



JLR researching new generation from scrap to showroom

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Author: Robin Roberts

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Jaguar Land Rover is developing the next phase of its aluminium closed loop strategy with an innovative recycling initiative to transform the vehicles of today into the cars of tomorrow.



The REALITY project aims to recover aluminium from existing Jaguar and Land Rover vehicles and reform it into a new high-grade aluminium to create new vehicles.

The process is currently being tested on early, pre-production Jaguar I-PACE prototypes which have had their batteries safely removed. These batteries enter into their own second-life process which Jaguar Land Rover is developing while the scrap from the vehicles is sorted into various materials using high-tech sensors by Axion. Once separated, the aluminium scrap is melted and reformed.



When operating at full capacity, REALITY is expected to reduce the CO2 impact of production while reducing the amount of virgin aluminium required to produce vehicles. Jaguar Land Rover has already reduced its global vehicle manufacturing operating CO2 by 46 per cent per vehicle and remains committed to an ongoing decarbonisation process.

The pioneering project, co-funded by Innovate UK, is helping Jaguar Land Rover extend its closed loop aluminium economy. Between September 2013 and January 2019, around 300,000 tonnes of closed-loop scrap have been processed back into the brand's lightweight aluminium intensive architecture, across all vehicle lines including XE.

In 2014, Jaguar XE was the first vehicle in the world to use aluminium alloy grade RC5754 for its body panels, which contains up to 75 per cent recycled aluminium. Half of the XE body structure is made of aluminium alloy grades that contain an important amount of recycled aluminium content - made possible by a closed-loop manufacturing system at our UK and Slovakia facilities.

As part of an ACES future, there will be an increased opportunity for recycling through the REALITY project, as Jaguar Land Rover will be able to plan for the retirement of large shared





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This will enable the company to engineer closed loop recycling into tight production schedules, as the vehicles can be recovered, de-polluted and shredded en masse - making a viable business case for using the company's recycled aluminium within its own facilities. Jaguar Land Rover currently uses 180,000 tonnes of aluminium per year.