“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

KDT JU

KDT-CY WORKSHOP ON CALL 2022

KDT JU
KEY DIGITAL TECHNOLOGIES JOINT UNDERTAKING

Yves GIGASE

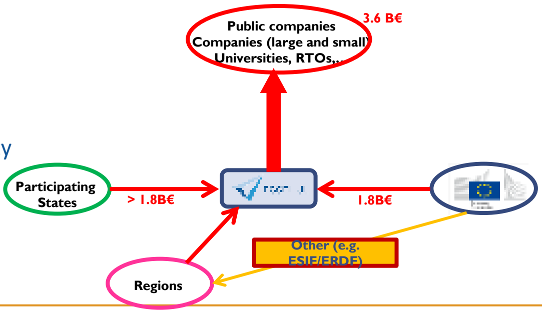
Head of Programmes

KDT-CY workshop 29 July 2022

EUROPEAN PARTNERSHIP

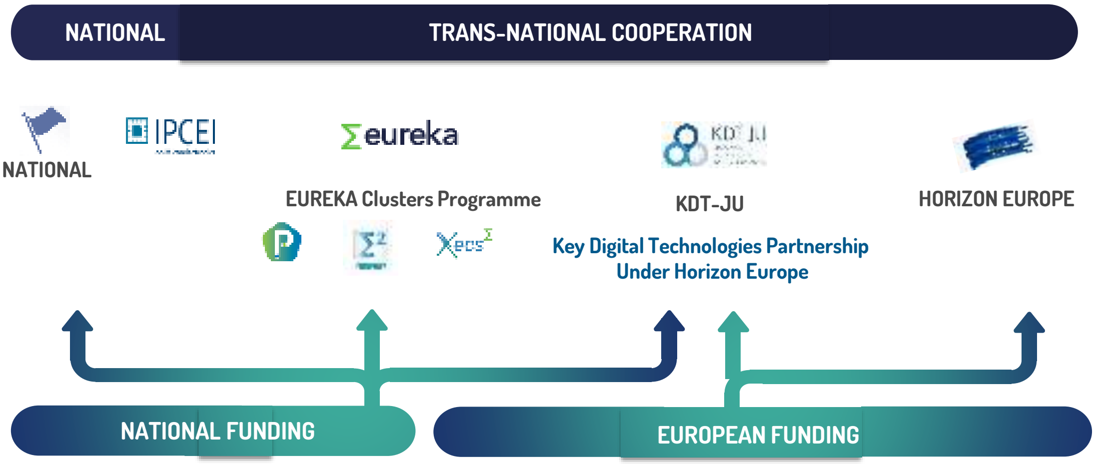
KDT JU 2021-2027

- 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, EPoSS
- 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



