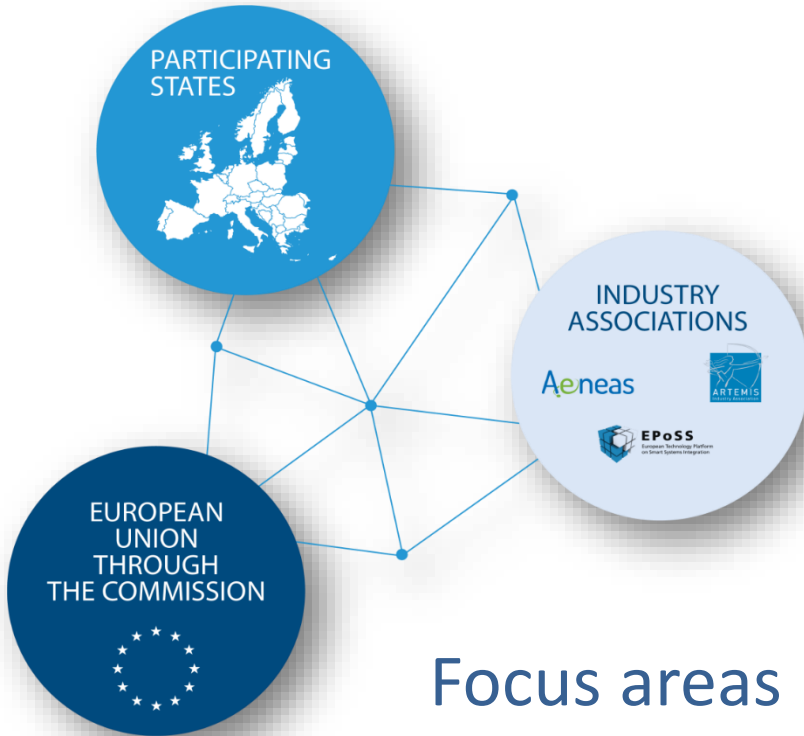


# ECSEL JU

Luciano GAUDIO  
Stakeholder Relations  
& Communication Officer



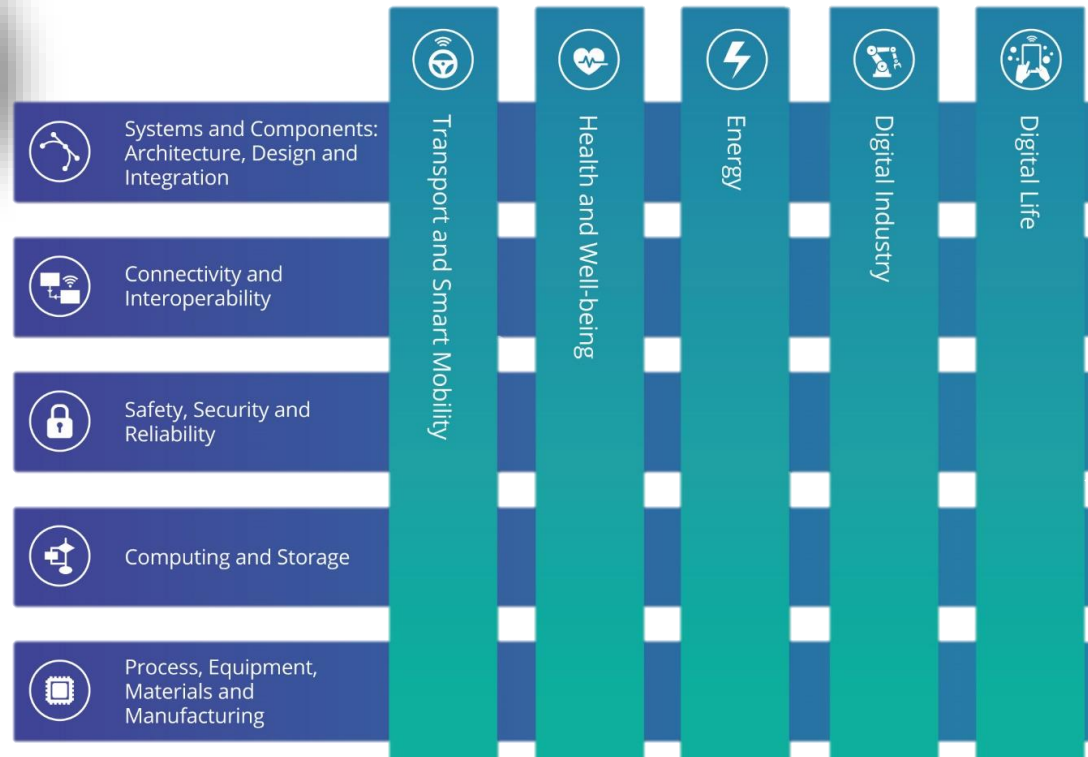
# ECSEL JU structure



## Focus areas

## Members

- ✓ Covers Electronic Components and Systems (ECS)
- ✓ PPP: EU, participating States, Private Members
- ✓ Budget 1,2 B€ + 1,2 B€ + 2,4 B€
- ✓ Annual Call for proposals as Horizon 2020

