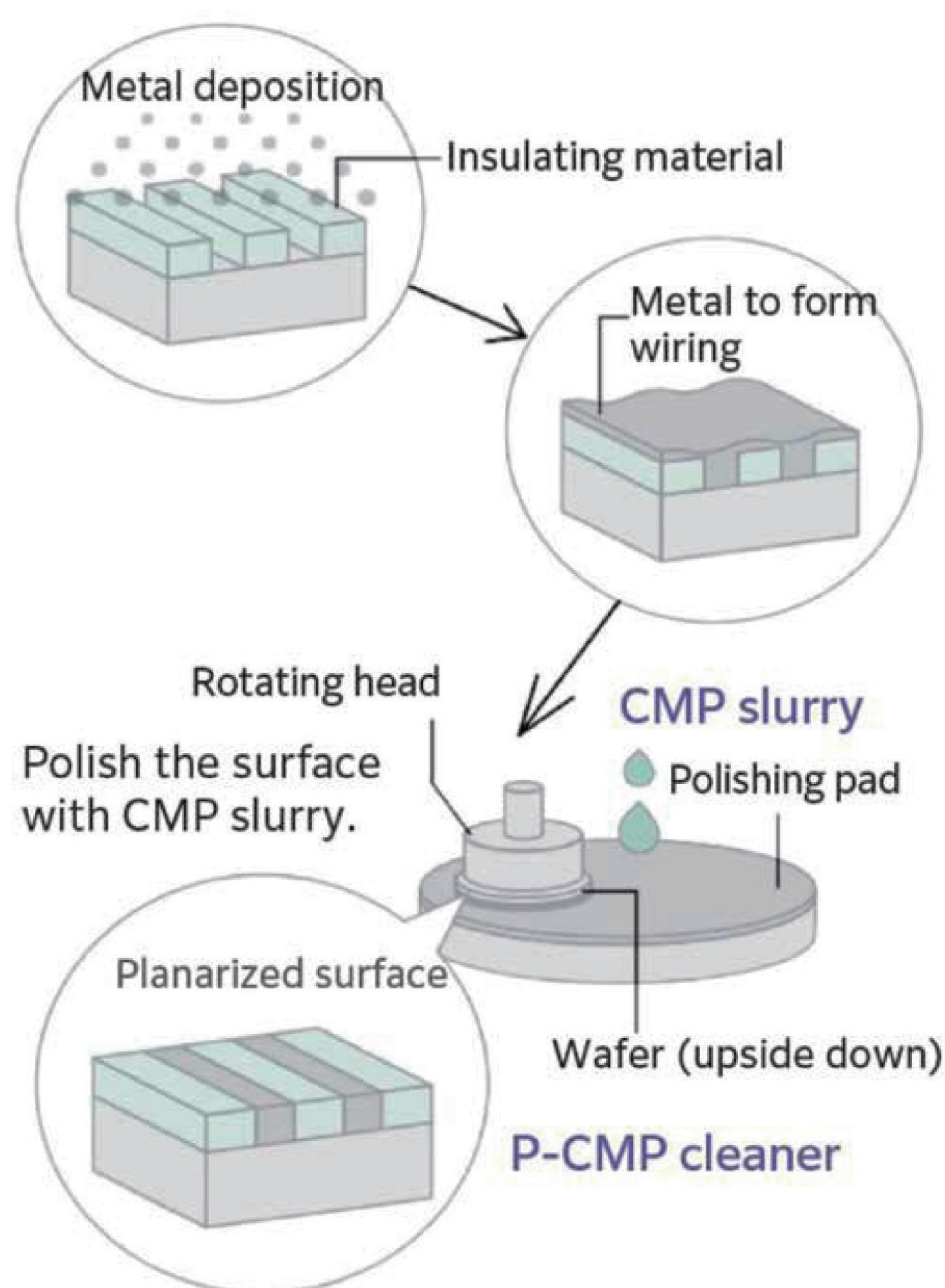


CMP total solutions

- Addressing FEOL through to advanced packaging technologies -

CMP solutions : Technology platform

CMP & P-CMP



FSL

Commercial portfolio of Oxide, Metal Oxide, SiN, SoP & p-Si slurries
Leader in silica-based STI for SoC/SoN/SoP

MSL

MSL Bulk & Barrier qualified at all Co fill customers globally
R&D on new bulk fill metals such as advanced W, Mo, Ru, etc.

CSL

Global Market leader in CSL Bulk CMP slurries
R&D on CSL compatibility with new liners such as Ru, Mo, Metal Oxides, etc.

