

Is Europe ready for a fully connected and intelligent world?

The “COREnect” (European Core Technologies for future connectivity systems and components) **consortium is glad to announce the release of the [White Paper](#): “Passive user or innovative driver? Europe's future role in microelectronics and connectivity”**.

The intention is to **showcase how the mobile connectivity revolution will affect existing industrial ecosystems**. It includes proposals to secure European relevance in future global ecosystems, and to ideally position the European industry and economy in this coming digital revolution, despite ever-growing global competition.

The main objective of this White Paper is primarily to **catalyze a continued discussion and bring general awareness about the inevitable challenges and opportunities** that Europe will face in an intelligent and fully connected green and digital world.

The automotive industry - one of the most reputed and long-standing European industry champions - **is used as a case study**, with the aim to exemplify how evolved software, hardware and connectivity are transforming the very core of the business.

Acquired insights are also applied at a higher level and discussion on how other vertical sectors may follow a similar path as the automotive industry.

The role of European telecommunication and microelectronic industries is discussed as a key enabler to maintain European value creation across business



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 956830.

segments. To guide the analysis, the COREnect expert groups, representing leading institutions and companies across Europe, have provided valuable perspectives.

At the end of the White Paper, important strategic directions are given for consideration.

*“Leadership in microelectronics and connectivity has become essential to influence and develop industry verticals and public functions. In the COREnect project we have been able to bring together key players from industry and academia to outline such a position for Europe. It will be challenging and requires a strategic mindset, but it all starts with awareness. This is the prime objective of this White Paper”, says **Fredrik Tillman, Research Manager at Ericsson AB. In COREnect Fredrik coordinates the Ericsson contributions and acted as lead editor of the White Paper.***

*“COREnect targets to develop analysis and recommendations for establishing a sustainable European open digital autonomy in 6G, where roles of microelectronics and connectivity are becoming more and more critical. This White Paper helps you quickly grasp the scale of challenges and potential opportunities, and is a good read for all the related stakeholders in the public and private sectors”, says **Gerhard P. Fettweis, Vodafone Chair Professor, COREnect Project Coordinator, TU Dresden.***

The COREnect consortium involves prominent European industrial and academia players from the telecommunications sector (Ericsson, III-V Lab / Nokia, and Technische Universität Dresden/ Barkhausen Institut), from the microelectronics sector (Infineon, NXP, STMicroelectronics, imec and CEA), industrial associations representing the Smart Networks and Services and Key Digital Technologies communities (5G IA and AENEAS), a leading industry player in one of the vertical markets for 5G (Bosch), and one of the major promoters of the European SME ICT community (AUSTRALO).

About Technische Universität Dresden/Barkhausen Institut

The Technische Universität Dresden (TUD) is the project coordinator and one of the largest “Technische Universitäten” in Germany. It is also one of the leading and most dynamic universities in Germany. In the area of mobile communications, TUD is a global research leader and has been continuously working on pioneer research and



This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement N° 956830.



contributing to the development and evolutions of mobile networks in the past 20 years. It founded 5G++Lab Germany in 2014 that enjoys international reputations and an extensive research and industry network around the world.

The Barkhausen Institut was founded in 2017 in Dresden, Saxony. It brings together researchers from a variety of backgrounds from all over the world. Barkhausen Institut targets to develop break-through technology with the aim of increasing the dependability of IoT systems (Internet of Things), which includes ensuring availability, integrity, and confidentiality.

More at: <https://tu-dresden.de> ; <https://www.vodafone-chair.org/> ;
<https://www.barkhauseninstitut.org/>

Twitter: @VodafoneChair

Media contact: Dr Yaning Zou, yaning.zou@ifn.et.tu-dresden.de

About 6G Smart Networks and Services Industry Association (6G- IA)

The 6G-IA is the voice of European Industry and Research for next generation networks and services. Its primary objective is to contribute to Europe's leadership on 5G, beyond 5G and SNS/6G research.

