

DEVELOPING & MANUFACTURING INTELLIGENT VIDEO MONITORING SOLUTIONS

ALL IMAGES IN THIS BROCHURE
WERE TAKEN BY LOGIPIX CAMERAS



COMPANY
PROFILE

WELCOME TO OUR BUSINESS

Logipix Technical Development Ltd. is a privately held company established in 1996 in Budapest, Hungary. Since then, Logipix has grown into an international company that is among the most innovative technological companies in the world. We are developing and manufacturing intelligent video monitoring solutions specifically for large-scale projects and wide areas.

Logipix believes, serving the needs of customers efficiently can only be successful if they receive complete solutions. In order to achieve this, we design and create all the critical components to our systems, including hardware, software and embedded computer vision. Our entire product range is developed and manufactured in Hungary in accordance with the highest quality requirements.

We are proud that we stand among the leading pioneers in this ever-evolving market. Our company is deeply engaged with the constant research and development to provide complete, intelligent solutions using the latest microelectronic and computer technology available, while considering the various characteristics of different application areas.

KEY FIGURES



engineers



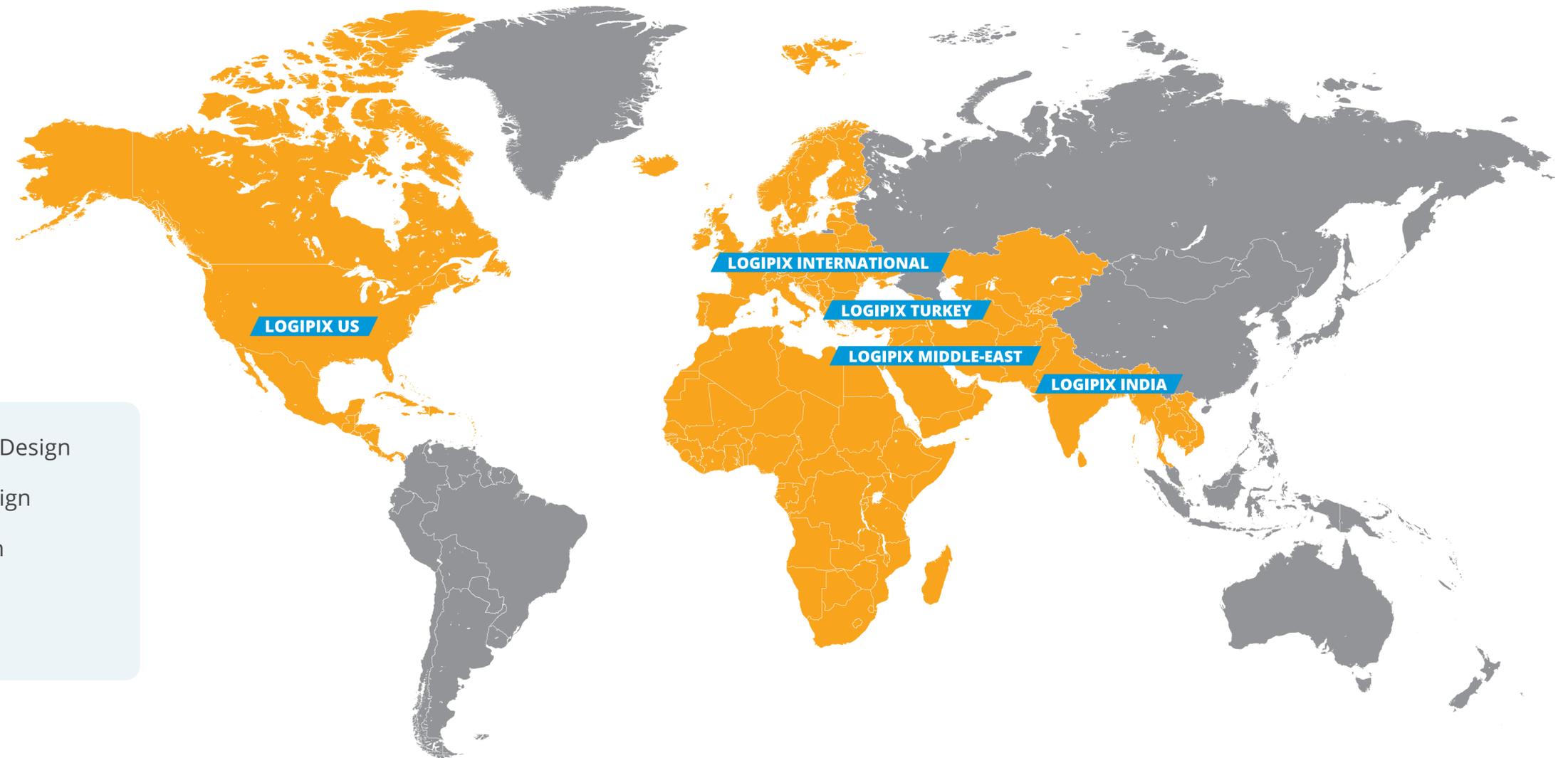
branch offices:
United States
New-Delhi,
Dubai



