

PUBLIC SAFETY

Keeping citizens safe

Shaping smarter, safer cities.



Feeling safe is quality of life.

With increased urbanization, cities become more bustling with movement and action that can challenge both the infrastructure and security of a city. Feeling safe and secure is a fundamental principle of a healthy and functioning society. Axis helps safety authorities use technology and data to work efficiently with public safety, while at the same time respecting personal integrity.

Efficiency in public safety

Axis has a long experience of working with safe city projects. Every day, we help safe city officials, emergency services, and law enforcement to work more efficiently towards keeping citizens safe. By offering innovative, scalable camera and IoT solutions we streamline citizen safety, emergency management, and crime investigations. Our solutions are built on open industry standards, letting cities evolve with the changing needs within public safety. It also enables departments to work more efficiently together by sharing, utilizing, and analyzing data.

Collaborating between silos

A key challenge for cities is that authorities and organizations work in silos – each with their own devices, data, and agenda. However, with the right cooperation and technology, public and private organizations could work together to increase public safety. For example, in the event of a school incident, being able to connect to the school's private security network would give law enforcement direct situational awareness that could enable a better response. Together with our partners, we enable this cross-functional way of working with the right systems and technology for several use cases. As a trusted provider with cybersecurity credentials, we take care of current and future needs.

Our focus areas within public safety:

- > Citizen safety
- > Emergency management
- > Crime investigations



Protecting citizens every day.

As a safe city official, it's important to understand the risks in a city to create a place that is safe and secure, welcoming for residents, tourists, and investors alike. When our cities grow so do crowds, and with that we see new behaviors in how people move and travel within the city. Axis and partner analytics can be used to discover trends and potential risks in easy-to-use dashboards. The insights can then be used for planning, decisions, and for preventive safety to keep citizens safe.

Manage crowds efficiently

During public events, festivals, demonstrations, and even during daily mobility, crowds may need to be analyzed and managed to develop the city to be more sustainable and to secure efficient emergency responses.

Effective crowd management is all about understanding crowd dynamics and behavior to prevent risky situations. Axis cameras can be used with partner analytics to detect crowds, count people, measure crowd density, and directional movement to plan safety responses.

Prevent incidents in real-time

With limited resources to keep a city safe, crimes such as vandalism, theft, or intrusion are challenging to prevent because police or guards are not able to reach there in time, or these crimes are only detected afterward. Using network video and audio deterrence, you can detect incidents or crimes in real-time, and intervene with live audio announcements. In many cases, this type of warning is sufficient, preventing the need for additional security measures as the criminals get deterred.

Examples of how Axis and partner solutions can support citizen safety:

- Video analysis for planning, decisions, and for preventive safety measures
- Network video and audio for deterrence of crime or bad behavior
- Incident and crime detection
- Crowd management



CUSTOMER STORY

A safer city with efficient crime prevention Vincente López, Argentina

More than 1,800 Axis cameras have been integrated to protect the city's public spaces and improve safety on public transport. These were supplemented by cameras in police patrol cars and policemen wearing Axis body worn cameras. Citizens can also receive immediate attention through a network of over 80 safety poles with intercoms or get information and guidance from Axis horn speakers.

"By using AI in combination with video surveillance, alerts are generated automatically in our system. That together with analytics and data help our operators to make informed decisions based on location, time, and environment. With this method, we were able to add thousands of cameras without adding more operators. That is for us working smart."

Juan José Benítez, Secretary of Security of Vicente López

The right response in emergencies.

A city's emergency services need to be prepared for all sorts of critical situations, from man-made to natural disasters. In an emergency, every second and detail counts. Seeing how the situation develops and intervening while not being there is a big challenge. It is crucial to have the right information to optimize the dispatch of resources where and when they are needed.

Live footage for response efficiency

Our network video and audio give you situational awareness and allow operators to follow the progress of ongoing emergencies to increase the efficiency of emergency agencies. Live footage enables an accurate response that could save lives when first responders are directed to where they are needed the most.

As our products are based on an open platform, systems from different networks across the city can be connected, and data can be unified for a complete picture to speed up response times.

Use audio to gain attention

Panic and misinformation can turn a minor crisis into a major one. With network audio, you can integrate a public address to inform, warn, and guide people to safety, either via direct communication or recorded messages. Axis network speakers provide a loud and clear message in busy situations to gain people's attention. You can even address vulnerabilities that are specific to your city, for example, smoke and flooding or sounds like broken glass, or gunshot detection alerts.

Examples of how Axis and partner solutions can support emergency management in cities:

- Emergency situation detection
- City surveillance for situational awareness
- Network audio for public address
- Network cameras to support remediation operations after emergencies



Supporting crime investigations.