NATIONAL

TRANS-NATIONAL COOPERATION

NATIONAL

IPCEI

eureka

EUREKA Clusters Programme

KDT-JU

Key Digital Technologies Partnership
Under Horizon Europe

HORIZON EUROPE

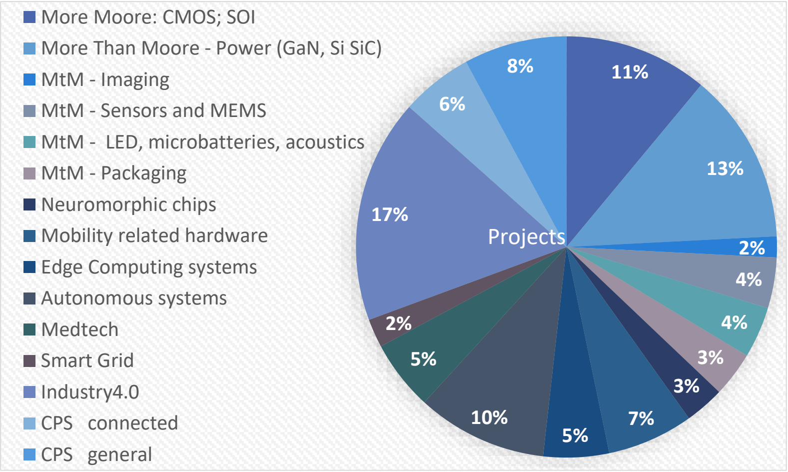
NATIONAL FUNDING

EUROPEAN FUNDING

ECSEL JU 2014-2021

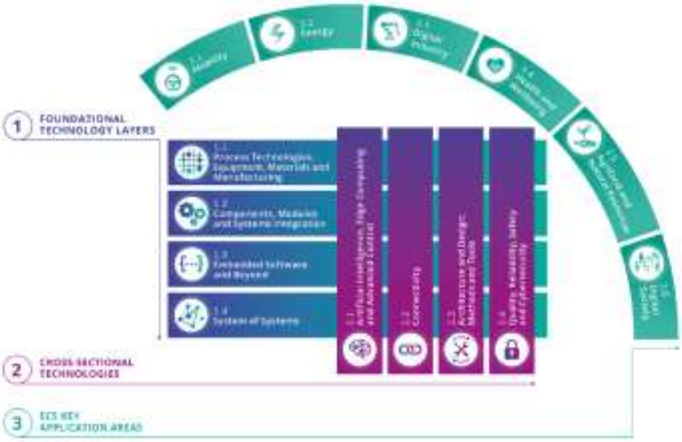
- 92 projects
- 3 220 beneficiaries
- 4 690 million Eur in total cost
- 2 280 million Eur in funding (EU+national)
- 408 500 persons-months
- 34 000 person-years
- 29 participating states

No participation from
Chypriot organizations

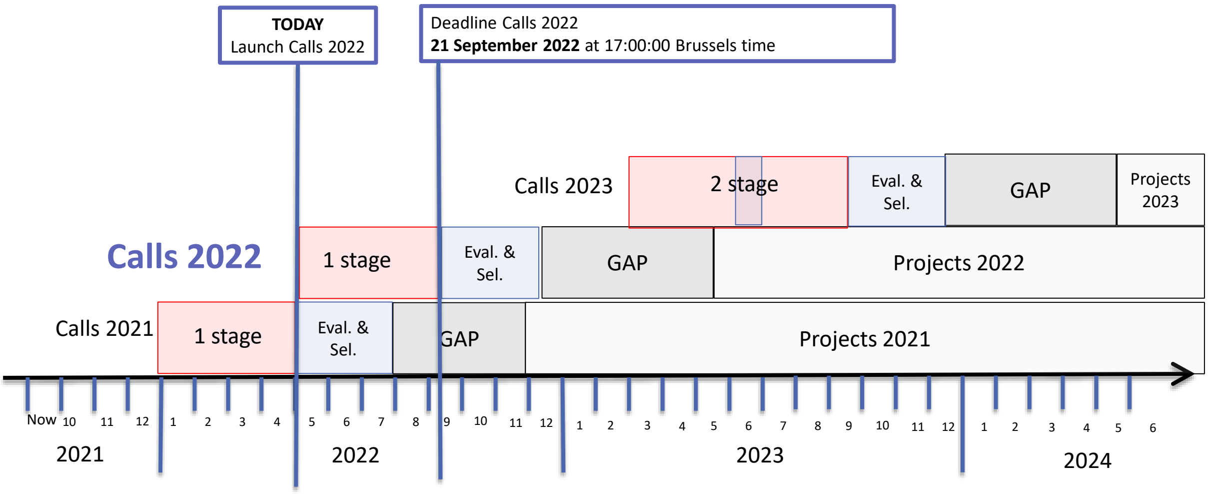


ECS SRIA

- 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**.



KDT CALL PLANNING



TODAY
Launch Calls 2022

Deadline Calls 2022
21 September 2022 at 17:00:00 Brussels time

A WORD OF CAUTION

Check regularly our call website under the KDT website:

www.kdt-ju.europa.eu

Changes in National conditions are to be expected!

Contact email for your questions (please use ONLY this email):

calls@kdt-ju.europa.eu

But for every IT issue contact the IT helpdesk (link in participant portal). We cannot help you on IT issues!

WHAT IS NEW? WHAT IS DIFFERENT?

