**CHALMERS**

Chalmers University of Technology conducts research and offers education in technology, science,

shipping and architecture with a sustainable future as its global vision. Chalmers is well-known for

providing an effective environment for innovation and has 13 departments. Graphene Flagship, an

FET Flagship initiative by the European Commission, is coordinated by Chalmers. Situated in

Gothenburg, Sweden, Chalmers has 10,300 full-time students and 3,100 employees.

<https://www.chalmers.se/en>

**CSEM**

**FAU**

 <https://www.wtm.tf.fau.eu/>

 The research focus at the Chair of Materials Science and Engineering for Metals (WTM) of the Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU) lies on the development of metallic materials and their process technology. In the MANUELA joint project, FAU is a facility provider for the Selective Electron Beam Melting (SEBM) technology to fabricate metallic components with complex geometries. Based on a newly developed SEBM system equipped with a 6 kW electron beam gun and a freely programmable control system, high production rate is expected. Owing to its unique beam deflection technology, this newly developed SEBM system at FAU goes far beyond the capacities of commercial SEBM devices. Moreover, an ELectron-Optical observation (ELO) system by means of the detection of backscattered electrons allows the in situ monitoring of the SEBM process.

**IVF**

RISE’s mission is to work for sustainable growth in Sweden by strengthening the competitiveness and capacity for renewal of Swedish industry, as well as promoting the innovative development of society as a whole.

<http://www.ri.se>

**CARDIFF**

Our vision is to be a world-leading, research-excellent, educationally outstanding university, driven by creativity and curiosity, which fulfils its social, cultural and economic obligations to Cardiff, Wales, the UK and the world.

<https://www.cardiff.ac.uk/research/explore/research-units/high-value-manufacturing-research-group>

**POLITO**

<https://www.polito.it/>

Politecnico di Torino is a research-led university whose primary objectives are the enhancement of technological and scientific research capabilities and their integration into a higher education framework. Its activities are rooted in the production, attraction, conservation, development and transfer of knowledge in the fields of architecture, engineering and other polytechnic sciences. Its role extends to enhancing the development of society through the transfer of technology and services to the community. Politecnico di Torino undertakes fundamental and applied research; it co-ordinates and develops research projects, both at an international and national level; it encourages the acquisition of the most advanced scientific and technical knowledge and enhances the expertise existing within Politecnico itself and the specific research skills required in different scientific fields; it actively searches for and supports strategic research sectors and the development of interdisciplinary activities. Politecnico di Torino provides courses at all university levels; it also develops and implements programs and projects at advanced levels, as well as for lifelong learning and professional development. Politecnico is committed to technology transfer of innovations and knowledge to the economic and productive system, as well as to practitioners in specific sectors.

**HOGANAS**

**EOS**

**ABB**

**OSAI**

<https://osai-as.com/en/>

**OSAI Automation Systems S.p.A.** was founded in 1991, operates in the field of automation for industrial processes with the aim to offer customers modern solutions to their means of production and the improvement of competitiveness compared to low-cost countries.
The solutions offered by Osai are based on standard systems or on special machines for assembly and testing of high-tech components for the semiconductor industry, the automotive industry and electronics manufacturing. Each system is created for the specific customer applications and features the latest technologies, such as LASER technology. The special dedication in developing innovative solutions for our customers and meet their high quality standards, allows us continuous growth of the company and the structure. In 2018, Osai employs more than 136 employees. About 85% of sales are exported, and we were able to develop in the global semiconductor market to one of the leading companies for production equipment ourselves, among other things.
OSAI Automation System S.p.A. firmed in 2014 into a joint stock company and has additional to the main factory in Italy 4 subsidiaries: one in Germany, one in China one in the United States and one in Thailandia. Furthermore, we have worldwide 47 sales and service partners. In this way we can guarantee our clients a global support and service presence.

**METAS**

[www.metas.ch](http://www.metas.ch)

The Federal Institute of Metrology METAS is the Swiss National Metrology Institute. It was founded more than 150 years ago and has about 240 employees. Its tasks cover R&D activities on basic and applied metrology, work on legal metrology and much importance is attributed to the provision of commercial calibration and measurement services for industry and research.

The Laboratory for Length, Nano- and Microtechnology has comprehensive knowledge in the field of dimensional metrology and has built high-precision micro-coordinate measuring machines, which contribute to international comparisons, research projects, and calibration services. It will contribute to the project by providing expertise in dimensional metrology and high-resolution X-ray computed tomography (CT).