revenue growth
over the past
5 years

ENGINEERING COMPETENCIES

- Mechanical and Thermal Design
- Artificial Intelligence and Video Content Analysis Development
- Embedded Software Development
- Application Software Development
- Electronics Design
- Optical Design
- Chip Design



OUR STORY

Developing and Manufacturing Access Control Systems

- Company was established
- IP-based Access Controller
- Time and Attendance software
- Walk-DVR Mobile Video Recorder

Developing and Manufacturing IP Camera Systems

- 9.1 MP box IP camera
- First high-resolution IP cameras at the price of analog cameras
- 1st generation Network Video Recorder
- Control Center VMS

Logipix Stadium Video Surveillance Solution

- 15 MP box IP camera
- 150 MP Panorama Camera
- Full HD PTZ
- Enterprise Network Video Recorder
- Control Center with stadium extension

Logipix Traffic Violation Detection Solution

- 14 MP, 20 fps 1" sensor Logipix ONE camera family
- Logipix IR Flash
- 2nd generation Network Video Recorder, rack mounted

Logipix Safe & Smart City Solution

- 20 MP, 20 fps 1" sensor Logipix ONE camera family
- 200 MP Panorama Camera
- 6 MP PTZ

1996 - 2006

2007 - 2011

2012 - 2014

2015

2016

2017

2018

2019

2020 - 2021

2022 - 2023

Logipix Airport Video Monitoring Solution

- 200 MP Panorama with self-cleaning system
- 6 MP Laser PTZ

Logipix Automatic Traffic Violation Detection Solution

- Multi-lane speed radar
- 500W IR Laser Flash
- Outdoor NVR v2.0
- VCA features for automatic violation detection
- Violation Management Client

Logipix Border Surveillance Solution

- 320 MP Panorama Camera
- 3rd generation Network Video Recorder
- Long range double-head PTZ
- VCA features
 - Automatic detection of human objects from 3 km
 - Multiple object tracking

Logipix Critical Infrastructure Solution

- Multi-level detection
- Automatic warnings and alarms
- Perimeter protection

Logipix Airside Augmented Reality Solution

- 4th generation Network Video Recorder
- VCA: LND & TOF registration / Object tracking and classification / Geofencing & Virtual fence / Automatic traffic enforcement
- Real Time Decision Making Support
- LAARS software package

Logipix Airside Augmented Reality Solution

- VCA: Situational awareness (collision prediction) / FOD detection
- 300 MP Panorama Camera

Logipix Border Surveillance Solution

- Marine Grade Materials
- Single Thermal Camera

Remote Maintenance

- Health Report
- Notification Center
- SNMP traps

Logipix Airside Augmented Reality Solution

- Turnaround Management
- LAARS 2023 software package

Logipix Border Surveillance Solution

- 320 MP + 6 MP Dual Vision Panorama
- Logipix Drone Panorama

Vehicle Solution

- Vehicle mounted Single Sensor Thermal Camera
- Vehicle mounted 120 MP Panorama Camera
- Vehicle mounted Dual Vision Panorama

