

Aeneas

Engage in the digital future

SME MEMBERS DIRECTORY



FOREWORD



CAROLINE BEDRAN
AENEAS Director General

AENEAS is an Industry Association, established in 2006, whose purpose is to promote Research, Development and Innovation in order to strengthen the competitiveness of the European industry in the field of Electronic Components and Systems.

AENEAS brings together RD&I partners from Large Enterprises, SMEs, Research Institutes and Universities active all along the Electronic Components and Systems (ECS) value chain.

SMEs are an essential part of our innovation ecosystem. They bring new ideas and an entrepreneurial approach to the industrial community. They are the bedrock of the economy.

By participating in collaborative projects in partnership with Large Enterprises, Research Institutes and Universities, they provide specific knowledge and contribute to deliver very innovative and competitive solutions to the market. Together with their partners, they create economic and societal impact well beyond the boundaries of the project.

AENEAS offers a variety of services helping its members to benefit from a dynamic RD&I ecosystem and plays a pivotal role in stimulating a higher involvement of SMEs in collaborative projects. By organizing events and consortium building sessions, AENEAS provides its members with large networking opportunities. By working closely with the

European Commission and the Members States, AENEAS helps to shape the future funding instruments, based on the ECS Strategic Research Agenda prepared by Industry. In the two programmes in which AENEAS is currently involved, the tripartite ECSEL Joint Undertaking under H2020 and the EUREKA PENTA Cluster, AENEAS supports its members, and particularly SMEs, to participate and increase their footprint, in projects well adapted to their needs.

In order to improve visibility and advertise for SMEs skills, AENEAS is editing this directory. All SMEs which are members of AENEAS can be part of it, it is a living document which will be regularly updated online on the AENEAS website.

I hope you will find it useful to extend your network and wish you all the best in your RD&I endeavours!

SME MEMBERS DIRECTORY

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Created in
1994



Company Location
Israel



Employees
65

Acktar is a world technology leader in the development, industrialisation and production of light absorbing Black coatings based on vacuum deposition technologies. Our coatings are integrated in the most sophisticated systems in space as well as in daily used technology.

Acktar Ltd. is located in Israel, with subsidiaries in Germany, Japan and Korea.

POSITIONING IN THE ELECTRONICS VALUE CHAIN

Acktar is an equipment manufacturer and a service provider.

RD&I COLLABORATIVE INNOVATION INVOLVEMENT

Acktar's most recent involvements are "UPHO" in Eureka program collaboration with two Germany based partners & "IqClock" from the Horizon 2020 program. Also previously involved in FP7 with projects NEXT-GTL, CARENA and CoMETHy.

TECHNOLOGICAL EXPERTISES

Parts of optical systems, light absorbing tapes, high specific surface area coatings, cold shields & IR detectors parts, emitters, blackbodies, thermal radiators for thermal control system, parts for thermographic cameras, night vision systems, radiation absorbing layers for temperature sensors, heat dissipation coatings, high capacitance anode & cathode foils.

MARKETS

Optical components,
Nanotechnology,
Sensors, detectors, lasers,
Semiconductors, optoelectronics,
Automotive

LOOKING FOR PARTNERS AND EXPERTISES

Looking to team-up with companies from a variety of fields for innovative collaboration.

MORE INFORMATION



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advico is an ASIC design house, R&D and EDA service provider for analog, high frequency and broadband designs, sensors, radiation hard circuits etc. using various Silicon BiCMOS and CMOS technologies.

advico also offers IP such as for circuit blocks, monolithic optical polarization filters for angle sensors or image sensors (POLDI), or radar polarization sensors (TRAPS).

POSITIONING IN THE ELECTRONICS VALUE CHAIN

advico is a service provider for IC design, circuit and patent IP, and R&D

RD&I COLLABORATIVE INNOVATION INVOLVEMENT

advico's R&D has been both commercially and publicly funded (FP7, BMBF, DLR, ESA, ZIM, ..), e.g. fiber-communication, optical and radar sensors, medical devices, wireless, radhard data converters and DC/DC

TECHNOLOGICAL EXPERTISES

CMOS, SiGe BiCMOS, analog and RF, wideband linear circuits, data converters, digital filters and pseudorandom generators, modeling of passives (PEEC,FEM), modeling of sensors, optical sensors design, photonic filter design, modeling of radiation effects, EDA tool programming, PDK programming, integrated optical polarization sensors, integrated radar polarization sensors

MARKETS

Optoelectronics, Fibercom (for data center, metro, WAN networks, free-space optics), Industrial and automotive sensors (angle, speed, distance, position, etc.), Sensors for home appliances, surveillance etc., Medical devices and implants, RF and Radar, Satellite and nuclear research (radhard design), EDA

LOOKING FOR PARTNERS AND EXPERTISES

Services: customers with challenging tasks POLDI, TRAPS: partners for realizing advanced bearingless encoders, integrated motor feedback solutions, advanced image sensors, radhard sensors, automotive sensors

MORE INFORMATION

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Created in
1995



Company Location
Turku, Finland



Employees
35

Afore Oy designs and delivers intelligent test solutions for MEMS sensor testing and devices requiring application specific test solutions. We offer systems for device characterisation during development, wafer sort and final test. Sensor test solutions provide physical stimulus like motion, pressure, humidity and gas concentration. Afore operates globally and production is in Finland.

POSITIONING IN THE ELECTRONICS VALUE CHAIN

Afore Oy is an equipment supplier and service provider

R&D&I COLLABORATIVE INNOVATION INVOLVEMENT

Involved in:

- PENTA project ESAIRO
- ENIAC projects APPLAUSE and EUROPAT-MASIP

TECHNOLOGICAL EXPERTISES

Providing wafer probe and device handling equipment with physical stimulus like motion, pressure and humidity for sensor test and calibration along the device development and production value chain.

MARKETS

MEMS sensor research and development.
Wafer sort for MEMS sensors and other devices.
Final test for MEMS sensors and other devices.

