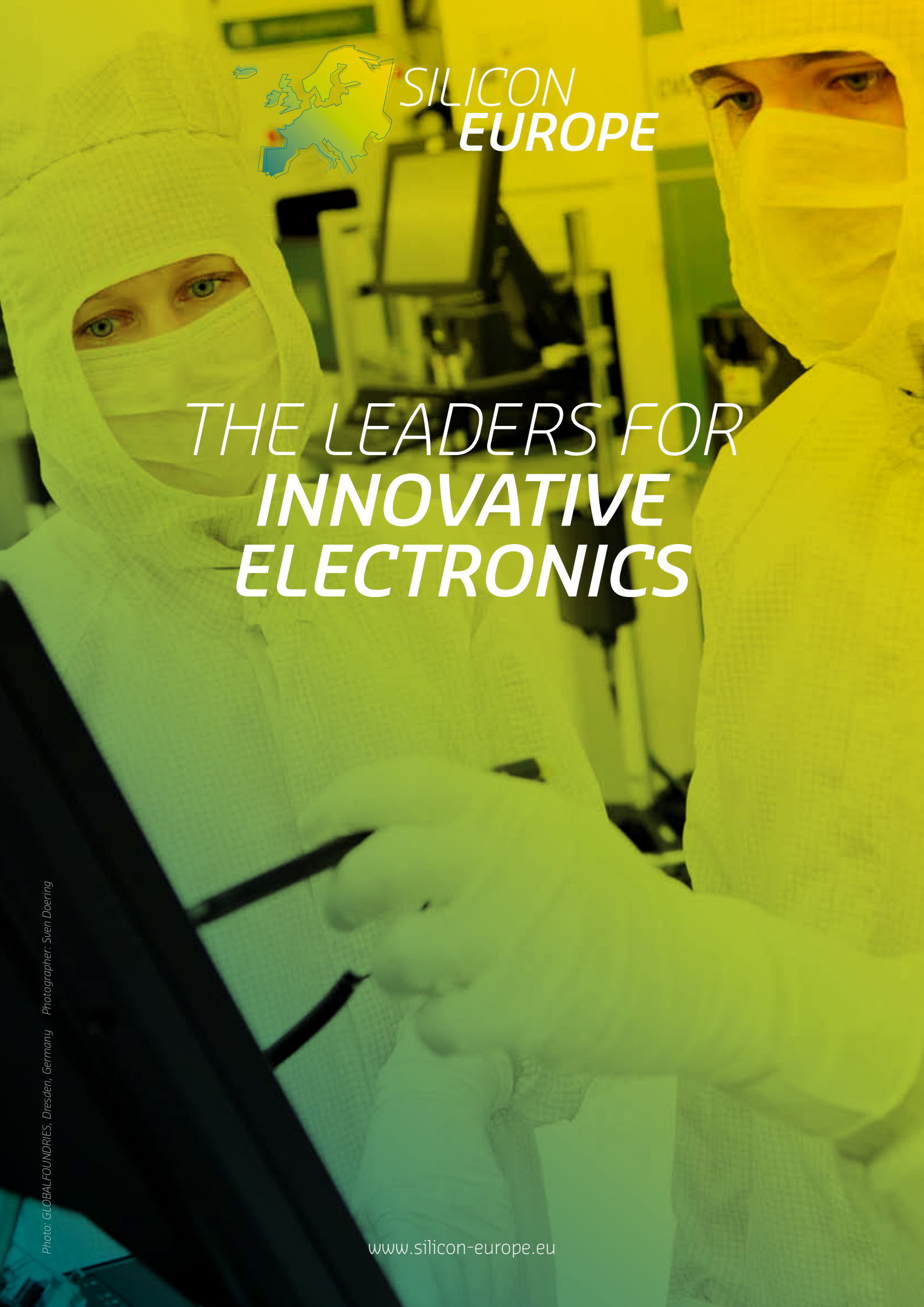


SILICON
EUROPE

THE LEADERS FOR ***INNOVATIVE ELECTRONICS***

Photo: GLOBALFOUNDRIES, Dresden, Germany Photographer: Sven Doering

www.silicon-europe.eu

INNOVATIVE ELECTRONICS

The key to the future of industry in Europe

Micro- and nanoelectronics are essential for the prosperity of Europe. Micro- and nanoelectronics are everywhere. Without this technology, we would have no computers, mobile phones, household appliances or motor vehicles. Further down the value chain, electronic components contribute to the improvement of manufacturing processes and thereby enable new technologies to evolve. There is truly no denying that micro- and nanoelectronics are a key driver for innovation in almost all sectors and industrial fields. The European Commission, by designating micro- and nanoelectronics as one of Europe's Key Enabling Technologies, acknowledges the importance of the sector for the development of industry in Europe as well as for the future prosperity of the entire continent.

Micro- and nanoelectronics are essential for sustainable growth. As a Key Enabling Technology, micro- and nanoelectronics, including the use and production of semiconductors, are essential for all goods and services which need intelligent control and communication. This applies to sectors as diverse as transportation (including automotive and aeronautics), health, security and energy. Smart industrial control systems allow for more efficient management of electricity generation, storage, transport