Highway Solution

- 20° 200 MP Panorama Camera
- 10° 100 MP Panorama Camera
- Highway Solution software package

TECHNOLOGIES THAT MAKE US UNIQUE

PANORAMA TECHNOLOGY

4K or even higher resolution video technology has become common in video surveillance nowadays. But when it comes to monitoring large scale areas their coverage capabilities are nothing compared to the efficiency of high-end panorama cameras. Logipix developed a leading-edge, multi-sensor panoramic technology, providing 200-320 MP image resolutions with 20 fps video stream and the display technology that makes it possible to seamlessly utilize the full resolution during monitoring.

We developed a unique stitching technology that geometrically merges images at the image borders resulting

in a contiguous panoramic image just as if it were taken by a single sensor camera. All the grouped sensors take their images synchronized, which ensures a glitch free display throughout the whole panoramic image. Thanks to the special stitching technology zooming and panning are seamless at the stitching borders as too.

COMPUTER VISION TECHNOLOGIES

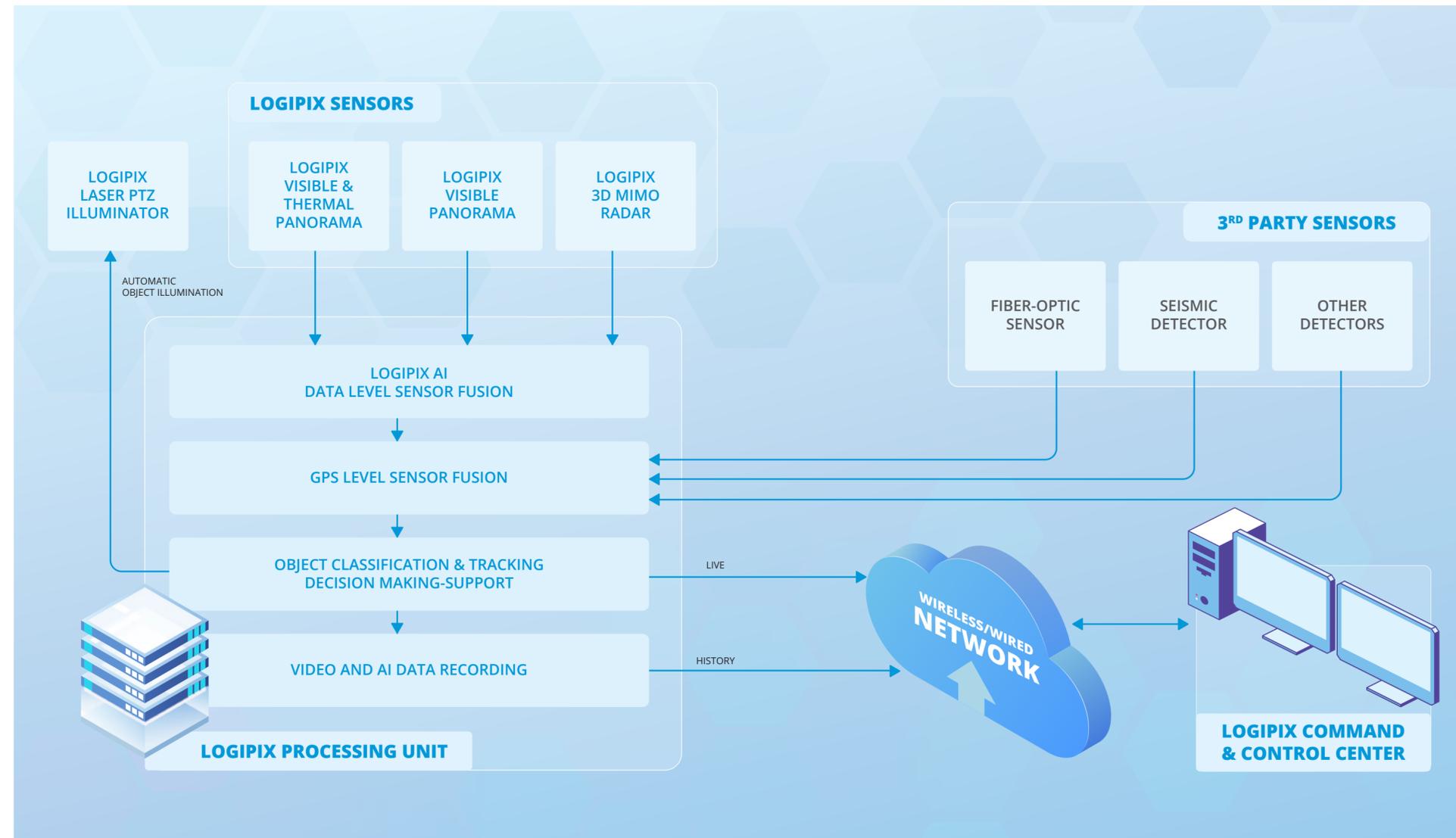
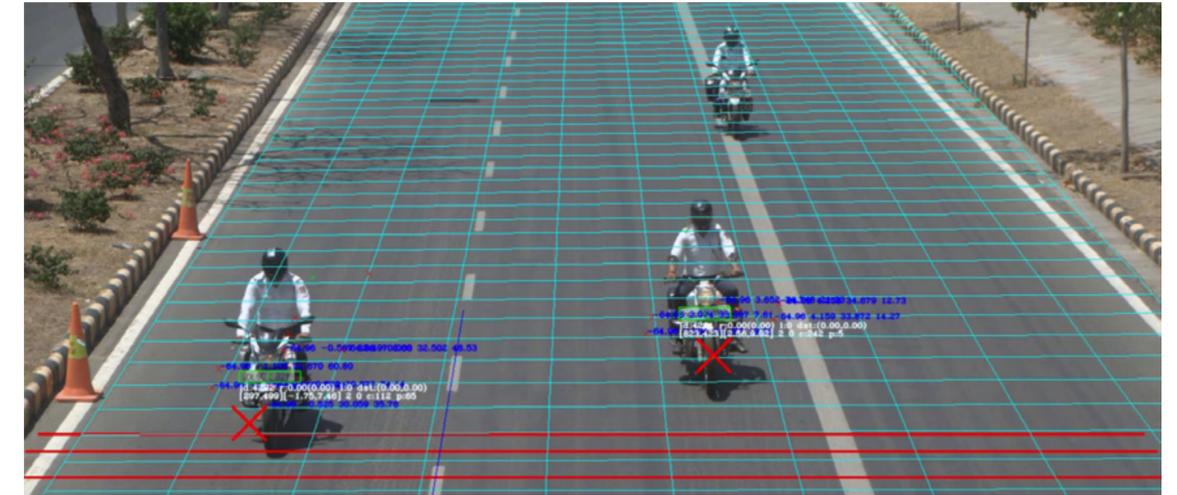
Artificial Intelligence is gaining more and more ground in video surveillance these days. Logipix is among the leading pioneers who determine the future of this industry. We create high-end systems that relies on not just extreme high resolutions, but advanced computer vision technologies. That is how our cameras have evolved further and have become intelligent visual data sensors. We developed embedded Video Content Analysis algorithms which detect, classify and track different types of objects and are also able to automatically perceive complex situations based on motion behavior and motion prediction analyzes.



SENSOR FUSION

We developed a specific data level sensor fusion technology, which realizes aggregated raw data analysis for the most accurate automatic detection and tracking possible. The AI algorithm works with uncompressed data that are delivered from different types of data sources. This way Logipix is able to overcome the limitations of individual sensors and provide more reliable information of the monitored area and the objects within.

