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INDIA 2017

Are you ready for technical innovation in collision repair?

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Development director, IBIS

We will take look at:

- The evolution of technology
- Key drivers
- The impact of new safety features
- New materials
- Future proofing your business

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Good old days…?

Basic vehicle engineering
Mild steel construction

Generic repair methods
Technician based decision
All makes and models

Basic colour and refinish process
Relaxed environmental policies

Simple to fix problems
Generic tools and equipment

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But things change…

Complex vehicle engineering

New materials (UHSS, Aluminium, Carbon fibre)
Critical manufacturers repair methods are used
New skills required

Complex colours
New substrates
Environmental concerns

Electronics
Specialist skills and tools

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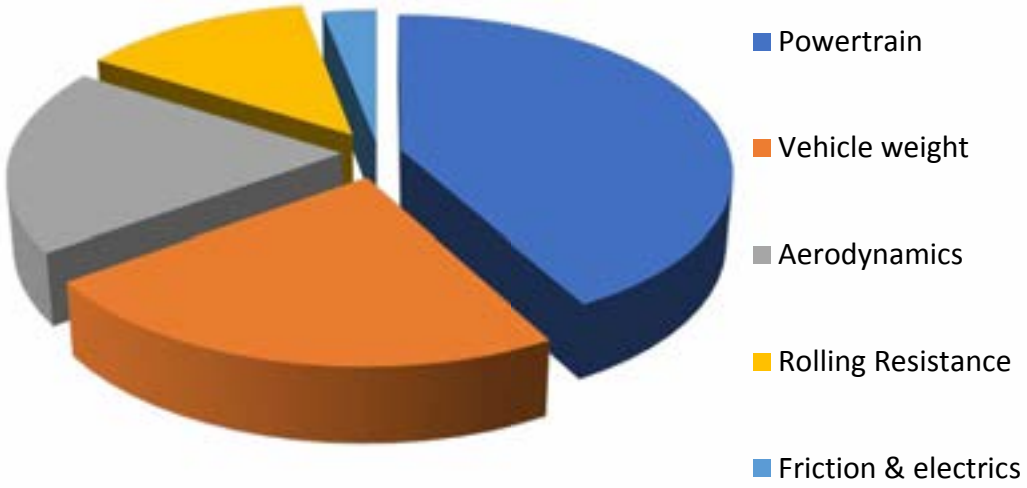
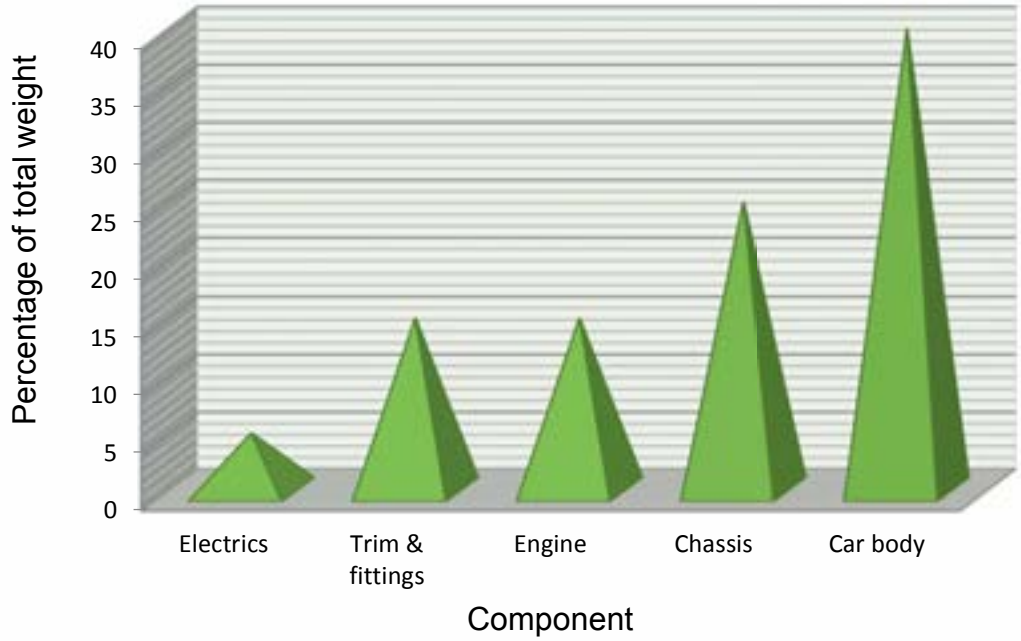
Key drivers of technology: reduce weight and improve safety