LOOKING FOR PARTNERS AND EXPERTISES

MEMS development
MEMS wafer level and final test
Thermal imaging and photonics devices

MORE INFORMATION



www.afore.fi



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Agileo Automation provides software and robotics solutions for production equipment. Agileo has developed A²ECF Framework to realize control software for robotized equipment (cluster tools) ensuring communication with users (GUI) and with factory IT systems (PLM and MES) specifically using SECS/GEM in semi-conductor industry. A²ECF can be considered as a digital twin of an equipment, being an Industry 4.0 enabler

POSITIONING IN THE ELECTRONICS VALUE CHAIN

Agileo Automation proposes consulting, software product and software services for production equipment manufacturers

RD&I COLLABORATIVE INNOVATION INVOLVEMENT

Agileo Automation has participated in 2 collaborative projects:

- OEDIPUS (EIT Digital): as a subgrantee from CEA to work on a use case for Industry 4.0 with Siemens & DFKI
- Productive 4.0 (ECSEL): 109 partners-19 countries- Agileo works on the assessment on OPC-UA, a standard communication architecture for Industry 4.0 compared to SECS/GEM standards

TECHNOLOGICAL EXPERTISES

Semi-conductor automation
Software engineering
Software framework
Interoperability
Communication standards
Industry 4.0
Robotics

MARKETS

Process, test or inspection equipment manufacturers (OEMs) from:

- Semi-conductor, Photovoltaic, MEMS, LED
- Electronics, SMT
- Optoelectronics, Laser
- Aeronautics
- Machining

LOOKING FOR PARTNERS AND EXPERTISES

Equipment manufacturers / Semi-conductor fabs / Advanced manufacturing / MES vendors / Research laboratory and companies with expertise in Industry 4.0, digital twin, interoperability, OPC-UA

MORE INFORMATION

www.agileo-automation.com



Marc Engel



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Created in
2017



Company Location
Madrid, Spain



Employees
5

ALTERIA AUTOMATION is an engineering company that designs & manufactures advanced embedded edge proprietary Industry 4.0 products (smart sensors & wireless connectivity nodes and gateways) for industrial condition-based predictive maintenance.

We resolve the issues created by collecting data from raw data sensors. Our technology pre-processes data at the source, saving 97-99% on the data payload before reaching the Database.

POSITIONING IN THE ELECTRONICS VALUE CHAIN

Alteria is an equipment manufacturer and service provider (Systems & Applications)

R&D & COLLABORATIVE INNOVATION INVOLVEMENT

Alteria has been & is active in:

- Collaboration with Fraunhofer Institute for Production Technology in Aachen (Predictive Maintenance on Industrial Cutting Machines)
- PENTA consortium with Infineon & Fraunhofer (biodegradable smart sensors)
- Spanish supported R&D (CDTI): Handheld Predictive Maintenance Device

TECHNOLOGICAL EXPERTISES

Smart Sensors: Vibration, Ultrasound, Temperature, Environmental, Inertial, Voltage, Current...
Data preprocessing at source (sensor)
Embedded Edge
Sensor Fusion / Data Homogenisation
Real Time / Time Synchronisation
Wireless Communication (Node & Gateway)

MARKETS

Industry 4.0
Industrial IoT
Predictive Maintenance
Machinery Condition
Smart Sensors
Industrial Wireless Communications

LOOKING FOR PARTNERS AND EXPERTISES

Specific industrial applications for our Smart Sensors:

- Rotary Machinery
- Robotic Applications
- Personnel Safety and Asset tracking
- Smart Composite Fiber optic

MORE INFORMATION



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CAIRDAC mission is to do the proof of concept, development, regulatory, clinical evaluation, manufacturing and commercialization of implantable communicating medical devices for the diagnostic and/or therapy of chronic diseases.

Such active implantable medical devices have severe constraints for power consumptions, size, longevity, reliability, robustness and resistant to cyberattack.

POSITIONING IN THE ELECTRONICS VALUE CHAIN

CAIRDAC is application oriented

RD&I COLLABORATIVE INNOVATION INVOLVEMENT

CAIRDAC was involved in smart-MEMPHIS H2020 project and is involved EnSO ECSEL project

TECHNOLOGICAL EXPERTISES

CAIRDAC has an extended expertise and in-house equipment for the development of biocompatible, autonomous and connected medical devices in harsh environment powered by a vibrational energy harvester coupled to a small rechargeable battery.

MARKETS

CAIRDAC is addressing the market of cardiac rhythm management

LOOKING FOR PARTNERS AND EXPERTISES

- ASIC development
- PCB development
- Assembly
- Energy harvesting
- Accelerometer
- Rechargeable battery
- RF communication
- Embedded software
- Cybersecurity
- Reliability robustness

MORE INFORMATION

www.cairdac.com



Renzo Dal Molin



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Created in
1999



Company Location
Austria (Klu, Grz)
USA
(Mountain View, CA)



Employees
45

Adding TRUST in a connected world

CISC Semiconductor, established in 1999, is an international operating and highly awarded company that provides competitive and innovative products and engineering solutions to increase performance, conformance, interoperability, security and privacy in communication technologies.

POSITIONING IN THE ELECTRONICS VALUE CHAIN

CISC's value chain includes: Systems, Applications and Equipment (Testing)

RD&I COLLABORATIVE INNOVATION INVOLVEMENT

More than 50 joint national and international R&D projects (several hundreds person-years R&D investment) in European programs such as H2020 (FP7), ECSEL, EUREKA ...

TECHNOLOGICAL EXPERTISES

Wireless communication (BLE/UWB)
IoT/CPS
RFID/NFC Design and Test
International standardisation
Human Centric Design
Security and Privacy

MARKETS

Automotive
RFID/NFC
Semiconductors
Wireless Communication
Smart Production

LOOKING FOR PARTNERS AND EXPERTISES

Semiconductor Manufacturer
Automotive Tier1 and OEMs
Smart City Service Provider
Telecommunication Equipment &
Consumer Electronics
RFID/NFC product vendors (tags, chips, systems)
RFID/NFC users (e.g. automotive, aviation, retails)

MORE INFORMATION



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D4T Systems offers highly specialized software products for IC test verification and test automation focused on analog mixed signal. Customer key benefits include first time right test programs, evaluating “what-if” test scenarios and our modelling approach leads to fast simulation and test integration. We provide services on our tools and help customers in new test technology projects with fast software prototyping and data analysis.

