

# COREnect

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

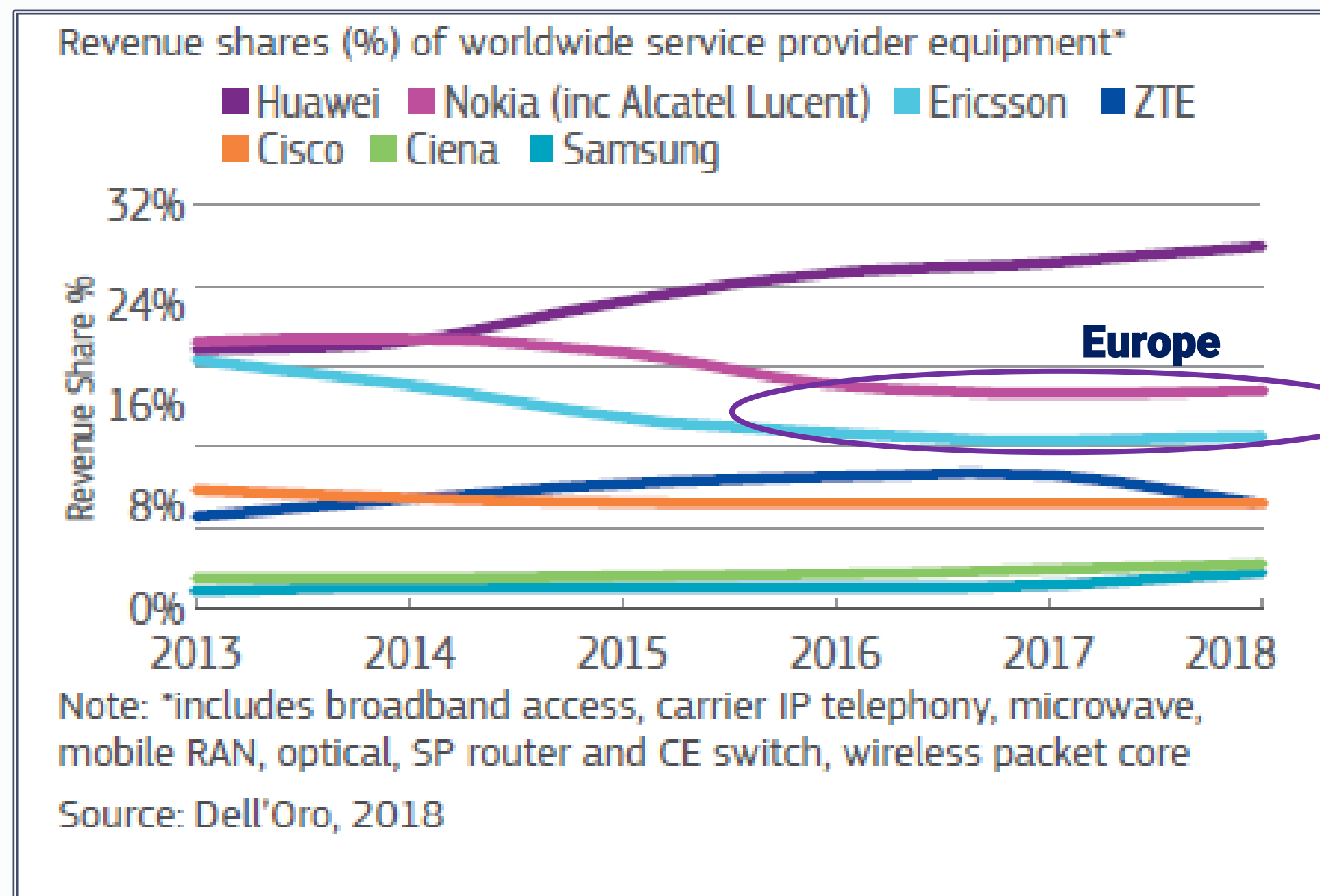
Gerhard Fettweis, TU Dresden  
February 16, 2021

