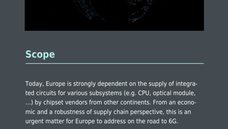
EuCNC & 6G Summit COREnect Panel “Components and Hardware on the Road to 6G”

Date: **Thursday, 10 June, 11:30-13:00 CEST**
Programme available at: **https://www.eucnc.eu/panel-2/**
Organizer: **Gerhard Fettweis**, Technische Universität Dresden, DE.



Scope

Today, Europe is strongly dependent on the supply of integrated circuits for various subsystems (e.g. CPU, optical module, …) by chipset vendors from other continents. From an economic and a robustness of supply chain perspective, this is an urgent matter for Europe to address on the road to 6G.

This entails, a) in the short term, Europe shall leverage and combine its strengths in telecommunications, microelectronics and vertical industries, and coordinate its actions with a strategic value chain approach; b) in the medium term, Europe shall secure its design and manufacturing capability of microelectronics chip, firstly by strengthening Europe’s current position and leveraging the existing ecosystems (for example IoT and automotive), and secondly by supporting the emergence of new champions; focusing on strategic parts of the value chain. Such actions will enable Europe to play a significant role in the global semiconductor supply chain, and consequently secure its competence towards the evolved 5G and 6G.

European Core Technologies for future connectivity systems and components (COREnect) is a coordination and support action (CSA) project that brings major European stakeholders from both the telecommunication and microelectronics industries together, for, along with connecty-enabled vertical industries. It is part of the 5G Public-Private Partnership. COREnect is developing a cross-industry technology roadmap of core component and subsystem technologies for the evolution of 5G towards 6G. The strategic goal of the project is to help diversify and reduce European dependence on other continents when building up future connectivity systems. This panel will elaborate on the first COREnect’s findings and results related to the expected role of microelectronics in 6G. Ideas and recommendations on strategic measures to address these challenges, as well as the potential roles of the various stakeholders in such future 6G ecosystems (e.g., industry, SMEs, academia, associations, public authorities, etc.), will also be discussed.

Panelists

Chair: Gerard Fettweis
Vodafone Chair Professor, TU Dresden, DE.

Caroline Bedran
Director General, Association for European NanoElectronics ActivitieS (AENEAS), FR.

Björn Ekelund
Corporate Director, Hardware, Device, and Electromagnetics Research, Ericsson, SE.

Lars Reger
EVP and CTO, NXP semiconductors, NL.

Thomas Kropf
President, Corporate Research and Advanced Engineering, Robert Bosch GmbH, DE.

Gerhard Fettweis

Prof. Dr.-Ing. Dr. h.c. Gerhard Fettweis has been Vodafone Chair Professor at TU Dressden since 1994, and head of the Barkhausen Institute since 2015, respectively. He earned his Ph.D. under H. Meyr’s supervision from RWTH Aachen in 1990. He has set up funded projects with a volume of close to EUR 1/2 billion, and coordinates the 5G Lab Germany and 2 German Science Foundation (DFG) centres at TU Dresden, namely cfaed and HAEC. His research focusses on the design of next generation wireless communication systems, with 900+ publications in refereed journals & conferences, 26,000+ citations, 40+ patents in 33+ patent families and h-index ≥ 69.

Gerhard is IEEE Fellow, member of the German Academy of Sciences (Leopoldina), member of the German Academy of Engineering (acatech), elected member of the Senate of the DFG, and received multiple IEEE distinctions, the VDE ring of honour as well as the European SEMI Award 2019. He is a 3-time elected Member-at-Large of IEEE Communications Society Board of Governors and was an elected member of the IEEE Solid State Circuits Society’s Board and the IEEE Fellow Committee. He co-chaired the IEEE 5G initiative and was general co-chair of several IEEE large conferences. He serves on company supervisory boards, and on industrial as well as research institutes’ advisory Committees. Gerhard is a well-known serial entrepreneur. He and his team have spun out 16 start-ups from university research in the past 25 years.

Caroline Bedran

Caroline Bedran has been active in the electronics and semiconductors industry for most of her career, primarily at Philips and NXP. She also has experience in the telecommunications and 5G industry, both at European and global level.