Vehicle weight is the largest contributor to fuel use in a vehicle



The car body accounts for the largest proportion of weight



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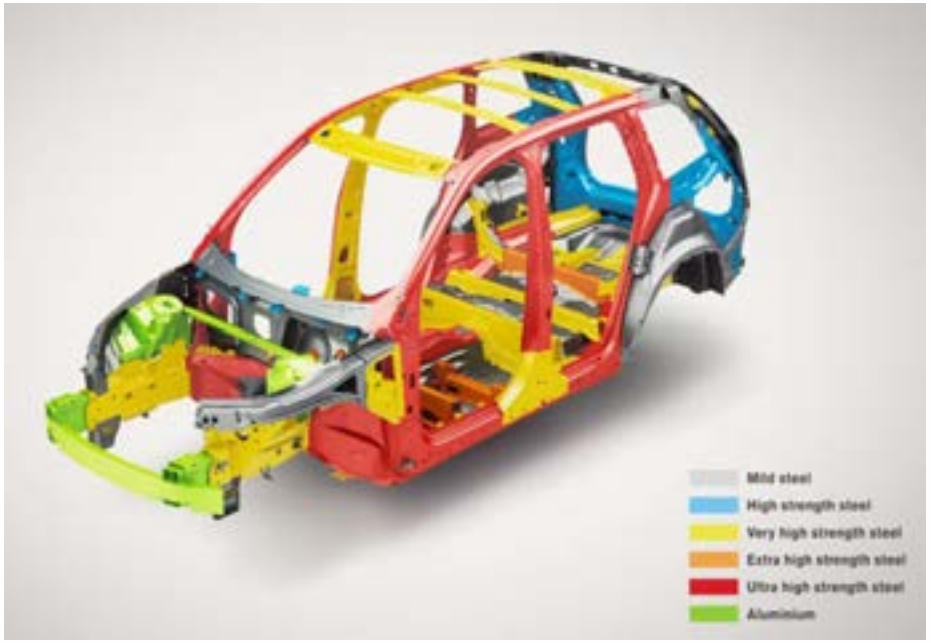
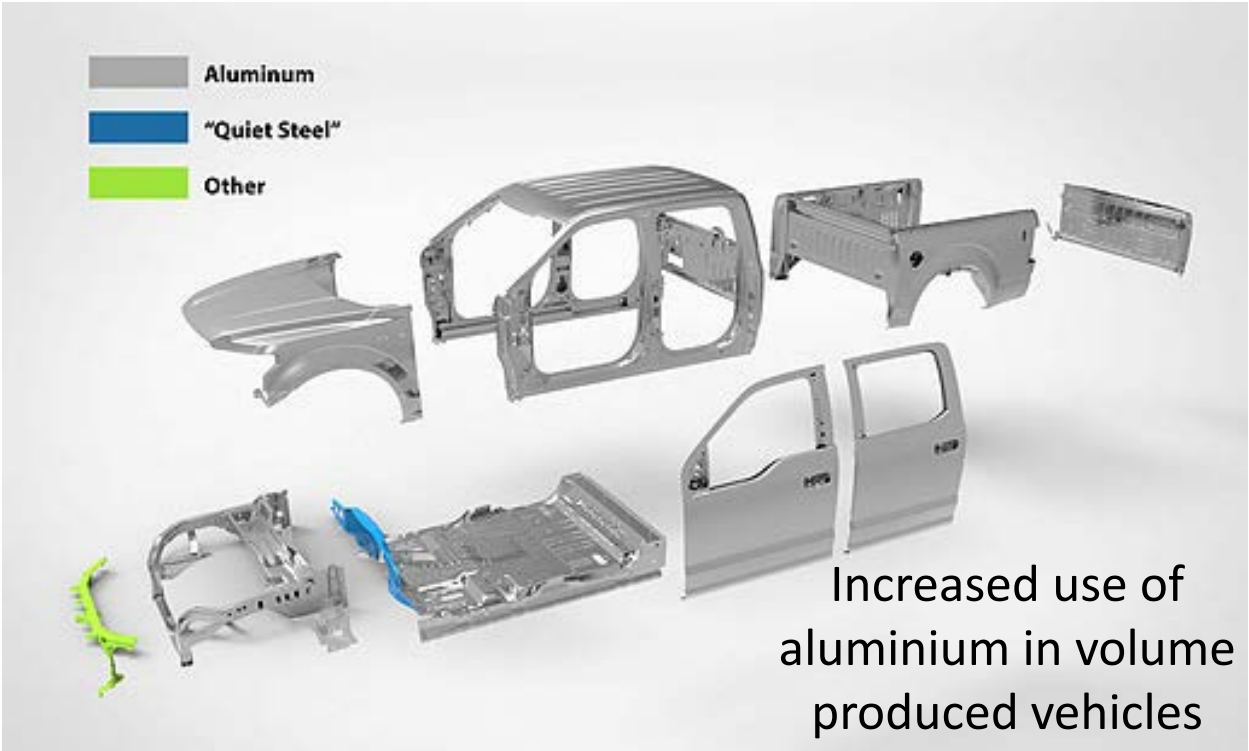
Key drivers of technology…



