherlands
- ✕ 3DHISTECH, Adimec, AMS Sensors, EVS Broadcast, Grass Valley, MS Eye Tech, TNO, University of Burgundy
- ✕ Improve system-level image capture for medical diagnostics, sustainable agriculture, live television productions, and safety and security
- ✕ Extend the functionality of professional CMOS image sensors for multiple applications

More info available at <https://caviar-project.org/publications/>





## CAVIAR project

**Security** High resolution cameras offer a great potential for surveillance. Current technologies limit transmission from Unmanned Aerial Vehicles to the ground. To exploit high resolution video available on UAVs, TNO develops Deep Learning based Region Of Interest detection technology, allowing to downstream high resolution images of interesting objects with limited bandwidth.

**Medical** Adimec develops Gentific™ cameras to solve complex imaging challenges in medical diagnostics applications requiring high resolution images and high speed imaging. In CAVIAR our first development targets a high resolution, high speed camera (5 Gpixel/s) for throughput bright field microscopy, such as digital pathology. Next we will develop a SMART COOLING concept to assure consistent image quality over time independent from system & environmental temperature, targeting high resolution fluorescence microscopy.

The integration start in partner applications will be based on a 65 Mpixel / 70 fps prototype camera, developed within the CAVIAR project.

**Broadcast** For live television productions EVS and GV are developing a 4k, HDR UHD TV 3-speed image capture system.

A new CMOS image sensor for 4-speed has been designed. Evaluation has been started.

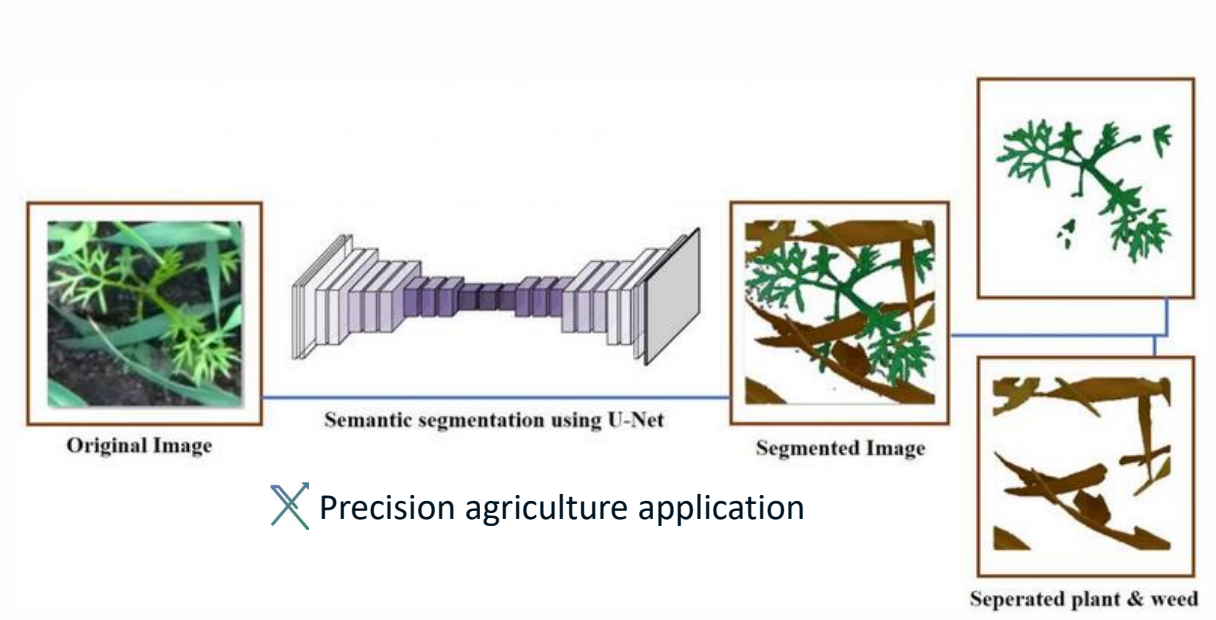
A 25G and 100G transmission board has been designed. In left set up the return loss of the QSFP module to the FPGA diff pair is being measured versus simulated results and versus the CEI-28G VSR specification.

EVS designed a new production server to meet the demanding live broadcast production requirements, integrating formats & protocols from HD to 8K, SDR to HDR, and SDI to IP.

