

## INNOVATION IN MATERIALS

### Shortlisted: Composite Braiding

A 12-month Innovate UK funded project to produce lightweight, permanently antimicrobial grab poles for public transport.

Project AMICABLE was a 12-month Innovate UK funded project, which set out to produce a lightweight, permanently antimicrobial grab pole for use in public transport.

This innovation addresses two widely recognised issues:

1. The need to improve customer confidence, post-Covid, in the safety of mass transport systems, and
2. The need to decarbonise transport.

The collaborative project involved six partners:

Composite Braiding Ltd; Transport Design International; BioCote; Promethean Particles; WMG, The University of Warwick; and the Health and Safety Executive.

The partners have proven that their materials:

- Kill 99.9% of bacteria and provide antimicrobial efficacy over the lifetime of a component
- Are lighter than steel (by up to 70%), and therefore increase the payload/range of electric vehicles, or reduce emissions in petrol/diesel vehicles
- Can be produced at high volume (100,000+ per year) and at low cost (similar to mild steel)
- Require 90% less manufacturing energy and reduce waste by up to 97% when compared to traditional composite manufacturing methods, and
- Are inherently recyclable, re-usable, repairable and re-manufacturable.



The materials can be produced in many shapes, cross-sections and formats. Other uses for high-touch components include applications in cruise ships, medical settings, schools, hospitality venues and offices.

**Website:** [www.compositebraiding.com](http://www.compositebraiding.com)

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