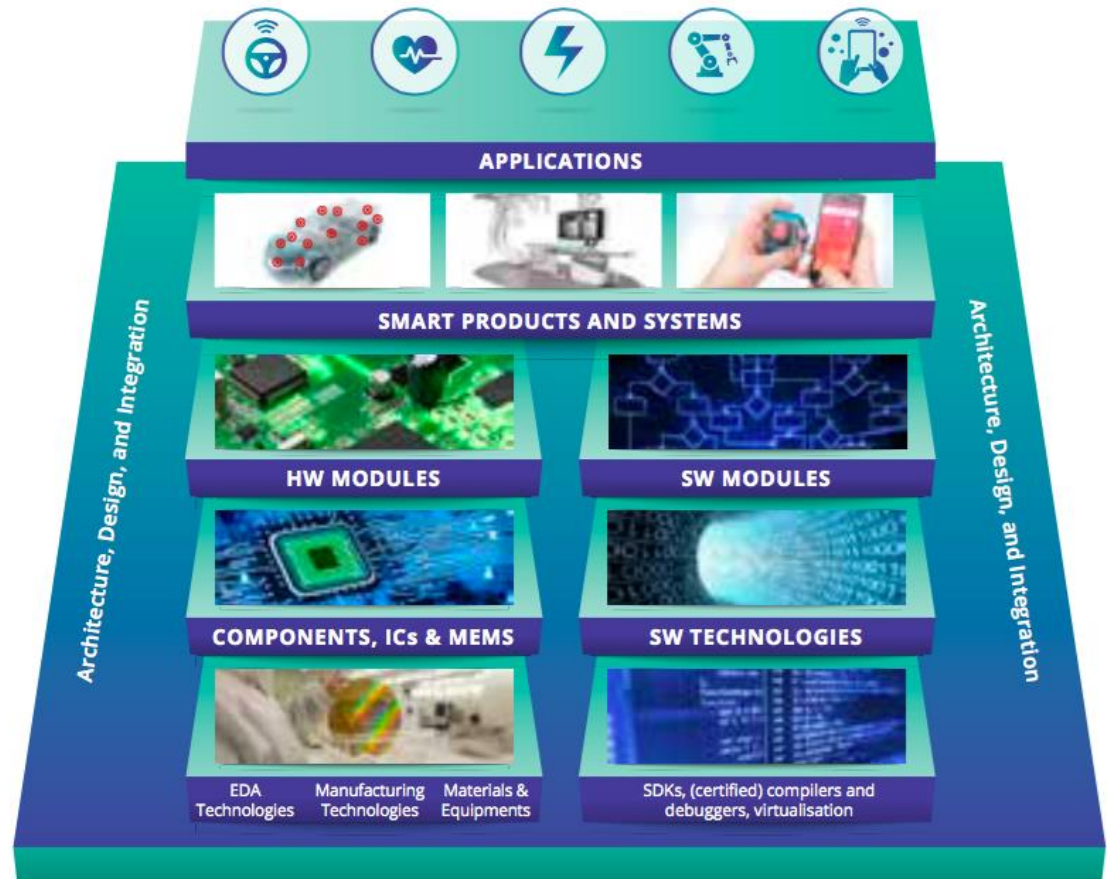


# ECSEL JU model: thinking together

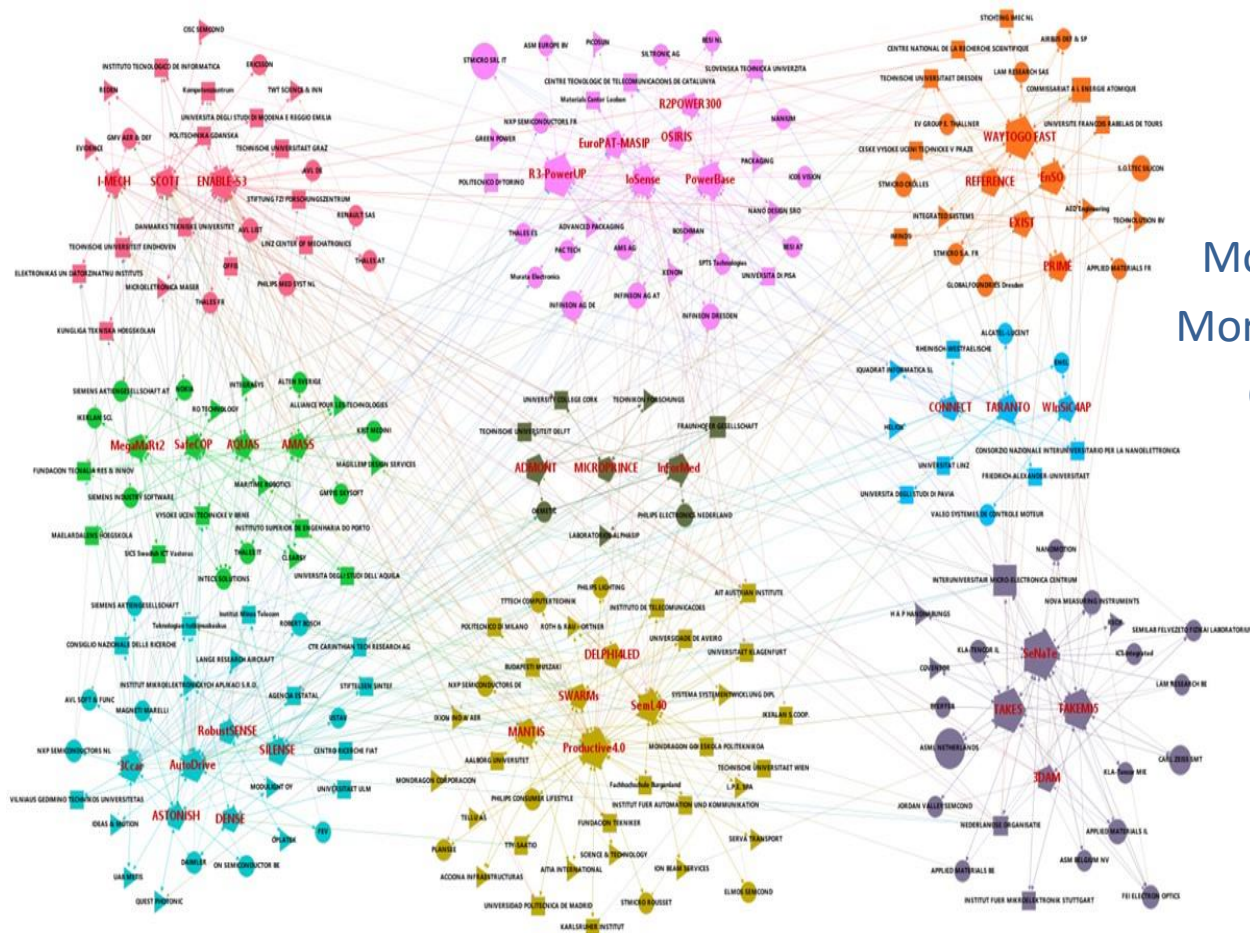


## Strategic Research Agenda:

Setting strategic priorities and technical pathway to enable European industry to become stronger and more competitive.



# ECSEL JU model: working together



- FD-SOI for IoT
- More Moore Technology
- CPS with mixed HW/SW
- More than Moore IC-Technology
- More than Moore pilot lines for ISS
- CPS platform developments
- Integrated Smart Systems
- Digitalisation of Industry
- Other Components



# ECSEL JU model: investing together\*

- 10 Calls, 64 Projects
- More than 2100 participations
- 3.4 bn€ RDI costs
- 1.6 bn€ EU and National funding
- 1.8 bn€ industries own financing
- 3 Lighthouse Initiatives:
  - ✓ Industry4.E
  - ✓ Mobility.E
  - ✓ Health.E



# ECSEL JU projects results 2019

## Call 2019-IA

Proposal	Title	Free Keywords	Coordinator	
iRel40	Intelligent Reliability 4.0	Quality 4.0, Physics of Failure, Robustness Validation, Prediction, Chip-Package-Board/System, Design for Reliability, Reliability Requirements, Functional Materials, AI, ML, Testability	INFINEON TECHNOLOGIES AUSTRIA	AT