and consumption through intelligent electrical grids and devices. To counteract the increased global demand for energy and to avoid undesirable environmental consequences, more intelligent and efficient management of conventional fuels and their utilization is necessary and this is where micro- and nanoelectronics become indispensable.

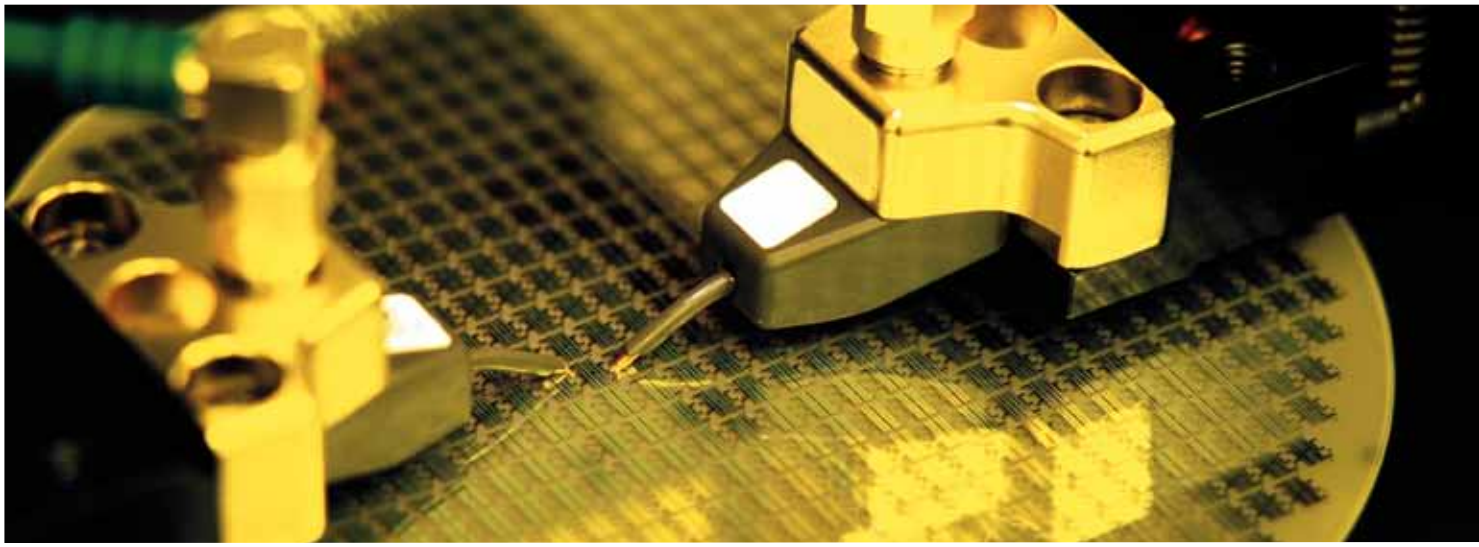
Silicon Europe: A cluster alliance driving the evolution of the European micro- and nanoelectronics industry Silicon Europe brings together the technological expertise and resources of Europe's leading players in micro- and nanoelectronics. Five renowned European clusters have joined forces with the objective of bolstering Europe's position as the world's leading center for innovative electronics while effectively working to respond to societal challenges by developing solutions such as clean, secure and efficient energy supply or smart, green and integrated transport systems. Europe's microelectronic sites are globally recognized for their prowess in developing and using semiconductors and innovative electronics. Silicon Europe unites the strongest European clusters to form a European alliance with access to the most advanced technologies and expertise in all fields of the micro- and nanoelectronics value chain. This "cluster of clusters" stands for a whole new level of transnational collaboration and a combined innovative strength that will significantly contribute to the future competitiveness of the European economy.

