# Jaguar Land Rover and Panasonic Energy lead the way in sustainable automotive innovations



Jaguar Land Rover (JLR) has made strides in sustainability through a pioneering closed-loop recycling process for polyurethane seat foam, collaborating with Dow’s MobilityScience and Adient, a leader in automotive seating. This innovation aims to reintegrate recycled foam from used vehicles into the production of new seats, potentially reducing CO2 emissions and waste.

The initiative, which aligns with JLR's sustainability efforts, is currently being tested in their production process. The aim is to evaluate the feasibility of using this material in pre-production vehicles by early next year. Polyurethane foam is typically difficult to recycle due to its durability, which often results in landfill disposal. However, by establishing a closed-loop supply chain for this material, JLR seeks to mitigate emissions and create a consistent supply of low-carbon seat foam for its vehicles.

Andrea Debbane, JLR’s chief sustainability officer, expressed enthusiasm for this approach, stating, "I am so excited about the potential of this way of working. It represents a collective commitment to doing things differently, challenging us to rethink our approach from all angles." She added that collaboration across the recycling, materials science industries, and supply chain partners is fundamental to effecting large-scale change.

Moreover, the recycled materials will contribute to a new 'circular seat' concept, projected to halve CO2 emissions impact compared to traditional methods, whilst also maintaining performance. JLR's partnership with Dow aims to support their goals of net-zero carbon emissions and sustainable materials development. "This collaboration highlights Dow's MobilityScience initiative to drive sustainable mobility through advanced material science," explained Jon Penrice, mobility president at Dow.

In parallel, Panasonic Energy is transforming the electric vehicle (EV) battery industry through significant technological advancements driven by artificial intelligence (AI). As the demand for sustainable and efficient lithium-ion batteries increases, Panasonic Energy's operations at their Gigafactory in Nevada have seen impressive efficiency improvements thanks to AI integration. Vice President and Chief Information Officer Justin Herman detailed the benefits of AI, noting a significant reduction in time spent on data collection, which now takes only 10-15 minutes compared to several hours previously. Furthermore, this technology enhances quality control and reduces waste, resulting in cost savings and environmental benefits.

The company reports exponential growth, reaching a production milestone of nine billion cells since starting operations just a few years ago. This success is attributed to continuous innovation and a commitment to sustainability through their GREEN IMPACT initiative, which aims to cut down CO2 emissions across its operations.

Partnerships play a crucial role in Panasonic Energy's sustainability strategy, including collaboration with Redwood Materials to source recycled materials for EV batteries. JB Straubel, CEO of Redwood, highlighted the importance of a circular supply chain to minimise environmental impact: "Our mission at Redwood Materials is to create a circular supply chain for batteries, reducing waste and environmental impact."

Panasonic Energy plans to establish a new factory in De Soto, Kansas, expected to come online in 2025. This facility will be powered entirely by renewable energy, further solidifying the company's commitment to sustainable manufacturing. Supply agreements with other major automakers such as Mazda and Subaru show Panasonic's increasing influence in the EV space, confirming its role as a key player in the transition towards greener transportation.

Both JLR and Panasonic Energy exemplify the automotive industry's trend towards integrating sustainability and innovation into their business models, addressing the challenges posed by traditional manufacturing processes while aiming to meet the growing demand for environmentally responsible products.

Source: [Noah Wire Services](https://www.noahwire.com)

## References

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