InSecTT	Intelligent Secure Trustable Things	Interoperability, Artificial Intelligence, Trustability, Explainable AI, Trustable AI, Connectivity, Security, Reliability, Safety, Cross-Domain, Use Cases, Reusability, Computing, Storage	Kompetenzzentrum - Das Virtuelle Fahrze	AT
Moore4Med	Accelerating Innovation in Microfabricated Medical Devices	open and enabling technology platforms	PHILIPS ELECTRONICS NEDERLAND	ENL
CHARM	Challenging environments tolerant Smart systems for IoT and AI	Harsh environment, Packaging technologies, Industrial IoT, Sensors, Manufacturing	VALMET TECHNOLOGIES OY	FI



# ECSEL JU projects results 2019

## Call 2019-IA

Proposal	Title	Free Keywords	Coordinator	
BEYOND5	Building the fully European supply chain on RFSOI, enabling New RF Domains for Sensing, Communication, 5G and beyond	5G, Silicon on Insulator, FDSOI, RFSOI, energy efficiency, Power consumption, Radio-frequency domains, Millimeter-Wave connectivity, V2X, IoT, Low Power, CMOS radar	SOITEC SA	FR
IT2	IC Technology for the 2nm Node	Semiconductor, Process, Lithography, Metrology, Equipment, Nano, Technology, Materials, Moore's Law, Heterogeneous, Photonics, System, DTCO, STCO	ASML NETHERLANDS B.V.	NL