After graduating as an engineer in Electronics, she was involved in RD&I activities, then further moved into collaborative projects and partnership management. She held different managerial positions in France and Belgium, enlarging her responsibilities to Public Relations and External Affairs.

In her current position as the Director General of AENEAS industrial association, she supports the European electronic components and systems industry in dealing with the European Commission and national Public Authorities. AENEAS has a special focus on strategic investment and Research & Innovation funding programmes, at a time when European leadership is being challenged in a global environment.

In particular, AENEAS plays an active role as part of the Private Members Board of the ECSEL Joint Undertaking under Horizon 2020.

In addition, AENEAS is active in the operation of EUREKA funding instruments through managing the PENTA Cluster programme. PENTA was created to catalyse collaborative RD&I in micro and nanoelectronics enabled system and applications, in close partnership with national funding authorities.

Björn Ekelund

Björn Ekelund received his MSc and PhL in Telecommunications Microelectronics from Lund University in 1985 and 1987, respectively.

He joined Ericsson in 1987 and was over almost two decades responsible for microelectronics and software development for Ericsson’s mobile phone products.

In 2004 he moved into product planning and marketing, and later into strategy, working for the ST-Ericsson joint venture.

Since 2015 he is with Ericsson Research, leading electronics, antenna, and IOT research. Mr. Ekelund serves on the board of several publicly funded research and innovation programs as well as on that of some corporations and government bodies.

Lars Reger

Lars Reger is executive vice president and chief technology officer of NXP Semiconductors. As CTO, Lars is responsible for managing new business activities and R&D in the focus markets of automotive, industry 4.0., internet of things (IoT), mobile, and connectivity & infrastructure.

Before joining NXP, Lars gained deep insight into the microelectronics industry with a focus on the automotive sector. He began his career with Siemens Semiconductors as product engineer in 1997. His past roles at Infineon included head of the process and product engineering departments, project manager for mobile system chips, and director of IP management. Prior to joining NXP as head of automotive strategy in 2008, he was responsible for business development and product management within the connectivity business unit at Continental.

In December 2018, Lars was appointed CTO and has since then been responsible for the overall technology portfolio of NXP. Since April 2019, he has been a board member of the committee for digital economy, telecommunications and media in the German Industry Association. Lars is also on the board of directors of ITS World Congress and a member of the Forbes Technology Council. Lars earned a degree in physics from Rheinische Friedrich-Wilhelms-Universität in Bonn and an MBA from London Business School.

Thomas Kropf

Professor Thomas Kropf is president of the Bosch Group’s corporate center for research and advance engineering. Headquartered in Renningen, Germany, the research sector has locations across the globe, including major research and technology centers in North America, China, and India. It covers all the systems and technologies found in Bosch products, ranging from mobility solutions, industrial technology, and energy and building technologies, to consumer goods. In addition, Kropf is also responsible for the Bosch Center for Artificial Intelligence, as well as for grow, a Bosch-internal start-up platform.

Prior to his current assignment, Kropf was senior vice president with responsibility for cross-divisional automotive systems engineering in the Mobility Solutions business sector. In this role, he also defined the company’s automotive technology strategy, reporting directly to the Bosch board of management.

Further assignments included responsibility for the Infotainment business unit of the Bosch Car Multimedia division, product management and advanced engineering in the Chassis Systems Control division in Abstatt, Germany, software and systems engineering as well as customer project management for radar, video, and ultrasonic driver assistance systems in the Driver Assistance business unit in Leonberg, and microelectronics development in the Automotive Electronics division.

Professor Kropf joined Bosch in 1999, after a spell as an assistant professor at the Karlsruhe Institute of Technology, Germany. He holds a master’s degree in electrical engineering from the University of Darmstadt, Germany, as well as a Ph.D and a higher doctorate (‘Habilitation’) in computer science from Karlsruhe Institute of Technology (KIT), Germany.

In addition to his position at Bosch, Thomas Kropf is adjunct professor at the University of Tuebingen, Germany, where he teaches computer science.