



LIFE CYCLE ASSESSMENT AT JAGUAR LAND ROVER

HISTORY, CHALLENGES & THE FUTURE

Life Cycle Assessment at Jaguar Land Rover

A HISTORY



2009-2013 - Certification

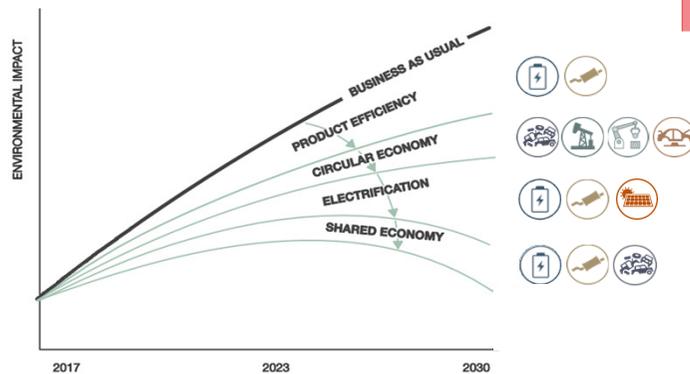


2011-2015 - Left Shift & Rapid LCA Calculator



2015-2019 – Engage & Embed

- Sustainable Value Chains
- Commodity Engagement



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CHALLENGES – DEFINING ENVIRONMENTAL SUSTAINABILITY



- Global legal requirements are complex and sometimes conflicting
- Material provenance and other external factors must be considered alongside LCA
- Natural Capital approaches
- Functional requirements in the car often conflict with sustainability

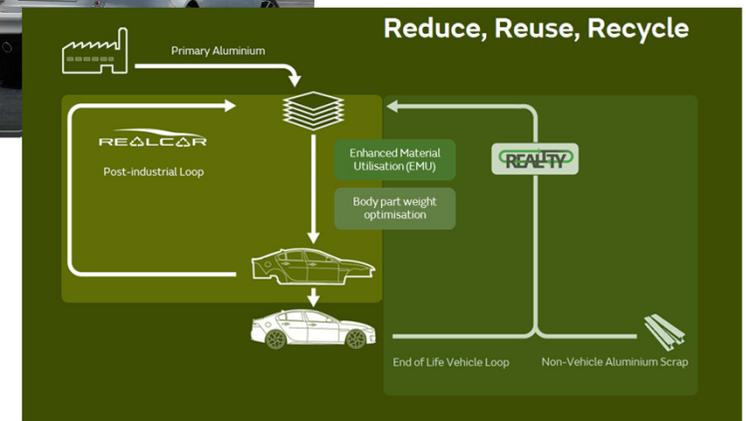
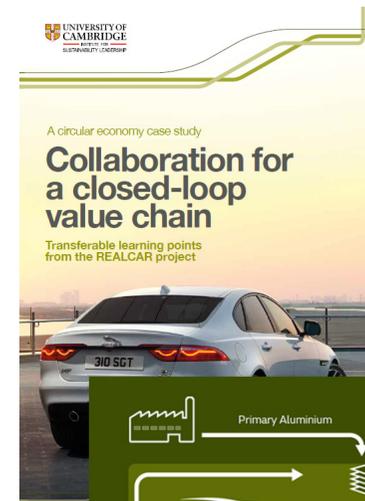


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CHALLENGES – SIMPLIFYING OUTPUTS



- Jaguar Land Rover Certification studies covered 5 key CML impact assessment categories
 - Limited contextual understanding of GWP
 - Very limited understanding of other outputs
- Complex metrics can lead to misinterpretation and low engagement
- Contextualising data for different audiences



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CHALLENGES – INCREASING ENGAGEMENT



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July 19, 2019 10:52 AM

Jaguar Land Rover trialling BASF Chemcycling materials

TWEET SHARE IN SHARE EMAIL PRINT

1 WASTE PLASTIC DESTINED FOR LANDFILL

2 CHEMCYCLING TO BREAK DOWN PLASTIC

3 NEW PREMIUM-GRADE MATERIAL PRODUCED

4 PART MANUFACTURED AND TESTED FOR SAFETY AND QUALITY

5

100% recycled front-end chassis chemcycling prototype trialled on all-electric Jaguar I-PACE

JLR

- Instigating change requires engineering engagement.
- Engineering requirements are significant and complex.
- Senior managerial support.
- Engagement targeted and focused.
- Collaboration not enforcement.

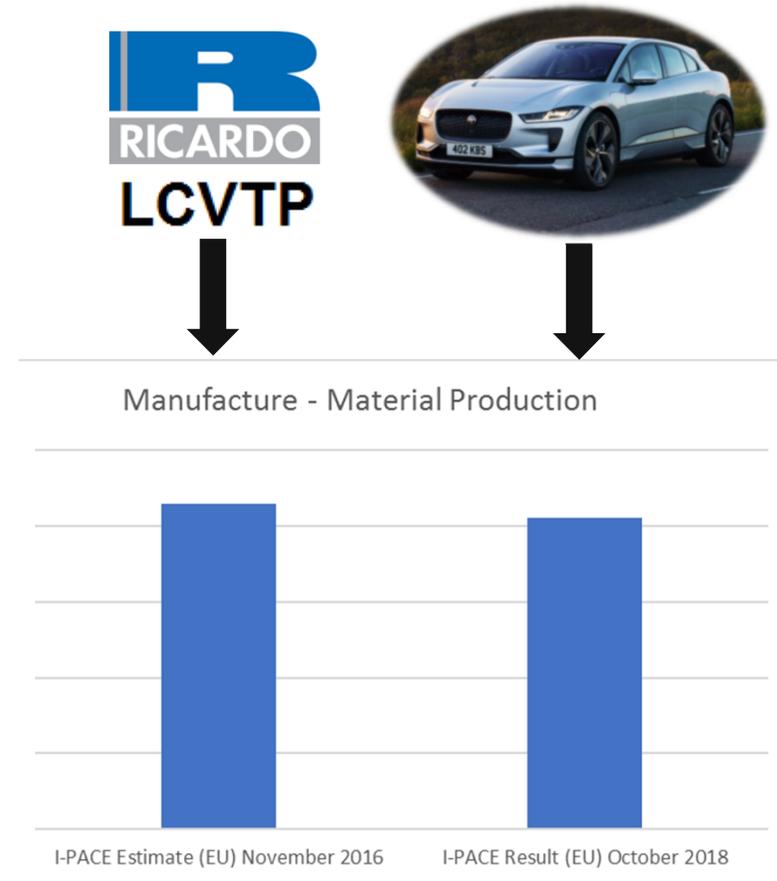


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CHALLENGES – ACCURACY VS ACTION



- LCA should be an indicative measure to identify and drive improvement
 - Not a precision tool
- Need to ensure action is prioritised over improving the precision of the measurement
- Conventional vs new materials, processes and technologies



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THE FUTURE



Focus on transparent data

- More focus on levers industry can pull to gain maximum impact reduction.
- Future LCA studies need to focus on new materials & technologies

Methodology to encompass new technology

- Consistent approach to 2nd life batteries
- Shared & autonomous vehicles have different use cases

Validation of voluntary commitments

- We need shared learning, not legal requirements
- LCA is indicative and therefore should not be a legal measure.





THANK YOU

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