



TEKTRANS

www.tektrans.co.uk



TEKTRANS

MODERN TRAFFIC MANAGEMENT



Your trusted partner in modern traffic management and road-safety solutions.

DRIVEN BY DATA.
POWERED BY PURPOSE.

WHO ARE WE



TEKTRANS



TEKTRANS – your trusted partner in modern traffic analytics, management and road-safety solutions.

As part of Arrowsmith Analytics Group, we bring over 20 years of proven expertise in Auto-ID, computer vision, and advanced analytics. Our software Solutions support over 6,000 active deployments, with a robust track record built on hundreds of thousands of operational hours in live environments.

We offer both fully managed services — including deployment, day-to-day operation, analytics, and GDPR compliance — and flexible hybrid models that integrate with your existing teams and infrastructure. You remain focused on strategic outcomes, while we manage the complexity behind the scenes.



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PARTNERING FOR
PUBLIC IMPACT.

WHO WE WORK WITH

We work in partnership with local authorities, councils, police forces, and road safety across the UK. Our technology is designed to support public sector priorities by improving road safety and reducing harm to vulnerable road users. Whether it's managing traffic flow, targeting repeat offenders, or enhancing enforcement fairness, we adapt to the needs of each area.

We also support combined authorities, Vision Zero teams, and Transport Partnerships seeking scalable, evidence-led solutions. Every project is built on collaboration, transparency, and measurable community impact.

TARGETING RISK. TRANSFORMING ROADS.

WHAT WE DO

We design and deliver technology-led strategies to detect and deter the most dangerous and disruptive road behaviours. Our systems help identify repeat and high-risk offenders while reducing strain on public resources.

We prioritise safety, transparency, and long-term behaviour change.



ENHANCE ROAD SAFETY

We focus on the violations that pose the greatest danger: like repeat speeding or red-light running at pedestrian crossings. By targeting the most serious threats, we help reduce risk to life and improve community safety.



IMPROVE TRAFFIC FLOW

We monitor and respond to violations that cause disruption: like yellow box blocking or illegal stopping on key routes. Our solutions help reduce delays - particularly for public transport. Thereby reducing traffic congestion and improving service



SUPPORT SMARTER ENFORCEMENT

Our systems filter out low-risk or one-off offences and highlight high-risk repeat behaviour. This enables councils and police to use their time and resources where they will have the most impact.