Axis and our partners provide solutions to help law enforcement collect high-quality evidence and data to speed up investigations. Finding what you're looking for in the huge number of city camera streams can be challenging and time-consuming. With people and objects constantly moving in changing light and weather conditions, analysis can be hard. Axis and partner solutions for forensic search are used to easily review hours of multi-camera video streams in minutes.

Forensic search speeds up investigations

The powerful video-search solution can, based on high-quality video, classify people, vehicles, and objects to make them searchable by attributes like location, time, color, size, speed, path, direction, dwell time, appearance similarity, apparel, etc. This helps speed up investigations and solve crimes faster.

For criminals to be convicted, evidence needs to hold up in court. The quality and accuracy of the evidence must be unquestionable. Axis cameras offer excellent HDTV camera quality regardless of lighting and weather conditions, thanks to innovative features like Axis Lightfinder, forensic WDR, and electronic image stabilization. This gives the captured footage a high quality that meets the regulations for court evidence.

Detect and predict suspicious behavior

Our analytics solutions can also be used to prevent crime by studying suspicious behavior. Researching past behavior over time can be hard and time-consuming if done manually. Instead, Axis cameras can be used as a sensor to collect behavior data for comprehensive video content analysis. Alarms can be set by pre-defined rules, or from deep-learning algorithms, to trigger a real-time notification for investigation of potential crimes. With the power of video analytics, you can track and identify suspects and crime hotspots before anything happens.

Examples of how Axis and partner solutions can support crime investigations:

- City surveillance for forensic search
- City surveillance for collection of evidence for investigations
- Suspect behavior analysis



CUSTOMER STORY

Speaking directly to the people Concón, Chile

Axis cameras were connected to an Axis audio system for broadcasting crime alerts, as well as for instructions and information during complex incidents such as earthquakes and tsunamis.

"These Axis dome cameras are the most advanced installed in all of Chile. They provide a complete 360-degree view for great situational awareness."

Pablo Rojas, Head of the City of Concón Department of Public Security

CUSTOMER STORY

A fast-track to solving crimes Hartford, Connecticut, USA

Hartford Capital City Command Center fast-tracks investigations and solves crimes with a comprehensive surveillance solution.

"I can take 10 hours of video from a busy festival in a park and find all the people wearing a certain colored shirt, isolate them out and track them down in seconds."

Lieutenant Johnmichael O'Hare, Hartford Police



How Axis can keep your city safe

Whether you are responsible for the day-to-day running of a city or involved when emergencies hit and their follow-up investigations, these are some examples of what Axis with partners can do to keep your city safe.

- 1 Situational awareness**
Respond quickly and remotely to ongoing incidents and emergencies with accurate resources.
- 2 Forensic search**
Review video footage with speed and great precision to identify and find people, objects, and vehicles, based on attributes like appearance, color, size, etc., and solve crimes faster.
- 3 Evidence collection**
Speed up the identification of suspects and collection of evidence to resolve cases by collecting high-quality evidence.
- 4 Suspect behavior analysis**
Predict trends and prevent crimes through deep-learning algorithms that determine normal versus anomalous behavior.
- 5 Deterrence for crime or bad behavior**
Prevent crimes and incidents with early detection and audio deterrence, for example in cases of trespassing, intrusion, or vandalism.
- 6 Risk and compliance**
Collect close-up footage from body worn cameras on policemen to act as a digital witness for accurate judgment in one-on-one confrontations.
- 7 Smoke detection**
Protect citizens, buildings, monuments, and assets with smoke and flame detection to prevent the fire from spreading.
- 8 Crowd management**
Analyze and detect crowds for an efficient response to situations and collect data insights for city planning.



Products for public safety

At Axis, we have a broad portfolio of innovative, scalable cameras and IoT solutions designed to keep cities safe and deter criminals no matter where they operate. All our cameras deliver excellent image quality every time and live up to the demands and challenges of city life, such as vandalism and tampering. All our products are built on open industry standards – they are flexible, scalable, and easy to integrate, giving customers, partners, and experts within relevant areas an easy way to provide the needed solutions and insights.



Multi-sensor cameras give a seamless 180-degree coverage with no blind spots. Thanks to Axis Lightfinder and forensic WDR, images are sharp no matter what weather and lighting conditions.



Modular cameras are small, highly discreet cameras you can fit almost anywhere, for example in a traffic light, ATM, or onboard vehicles.



Body worn cameras give the same viewpoint as the persons wearing them. They serve as a digital witness, mounted on the vests of police and security personnel, or first responders.



Fixed cameras send a powerful message of deterrence. They provide a clearly visible, fixed angle of view that is great for covering a defined area.



Multidirectional cameras give a wide 360-degree coverage, ideal for situational awareness in many directions. Some models can be combined with PTZ cameras to zoom in with a single click in the software.