New Volvo XC90 shows very complex production using an advanced mix of materials



Increased use of aluminium in volume produced vehicles

New lightweight materials being used in associated parts

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New materials = weight reduction but improved strength…

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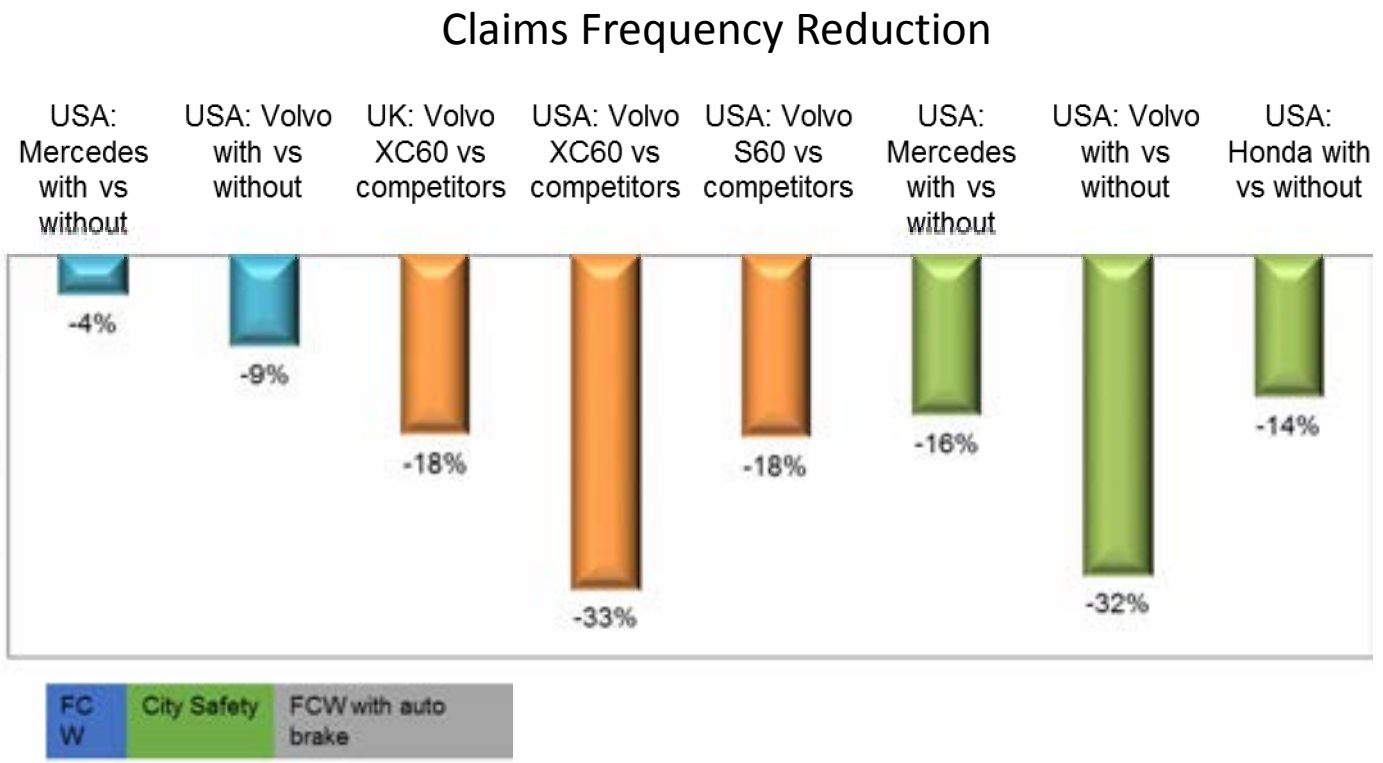
Technology improving safety

SOCIETAL ANALYSIS: Effectiveness – just like ESC, AEB is working

- City Safety delivers 18% claims reduction in UK
- City Safety delivers 33% claims reduction in U.S.A.
- Forward Collision Warning with auto brake is at least twice as effective as FCW only

Full report available at:
www.thatcham.org/AEB



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Technology improving safety

Euro NCAP see a 38% overall reduction in real-world, *rear-end crashes*
for vehicles fitted with low speed AEB compared to a sample of equivalent vehicles with no AEB

In the UK – 27% reduction in Personal Injury claims

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The INSURANCE Man AND COMPANY

Sounds like great news for some?