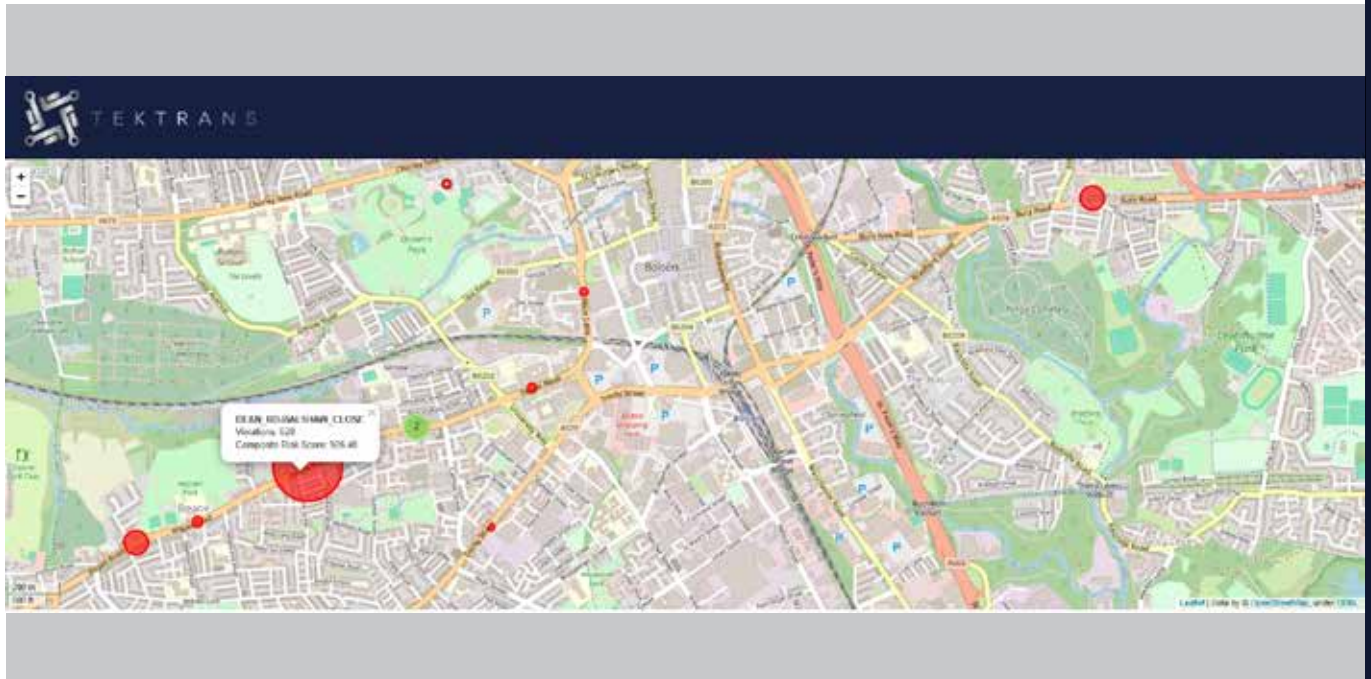


DRIVE POSITIVE BEHAVIOUR CHANGE

We don't just track offences: we track change. By analysing behaviour over time, we can show the real-world impact of enforcement efforts thus supporting a more effective, education-led approach to safer driving.

HOW WE DO IT

From data to deterrence: our technology-led enforcement model.



ADVANCED DATA COLLECTION & ANALYSIS

Real-time intelligence. Smarter interventions.

We use state-of-the-art computer vision to monitor, record and analyse road user behaviour 24/7. Data is filtered to highlight repeat offences and high-risk trends. Insights drive precise and proportional enforcement actions.

- Automatically flags repeat speeders, red-light runners and box blockers
- Custom thresholds by area, time and violation type
- Delivers actionable insights and not just raw data

TARGETED ENFORCEMENT

Focus where it matters most.

We help authorities target the small number of drivers causing the most disruption and danger. Our system ranks violators by risk - not volume - ensuring resources are used effectively.

- Identifies and prioritises high-risk repeat offenders
- Enables enforcement that is proportionate and strategic
- Reduces strain on frontline teams

SMART TECHNOLOGY AND SEAMLESS COLLABORATION DELIVERING REAL-WORLD RESULTS.

PROUD TO SUPPORT...



Working towards zero road deaths.

MULTI-AGENCY COLLABORATION

Local knowledge. Shared goals.

We work closely with councils, police, transport bodies and community stakeholders. Each scheme is designed around local priorities and operational realities.

- Co-designed enforcement strategies with local input
- Builds community trust and support
- Ensures long-term behavioural change

ALIGNMENT WITH GOVERNMENT INITIATIVES

Backing Vision Zero and Safer Streets.

Tektrans helps deliver on national goals to reduce harm on UK roads. Our projects support public confidence, reduce risks and deliver provable value through measurable change.

- Aligns with Plan for Change, Vision Zero and Safer Streets
- Protects vulnerable road users and improves safety
- Demonstrates accountability and ROI for public spend

SCALABILITY

Flexible rollouts. National potential.

Our modular framework operates across towns, cities and combined authorities, providing consistent evaluation and customisable deployment to fit with any size of project, whether from local neighbourhood to national scale.

- Standardised reporting and metrics for comparison
- Easily replicable across new sites or regions

OVERWATCH TRAFFISCOPE™



Overwatch TraffiScope™ is a next generation, State of the Art platform for detecting, analysing and acting on dangerous road behaviours. It delivers accurate evidence, actionable insights, and measurable results-empowering councils, transport authorities and enforcement agencies to improve safety, fairness and traffic flow without revenue-driven perceptions.

WHY OVERWATCH TRAFFISCOPE™?