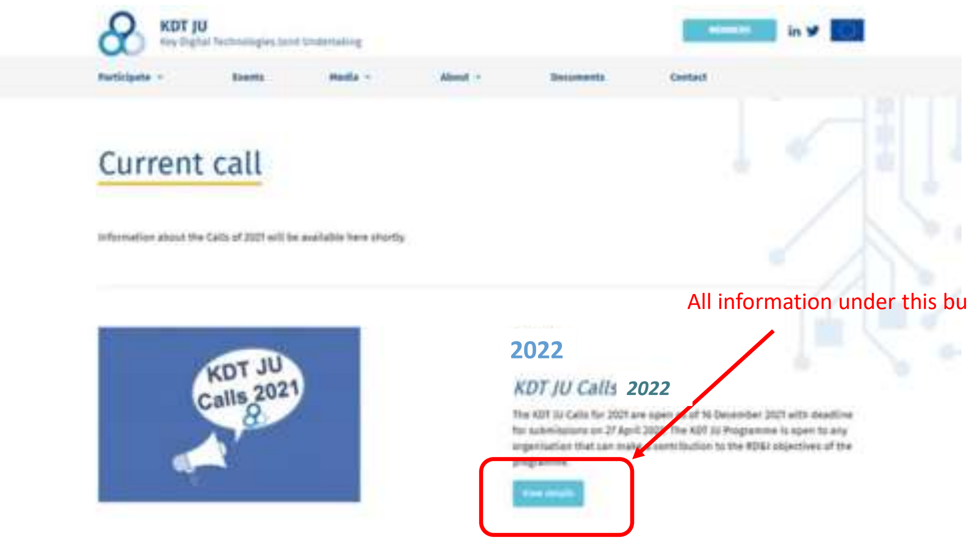
H2020 very similar to Horizon Europe for calls

KDT Call 2022 very similar to previous ECSEL calls (eg Call 2020)!

But there are differences!!!!

Therefore read the sections on the calls in the Work Plan 2022, read the documents, etc.

HOW TO START? GO TO KDT CALL WEBPAGE!



Current call

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

2022

KDT JU Calls **2022**

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.

All information under this button!

STRUCTURE AND TOPICS

KDT JU opens 2 concurrent Calls in 2021

- **HORIZON-KDT-JU-2021-1 IA**
  - HORIZON-KDT-JU-2021-1-IA
  - HORIZON-KDT-JU-2021-1-IA - Focus Topic 1: Development of open-sources RISC-V building blocks
- **HORIZON-KDT-JU-2021-2 RIA**
  - HORIZON-KDT-JU-2021-2-RIA
  - HORIZON-KDT-JU2021-2-RIA - FocusTopic 1: Processing solutions for AI at the edge addressing the design stack and middleware
- **HORIZON-KDT-JU-2021-3-CSA** - A Pan-European chip infrastructure for design innovation

Who can participate?

The KDT JU Programme is open to any organisation that can make a contribution to the RD&I objectives of the programme. However, there are specific eligibility criteria relevant in the each KDT JU Participating State: these are listed in the KDT JU Work Programme 2021 (see below).

Similar for 2022

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STRUCTURE AND TOPICS

2 calls, 3 focus topics

Action	Topic
Call 2022-1 T1	Topic 1 General according to SRIA 2022 (IA)
Call 2022-1 T2	Topic 2: Focus topic on Industrial supply chain for silicon photonics (IA)
Call 2022-1 T3	Topic 3: Focus topic on Design of Customisable and Domain Specific Open-source RISC-V Processors (IA)
Call 2022-2 T1	Topic 1: General according to SRIA 2022 (RIA)
Call 2022-2 T2	Ttopic 2: Focus topic on Ecodesigned smart electronic systems supporting the Green Deal objectives (RIA)
	Total

FOCUS TOPIC ON INDUSTRIAL SUPPLY CHAIN FOR SILICON PHOTONICS (IA)

Overall strategy: goal to set up an **industrial manufacturing capability** for **current and next generation silicon photonic integrated circuits** and including the various elements of the value chain such as packaging of those PIC-components. In parallel also develop agile heterogeneous PIC platforms of separately manufactured components or CMOS-uncommon materials onto silicon photonics wafers (wafer-level heterogeneous integration).

