
Thatcham Research

The Insurers Automotive Research Centre

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Overview of Thatcham “The Motor Insurance Research Centre”

- Owned by the major UK Motor Insurers with a board of senior insurer executives
- Established in 1969, it now has 180 employees, mainly engineers and researchers, who are experts in vehicle safety security, testing and repair
- World leaders in the supply of repair related data to Insurers and the repair sector



Our Mission

Thatcham's Core Purpose



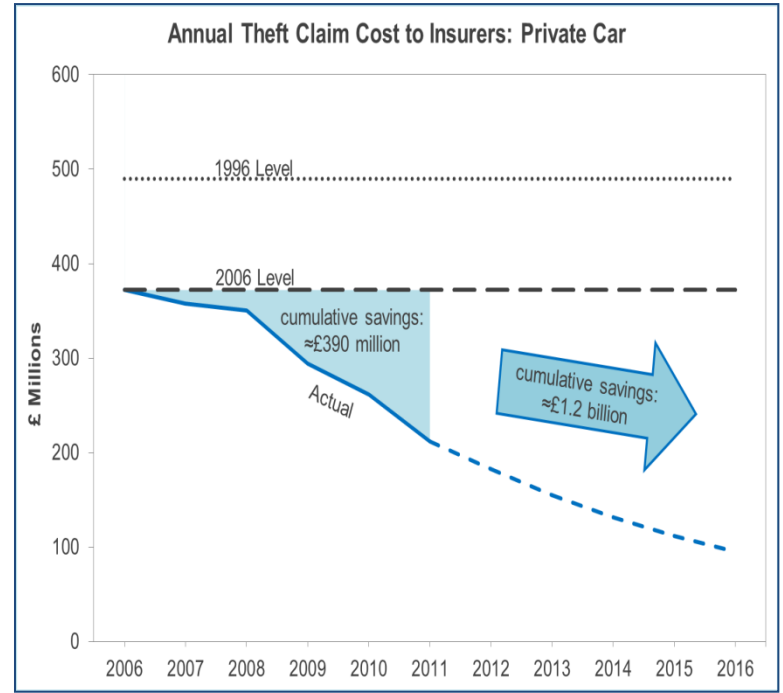
“influencing the design of vehicles to reduce accidents, improve safety & security, thereby driving down claims costs”



Vehicle Crime Research

Vehicle Security

- Thatcham assist Insurers, Vehicle Manufacturers and Police in reducing the RISK of Theft from and Theft of motor vehicles
- Security system categorisation:
 - 7 System Categories
 - The categories are not a rating of the systems effectiveness
- Vehicle Crime Intelligence - working with national and international law enforcement agencies
- Review and assess impact/threat of current and new vehicle theft methods



