The SAE Initiative

Rainer Günzler, Hahn-Schickard

Why „Smart Anything Everywhere"

EC communication "Digitising European Industry":

Goal: ensure that any industry in Europe, wherever situated and in any sector can fully benefit from digital innovations

H2020 instrument "Innovation Actions"

Common Goals of SAE Innovation Actions

Hubs (one-stop-shops) to provide companies, in particular SMEs, access to knowledge, resources, training, ..., finance, in order to enable digital innovation

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

What SAE achieved… so far

Open Calls (cascade funding) resulted in:

Collaboration in > 100 Application Experiments between research organisations and businesses, especially SMEs
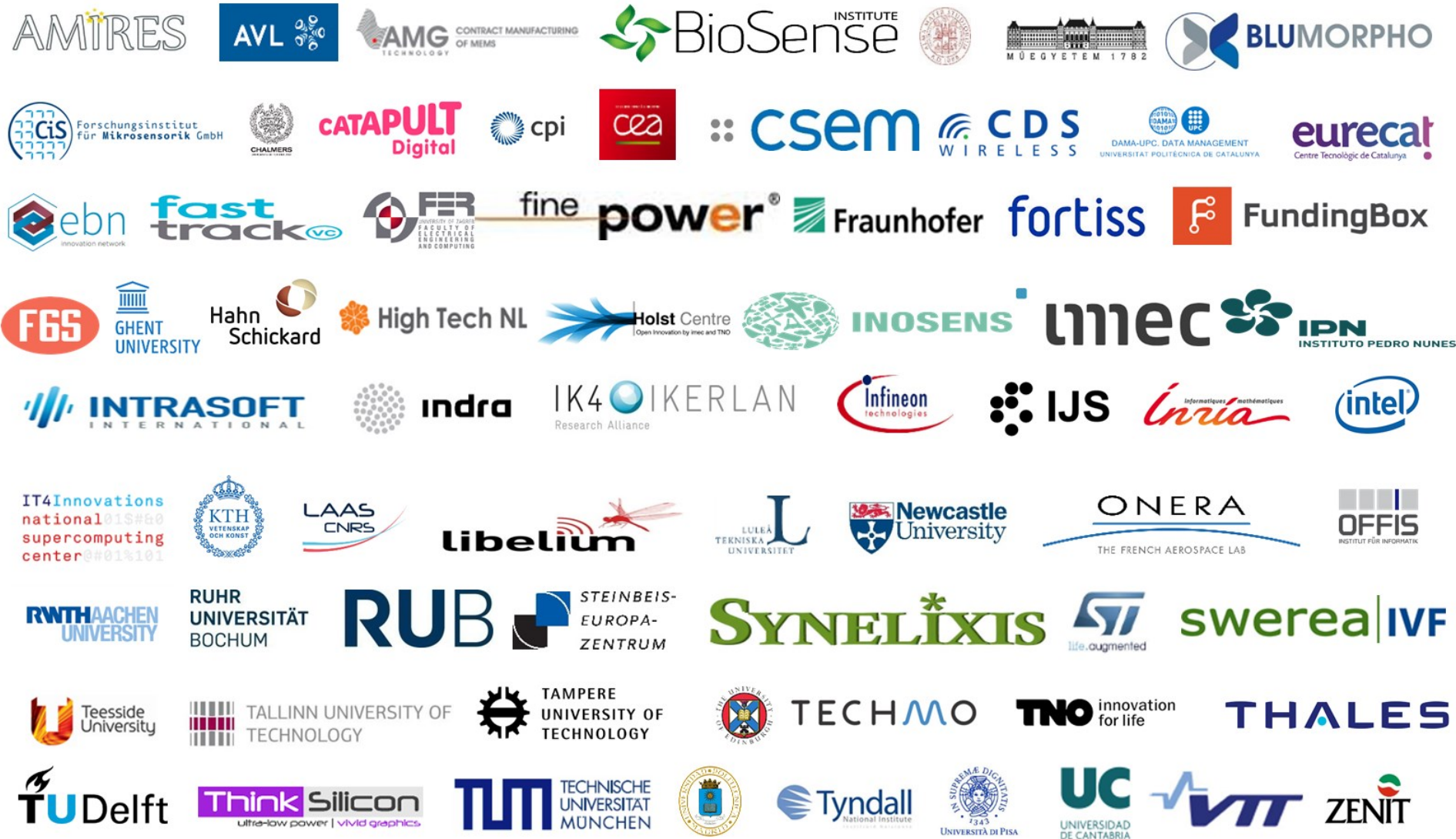
Involvement of > 200 companies, covering the fields of embedded and CPS, IoT, advanced microelectronics and SSI, low energy computing and OLAE