POSITIONING IN THE ELECTRONICS VALUE CHAIN

D4T systems is a software product and service provider for architectural and chip design

RD&I COLLABORATIVE INNOVATION INVOLVEMENT

D4T systems has active involvement in the following: PENTA: HADES for systems manufacturing chip test.

ENIAC JTI: ELESIS for embedded chip test instrument verification

CATRENE: TOETS for one integrated chip test solution

TECHNOLOGICAL EXPERTISES

EDA test simulation, IEEE test standard integration and simulation, chip test data analysis with fast prototyping software engineering

MARKETS

Semiconductor processing, test equipment and chip design (ODM) suppliers for high quality, high demanding applications :

- Industrial,
- Automotive,
- Healthcare

LOOKING FOR PARTNERS AND EXPERTISES

We welcome partnerships with semiconductor process and test equipment, chip design and design service providers.

MORE INFORMATION

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Leon van de Logt 
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EAAT GmbH has been a competent and reliable partner in the development and production of electrical automation and drive technology for more than 25 years. We offer our customers tailor-made solutions in the areas of power electronics, electric direct drives and magnetic bearings. EAAT is both a design engineering firm and a manufacturing company.

POSITIONING IN THE ELECTRONICS VALUE CHAIN

EAAT is a systems and applications developer and user

RD&I COLLABORATIVE INNOVATION INVOLVEMENT

EAAT is involved in the innovative use of electronics and electrical components for the development and production of high-tech products in the areas of power electronics, direct drives and magnetic bearings.

TECHNOLOGICAL EXPERTISES

- Hardware development
- Variable Frequency Drives
- Power Supplies
- Current & Voltage Sources
- Software programming
- Micro Controllers
- User Interfaces

MARKETS

- Industry
- Energy
- Semiconductors
- Nanotechnology
- Aerospace
- Agriculture
- Mining

LOOKING FOR PARTNERS AND EXPERTISES

- Component Developers & Manufacturers
- System Integrators
- Custom Product Designers
- Semiconductor Manufacturers
- Motor Manufacturers
- Capacitor Manufacturers

MORE INFORMATION

www.eaat.de



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Created in
2015



Company Location
Unterhaching,
Germany



Employees
15

Eesy-innovation GmbH works in the field of electronic systems design and develops sensor nodes and communications systems for private and institutional use. Its focus of the business activities goes to the development of products in the field of IoT for Smart Home, Smart Health and Safety and Security applications. In addition to research activities, eesy-innovation offers consulting solutions and has the potential to produce small series of innovation solutions.

POSITIONING IN THE ELECTRONICS VALUE CHAIN

eesy-innovation works in field on system design and applications and as service provider

RD&I COLLABORATIVE INNOVATION INVOLVEMENT

Eesy-innovation has been active in the following projects:

- NexGen funded by Catrene: developing system for health care
- TreuFunk funded by BMBF: developing a microchip for industry
- Concordia funded by H2020: cybersecurity solutions

TECHNOLOGICAL EXPERTISES

- Electronics system design
- Sensor nodes development
- Wireless communication systems
- Development of IoT products for Smart Home, Smart Health and Safety and Security applications

MARKETS

- Smart Home Market
- Industry 4.0
- Medical sensors
- IoT Market

LOOKING FOR PARTNERS AND EXPERTISES

Universities for further collaboration

Cooperations partners from high tech industries looking for IoT expertise from demonstrators to high volume production

MORE INFORMATION



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hefner@eesy-innovation.com



Created in
2008



Company Location
Vancouver, Canada



Employees
12



EPIC Semiconductors (EPIC) is a fabless technology design firm founded in 2008 in Vancouver, Canada.

EPIC has developed a microscopic AI sensor chip featuring energy harvesting (this eliminates the use of toxic batteries) and bidirectional non-magnetic (RF-free) communication. Its small size allows it to be easily embedded into everyday objects, sensing “human actions, physical forces, chemical reactions and bio-effects”.

POSITIONING IN THE ELECTRONICS VALUE CHAIN

EPIC Semiconductors (EPIC) is a fabless technology systems design firm (IP architecture provider)

RD&I COLLABORATIVE INNOVATION INVOLVEMENT

EPIC is involved in confidential RD&I collaborations with leaders in global markets

TECHNOLOGICAL EXPERTISES

Proprietary self-powered (batteryless), contactless and wireless communicating technology (magnetic-free) for sensors and AI on chip

MARKETS

Automotive, home appliance, military, medical, retail, IoT, fitness, sensors and devices

LOOKING FOR PARTNERS AND EXPERTISES

OEMs, tiers, enablers

MORE INFORMATION

www.epic-semiconductors.com



Linda Zadeh



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Created in
2005



Company Location
Amsterdam,
The Netherlands



Employees
25

Evalan is an innovative development and application partner in the field of the Internet of Things. We work in close collaboration with our customers to achieve the best results possible.

Evalan focuses on remote monitoring, biometric measurements, and telemetric solutions for the healthcare, industry, and government sectors. We serve around 100 clients, ranging from large multinationals to small technology companies.

POSITIONING IN THE ELECTRONICS VALUE CHAIN

Evalan develops and implements IoT systems to add value to your business

RD&I COLLABORATIVE INNOVATION INVOLVEMENT

ECSEL: EnSO, ESEE

H2020: SINTEC

Catrene: NexGen

Eurostars: SACON, COMFORT

TECHNOLOGICAL EXPERTISES

We develop mobile devices, sensors, data management systems, data processing algorithms, and user interfaces for different platforms. We fully realize and implement the IoT platform. We can manage your IoT system and optimize the performance to make sure it keeps working safely and provides the data that is needed.