Solutions

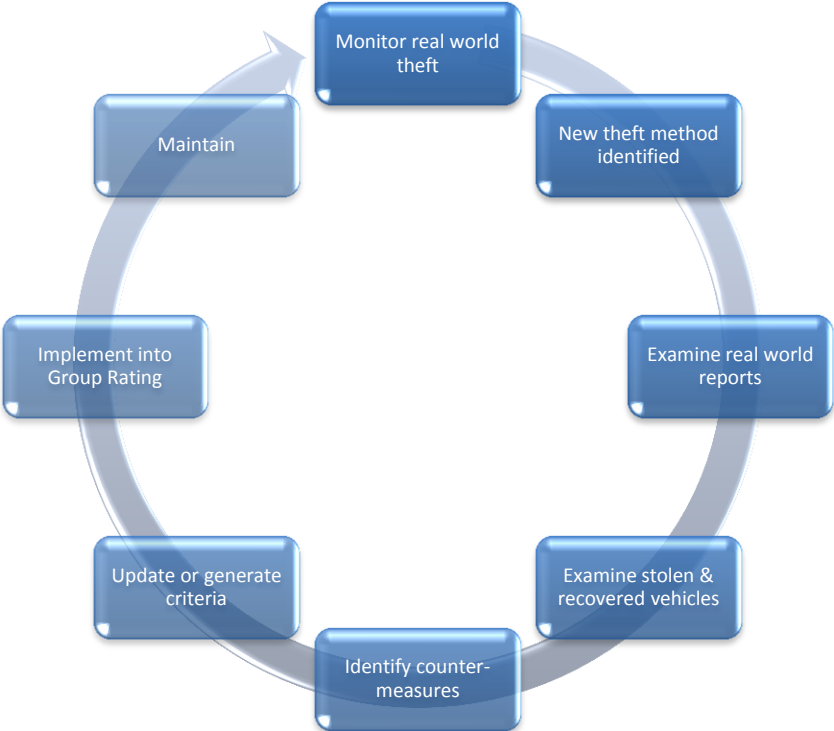
Setting Standards

- Thatcham conducts two-day assessment of every new production vehicle launched in the UK - NVSA
- Thatcham provides consultancy to vehicle manufacturers worldwide - Up to 6 years before launch / at CAD stage
- Building a more secure fleet for customers & Insurance markets
- Security system categorisation:
 - Category 1 – Electronic Alarm and Immobiliser
 - Category 2 – Electronic/Electromechanical Immobiliser
 - Category 2-1 – Electronic Alarm Upgrade
 - Category 3 – Mechanical Immobiliser
 - Category 4 – Wheel Locking Devices
 - Category 5 – Tracking Systems for Vehicle Recovery - Meeting ACPO 1402 Police Response to security systems
 - Category 6 – Vehicle Tracking
 - Category 7 – Vehicle Location



