

Business Tampere

FKE Kick-off

Developing international networks for Photonics

29.11.2023

Business Tampere, N. N.



Business Tampere!

Economic Development agency

Investment promotion agency

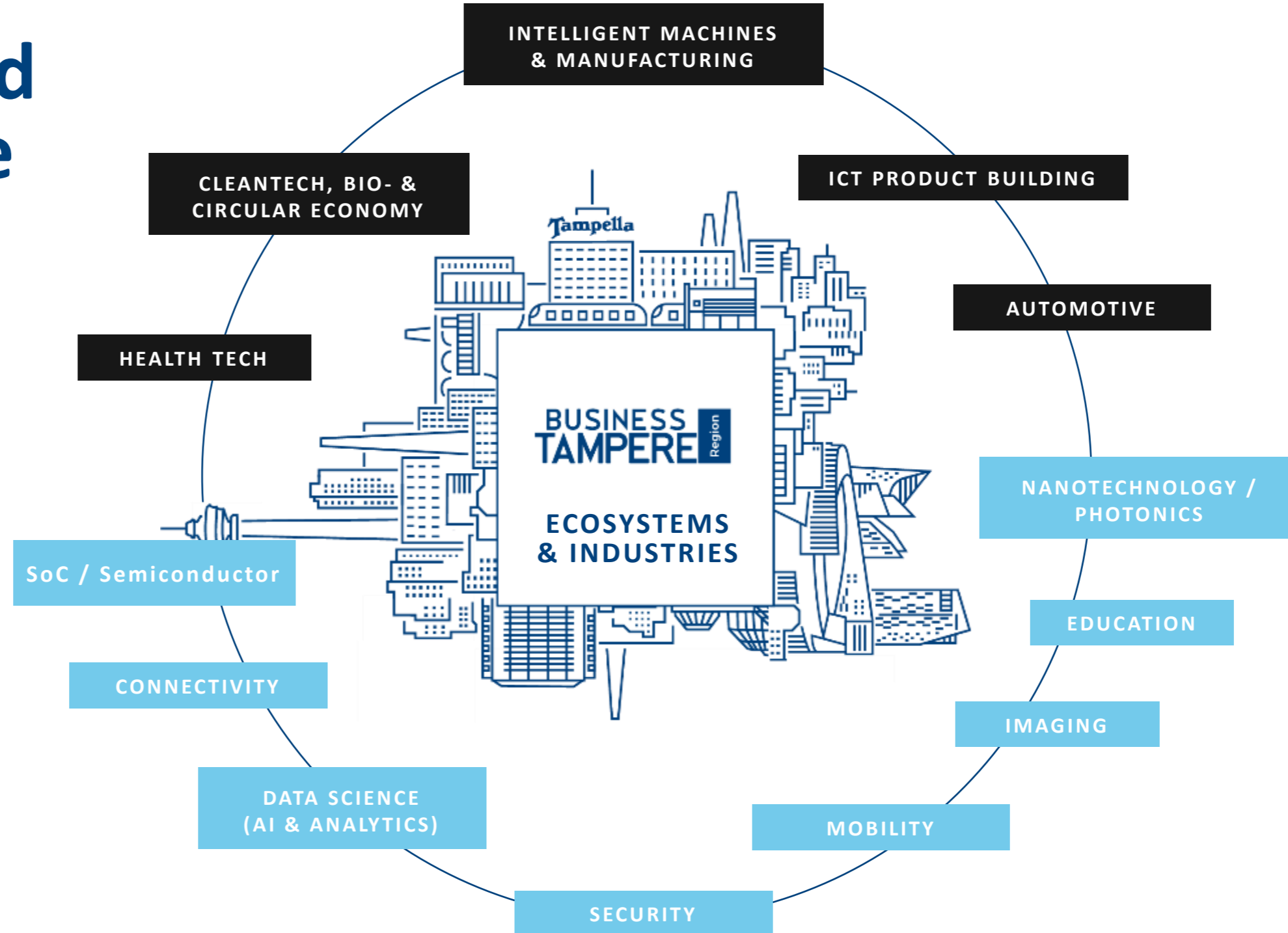
Ecosystem developer and coordinator

Your business. Our passion.

business tampere.com
#business tampere

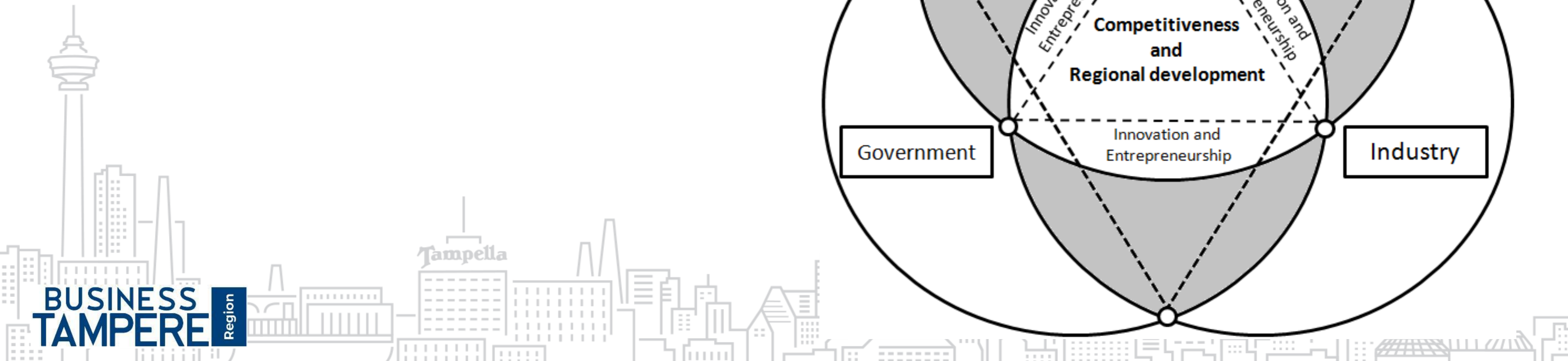
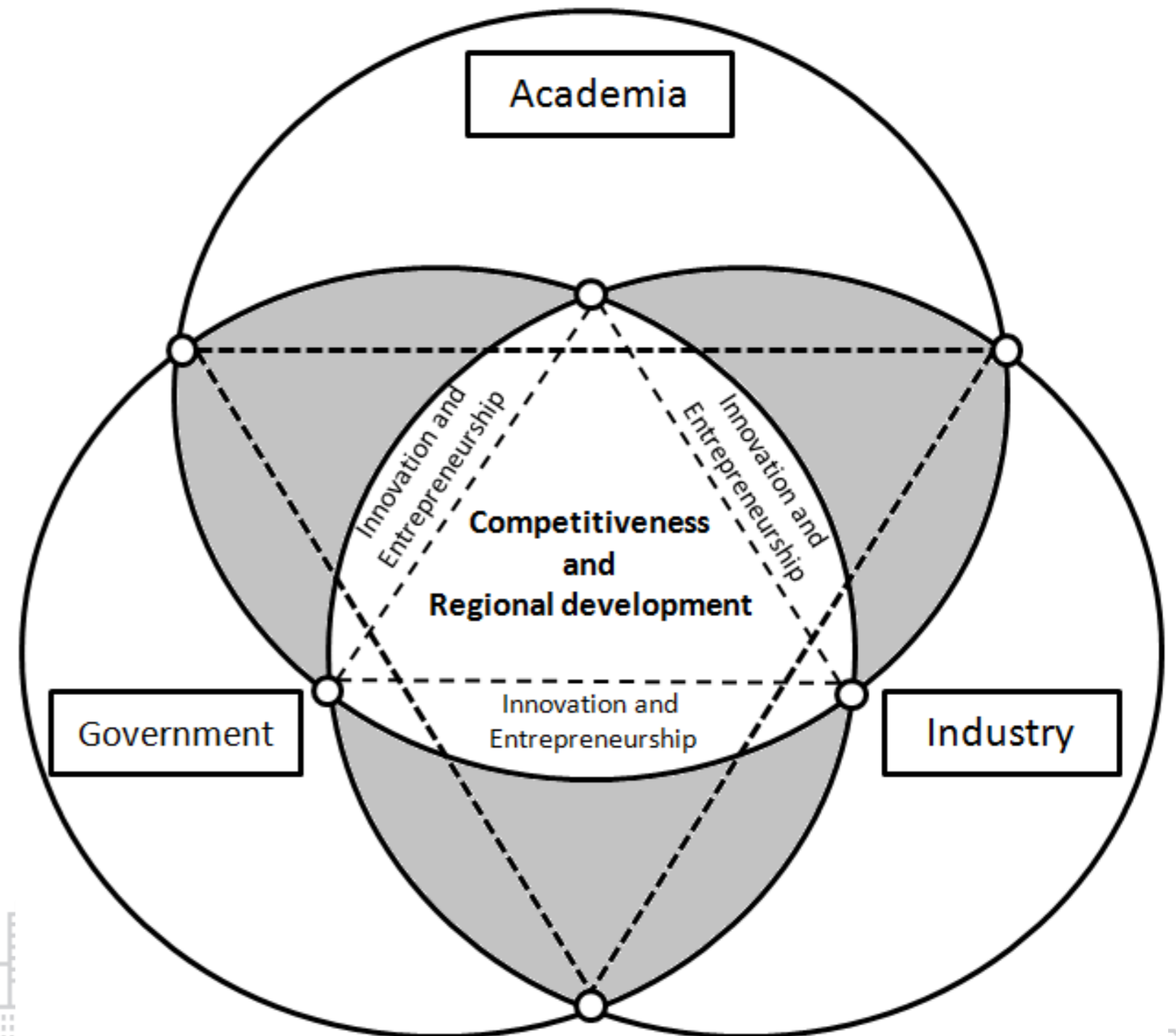
Top Industries and Ecosystems in the Tampere Region

