



Vinnova's calls in international ICT

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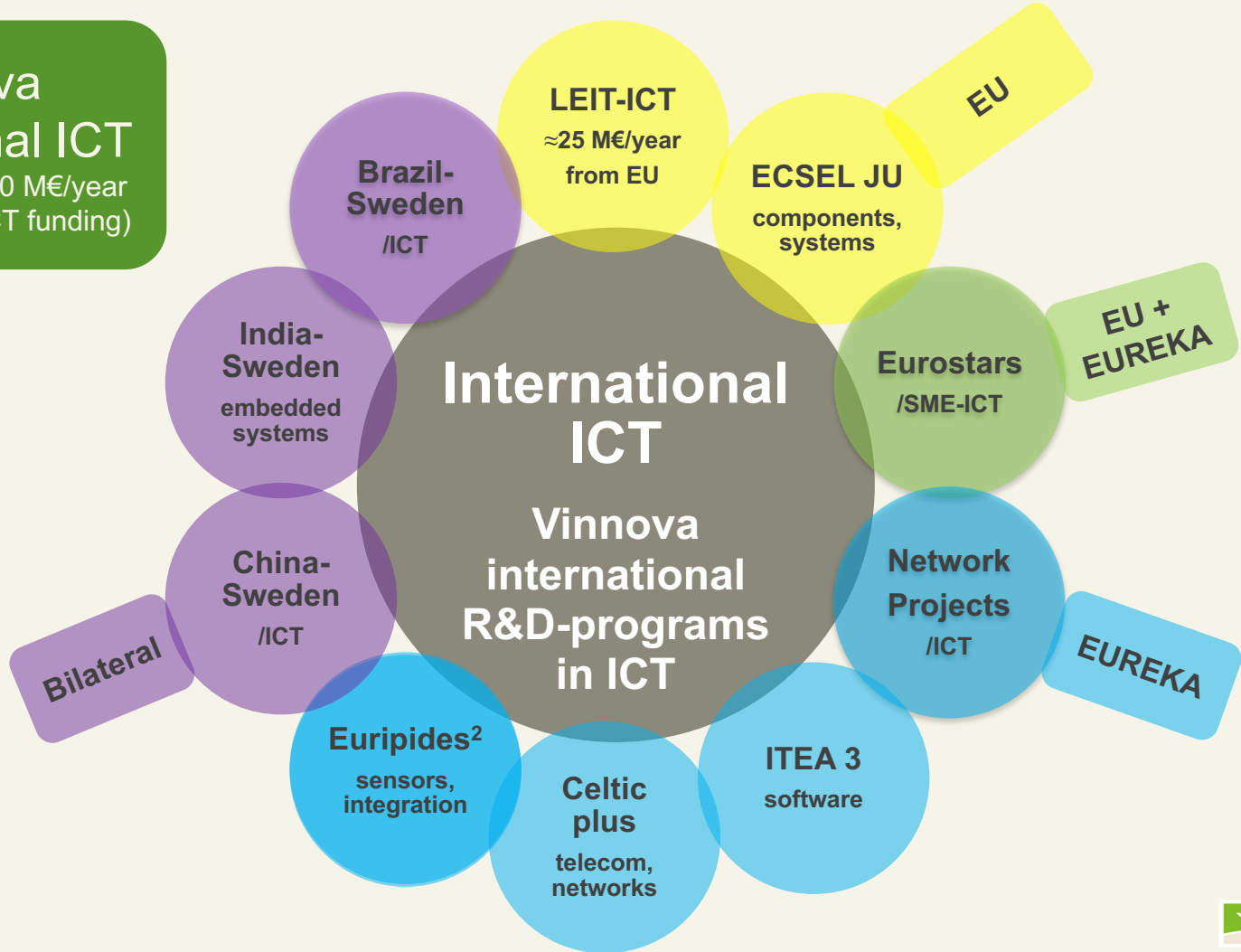
What is international ICT at Vinnova?

