



SmartAnythingEverywhere

European Initiative
Smart Anything Everywhere



Smart Anything Everywhere Initiative

Offers – Experiences – Challenges

Smart Anything Everywhere Initiative



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Innovation Actions (Hubs as one-stop-shops) to provide companies, in particular **Small and Medium-sized Enterprises (SMEs)**, with access to

- ✓ knowledge & network
- ✓ resources & technologies
- ✓ training & best practice examples
- ✓ finance & funding opportunities

in order to **enable digital innovation**

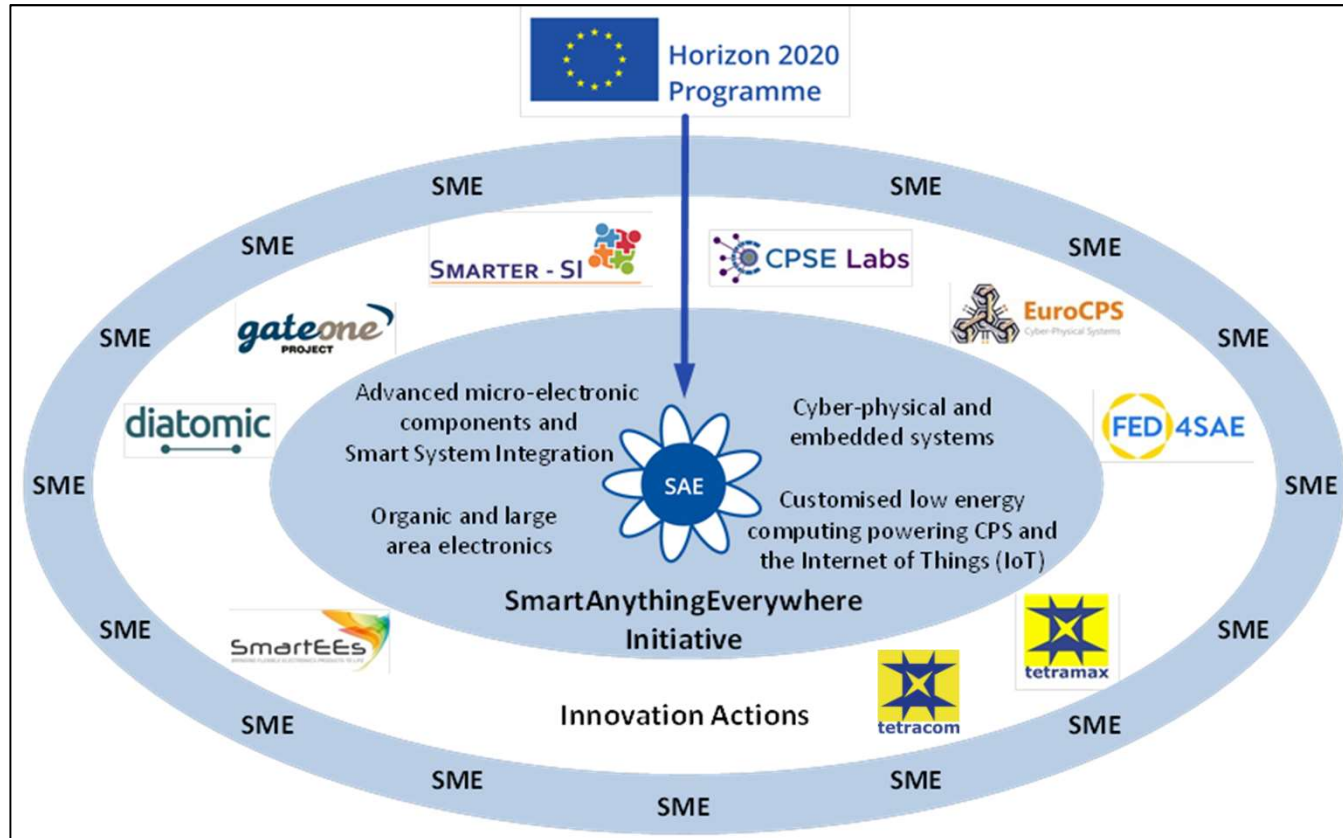
Adapt existing technologies to specific needs of SMEs, by running smaller projects (Application Experiments), using cascade funding