Details (some):

- establish an (eventually distributed) **industrially based** (meaning pilot line established in an industrial environment) **pilot line for a silicon photonics manufacturing platform,** that is the pilot line must cover the full process for silicon photonics circuits (including if possible heterogenous integration aspects for PICs) covering front and back end, integration and packaging (SiP) as well as wafer-level-test, chip testing, device testing to industrial standards with special attention to the scalability of the back-end packaging and testing.
- **enable breakthroughs in silicon PIC platforms**, overcoming their current limitations, by wafer-level heterogeneous integration of CMOS-uncommon materials or processed chiplets and prepare the transfer to the industrial silicon manufacturing platform.
- **At least two demonstrators** should be built including PICs made on the pilot line covering distinctive high volume applicatiions such as LIDAR technology, consumer medical applications, etc.
- **etc.**

- **Read the WP2022 section on this topic!**
- **Please note the added evaluation criterion:**

This call shall bring together the ECS community and the Photonics community. A well balanced composition with members of the two communities in the consortium should reflect this. This will be evaluated by the experts in the implementation criterion

Focus topic on Design of Customisable and Domain Specific Open-source RISC-V Processors (IA)

Overall strategy:

A. **Customizable high-end** RISC-V based multi-processor core (including dedicated hardware & supporting software IP, enhanced or new libraries of HW peripherals and software), to be applied for **high-end computing or domain-specific** applications, including features as a.o. dependability, reliability and security.

B. **Based on A**, **domain specific adaptations** of RISC-V customisable processor solutions for safe, secure and reliable computationally intensive applications, e.g., for automotive and other sectors. Such solutions are expected to address appropriate functional and non-functional, **high-performance requirements** aiming at realizations on advanced technology, e.g. 22nm FDSOI, 16 nm FinFET or below

Details:

- **foundational** RISC V compliant building blocks, both hardware and software, with appropriate models and tools support, for **customizable** high-end application cores for **high-performance** embedded systems and/or general purpose **HPC processors**
- **Apply** the RISC-V developments and tools towards an **industrial application demonstrator** down to **chip implementation**
- **etc.**
- **Read the WP202 section on this topic!**

Focus topic on Ecodesigned smart electronic systems supporting the Green Deal objectives (RIA)

Overall strategy:

- Innovative solutions that **demonstrate a reduced environmental footprint**, allow full recycling, include repair options or demonstrate significantly increased lifetime or second life concepts of ECS.
- Development of **new concepts, metrics and standards** to **assess** and **support** reduced environmental footprint and sustainability of ECS products.

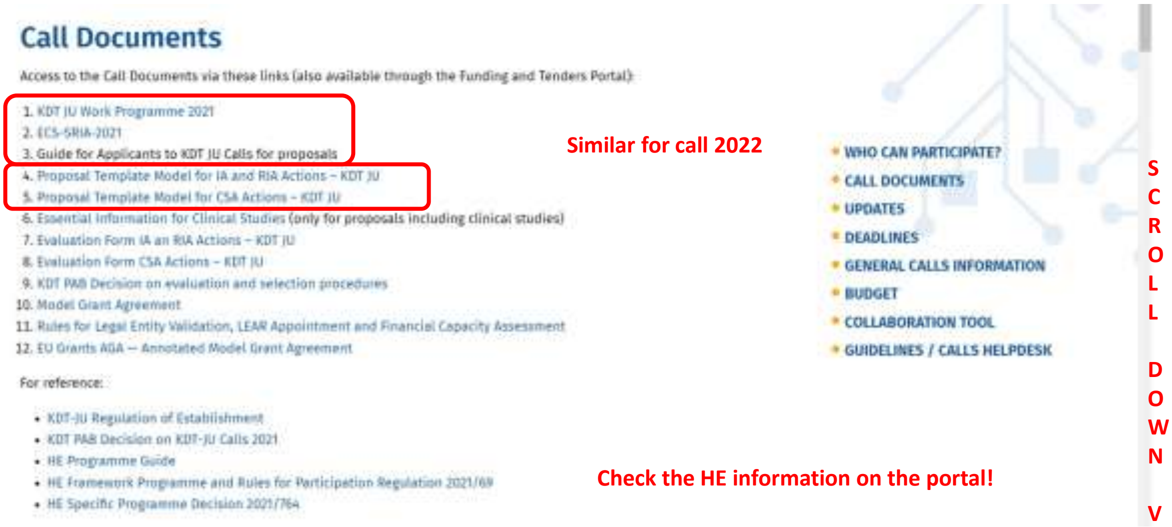
Details:

- Develop **innovative design and manufacturing methodologies for smart electronic systems**, considering eco-design principles, including aspects related to life cycle, end-of life, standardisation, certification, easy repair and regulation compliance. Accessible environmental data repository and exchange framework should also be taken into account.
- Demonstrate that **reliability-by-design principles maximise the durability of the smart electronic systems proposed or else allow second life of electronic components**, products or systems in future. Important factors are repair-friendly product designs, solution to enable predictive maintenance and availability of spare parts, implemented through new business models.
- Target **more efficient recovery and recycling solutions or/and optimisation** of the use of resources (i.e. reuse/repair/repurpose, recovery and recycling of waste and materials with a special attention to rare earth metals) over the lifetime of smart electronic systems (for example by appropriate packaging design). Specifications for equipment and systems for sorting, waste stream separation, recycling processes of such electronic components.

etc.

- **Read the WP202 section on this topic!**

CALL DOCUMENTS



Call Documents

Access to the Call Documents via these links (also available through the Funding and Tenders Portal):

1. KDT JU Work Programme 2021
2. ECS-SRIA-2021
3. Guide for Applicants to KDT JU Calls for proposals
4. Proposal Template Model for IA and RIA Actions – KDT JU
5. Proposal Template Model for CSA Actions – KDT JU
6. Essential information for Clinical Studies (only for proposals including clinical studies)
7. Evaluation Form IA an RIA Actions – KDT JU
8. Evaluation Form CSA Actions – KDT JU
9. KDT PAB Decision on evaluation and selection procedures
10. Model Grant Agreement
11. Rules for Legal Entity Validation, LEAR Appointment and Financial Capacity Assessment
12. EU Grants AGA — Annotated Model Grant Agreement

For reference:

- KDT-JU Regulation of Establishment
- KDT PAB Decision on KDT-JU Calls 2021
- HE Programme Guide
- HE Framework Programme and Rules for Participation Regulation 2021/69
- HE Specific Programme Decision 2021/764

Similar for call 2022

Check the HE information on the portal!