# ECSEL JU projects results 2019

## Call 2019-RIA

Proposal	Title	Free Keywords	Coordinator	
Progressus	Highly efficient and trustworthy components and systems for the next generation energy supply infrastructure	power conversion, energy management, microgrid, charging infrastructure, blockchain, TMR sensor, hall sensor, fast charging, smart charging, local storage, hardware security, trusted hardware,	INFINEON TECHNOLOGIES AG	DE
ADACORS	Airborne data collection on resilient system architectures	resilient system architectures, drones, automated vehicles	INFINEON TECHNOLOGIES AG	DE
NextPercep	NextPerception - Next generation smart perception sensors and distributed intelligence for proactive human monitoring in health, wellbeing, and automotive systems	Perception Sensors, Radar, Lidar, Time-of-flight, Distributed intelligence, Edge computing, Explainable AI, Human Monitoring	Teknologian tutkimuskeskus VTT Oy	FI
VALU3S	Verification and Validation of Automated Systems' Safety and Security	Safety, verification and validation, testing, automated systems	RISE RESEARCH INSTITUTES OF SWESE	
ANDANTE*	Technologies at the Edge	AI	STMICROELECTRONICS GRENOBLE 2	FR

*\*on reserve list (for negotiation under conditions) and now in GA preparation*





# ECSEL JU projects results 2019

## Call 2019-RIA Special topic 1&2

Proposal	Title	Free Key words	Coordinator	
ArchitectEC	Trustable architectures with acceptable residual risk for the electric, connected and automated cars	Monitoring Device, Reliability, Safety, Autonomous driving, predictability of failures	INFINEON TECHNOLOGIES AG	DE
FRACTAL	A Cognitive Fractal and Secure EDGE based on an unique Open-Safe-Reliable-Low Power Hardware Platform Node	Edge Computing, OSS, time-critical, Reliability, Security, Complexity	IKERLAN S. COOP	ES
BRAINE	Big data pRocessing and Artificial Intelligence at the Network Edge	Edge Computing, Artificial Intelligence, Micro Data Center, Hardware acceleration, security, big data management, execution monitoring and measurement	CONSORZIO NAZIONALE INTERUNIVE IT	



# ECSEL Calls 2020 planning

- ECSEL-2020-1-IA: Innovation Actions (ECSEL-IA)
- ECSEL-2020-2-RIA: Research and Innovation Actions (ECSEL-RIA)
- ECSEL-2020-3-RIA-IMI-ECSEL-joint-activity - call complementing Trials@Home IMI-JU project (ECSEL-RIA)\*
- ECSEL-2020-4-CSA-DIGITAL EXCELLENCE (semantic webhosting) (ECSEL-CSA)

\*Call IMI-ECSEL joint activity to be decided later – information in this presentation pertaining to this call is preliminary pending the PAB decision

\*Innovation Actions (IA) TRLs 4 to 8 & Research and Innovation Actions (RIA) TRLs 2 to 5



# EU EXPENDITURE 2020

<b>Action</b>	<b>Estimated EU Expenditure (M€)</b>
Call 2020-1 IA	93.00
Call 2020-2 RIA	61.00
Call 2020-3 RIA-IMI-ECSEL	5.00
Call 2020-4 CSA	2.00
<b>TOTAL</b>	<b>161.00</b>



# Indicative/National/Regional/ESIF Budgets

EPS	Call 2020-1 IA	Call 2020-2 RIA	Call 2020-3 RIA IMI – ECSEL joint activity	Call 2020-1, Call 2020-2 or Call 2020-3	ESIF	Total (M€)
AT <sup>4</sup>	-	-	-	11.00	-	11.00
BE BXL	-	-	-	1.00	-	1.00
BE FL	-	-	-	12.00	-	12.00
BG	-	-	-	-	-	-
CH <sup>1</sup>	-	-	-	2.5MCHF	-	2.301
CZ	1.50	1.50	-	-	-	3.00
DE	-	-	-	32.00	-	32.00
DE Saxony	8.00	4.00	-	-	-	12.00
DE Thuringia	-	-	-	0.8	-	0.80
DK	-	-	-	2.0	-	2.00
EL	-	-	-	-	-	-
ES AIE	-	-	-	1.30	-	1.30
ES MINAETD	-	-	-	10.00	-	10.00
FI	-	-	-	7.00	-	7.00
FR	-	-	-	35.00	-	35.00
HU	-	-	-	1.00	-	1.00
IE	-	-	-	2.00	-	2.00
IL	-	-	-	7.00	-	7.00
IT MISE	-	-	-	-	-	To be defined
IT MUR <sup>3</sup>	-	-	-	2.50	-	2.50
LV <sup>2</sup>	-	-	-	0.42	-	0.42
LU	-	-	-	2.00	-	2.00
NL	-	-	-	19.64	-	19.636
NO	-	-	-	2.20	-	2.20
PL	-	-	-	1.50	-	1.50
PT	-	-	-	-	-	-
RO	-	-	-	-	-	-
SE	-	-	-	4.50	-	4.50
SK	-	-	-	0.80	-	0.80
TR	-	-	-	5.00	-	5.00
UK	-	-	-	-	-	-
<b>TOTAL</b>	-	-	-	-	-	<b>177.957</b>

