

## Alstom's Avelia Horizon very high-speed train wins German Design Award

- Award recognizes Avelia Horizon train's fusion of natural aesthetics with very high-speed mobility engineering
- Alstom's latest aerodynamically inspired design remains true to Avelia's original inspiration while pushing sustainability, capacity, and performance

**17 November 2021** – Today Alstom's Avelia Horizon very high-speed train received the prestigious German Design Award, the official design award presented by the German Design Council (*Rat für Formgebung*) and the German Ministry for Economics and Technology. The award recognized the Avelia Horizon's successful marriage of advanced engineering and strong sustainability focus with inspiring organic contours and an interior design that delivers a truly exceptional passenger experience.

Speaking about this award, **Laurent Jarsalé, Vice-President, Mainline Platform, Alstom**, said, "The Avelia Horizon very high-speed train is Alstom's latest iteration in a long series of successful high-speed train projects. This award-winning design is the result of close cooperation between our talented engineering, passenger experience, and eco-design and style teams that each strove to optimise the existing Avelia platform into a striking design that illustrates a fusion of natural aesthetics with environmentally-focused, very high-speed mobility." The Avelia Horizon has a top operating speed of 350 km/h and can carry up to 740 passengers per trainset.

For the project, Alstom strove to emphasise a sense of nostalgia reminiscent of the rail manufacturer's first very high-speed trains which leveraged the use of large panoramic windscreens to express the essence of high-speed rail travel. To communicate this, designers created, or enhanced, a series of unique design elements such as implementing aerodynamic improvements to the nose to reinforce the train's sensation of velocity and closely merging the front windscreen and lateral windows to reinforce an elegant, aerodynamic essence. Lengthening the longitudinal stretch of the headlights also helped further evoke feelings of acceleration and momentum.

Inside, equal attention was given to the passenger experience. All windows were enlarged to offer an even closer connection to the exterior landscape while the choice of smooth shapes and plush material for interior fixtures seeks to create an embracing atmosphere of comfort that leaves passengers with a sensation of inclusivity and safety.

Perhaps equally important to receiving the design award was the close attention put on meeting sustainability and efficiency goals. The Avelia Horizon addresses ambitious goals in terms of competitiveness of the rail sector and profitability: maintenance costs will be more than 30% lower and thanks to its aerodynamic design and a more efficient traction drive, the Avelia Horizon will consume 20% less energy compared to the previous generation and achieve the lowest total cost of ownership per seat on the market for a train of its type.

The German Design Award celebrates its tenth anniversary in 2021. The top-class international jury honours ground-breaking design achievements, making the most modern and powerful design trends visible across all sectors. More info: <https://www.german-design-award.com/en/the-winners/gallery/detail/40462-avelia-horizon-very-high-speed-train.html>

Eleven of Alstom's 17 French sites are involved in the development and manufacture of this train:

- Belfort, for the power cars
- La Rochelle, for the project management, as well as the design and assembly of the passenger cars
- Villeurbanne, for the on-board computerised systems
- Ornans, for the engines
- Le Creusot, for the bogies
- Tarbes, for the traction chains
- Toulouse, for the electrical components
- Petit-Quevilly, for the traction transformers
- Saint-Ouen, for the signalling and design
- Reichshoffen, for the crash system studies
- Valenciennes, for the interior elements' studies.

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## About Alstom

Leading societies to a low carbon future, Alstom develops and markets mobility solutions that provide the sustainable foundations for the future of transportation. Alstom's product portfolio ranges from high-speed trains, metros, monorails and trams, to integrated systems, customised services, infrastructure, signalling, and digital mobility solutions. Alstom has 150,000 vehicles in commercial service worldwide. With Bombardier Transportation joining Alstom on January 29, 2021, the enlarged Group's combined proforma revenue amounts to €14 billion for the 12-month period ended March 31, 2021. Headquartered in France, Alstom is now present in 70 countries and employs more than 70,000 people.

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