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

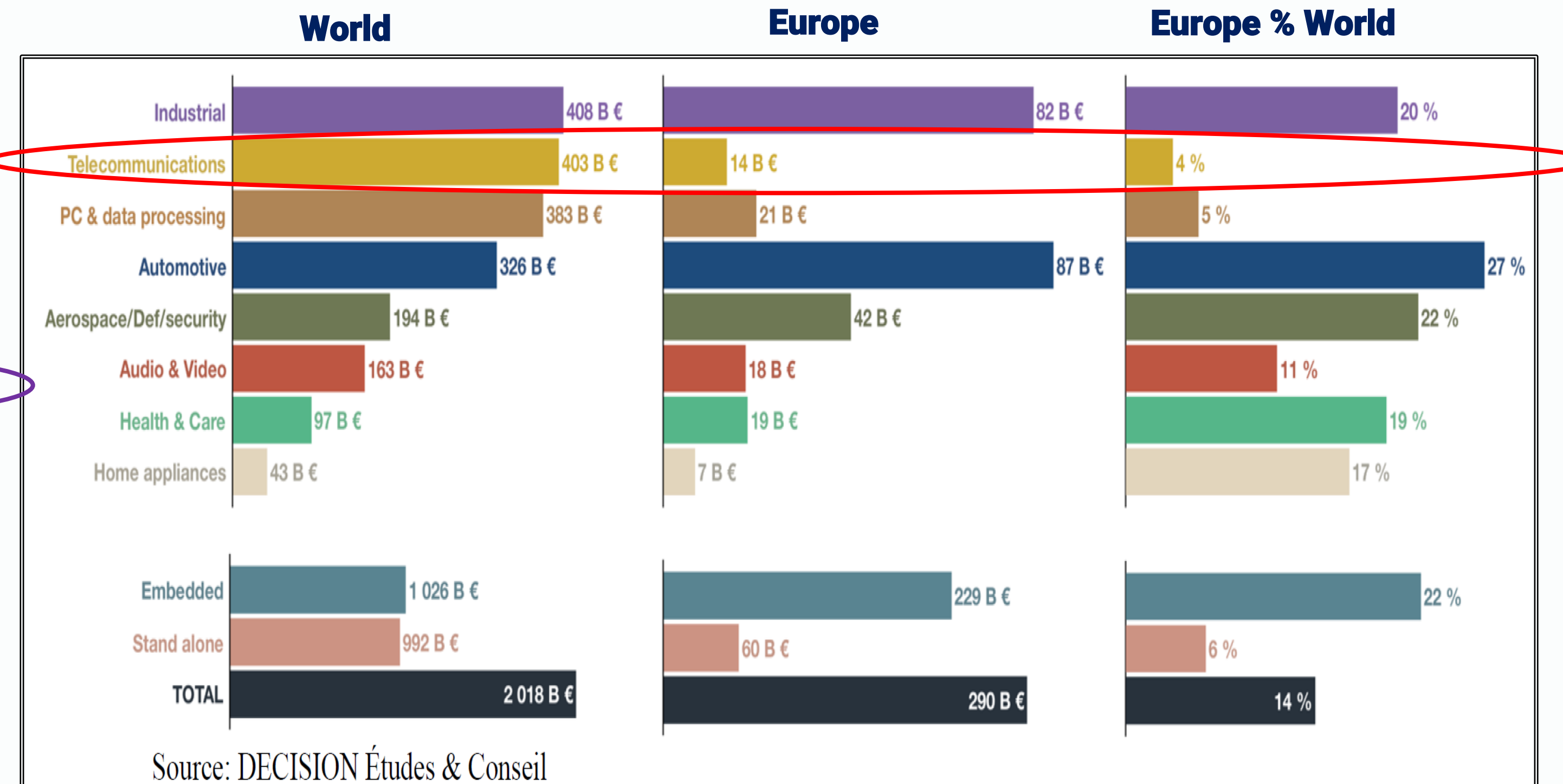


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# A Problem of Technological Sovereignty in 5G and Beyond



Network Equipment Vendor World [1]