Silicon Europe: combined forces for global competitiveness and to combat global challenges
The key players in research, industry and administration have joined forces in utilizing one of Europe's fundamental competitive advantages: its competencies in innovative electronics. The cutting-edge technology coming out of these clusters allows for Europe to secure and further strengthen its strong global position in the micro- and nanoelectronics industry and to combat the dramatic increase of the global demand for energy.

Technological know-how needs political support
Silicon Europe is not alone in its vision for innovative electronics in Europe. The project is backed by political support at the local, national and European levels. In designating micro- and nanoelectronics as a Key Enabling Technology and by establishing the Multi Key Enabling Technologies Pilot lines projects, the European Commission has shown its continuing support for the industry and taken the initiative to develop a project to enable innovative technology to leave the drawing board and to be transformed into marketable products. The partners of Silicon Europe share the vision and the responsibility of the European Commission in supporting businesses in the micro- and nanoelectronics industry in their development and growth by opening up new markets and opportunities at a global level and by attracting talented individuals to the field.

WHAT CAN SILICON EUROPE DO FOR YOU?

A One-Stop Shop for innovative electronic solutions with high added value



Silicon Europe is a unique entry point to a comprehensive network of key players in the field of micro- and nanoelectronics in Europe, operating with the full support of the European community.

Silicon Europe covers the whole value chain of micro- and nanoelectronics, from design and manufacturing up to application level.

Silicon Europe is committed to developing energy-efficient micro- and nanoelectronics solutions to global challenges.

Silicon Europe offers:

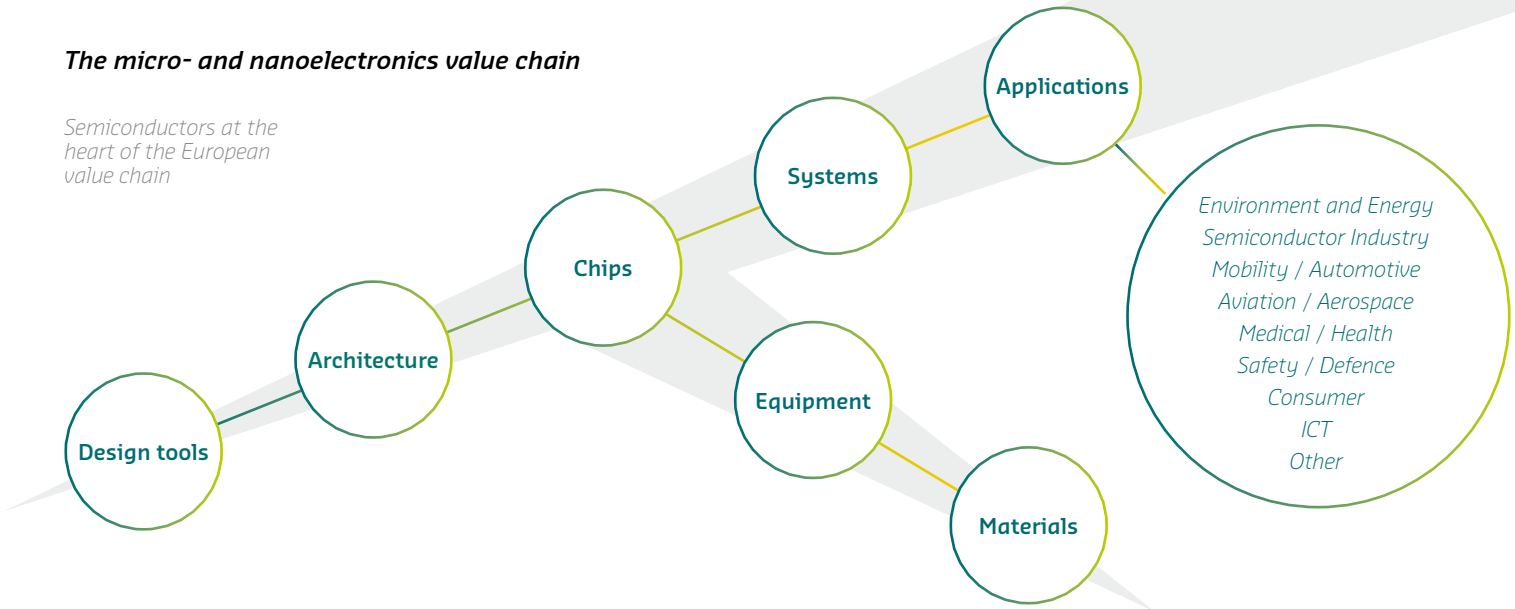
A fast track for establishing successful partnerships with Europe´s top micro- and nanoelectronics public and private research institutes and companies.