To support the business growth and to boost innovations in the region and beyond.



Triple helix model of innovation

“A set of interactions between academia, industry and government, to foster economic and social development, as described in concepts such as the knowledge economy.”





IMAGING TAMPERE

Tampere Imaging Ecosystem

TAMPERE.
FINLAND

One of the top imaging hubs in the world

MACHINE AND DEVICE R&D



COMPONENT R&D



HEALTH



MANUFACTURING APPLICATIONS



SW DEVELOPMENT & TESTING



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Activities

Networking events, international audience in Tampere e.g. VCX conference, 2019

Facilitate multi-party PoC and Ecosystem development projects

International partner matchmaking

Stimulate research collaboration between businesses and university

Facilitate Business to education discussions

TAMPERE.
FINLAND



News !

Tampere won bid to host ICIP 2026

- IEEE International Conference on Image Processing
- Date: 13-17 September 2026



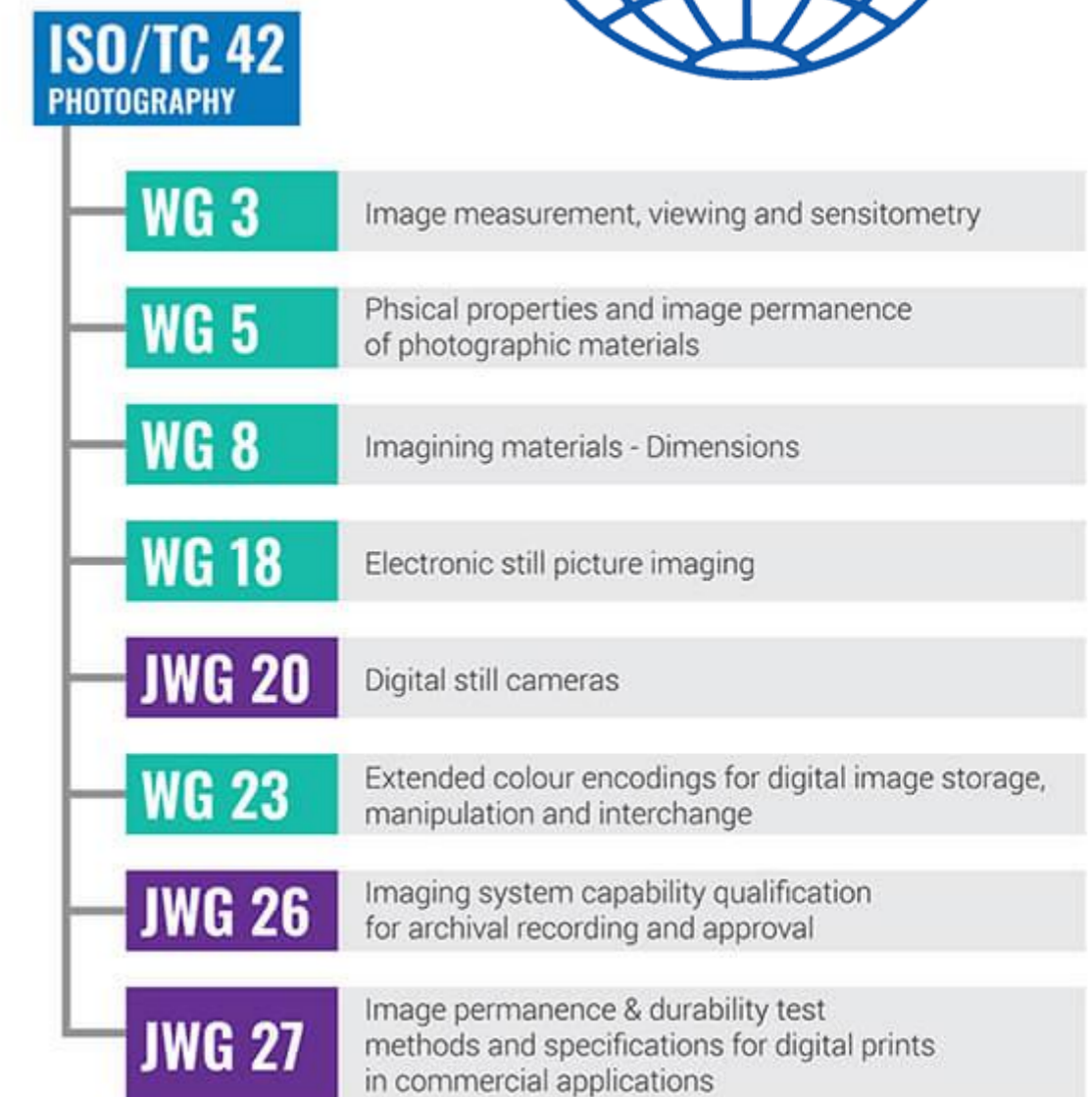
Last event, Nov 9th : Format

1. Short presentations
2. Entertainment !
3. Dinner, drinks & demos
4. Networking until late



Event : Speakers

- **Primax Electronics Ltd.** Matt Severaid, Director, Strategic Engagements
- **Microsoft Hololens** Liisa Peltonen, General Manager, Surface Camera & Finland
- **Varjo** Jobin James, Senior Product Manager
- **Grundium** Pasi Syvänen, Head of Engineering
- **OptoFidelity** Lasse Lepistö, CEO
- **CIVIT, Tampere Univ.** Jussi Rantala
- **TAUCHI, Tampere Univ.** Jari Kangas
- **Im.Engine** Igor Shevkunov
- **Crispy** Erdem Sahin
- **LensMakers** Mikko Juhola
- **Tampere Imaging Facility** Sanni Erämies, Tampere Univ.