But bad news for others?

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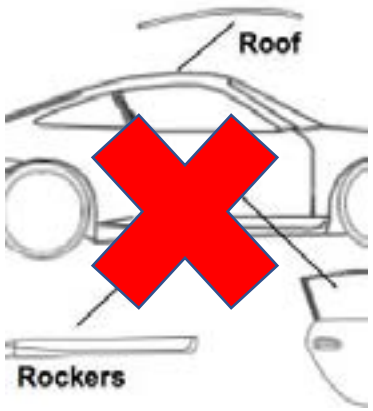
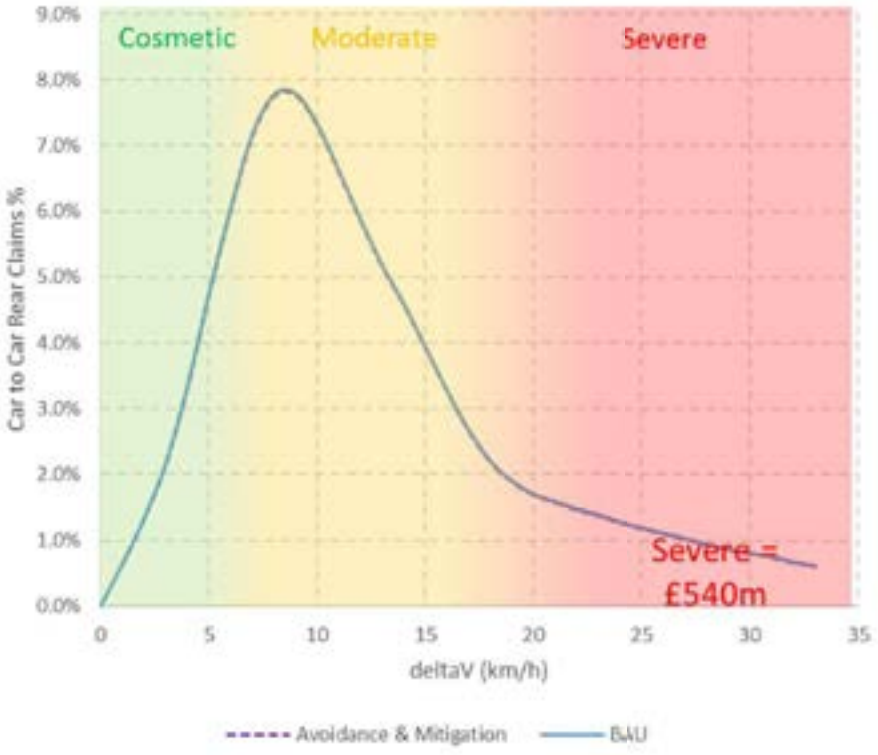


GREAT DEPRESSION

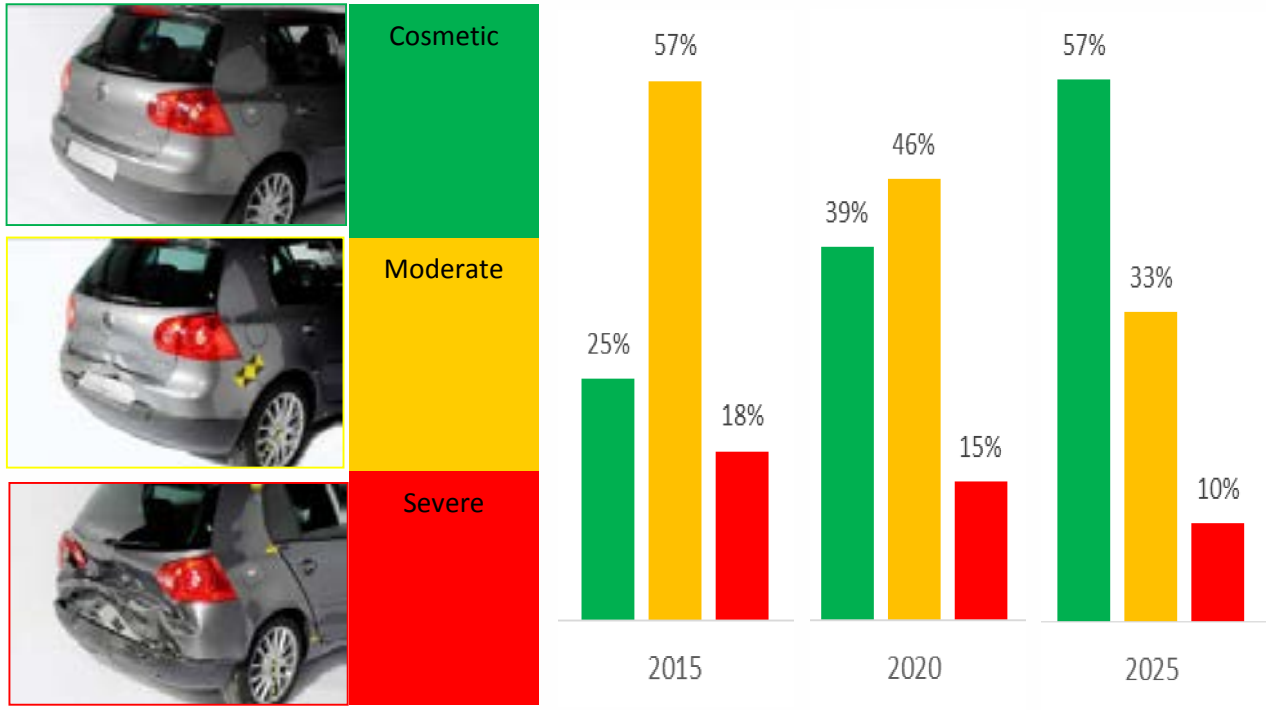
THE GOOD TIMES COME TO AN END...