- **Integrated Platform** – Four specialised modules in one seamless system
- **Evidence-First Approach** – Every decision backed by hard data
- **Smart Enforcement** – Prioritises the most dangerous behaviours and high-risk offenders
- **Behaviour Change Focus** – Monitors progress before, during and after interventions

TRAFFISCOPE™ MODULES



SpeedGuard™ – Targeting Persistent Speeding Offenders

SpeedGuard™ is designed to tackle one of the most dangerous and disruptive behaviours on our roads: repeat urban speeding. Therefore improving community safety and quality of life for local residents and other road users



FlowSense™ – Traffic Flow & Disruption Analytics

FlowSense™ helps councils and local authorities gain a full picture of traffic violations and their ripple effects-before, during and after enforcement.



VisionRisk™ – Advanced Risk Intelligence

VisionRisk™ is the proprietary risk-analysis engine for Overwatch TrafficScope. Purpose-built to assess high-risk scenarios such as red-light pedestrian conflicts, vehicle incursions into cycle lanes and dangerous behaviours at busy junctions.



ShadowScan™ – Vehicle Identity Fraud Detection

ShadowScan™ identifies and tracks vehicles using license plates which appear to be unregistered, cloned, deliberately obscured or altered to avoid detection.

SPEEDGUARD™

TARGETING PERSISTENT SPEEDING OFFENDERS



REAL SOLUTIONS FOR REAL PROBLEMS.

SpeedGuard™ is designed to tackle one of the most dangerous and disruptive behaviours on our roads: repeat speeding. Rather than targeting occasional or low-level infractions, SpeedGuard™ focuses enforcement efforts on drivers who persistently exceed limits, particularly in high-risk urban areas. With real-time data collection, powerful analytics and custom violation settings, SpeedGuard™ empowers local authorities and enforcement teams to act decisively, fairly and with measurable results.

Key Features:

- Always on: detects and logs speeding violations in all conditions
- Filters out first-time and borderline cases
- Identifies repeat offenders and top violators
- Supports targeted enforcement based on risk
- Provides evidence-based reporting and behaviour change tracking

01 IDENTIFY REPEAT SPEEDING OFFENDERS

Spot patterns. Not just incidents

Utilising state-of-the-art and advanced video analytics, SpeedGuard™ continuously monitors vehicle speeds and identifies persistent offenders. By filtering out isolated or borderline cases, SpeedGuard™ ensures that enforcement focuses on genuine, repeat high-risk drivers who pose an ongoing danger to the public.

02 CONTEXT AWARE ENFORCEMENT.

Fairer. Smarter. Safer

Speeding is more dangerous in some contexts than others – like near schools or at night. SpeedGuard™ adapts thresholds for violation severity based on time of day, location, or road type, improving both fairness and impact.



03 TOP 10 OFFENDER REPORTING

Turn complex data into clear priorities

SpeedGuard™ reporting tools automatically generate ranked lists of the most frequent or dangerous speeding offenders. This gives police and local authorities the intelligence they need to prioritise interventions like warning letters, in-person visits or additional tasking measures.

04 BEHAVIOURAL IMPACT MONITORING

Measure change. Prove effectiveness.

SpeedGuard™ tracks how offender behaviour changes over time following enforcement or community engagement. With built-in comparison tools, users can assess pre- and post- intervention data to evidence a reduction in speeding offences, average speeds and wider community road safety goals.

VISIONRISK™

ADVANCED RISK INTELLIGENCE



REAL SOLUTIONS FOR REAL PROBLEMS.

VisionRisk™ is the proprietary risk-analysis engine for Overwatch TrafficScope. Purpose-built to detect and provide context-aware risk scoring of vehicle related violations by location, especially at red-light pedestrian crossings, school zones, and busy junctions. These are among the most life-threatening traffic offences, often putting vulnerable road users directly in harm's way. VisionRisk™ ensures these violations are no longer missed or under-reported, helping local authorities take action before a near-miss becomes a tragedy.

Key Features:

- Powered purely by computer vision and optical flow analysis no physical link to traffic signals is required. Works with any signal design or type
- Calculates a Composite Risk Index for every detected violation
- Weighs contributing factors such as speed, vehicle size and time of day
- Incorporates proximity scoring for sensitive zones like schools, hospitals, and pedestrian areas
- Adjusts for environmental and seasonal factors (e.g., poor visibility, high pedestrian activity)
- Integrates historical collision and violation data for trend analysis
- Flags repeat offenders with high cumulative risk scores
- Prioritises enforcement where risk levels indicate greatest potential harm

01 DETECT DANGEROUS RED-LIGHT VIOLATIONS

Capture what traditional enforcement misses

Using advanced 3D vision based motion tracking, VisionRisk™ is capable of continuously monitoring up to 100 individual road users and multiple traffic signals simultaneously in real-time across complex road layouts in all conditions. This ensures every violation is recorded accurately with time-synchronised signal statuses and vehicle movements through the scene."