Demos

- Microsoft Hololens
- Varjo
- Grundium
- CIVIT, Tampere Univ.
- TAUCHI, Tampere Univ.
- Crispy
- Tampere Imaging Facility



PDSVISION



TAMPERE.
FINLAND



flock safety



原相科技股份有限公司
PixArt Imaging Inc.



AAC TECHNOLOGIES



SONY



for better experiences



See the Difference.



SCANDIT



NOKIA Bell Labs



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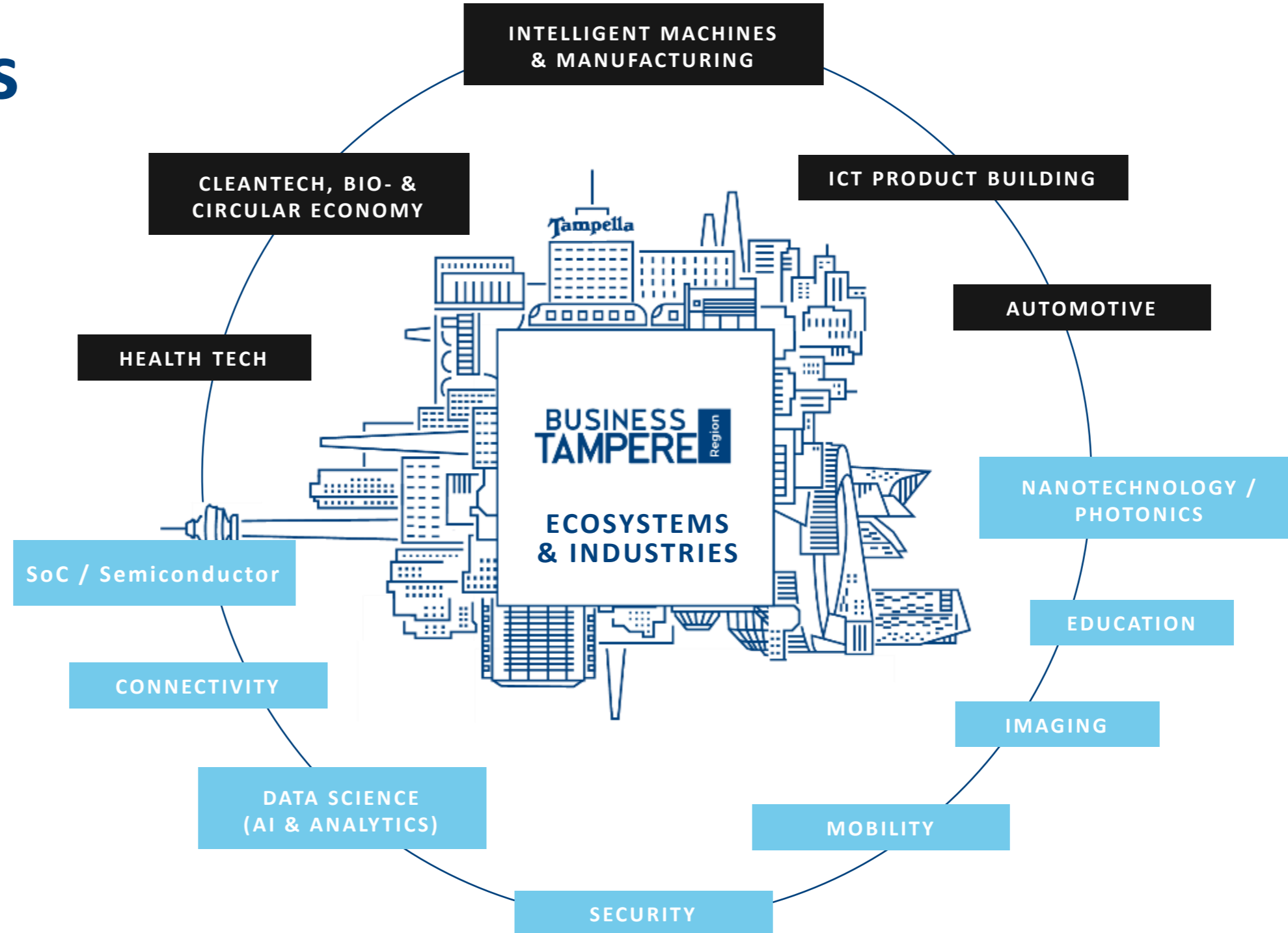
intel®



Great Vision for
Great Machines



Other Ecosystems / Clusters



Growing SoC Cluster

NOKIA

- Microsoft is the 2nd Tampere SoC FDI in past 2 years
- Nokia's largest SoC site globally, developing 5/6G