## Notes:

- 2.500.000 CHF exchange rate of 02.01.2020 CHF 1 = EUR 0.9204
- ESIF complementary funding up to 80.000 EUR available
- Only for Calls 2020-2 and 2020-3
- Subject to final approval of financial authorities



# EU Reimbursement rates

The **MAX** funding percentages of the EU contribution are **different than under H2020**.

Type	IA	RIA	RIA-IMI-ECSEL	CSA
For profit (non SME)	20%	25%	25%	100%
SME	25%	30%	30%	100%
University/Other	35%	35%	35%	100%

EU Contribution as % of the eligible cost according to H2020 (beneficiaries may ask for a lower contribution)

National contributions: vary per state, see Section 10 of ECSEL JU Annual Work Plan 2020! **Contact the national authorities to inquire about specificities, limitations!**



# ECSEL Calls 2020

## ➤ ECSEL-2020-1-IA Call & ECSEL-2020-2-RIA Call

Two stage:

- PO (Project Outline)
- FPP (Full Project Proposal)

## ➤ ECSEL-2020-3-RIA-IMI-ECSEL-joint-activity:

One stage:

- FPP (Full Project Proposal)

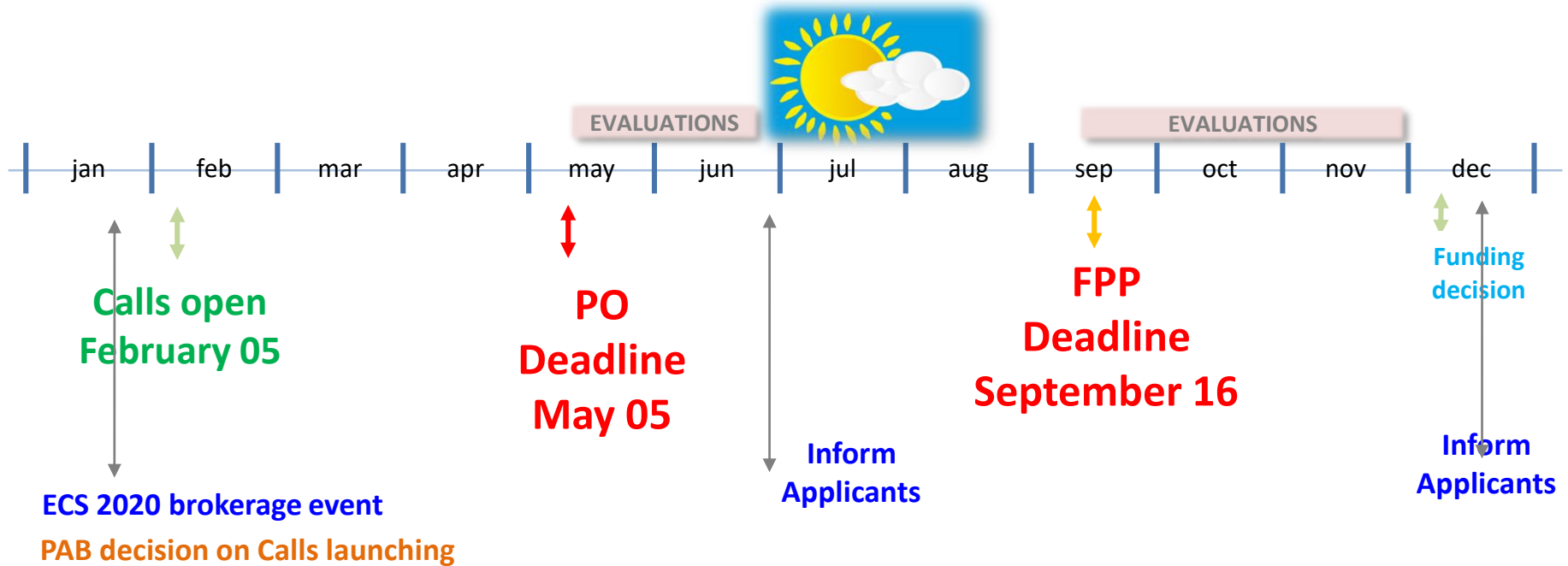
## ➤ ECSEL-2020-4-CSA-DIGITAL EXCELLENCE:

One stage:

- FPP (Full Project Proposal)



# Timeline ECSEL-2020-1-IA Call ECSEL-2020-2-RIA Call



<https://www.ecsel.eu/calls/calls-2020>



# Timeline ECSEL-2020-3-IMI-ECSEL Call

- Few details not yet decided (opening date, submission deadline)
- It will be communicated at a later date

