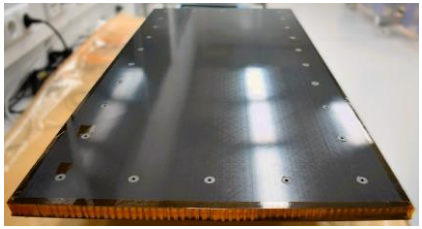
Wall#E: Integration of energy storage functionalities into fibre-reinforced spacecraft structures

Reference: TD-DE-1026

TECHNOLOGY DESCRIPTION

The idea behind Wall#E involves integrating energy storage functions into the support structures of satellites, which will significantly reduce the mass and volume without sacrificing performance. To this end, the project utilises fibre-reinforced structures infiltrated with innovative solid-state battery materials.

While the project's initial focus is on satellites, the underlying concept can easily be adapted to launch systems, space stations, and e-mobility applications. Spin-off potentials exist in various fields, such as the automotive industry, mobile devices, or medical research.



INNOVATIVE ASPECTS

- Multifunctional approach (structural battery)
- More compact design at same performance
- Reduced mass
- Reduced complexity

TECHNOLOGY READINESS (in space application)

TRL 6-9 (2024)

COUNTRY OF ORIGIN

Germany

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TAGS #energy #storage #multifunctional #integrate #satellites #structure

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