02 FOCUS ON VULNERABLE ROAD USERS

Protect the people who need it most

VisionRisk™ is ideal for installations near schools, hospitals, pedestrian-heavy areas and cycle routes. Helping councils demonstrate proactive care for vulnerable road users, VisionRisk provides the tools to interdict moving traffic violations that present an immediate risk to life.



03 EVIDENCE-LED ENFORCEMENT

Build public confidence through transparency

Each incident is captured with clear, time-stamped video and stills. This allows enforcement teams to issue penalties with confidence, providing defensible evidence that supports fair, proportionate action against violators.

04 TRACK THE IMPACT OF INTERVENTION

Know your efforts are working

VisionRisk™ doesn't just monitor violations: it also tracks how they change over time. By comparing pre- and post- intervention data, authorities can measure the reduction in moving traffic violations such as red-light running and build the case for wider adoption.

FLOWSENSE™

TRAFFIC FLOW & DISRUPTION ANALYTICS



REAL SOLUTIONS FOR REAL PROBLEMS.

FlowSense™ helps councils and local authorities gain a full picture of traffic violations and their ripple effects before, during and after enforcement.

By analysing real-time data that disrupts traffic flow, delays public transport and puts road users at risk, FlowSense™ transforms isolated incidents into actionable insights, supporting informed decisions and fair, transparent enforcement.

Key Features:

- Captures moving traffic violations in real time such as in no-stopping zones, lane change/turn restrictions and vehicle/time restricted or one way lanes
- Correlates violation data with wider impacts like bus delays or traffic build-up
- Demonstrates behavioural change through before-and-after comparisons
- Supports business cases for enforcement based on evidence not revenue
- Provides a visual, data-led narrative for internal and public reporting