 **NORDIC**
SEMICONDUCTOR

TTTech

 **VLSI**
SOLUTION


Microsoft

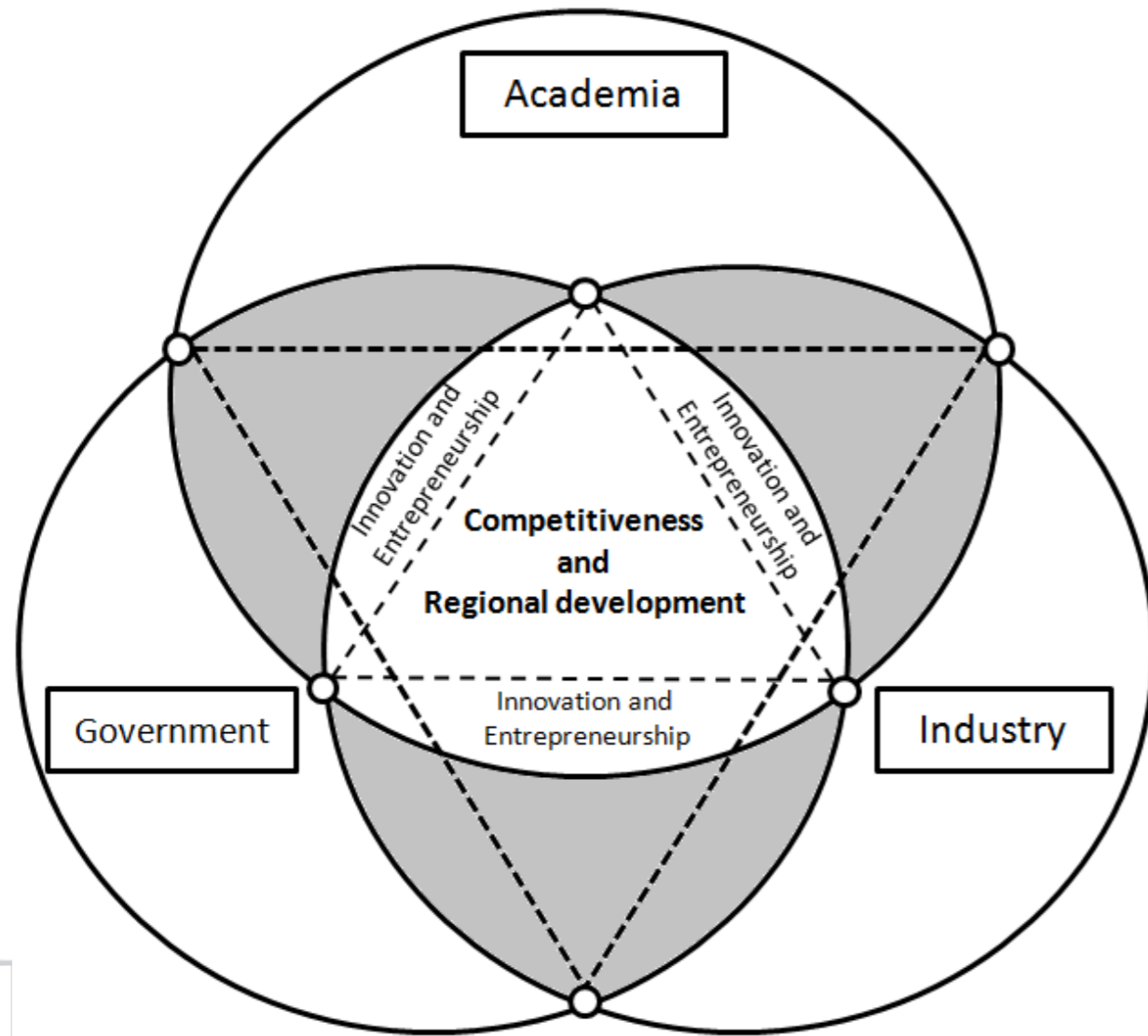
 **u-blox**

CoreHW

 *Wapice*



SoC HUB



NOKIA | Tampere University

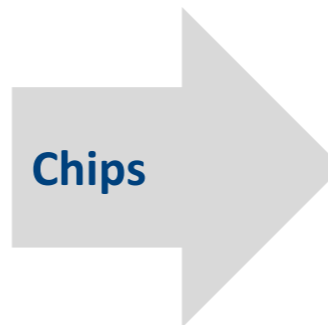
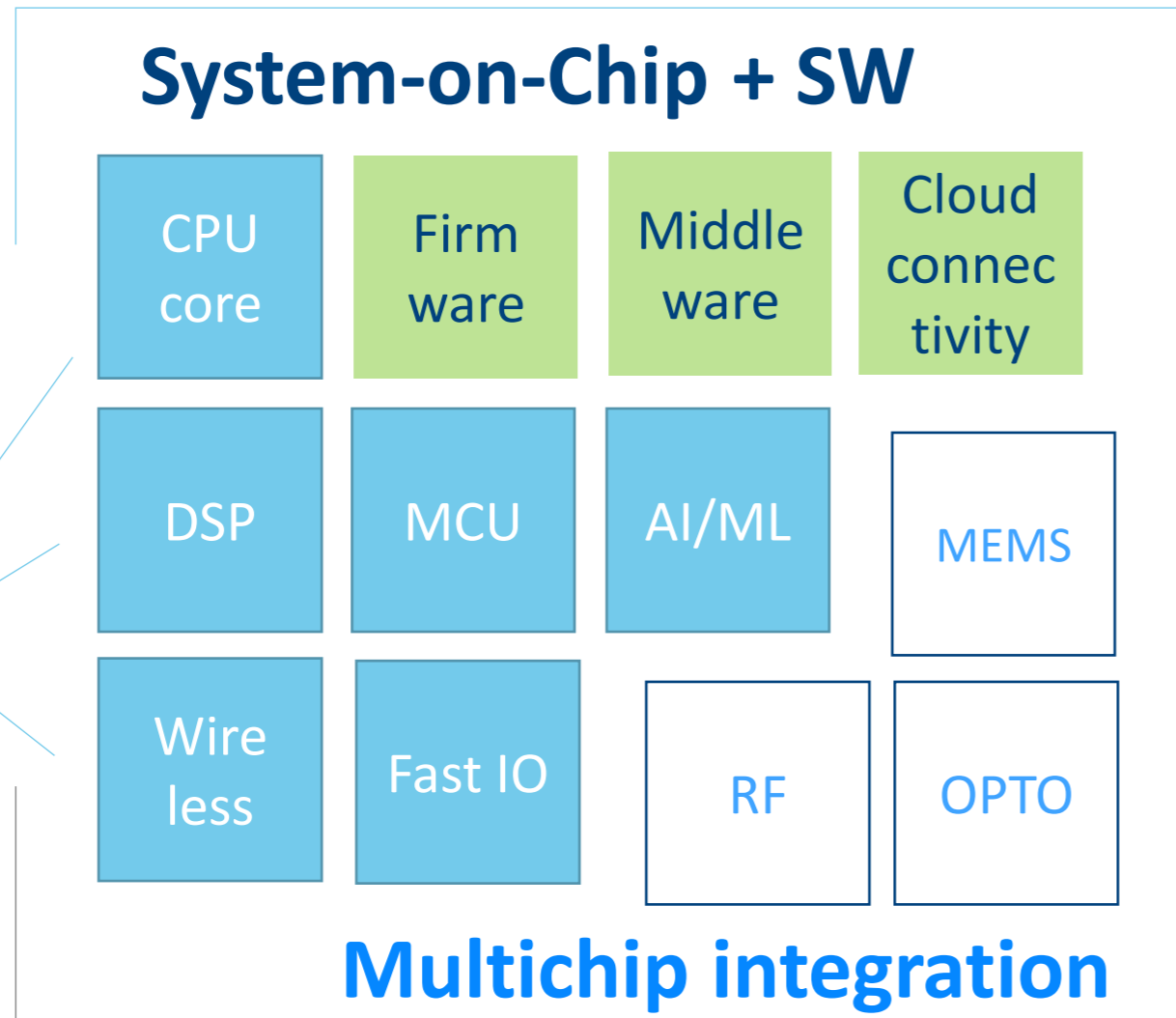
“This partnership is part of an exciting joint project that accelerates silicon innovation and ultimately enables operators to realize the benefits of 5G.”

Jyrki Vuorinen
Dean of the Faculty of IT and
Communication Sciences,
Tampere University

- Close “Triple Helix” cooperation between companies, university and city region
- National initiative