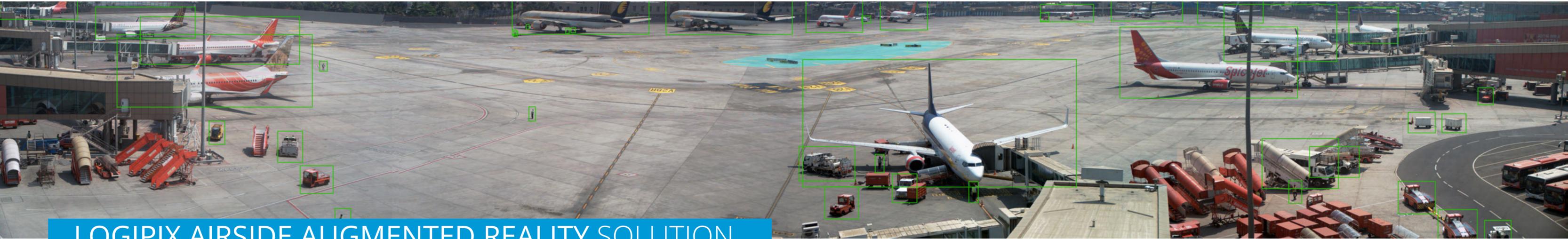
Besides, Logipix provides feature level sensor fusion, wherewith we are able to efficiently integrate third-party sensors and combine their capabilities with Logipix sensors.



SPECIAL IPU TECHNOLOGY

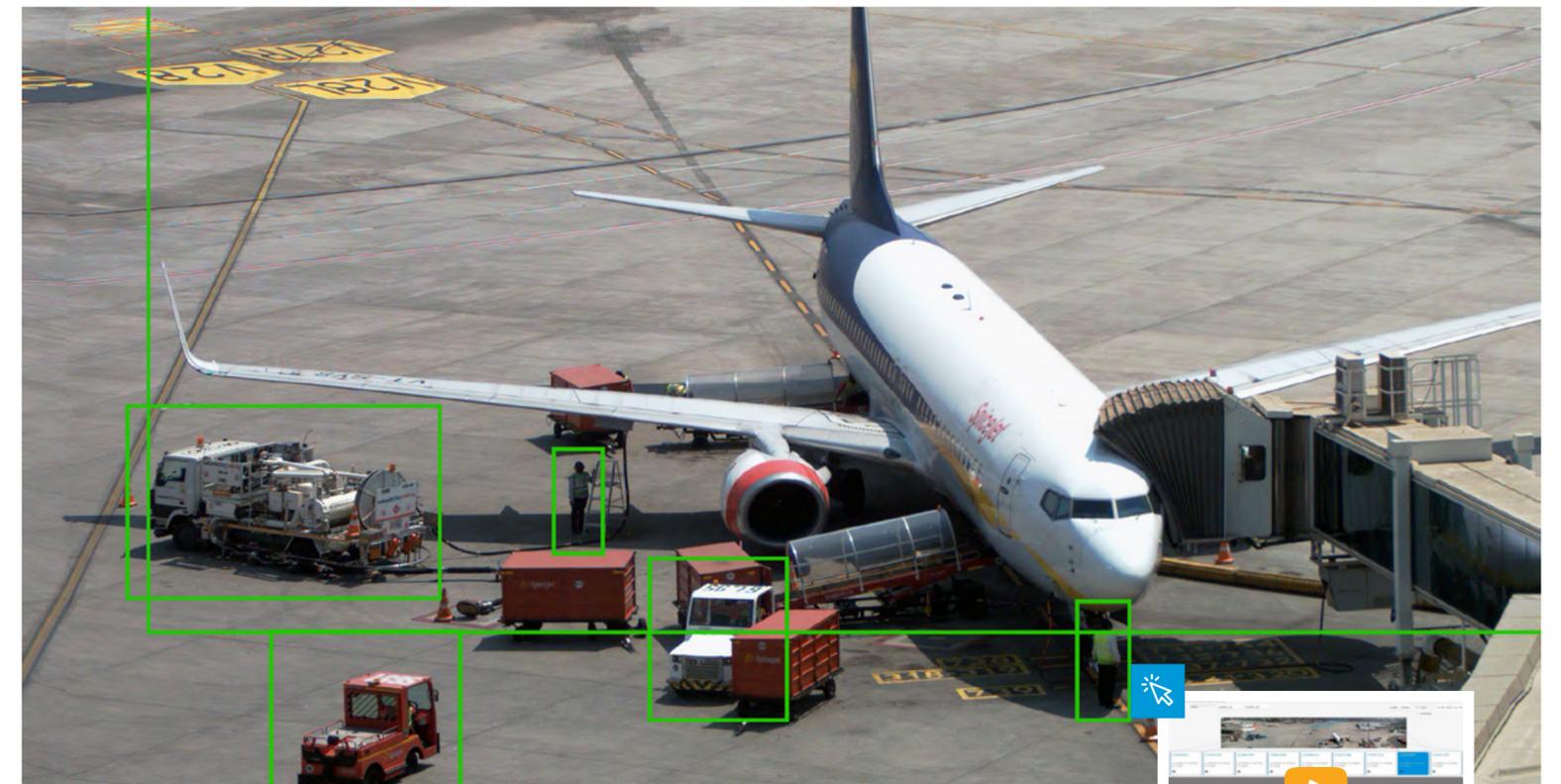
We can take advantage of full control over image processing as we design our own Image Processing Unit. By logically distributing the available computing capacity of the IPU we can maximize the efficiency of image enhancement and embedded Video Content Analysis algorithms.





