Aluminum Plating

NBT is pioneer as a provider of tools for **electroplating of aluminum**. Due to its negative electrode potential aluminum is not deposited from water-based electrolytes, but from chloride-based ionic liquids. These strongly tend to form hydrochloric acid in presence of humidity leading to corrosion. NBT is in a leading position to tackle these harsh conditions and will launch the first automated tool **“Almight One”** for semiconductor plating in 2024.

Application	Benefits
Microsystem technology, microelectronics, power electronics	Conformal, thick, dense, patterned layers; grooves, optical layer, bond frames or pillars for flip-chip bonding, pads for Al wire bonding
Printed circuit boards	Replacement of Cu: cost reduction, independence
Alloys for diecast components	Replacement of steel: weight and CO_2 reduction in automotive industry

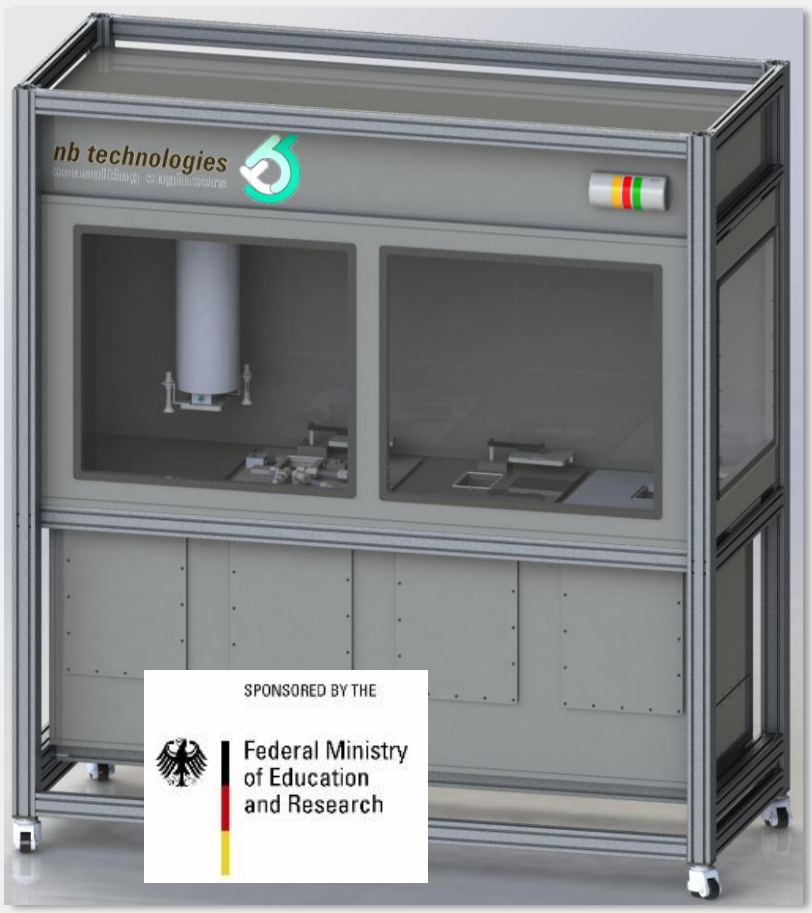
NBT works in several joint projects on semi-automated electroplating tools for aluminum plating.
(FKZ: KK5092601FF0, 03LB2046D)

PCBs

- Substrate movement:
  conformal via-filling,
  homogeneous thickness of conductors
- Replacement of copper:
  independence of resources

Automotive

- CO_2 reduction in automotive industry:
  replacement of steel by lightweight diecast components
- Co-deposition of AlSi alloy
  on 3D steel parts



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