**NIR CMOS imaging** With the development of NIR enhanced CMOS pixel technology, AMS is entering the world of 3D CMOS imaging. The 3D imaging market gets high attention in face recognition and authentication applications. Also in-cabin automotive applications are being enhanced with safety features using 3D imaging technology.

AMS developed first test silicon; the silicon is being measured versus simulated performance.

The developed global shutter pixel technology targets a QE of 40% at 940nm.





# Xecs<sup>Σ</sup>

## Call 1 Timeline

Aeneas

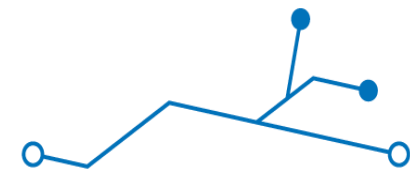
Σ eureka

For more information:  
[www.eureka-xecs.com](http://www.eureka-xecs.com)

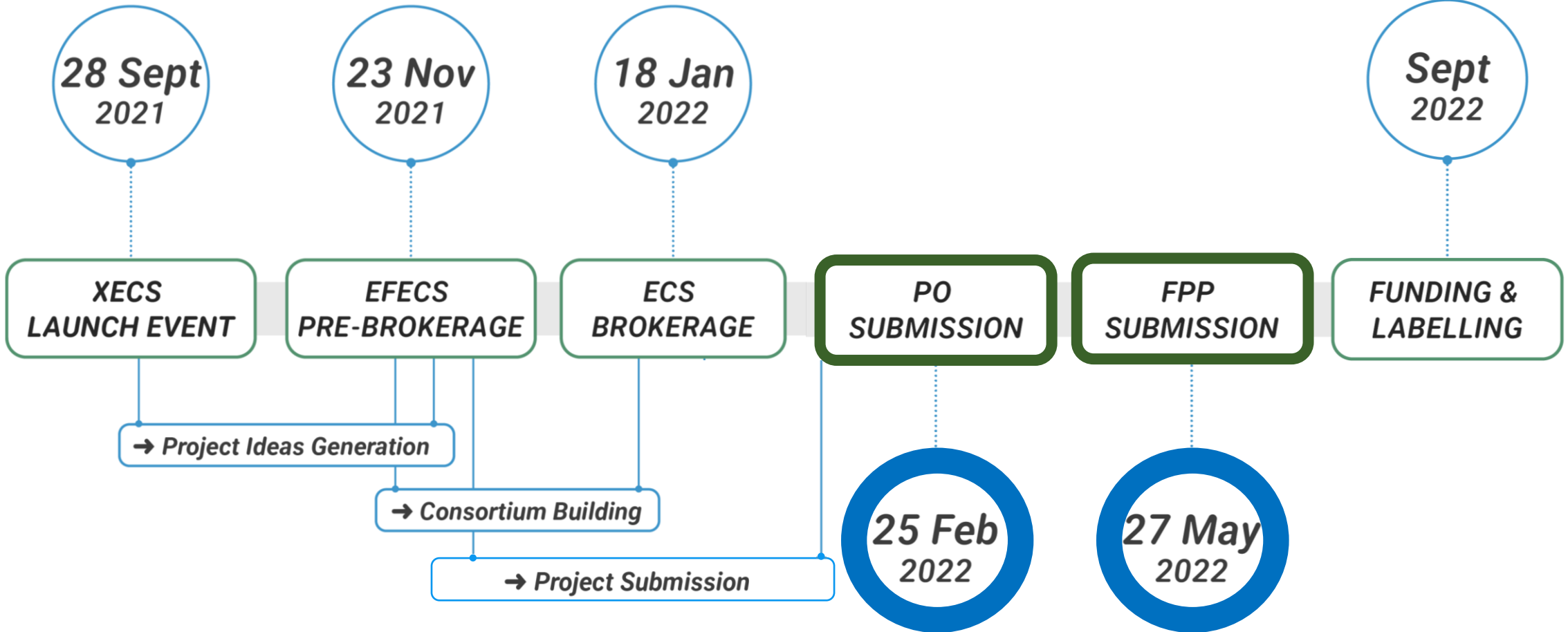


## How Xecs work?





# Xecs Call 1 timeline





# Xecs<sup>Σ</sup>

Identifying partners

Aeneas

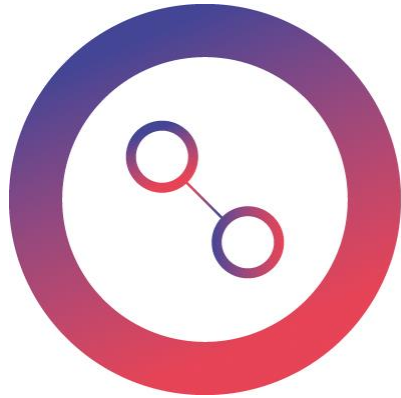
Σ eureka

For more information:  
[www.eureka-xecs.com](http://www.eureka-xecs.com)



# Networking

Idea Generation-Consortium Development-Project Preparation



 ECS Collaboration Tool

<https://ecscollaborationtool.eu/>



 ECS Brokerage 2022  
 18<sup>th</sup>/19<sup>th</sup> January 2022



Posters



Pitches



Briefing



Funding

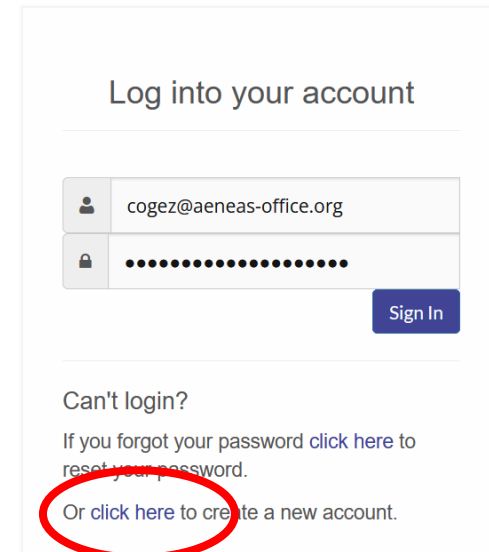


# ECS Collaboration Tool

<https://ecscollaborationtool.eu/>



LOG INTO YOUR ACCOUNT



The screenshot shows a login form titled "Log into your account". It has two input fields: one for the email address "cogez@aeneas-office.org" and one for the password, which is masked with dots. A blue "Sign In" button is located to the right of the password field. Below the form, there is a "Can't login?" section with two links: "If you forgot your password click here to reset your password." and "Or click here to create a new account." The second link is circled in red.

 Warning: Not the same as the Xecs Project Zone account !

# ECS Collaboration Tool

## Features in the Tool



#### Create a project idea

Initiate a project idea in the ECS Collaboration Tool and 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.