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

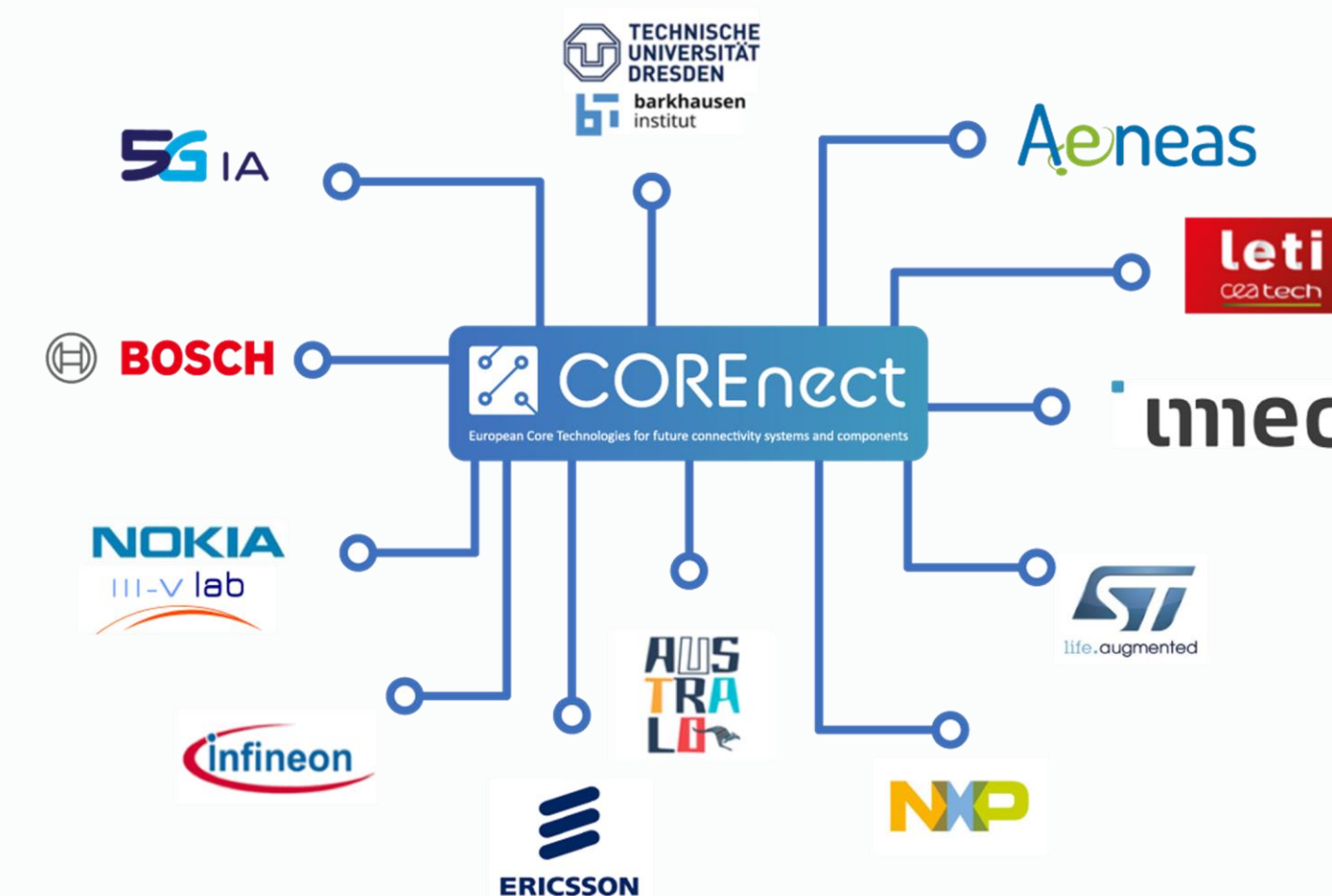
- **Limited and even no European alternatives for supplying 5G electronic subsystems and components!!**
  - Missing economic opportunities and low resilience to supply chain disruption
  - Security concern on data and critical infrastructure
  - Limit future prospects and innovation capability towards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

[1] [https://ec.europa.eu/epsc/sites/epsc/files/epsc\\_strategic\\_note\\_issue30\\_strategic\\_autonomy.pdf](https://ec.europa.eu/epsc/sites/epsc/files/epsc_strategic_note_issue30_strategic_autonomy.pdf)

[2] <https://ec.europa.eu/digital-single-market/en/news/emerging-technologies-electronic-components-and-systems-ecs-opportunities-ahead-0>