Numbers to double: 4 new IAs started this month

Digital Innovation Hubs in SAE

Areas / Projects / DIHs in SAE
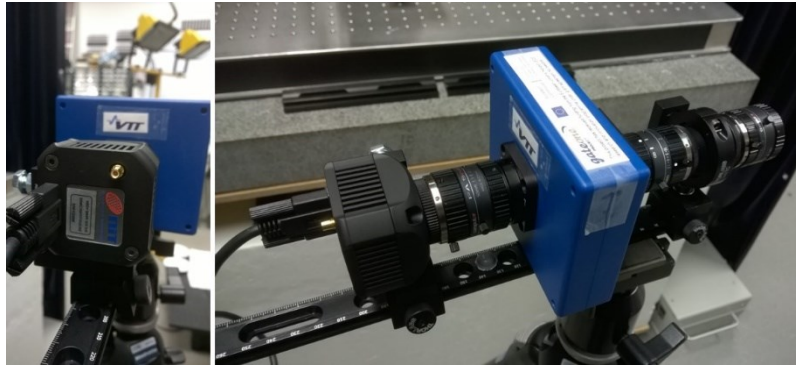
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Cyber-Physical Systems	EuroCPS, CPSE Labs, FED4SAE	36 hubs (15+8+13)
Smart Systems Integration	Smarter-SI, Gateone, DIATOMIC	25 hubs (7+9+9)
Advanced Computing	TETRACOM, TETRAMAX	46 hubs (34+12)
Organic and large area electronics	COLAE, SMARTEES	30 hubs (20+10)

More info soon on: www.smartanythingeverywhere.eu

Success Stories
from the SAE Initiative

Gateone Success Story

- NIT in partnership with VTT developed a SWIR Hyperspectral camera
  - From 1100 to 1600nm
  - 320x256 pixels
  - < 20nm in FWHM
  - High contrast solution on the whole wavelength range

- Evolution from Dual wavelength to Hyperspectral camera

- Application: Discrimination of ice vs water - plastic identification

- NIT signed a development contract from a large customer to develop the integrated version of the camera for drone

- VTT and NIT entered into a long term partnership

- Customer sampling (revenue) starts in 2018

- Product will exceed M€ revenue in 2020

TETRACOM Success Story
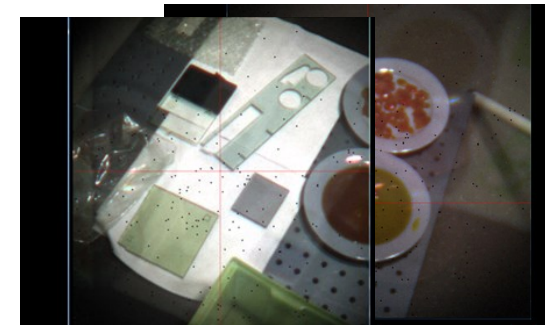
Design + transfer artificial intelligence-based technology for optimizing the continuous glass cutting problem in the production process

Results
- Considerably improved process + energy efficiency
- Reduction of losses
- Significantly increased competitiveness
- Cost saving: ca. €150,000 per year

Partners
University Polytechnics of Valencia, AGC Flat Glass Ibérica (SME)

Smarter-SI Success Story „Clutsen"

Clutch-brakes transfer motion from a motor flywheel

Currently wear checks create significant downtime cost

Novel smart sensor system allowing predictive maintenance: inductive distance transducer, thermocouple temperature sensor, kinetic energy harvester, low energy electronics for data processing and wireless transmission

Goizper plans for 1.500 – 2.000 units per year

Added functionality is expected to increase revenues by 1 M€ over the next 5 years

End user: Goizper (SME, ES)

Technology providers: IK4-Ikerlan (RTO, ES), Hahn-Schickard (RTO, DE)
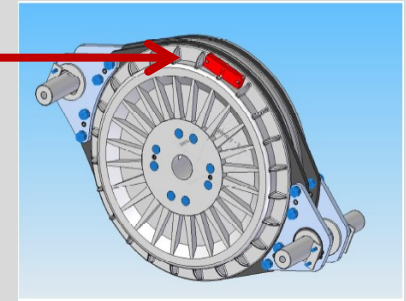
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Thank you for your attention!

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