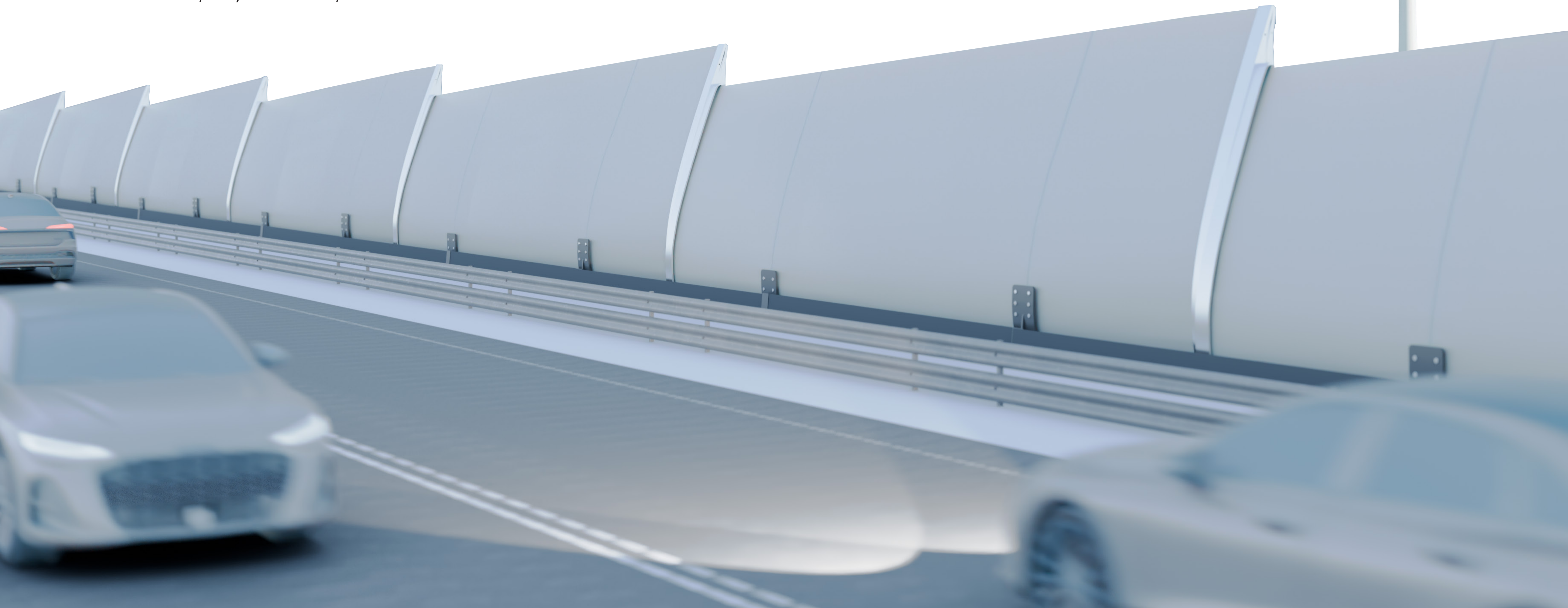


From Blade to Barrier

In the near future, wind turbines will be reaching their end-of-life worldwide, and will be decommissioned. Their composite material is difficult to recycle, leading to a growing waste problem. However, the blade material still has potential to be reused for its structural properties, and new applications are being explored.

This project proposes a modular noise barrier made from 12m blade segments placed horizontally in steel frames. The concept integrates acoustic sealing, drainage, fire and vandalism protection, and safety exits. By the standardized segments, the barrier remains scalable, easy to assemble, and cost efficient.

The design offers a circular way to reuse blades through a technically feasible and scalable noise barrier. With further testing and development, the barrier can provide a practical, long-term solution for storing blade material along the roadside, waiting for future technologies to recycle the composites or give the material a second life, while also reducing road noise.



S.M.O. Ornstein
A noise barrier from horizontally oriented,
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