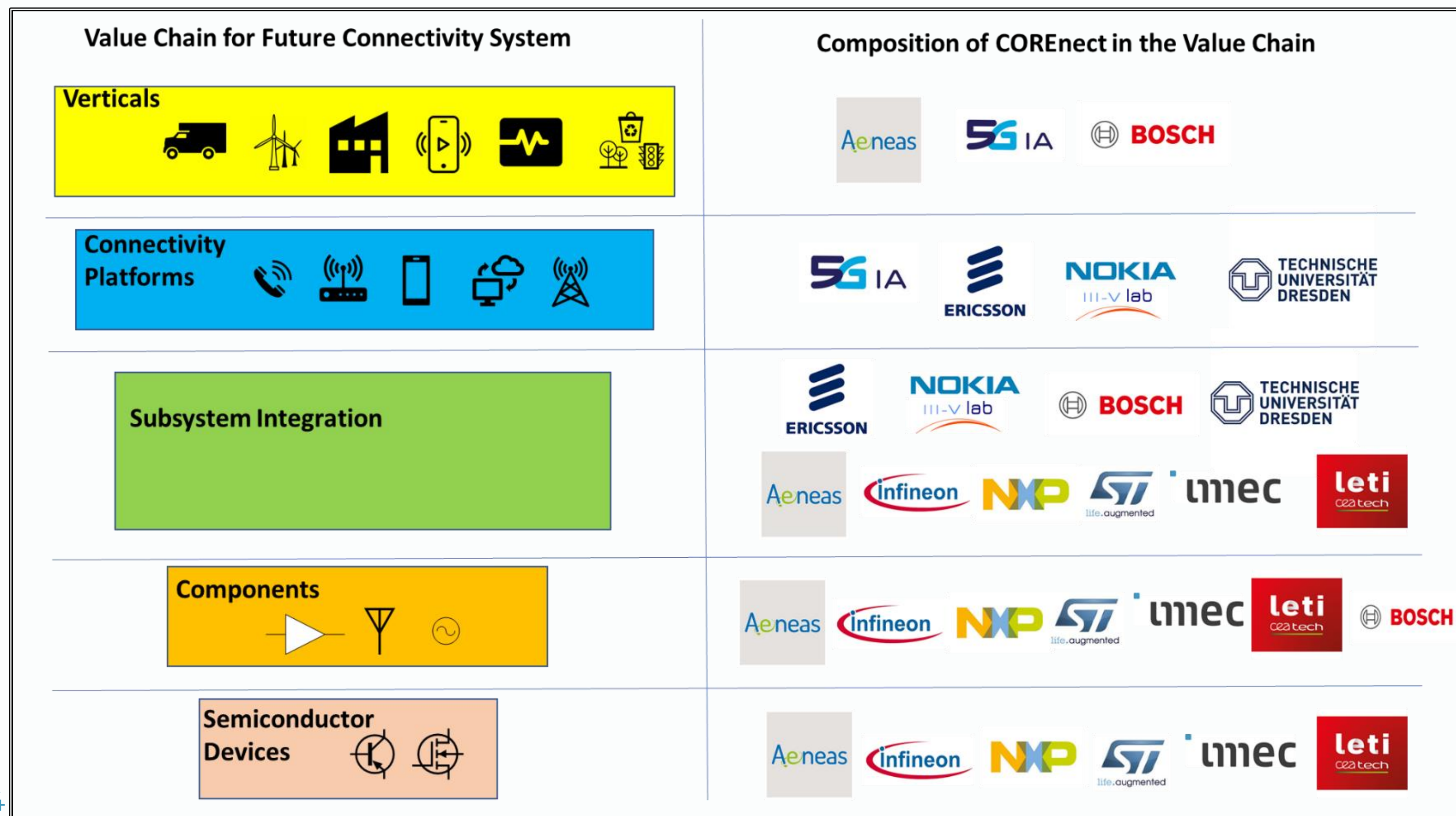


- **COREnect — European Core Technologies for future connectivity systems and components**
  - **ICT-42-2020, 5G PPP Phase 3**
  - **Project duration: July 1<sup>st</sup>, 2020 – June 30<sup>th</sup>, 2022**
  - **Funding: €1Mio**
  - **Coordinator: Technische Universität Dresden**
  - **12 Partners from 7 countries**





## ○ COREnect Partners



Telecommunications
<ul style="list-style-type: none"> <li>• Big Industry: EAB, IIV/Nokia</li> <li>• Association: 5G IA</li> <li>• Academia: TUD/BI</li> </ul>
Microelectronics
<ul style="list-style-type: none"> <li>• Big Industry: IFAG, NXP, ST</li> <li>• Association: AENEAS</li> <li>• Academia: CEA, IMEC</li> </ul>
5G and Beyond Vertical
<ul style="list-style-type: none"> <li>• Big Industry: Bosch</li> </ul>
SME Community
<ul style="list-style-type: none"> <li>• SME: AUSTRALO</li> </ul>