#### Look for other project ideas

Browse through the ECS Collaboration Tool to find project ideas and send out an online request to join in a consortium.



#### Message Board - Get noticed even more

Leave a message on the message board for possible partners or interesting project ideas.

# ECS Collaboration Tool

## Look for other project ideas

quickly and efficiently. It ensures backtracking along the whole supply chain up to the wafer manufacturing process.

Save

### Key Selling Points

What is the market relevance?

- Increased trustworthiness, security and reliability of electronic devices in critical IoT infrastructures
- Relevant for public safety, national security, healthcare and automotive

What is the innovation?

- Countering malicious market behavior and counterfeiting by using a blockchain solution
- IC Supply chain protection based on a root of trust combined with a distributed IT system

What is the business impact?

- Eliminating costs for authenticity lab testing
- Faster and cheaper validation of products

Save

### Already Involved

Partners Involved

- NXP Semiconductors Germany GmbH
- Chainstep GmbH
- MunEDA GmbH
- GlobalFoundries
- Delft University of Technology

### Looking for

Partners needed

- Expertise: OEMs tier one and tier two, Semiconductor manufacturers
- Partner type: industrial
- Countries: Europe excluding Germany

**EF ECS 2021 Pre-brokerage**

- This idea will be presented as poster  
Download poster template
- This idea will be presented as presentation  
Download pitch template

**ECS Brokerage Event 2022**

- This idea will be presented as poster  
Download poster template
- This idea will be presented as presentation  
Download pitch template

Supply chain security · Traceability · Counterfeit protection

Edit idea (Trust++)  
**Request to join idea**

Request to join the idea via the tool

Email the idea contact person

### Contact



Christopher Nigischer  
NXP Semiconductors  
Germany GmbH  
Germany

### Invitations

## PARTNER SEARCH

Partner Search   Saved Searches   Participant search

Here you can find all contacts that have their profile publicly available. If you click on a contact, you can invite them to join your idea.

