

# **Final Report**

**Project acronym: *Nano2Com***

**Project number: *5015***

**M-ERA.NET Call 2017**

**Period covered: 2018 to 2021**

## 2. Publishable project summary

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NANO2COM was aimed to develop advanced high-performance composites with outstanding mechanical and electrical properties by adding novel MXene nanosheets, carbon nanotubes, and graphene into epoxy matrixes. The project went forward to the rational design and systematic exploration of hybrid MXene-based polymer nano-composites for advanced construction components. It was achieved by establishing the research cooperation among the consortium and the supporting industry to develop and assess the novel materials. The scientific results of NANO2COM included a comprehensive assessment of mechanical and electrical properties of hybrid MXene-filled polymers and the development and validation of two lab-scale demonstrators, advanced FRP filled by hybrid nanofiller, in potential application fields. Testing of the demonstrators was implemented in the consortium laboratories in the relevant environment.