**Major Stakeholders @ the Same Table**



## ○ **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.**

## 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](mailto: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



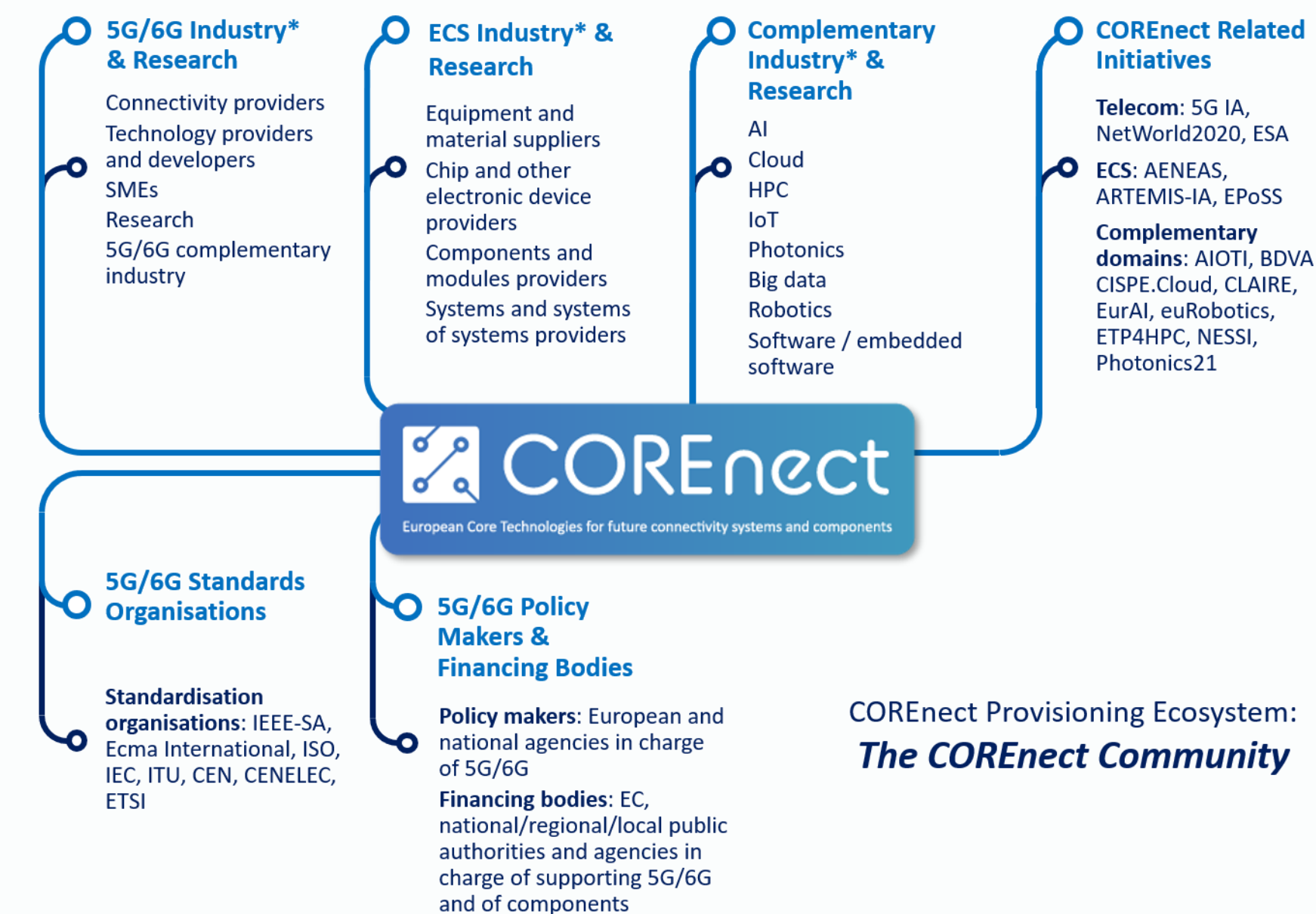
# COREnect interactions with other communities

