ECS
BROKERAGE
EVENT

SME Pitches

PiBond Oy

PiBond

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PiBond at a Glance

PiBond is a Finnish company with HQ, production and R&D in Finland and supplies materials globally to the industry

Headcount is ~100 persons, of which 39% are in R&D

Supplier of lithographic materials used in latest semiconductor process nodes

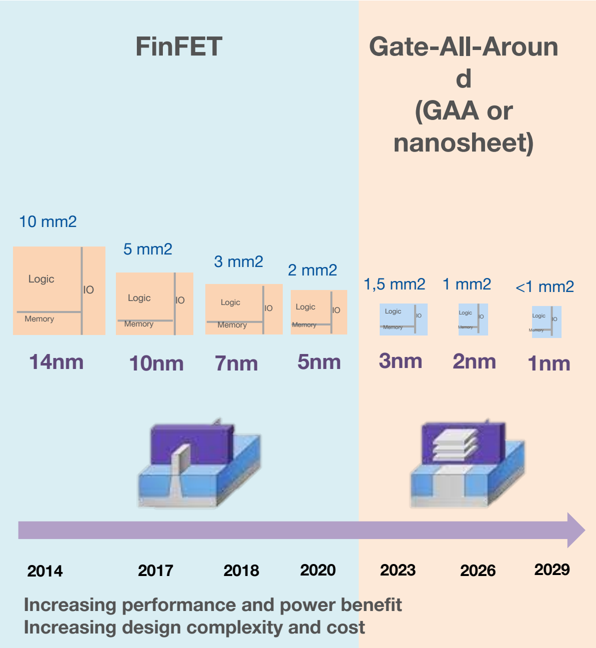
Global leader of advanced spin-on dielectrics adopted in sub-3nm semiconductor devices

MANAGEMENT SYSTEM CERTIFICATION
DNV
ISO 9001 • ISO 14001
ISO 45001

RESPONSIBLE CARE®
OUR COMMITMENT TO SUSTAINABILITY

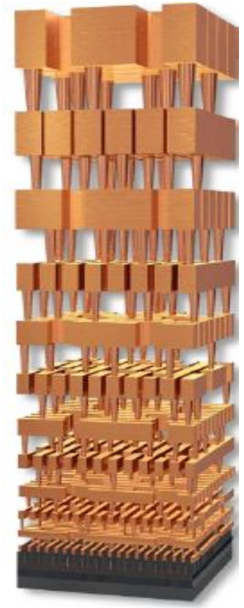
Manufacturing technology trends at Pibond driving the semiconductor industry

NODE SHRINK



>**2000 process steps** per wafer for a **GAA** transistor layers formation.

INTEGRATION



Hundreds of layers of **litho materials and dielectrics** (incl. low-k) for transistors' interconnections formation.

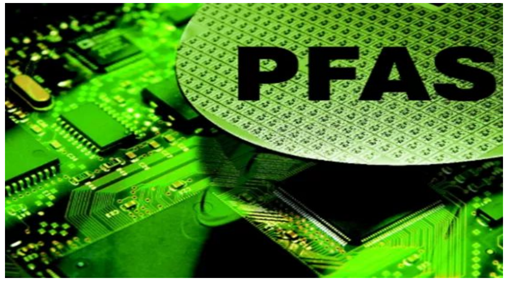
PACKAGING

Chiplets are advanced, modular semiconductor components combined like IC Lego blocks to form a more powerful, efficient system.

Backside power delivery increases area scaling by **30%** and decreases power consumption up **20%**.

SUSTAINABLE SOLUTIONS

PFAS (per- and polyfluoroalkyl substances), are critical and massively utilized in microchip processing.



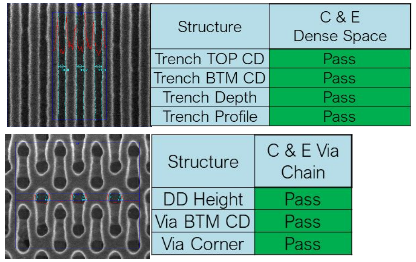
Pibond SiBARC, SOC and dielectrics are **PFAS-free** and Pibond is committed to provide **PFAS-free turnkey patterning solutions** for semiconductor manufacturing.