BSL

Global Market Leader in BSL Cu Barrier (Ta/ TaN/ Co liner) slurries
R&D on new liners such as Mo, Metal Oxide, Alloys, etc.

PSL

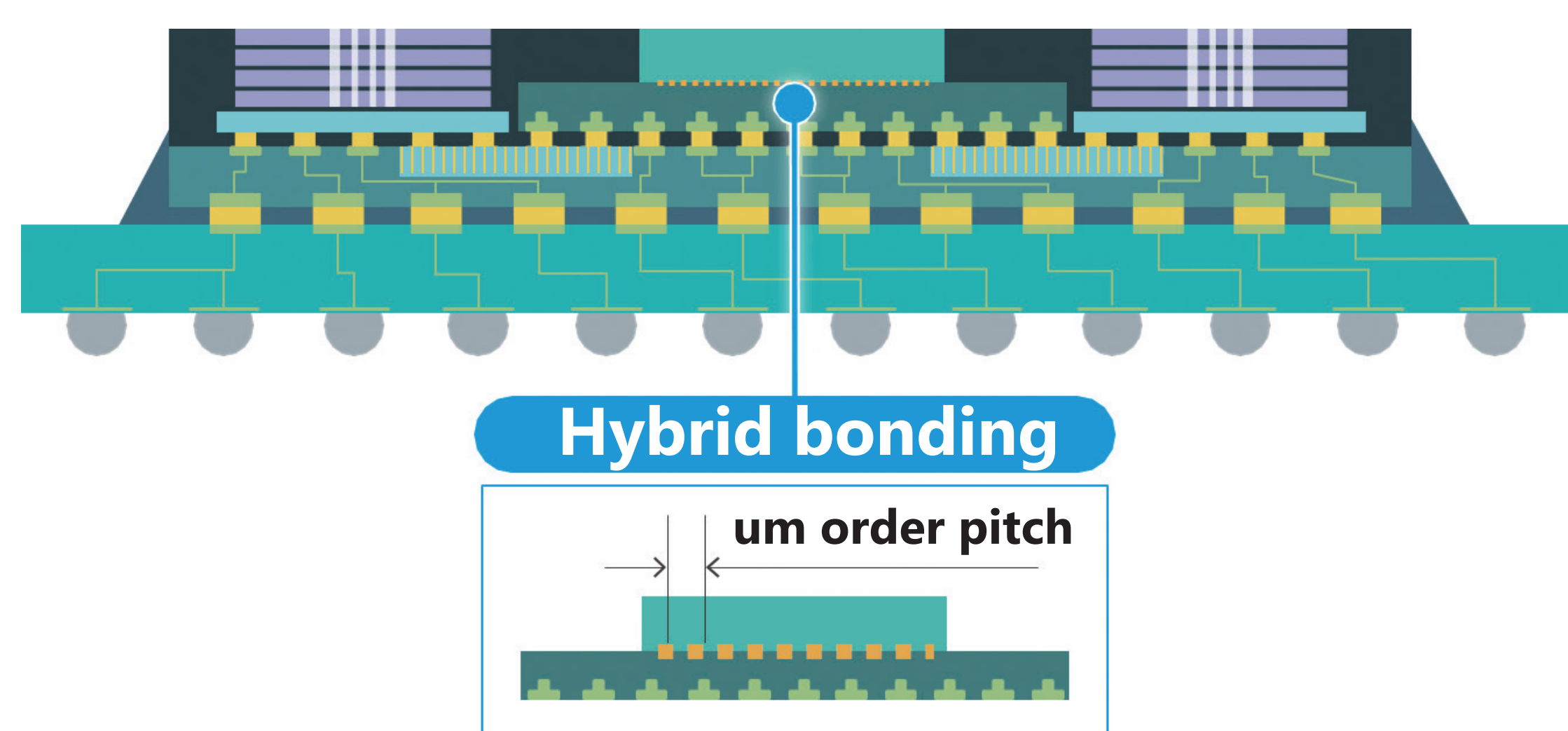
New emerging wafer level packaging application including BSPDN and hybrid Cu bonding
Conventional RDL and new glass/polymer panel.