MEMS   Search   Reset   Save Search

9 items on 1 pages

### Events

ECS Brokerage Event 2022 [0]

### Organisation type

Research institute [8]

Unknown [1]

Associate [0]

Consultant [0]

Government [0]

Large industry [0]

Office [0]

Others [0]

Public authority [0]

Small and medium sized enterprise [0]

University [0]

### Country

Germany [9]

Finland [4]

Norway [4]

Sweden [4]

Belgium [3]

France [3]

Italy [3]

Contact	Organisation	Country
 Thomas Stoppe Contact Profile ... MEMS and MOEMS actuators and sensors environmental sensing 5G RISC-V LIDAR etc....	Fraunhofer Institute for Photonic Microsystems IPMS	Germany
 Jan Rockstroh Contact Profile ... MEMS, Inertial Sensors...	Hahn-Schickard	Germany
 Bernd Hermann Folkmer Contact Profile ... MEMS Design, Design-Analysis, Modelling, Simulation, Optimization, multi-physics, multi-scale ...	Hahn-Schickard	Germany

Pre-arranged selection criteria

- Countries
- Organisation type
- Events

Most important: Create your own contact profile !

## MESSAGE BOARD

+ POST NEW MESSAGE

### Looking for ideas?

#### Optimal management of energy systems/micro grids

I am part of a research group with expertise in advanced control techniques for energy systems/micro grids, renewable based. We have been involved in several EU projects over the years (<https://ses.jrc.ec.europa.eu/i3res>, <https://ses.jrc.ec.europa.eu/e-gotham>, <https://www.haeolus.eu/>) and we look for new opportunities in this topic. We are mostly interested in the 3.2 ENERGY-ECS Key Application Area (see the ECS-SRIA 2022 Draft), Major Challenges 2-4.

-Posted by Valerio Mariani on 25-11-2021

➔ Invite contact for idea

#### Microfluidic Lab-on-a-Chip and Photobiomodulation

We are a research oriented team focusing on microfluidic lab-on-a-chip design, development and manufacturing capabilities and we are also interested in photobiomodulation therapy. Open for providing service and research partnership on both expertise Best wishes

-Posted by Serhat Sevlil on 21-10-2021

➔ Invite contact for idea

### Looking for partners?

#### Looking for Industrial Partners and Research Agencies

We are looking for partners to support our activities to develop sustainable manufacturing for the mining sector. A Canadian consortium is looking to add partners that can help utilize digital technologies in the mining sector. In particular, collaborators with experience in advanced manufacturing of large components, monitoring and sensor develop. We're interested in both commercial and higher TRL solutions.

-Posted for idea MARIOS on 26-10-2021

➔ Request to join idea

#### Looking for partners or consortiums

The ADGA Group is a privately held Canadian engineering company working on a handsfree, just-in-time (JIT) training and real-time medical guidance devices that leverages computer vision and augmented reality to provide operators with medical guidance at the time of need. We are looking for partners or consortiums to join that focus on health and medical well-being, the use of AI/ML in medical applications, and medical/anatomy related AR techniques. -Posted for idea 7: MedCoach on 30-12-2020

➔ Request to join idea

# ECS Brokerage Event - Online

## PROGRAMME

<https://ecscollaborationtool.eu/ecs-brokerage-event-2022.html>

### Tuesday 18 January 2022

- 10:00 Welcome & opening  
*Caroline Bedran*
- 10:10 ECS-SRIA 2021 recap  
*Paolo Azzoni*
- 10:30 KDT Calls 2021-2022 Information  
*Yves Gigase*
- 10:50 Horizon Europe Calls  
*Arian Zwegers*
- 11:10 Smart Network and Services (SNS-JU) Calls  
*Alexandros Kaloxylas*
- 11:30 Xecs Calls information  
*Nadja Rohrbach*
- 11:50 SMEs expertise pitches
- 12:20 Lunch
- 13:30 Project idea presentations
- 15:00 Consortia building meetings and online project idea exploration