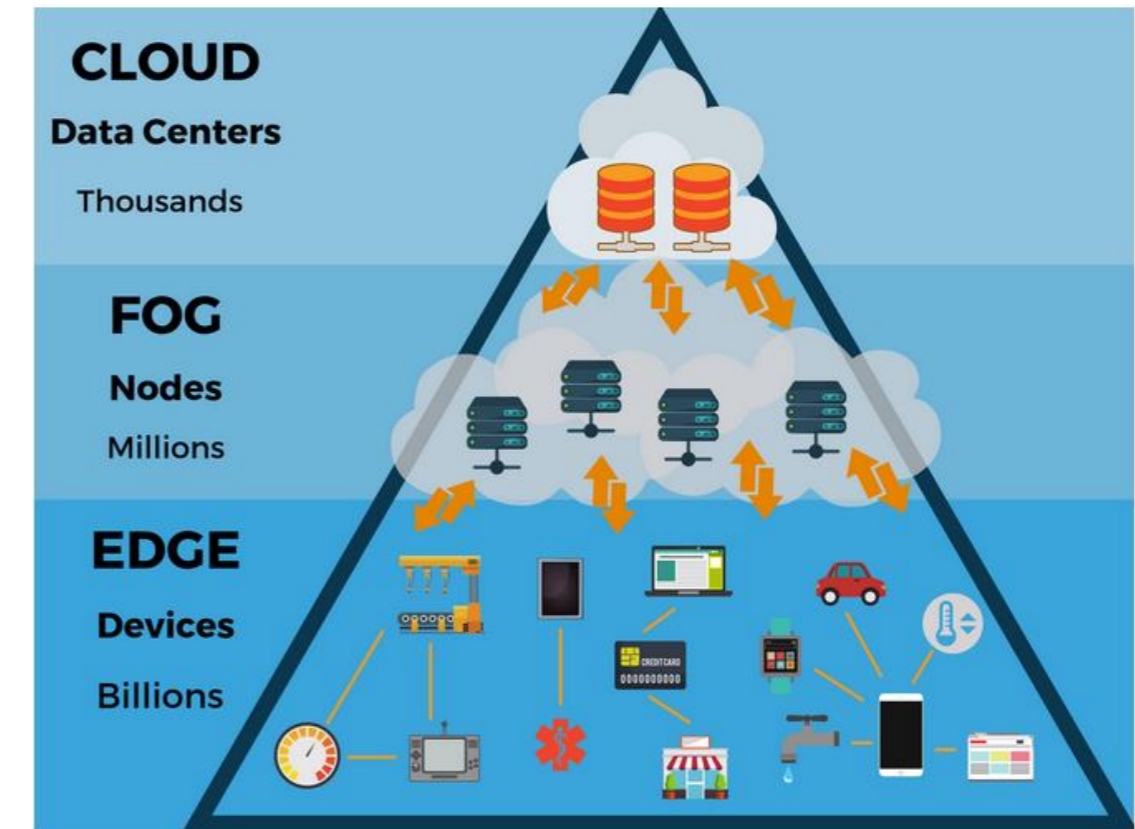
SoC Hub competence

European IP-block asset creation



EDGE computing

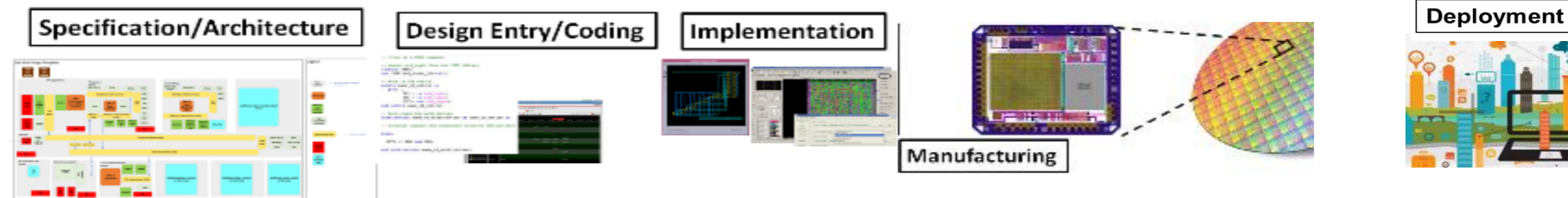
HW accelerated Microservices



Design process and collaboration competence

- Multi-partner agreements
- Common tool infrastructure
- Fast design & integration flow
- Virtual & PHY prototyping
- Software framework

Open-source revolution in HW design?