International ICT at VINNOVA

- All VINNOVA's international programs focusing on **ICT R&D for digitalisation** of many application areas
- >10 different EU, EUREKA and bilateral programs
- **≈20 MEUR/year** from VINNOVA/EU
- Enabling an ICT project portfolio of **>40 MEUR/year**
- **EU H2020 LEIT-ICT funding ≈25 MEUR/year** to be added

Vinnova International ICT

budget approx. 20 M€/year
(excl. EU LEIT-ICT funding)



International ICT

Vinnova
international
R&D-programs
in ICT

LEIT-ICT
≈25 M€/year
from EU

ECSEL JU
components,
systems

EU

Eurostars
/SME-ICT

EU +
EUREKA

**Network
Projects**
/ICT

EUREKA

ITEA 3
software

**Celtic
plus**
telecom,
networks

Euripides²
sensors,
integration

Bilateral

**China-
Sweden**
/ICT

**India-
Sweden**
embedded
systems

**Brazil-
Sweden**
/ICT

The EU ICT priorities and the LEIT-ICT and ECSEL JU programs

EU five "big tickets" for Information & Communication Technologies (they will affect "everything" ICT)

- **Artificial Intelligence (AI)**

Digital Day 10 April: Sweden signs the AI Declaration

EU Communication on AI 25 April: AI-plans for H2020 (2 BEUR) and FP9 (X BEUR)

- **Cyber Security**

Call SU-ICT-03-2018 on competence centra, 50 M€, closed 29 May, more...

- **High Performance Computing (euroHPC, exascale supercomputers)**

Sweden considering joining EuroHPC Joint Undertaking, starting 1 Jan 2019

- **Next Generation Internet (NGI: trust, privacy, intelligent, social innovation...)**

NGI Node Sweden, <https://www.sics.se/projects/the-next-generation-internet>

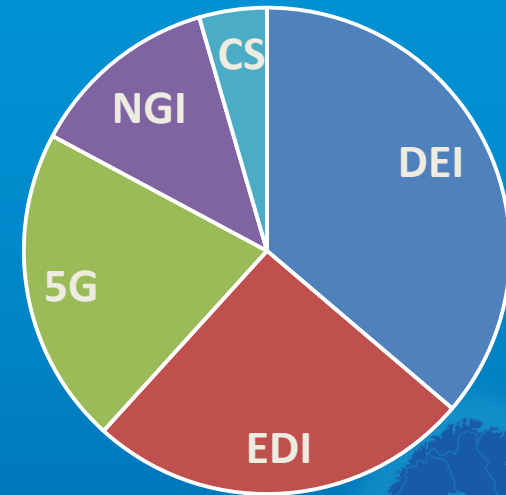
- **Microelectronics to software (the electronics value chain)**

ECSEL Joint Undertaking

LEIT-ICT WP2018-2020 budget: 2700 MEUR

- Information Communication Technologies **1827 MEUR**
 - DEI: Technologies for Digitising European Industry (Electronics, Photonics, Robotics)
 - EDI: European Data Infrastructure: HPC, Big Data, Cloud technologies
 - 5G (End-to-end, LTE, EU-US/China/Taiwan collaborations)
 - NGI: Next Generation Internet (Openness, Inclusive, Interactive, AI, IoT)
 - Cross-cutting Activities (Arts, Startups, Pre-commercial procurement, Fintech)
- Digitising and Transforming European Industry and Services **461 MEUR**
 - Support to Hubs
 - Platforms and Pilots
- Cybersecurity - CS (Cyber-attacks, Resilience, Privacy, Quantum Keys) **139 MEUR**
- EU-Japan Joint Call **6 MEUR**
- EU-Korea Joint Call **6 MEUR**
- Other Actions **202 MEUR**
 - European Low-power Microprocessor Technologies
 - Various Actions

2018-19: 1200 MEUR



Expected EU -> SE
budget 800 MSEK
(250 MSEK/y, 3,3%)

EU ECSEL Joint Undertaking:

Electronic Components & Systems
for European Leadership



Vinnova+EU
funding for
Swedish
participation:
11 MEUR/year

Swedish historical
success rate:
approx. 30%

The Electronics Value-Chain, www.ecsel-ju.eu

ECSEL JU 2018 Multi-Annual Strategic Plan (MASP)

- 5 essential capabilities:
 1. Systems and components (architecture, design integration)
 2. Connectivity and interoperability
 3. Safety, security and reliability
 4. Computing and storage
 5. Process, equipment, materials and manufacturing
- 5 key application areas:
 1. Transport and smart mobility
 2. Health and well-being
 3. Energy
 4. Digital industry
 5. Digital life