The 6G-IA represents the private side in both the 5G Public Private Partnership (5G-PPP) and the Smart Networks and Services Joint Undertaking (SNS JU). In the 5G-PPP and SNS JU, the European Commission represents the public side.

The 6G-IA brings together a global industry community of telecoms & digital actors, such as operators, manufacturers, research institutes, universities, verticals, SMEs and ICT associations.

More at: <https://6g-ia.eu>

Twitter: @5GPPP

Media contact: Alessandro Bedeschi, Head of Office, alessandro.bedeschi@5g-ppp.eu

About III-V Lab / Nokia

III-V Lab is an industrial research laboratory created in 2004 by Nokia and Thales and was extended to CEA Leti in 2010. III-V Lab in the CORENECT project represents its



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 956830.



mother company Nokia. Nokia offers a comprehensive portfolio of network equipment, software, services, and licensing opportunities across the globe.

With our commitment to innovation, driven by the award-winning Nokia Bell Labs, we are a leader in the development and deployment of 5G networks.

Nokia Bell Labs is the world-renowned industrial research arm of Nokia. Over its more than 90-year history, Bell Labs has invented many of the foundational technologies that underpin information and communications networks and all digital devices and systems.

More at: www.bell-labs.com , www.nokia.com

Twitter: @nokia

Media contact: Nokia Communications, press.services@nokia.com

About AENEAS

AENEAS is an Industry Association, established in 2006. The purpose of the association is to promote Research, Development and Innovation (RD&I) in order to strengthen the competitiveness of European industry across the complete Electronics Components and Systems (ECS) value chain.

AENEAS provides unparalleled networking opportunities, policy influence & supported access to funding to all types of RD&I participants in the field of micro and nanoelectronics enabled components and systems, and its applications. Partner in ECSEL JU and the new KDT JU, AENEAS is also operating the EUREKA funded Clusters Xecs, PENTA and EURIPIDES.

More at: <https://aeneas-office.org>

Twitter: @AENEAS_EU

Media contact: Maud Vazquez, vazquez@aeneas-office.org

About AUSTRALO

AUSTRALO is a marketing company to thrive in the Lab-to-Market leap:



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 956830.



Open Networks. Generating leads with target groups in academia, industry, SMEs, entrepreneurship and social ecosystems, identifying and creating relationships with key global players.

Marketing Communication. Holding broad experience leading and implementing marketing promotional strategies to increase awareness and engagement.

Go-to-Market. We empower new business ideas to thrive, increasing competitiveness, market assessment and capacity to access customers. AUSTRALO captures the business potential of Research & Innovation ideas, providing the tools and strategies to transfer them into exploitable assets.

More at: www.australo.org

Twitter: @AustraloTeam

Media contact: Blanca Arregui, blanca@australo.org

About Bosch

The Bosch Group is a leading global supplier of technology and services. Its operations are divided into four business sectors: Mobility Solutions, Industrial Technology, Consumer Goods, and Energy and Building Technology. As a leading IoT provider, Bosch offers innovative solutions for smart homes, Industry 4.0, and connected mobility. Bosch pursuing a vision of mobility that is sustainable, safe, and exciting. It uses its expertise in sensor technology, software, and services, as well as its own IoT cloud, to offer its customers connected, cross-domain solutions from a single source.

The Bosch Group's strategic objective is to facilitate connected living with products and solutions that either contain artificial intelligence (AI) or have been developed or manufactured with its help.

More at: www.bosch.com , www.iot.bosch.com , www.bosch-press.com

Twitter: @BoschPresse

Media contact: Annett Fischer, Annett.Fischer@de.bosch.com

About CEA-Leti



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 956830.



Leti, a technology research institute at CEA, is a global leader in miniaturization technologies enabling smart, energy-efficient, and secure solutions for industry. Leti pioneers micro- & nanotechnologies, tailoring differentiating applicative solutions for global companies, SMEs, and startups. Leti tackles critical challenges in healthcare, energy, and digital migration.

