

Six Fundamentals of Automated Traffic Enforcement

— *to Reimagine Public Safety*

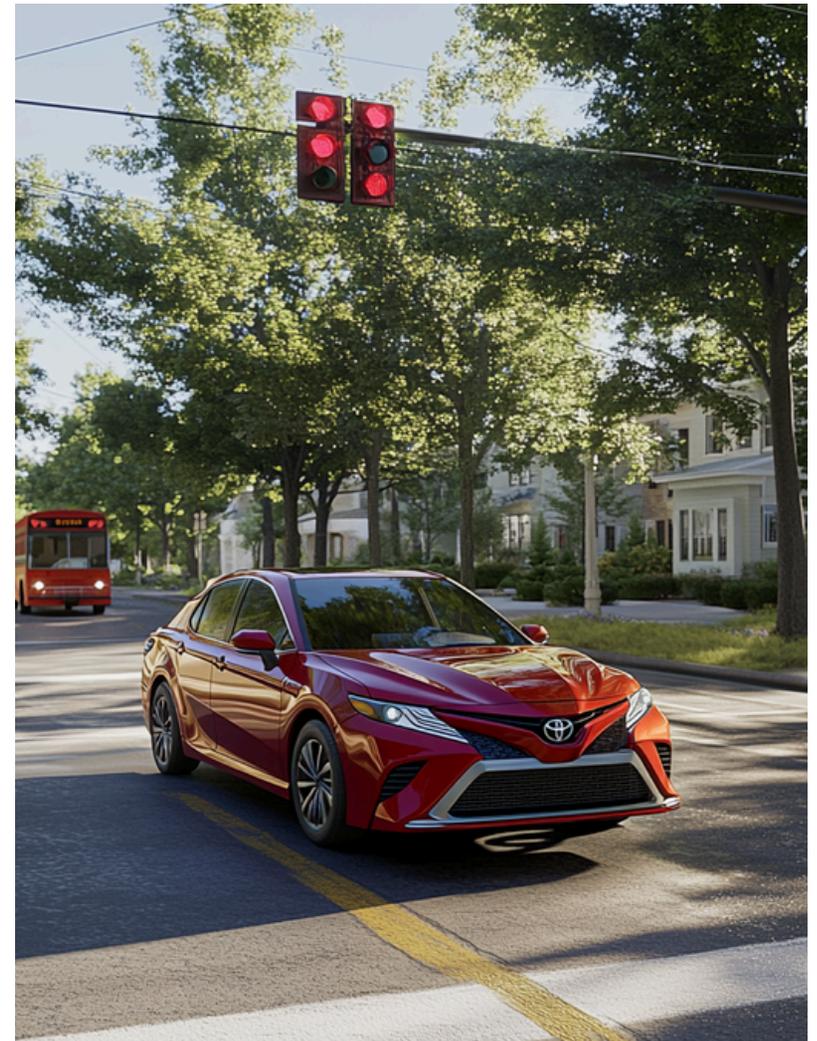
Reimagining Public Safety by Automating Traffic Enforcement

Speeding and red light running are significant problems that negatively impact everyone's safety on the road. Fortunately, evidence indicates that driver behavior is greatly improved through the enforcement of existing traffic laws.

It's important for state and local government leaders to understand how traffic violations negatively impact public health and safety. To be clear, automated traffic enforcement encompasses a variety of camera-driven solutions designed to reduce crashes and improve safety at intersections for red-light running and on highways to reduce speeding, especially through work zones and school zones.

By implementing the right combination of tools and techniques, state and local agencies can leverage automated traffic enforcement to cost-effectively and efficiently help improve public safety for everyone on the road.

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Fundamental #1

Traffic Crashes are a Leading Cause of Death

Drivers know it's important to follow the rules of the road, but they don't always do so. In one national survey, 85% said it's very or extremely dangerous to run a red light, but 31% of respondents also said they had done so in the previous month.

One primary reason why the U.S. has fallen behind most European nations where camera-based traffic enforcement is nearly ubiquitous, involves public disapproval of cameras. In the 1990s, U.S. rates of traffic fatalities were nearly identical to other countries in Europe. Since then, as camera-based enforcement expanded across Europe, the number of traffic deaths in the U.S. has grown to nearly twice as high as European nations. The U.S. has become an outlier, as other countries have successfully reduced deaths due to traffic crashes much more sharply.