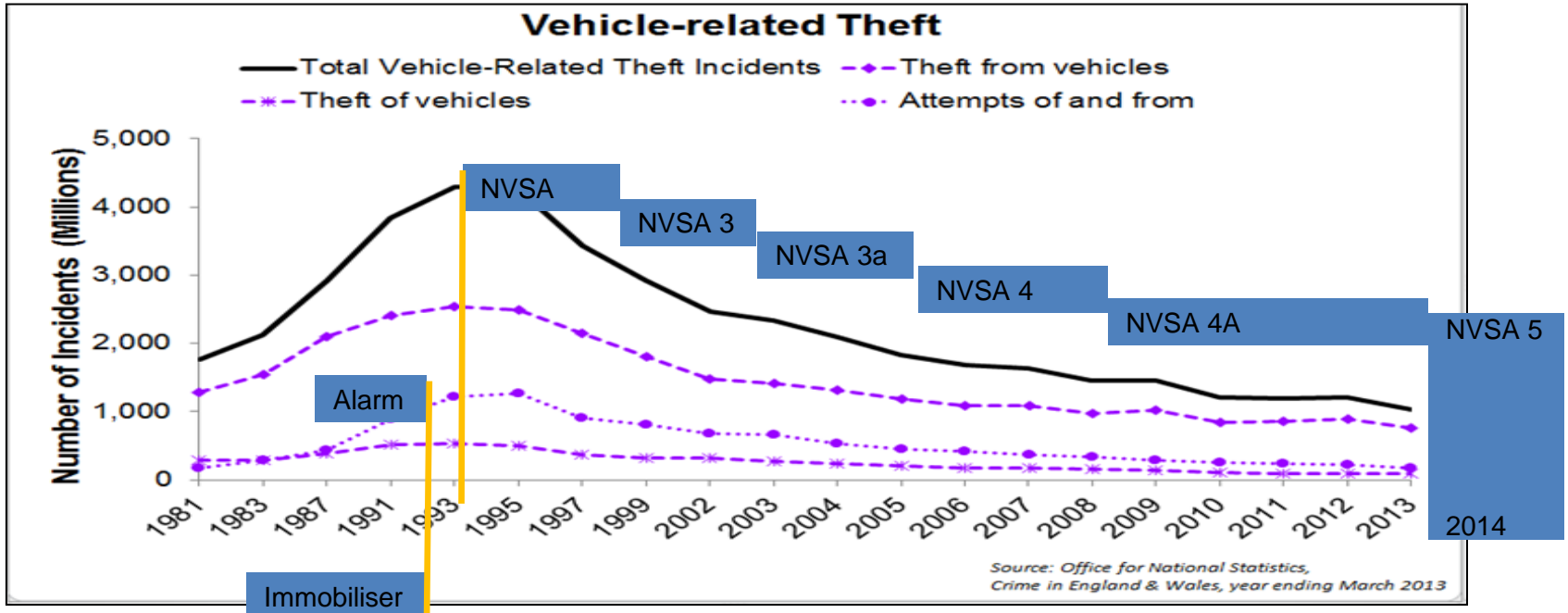
Vehicle Crime Research

Controlling Theft Risks



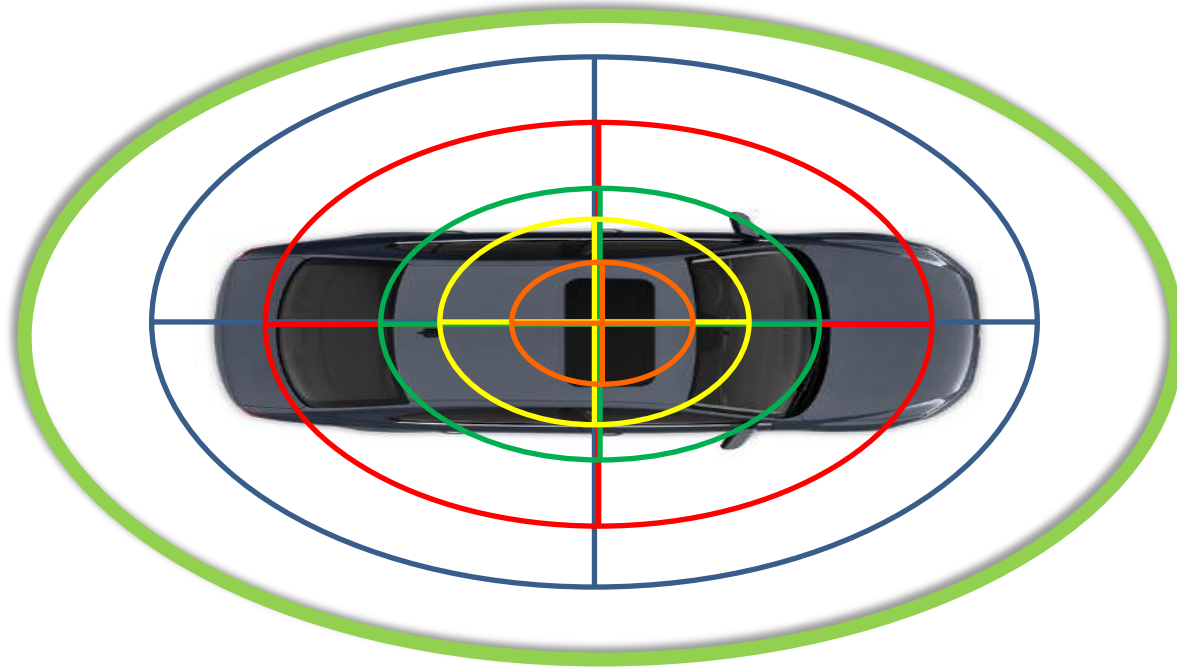
Theft & Vehicle Security

Security Timeline



Theft & Vehicle Security

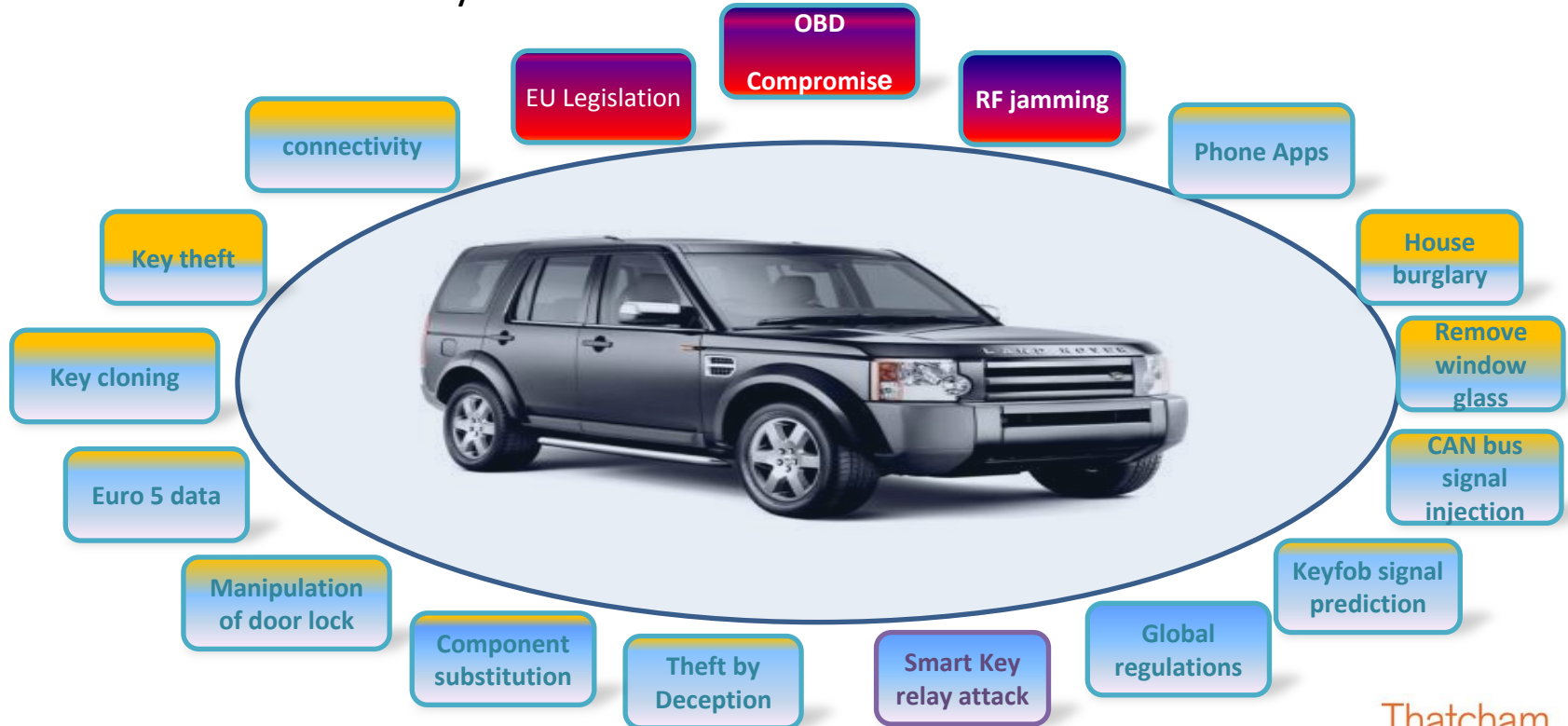
Layers of Protection



- Door locks
- Shielding
- Double locks
- Alarm
- Steering lock
- Immobilisers
- Identification
- Tracking

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Threats to a Vehicle's Security



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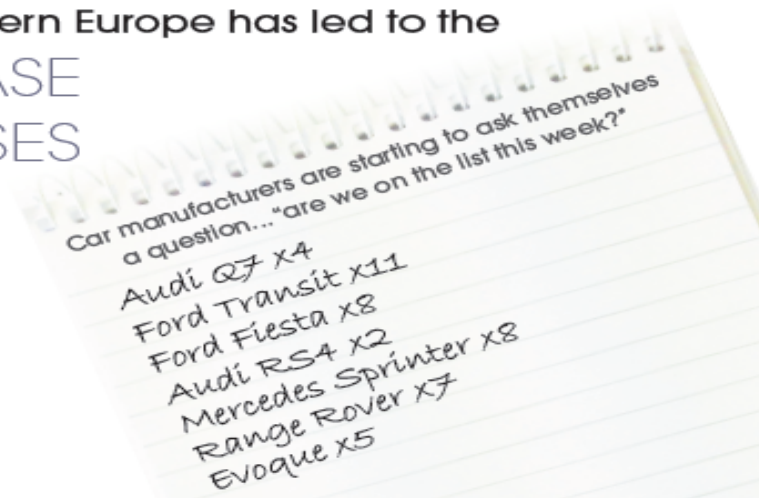
Increasing Costs

VEHICLE CRIME **APRIL 2014**

The continuing issue of vehicles being targeted by Organised Crime Gangs (OCGs) across Western Europe has led to the

FIRST ANNUAL INCREASE
IN THEFT CLAIMS LOSSES

for over 20 years in the UK.



The Threat is Shifting



Changing Times

- Potential New Methods V Traditional Methods
 - Vehicles security is now more technically advanced
 - Traditional mechanical theft methods have significantly reduced or no longer being used
 - “joy riding” has reduced but “steal to order” has increased
- Traditional Methods or Tools
 - Hammer
 - Screwdriver
 - Wrench
 - Metal Rods
- New Methods or Tools
 - Jammers (as simple as a remote control device switch or a remote garage door opener)
 - OBD Port plug in tools
 - Signal Amplifiers
 - Signal injections



New Tools

RF Jamming Devices



New Tools

OBD Electronic Theft Devices



Disposal of Vehicles



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Possible Fraud?