Access to top-class expertise and talents and the most advanced technologies at all stages of the micro- and nanoelectronics value chain.

A Europe-wide platform where leading industrial players, dynamic small and medium-sized enterprises and cutting-edge startups come together.

The micro- and nanoelectronics value chain

Semiconductors at the heart of the European value chain



THE WORLD OF SILICON EUROPE

Europe's largest micro- and nanoelectronics clusters come together in a unique cluster alliance.

170
SCIENCE AND INDUSTRY PARTNERS

SOUTH AND EAST NETHERLANDS
THE NETHERLANDS

The Dutch microelectronic sector is mainly clustered in the Southern and the Eastern parts of the Netherlands. The cluster **High Tech NL**, together with the associated partner Business Cluster Semiconductors Netherlands (BCSNL), covers all aspects of microelectronics; from process/technology research and production tools/equipment to electronic components and end-user products. Additional major concentrations of microelectronic activity are found in the western part of the Netherlands, around Delft and in the northern part around Assen. All these ecosystems are very well connected to each other. Most of the East and South of the Netherlands micro- and nanoelectronics clusters are concentrated around a few cities; Eindhoven, Nijmegen and Enschede, always close to innovation campuses, such as the High-Tech Campus in Eindhoven, the HighTech Factory in Enschede and the NovioTech Campus in Nijmegen and the universities. This concentration in relatively close kernels is a clear advantage for Dutch researchers and engineers who successfully follow efficient multi-disciplinary open innovation principles in the technology and product development process over the complete region.