SAE: Thematic Areas / IAs



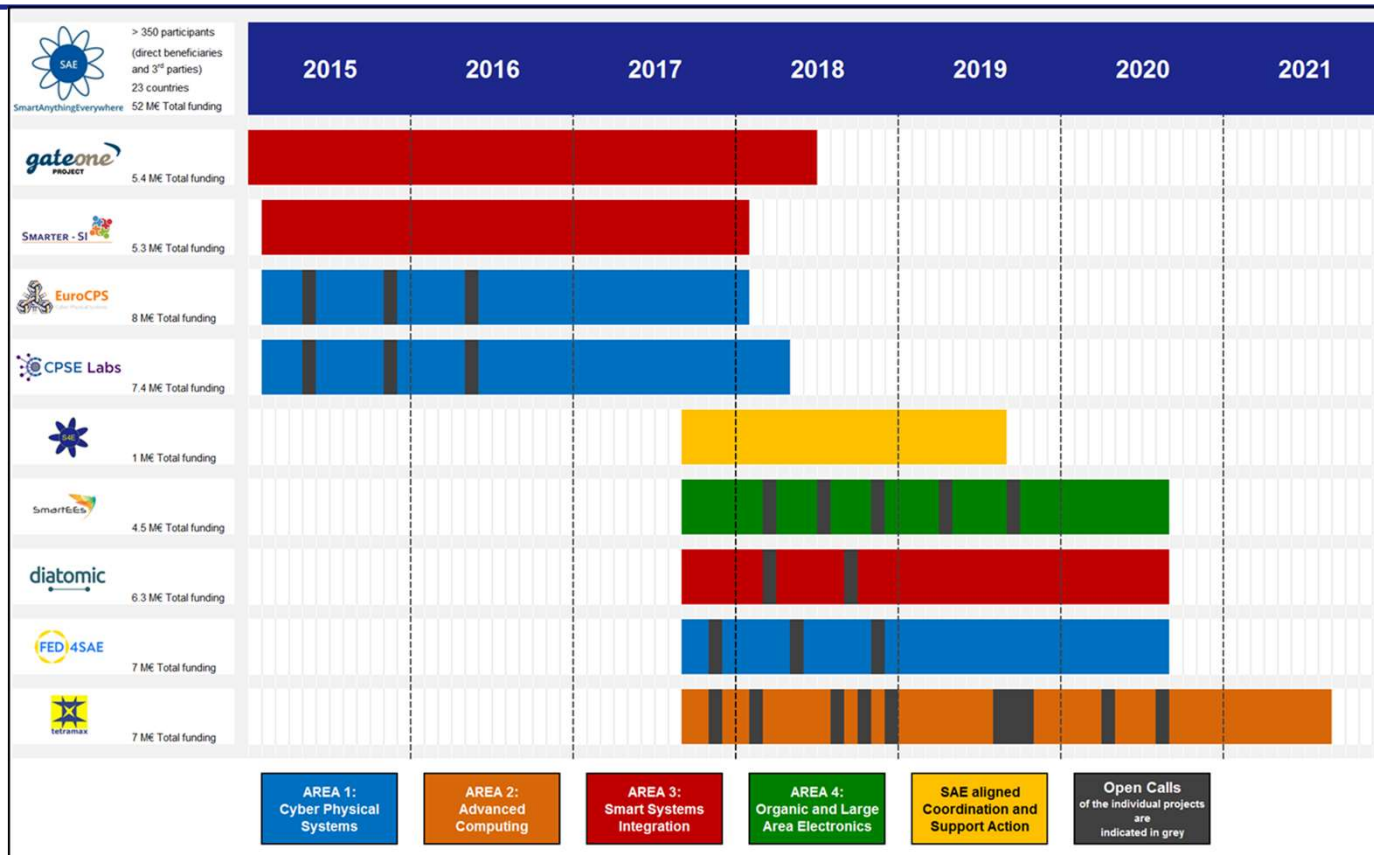
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SAE Timelines and Open Calls



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Running SAE projects

Focus

Customized low-energy computing powering CPS and IoT

Mission

Build up and leverage a European Competence Center Network in customized low-energy computing

Provide easy access to novel CLEC technologies

Bidirectional interaction between SME and academia

Offer

support 50+ industry clients and 3rd parties with innovative technologies by using different kinds of Technology Transfer Experiments (TTX)

www.tetramax.eu

Fields of Application

- HW customization
- MEMS
- Multicore design
- Multimedia processing
- Heterogeneous computing
- IT security
- Wireless communications
- Compiler technologies
- Open source data generation technologies
- Reliability and dependability
- SW development
- Human/Machine Interfaces
- Multicore design
- Positioning technology
- and many more