01 REVEAL THE TRUE IMPACT OF VIOLATIONS

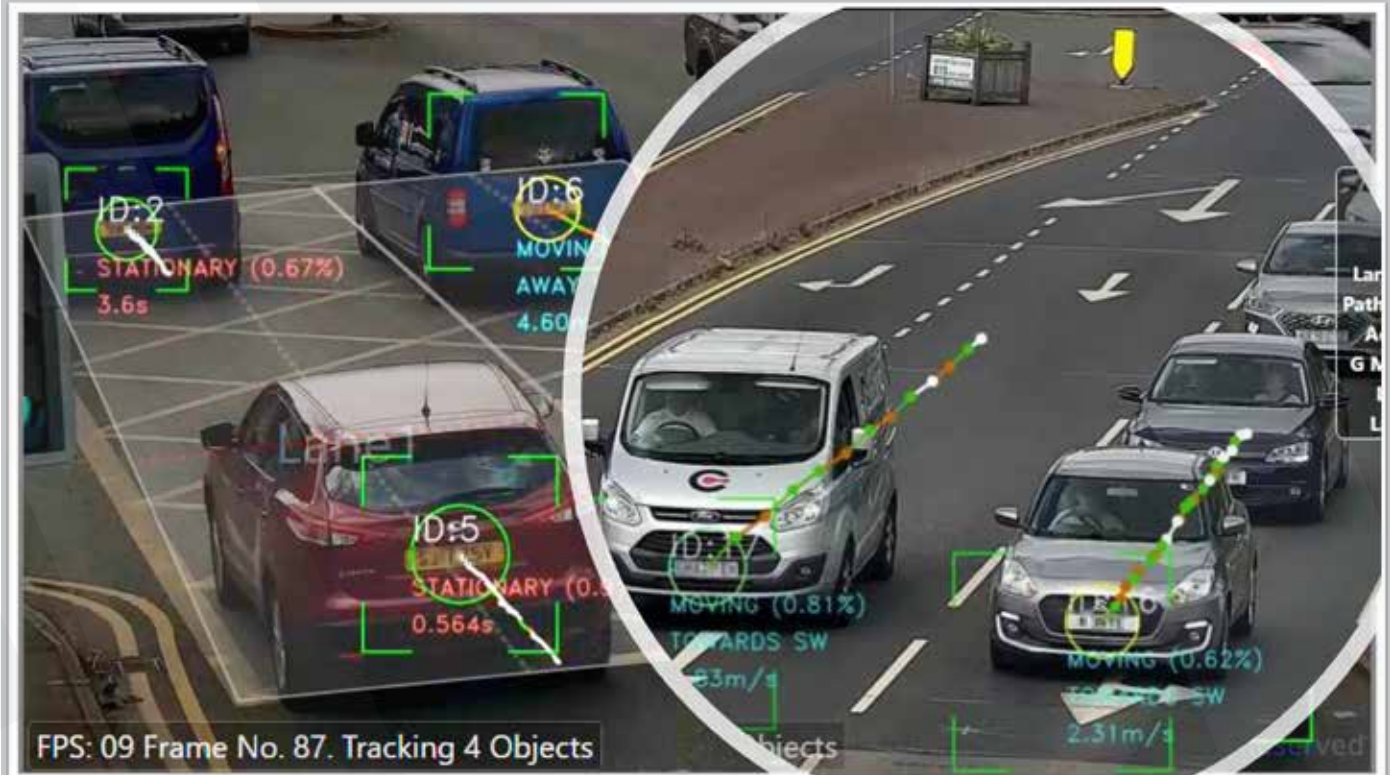
Go beyond the snapshot

FlowSense™ doesn't just log when and where a violation occurred-it shows how that incident affected everything around it. From blocked junctions to delayed buses, FlowSense™ helps you understand the scale and consequence of each offence.

02 CORRELATE WITH LIVE TRAFFIC AND TRANSPORT DATA

See the full picture in context

By integrating with timetables, vehicle tracking, or road sensor data, FlowSense™ maps how violations cause delays and congestion. This multi-layered approach helps justify enforcement based on public service impact not just individual offences.



03 CREATE DATA-BACKED BUSINESS CASES

Evidence that speaks for itself

When proposing new enforcement schemes or infrastructure improvements, FlowSense™ arms you with compelling evidence: visuals, charts, timelines and data trends that prove the need for action and discover potential ROI.

04 TRACK EFFECTIVENESS OVER TIME

See what changes-and what doesn't

By comparing pre-enforcement data with post-enforcement outcomes, FlowSense™ measures behavioural change over weeks or months at both individual and collective levels – giving you the tools to prove success, fine-tune strategy and report back with confidence.

SHADOWSCAN™

VEHICLE IDENTITY FRAUD DETECTION



REAL SOLUTIONS FOR REAL PROBLEMS.

ShadowScan™ is designed to identify, track and report vehicles using ghost plates – unregistered, cloned or deliberately obscured number plates used to avoid detection. These vehicles often engage in dangerous or criminal activity with anonymity, posing a threat to both public safety and enforcement credibility. With advanced image recognition, pattern analysis, and cross-referencing technology, ShadowScan™ enables authorities to take meaningful action against number plate fraud.

Key Features:

- Detects ghost plates, cloned plates and plate tampering
- Identifies patterns of evasion across time and location
- Flags vehicles that repeatedly avoid registration recognition
- Supports police investigations with video and still evidence
- Enhances public confidence in road safety and law enforcement

01 DETECT CLONED & OBSCURED PLATES

Spot what others miss

Using enhanced imaging and state-of-the-art technologies, ShadowScan™ flags inconsistencies in number plate visibility, format and behaviour. Whether deliberately covered, removed or faked – these plates can no longer evade detection.

02 TRACK SUSPICIOUS BEHAVIOUR OVER TIME

Repeat evasion. Flagged offenders

ShadowScan™ links multiple incidents involving the same vehicle or plate type across days, locations or behaviours providing a complete profile of suspicious usage that can be escalated to law enforcement.



ShadowScan

Vehicle Identity
Fraud Detection

[GH 5 T E]

Traditional ANPR



[GH05 TME]

SHADOWSCAN™

03 INSTANT, USABLE EVIDENCE

Supporting investigations with evidential integrity

ShadowScan™ ensures that each flagged incident comes with time-stamped and cryptographically secure authenticated video, still images and data logs, creating a reliable and tamper proof evidence trail for investigation, enforcement and prosecution.