FLANDERS
BELGIUM

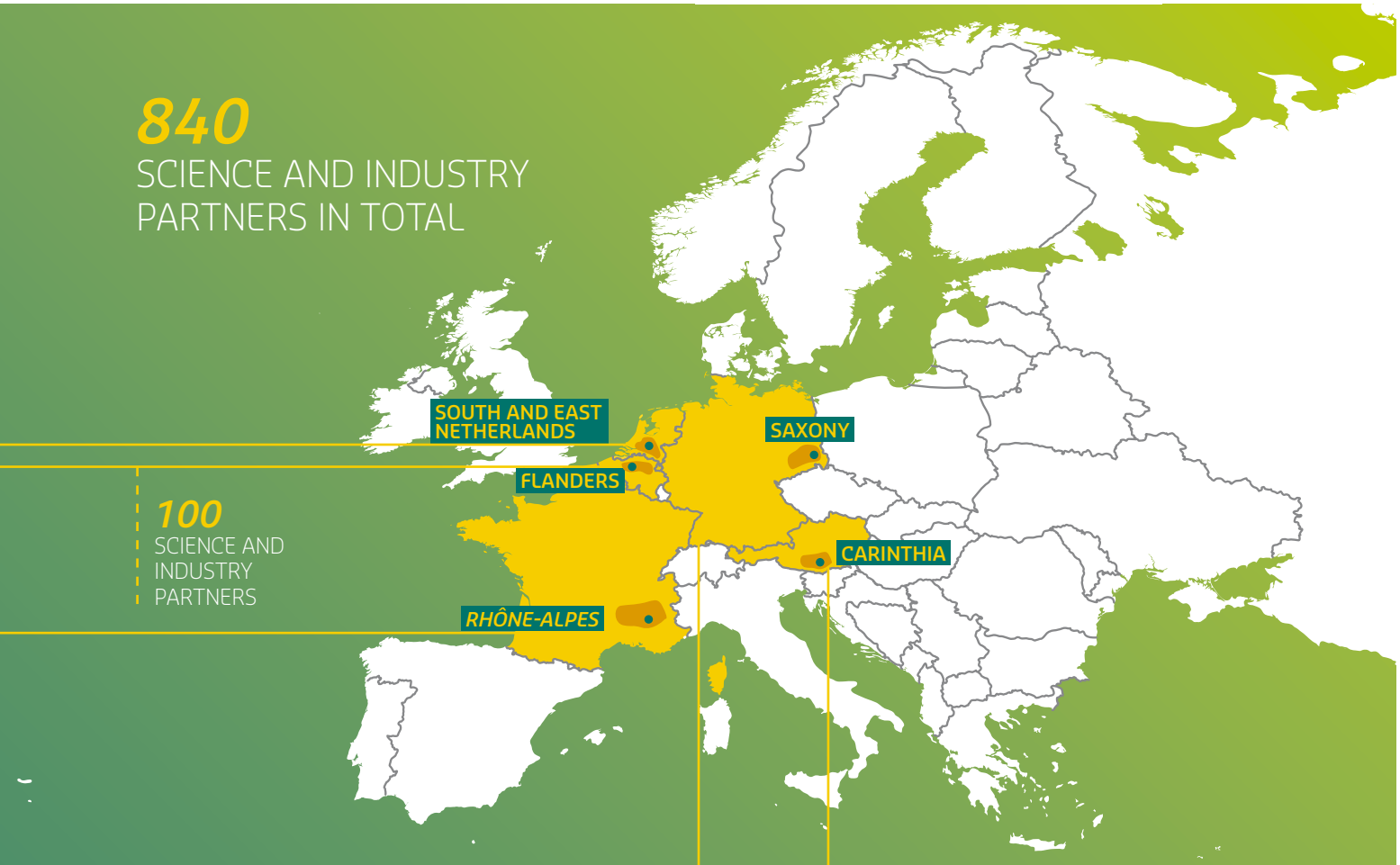
DSP Valley is a European cluster of excellence in smart systems and embedded technology solutions, mainly active in Belgium and the Netherlands. Its members are companies (from SME to large) and research institutes active in the whole value chain of micro- and nanoelectronics and embedded systems: from silicon manufacturers over hardware & software design houses all the way up to product, application & tool developers, integrators and professional users. For almost 20 years DSP Valley has been the catalyst in a large number of business and research co-operations, creating a tightly woven ecosystem of high-tech economic activity in Belgium and the Netherlands. DSP Valley is the result of a unique ecosystem established in the region of Flanders and more in particular in Leuven, the home of renowned research institutes and universities with global impact. These have contributed to maintain important innovative industrial activity and to foster numerous new initiatives with leading edge technologies also in a cross-border context.

225
SCIENCE AND INDUSTRY PARTNERS

RHÔNE-ALPES
FRANCE

Mastering three of the Key Enabling Technologies (micro-/nanoelectronics, nanotechnologies and photonics), and maximising on solid, complementary skills in information technology and software, Grenoble in the Rhône-Alpes region is a strong hub for innovation. The **Minalogic** cluster represents the whole value chain for microelectronics, from materials to manufacturing; from component design to fabrication, and also benefits from a high-tech, industry-oriented business environment as well as of the excellence of its first class education system. Key strengths include design and manufacturing of components, digital imaging and embedded software. CEA Leti is also a key member of Minalogic: focusing on creating value and innovation through technology transfer to its industrial partners, this world famous research organisation specialises in nanotechnologies and their applications, from wireless devices and systems, to biology, healthcare and photonics. NEMS and MEMS are at the core of its activities.

