



FLOORING SYSTEMS

### Forbo Flooring Transport

Rail, Marine, Bus & Coach

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## Tomorrow's Train Design Today: Andreas Vogler uses Tessera FR carpet for new train concept

[Andreas Vogler](#), finalist of the [RSSB Tomorrow's Train Design Today](#) competition will install Tessera Alignment FR carpet on the mock-up of new double decker train, Aeroliner 3000, proposed as a solution to the British Railway's ongoing overcrowding issue. We chat to Andreas Vogler to find out more about his vision and inspiration for the project.



### What was your inspiration for the project?

Britain greatly invented the railways in the 19th century, but is now trapped in its historic infrastructure. The British railway system was grown very fast by many private companies, who made tunnels as small as possible to cut costs. It is at the cost of liberal capitalism that often a greater vision is missing. But this was 150 years ago.

British rail is a story of success with growing passenger numbers since the 1990's. British train operators so far have been tackling this rapid capacity growth with seat pitches that reach their ergonomic limits and high prices at peak hours. It is the most expensive railway in Europe. However, passenger numbers keep on growing, because British roads and sky are filling up. Britain is a country on the move.

In Europe, the capacity growth has been combated by double decker trains, which increase a train's capacity by up to 50% without changes to the infrastructure. On the continent, the loading gauge has always been large enough to allow that, but Great Britain this is not the case.

When the Rail Safety and Standards Board RSSB launched the competition of a future train in Britain, we wanted to take up the challenge. The very tight infrastructure in Great Britain is a major constraint in our design. Even just 10cm more width on both sides would bring great benefits for the design. In the short term, the train we are designing could bring a relevant seating capacity increase without affecting the infrastructure at all. In the long term, we hope it starts a discussion on how the UK can create a rail infrastructure for the 3rd millennium. DLR has already developed some radical but consequent ideas in this direction.

#### **What is the vision for the interior design scheme?**

The main purpose full scale demonstrator we are building to show at Innotrans in Berlin, is to demonstrate the feasibility of the concept, carry out ergonomic studies and allow the general public as well as Great Britain's industry leaders to form an opinion based on hard facts and not just speculation. However, the challenge was to create an interior design, which offers a comfort in a small space, but which does not distract from the basics of architecture: space and light. The larger vision for the interior design is how to create an interior that can withstand the special conditions of railways – as compared to e.g. airlines – but bring back something of the nobility and elegance that travelling can and should have. It should feel like being in a private jet or an elegant car.

#### **How can interior design enhance rail passenger experience?**

Before the interior design comes the architecture of the coach. We were very lucky to work closely with the brilliant engineers from the German Aerospace Agency, DLR to develop a very lightweight coach structure with generous windows within the extremely confined British loading gauge. Then, the interior design has to provide the skin for the engineering and architecture of the coach. It is everything you touch with your senses: with your hands, your eyes, your ears, even smell. This is all essential when you think about colours, materials, illumination, ventilation and heating. You have to understand your design not only from a technical and standard point of view, but from a human point of view. It is not only about durability, maintenance and cleaning, it is about supporting the passengers to experience the relaxation or excitement of travel, giving them a temporary home or office. Psychological and physiological comfort. A feeling of safety and trust. All of this works directly into design decisions and the value of this design process for the interior should not be underestimated, especially in trains. Airline operators understand this much better, because there is more competition.



#### **How can good flooring contribute to the interior of rail vehicles?**

Flooring has an immediate impact on whether a space feels comfortable or not. It is the impact on acoustics, walking, illumination and hygienic impression which makes that. A good floor covering should make you feel like you could sit down on it like in your living room or an Italian Piazza. The quality of the flooring has an immediate impact on the quality of the space. The flooring supports the seats and the quality of each element should work together.





### **What are the main factors you consider when deciding on flooring for rail projects?**

Next to durability in a technical and aesthetic sense, the impact of acoustics with e.g. carpet is very important. In a train, which constantly has some accelerating and movement going on, the flooring should avoid objects sliding around and give people walking through the train a stable hold. The flooring should be as lightweight as possible to save energy, but also be solid enough to dampen noise and vibration.

### **What made you choose Tessera Alignment FR?**

[Tessera Alignment FR](#) is a railway certified carpet, which has the feel of a carpet that you may also find at home or in a hotel. It doesn't feel itchy and scratchy when you look at it or even touch it. This is very important. Also, the pattern is visually interesting and in the elongated proportion of a train coach, you can use it to widen the perception of the space. At the same time, it is very forgiving against staining and soiling.

### **Do you think there is a growing emphasis on interior design for trains?**

Trains were the first form of mass transportation 150 years ago. There were trains exclusively for kings and politicians also had special campaign trains. During the sixties, with the competition of private cars and airplanes, trains degraded rapidly. Only high speed trains are now bringing back a little bit of former elegance. However, trains are the most environmentally friendly form of mass transportation and they bring you directly into metropolitan centers. I think that train and station operators especially should actively work against the decline of the European idea of public space being a safe, clean and beautiful space. It starts with the cultural effort that everybody, from the passenger to the operator, is undertaking or not. If train manufacturers design interior spaces only under the aspect of maintenance and vandalism, they may look just that. If they design it under the aspect of the cultural achievement of train travel and the European idea of free public space, they may look very different. I have never seen any vandalism and graffiti on good Italian piazzas. So, to answer your question: I don't know, if there is, but by my recommendation is there SHOULD be a growing emphasis on interior design for trains and stations, yes.

A mock-up of Andreas Vogler's train concept will be on display at [Innotrans](#) in Berlin, 20th – 23rd September.