SCROLL DOWN V

UPDATES

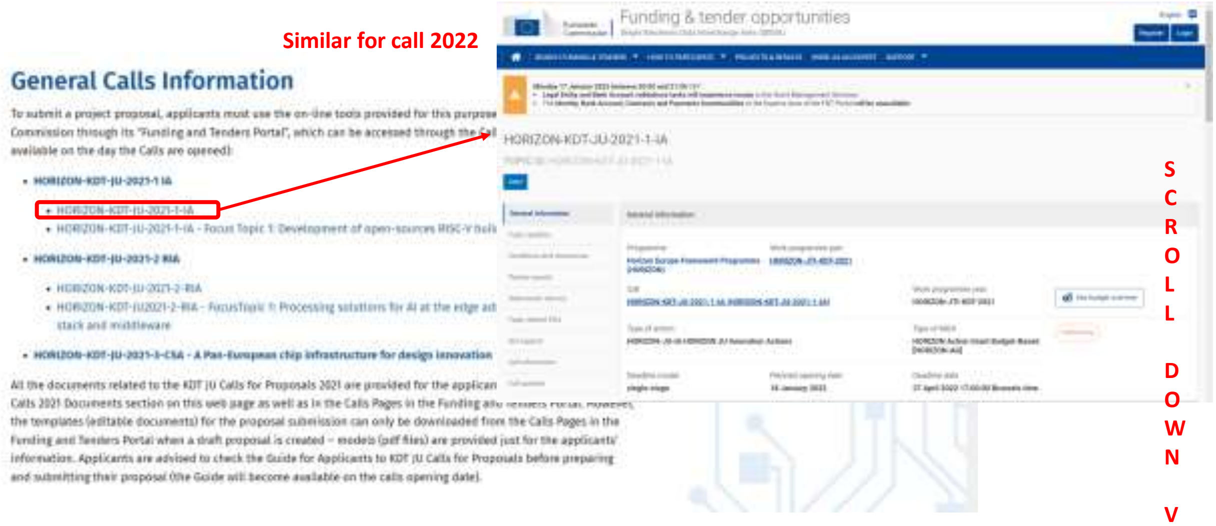
Updates

Similar for call 2022

Date	Change
21/01/2022	The KDT JU Work Programme 2021 has been updated with information about the national eligibility rules for IT (MUR) (pages 98-101) and ES (MINAETD, AEI) (pages 125-132); a clerical error copy/paste was corrected in the sections "Artificial Intelligence" and "Connectivity" (pages 18 & 33); the national budgets table has been updated for IT(MUR), EL and SE (page 16)
21/01/2022	The complex funding rates of IA and RIA KDT JU calls 2021 and the limitations of the submission system resulted in the fact that the **funding rates of the large enterprises (for profit not SMEs)** are not adequately integrated in the JU/EU Budget table in the Part A. Consequently, these organizations need to calculate their JU/EU Funding as **instructed in the Guide for Applicants** (examples for each Call/topic are presented). Similarly, the **National Budgets/Funding Table** are not anymore integrated into the Part A (as it was the case in the past for the ECSEL JU) and it **needs to be uploaded as a separate xls file** in the dedicated place holder in the submission tool. More details/**instructions are provided in the Guide for Applicants** **The Part C are now named National Part in the submission tool** to avoid confusion with the Part C (dynamic forms) used by other programmes. More **details** are **provided in the Guide for Applicants**
19/01/2022	The "**Guide for Applicants to KDT JU Calls for proposals**" and the "**Template Model National Budgets Table**" are now available
18/01/2022	The submission sessions in the Funding and Tenders Portal are now available (submission tools opened) for all KDT JU Calls 2021

SCROLL DOWN V

READY? GO!



Similar for call 2022

General Calls Information

To submit a project proposal, applicants must use the on-line tools provided for this purpose Commission through its "Funding and Tenders Portal", which can be accessed through the Cal available on the day the Calls are opened):

- **HORIZON-KDT-JU-2021-1 IA**
  - HORIZON-KDT-JU-2021-1-IA
  - HORIZON-KDT-JU-2021-1-IA - Focus Topic 1: Development of open-sources RISC-V buil
- **HORIZON-KDT-JU-2021-2 RIA**
  - HORIZON-KDT-JU-2021-2-RIA
  - HORIZON-KDT-JU2021-2-RIA - FocusTopic !: Processing solutions for AI at the edge ad stack and middleware
- **HORIZON-KDT-JU-2021-3-CSA - A Pan-European chip infrastructure for design innovation**

All the documents related to the KDT JU Calls for Proposals 2021 are provided for the applican Calls 2021 Documents section on this web page as well as in the Calls Pages in the Funding and Tenders Portal. However, the templates (editable documents) for the proposal submission can only be downloaded from the Calls Pages in the Funding and Tenders Portal when a draft proposal is created – models (pdf files) are provided just for the applicants' information. Applicants are advised to check the Guide for Applicants to KDT JU Calls for Proposals before preparing and submitting their proposal (the Guide will become available on the calls opening date).

Funding & tender opportunities

HORIZON-KDT-JU-2021-1-IA

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HOW TO PARTICIPATE?

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/

ECS COLLABORATION TOOL

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.

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.

EU FUNDING RATES

Type of beneficiary	IA	IA Focus Topic	RIA	RIA Focus Topic
Large Enterprise	20 %	25 %	25 %	25 %
SME	30 %	35 %	35 %	35 %
University/Other (not for profit)	35 %	35 %	35 %	35 %

National funding shall be commensurate to the EU funding rates.

IMPORTANT DIFFERENCES WITH ECSEL CALLS

- EU Funding Rates in the Budget table (EU Budget/EU Funding) in the Part A
- National Budgets Table
- National Part (previous Part C)