840
SCIENCE AND INDUSTRY PARTNERS IN TOTAL



100
SCIENCE AND INDUSTRY PARTNERS

300
SCIENCE AND INDUSTRY PARTNERS

45
SCIENCE AND INDUSTRY PARTNERS

SAXONY
GERMANY

Thanks to a smart settling policy and well-designed funding schemes in combination with a very strong collaboration between industry and administration, **Silicon Saxony** is now Europe's largest microelectronics site and a real triple helix managed high-tech region. When it comes to technology, this region in the triangle of the German cities of Dresden, Freiberg and Chemnitz is one of the most innovative ICT clusters in the world. Here is where one finds a unique agglomeration of enterprises and research institutes with know-how in the fields of micro- and nanoelectronics, telecommunications, photovoltaics, information technology, organic and printed electronics, energy-efficient systems, smart systems, sensor networks and next-generation mobile technologies. The local industries benefit from the collaborative environment of science, industry and administration that has grown over the last 20 years and today is the base for leading-edge research and successful collaboration across organisational borders resulting in future technologies 'Made in Saxony'.

CARINTHIA
AUSTRIA

For decades, electronics, microelectronics and mechatronics have been and still are the main economic-technological drivers for employment and progress in Austria's industry. On the basis of a well-settled landscape of small and medium enterprises, a range of internationally operating leading companies and a well-established R&D-sector, Austria became a centre for innovation in core fields of technology in the heart of Europe. Located in the city of Villach, the **ME2C-Cluster** is a high-tech platform representing competencies in electronics, microelectronics and mechatronics in the region and enhancing a cross-sectorial approach towards innovative solutions. This is additionally fostered by collaborations with other application clusters such as automotive clusters as well as the joint technology initiatives in Austria. Thus it is a vital part of Austrian microelectronics that focuses on semiconductor equipment, the design and manufacturing of semiconductor devices, the integration of components into systems, assembly technologies and testing tools.

Photo: GLOBALFOUNDRIES, Dresden, Germany
Photographer: Sven Doering

A TRANSNATIONAL CLUSTER ALLIANCE

Silicon Europe stands for a new, industry-led level of transnational collaboration. It transfers the national cluster concept – strong cooperation across organisational and institutional borders – onto a transnational level.

Silicon Europe aims at maximizing previously unused synergies between clusters and strengthening the activities of the cluster alliance and their members as a whole.

The Silicon Europe project was launched to permit the strongest European micro- and nanoelectronics clusters to come together to create a common roadmap for action at the European and international level.

SILICON EUROPE
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Get more information on
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Or contact us via
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Neelie Kroes, EU Commissioner for the Digital Agenda backs the European micro-electronics industry.

SILICON EUROPE'S VOICE IS HEARD IN BRUSSELS

EU launches "New European Industrial Strategy for Electronics"

Since its launch in October 2012, Silicon Europe has already achieved some of its important objectives. The project has been gaining increasing recognition and political support at the local and national levels but also at the European level, with the European Commission has committed itself to supporting the European micro- and nanoelectronics industry.

Neelie Kroes, Vice-President of the European Commission for the Digital Agenda, announced that the EU wants to "cut the current fragmented landscape, connect up players along the value chain, from design to production equipment to production itself, and make Europe a global powerhouse for electronics".

To enable Europe to reach this goal, on May 24th 2013, the European Commission launched a campaign for coordinated public investment in micro- and nanoelectronics, aiming to mobilise a further EUR 100 billion in new private investments. These funds are intended to support the entire micro- and nanoelectronics value chain in Europe.

With this decision, the Commission acknowledges the fact that, as a Key Enabling Technology, the European electronics sector underpins Europe's industrial competitiveness as a whole.

Almost every other industrial activity in Europe, from the automotive industry to healthcare to energy management, depends on a thriving electronics sector.

In the coming years, we will see the launch of a number of new European projects within the framework of Horizon 2020 and ECSEL, for example.

Silicon Europe - Shaping the European micro- and nanoelectronics landscape

Silicon Europe will not only promote and actively participate in the implementation of these programs, but has also established a role as the voice of SMEs in its communication with the European Commission and plans to play a role in the conception of new programs.

SILICON EUROPE

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