Reality check…

Speed Reduction in Rear-End Crashes



Accident Damage Distribution



Source: Thatcham Research

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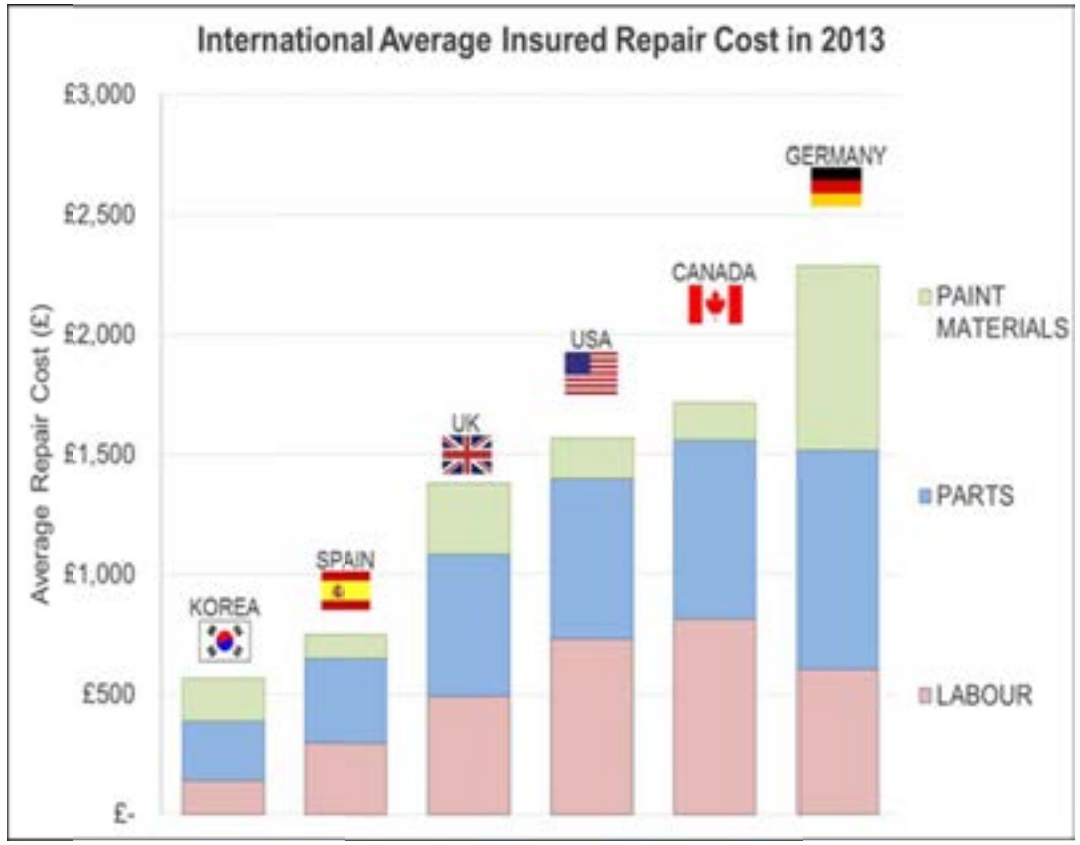
Repair profile is changing …

Vehicle technologies - quick summary

What does vehicle sophistication mean to insurers, work providers and repairers?