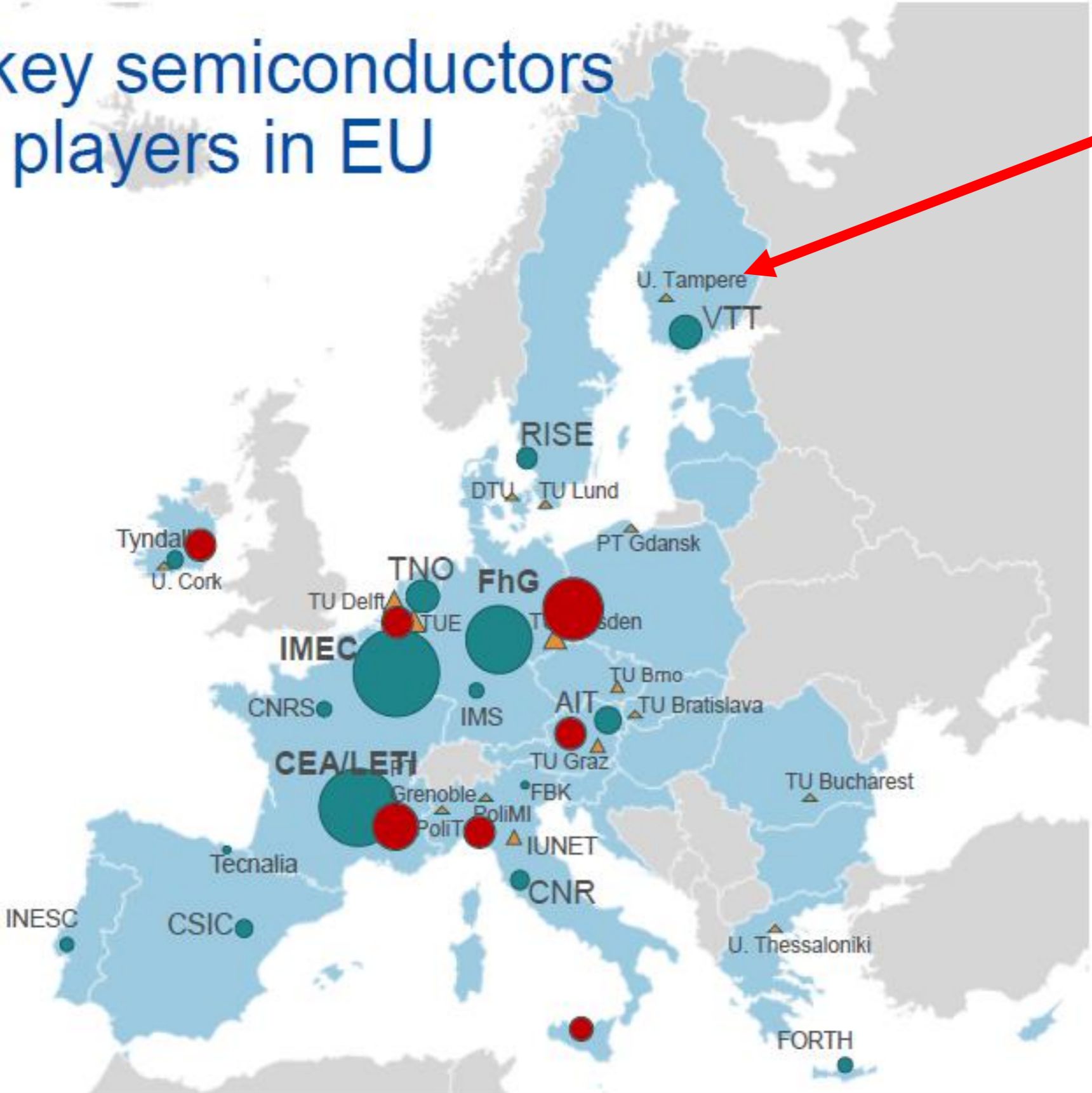


SoC Hub



The key semiconductors R&D players in EU

Slide 4



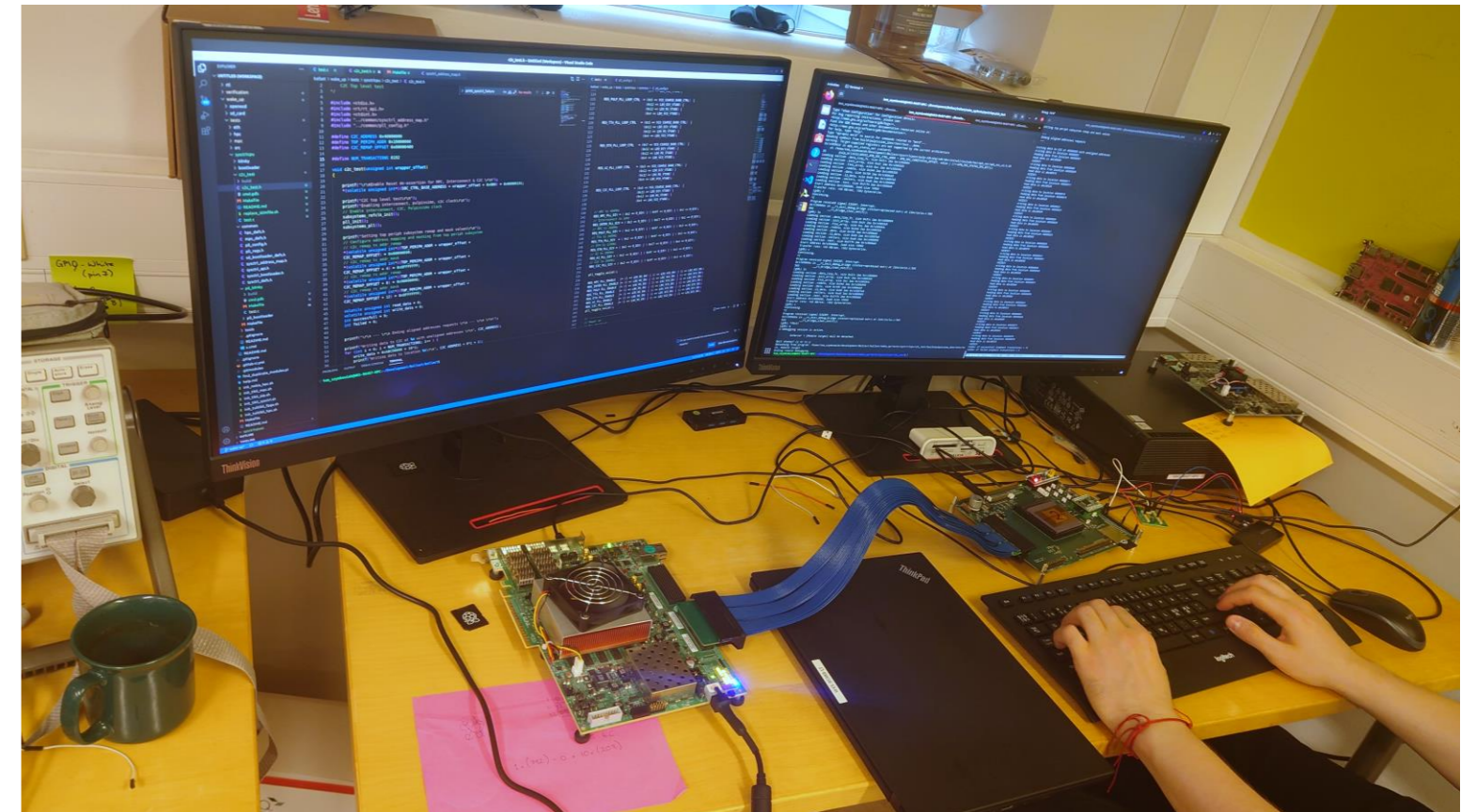
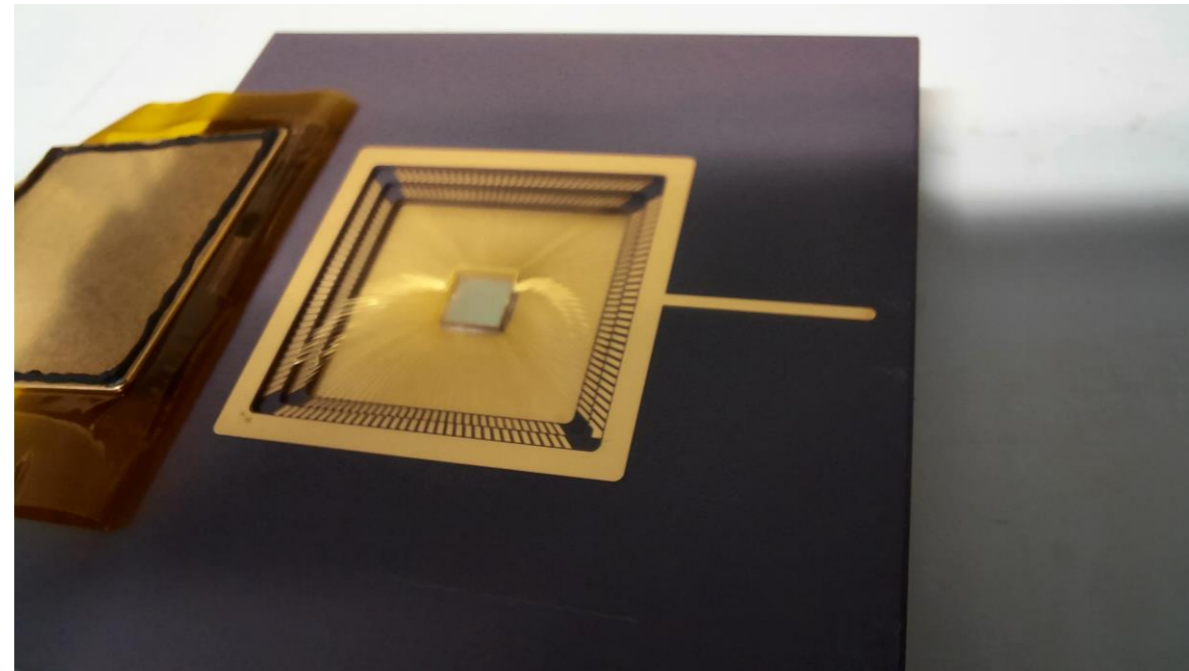
Legend keys

- Research and Technology Organisations
- ▲ Universities
- Main Industrial production sites

Size represents the intensity of activity in microelectronics



SoC Hub chip "Ballast"