Material innovations are essential to enable new technologies

Source: Pibond, SEMI, Techcet, AMAT, Market.us, FT

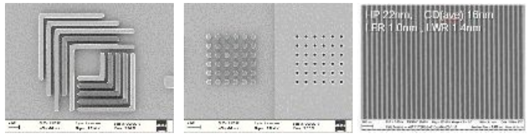
Product platforms – R&D, production and supply to industry

NODE SHRINK



Structure	C & E Dense Space
Trench TOP CD	Pass
Trench BTM CD	Pass
Trench Depth	Pass
Trench Profile	Pass

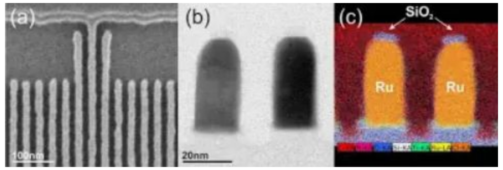
Structure	C & E Via Chain
DD Height	Pass
Via BTM CD	Pass
Via Corner	Pass

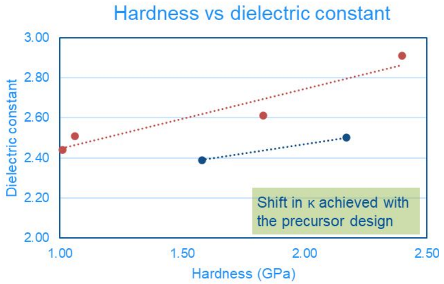


Litho chemicals designed and manufactured in Europe

- Silicon Bottom Anti-Reflective Coatings (SiBARC)
- Spin-on Carbons (SOCs)
- Novel inorganic photoresists

INTEGRATION

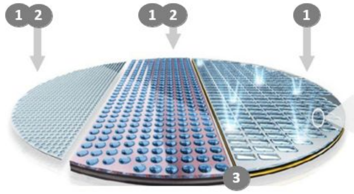


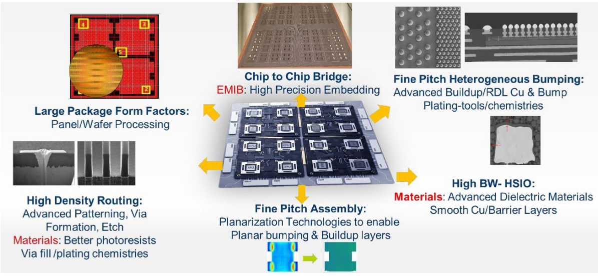


Advanced low k and thick dielectrics

- Patternable dielectrics also available

PACKAGING

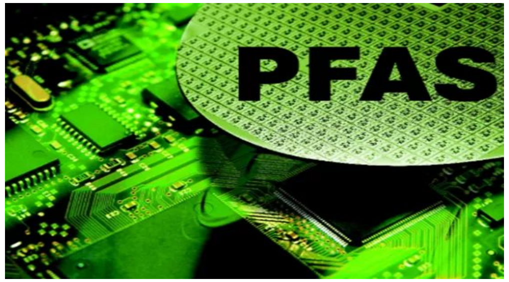




Packaging materials and dielectrics

- Polymer composites
- Optical materials for photonic integration and interconnects
- Dielectric materials for HBM / AI Chiplets

SUSTAINABLE SOLUTIONS



PFAS free solutions for all product segments

- Mitigation of PFAS generation and emission through materials and process innovation
- Sustainable material alternatives

PiBond’s Activities in collaborative projects

- Partner in **CHIPS JU project “GENESIS”**, starting in May 2025, developing sustainable solutions for the semiconductor industry
- Experienced personnel for collaborative projects
- Received EIC funding and participated in multiple national funded collaborative projects

Collaboration Expectations

We are providing **advanced material development expertise** to support the European semiconductor industry.

One of the only European advanced material suppliers – materials are designed and produced in Finland and can contribute to the **localization of critical semiconductor material supply chain.**

Looking forward to collaborate in:

1. Low TRL: **material development for litho / BEOL / packaging** □ HORIZON-Chips-2025-RIA
2. Higher TRL: **local European advanced material supply**