## 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

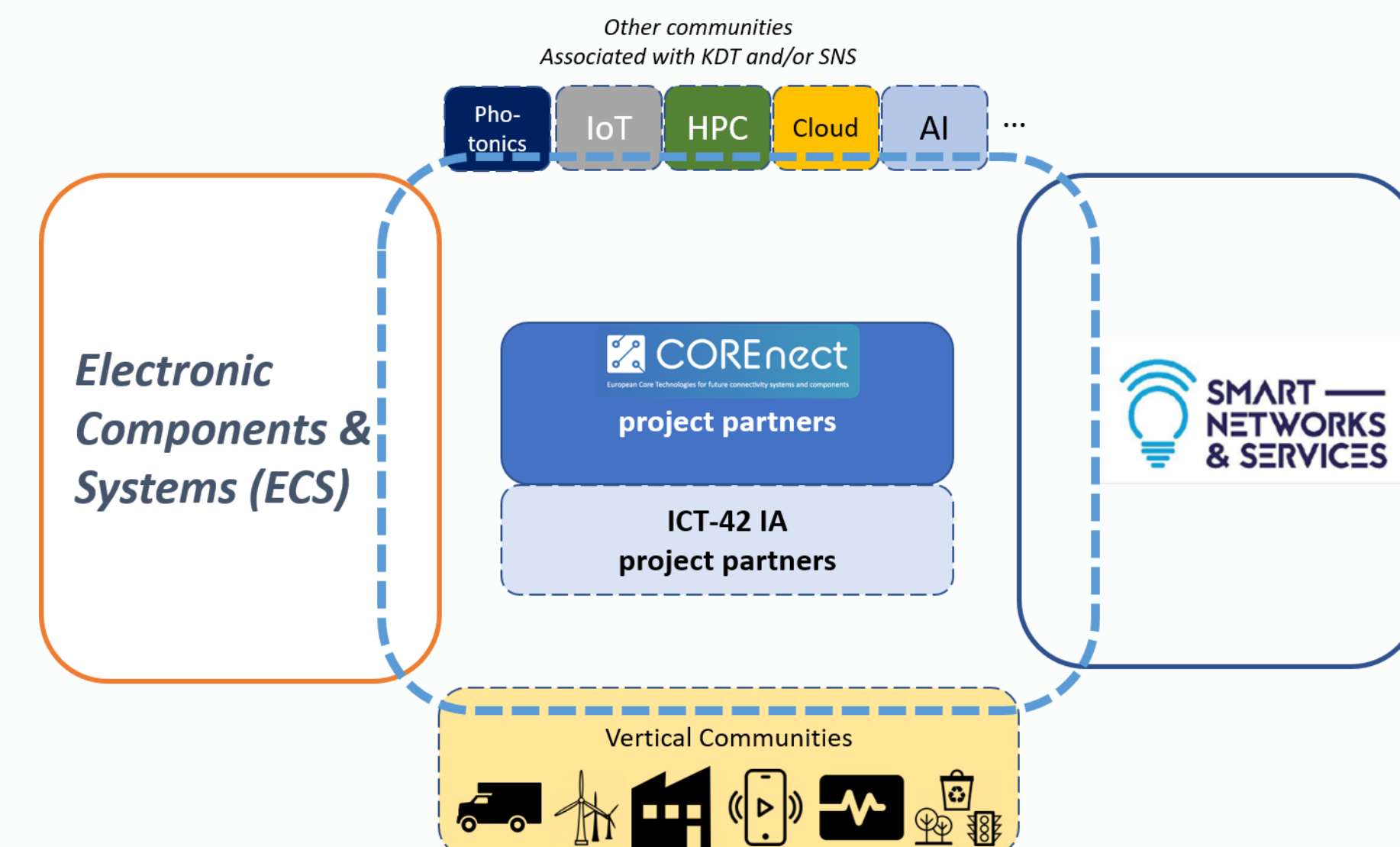
**All stakeholders, i.e. ICT-42 IA project partners, welcome to comment on COREnect recommendations, and/or apply as COREnect experts – by Feb-28-2021**

- Public consultation on “Initial vision and requirement” report
- <https://www.corenect.eu/publicconsultation>
- Recruitment of experts currently open
- <https://www.corenect.eu/news/call-for-experts>



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\* SMEs and large companies are stakeholders of this category and in all its sub-groups



# Disclaimer

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*Paving the Way for European  
Technological Sovereignty in 5G  
and Beyond*

1 *Roadmap*  
2 *Industries*  
3 *Expert Groups*