Responsible Performance

Adrian Tucker-Peake

Innovations Manager MG Rover Group Ltd







MG *TF* 200 HPD









Pressures and Innovation

- Government targets for 2012
 - Demanding criteria
 - 10% of new registrations to achieve less than 100g/km CO₂ emissions

 MG Rover Group / Powertrain Ltd / MIRA win a Government sponsored initiative for the "Ultra Low Carbon Car Challenge"







Exciting, and Green "Electric Hybrid" Technology



MG / MIRA Vision..." Exciting, responsible and multifunctional"







Customer Delight Opportunities

Exploit the capabilities of different characteristic independent, powertrains...

All wheel drive

Active torque split

High torque launch

Hotshift acceleration

Energy regeneration

City driving







Partnership Roles in Developing New Product Technology

MG ROVER MIRA

STYLE

AERODYNAMICS

PERFORMANCE

200 HP HYBRID

HANDLING

4WD ENG'G.

EASY DRIVING

ALGORITHMS

AFFORDABLE

PROVEN COMPONENTS







The Vehicle Concept



— IC engine — Hybrid

- A hybrid delivering extended performance, rather than superior economy
- Extended performance comes at no cost to fuel economy or tailpipe emissions.

"Responsible Performance"

seconds

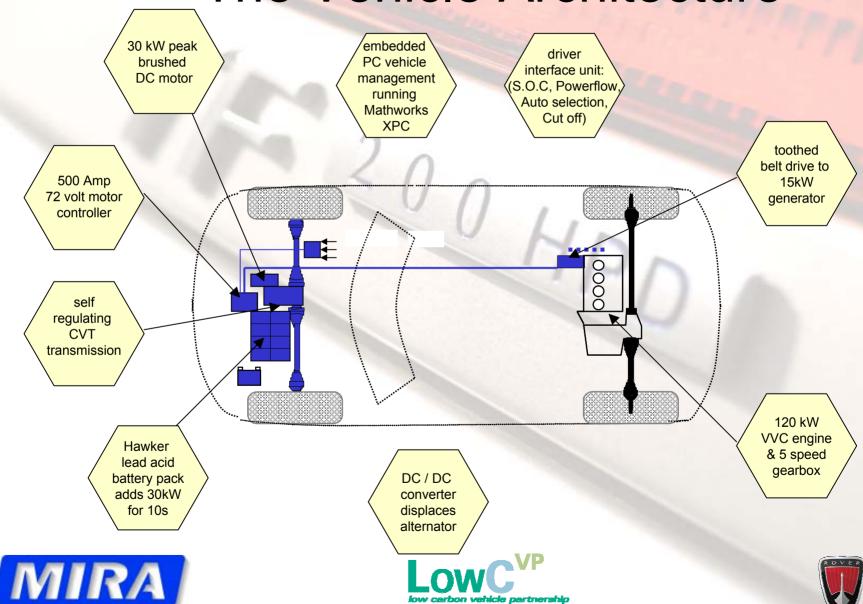


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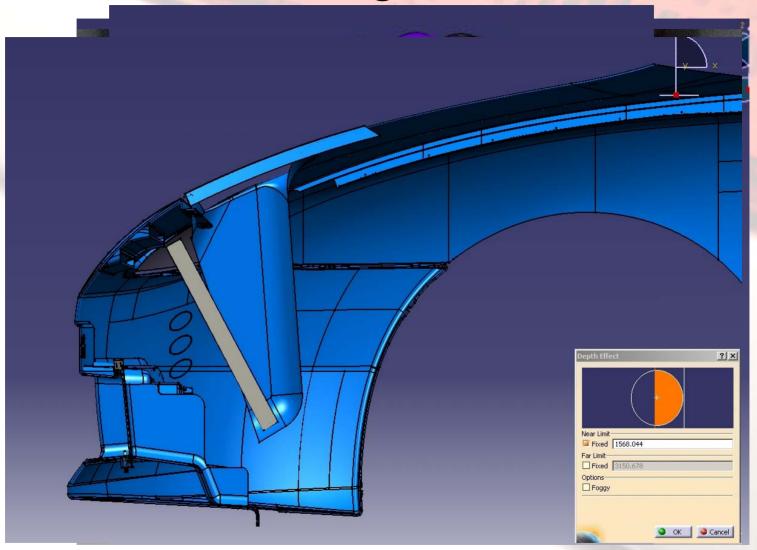




The Vehicle Architecture



The Design Process



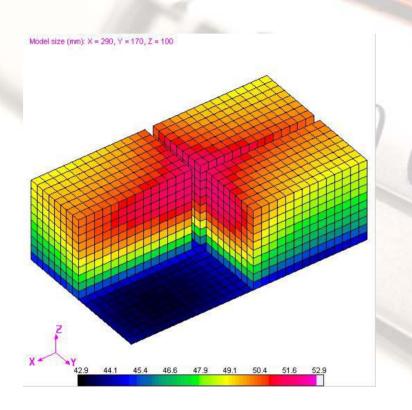


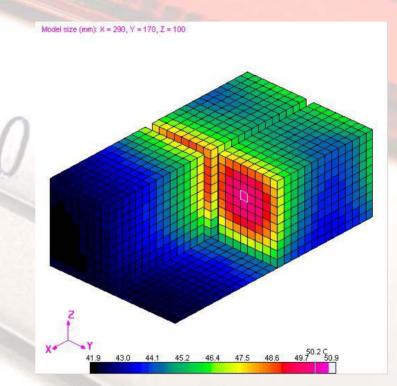




Validated Modelling Solutions

Example: Battery temperatures





Free Convection

Forced Convection – 5m/s







The MG TF 200 HPD

"Hybrid Performance Development"

- √ 0 60 mph in less than 6 seconds
 with excellent start line acceleration
- ✓ Total peak powertrain output 200 bhp
- 4WD traction
- "Hotshift" gear changes further assist acceleration
- ✓ Programmable Under Steer / Over Steer
- ✓ Electric driving mode clutchless operation.