LOGIPIX AIRSIDE AUGMENTED REALITY SOLUTION

- Intelligent airside video monitoring and ground handling management support using advanced computer vision technologies
- Monitoring with 200-320 MP Panorama Cameras
- VCA-based detection, classification and tracking of both cooperative and non-cooperative objects
- Increased situational awareness
- Geofencing and Virtual fence functions with applied airside rules
- Automatic ground traffic enforcement
- Automatic LND & TOF registration
- Augmented reality layers on the Graphic User Interface
- Informational object labels, detailed object list and interactive map
- Object status based archive search
- Monitoring turnaround processes aided by automatic VCA functions and interactive timeline
- Multi-department access
- Remote maintenance, built-in self-cleaning and de-icing systems for hardware components



[Learn more about the Logipix Airside Augmented Reality Solution:](#)

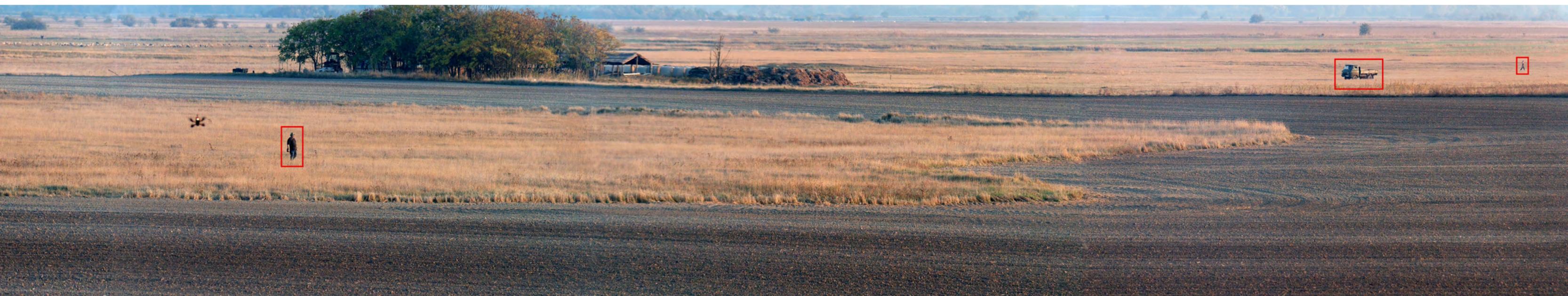


LOGIPIX BORDER SURVEILLANCE SOLUTION

- Virtual wall built of thousands of megapixels and advanced computer vision technologies
- 200-960 MP panoramic video streams with 20 fps
- Dual Vision Panorama Camera with thermal camera module for clear vision during night and in challenging environmental conditions like smoke, dust, haze and fog
- VCA-based object detection, classification and tracking
- Automatic detection of human targets from 3 kilometers away
- Automatic zoom functions and tracking zoom windows
- Accurate geopositioning of the detected objects
- Interactive map and detailed object list
- Interoperating with third-party surveillance systems
- Full functionality over low-bandwidth network
- Hardware components are available made by marine grade materials
- Remote maintenance, built-in self-cleaning and de-icing systems for hardware components