Focus

Cyber-physical and embedded systems (CPS)

Mission

Accelerating CPS solutions to market by creating a pan-European network to enable startups, SMEs and midcaps to use CPS platforms combined with expertise and know-how from the R&D Advanced Platform

Offer

- Provide a complete solution including software and hardware tested in market environment
- Support and guidance from conceptual design to market launch

www.fed4sae.eu

Fields of Application

- Smart wellbeing and health
- Smart city
- Smart manufacturing
- Smart transportation
- Smart mobility
- Smart energy



SpectroX Dermoscope

Focus

Flexible Electronics

Mission

Create a competitive advantage by providing access to Flexible Electronics technologies & business support for accelerating innovation and digitisation of European SME and mid caps

Offer

- One-stop-shop for the adoption and integration of Flexible Electronics into novel product concepts
- 20 Application Experiments to explore the transfer of technology to business through 20 novel product prototypes

www.smartees.eu

Fields of Application

- OLED lighting
- Organic photovoltaics
- Flexible and OLED display
- Electronics & Components and Integrated Smart Systems



Focus

Advanced micro-electronic components (AME) and Smart System Integration (SSI)

Mission

From experimentation and prototyping to full-scale commercial deployment: Create a competitive advantage by providing access to disruptive technologies and business support for innovation adoption

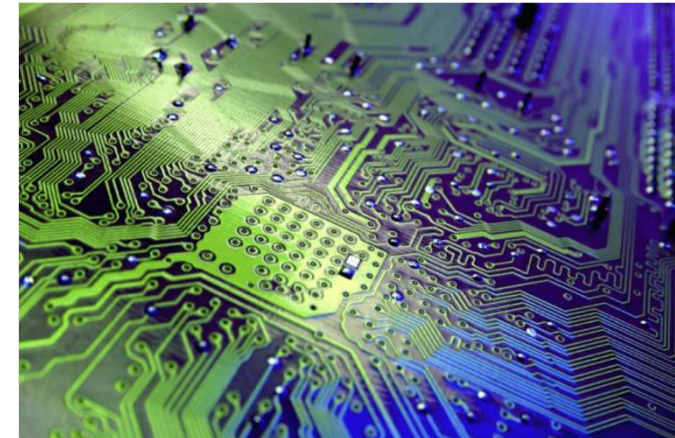
Offer

- Strong technological support to accelerate novel application development, prototyping & experimentation
- Business support to develop solutions with a robust product / market fit and chart the path to market growth

www.diatomic.eu

Fields of Application

- Health
- Agrifood
- Manufacturing





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Success Stories resulting from finished SAE projects

Success Story

Problem:

Integrate existing but legacy machine tools into digital production chains

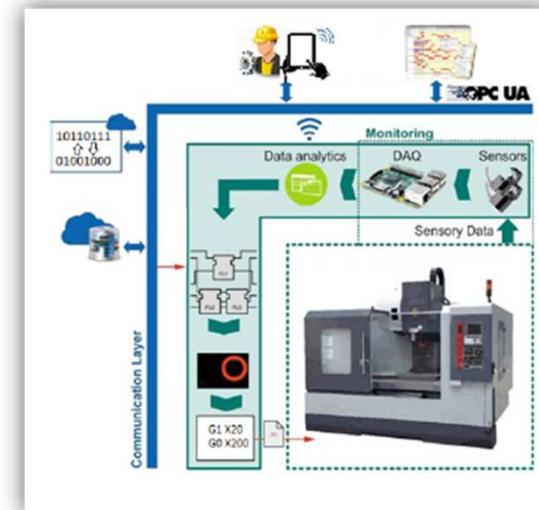
Solution:

Development and verification of necessary toolset to support integration. “Shell” augments legacy machine tools through a set of interfaces to embed into an advanced Cloud Manufacturing environment

Outcome:

- Adapt large investments in machine tools for future digitized usage
- Additional revenue of 0.5 M€ for SME expected until 2023

www.cpse-labs.eu



Partners:

- FormTec GmbH (SME, DE)
- University of Patras (RTO, EL)
- Cranfield University (RTO, UK)
- fortiss (RTO, DE)

Success Story

Problem:

Growing number of bio-medical samples to be processed and stored requires reliable and secure identification of test tubes in entire laboratory ecosystem