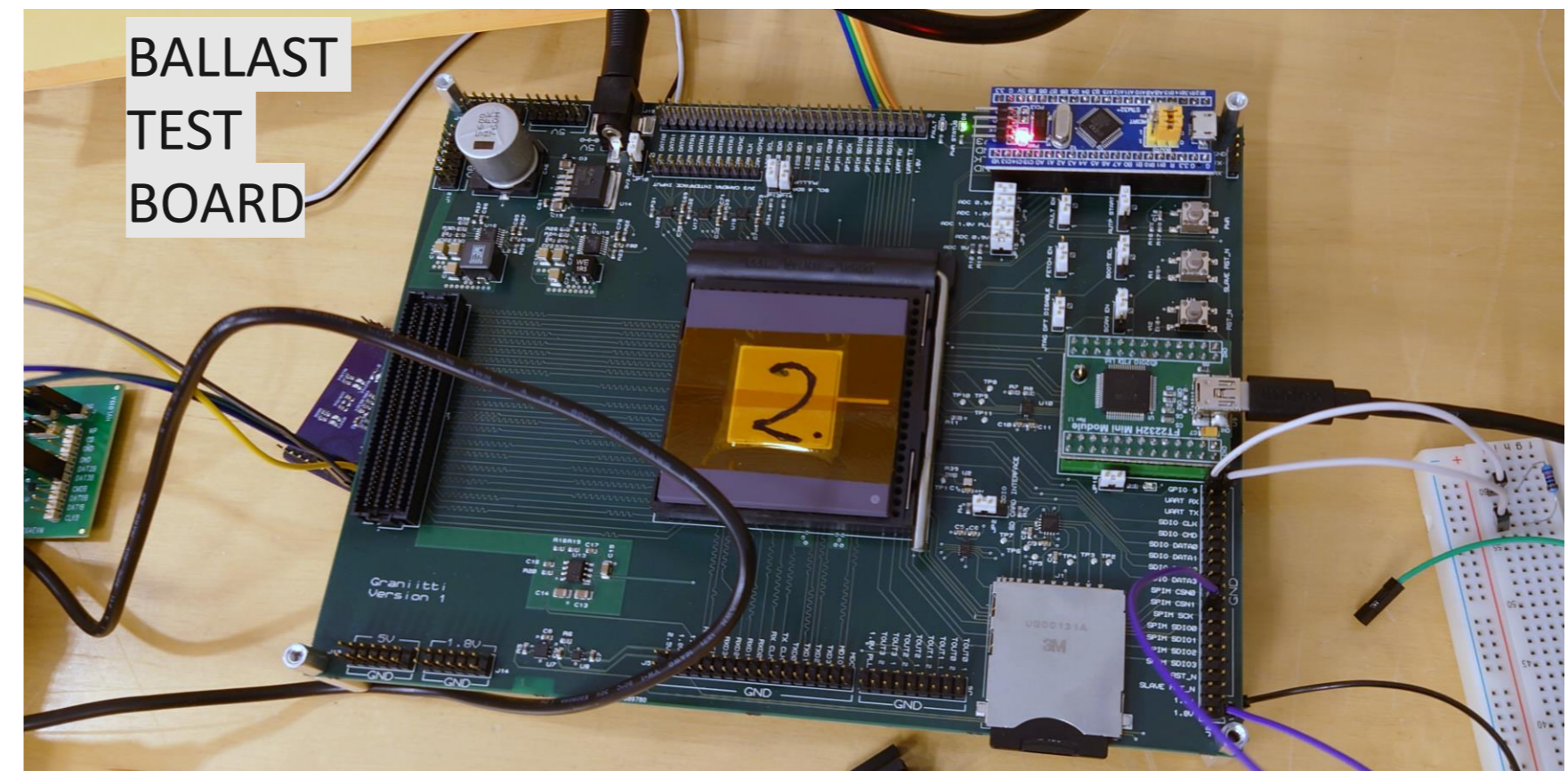
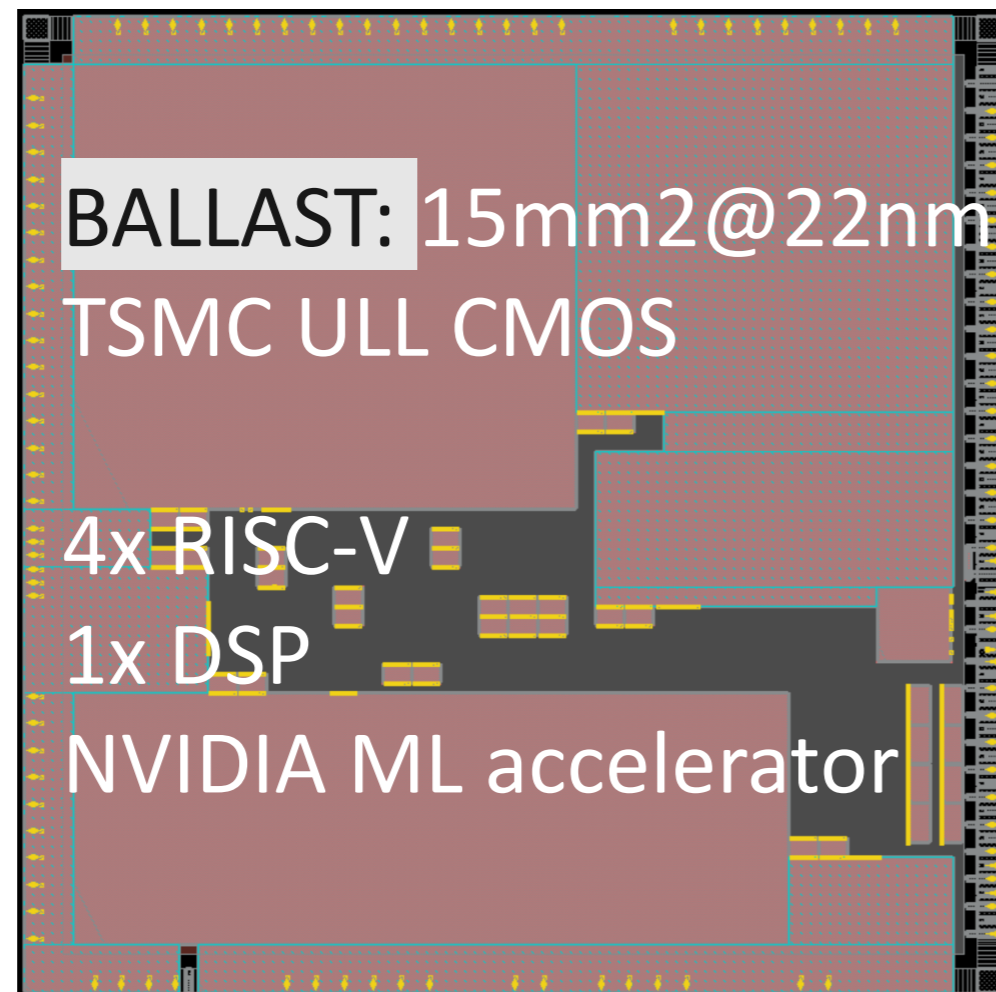


2023 Headsail

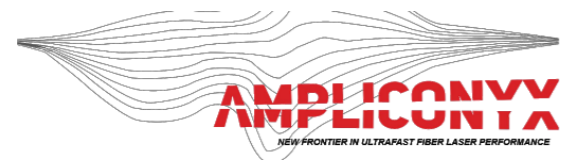


2022 Tackle

2021 Ballast



Photonics in Tampere - "Laser valley"



Circular Economy and Cleantech Ecosystem



- Cross-sectoral ecosystem for companies
 - Operating in bio & circular economy and cleantech sectors
 - Offering products or services related to green transition
 - Interested in resource efficient low-carbon development of their own operations and value/service chains
- Ecosystem companies are involved in various sectors i.e. energy, industry, material management & recycling, bioeconomy, built environment, water sector, logistics and mobility, ICT and AI
- Tampere regional climate partnership engages companies and communities in pursuing a carbon-neutral city region in cooperation with the Sustainable Tampere 2030 program – 125 partners already on board!