### Wednesday 19 January 2022

- 09:00 ECS-SRIA 2022 introduction  
*Paolo Azzoni*
- 09:20 Introduction to focus topics in KDT Calls  
*Moderated by Elisabeth Steimetz*
- 09:25 Introduction of focus topics by DG CNECT  
*Arian Zwegers*
- 09:30 Potential focus topics for KDT related IoT and Edge  
*Max Lemke*
- 09:40 Potential focus topics for KDT related to Silicon photonics  
*Werner Steinhögl*
- 09:50 Potential focus topics for KDT related to Open source Software and RISC-V
- 10:00 Potential focus topics for KDT on Decarbonisation  
*Jean-Luc di Paola Galloni*
- 10:10 Introduction of IPCEI on Microelectronics and Communication Technologies
- 10:20 Questions to the audience
- 10:40 Q&A and next steps
- 10:50 Consortia building meetings and online project idea exploration
- 12:30 Lunch break
- 13:30 Consortia building meetings and online project idea exploration

*This preliminary programme is still subject to changes.*





# Xecs<sup>Σ</sup>

**Submitting a proposal**

Aeneas

Σ eureka

For more information:  
[www.eureka-xecs.com](http://www.eureka-xecs.com)



# Project submission

## General information

✕ Project submission is all via the Xecs PROJECT ZONE

**<https://projects.aeneas-office.org/community>**

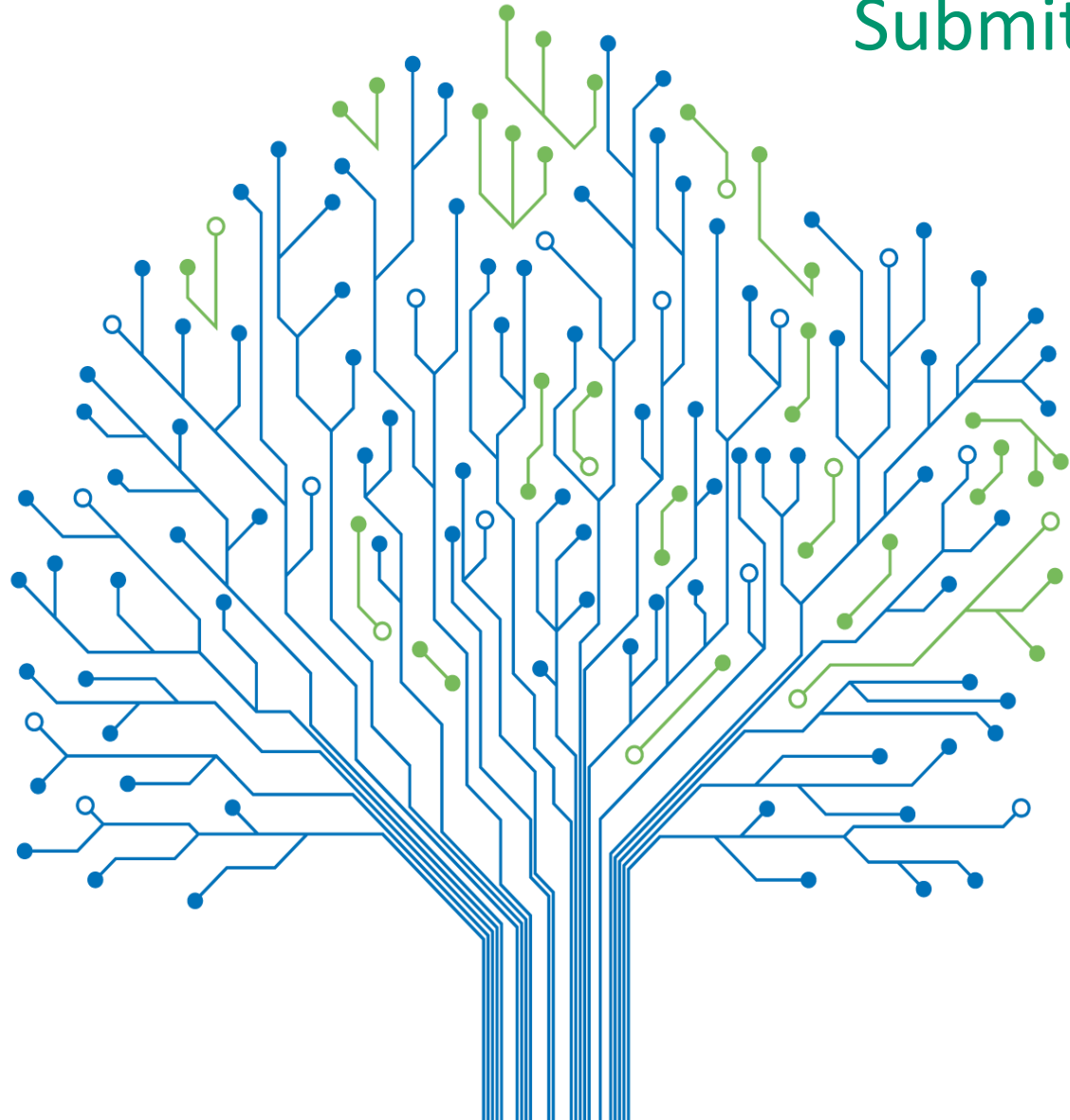
✕ Two complementary channels for providing information