Despite the multiple, clear benefits of automated traffic enforcement, there is still a public pushback against the use of such technologies. In some cases, state, and local

legislators approve automated enforcement programs, only to later prohibit their use. There are currently 269 jurisdictions in 23 states with red-light and speed cameras. However, 8 states have partly or completely outlawed speed cameras, and 15 ban red-light cameras.

Unfortunately, research studies indicate that when camera-based programs end, public safety is reduced, and crash rates increase. One IIHS study of 14 cities that previously ended programs found a 30% higher rate of fatal crashes than would have been expected if the automated enforcement program continued.

This is why it's important for state and local transportation agencies to closely examine automated tools and techniques to help maintain and improve public safety.



Fundamental #2

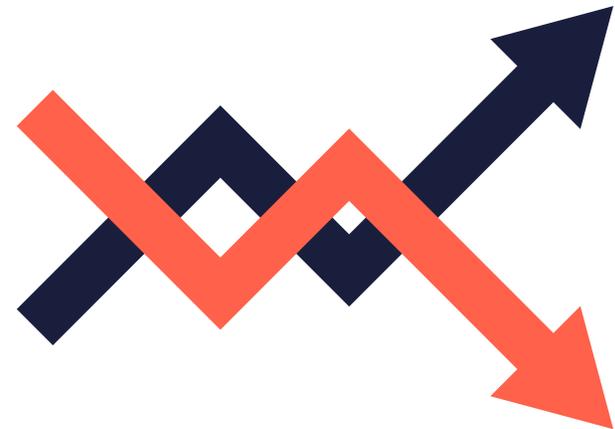
Automated Traffic Enforcement Improves Safety

Industry research across both the transportation and health sectors has demonstrated the effectiveness of automated enforcement to reduce speeding and red light running. In fact, one trusted source of public health insights, County Health Rankings, recommends camera-based enforcement as a tool to improve public health. They give automated enforcement the highest score possible as a scientifically supported community health improvement method.

Separately, a combined review of 28 speed camera research studies found a reduction in crashes in each one. Those studies found that serious crashes were reduced by 17%-58%.

Research into the effectiveness of red light cameras has also uncovered statistically significant safety improvements. In a comparison of fatal crashes across ten years in several dozen large U.S. cities, there was a 35% reduction in deaths in cities with red-light cameras, compared to a 14% reduction in cities without them. This is likely because fewer people run red lights when they know cameras are used in an intersection.

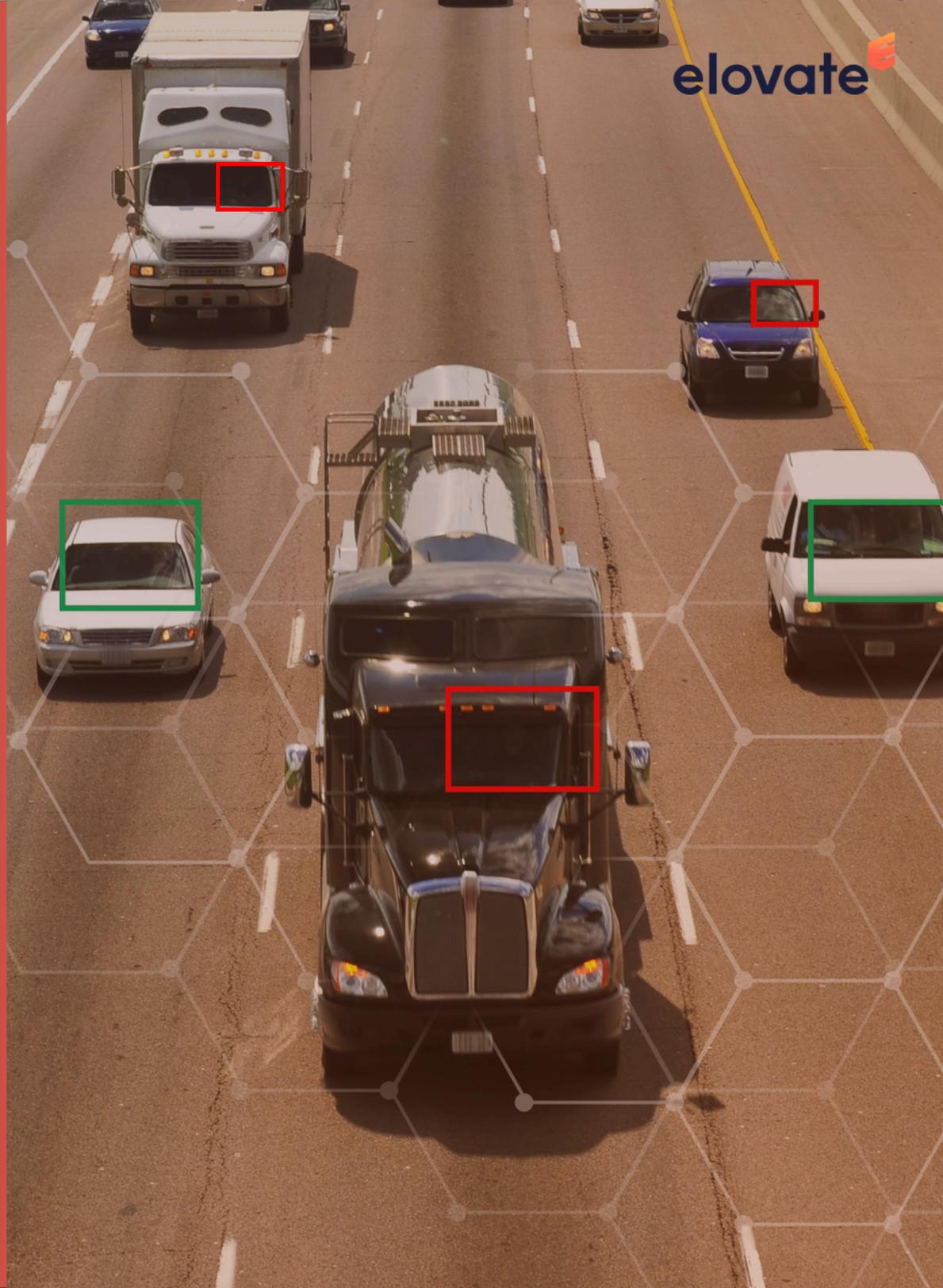
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Privacy Implications