**MSC**

* + <http://www.mscsoftware.com/>

 Simulating Reality, Delivering Certainty

• MSC Software develops simulation software technology that enables engineers to validate and optimize their designs using virtual prototypes. Customers in almost every part of manufacturing use our software to complement, and in some cases even replace the physical prototype “build and test” process that has traditionally been used in product design.

As a trusted partner, MSC Software helps companies improve quality, save time and reduce costs associated with design and test of manufactured products. Our products accurately and reliably predict how products will behave in the real world to help engineers design more innovative products - quickly and cost effectively.

MSC Software's technology is used by leading manufacturers for linear and nonlinear finite element analysis (FEA), acoustics, fluid-structure interaction (FSI), multi-physics, optimization, fatigue and durability, multi-body dynamics, and control systems simulation.

MSC pioneered many of the technologies that are now relied upon by industry to analyze and predict stress and strain, vibration & dynamics, acoustics, and thermal analysis in our flagship product, MSC Nastran.

MSC Software Corporation is part of Hexagon, a leading global provider of information technologies that drive productivity and quality across geospatial and industrial enterprise applications.

Hexagon’s solutions integrate sensors, software, domain knowledge and customer workflows into intelligent information ecosystems that deliver actionable information. They are used in a broad range of vital industries.

Hexagon (Nasdaq Stockholm: HEXA B) has approximately 18,000 employees in 50 countries and net sales of approximately 3.1bn EUR. Learn more at hexagon.com and follow us @HexagonAB.

**SIT**

**•** Siemens is a global powerhouse focusing on the areas of electrification, automation and digitalization.

One of the world’s largest producers of energy-efficient, resource-saving technologies, Siemens is a leading supplier of systems for power generation and transmission as well as medical diagnosis. In infrastructure and industry solutions the company plays a pioneering role**.**

* [www.siemens.com](http://www.siemens.com)

**QIOPTIQ**

*Qioptiq is a global technology leader delivering innovative, high-performance, market-driven photonic solutions to meet Surveillance & Target Acquisition for dismounted, vehicle and Naval applications, Avionics, Space Technology, Defence Sensors, Energetic Systems, Power and Frequency Solutions. - We are the trusted supplier in the US, UK, Europe and Asia with 27 facilities worldwide. A Key supplier to UK and international MoD / DoDs, Primes and of OEM customers. Our mission… Keeping Our Troops Safe!*

[www.qioptiq.com](http://www.qioptiq.com)

**CBE**

Since 2010 Biomedical Engineering company is designing pacient specific implants and producing all variety of medical devices by piece or in series. All by additive manufacturing. All in titanium alloy Ti64ELI. Our challenge is to turn implantology to be pacient and surgeon friendly. We turn  surgery into custom made 3D art.

[www.ceit-ke.sk](http://www.ceit-ke.sk)

**ENEL**

**OEB**

<http://www.oebsrl.it/>

OEB IS BASED IN THE PROVINCE OF MODENA, IN NORTHERN ITALY, IN THE HEART OF THE ITALIAN MOTOR VALLEY, SYNONYMOUS WITH RELIABILITY ESTABLISHED BY YEARS OF EXPERIENCE AND AN INNATE PASSION FOR MECHANICS AND ENGINES.

OEB stands out for the dynamism of its organisation, the liveliness of its internal communication and the ease of contact between the employees – essential elements to respond to the customers’ timing and needs – ensuring a complete service to the highest technical standards.

OEB is a specialised precision machine shop that makes titanium and aluminium prototypes applied to sports competitions and aerospace/ aeronautics.

We have been working in the competition sector with Ferrari, Ducati and Maserati for twenty years – a visiting card that speaks for our flexibility, reliability, technical specialisation and professionalism.

**CIT**

Chalmers Industriteknik provides academic expertise in the format as consultants within Energy, Materials, Digitalisation, Design and Circular Economy

<https://chalmersindustriteknik.se/en/>

**AMI**

**RUAG**

<https://www.ruag.com/en/products-services/space>

RUAG Space is the leading supplier of products for the space industry in Europe, and with a growing presence in the United States. Experience, outstanding reliability, customer focus and a comprehensive, clearly structured product portfolio all make RUAG Space the partner of choice for manufacturers of satellites and launchers across the globe.