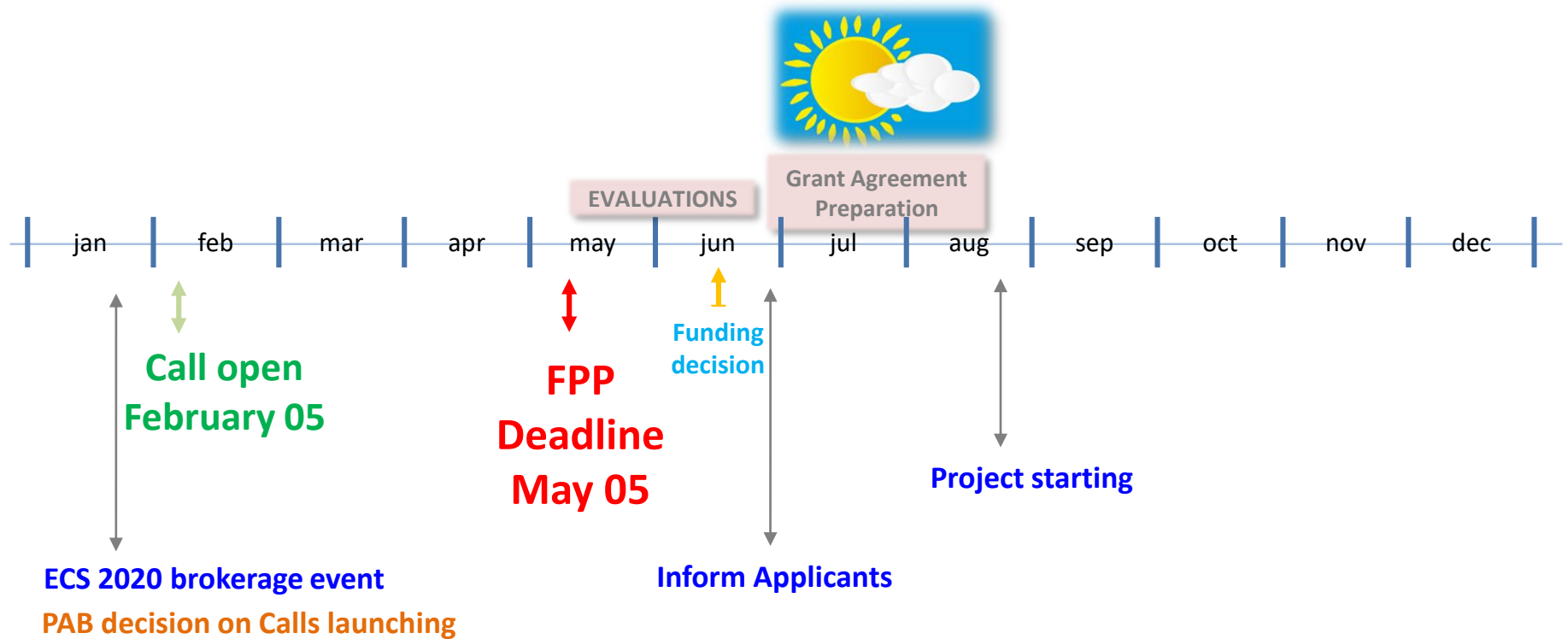
The objective is to further support **synergies between the JUs' activities and potential collaborations between projects of the IMI and ECSEL JU** .

<https://www.ecsel.eu/calls/calls-2020>





# Timeline ECSEL-2020-4-CSA Call



<https://www.ecsel.eu/calls/calls-2020>



# Submitting a proposal & Calls Info

- Check out the [ECSEL website](#) and the **(new)** [Funding and Tenders portal](#)
- Pay attention to the Calls Documents
- Follow the instructions in the Templates
- Call related questions/”ECSEL HelpDesk”:

[calls@ecsel.europa.eu](mailto:calls@ecsel.europa.eu)