Tampere Chip Program

New initiative

Regional Chip Ecosystem

The semiconductor value chain

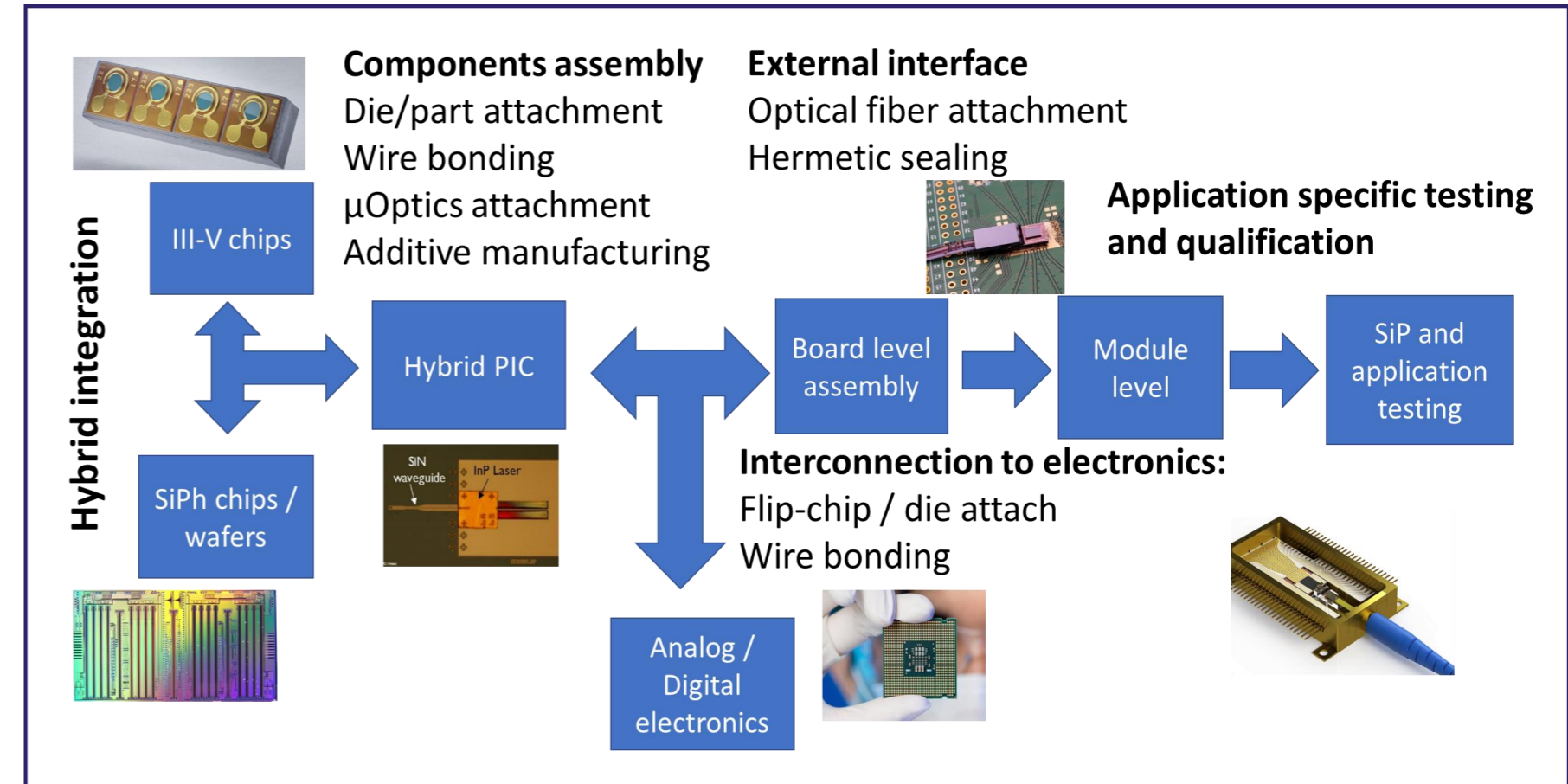
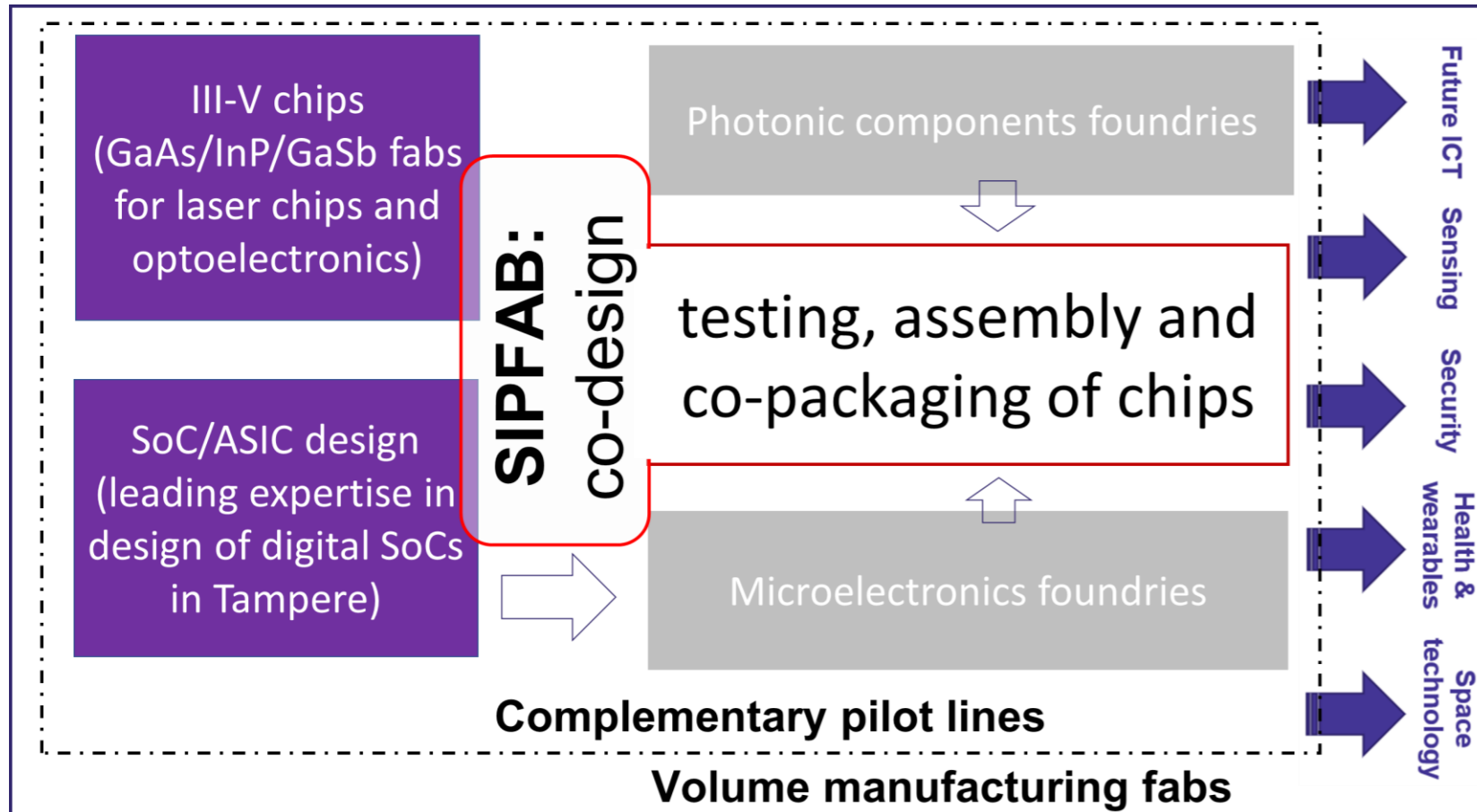
Core value chain

Wider ecosystem

Business models



SIPFAB: Pilot Line for Packaging of Hybrid Microelectronics-Photonics System of Chips (System-in-Package)



Your #1 Partner

TAMPERE.
FINLAND

...when relocating to Tampere Region!

New R&D sites Business Tampere supported:



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Conclusion

- We'll utilize these cross-pollination principals in this project, with a wider national approach
 - Imaging & Photonics
 - SoC & Photonics, as part of Chips from Finland
 - Photonics & Circular Economy
- Tampere role in project is internationalisation, networking
- Seek to attract international event





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