Combining industrial composite manufacturing with direct growth of CNTs will yield a cost-effective solution to replace copper with high conductivity composite heat spreaders and interfaces.

Low cost manufacture of diamond-metal composites has become commercially viable
Leverage group’s expertise and industry partnership for carbon nanotube (CNT) synthesis on composites
Low temperature growth and optimization of CNT growth parameters on composites
Establishment of robust thermal characterization strategy for multi layered materials

Plasma enhanced chemical vapor deposition of CNTs
3-D method for thermal characterization
Optimization of CNT growth parameters and materials selection for composites