Calls coordinator: Simona Rucareanu

Backup calls coordinator: Bahija Ziane



# The ECS Collaboration Tool

**A networking tool for project ideas and potential partners.**

## 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

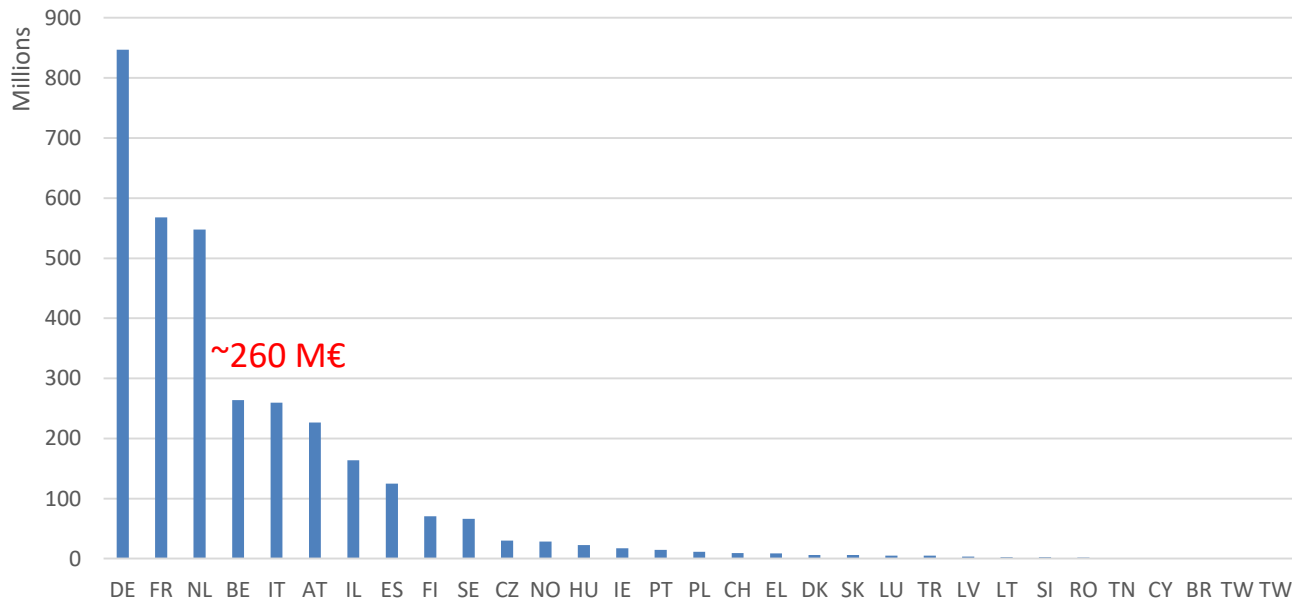
Leave a message on the message board for possible partners or interesting project ideas.

<https://ecscollaborationtool.eu/>



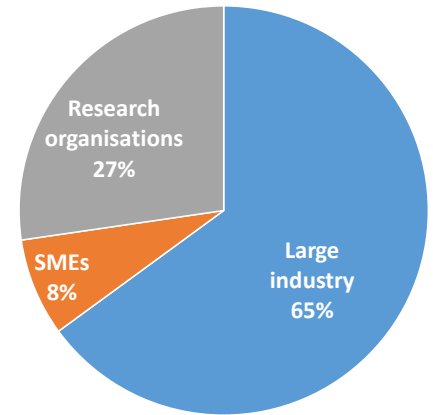
# Investment and funding 2014 - 2018

## Total RD&I Investment by country

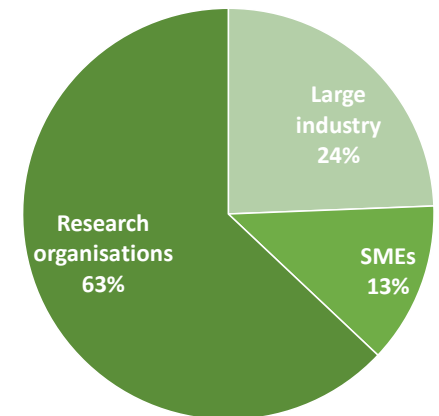


\*Private members: ~94M€  
 EU funding: ~61M€  
 IT: ~89M€  
 ESIF: ~15 M€

## EU funding ~61M€



## Structural funds ~15M€



# ECSEL JU next phase under HE

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

(Ursula von der Leyen, President of the European Commission)



## ➤ **Name**

Key Digital Technologies (KDT), but it's not final. There are many variations and suggestions. “Software and Digital Sovereignty” might be more explicitly mentioned (tbc);

## ➤ **Scope**

Possible extension to Photonics, Software, Advanced computing, Flexible printed electronics technologies, Bioelectronics (tbc);

## ➤ **Budget**

Proposal for a substantial increase in the R&D efforts (tbc);