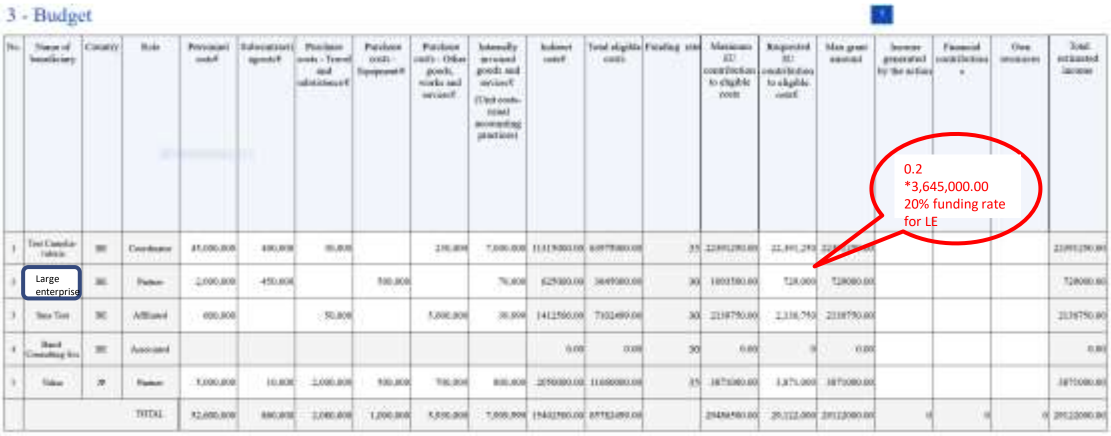
(Look for detailed instructions in the Guide for Applicants)

FUNDING RATES IN THE BUDGET TABLE IN PART A

Due to limitations of the submission tool the funding rate of the large enterprises is not taken into account in the budget table of the Part A. Therefore, the large enterprises need to check the funding rates they are entitled to in the Work Programme, calculate the EU Funding/contribution outside the portal and fill in the calculated amount in the budget table in the column named "**Requested EU contribution to eligible costs**"

An example provided below for a large enterprise (LE) participating to the IA call – funding rate 20%; portal indicates 30% (which is for SMEs only). Large enterprise calculates 20% of the total eligible costs and introduces manually the amount in the "Requested EU contribution to eligible costs"

FUNDING RATES IN THE BUDGET TABLE IN PART A



3 - Budget

Large enterprise

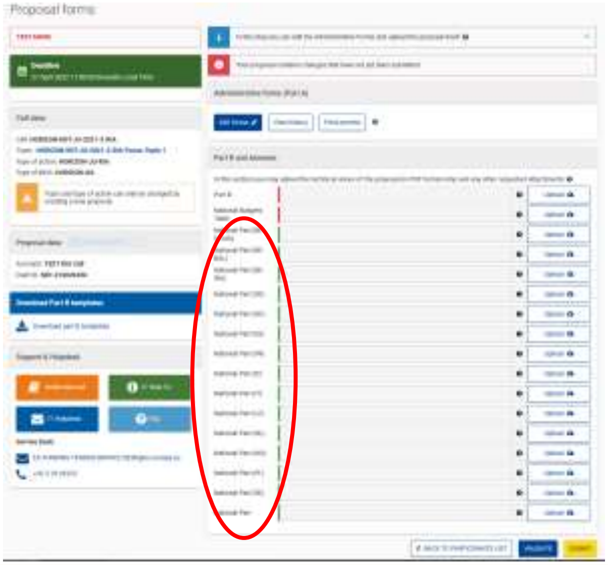
0.2
*3,645,000.00
20% funding rate
for LE

NATIONAL PART (FORMERLY KNOWN AS PART C)

The previous Part C are now named **National Part and have a dedicated Place Holder** for each of the KDT JU Participating State that request such an annex.

Instructions about these annexes are provided in the Annex 3 of the Work Programme of the respective Participating States.

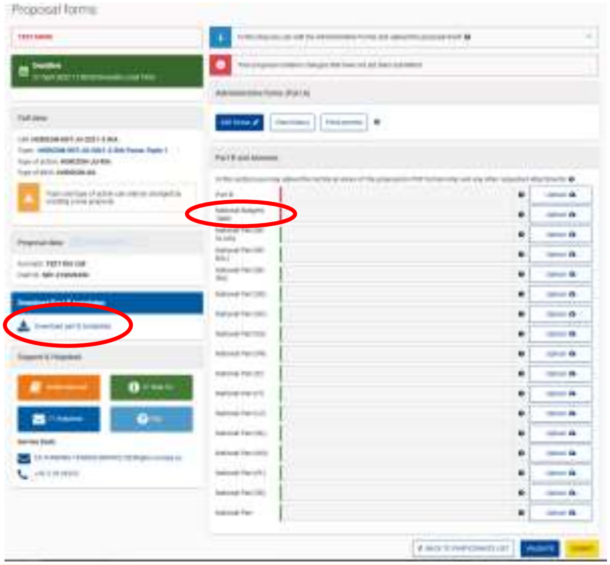
(The name changed in order to avoid the system blockages due to confusion with the Part C which is now dedicated nomenclature in some Horizon Europe programme (dynamic forms which are automatically checked by the system every time a "Part C" name appears.)