- Directly in the Xecs PROJECT ZONE
- Complemented by uploading two files
  - Word document – « Project Outline Annex »
  - Excel cost file
  - Templates are available on the Xecs Project Zone

✕ The SOONER you start, the better !

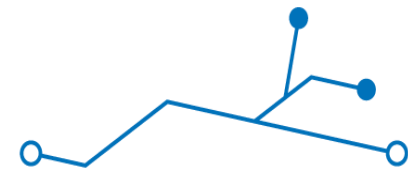
✕ The SOONER you contact your National Funding bodies, the better !

# Submitting a Project Outline



Project Outline Annex





# Project Outline Annex

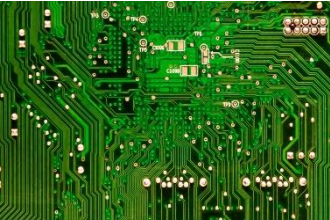
## General Remarks

- ✕ Read the guidance text, and, if you don't understand it, **ask the office team**
- ✕ Key point: respect the page limits! Going beyond them will be interpreted by the experts as substituting quality by quantity
- ✕ Don't forget a picture is worth a thousand words
- ✕ Check for correctness of language. Poor English and incorrect spelling make it hard for the evaluators

## Key ingredients for a successful proposal



✘ Well-defined problem statement: must be crystal clear, they are often too generic



✘ Extending/defining the state of the art : how is your solution different from existing ones, show the uniqueness of your innovation



✘ Value chain ecosystem: explain clearly how the partners complement each other along the ECS value chain



✘ Commercial & other Impact: how and who will commercialise the solution(s), create new opportunities

## Key ingredients for a successful proposal



✕ Meet national criteria: each national consortium must contact its national funding body