ICT-2018

- Vienna, Austria, 4-6 December 2018
 - Digital research and innovation policies
 - Exhibition of EU-funded ICT research and innovation projects
 - Networking activities
 - Innovation and startups village
- <https://ec.europa.eu/digital-single-market/en/news/save-date-ict-2018-event-will-take-place-4-6-december-2018-vienna>

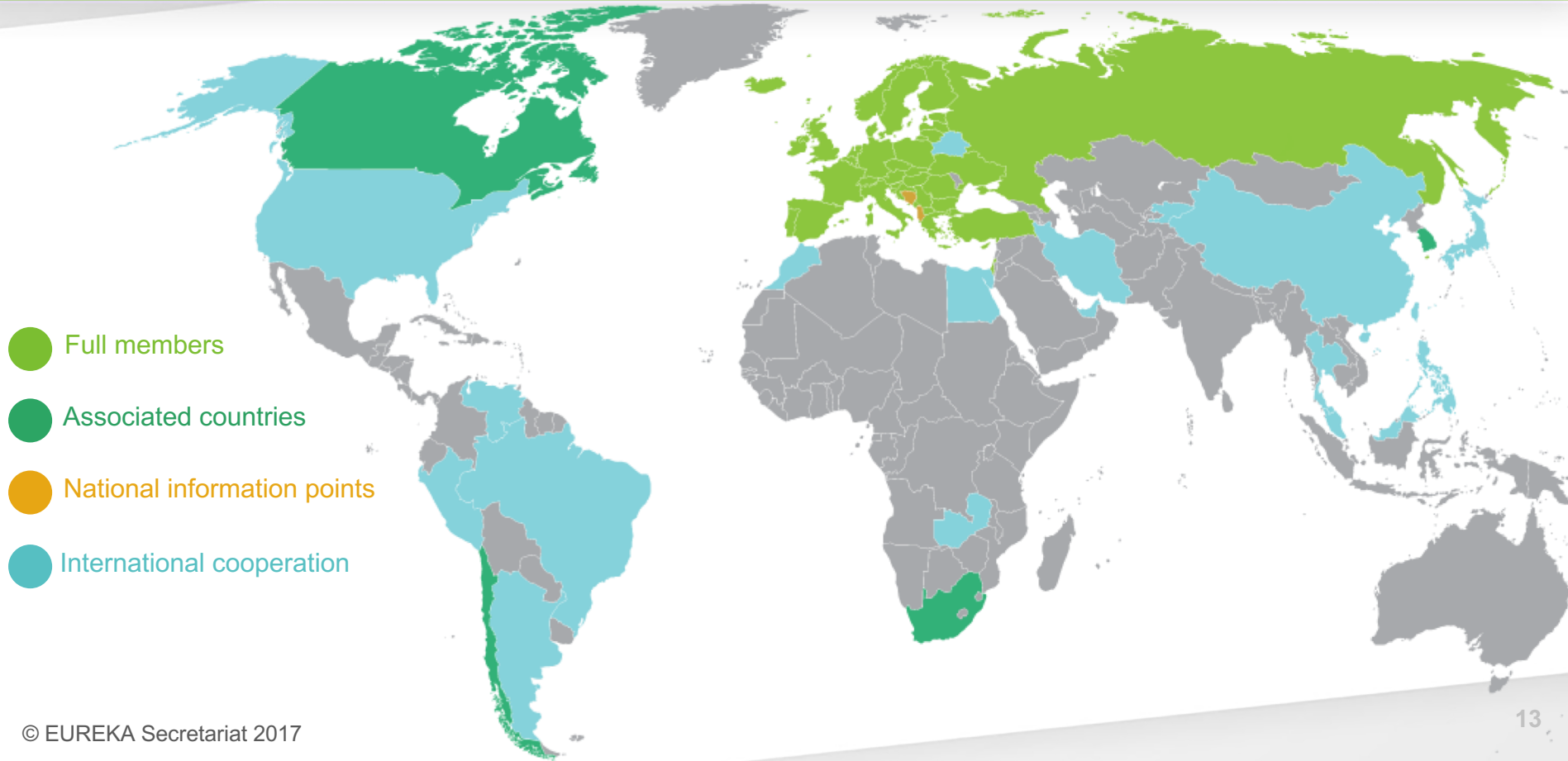


EUREKA and the Eurostars and cluster programs

EUREKA characteristics



More than 40 EUREKA countries



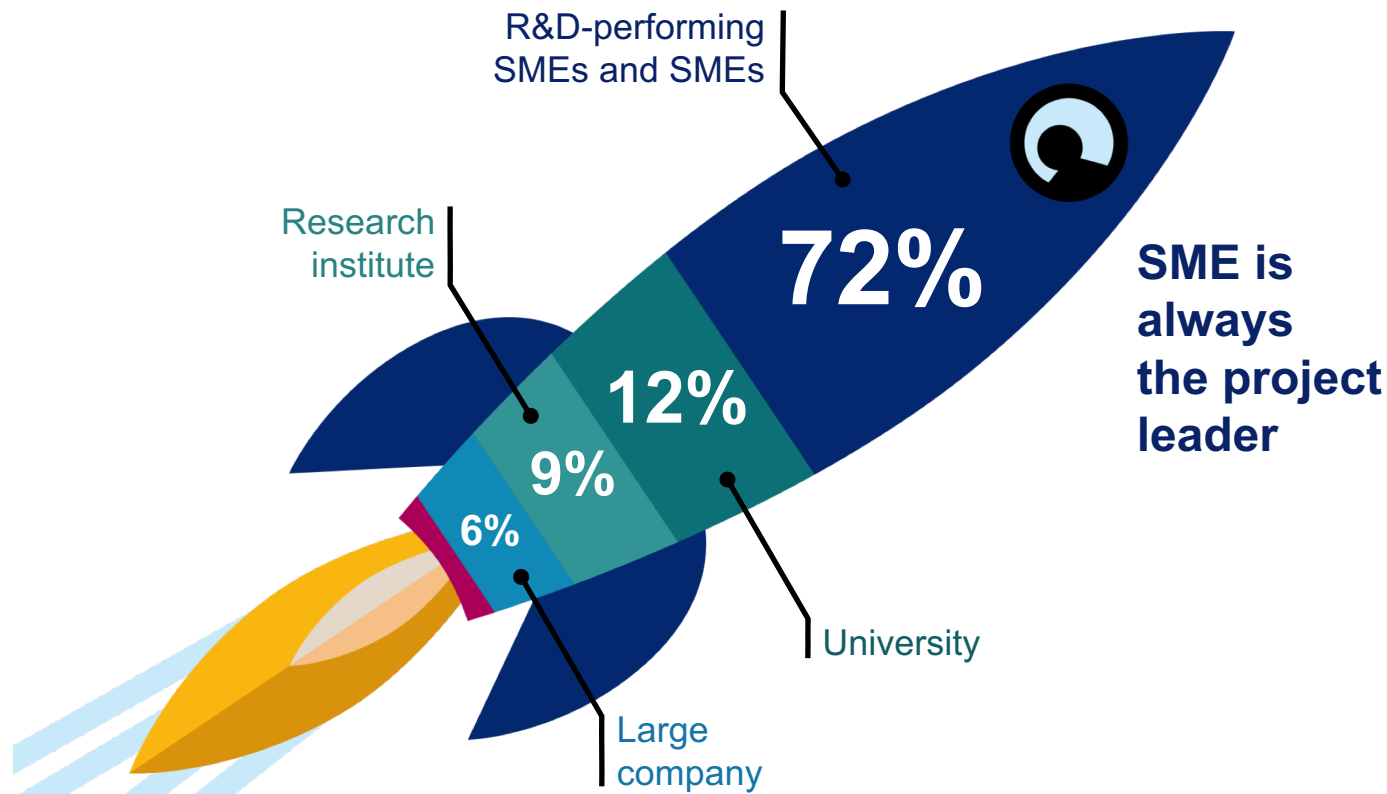
Three takeaways on EUREKA in Sweden

EUREKA is quite unknown in Sweden

150 MSEK/year Vinnova budget (ICT 80 MSEK/y)

Approx. 30% ICT success rate for Sweden





EUREKA

innovation across borders



<https://www.celticplus.eu/>

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INFORMATION TECHNOLOGY FOR EUROPEAN ADVANCEMENT

<https://itea3.org/>

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European Smart Electronic Systems

<http://www.euripides-eureka.eu/>

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Advantages of EUREKA Clusters:

- **Bottom-up**
 - Industry-driven and an opportunity for the participants to expand their network and entering new markets
- **Simple**
 - The easy and simple administration increases the potential of getting both large companies and SME:s interested in joining.
- **Agile process**
 - To follow the rapid industrial development within ICT, the pragmatic approach and the easy change request processes is appreciated.