NATIONAL BUDGETS TABLE

(Due to limitations of the submission tool the table for the national funding (eligible costs according to the national rules and national contributions requested) is not anymore integrated in the Part A (Administrative Forms) but has to be submitted separately as am xls file which must be uploaded to the dedicated placeholder named "**National Budgets Table**")

The template is provided in the "**Download Part B template**" tab together with the Part B template (**as a zip file which includes the xls template for the National Budgets Table and the rft template for the Part B**)



EVALUATION AND SELECTION

- Evaluation = experts, as in HE
- Selection = by PAB, based on expert ranking, depends on available national budget of all participants in proposal
- Timing = Selection decision end November 2022, GAP till May 2023, start of project.

What is next?

A NEW DEVELOPMENT: EUROPEAN CHIPS ACT

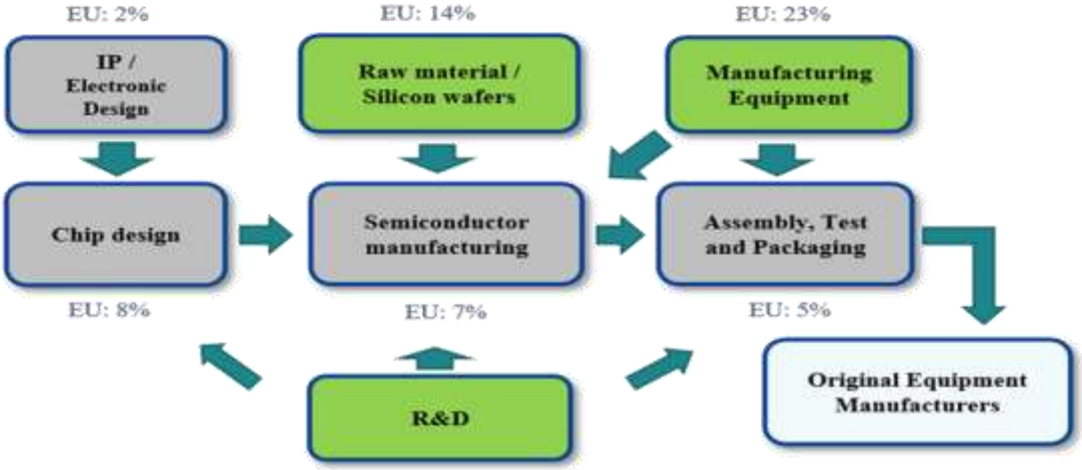
Press release | 8 February 2022 | Brussels

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

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

SEMICONDUCTORS VALUE CHAIN IN EUROPE



EU: 2%
IP / Electronic Design

EU: 14%
Raw material / Silicon wafers

EU: 23%
Manufacturing Equipment

Chip design
EU: 8%

Semiconductor manufacturing
EU: 7%

Assembly, Test and Packaging
EU: 5%

R&D

Original Equipment Manufacturers

THE EUROPEAN CHIPS ACT

3 Pillars

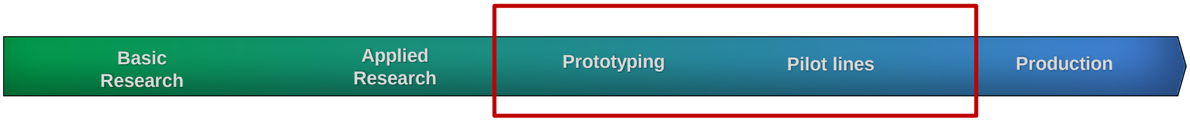
Chips for Europe Initiative: pool resources from EU, MS and other, as well as the private sector, through: the “**Chips Joint Undertaking**”	**New framework to ensure security of supply** by: A. Attracting **investments** and enhanced **production capacities**. B. **Chips Fund to facilitate access to 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



Q&A

- Advice = try to participate in projects under preparation (but already very late)
- Organise the local community, watch out for next call 2023, brokerage event in February 2023

- Good Luck with your application!
- Don’t hesitate to contact us
- Please read the documents!