Solution:

RFID-tagged test tubes ensure reliable and secure monitoring, tracking samples movement with continuous quality assurance

Outcome:

- Highly automated workflows for high throughput laboratories esp. for infectious diseases as STD and HPV screening
- SME expects to boost revenue by up to 2 M€ over next 5 years

www.eurocps.org



Partners:

- Neumann Diagnostics Ltd. (SME, HU)
- Intel (LE, IE)
- BME (University, HU)

Success Story



Problem:

Continuous glass cutting problem in the production process

Solution:

Optimization of design
Transfer AI-based technology

Outcome:

- Considerably improved process
- Considerably improved energy efficiency
- Reduction of material losses
- Significantly increased competitiveness
- Cost saving: ca. 150 k€ per year

www.tetracom.eu



Partners:

- AGC Flat Glass Ibérica (SME)
- University Polytechnics of Valencia

Success Story

Problem:

Identification of recyclable plastics (waste management) or discrimination between water and ice on the road

Solution:

an Hyperspectral camera resulting from the integration of NIT's infrared sensor combined with VTT's tunable filter technology

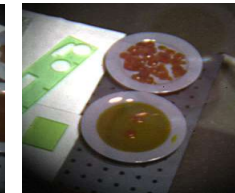
Outcome:

- Full cube of high contrast images with different focal lengths
- Images collected range from 1100 to 1600 nm frame-by-frame with full control of required wavelength
- Further use cases such as ice detection on roads or detecting underlying painting layers

www.gateone-project.eu



Plastic sorting



Ice detection

Partners:

- NIT (SME, FR)
- VTT (RTO, FI)
- Blumorpho (DIH, FR)

Success Story

Problem:

Clutch-brakes transfer motion from a motor flywheel
Wear checks create significant downtime cost

Solution:

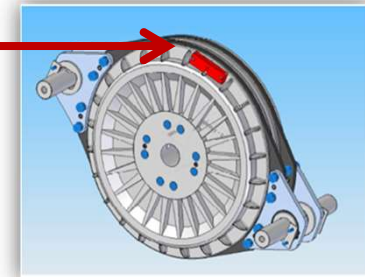
Smart sensor system allows predictive maintenance:

Break pad monitored by distance transducer and temperature sensor,
low energy electronics for data processing and wireless transmission
empowered by kinetic energy harvester

Outcome:

- 2.000 units per year planned
- Added functionality expected
- Increase revenues by 1 M€ over the next 5 years

www.smarter-si.eu



Partners:

- Goizper (SME, ES)
- IK4-IKERLAN (RTO, ES)
- Hahn-Schickard (RTO, DE)

SAE achievements



Open Calls (cascade funding) resulted in:

- ✓ Collaboration in > 200 Application Experiments between research organisations and businesses, especially SMEs
- ✓ Involvement of > 400 companies,

... and half a dozen new Innovation Actions are coming soon!

More success stories can be found on <https://smartanythingeverywhere.eu/success-stories/>

Lessons learnt



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- ✓ Innovation Actions (IAs) are a very effective instrument
- ✓ Cascade Funding is very SME-friendly
- ✓ Most Hubs are linked on European level and therefore can provide transnational links to SMEs

Challenges ahead



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- ✓ How to leverage results?
 - Reuse of building blocks
- ✓ How to reach many more SMEs?
 - European Hub network
- ✓ Other Funding Programmes, providing 30 - 100 k€ / AE?
 - Regional Programmes, Interreg, etc.



Smart4Europe CSA



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INNOVATION PORTAL – CENTRAL CONTACT
POINT – SERVICE CENTRE – MARKET PLACE

in order to

- network the DIH network of IAs
- share **Best Practice** and **Experience**
- facilitate **Brokerage**
- coordinate **Communication & Dissemination**
- leverage **Investment** and stimulate **Growth**
- identify new **Technologies**
- link to other **Digitisation Initiatives**



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„Smart4 Europe“ is a Coordination and Support Action aligned to the „Smart Anything Everywhere“ Initiative of the European Commission. The project has received funding from the European Union’s HORIZON 2020 research and innovation programme under grant agreement No 761448



Get in touch with us



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Approach us at this meeting 😊

Visit our website:

<https://smartanythingeverywhere.eu>

Contact us: SAE@smartanythingeverywhere.eu

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<https://smartanythingeverywhere.eu/sae-membership/>

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Thank You!



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