A common misconception about camera-based traffic enforcement is that it violates an individual's privacy, despite that driving is highly regulated and takes place on public roads. Even obtaining a driver's license requires an agreement that individuals must abide by traffic laws. Because public agencies have been empowered to enforce traffic laws, people must be held accountable when they don't follow the rules.

It's also important to understand that the vast majority of state-enabling legislation for camera-based enforcement does not require driver identification. In many places, municipal agencies explicitly prohibit the use of facial recognition. Cameras are used to detect license plates and in most public safety programs cameras do not capture driver or passenger faces, genders, or ethnicities. This important distinction can help agencies ensure fair, equitable, and safe traffic enforcement.



Fundamental #3

Camera-Based Enforcement Increases Accuracy

We are all human, and no matter how much professional expertise we may possess, people are inherently more error-prone than automated systems. Research on enforcement confirms this theory, finding that bias is evident whenever human-issued tickets are compared to those captured by cameras.

Camera-based enforcement is automatic and systematic, and that means everyone is treated equally. For instance, red light cameras automatically capture every vehicle that runs a red light, using the traffic signal itself and sensors that monitor vehicle location. It's also standard practice to have a person trained to validate the violation confirm that there is clear evidence, before a citation is issued to a vehicle owner.

The Bloomberg news organization separately has reported that widespread use of automated enforcement would “result in more consistent, fair and comprehensive enforcement of traffic laws.”



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Fundamental #4

Maintaining Public Support is Vital

By focusing on ways automation improves public safety and efficiently modifies driver behavior, agency leaders can push back against charged rhetoric about ulterior motives, such as revenue generation. To that end, public safety organizations such as AAA, IIHS and the Advocates for Highway & Auto Safety, among others, stress the importance of safety using community outreach and education. IIHS, for example, drafted a checklist for municipalities considering implementing red light cameras that provides helpful guidelines to increase transparency and improve public support, including:

- Establish an advisory committee with stakeholders, including victim advocates, residents, and school officials;
- Meet with media to build support and educate the public;
- Publicize safety issues and need for better solutions;
- Create a website and social media plan describing the program;
- Hold a kickoff event;
- Connect the program to larger public safety initiatives such as Vision Zero
- After program launch, continue to meet with the advisory committee and the media to maintain transparency and sustain public support.