Network intercoms allow reliable two-way communications in emergencies. They support citizen safety and the dispatch of officers in response to incidents.



PTZ cameras use pan, tilt, and zoom to provide both large area coverage and great detail with a single camera, as they can zoom into any situation.



Deployable solutions are great in temporary situations, when a traditional network is impractical or unavailable, for example during short-term events, the COVID-19 pandemic, or at construction sites.



Audio solutions can be used to warn off intruders and thieves, provide instructions in an emergency, make announcements, and even play music.

Quality in everything we do

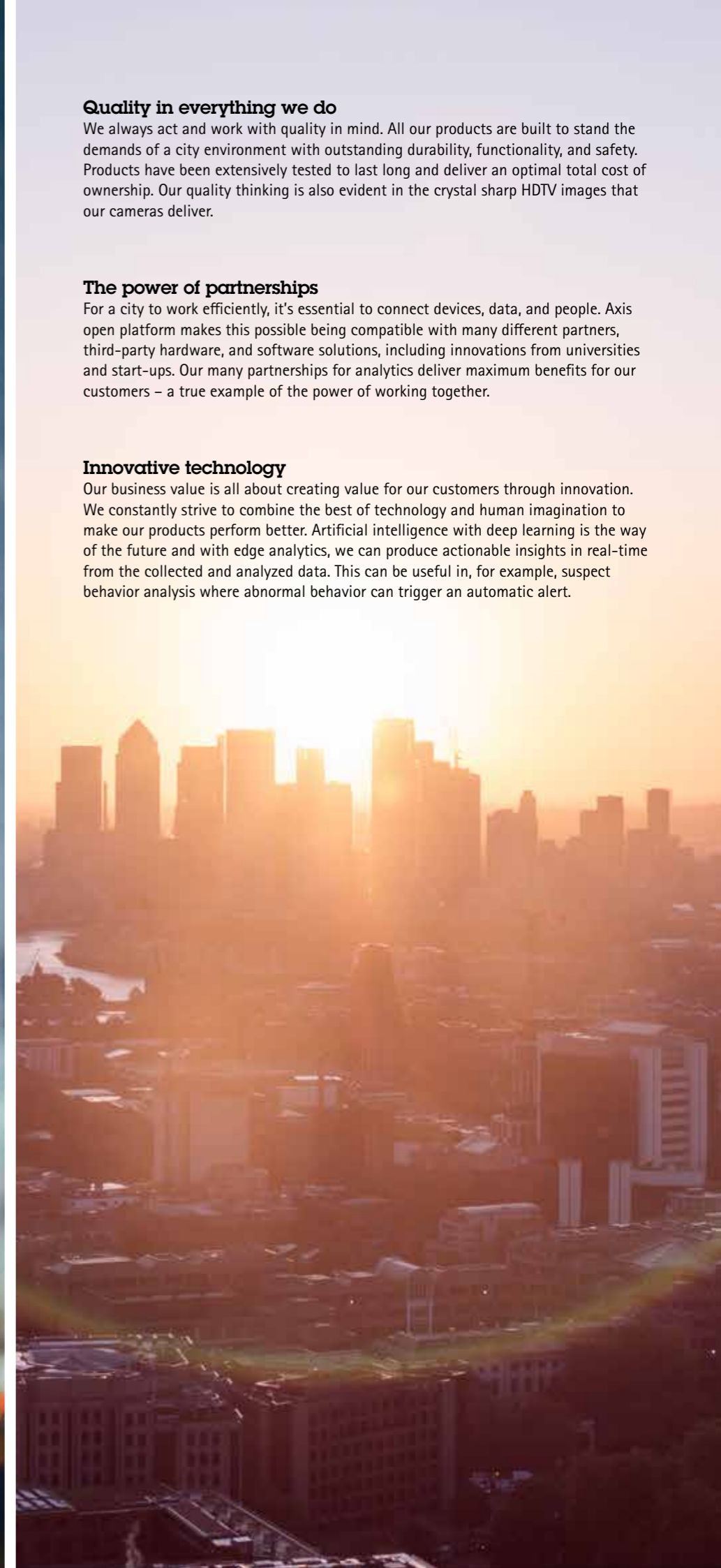
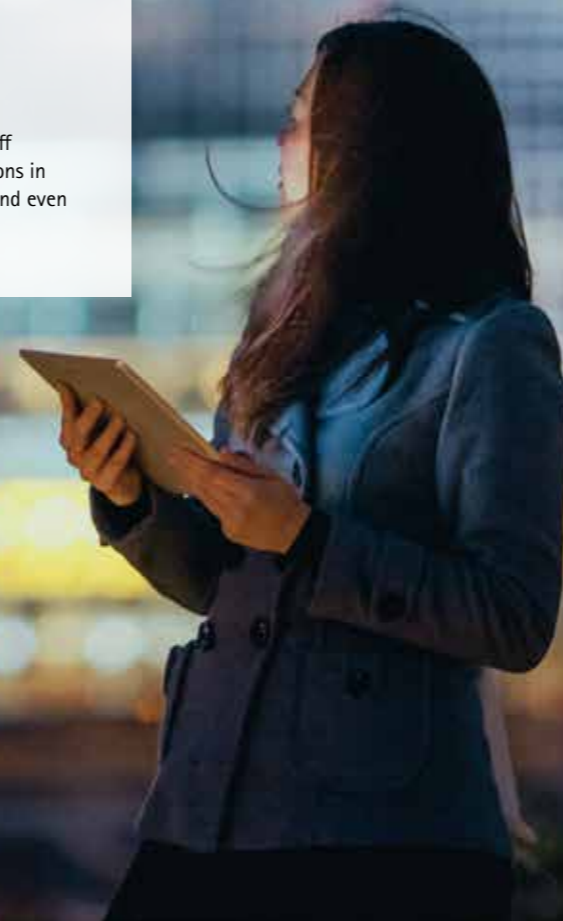
We always act and work with quality in mind. All our products are built to stand the demands of a city environment with outstanding durability, functionality, and safety. Products have been extensively tested to last long and deliver an optimal total cost of ownership. Our quality thinking is also evident in the crystal sharp HDTV images that our cameras deliver.