P-CMP cleans

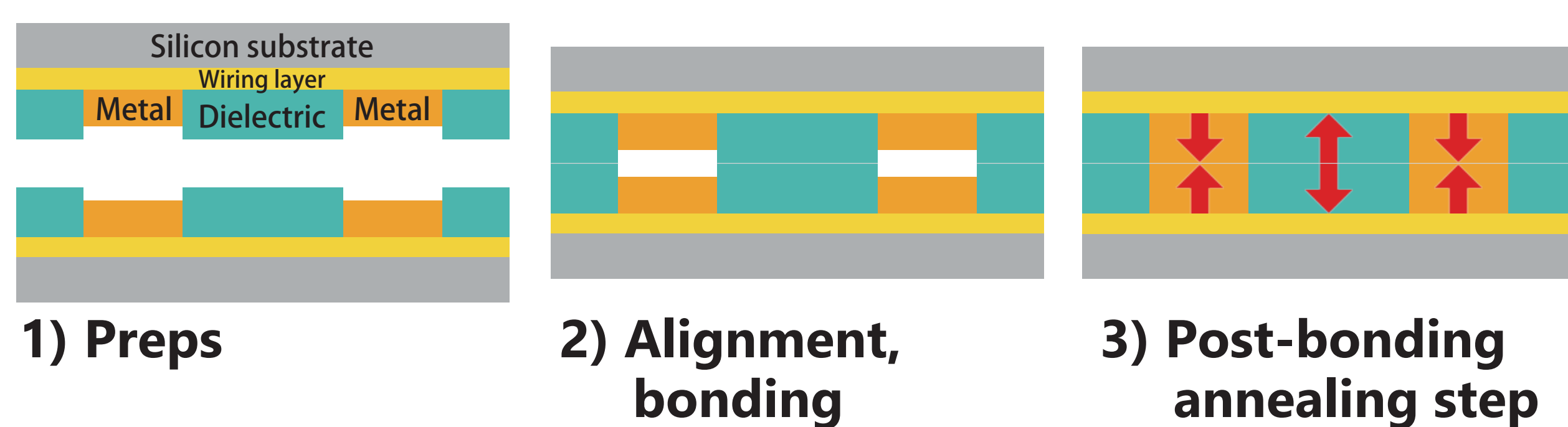
Cu P-CMP: Clean-100(Acidic) & CCN9000C(Alkaline)
W P-CMP: WCP-200 is industry standard for W for Logic Foundry
FEOL P-CMP: SiN, W, CSOD, CHM, Oxide, etc

CMP materials for hybrid Cu bonding

Based on slurry for Cu interconnects in front-end processes, we have developed an advanced packaging slurry optimized with tailored additives, corrosion inhibitors, and abrasives, enabling precise control of Cu bonding surface uniformity.