04 PROTECT TRUST IN ENFORCEMENT SYSTEMS

Confidence by design

By visibly enforcing deliberate attempts to evade detection of serious and dangerous offences, authorities reinforce public confidence in automated enforcement. Deterrence then becomes universal.

BOLTON'S TARGETED APPROACH TO DANGEROUS DRIVING

BOLTON SPEED PROJECT



**82%
REDUCTION
IN REPEAT
ANTI-SOCIAL
DRIVING
BEHAVIOUR
SINCE
LAUNCH**

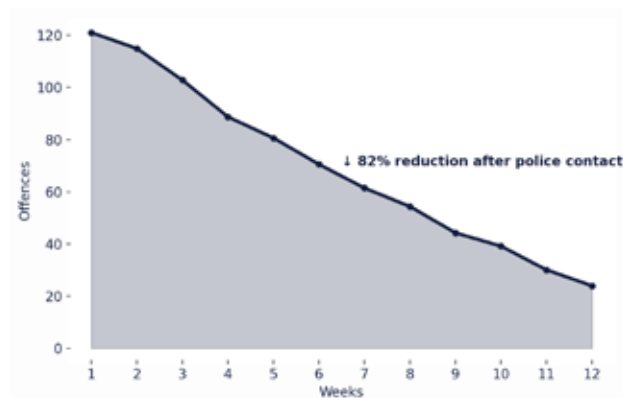
The Problem



In Bolton, a small but persistent group of motorists repeatedly sped through streets and ran red lights, putting residents at serious risk. Although they represented less than 2% of drivers, these repeat offenders generated the majority of community complaints. Limited resources and the constraints of traditional approaches meant the behaviour continued despite efforts to address it.

The Solution

Bolton Council worked with Tektrans to install eight roadside cameras – six using SpeedGuard™ to monitor speeding and two equipped with VisionRisk™ for red-light offences. All devices are connected to the Overwatch TraffiScope™ platform, which automatically identifies repeat violators and flags the most persistent cases to Greater Manchester Police for direct engagement, including home visits. This integrated deployment marked the first time such an approach had been implemented in the UK, establishing a pioneering model for addressing antisocial and dangerous driving.



The Impact

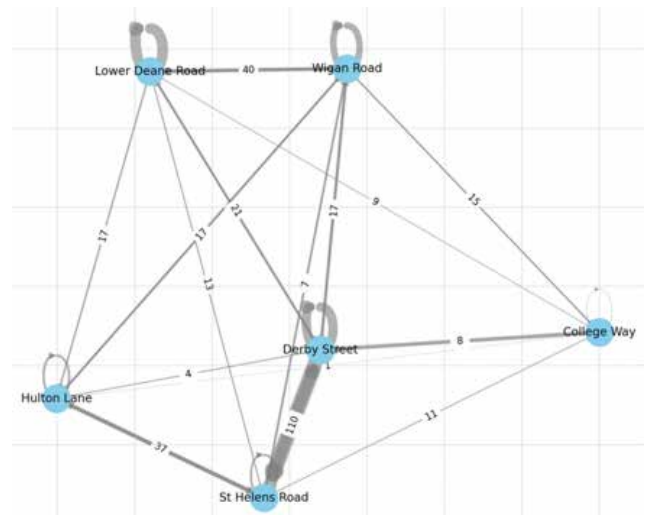
"This innovative approach closes the gap left by conventional enforcement, targeting the small number of drivers causing the greatest harm. By combining technology with targeted police action, Bolton is able to rebuild public confidence, reduce complaints and set a precedent for smarter, more efficient enforcement strategies"

Joe Fox, Network Manager, Bolton Council

The Results

Since going live in April 2024:

- Drivers who repeatedly sped cut their violation rate by an average of 82% after contact
- Winner of the Greater Manchester Police Problem Solving Award for best evidence based project
- Collaborative success between local authority, law enforcement, and tech provider
- Project extended for an additional 2 years.
- New projects awarded following demonstrable success.



**Bolton
Council**





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