MARKETS

- Healthcare
- Industry
- Government
- Business
- High tech

LOOKING FOR PARTNERS AND EXPERTISES

Flexible electronics Printed electronics Structural electronics

MORE INFORMATION



www.evalan.com



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Excillum AB, is a leading SME in the field of high end micro- and nano-focus X-ray sources. We design, develop and manufacture world's brightness microfocus X-ray sources based on MetalJet technology, and smallest nanofocus X-ray sources based on advanced e-beam technology. Our products are available for applications such as diffraction/scattering (XRD, SAXS), spectroscopy (XRF, XPS), imaging (NDT, CT, XRM, phase contrast), etc.

POSITIONING IN THE ELECTRONICS VALUE CHAIN

Equipment (sub-system provider to OEMs)
Excillum AB designs, develop and manufactures X-ray sources.

RD&I COLLABORATIVE INNOVATION INVOLVEMENT

Excillum AB is and has been active in projects within different collaborative schemes such as:

ECSEL JU – MADEin4
EMPIR – NanoXSpot
HORIZON 2020 – (CITCOM, SME Instrument)
FP7 – (NanoXCT, EUROSTARS-EI!7892)

TECHNOLOGICAL EXPERTISES

Metal Jet anode for X-ray generation
Advanced Electron Beam
Micro - and Nano - focus X-ray sources
X-ray systems (source + optics)

MARKETS

Equipment (sub-system) manufacturer for different fields:

- Semiconductor industry
- Electronics industry
- Industrial imaging
- Medical, Pharma
- Additive manufacturing
- Industrial production (aerospace, automotive)
- Quality control
- NDT

Research: materials, bio&medical, X-ray method development.

LOOKING FOR PARTNERS AND EXPERTISES

X-ray system integrators, X-ray component suppliers (other than X-ray source), X-ray application users.

MORE INFORMATION

www.excillum.com



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Created in
1991



Company Location
Headquarters
Dresden, Germany



FABMATICS
Automate your success



Employees
220

Fabmatics is an experienced specialist for the automation of material flows and handling processes in semiconductor factories, semiconductor process plants and other high-tech production environments. The company has been successfully implementing customer-specific automation projects for more than 25 years. The product portfolio includes mobile robots, robot cells, automated transport and storage systems as well as product identification solutions.

POSITIONING IN THE ELECTRONICS VALUE CHAIN

Fabmatics is a material handling systems and service provider (Value Chain Category: Equipment).

RD&I COLLABORATIVE INNOVATION INVOLVEMENT

Fabmatics and its predecessor companies HAP and Roth & Rau – Ortner have actively participated in H2020 & ECSEL projects:

- Cool Fab and Cool Flow
- EPT300
- SEMI4.0 / Productive4.0:
- ADMONT
- SeNaTe

TECHNOLOGICAL EXPERTISES

Integrated automation competence for material handling, transport, storage and identification processes up to clean room class ISO3 / FED1

Mask Handling, also for EUV Lithography in < ISO 1 Environments

MARKETS

- Semiconductor Industry
- MEMS
- Sensors
- PCB-Manufacturing
- Pharmaceutical/Medical Technologies
- Optical Industry

LOOKING FOR PARTNERS AND EXPERTISES

Advanced semiconductor manufacturing / Material handling automation solutions for transport, storage and handling / Smart intralogistics / Intelligent material identification and tracking / Digitalization of automation engineering companies / Software for efficient control of automation systems

MORE INFORMATION



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Flexbright Oy is a Finnish high-tech startup company designing and manufacturing flexible, thin, light-weight & customizable LEDFOILs for large-area displays, media-walls & smart illumination. Roll-to-roll manufacturing process enables production of continuous LEDFOILs up to hundreds of meters long. Flexbright offers complete integrated solution, comprising of the LEDFOILs installation & control & power systems.

POSITIONING IN THE ELECTRONICS VALUE CHAIN

Flexbright is a LEDFOIL component supplier, Integrated system suppliers and Roll-to-Roll electronics manufacturing service provider

RD&I COLLABORATIVE INNOVATION INVOLVEMENT

Flexbright has been active in different RD&I schemes:

Delphi4LED, ECSEL-RIA-2016

Finnish National funded R&D:

- Flex-in-Glass,
- ELASTRONICS, "Enabling the future of wearable electronics, Design and assembly of electronics on stretchable circuit boards.

TECHNOLOGICAL EXPERTISES

- Printed and flexible electronics materials, manufacturing processes and design
- Roll-to-roll manufacturing
- Design and roll-to-roll manufacturing of customized thin & flexible LEDFOILs with RGB(W) dynamic lighting
- Structural integration of LEDFOILs using various techniques (canvas, plastic-encapsulation, injection-moulding, glass lamination etc.)
- Complete integrated system solutions

MARKETS

- Automotive glass
- Architectural lighting
- Electronics manufacturing

LOOKING FOR PARTNERS AND EXPERTISES

- New materials and components for flexible electronics (substrates, adhesives, LEDs, sensors, encapsulation)
- Roll-to-roll manufacturing processes and equipment
- New structural integration opportunities
- Novel large-area application innovations

MORE INFORMATION

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Hyperstone is a fabless semiconductor company focusing on NAND flash and SSD controllers. Hyperstone's DNA for the past 30 years has been developing and delivering high quality, reliable and innovative solutions and striving to enable its customers to produce world-class storage systems for industrial, embedded, automotive and global communication applications. The firmware is supplied with the controllers and is customised for each flash application.

POSITIONING IN THE ELECTRONICS VALUE CHAIN

Supplying chips, reference systems and application firmware.

