

Start Up Pitches

Coming Soon

J. Kinaret
Executive Director
Chips JU, Brussels, Belgium



Abstract

Coming Soon

Biography

Jari Kinaret was born in Finland and holds M.Sc. degrees in Theoretical Physics and Electrical Engineering from the University of Oulu in 1986 and 1987, respectively, and a Ph.D. in Physics from the Massachusetts Institute of Technology (MIT) in 1992. Prof. Kinaret has worked in various roles at research institutes and universities in Copenhagen, Denmark, and Gothenburg, Sweden. From 2013 to 2023, he served as the Director of the Graphene Flagship, a one-billion-euro research project dedicated to exploring the potential of graphene. In October 2023, Prof. Jari Kinaret assumed the role of Executive Director at Chips Joint Undertaking (Chips JU), a European public-private partnership that supports research, development, innovation, and future manufacturing capacities in the European semiconductor ecosystem.

References

Beyond Glass: A New Reinforcement Architecture for High-Frequency Electronics

A. Wynn

CEO

Flexiramics B.V, Enschede, The Netherlands

Abstract

As electronic systems move toward higher frequencies, increasing data rates and greater power densities, the materials used in printed circuit boards and advanced substrates are becoming an increasingly important part of system performance.

Most PCB laminates continue to rely on woven glass fabrics to provide mechanical reinforcement and dimensional stability. At RF and mmWave frequencies, however, the dielectric properties of glass and its woven architecture can contribute to signal attenuation and local dielectric variation. Its relatively low thermal conductivity also limits lateral heat spreading within the laminate.

Flexiramics® introduces a different approach: a flexible ceramic microfiber nonwoven designed as a reinforcement for advanced polymer composites. By replacing woven glass with a highly porous, nonwoven ceramic network, the technology aims to combine the structural role of reinforcement with electrical and thermal properties better suited to next-generation electronics.

Recent material-level evaluations have demonstrated three relevant characteristics:

Low dielectric loss – Flexiramics-reinforced test laminates have demonstrated 70–75% lower dielectric loss compared with 1080 glass in comparable test laminates.

Improved lateral thermal conductivity – Flexiramics-based polymer composites have demonstrated in-plane thermal conductivity of approximately 2.0–2.2 W/m·K, supporting improved lateral heat spreading compared with conventional glass-reinforced systems.

Nonwoven reinforcement architecture – removing the periodic woven-glass structure eliminates the glass-weave architecture responsible for local reinforcement-related dielectric variation.

Together, these results demonstrate the potential of ceramic nonwoven reinforcement as a new material for high-frequency electronics.

The next development stage is focused on translating these demonstrated material properties into reproducible preregs and laminates, followed by PCB-level RF/mmWave validation and customer qualification.

The presentation will introduce the Flexiramics reinforcement concept, present current material-level performance data and discuss the development pathway from ceramic nonwoven reinforcement toward qualified high-frequency PCB laminates.

Biography

Andy Wynn, PhD is CEO of Flexiramics B.V. and a technology leader with 30 years' experience transforming new technologies into successful global businesses. Former CTO of Morgan Advanced Materials plc, \$Billion FTSE 250 multinational. Brings deep expertise in aligning innovation and business strategy across industries and geographies.

References

The myth of troubleshooting

L. Messinger
CEO
Korra.ai, Jerusalem, Israel



Abstract

The pitch is familiar by now: troubleshooting is what keeps tools down, and AI will finally shorten MTTR. It is a compelling story. It is also two claims stacked on top of each other, and neither has been examined closely.

The first is empirical. How much of a technician's working day is actually spent troubleshooting? Measured against the full picture of setup, qualification, PM, documentation, handoffs and procedure execution, the answer is a much smaller fraction than the industry's attention would suggest.

The second is a matter of judgment. Even where troubleshooting does happen, it is the worst possible place to point a probabilistic system. It is the moment with the least tolerance for a confident wrong answer, the least structured input, and the highest cost of being subtly plausible instead of correct.

This talk argues that AI has been aimed at the most visible problem in the fab rather than the most valuable one, and presents an alternative: grounding AI in what the organization already knows, and separating diagnosis from procedures. We will enhance and present methods needed for real world use cases.

Biography

Lior Messinger is the founder and CEO of Korra.ai, an AI company building knowledge retrieval systems for industrial environments where the data cannot leave the building. Korra's platform runs fully on-premises and air-gapped, and is deployed in production across semiconductor manufacturing and field service operations. Lior has spent 35 years building software in high-consequence environments. He previously led physics and AI development for flight simulators and video games. He founded Korra in 2020 to let AI understand technical procedures using documentation text, visuals, and historical data.

References

Magnetocalorics: Next-Generation Cooling for Semiconductors

R. Dubois
COO
Magnoric, Duppigheim, France

Abstract

Magnoric is developing a new generation of cooling systems based on the magnetocaloric effect, replacing conventional vapor-compression technology with a solid-state thermodynamic cycle.

Our technology operates without refrigerant gases and combines high energy-efficiency potential with silent, vibration-free operation and reduced maintenance requirements.

Magnoric has already developed and validated pre-series cooling platforms from a few hundred watts to more than 1 kW and is now scaling the technology toward higher-power applications.

For the semiconductor industry, magnetocaloric cooling opens new opportunities for efficient thermal management, process cooling and heat recovery. This presentation will introduce Magnoric's technology, its latest developments and its potential for next-generation semiconductor manufacturing applications.

Biography

Rémi Dubois is Chief Operating Officer at Magnoric, a French deep-tech company developing magnetocaloric cooling technologies. He is responsible for operations, business development and the industrialization of Magnoric's technology, working closely with industrial partners across cooling, energy and advanced manufacturing applications.

References