- VM's will continue to design more complex vehicles
- These vehicles will still require repair
- Independent repair networks will need to invest and train



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The repair implications…

Repair assessment needs to reflect changing vehicle technologies to maintain efficient triage

Man

1. Competent people
2. Continuous professional development

Method

1. Researched repair specifications
2. Model specific repair methods

Material

1. Trusted provenance of new materials
2. Stored and used appropriately

Machine

1. Modern fit for purpose equipment
2. Regularly calibrated & maintained

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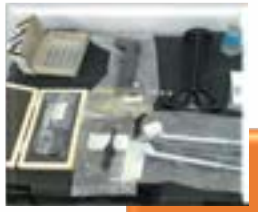
The repair implications…

Example: Aluminium – requires a different approach and investment

Facilities

- Dedicated area with segregation
- Separate extraction
- Applies to cosmetic or structural



Equipment

- Welding
- Cutting
- Hand tools
- Cosmetic repair
- Joining and fastening tools
- Consumables

Skills

- Different welding skill
- New techniques
- New refinish skills

Methods

- Heating limits
- Welding processes
- Joining methods
- Sectioning
- Alignment

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Repair methods are different…

- Traditional repair methods are no longer suitable
- Some OEMs allow sectioning some don’t! Research and reference methods is key
- Cosmetic panel damage typically can be repaired
- Structural damage would usually be to replaced
- Paint manufacturer recommended processes must be followed

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Times are changing…

COMPLEXITY

Body materials and construction techniques

Powertrain complexity

Vehicle electronic system complexity, including ‘drive by wire’ and autonomous capabilities

CONNECTIVITY

Connection between vehicles, their owners, other vehicles, the road infrastructure.

Communication with manufacturers, insurers and other work providers

For accident monitoring and communication:

- Emergency call system (eCall),
- Accident Event Data Recording

AUTONOMY

Vehicle design is on a path to complete autonomy

Stage 1: Collision avoidance inc AEB
Stage 2: Partially autonomous: ACC and ‘traffic jam assist’
Stage 3: High and then Fully autonomous

Best guess for first cars of these type is 2025-30

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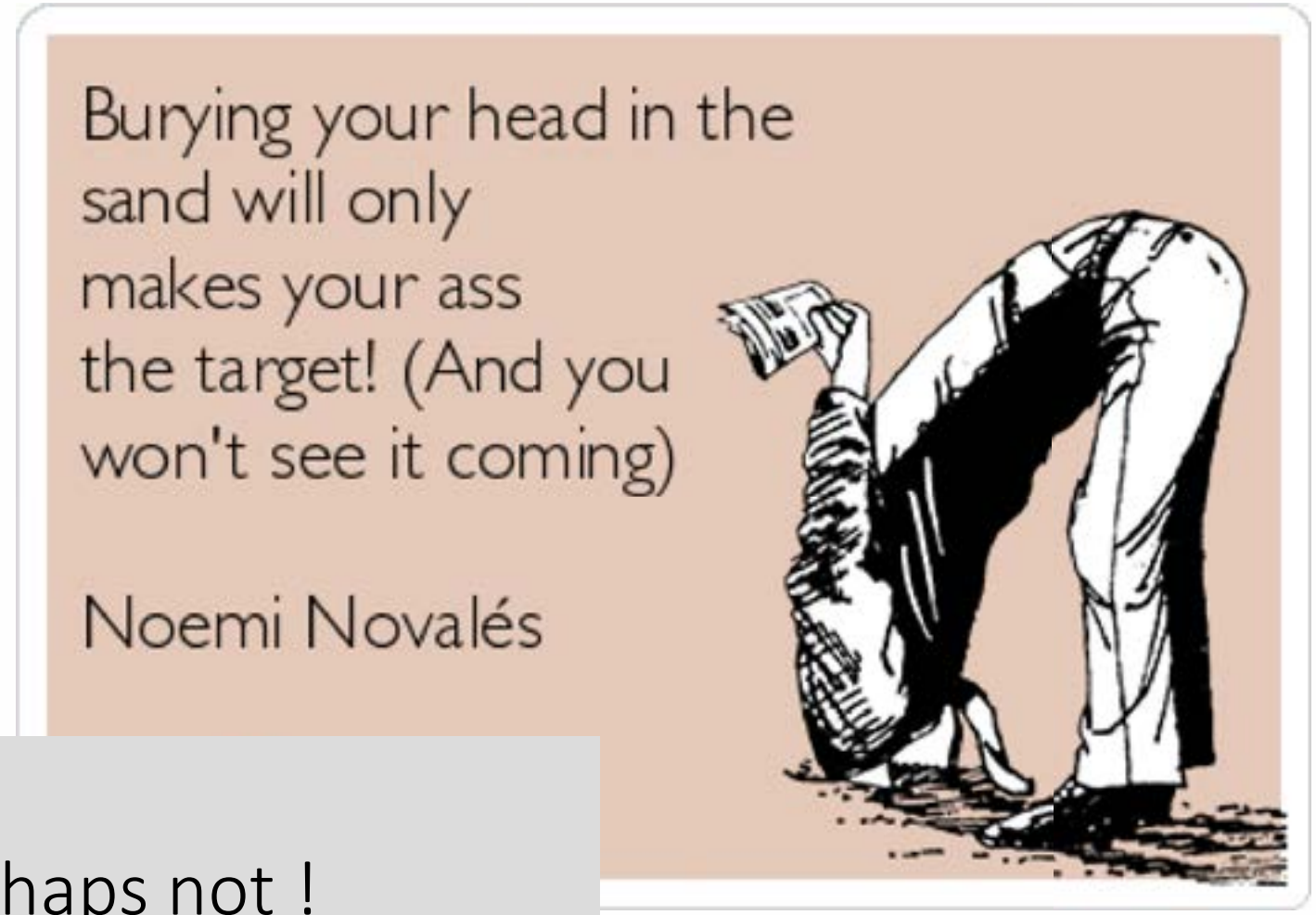
Maybe this technology thing will stop soon?