RD&I COLLABORATIVE INNOVATION INVOLVEMENT

H2020-FP7 / ELITE (leader): Technology development for vertical die stacking/interconnect

BMBF / 03FH025IX5 (participant): ECC and Compression

PENTA / XSR-FMC (leader): platform to develop POC silicon for advanced flash memory controller

TECHNOLOGICAL EXPERTISES

- NAND Flash memory controllers
- NAND Flash Technology
- Error Correction Coding (ECC)
- Flash Translation Layer (FTL)
- Security (AES, SHA, Elliptic Curve, TCG Opal)

MARKETS

- Industrial Automation, Industrial IoT
- Automotive (IVI, DashCam, ADAS...)
- Transport solutions
- Telecom Infrastructure (24/7 uptime)
- Smallcells, nanocells
- Energy (distribution, grid management,...)
- PoS, Kiosk, Gaming
- Secure storages (all markets) , Medical

LOOKING FOR PARTNERS AND EXPERTISES

- Firmware development (security expertise)
- COT flow & Automotive Certifications
- Error Correction Coding
- Automotive Tiers-1 project partner for Disk-on-Board (DoB) solution development
- Channel modelling for flash memory
- Integrators and users of Flash based storage solutions (customisation, know-how transfer)

MORE INFORMATION

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Created in
1987



Company Location
Peynier Rousset,
France



Employees
80

IBS (Ion Beam Services) is an expert in ion implantation offering both state of the art equipment (IMC/ FLEXION Beam Line tools and PULSION Plasma Doping tool) and a range of services (implantation foundry, maintenance, refurbishment). IBS has a plant in France, subsidiaries in Scotland, US and Singapore. IBS has been involved with institutes and industrial customers in process development for advanced CMOS, power, sensors, optics, ...

POSITIONING IN THE ELECTRONICS VALUE CHAIN

IBS is an equipment manufacturer and a service provider

R&D&I COLLABORATIVE INNOVATION INVOLVEMENT

IBS has been and is active in projects within different collaboration schemes :

French supported R&D projects : SUPERSWITCH oriented to power devices, ISICELL and OXYGEN for efficient solar cell by ion implantation

FP7 or H2020 projects : SUPERTHEM for process simulation

ENIAC and ECSEL projects : EPPL, 450 EDL, PLACES2BE, SEMI40, TAKEMI5, OCEAN 12

TECHNOLOGICAL EXPERTISES

Ion implantation equipment

Gas boxes, ion sources, high voltage, mass selection, ion beam scanning, e-chuck, vacuum, automation.

Ion implantation and plasma processes.

Planar and 3D doping, material modification and process integration for nanoelectronics.

Silicon and wide gap power components processes

Sensors manufacturing

Plasma and ion beam surface treatment

Solar cells manufacturing

MARKETS

Physics and nanotechnology research.

Components manufacturing for different fields:

- Memory and logic
- RF and power
- Optoelectronics, lasers, detectors
- Sensors
- Radiation detectors

LOOKING FOR PARTNERS AND EXPERTISES

- Advanced semiconductor manufacturing
- Process integration
- 3D structure fabrication (High aspect ration trenches, FINFET, GAA wire or plates ..)
- Nanocaracterisation
- Process simulation
- Equipment part manufacturer

MORE INFORMATION



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Institute of Microelectronic Applications s.r.o. (IMA) is a limited private company founded in 1992. IMA deals with electronic identification and utilises smart cards, RFID/NFC, biometrics so as IoT / LPWANS. IMA is providing large ID systems in CZ. IMA systems are compliant with GDPR, ensuring privacy and personal data protection.

POSITIONING IN THE ELECTRONICS VALUE CHAIN

IMA is an equipment manufacturer system integrator and system provider.

RD&I COLLABORATIVE INNOVATION INVOLVEMENT

IMA is member of several international projects and provides practical demonstration of outcomes:

EUREKA (CORTIF, H2O, ESTABLISH), Eurostars (LSU, F2P, SACON), Penta (ESAIRQ) and ECSEL (MOTORBRAIN, 3CCAR, R3-PowerUP, Productive4.0, WAKEMEUP, SECREDAS, ENSO)

TECHNOLOGICAL EXPERTISES

Smart identifiers: cards Mifare, Desfire, Legic, mobile ID, BLE and applies RFID, NFC, UHF, BLE, Lora, GSM, sensors, LPWANS within own products and systems

MARKETS

IMA B2B and B2C customers are mainly from Czech Republic, Slovakia, Sweden, Poland, Russia, Baltic countries and Germany
Principal activity domains: ID systems, access control, automotive and smart cities / buildings

LOOKING FOR PARTNERS AND EXPERTISES

- System integrators
- Distributors (smart access control systems)
- Property developers
- Partners involved in standards for secure communication in automotive domain
- Partners for secure identification and IDM

MORE INFORMATION

www.ima.cz



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Created in
2013



Company Location
Stockholm,
Sweden



Employees
12

At Imagimob, we've invented a way to create AI applications that can run efficiently on small devices while still delivering the performance and accuracy typically only found in bigger systems. Combining inspiration from the machine learning field with our own innovations, each of our applications is designed with small MCUs, low CPU usage, and low memory consumption in mind.

POSITIONING IN THE ELECTRONICS VALUE CHAIN

Imagimob provides Edge AI Design tools and Applications

R&I COLLABORATIVE INNOVATION INVOLVEMENT

Imagimob is active in ECSEL project: AFarCloud

TECHNOLOGICAL EXPERTISES

- Edge AI application development
- Edge AI design tool development
- Sensors

MARKETS

Product companies aiming to transform to intelligent and autonomous products

LOOKING FOR PARTNERS AND EXPERTISES

- Sensor manufacturers
- Semiconductor manufacturers
- System integrators

MORE INFORMATION



www.imagimob.com



Anders Hardebring
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intoPIX is an innovative technology provider of image processing and compression solutions. We create and deliver market-leading technologies across all audio-visual applications where image quality is a crucial asset. Our FPGA/ASIC IP cores and fast SDKs enable to manage more pixels, preserve quality with no latency, save cost & power and simplify connectivity in many devices and workflows.