ENTOC

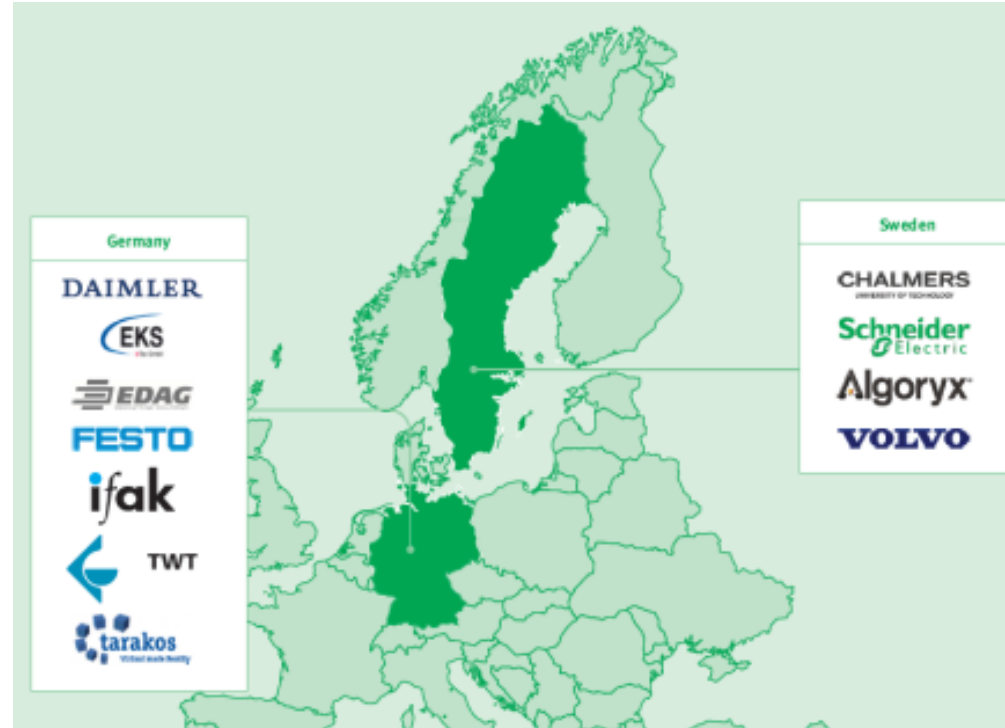
Engineering Tool Chain for Efficient and Iterative Development of **Smart Factories**

Costs 8 M€
Effort 53 PY



ENTOC focuses on the engineering of smart factories as they are established in different domains with the goal of developing standardised modelling strategies and optimising the engineering tool chains used for complex production plants.

<http://entoc.eu/>



REVaMP²

Round-trip Engineering and **Variability Management** Platform and Process

Costs 22 M€
Effort 179 PY



REVaMP² aims to conceive, develop and evaluate the first comprehensive automation tool-chain and associated executable process to support round-trip engineering of SIS (Software-Intensive Systems and Services) Product Lines and thereby helping to profitably engineer mass customised products and services in virtually any economic sector.

<http://revamp2-project.eu/>



TESTOMAT

The Next Level of **Test Automation**

Budget 18,3 M€
Effort 171 PY



The TESTOMAT project will support software teams to strike the right balance by increasing the development speed without sacrificing quality. The project will ultimately result in a Test Automation Improvement Model, which will define key improvement areas in test automation, with the focus on measurable improvement steps.

www.testomatproject.eu



Digital Sweden - Gateway to the International ICT arena



Vinnova supports Digital Sweden



Gateway to Swedish ICT collaboration

Help with finding the right Swedish project partners/organisations, ...



Gateway to the International ICT arena

Help finding your way among all the International ICT programs, ...

What is Digital Sweden



*Power gathering of Swedish ICT for advocacy in Brussels
and increased cooperation in Sweden and abroad*

Our goals:

- Streamline the Swedish influence on EU's ICT work programmes.
- Highlight and promote the Swedish ICT both nationally and internationally.
- Stimulate an increased cooperation between ICT areas in Sweden.
- Support and stimulate the Swedish participation in international RDI programmes, primarily within ICT.