Possible Hacking Threats

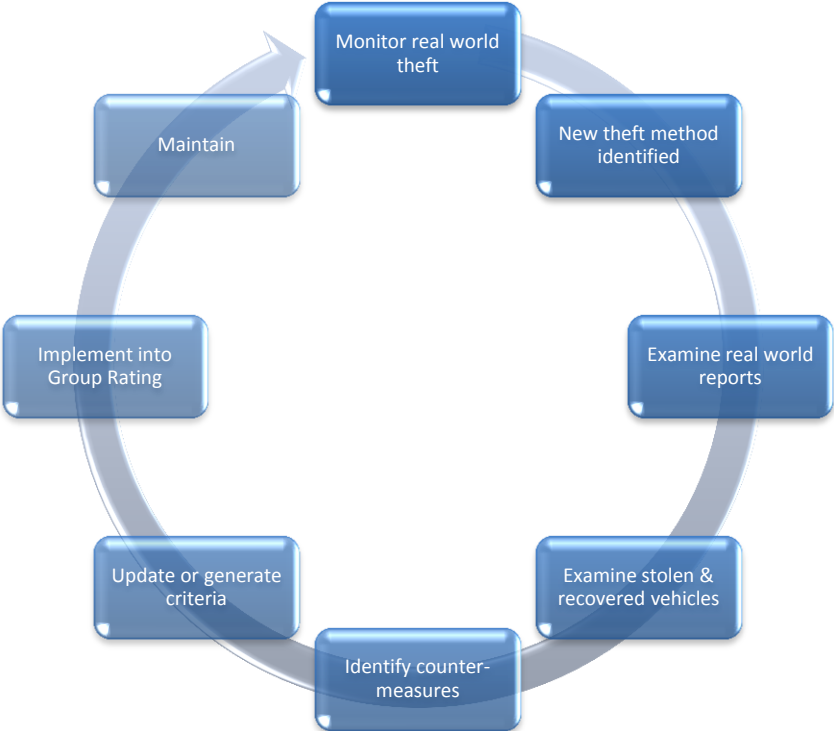
Attack methods

- Indirect Physical access
- Short Range Wireless Signals
- Long Range Wireless Signals



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Controlling Theft Risks



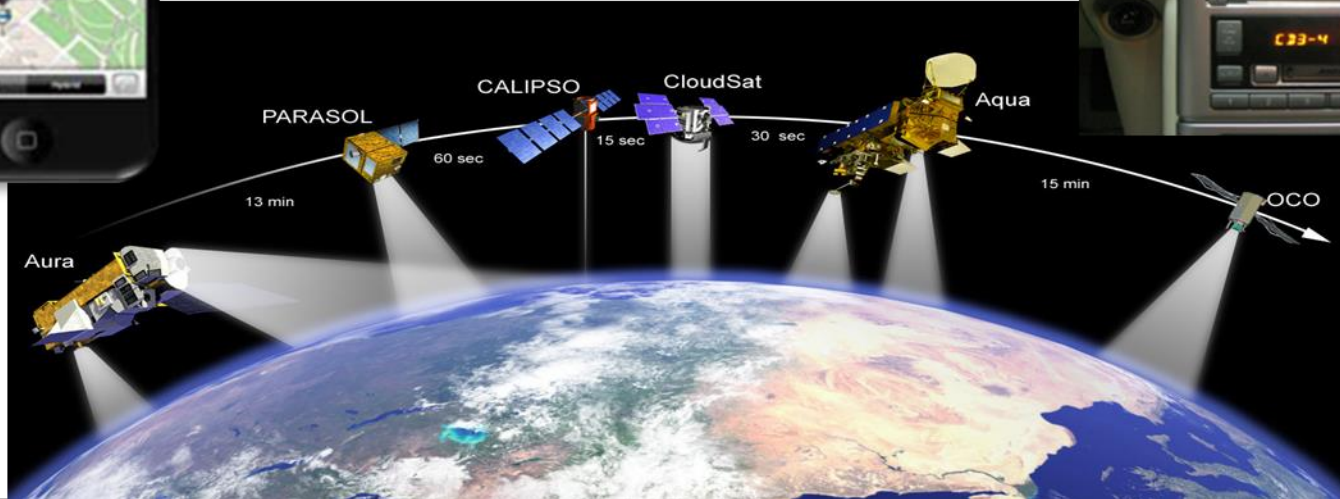
Physical access



Short Range Wireless Signals



Long Range Wireless Signals



Solutions

What are the solutions?

Design of the connected car,
design out crime do not design
it in!



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