POSITIONING IN THE ELECTRONICS VALUE CHAIN

FPGA/ASIC IP-cores & CPU,GPU accelerated SDKs to build chips , systems and applications

RD&I COLLABORATIVE INNOVATION INVOLVEMENT

intoPIX is participating to several collaborative projects (PENTA programme, Eurostars, ...) with European partners in Broadcast, Industrial Vision, as well as various Universities & Research Centers.

TECHNOLOGICAL EXPERTISES

- Image processing
- Video compression
- Microelectronics (FPGA,ASIC)
- Software Acceleration (CPU,GPU)

MARKETS

- Media / Broadcast
- Industrial Vision
- Automotive
- Mobile
- Cameras

LOOKING FOR PARTNERS AND EXPERTISES

Positioned as technology provider, we are looking for partners to build new projects to continue to share our expertise and expand our knowhow markets with more RD&I collaborative project

MORE INFORMATION

www.intopix.com 

Jean-Baptiste Lorent 
jb.lorent@intopix.com



Created in
1972



Company Location
Baranzate, Italy
Catania, Italy



Employees
70

LPE is a manufacturer of equipment for depositing semiconductors thin layers using chemical vapor deposition (CVD). LPE's strategy concentrates on CVD reactors dedicated to severe applications such as Schottky, Power Transistor, PowerMos and very thick epi layers for IGBT devices both using silicon and silicon carbide. LPE has two plants in Italy and one subsidiary in China. During the years LPE has dedicated many resources to R&D to be always at the edge of the products working in partnership with institutes and industrial partners.

POSITIONING IN THE ELECTRONICS VALUE CHAIN

Equipment Manufacturer / Worldwide recognized leader supplier for Silicon and Silicon Carbide Epitaxial reactor manufacturer for power application

RD&I COLLABORATIVE INNOVATION INVOLVEMENT

LPE has been active in projects financed from different sources:

Italian R&D PON: EleGaNte (GaN on SiC), SiC4EEI (150mm SiC)

H2020: CHALLENGE

ENIAC/ECSEL: LASTPOWER, EPT300, R2POWER300, Semi40, REACTION

KiC Innoenergy: 3DSiC

TECHNOLOGICAL EXPERTISES

- Epitaxial reactors: silicon and silicon carbide.
- HTCVD and Sublimation equipment.
- Gas panels and cabinets. Bubblers for liquid precursors.
- Silicon and WBG processes: Epitaxy, LPCVD.
- Process simulation: CFD, EDG, FEM, Thermal
- Semiconductor characterisation.
- Software development: Realtime and SECS-GEM
- Project management

MARKETS

- Silicon Power devices
- Cool MOS
- IGBT
- SENSORS
- MEMS
- Silicon Carbide devices
- Schottky diodes
- MOSFET

LOOKING FOR PARTNERS AND EXPERTISES

- Equipment part manufacturer
- Automation manufacturer
- Process simulation

MORE INFORMATION



www.lpe-epi.com



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M3 Systems is specialized in reliable and accurate geolocation. Since its creation in 1999, it has been developing in the areas of Space / Defense (GNSS), Air Navigation (ATM) and now Land Transportation (ITS). Located near Toulouse, the company is also present in Brussels through M3 Systems Belgium. M3 Systems offers expertise, Test & Measurement software for the needs of innovative applications such as connected and / or autonomous systems.

POSITIONING IN THE ELECTRONICS VALUE CHAIN

M3 Systems is an Applications Provider, a Systems Provider and an IPs provider

RD&I COLLABORATIVE INNOVATION INVOLVEMENT

M3 Systems has been and is active in several projects among others:

ENIAC projects: THINGS2D0 for development of IPs on FDSOI technology

ECSEL projects: OCEANI2 for development of IPs on FDSOI technology

H2020 Projects: CPS4EU aimed to promote the development of Cyber Physical Systems

TECHNOLOGICAL EXPERTISES

- SDR IPs
- High Grade GNSS Receivers
- Ultra Precise geolocation systems
- High performance hybridization
- Signal Processing
- Test & Measurements

MARKETS

- Automotive
- Rail
- Space and Defense
- Maritime
- Drones

LOOKING FOR PARTNERS AND EXPERTISES

- RF partners
- Silicon vendors
- High Grade INS providers

MORE INFORMATION

www.m3systems.eu 

Pollina Marc 
Marc.pollina@m3systems.eu



Created in
2016



Company Location
Jena, Germany



Employees
7

mi2-factory develops, distributes and applies an innovative proprietary tool, called “energy-filter for ion implantation” (EFII). Customers use this novel technology as a process step for optimized cost performance of semiconductor power devices (especially of Silicon Carbide SiC). mi2 factory’s energy filter technology enables power device cost-performance increase (20-80%). EFII results in high levels of doping accuracy across SiC wafers and from wafer to wafer.

POSITIONING IN THE ELECTRONICS VALUE CHAIN

We are a service provider (energy-filtered ion implantation) for precise wafer doping.

R&D & COLLABORATIVE INNOVATION INVOLVEMENT

mi2-factory is involved in the Power2Power EU project. European power device manufacturer will profit from the results by enabling cost-performance improvements mainly for Silicon power devices, but also for SiC.

TECHNOLOGICAL EXPERTISES

EFII as a production tool, which is specifically tailored for every customer application. The EFII chip consists of a micro-patterned membrane. When used in ion implantation equipment EFII changes the energy distribution of high energy doping ions, such that the desired customer specific doping profile is produced in diodes, MOSFETs and superjunction. mi2-factory owns several patents.

MARKETS

In order to meet climate goals, conversion losses of electrical energy have to be minimized in the future. Modern SiC devices are elementary components for highly efficient power conversion in wind power, HVDC grids etc. EFII improves cost-performance of SiC diodes, power MOSFETs and SiC superjunction FETs. EFII is also applicable to Silicon or Galliumnitride.

LOOKING FOR PARTNERS AND EXPERTISES

- Device manufacturers: using our technology in own process steps for the production of microchips (e.g. SiC high-voltage diodes, MOSFETs and superjunction devices) with significantly improved efficiency
- Foundries, ion beam accelerator manufacturers and end-station manufacturers can implement the novel ion implantation technology for their customers.