The power of partnerships

For a city to work efficiently, it's essential to connect devices, data, and people. Axis open platform makes this possible being compatible with many different partners, third-party hardware, and software solutions, including innovations from universities and start-ups. Our many partnerships for analytics deliver maximum benefits for our customers – a true example of the power of working together.

Innovative technology

Our business value is all about creating value for our customers through innovation. We constantly strive to combine the best of technology and human imagination to make our products perform better. Artificial intelligence with deep learning is the way of the future and with edge analytics, we can produce actionable insights in real-time from the collected and analyzed data. This can be useful in, for example, suspect behavior analysis where abnormal behavior can trigger an automatic alert.





Staying ahead of cybercriminals

Cybersecurity is one of the greatest challenges facing smart cities today. The increasing number of cyberattacks is a new type of crime, and to handle this, cities need to become impenetrable to cybercriminals. Being prepared for a breach is of utmost importance, to secure rights, privacy, and a city's infrastructure.

The three levels of defense

Protecting against cybercrime is about the depth of your defense. The first level is about security management. By choosing network video products with built-in protection, you can apply the security controls you need. With AXIS Device Management, you can implement security configurations, update passwords, and deploy patches easily and cost-efficiently.

The second level of defense concerns vulnerability management. Working with a technology provider that adheres to the best standard and practice in the design, development, and testing of products is critical so that vulnerabilities can be discovered and fixed promptly with immediate upgrades and patches.

The third level of defense is about learning and collaboration. Understanding the threats you face, their potential costs, and how to best protect yourself is the final layer of protection against cybercrime.

Axis is a leader in security solutions with a superb track record in keeping smart city data safe, secure, and compliant. With our high focus on cybersecurity and privacy, we deliver reliable products combined with our experience and expertise, according to the latest policies and regulations.

Sustainability at every level

Axis has 12 years of commitment to the UN Global Compact agreement. We innovate with respect to new regulations, policies, and legislation. We work with "green-design" to use sustainable materials. For example, 80% of Axis cameras and encoders are PVC-free.

We all have a responsibility and role to play in building a more sustainable future. With 68% of the world's population expected to be living in a city by 2050, cities have a significant role in meeting sustainability goals.

One of the fundamental roles that video surveillance plays across the whole world is "making people feel safe". This is also a goal for every city and is covered by the UN's SDGs (Sustainability Development Goals) under Target 11: "Provide access to safe and inclusive green and public spaces". However, it remains a sad truth that the population density in urban centers means that there are places that can both attract criminal activity and where incidents and emergencies can quickly become a serious risk to large numbers of people. SDG 16, "Peace, Justice and Strong Institutions" covers several relevant areas in detail with specific targets focused on reducing violence and combating organized crime.

At Axis, we are committed to sustainability and can support cities and organizations in reaching their sustainability targets, together with their daily challenges.



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About Axis Communications

Axis enables a smarter and safer world by creating network solutions that provide insights for improving security and new ways of doing business. As the industry leader in network video, Axis offers products and services for video surveillance and analytics, access control, intercom and audio systems. Axis has more than 3,800 dedicated employees in over 50 countries and collaborates with partners worldwide to deliver customer solutions. Axis was founded in 1984 and has its headquarters in Lund, Sweden.

For more information about Axis, please visit our website www.axis.com