Organisations behind DS

*Strategic
Innovation
Programmes*

**Smartare
Elektroniksystem**
ELECTRONIC COMPONENTS & SYSTEMS



VINNOVA

*Research
Institutes*



swerea|IVF

*Branch
Organisations*



**SVENSK
ELEKTRONIK**

PhotonicSweden
The Swedish Technology Platform in Optics and Photonics



SWEDSOFT

International ICT events 2018

European ICT calls closures 2018

Date	Program	Focus	Activity
31 January	EU LEIT-ICT	Information and Communication Technologies	Several calls closes
13 February	EUREKA PENTA	Micro and Nanoelectronics systems	Annual PO call closes
1 March	EUREKA Eurostars	International SME R&D cooperation	Spring call closes
12 March	EUREKA EURIPIDES ²	Smart electronic systems	Spring PO call closes
17 April	EU LEIT-ICT	Information and Communication Technologies	Several calls closes
23 April	EUREKA Celtic-Plus	Smart connected world	Spring call closes
May	EU ECSEL JU	Electronic components and systems	Annual PO call closes
7 June	EUREKA EURIPIDES ²	Smart electronic systems	Spring FPP call closes
28 August	EU LEIT-ICT	Information and Communication Technologies	Several calls closes
13 September	EUREKA Eurostars	International SME R&D cooperation	Autumn call closes
September	EU ECSEL JU	Electronic components and systems	Annual FPP call closes
24 September	EUREKA EURIPIDES ²	Smart electronic systems	Autumn PO call closes
15 October	EUREKA Celtic-Plus	Smart connected world	Autumn call closes
October/November	EUREKA ITEA 3	Software-intensive systems and services	Annual PO call closes
14 November	EU LEIT-ICT	Information and Communication Technologies	Several calls closes
3 December	EUREKA EURIPIDES ²	Smart electronic systems	Autumn FPP call closes

International ICT events 2018

Date	Place	Program	Activity	Comments	Information
6-7 Feb	Berlin, Germany	ECSEL-JU Calls and selected H2020 Calls	ARTEMIS brokerage event	Brokerage event. Embedded Intelligence (Embedded & Cyber-Physical Systems, Internet of Things and Digital Platforms)	https://artemis-ia.eu/brokerage-2018.html
8 Feb	Berlin, Germany	ECSEL-JU Calls and selected H2020 Calls	EPoSS Proposer's Day & inSSight Brokerage Event	Brokerage event. Smart Systems Integration and integrated Micro- and Nanosystems	https://www.smart-systems-integration.org/public/news-events/events/eposs-proposer2019s-day-inssight-brokerage-event-2018/proposers-day-2018
14 Feb	Helsinki, Finland	All	Swe-Fin joint ICT/Digitalisation project planning workshop	Workshop for identifying bilateral and European projects to ECSEL, EUREKA, ITEA3, Celtic Plus, Euripides2, PENTA, H2020	https://tapahtumat.tekes.fi/tapahtuma/sweden_finland
22-23 Feb	Brussels, Belgium	All	European Industry day	The event will give an update on the Commission's strategic approach to industrial policy and actions to further develop industrial competitiveness in Europe.	https://ec.europa.eu/growth/content/second-european-industry-day_en
6 March	Warsaw, Poland	EU ECSEL-JU	ECSEL call forum	EU ECSEL-JU brokerage event	http://www.ecsel.eu/events
22-24 May	Helsinki, Finland	EUREKA	Eureka Innovation Days	Focus on Smart mobility, Smart health, Smart energy, Smart industry	http://eurekainnovationdays.org/
18-22 June	Brussels, Belgium	EU ECSEL-JU	ECSEL Symposium 2018	ECSEL funded projects present their progress and results	http://www.ecsel.eu/events
4-5 Sept	Stockholm, Sweden	EUREKA ITEA3	ITEA 3 Project Outline preparation days	Brokerage event ITEA 3. Software-intensive systems and services.	https://itea3.org
20-22 Nov	Lisbon, Portugal	EU ECSEL-JU	EF ECS 2018	The European Forum for Electronic Components and Systems	https://efecs.eu/
4-6 Dec	Vienna, Austria	EU Horizon 2020	ICT 2018	The key European ICT research and innovation event organised by the European Commission	https://ec.europa.eu/digital-single-market/en/news/save-date-ict-2018-event-will-take-place-4-6-december-2018-vienna

Sveriges innovationsmyndighet



**Vi stärker Sveriges innovationskraft för
hållbar tillväxt och samhällsnytta**

www.vinnova.se