MORE INFORMATION



www.mi2-factory.com



Florian Krippendorf

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Created in
2013



Company Location
Enschede
Netherlands



Employees
10

Qmicro offers high-tech solutions for gas analysis and diagnostics, enabled by micro chip technology (MEMS). Application areas for these solutions are industrial process control and automation, laboratory analysis and portable devices or sensors. Qmicro is engaged in customised manufacturing and OEM product supply.

POSITIONING IN THE ELECTRONICS VALUE CHAIN

Qmicro is a gas mixture analysis equipment manufacturer.

RD&I COLLABORATIVE INNOVATION INVOLVEMENT

Involved in PENTA project ESAIRO and several innovative micro technology application projects funded by EU or Dutch authorities.

TECHNOLOGICAL EXPERTISES

Expert in micro chip Gas Chromatography and its application in (non) explosion safe monitoring equipment for fast gas mixture analysis.

MARKETS

Industrial process, (petro)chemical, automation, (bio)gas, natural gas, hydrogen.

LOOKING FOR PARTNERS AND EXPERTISES

Looking for applications specialists for on-line monitoring of gas mixtures, hydrogen, emissions, gas purity.

MORE INFORMATION



www.qmicro.com



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RECIF Technologies designs, manufactures, distributes and maintains robotic handling equipment for highly sensitive environments dedicated to the semiconductor industry. Acknowledged as expert in wafer handling and innovative solutions, RECIF Technologies is dedicated to customers satisfaction and established in the main semiconductor industry regions to ensure proximity (USA, Asia, and headquarters in France).

POSITIONING IN THE ELECTRONICS VALUE CHAIN

RECIF Technologies is an equipment manufacturer – Automation AMHS

RD&I COLLABORATIVE INNOVATION INVOLVEMENT

RECIF is involved in collaborative programs for several technology nodes

ENIAC & ECSEL: E450LMDAP, Senate, Takemi5, TapeS3, Pln3S

Project leader in CATRENE programme : NGC450 & TSV-HANDY

TECHNOLOGICAL EXPERTISES

- Automation
- Heterogeneous wafer handling & 3D Packaging
- Atmospheric
- Front end / Back end

MARKETS

- Memory
- Logic
- Foundry
- OEM
- IDM

LOOKING FOR PARTNERS AND EXPERTISES

- Advanced semiconductor manufacturing
- Metrology & sensors experts
- Research Institutes

MORE INFORMATION

www.reciftech.com



Alain Jarre
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Created in
2001



Company Location
Hengelo
The Netherlands



Employees
21

REDEN BV is a Research & Development company that excels in simulation-driven product development and the development of Digital Twins. We support our clients in achieving a breakthrough in their product development. Based on our simulation models, we offer product developers better understanding of the relationship between production design and performance; the Digital Twin. We make performance predictable (design for 6 Sigma).

POSITIONING IN THE ELECTRONICS VALUE CHAIN

Reden is involved in new product and process development and optimising existing products and processes.

RD&I COLLABORATIVE INNOVATION INVOLVEMENT

Involved in PENTA project Hyb-Man.

TECHNOLOGICAL EXPERTISES

- Multi physics modelling & simulation
- Digital Twinning
- Design for 6 Sigma
- Artificial Intelligence

MARKETS

OEM's in machine Industry, consumer products, automotive and aerospace.

LOOKING FOR PARTNERS AND EXPERTISES

OEM's in different sectors, Big Data specialists.

MORE INFORMATION



www.reden.nl



Marco Ezendam
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ItoM is a Dutch system IP and semiconductor design centre with core expertise on mixed-signal IC design. As an independent design company, ItoM focuses on wireless connectivity, sensor data acquisition, and timing systems. ItoM is internationally recognised for its ground-breaking IP blocks, having a unique track record of innovations implemented for many leading semiconductor customers.

POSITIONING IN THE ELECTRONICS VALUE CHAIN

ItoM is an IC design company, active in architecture, chips and applications

RD&I COLLABORATIVE INNOVATION INVOLVEMENT

ItoM has been and is active in projects within different collaboration schemes: H2020 & Eurostars: SmartEEs, FICCaR

- PENTA: HEFPA
- FIWARE: FICHe, SmartAgriFood
- Dutch R&D: MIT, MRE, OP ZUID/OOST, IPC, TALCOM

TECHNOLOGICAL EXPERTISES

Expertise:

- RF Analog Mixed-Signal IC design (CMOS & BiCMOS) with extensive system knowledge on RF transceivers (e.g. 5G, BLE, Bluetooth, Wi-Fi)
- Signal processing
- Embedded design

Service IP- complete designs as well as extensive list of IP blocks in:

- RF RX & TX
- PLL & FLL
- IF & ADC / DAC e.g. ADPLL, TDC, Power Amplifier, Sigma Delta ADC, SAR ADC, RF DAC

MARKETS

Focus on application markets:

- Wireless Communications
- Connectivity
- Sensing
- Timing systems

LOOKING FOR PARTNERS AND EXPERTISES

- Digital IC design partners
- Semiconductor product companies
- Supply chain management partners
- Electronic Design Automated companies
- Sensor product companies

MORE INFORMATION

www.itom.nl



Jeroen Langendam
JfLangendam@itom.nl





Created in
2019



Company Location
Maisons Laffitte
(78), France



SIPEARL



Employees
10+

SiPearl is the industrial hand of European Processor Initiative, and is indeed the fabless company integration, supporting and selling the chip to the market

SiPearl is focused on Advanced Data Processing for High Performance Computing, Artificial Intelligence and Edge Computing. SiPearl Common Platform will enable and speedup European AI, Cryptographic and Quantum startup. We are focused on the P3S. Performance - Sovereignty - Safety - Security