- Ignore it
- Hope for the best
- Sell
- Take early retirement
- Take up new hobbies
- I hear Starbucks are hiring
- It’s just a trend
- Pray



Perhaps not !

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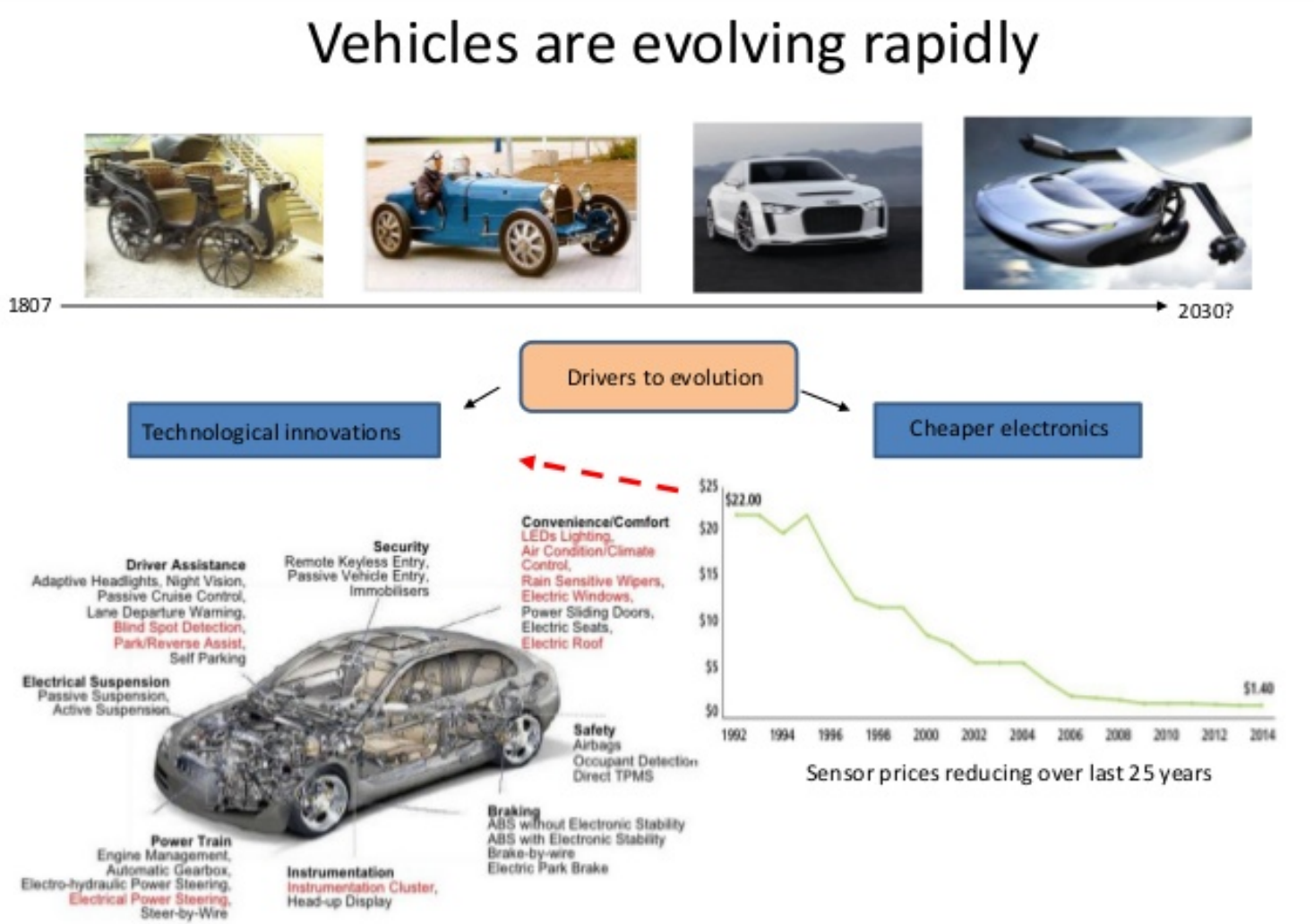
History gives us some clues…