## ➤ **Simplification and integration**

More robust process for priority-setting

Synergies and collaboration with other EU funding programs

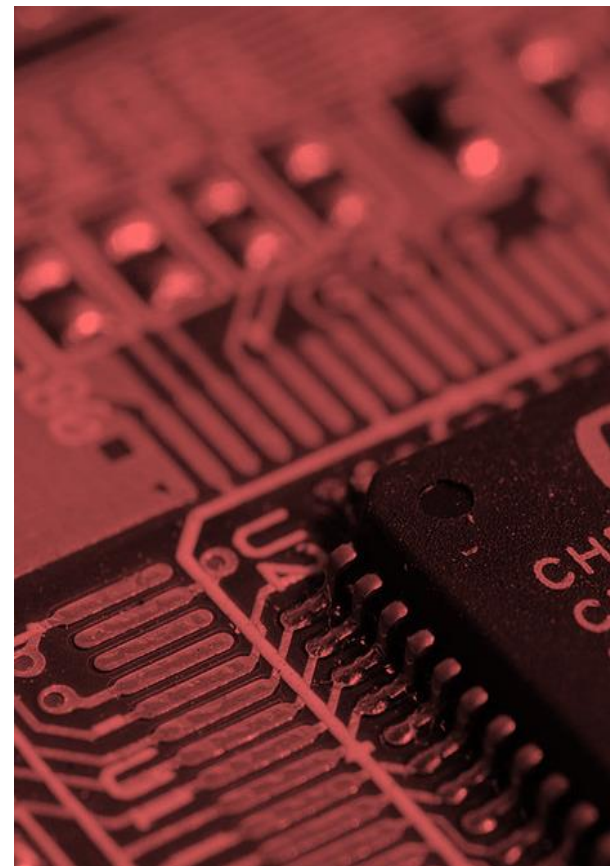
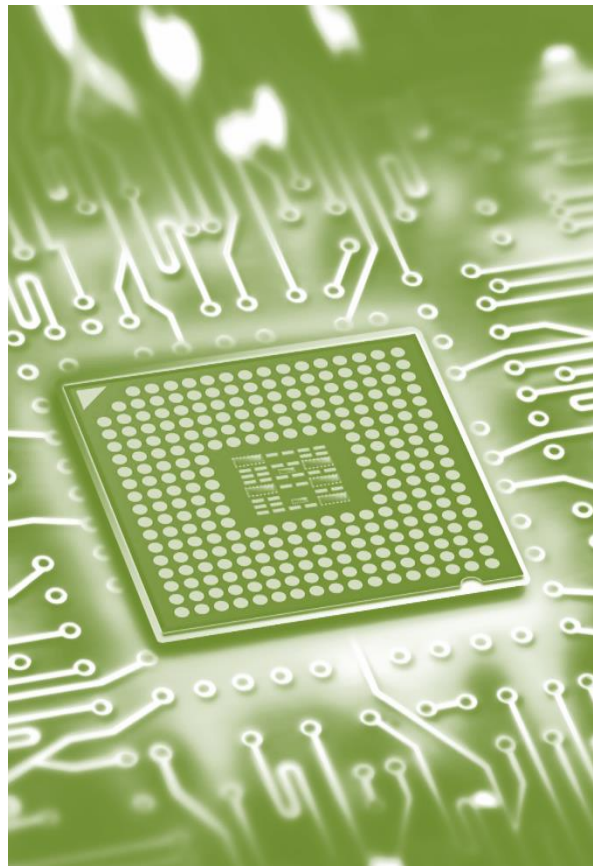
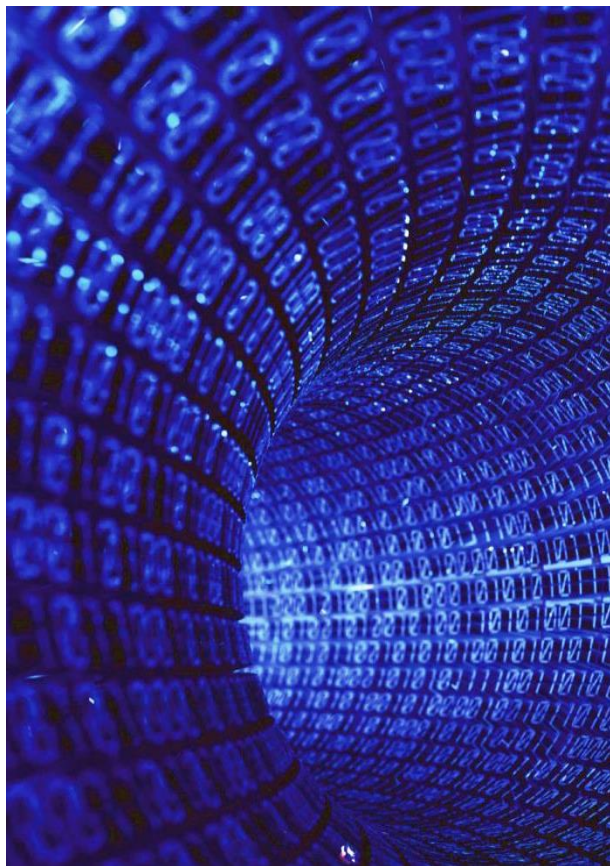
Improved co-funding mechanism to simplify beneficiaries' participation (part. rules, funding rates etc.)



# Conclusion

## THE ECSEL JOINT UNdertAKING

- Is a PPP with an effective tripartite model (EU, PS and Private);
- Creates a strong ecosystem (LE, SME, RTOs, Universities);
- Secures a significant leverage effect (1:1:2 ratio);
- Is a strategic program boosting Europe's competitiveness, and its technological sovereignty.



# Thank you for your attention!

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[www.ecsel.eu](http://www.ecsel.eu)

ECSEL Italy Day – 13 Feb. 2020