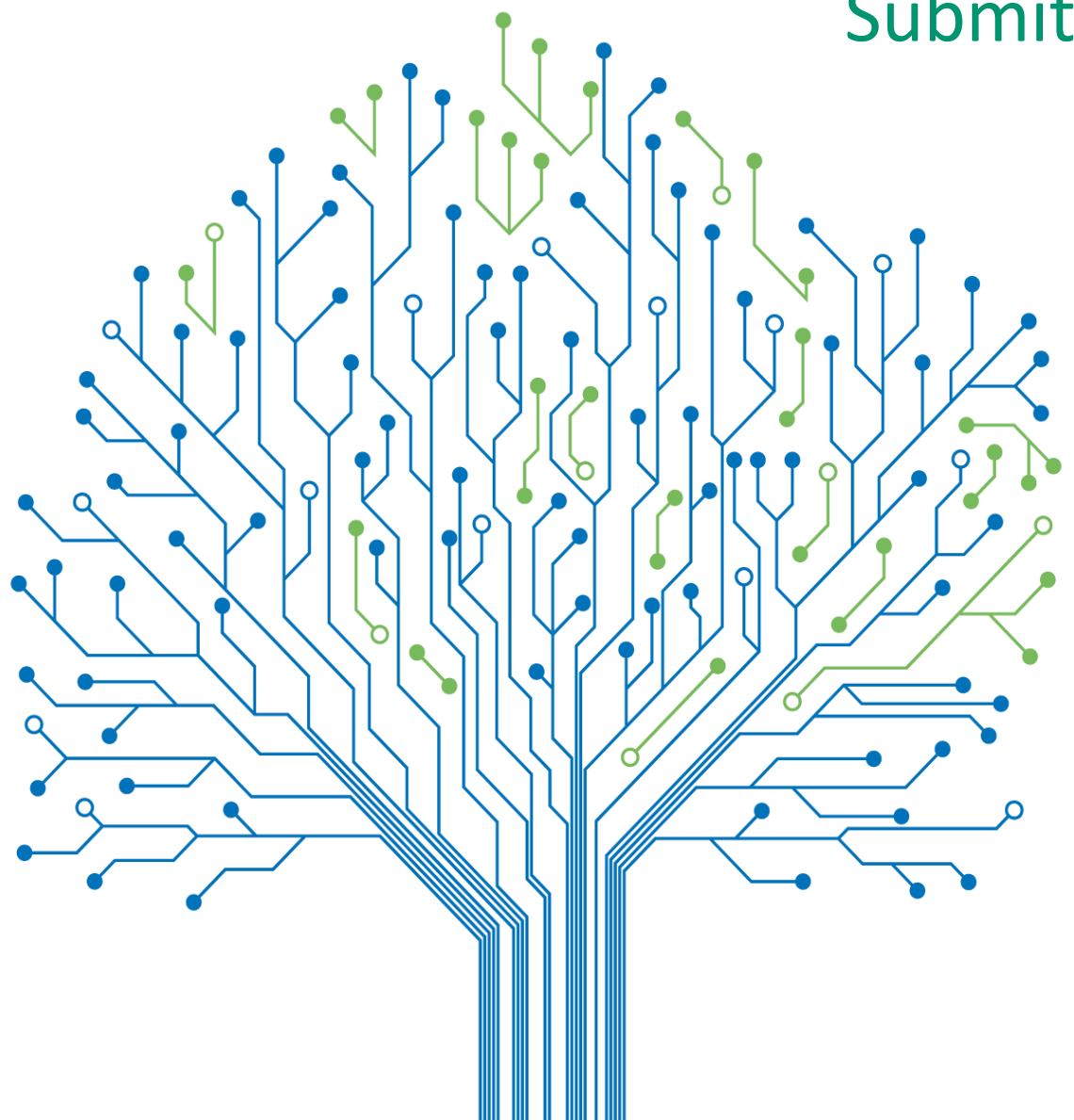
✕ Green Issues: Sustainability is important for all of us and should be demonstrated



✕ Ambition: Your proposal should be unique & ambitious but realistic despite risk



# Submitting a Project Outline

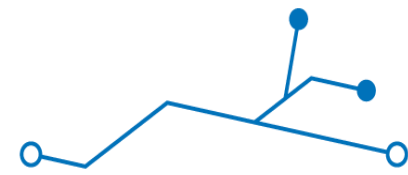


Project Zone





# Project Zone



How should you start ? <https://projects.aeneas-office.org/>

Once you have registered. You will receive an email to get access to **my Xecs profile**



Xecs, Penta and Euripides<sup>2</sup> are Eureka Clusters 

**Welcome**

Registration and logging in on this page gives users access to the Xecs Project Zone which provides access to all the information necessary for submitting, evaluating and running a Xecs, PENTA or EURIPIDES2 Project

Identity  
azizi@aeneas-office.org

Password  
.....

Login

[Forgot your password? Reset password](#)

Don't have an account? [Create your account](#)

## HELLO SHEHERAZADE AZIZI!

Profile Organisation Events Privacy settings

### PERSONAL PROFILE

**Name** Sheherazade AZIZI (2)  
**Email** azizi@aeneas-office.org  
**Phone (direct)** 0033140644571  
**Phone (mobile)**  
**Mail address** 44 rue cambronne  
 75015 Paris  
 FRANCE  
**Profile visibility** Visible in ACT  
**Expertise**

[Edit your profile](#) [Update your password](#)

# Project Zone



What are the different steps of a project submission ?

✕ Create project

✕ Edit project basics

✕ Create/edit consortium

- Invite partners
- Edit partner details
- Add partner associates
- Edit cost & effort for funding (per country)

✕ Final project version

- Upload annex document
- Check merged document Submit project version
- Re-submit version until the given deadline

# Project Zone



## How to create a consortium ?

✕ Via the “Partners” tab you can invite a **new partner organisation** by giving an email address and clicking the button “Invite partner”:

- Invited partners will receive via email your invitation which they will have to accept

✕ Inviting a partner applies to inviting a partner organisation. An invitation should be sent to and accepted by **only 1 person per organisation**: the main technical contact for that partner organisation → Extra contact persons per organisation can be added by via the “Associates” tab (on a partner page).