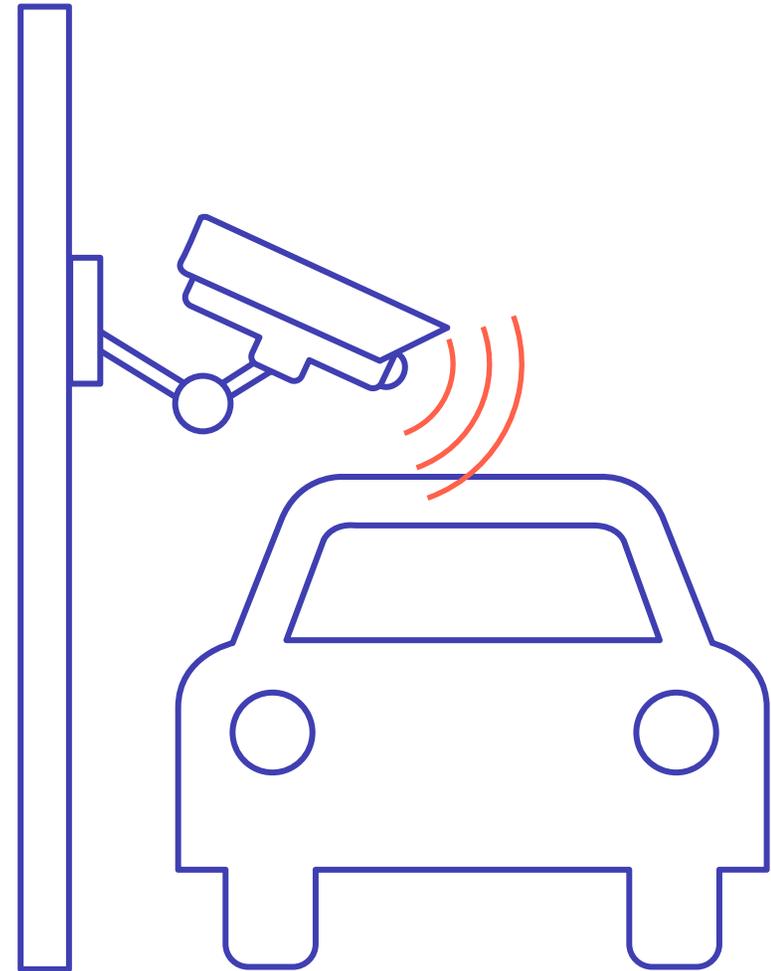
Fundamental #5

Alleviate Bias by Reducing Human Interactions

Automated enforcement systems that are installed at fixed locations or in mobile units reduce the need for police officers to interact directly with those who violate traffic laws. The systems use sophisticated data and imaging technologies to capture violations based on vehicle speed alone. This is critically important to reducing escalation risks inherent in interactions between police and the public.

While the total number of interactions have decreased in recent years, traffic stops remain the largest reason people interact with police officers. And the largest reason for traffic stops is speeding.

Rather than casting a wide net, which is often perceived as targeting specific groups, we recommend to our clients that public safety organizations deploy automated traffic enforcement to avoid manual profiling and help police increase their focus on known egregious criminals.



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Fundamental #6

Place Cameras Where They're Needed Most

Adopting automated, camera-based enforcement provides an opportunity for agencies to use advanced analytics to identify the most dangerous intersections or streets. By making informed decisions about where to place traffic enforcement cameras, agencies can focus limited resources where they're most needed, ensuring responsible use of taxpayer dollars and better enforcing traffic laws in areas with the highest risk for crashes and fatalities.

We counsel government agency clients to use impartial and well-documented methods when determining where to locate traffic cameras. At a minimum, agencies should use detailed traffic information and proximity to at-risk populations in determining traffic camera placement.

Agencies can also use information from intersections with the highest percentage of serious crashes, or fatalities relative to traffic volume in specific areas. Northwestern University produced an independent study that outlined a location determination procedure for red light **cameras**. Such independent studies offer valuable guidelines to help municipalities implement a reasonable and problem-focused enforcement program.

Another sensible approach that municipalities deploy focuses on enforcing the speed limit near locations where people are most at risk, such as road work zones, school zones, and parks. Adding speed enforcement in these areas reduces risks to vulnerable children and workers who function in dangerous locations.



Why Elovate

For over 30 years, Elovate has been a trusted partner of municipalities and state agencies to make their roads safer through the implementation of innovative, data-driven automated traffic enforcement solutions.

We envision a world free of traffic-related fatalities, and our aim is to equip you with the tools to bring this vision to life.

Our solutions enhance community safety through automated photo enforcement, sophisticated analytics, and efficient processing of violations.

These solutions are designed not just to penalize but to prevent dangerous driving behaviors before they lead to incidents, helping to save lives and improve the overall quality of community living spaces.

Together, we can create a legacy of safer roads for generations to come.

To learn more about how we can help you ramp up automated traffic enforcement, visit us at:



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