



**Rapid.Tech 3D**  
**5-7 May 2020**  
**Messe Erfurt**

## **Why the railway vehicle industry can't ignore 3D printing any longer Bombardier manager André Bialoscek will explain why in his keynote speech at the opening of the 17th Rapid.Tech 3D conference on 5 May 2020 in Erfurt**

(Erfurt, February 2020). Since May 2019 Bombardier Transportation has been using additive technologies at its engineering and manufacturing centre in Hennigsdorf near Berlin to produce serial parts for various types of railway vehicles, including locomotives, trams and regional and high-speed trains. As Head of Vehicle Physical Integration, André Bialoscek is responsible for client-specific physical complete vehicle integration. From this vantage point, the 34-year-old engineer understands only too well the advantages of rapid local parts provision. He has actively promoted additive manufacturing (AM) within Bombardier Transportation. In his keynote at the opening of the 17th Rapid.Tech 3D conference on 5 May 2020 at Messe Erfurt, Bialoscek will explain how both the company and the railway vehicle industry in general can benefit from additive manufacturing.

“Our approach is based on three pillars. We harness the strengths of AM to both build serial parts from prototypes used for design validation and to think additively from the outset to engineer parts for series production. The third field stems from the fact that railway vehicles are usually in operation for 40 to 50 years. That means you need service, replacement parts and the ability to re-engineer parts that are no longer available. Using AM you can save time and money from a batch size of one. The railway vehicle industry, which in many respects resembles industrial manufacturing, can therefore benefit from additive manufacturing in a number of areas,” says the engineer, who holds a master's degree in mechanical engineering and renewable energies.

One particular challenge facing the industry, compared to other sectors, is the extremely high fire safety requirements placed on railway vehicles. In order to continue to meet these rigorous standards in the context of 3D printing and its different aspects, Bombardier Transportation sought a suitable printing technology provider – and found one in Stratasys. “We can industrially manufacture large-format components from high-performance thermoplastic ULTEM using large-scale printers in reproducible quality and ensure that these comply with the railway standard EN 45545-2,” says André Bialoscek. He points out that Hennigsdorf supplies Bombardier sites across Europe with additively manufactured components for train interiors and exteriors.

In addition to the technology, the railway vehicle manufacturer is also investing in knowledge of industrial 3D printing. To this end, André Bialoscek is building an engineering community that will share findings on AM and experiences in the field. This is also how he sees his speech at Rapid.Tech 3D: “I'm looking forward to interesting conversations with experts from other fields; to the new suggestions, perspectives and topics that emerge from this kind of networking.”

Additive manufacturing and mobility will form the central focus of several sessions at the Rapid.Tech 3D specialist conference, for example in the Aviation and the Automotive & Mobility Forums. The Medical, Dental & Orthopaedic Technology Forum and the Tool, Model and Mould Making Forum will also shed light on industry-specific AM developments. The growing breadth of applications for additive technologies will be discussed in the Basics in AM, Design and New Technologies Forums. The Science Forum and the Software, Processes, Design Forum remain firm fixtures on the conference programme.



Rapid.Tech 3D plays host to providers and users of additive manufacturing technology from 5 to 7 May 2020, bringing them together in an even more tightly knit and specialised community under the banner of “Understanding.Seeing.Experiencing.” Alongside the specialist conference, companies and research institutions present innovative products and technologies at the specialist exhibition and showcase. These are accompanied by various networking formats that provide forums for exchanging ideas face to face and launching projects.

Some 4,500 visitors from 27 countries travelled to Erfurt for the 2019 event to attend the specialist conference and see for themselves the presentations by the 180 exhibitors from twelve countries. A considerable 83 per cent of exhibitors said they were satisfied or very satisfied with their trade fair appearance.

Further information: [www.rapidtech-3d.com](http://www.rapidtech-3d.com)

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