Using live data technology solutions to create safer and smarter transport networks

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You see us every day...

Driver information
Conspicuity films
Active road studs

Driver warnings
Real time information

Agenda
• What is live data?
• Why safer?
• Smarter … really?
Live data

• Collected from the side of the road
  – Loops
  – Magnetometers
  – Radar
  – Video

• Crowd Sourced
  – Google, TomTom, Inrix ....

Safer networks

• Data and safety may seen strange bedfellows
  – Unless linked to accident / KSI statistics
• Data can identify risk areas
  – Weather data
    • Ice detection
    • Poor visibility
  – Pollution data
  – Journey time data

Safer networks

• Use this and other data to provide solutions
  – Intelligent pedestrian crossing
  – Automatic ice detection and warning
  – Wrong way driving
  – Cycle detection
Big Data

- Life is messy
- 76% of adults carry a smart phone
- Everywhere we go, we leave behind a digital footprint

Smarter Transport

- Big Data
  - The four Vs
    - Volume
    - Velocity
    - Variety
    - Veracity

Using Big Data

- Size - not Sample
- Messy – not Meticulous
- Correlation – not Cause
- Consider more than the numbers
- Extract the Value – ‘Machine Learning’, algorithms that learn and can identity complex patterns and systems
- Visualise the data – to enhance the Value and understanding
Smarter Transport

• Working with strategic partners on a project where we ‘soak up’ data that is typically discarded
  – Help to identify how passengers arrive or leave an interchange
  – How long before departure do they arrive
  – Where do they visit
  – Understanding data = understanding customers = better service

Data, Safer, Travel

• In the future, this mess will:
  – Improve your journey as a driver or as a passenger
  – Provide benefits in convenience or even cost
  – Improve safety