Change is constant…

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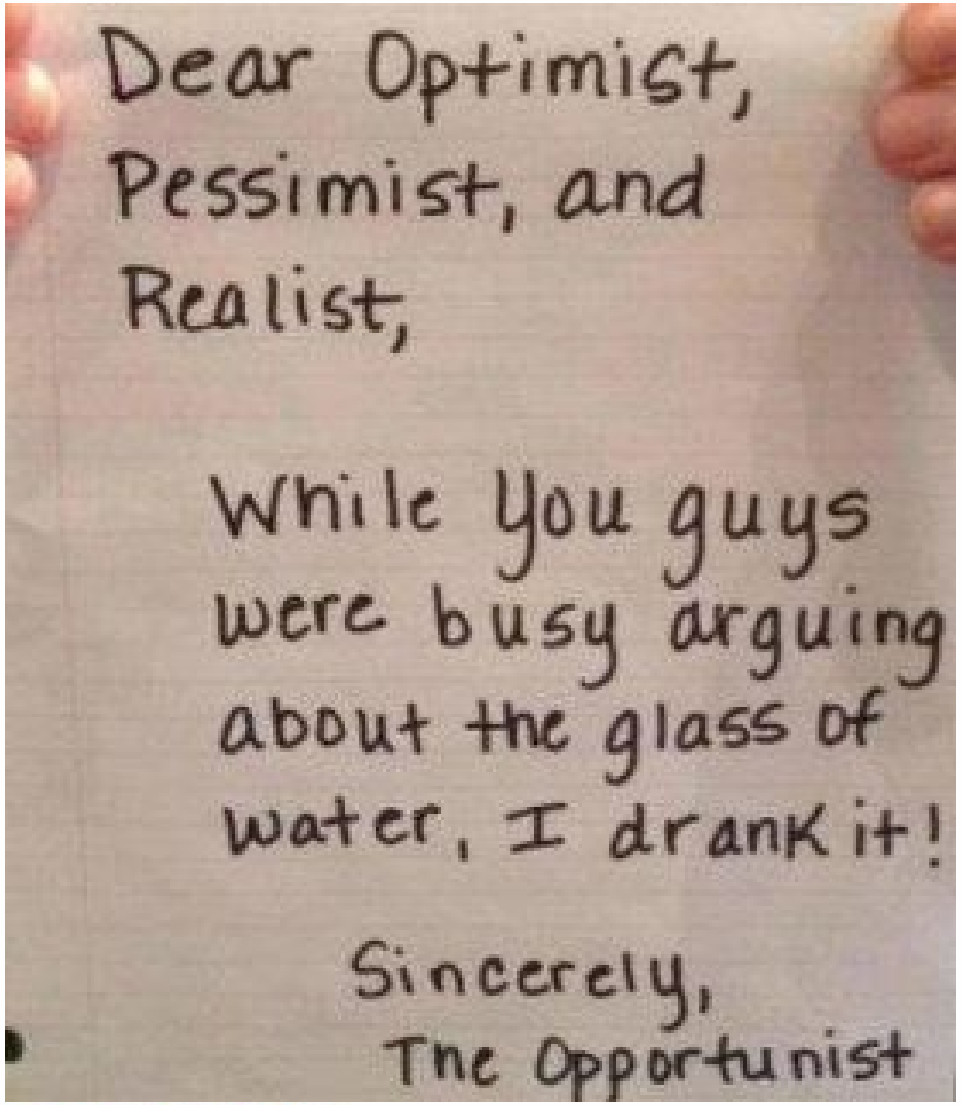
Complex vehicles should not be feared…



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In summary

- Cars will still need to be repaired
- The repair profile will change
- Skills and competences required from repair networks will increase
- Bodyshops will need investment – facilities, equipment, training
- Review your investment against trends
- Support will be required from OEM to educate and lead
- Talk to your suppliers and ask for advice
- Technology is fast paced – it will not go away!
- Opportunity always exists

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Thank you