# Project Zone


## How to finalise your project version?


### Project checklist


#### General


 The required documents of types 'PO Annex, PO Cost Detail Annex' are missing in your proposal documents section

#### AENEAS

 Partner description is missing


 AENEAS is missing Role in project, Main Contribution, Strategic importance


 AENEAS is missing Market access


 Partner has no **effort**, Indicate effort or deactivate the partner

 In the “Management” tab of your project page:

- Upload the PO annex document
- Check the merged document
- Submit the project version

 **It is highly recommended to already start testing to upload an Annex, checking the merged document and submitting the proposal well in advance before the deadline**

 **The Project checklist guides you through the missing information you need to provide before being able to submit a version.**

 Only once all checks are successful, your Project Outline submission button will appear

 The Xecs office is here to **help!**



# Xecs<sup>Σ</sup>

To conclude...


Aeneas

Σ eureka

For more information:  
[www.eureka-xecs.com](http://www.eureka-xecs.com)




## Why participate? 1/2




To take advantage of trans-national RD&I cooperation and related national funding in a broad range of countries



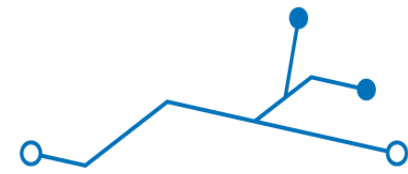
To benefit from multiple and diversified partnership opportunities from the ECS community, from the research to the end applications and create impactful collaborative ecosystems



To increase international visibility



To stimulate disruptive ideas



## Why participate? 2/2



To lead, or be part of industry-led projects, open to Large Enterprises, SMEs, Research and Technology Organisations and Universities



To access expertise and get professional guidance coaching and mentoring from industrial experts and the Xecs team

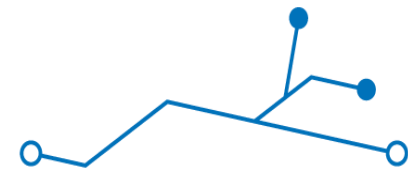


To boost competitiveness and accelerate growth



To shorten time-to-market





# 2022 Xecs Call

$\Sigma$ eureka



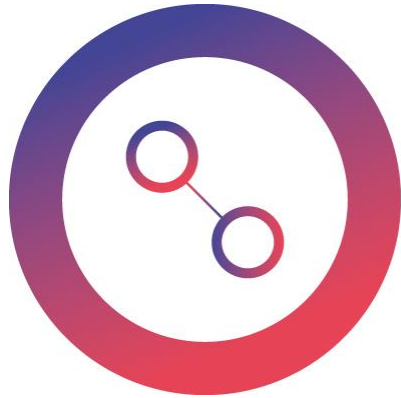
Xecs $\Sigma$

PO submission: 25 February 2022

FPP submission: 27 May 2022

# Take advantage of networking opportunities

Idea Generation-Consortium Development-Project Preparation



 ECS Collaboration  
Tool

<https://ecscollaborationtool.eu/>



 ECS Brokerage 2022  
 18<sup>th</sup>/19<sup>th</sup> January 2022

<https://ecscollaborationtool.eu/ecs-brokerage-event-2022.html>

# The Xecs team: We are here to help!

Xecs<sup>Σ</sup>



Shéhérazade AZIZI  
azizi@aeneas-office.org

Xecs<sup>Σ</sup>



Patrick COGEZ  
cogez@aeneas-office.org

Xecs<sup>Σ</sup>



Nadja ROHRBACH  
rohrbach@aeneas-office.org

[Xecs at a Glance II.mov on Vimeo](#)

# Xecs $\Sigma$

[@xecs\\_eureka](https://twitter.com/xecs_eureka)

Follow us on  
Twitter



Aeneas

[Xecs\\_Eureka](https://www.linkedin.com/company/xecs-eureka)

FOLLOW US ON  
**LINKEDIN**

$\Sigma$ eureka

For more information:  
[www.eureka-xecs.com](http://www.eureka-xecs.com)