From sensors to data processing and computing solutions, CEA-Leti's multidisciplinary teams deliver solid expertise. The institute is based in Grenoble, France, and has offices in Silicon Valley and Tokyo. CEA-Leti has launched 65+ startups and is a member of the Carnot Institutes network.

More at: www.leti-cea.com

Twitter: @CEA_Leti

Media contact: Camille Giroud, Camille.GIROUD@cea.fr

About Ericsson AB

Ericsson is a global leader in delivering ICT solutions. In fact, 40% of the world's mobile traffic is carried over Ericsson networks. Ericsson has customers in over 180 countries and comprehensive industry solutions ranging from cloud services and mobile broadband to network design and optimization.

Their services, software, and infrastructure - especially in mobility, broadband, and the cloud - are enabling the communications industry and other sectors to do better business, increase efficiency, improve user experience and capture new opportunities. Ericsson has one of the industry's strongest patent portfolios.

More at: www.ericsson.com

Twitter: @ericsson

Media contact: Pia Sørensen , pia.sorensen@ericsson.com

About imec

Imec is a world-leading research and innovation center in nanoelectronics and digital technologies. Imec leverages its state-of-the-art R&D infrastructure and its team of more than 5,000 employees and top researchers, for R&D in advanced semiconductor and system scaling, silicon photonics, artificial intelligence, beyond 5G communications and sensing technologies, and in application domains such as



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 956830.



health and life sciences, mobility, industry 4.0, agrofood, smart cities, sustainable energy, education, etc.

Imec unites world-industry leaders across the semiconductor value chain, Flanders-based and international tech, pharma, medical and ICT companies, start-ups, and academia and knowledge centers. It is headquartered in Leuven (Belgium), and has research sites across Belgium, in the Netherlands, and the USA, and offices in China, India, Taiwan and Japan. In 2020, imec's revenue (P&L) totaled 680 million euro.

More at: www.imec-int.com

Twitter: @imec_int

Media contact: Jade Liu, Press Officer // Jade.Liu@imec.be

About Infineon Technologies AG

Infineon is a world leader in semiconductors. Barely visible, semiconductors have become an indispensable part of our daily lives. Thus, Infineon's semiconductors enable smart mobility, efficient energy management, and the secure capture and transfer of data. With worldwide operation at 37 R&D and 17 manufacturing locations, Infineon is playing a key role in shaping a better future – with microelectronics that link the real and the digital world. Infineon designs, develops, manufactures, and markets a broad range of semiconductors and system solutions.

The focus of its activities is on automotive electronics, industrial electronics, communication and information technologies, and hardware-based security. The product range comprises standard components, customer-specific solutions for devices and systems, as well as specific components for digital, analog, and mixed-signal applications.

More at: www.infineon.com, www.infineon.com/press

Twitter: @Infineon

Media contact: Diana Kaaserer, diana.kaaserer@infineon.com

About NXP Semiconductors Netherlands BV



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 956830.



NXP Semiconductors N.V. enables secure connections for a smarter world, advancing solutions that make lives easier, better, and safer. As the world leader in secure connectivity solutions for embedded applications, NXP is driving innovation in the automotive, industrial & IoT, mobile, and communication infrastructure markets. Built on more than 60 years of combined experience and expertise, the company has approximately 29,000 employees in more than 30 countries and posted revenue of \$8.61 billion in 2020.

More at: www.nxp.com

Twitter: @NXP

Media contact: Jason Deal, jason.deal@nxp.com

About STMicroelectronics

ST is a global semiconductor leader delivering intelligent and energy-efficient products and solutions that power the electronics at the heart of everyday life.

ST works with its customers and partners to design and build products, solutions and ecosystems that address their challenges and opportunities, and the need to support a more sustainable world.

ST's technologies enable smarter mobility, more efficient power and energy management, and the wide-scale deployment of the Internet of Things and 5G technology.

More at: www.st.com



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 956830.