COREnect

PAVING THE WAY FOR EUROPEAN TECHNOLOGICAL SOVEREIGNTY IN 5G AND BEYOND

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5G PPP Webinar: New 5G Core Technologies Innovation Projects

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A Problem of Technological Sovereignty in 5G and Beyond

Network Equipment Vendor World [1]

- Limited and even no European alternatives for supplying 5G electronic subsystems and components!!
- Missing economic opportunities and low resilience to supply chain disruption
- Security concern on data and critical infrastructure
- Limit future prospects and innovation capability towards 6G, 7G, ...

Electronic System Production – Position of Europe in 2018 (in euros) [2]

COREnect — European Core Technologies for future connectivity systems and components

- ICT–42–2020, 5G PPP Phase 3
- Project duration: July 1st, 2020 – June 30th, 2022
- Funding: €1Mio
- Coordinator: Technische Universität Dresden
- 12 Partners from 7 countries
## COREnect Partners

### Value Chain for Future Connectivity System

<table>
<thead>
<tr>
<th>Verticals</th>
<th>Connectivity Platforms</th>
<th>Subsystem Integration</th>
<th>Components</th>
<th>Semiconductor Devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Big Industry: EAB, IIV/Nokia</td>
<td>ERICSSON, NOKIA, ST, BOSCH</td>
<td>CEA, IMEC</td>
<td>IFAG, NXP, ST</td>
<td>AUSTRALO</td>
</tr>
<tr>
<td>Association: 5G IA</td>
<td>Siemens</td>
<td>Technische Universität Dresden</td>
<td>Association: AENEAS</td>
<td>SME: AUSTRALO</td>
</tr>
<tr>
<td>Academia: TUD/BI</td>
<td>Technische Universität Dresden</td>
<td>Leti</td>
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### Composition of COREnect in the Value Chain

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### Major Stakeholders @ the Same Table

**Telecommunications**
- Big Industry: EAB, IIV/Nokia
- Association: 5G IA
- Academia: TUD/BI

**Microelectronics**
- Big Industry: IFAG, NXP, ST
- Association: AENEAS
- Academia: CEA, IMEC

**5G and Beyond Vertical**
- Big Industry: Bosch

**SME Community**
- SME: AUSTRALO
COREnect Objectives

- To decrease European dependence on other continents for supplying electronic subsystems and components, paving the Way for European Technological Sovereignty in 5G and Beyond;

- To bring European major players in microelectronics and telecommunications together to develop a strategic roadmap of core technologies for B5G/6G, laying a solid foundation for the long-term success of both industries;

- To establish a connection and collaboration between the Smart Networks and Services (SNS) community and the Key Digital Technologies (KDT) community at the strategic research & innovation agenda level;

- To promote COREnect results to stakeholders in both private and public sectors, including creating the condition for one or more European champion(s) in the domain of core technology for attaining technology sovereignty in 6G.
COREnect Methodology

3 Expert Groups (EGs) for 3 technical domains:

- EG #1: Compute/Storage
- EG #2: Connect & Communicate
- EG #3: Sense & Power

COREnect Expert Groups

- 61 Internal experts from project partners
- 35 External experts
- EG1 currently recruiting experts info@corenect.eu

Vision & Strategy definition

Step 1

Technical Domains & Investments Requirements

Step 2

Core Technologies Roadmapping

Step 3

Guideline & Recommendations

Step 4

Community building and outreach
COREnect interactions with other communities

Two main objectives

- **COREnect provisioning ecosystem**
  Identify/engage stakeholders to become part of the “European core technologies for future connectivity systems,”

- **COREnect use-case ecosystem**
  Identify external communities that benefit from the results obtained and released by the COREnect community

All stakeholders, i.e. ICT-42 IA project partners, welcome to comment on COREnect recommendations, and/or apply as COREnect experts – by Feb-28-2021

- Public consultation on “Initial vision and requirement” report
  - [https://www.corenect.eu/publicconsultation](https://www.corenect.eu/publicconsultation)

- Recruitment of experts currently open
Disclaimer

This presentation is based on the work of COREnect project. It reflects the collected views of all experts involved. It does not reflect the opinion of any single COREnect partner or any of the organizations with which the experts are affiliated. The COREnect project and its consortium partners are not liable for any consequence stemming from the reuse of this publication.
Paving the Way for European Technological Sovereignty in 5G and Beyond

Roadmap
- Industries
- Expert Groups

1
2
3