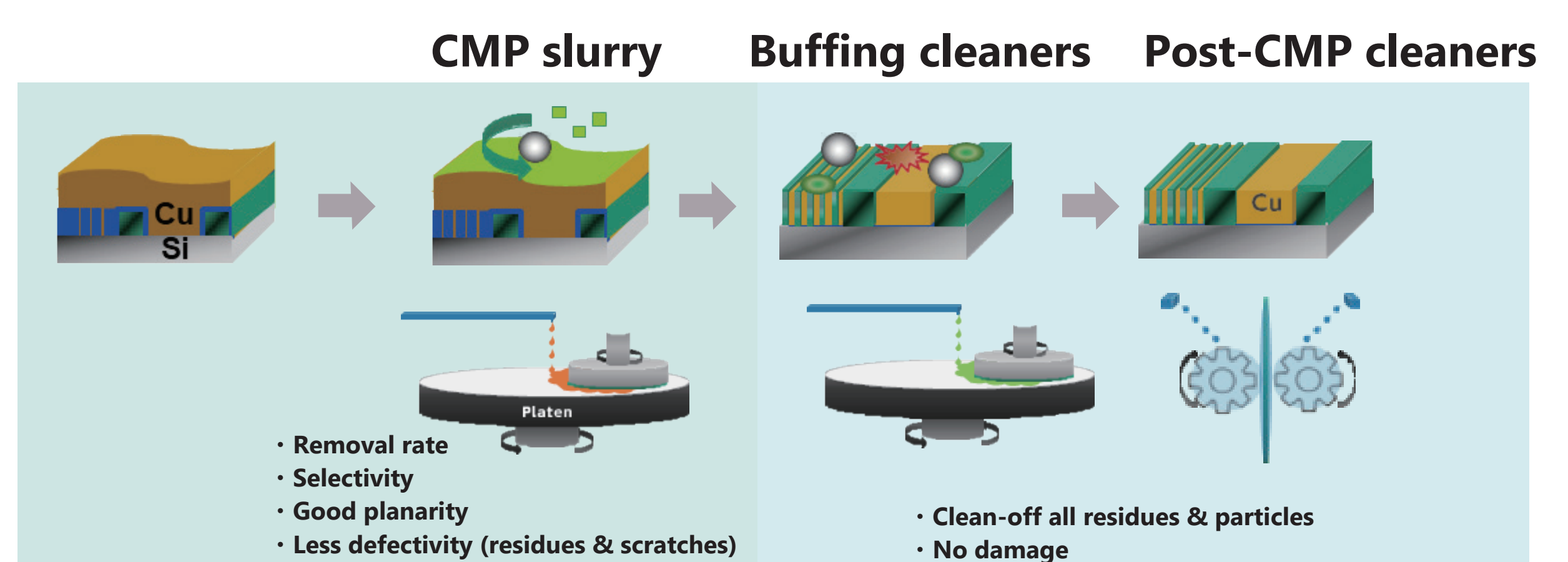


Hybrid bonding process

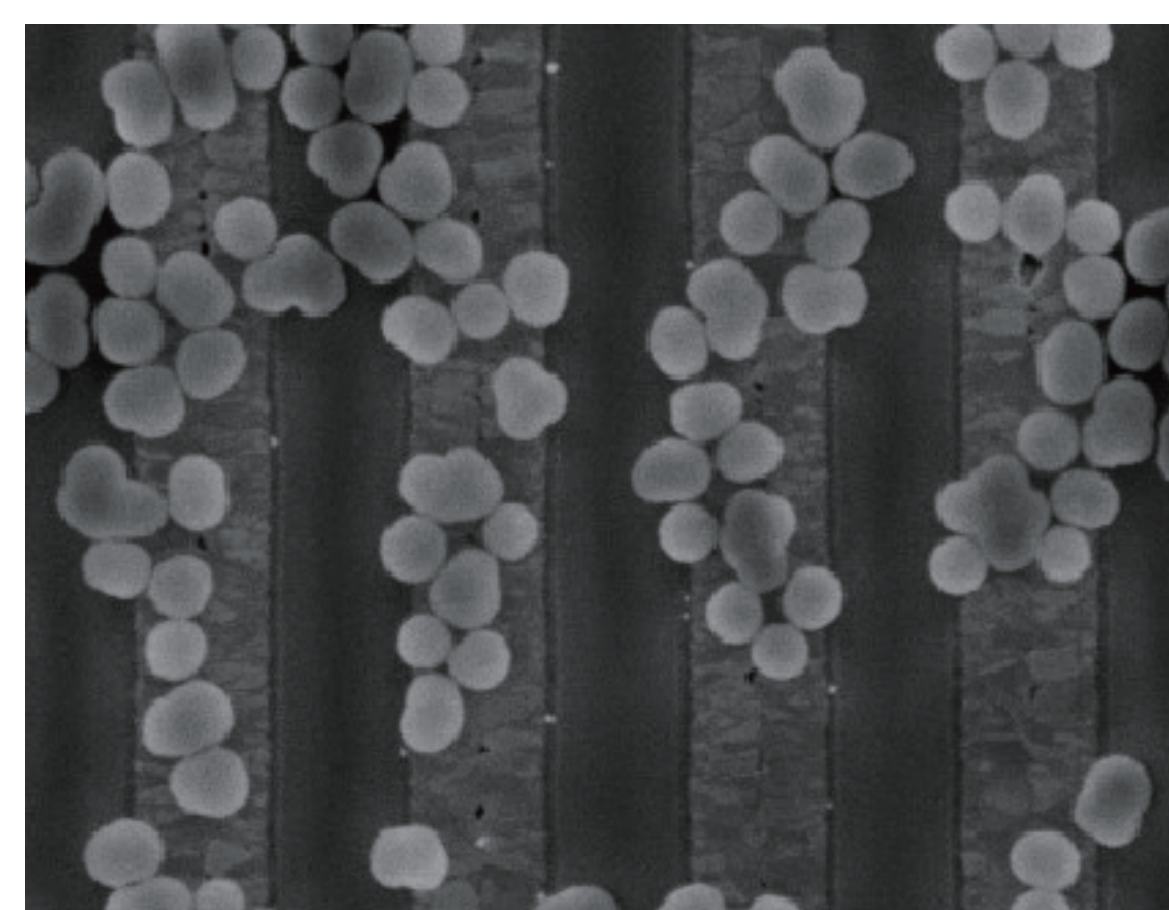


Buffing cleaners

To improve the removal of "tiny particles" encountered in advanced technology nodes, we have newly developed a "Buffing Cleaner" that performs on the platen.



Before cleaning



After cleaning