POSITIONING IN THE ELECTRONICS VALUE CHAIN

SiPearl positioning is in Architecture, and chip design, being fabless

RD&I COLLABORATIVE INNOVATION INVOLVEMENT

SiPearl is deeply involved in the European Processor Initiative (H2020 consortium initiated in Dec 2018) and supported by DGConnect and will own EPI chip

TECHNOLOGICAL EXPERTISES

- Digital and High Speed
- 2.5D and large dies
- Deep node submicron process (beyond 7nm)
- Interconnect and HPC software

MARKETS

- High Performance Computing, AI and Edge Computing
- Cryptography

LOOKING FOR PARTNERS AND EXPERTISES

Looking for advanced packaging, interposer, 2.5D, 3D expertise in EU. Looking for automotive safety expertise for high performance CPU's

MORE INFORMATION



www.sipearl.com



Philippe Notton
philippe.notton@sipearl.com



Growth through innovation, technology and corporate renewal – Spinverse is the Nordic leader in innovation consulting, specialised in open innovation, arranging funding and commercialisation of emerging technologies. Our 50-person team has coordinated over 2.3 B€ of large scale innovation programs. Since the beginning of H2020, we have helped our customers get more than 420 M€ of EU funding. Knowledge of successful collaborative R&D&I projects is in the DNA of Spinverse.

POSITIONING IN THE ELECTRONICS VALUE CHAIN

Private consulting company specialized in open innovation and multi-party project coordination, management, and communication, especially for the whole electronics value chain.

RD&I COLLABORATIVE INNOVATION INVOLVEMENT

Day-to-day management and/or dissemination and communication management of the following projects:

ECSEL JU: EuroPAT-MASIP, APPLAUSE

ENIAC JU: Prominent

H2020: Smart-MEMPHIS, CEFOW, Stardust, INNPAPER

BBI JU: PEference, VEHICLE, SWEETWOODS

FP7: IP4Plasma (as a coordinator)

TECHNOLOGICAL EXPERTISES

We can offer effective tools and processes, insights from evaluators as well as technology and sector expertise; we have altogether 12 PhDs with industry background from Electronics, ICT & Security, Health, Bio and Circular economy, Energy and Manufacturing

MARKETS

Spinverse has offices in Helsinki, Stockholm and Berlin. Our focus is in:

- Open innovation
- Management consulting
- Public funding

LOOKING FOR PARTNERS AND EXPERTISES

Need help in building or managing innovation projects? We can improve your odds to get funded and take care of all practicalities in proposal building. We can help in daily administration and support your project delivering communications, commercialization strategies or business plans. We help you build new businesses through partners, funding & new ideas.

MORE INFORMATION

www.spinverse.com



Laura Koponen, Managing Director
laura.koponen@spinverse.com





Created in
2010



Company Location
Delft,
The Netherlands



Employees
10

Ubiqu has revolutionised digital identification by adding the same level of assurance to every digital transaction, as if displaying an ID in person.

The innovation Ubiqu brings is a way to remotely add a hardware- based token to existing mobile phones maintaining the high level of security that hardware provides.

- Easy to use
- Level of assurance 4
- Hardware based and easy to use and easy to scale

POSITIONING IN THE ELECTRONICS VALUE CHAIN

Ubiqu is a secure element provider to larger applications. Examples are; use of a mobile phone as an epassport, edriver license, ebank card, elicense, ecard key or ephysical key

RD&I COLLABORATIVE INNOVATION INVOLVEMENT

H2020: FIDES

ECSEL: Secredas

TECHNOLOGICAL EXPERTISES

- Cryptography
- Crypto protocols
- Secure elements
- Physical Access
- Logical Access
- Authentication, Signing, Decryption

MARKETS

- Banking
- Telecom
- Automotive
- Access
- Identity and Access
- Security
- Defense

LOOKING FOR PARTNERS AND EXPERTISES

- Banking
- Telecom
- Automotive
- Access
- Identity and Access
- Security
- Defense

MORE INFORMATION



www.ubiqu.com



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XENON has more than 30 years of experience in the development of automated plant solutions for automotive, electronics and medical technology, with over 1500 machines delivered. Highest precision with micrometer accuracy, short cycle times, product and process data acquisition and -processing are key competencies of the company.

POSITIONING IN THE ELECTRONICS VALUE CHAIN

XENON is a provider of automated solutions for production equipment.

RD&I COLLABORATIVE INNOVATION INVOLVEMENT

ECSEL projects: IoSense, productive4.0

PENTA projects: HYB-MAN

German supported R&D: AllMeSa (Mechatronics Alliance Saxony), ProMoA (automated machine planning and -development), safe-UR-chain (use of block chains in value chains)

TECHNOLOGICAL EXPERTISES

Assembly and testing of mechatronics products. Broad technology platform, starting with classic, partly robot-assisted pick-and-place and joining technologies, up to technologies of assembly and connection technology: Fitting, bending, dosing, heating, joining, handling, marking, cooling, lasering, testing, cleaning, welding, cutting, packing, feeding...

MARKETS

Actors, Sensors, Electric and Mechatronic Systems, Plug Connectors, Contact Systems for the markets of Automotive, Electronics and Medical Technology

LOOKING FOR PARTNERS AND EXPERTISES

Medical Technology

Digitization of processes for development of custom-made automation solutions

Human-Robot-Collaboration

Industry4.0

MORE INFORMATION

www.xenon-automation.com/en



Dr. Jens Müller



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Innovation

Create

Shape

Impact

Community

Network


Influence

AENEAS is an Industry Association promoting RD&I in Electronic Components & Systems (ECS) to strengthen European competitiveness along the complete ECS value chain. AENEAS federates all RD&I players, from large industrial companies, Small and Medium Enterprises, research organisations and Universities.

AENEAS represents its members in the ECSEL Joint Undertaking, the Public-Private Partnership for the ECS Value Chain. The Joint Undertaking funds RD&I projects for world-class expertise in key enabling technologies essential for Europe's digital future. AENEAS is also operating the EUREKA cluster PENTA dedicated to micro and nanoelectronics enabled systems and applications.

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