[Learn more about the Logipix Border Surveillance Solution:](#)



LOGIPIX CRITICAL INFRASTRUCTURE VIDEO SURVEILLANCE SOLUTION



- High-end video surveillance solution to protect critical infrastructure facilities from external and internal threats
- Monitoring with 200-320 MP Panorama Cameras
- VCA-based object detection, classification and tracking
- VCA-based intrusion detection for perimeter protection
- Accurate geopositioning of the detected objects
- Geofencing and Virtual fence functions with applied airspace rules
- Automatic internal traffic enforcement
- Increased situational awareness
- Interactive map and detailed object list
- Interoperating with third-party surveillance systems
- Possibility for PIDS integration, which can trigger automatic zoom functions
- Remote maintenance, built-in self-cleaning and de-icing systems for hardware components

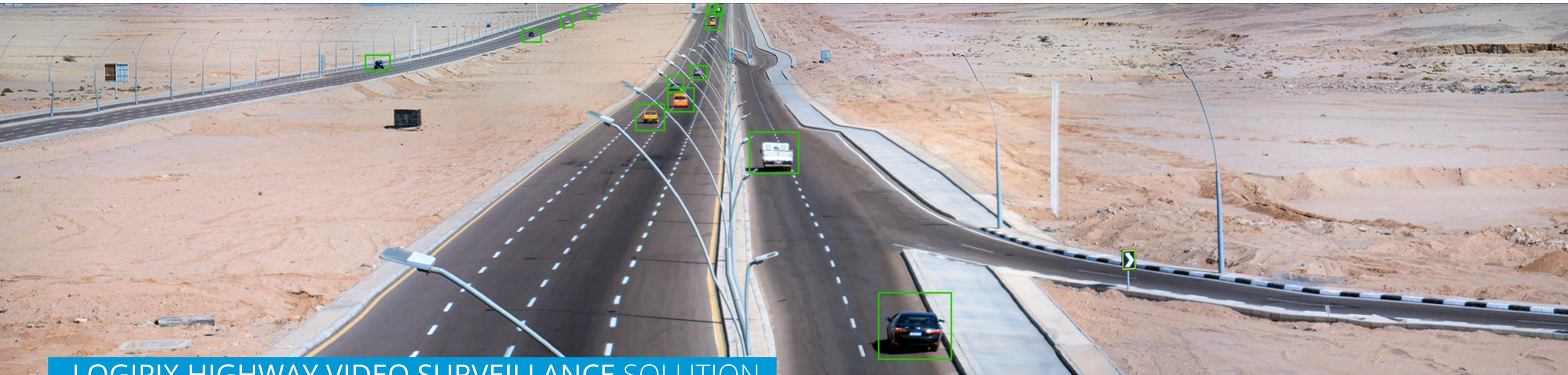
[Learn more about the Logipix Critical Infrastructure Video Surveillance](#)



LOGIPIX VEHICLE VISUAL ENHANCEMENT SOLUTION

- Purpose-designed video system that greatly extends the vision of the vehicle crew
- Utilizing a broad range of electromagnetic spectrum for monitoring
- 360° coverage, all around the vehicle vision with both thermal and visible-light panoramic images
- Uncooled a-Si microbolometer image sensors for thermal imaging
- 3840×480 px resolution for thermal monitoring
- Standalone NVR with embedded Video Monitoring Software
- High-performance 12" IPS LCD tactical awareness display with programmable bezel soft keys
- Rugged IP67 housings that are designed to withstand extreme environments
- Vibration and shock resistant constructions

Mission data	Date	Time	GPS	Speed (km/h)	Distance (m)	Alarm ID	Type	Zone	State
ID: R184e Lat: 46.604936 Lon: 19.057375 Alt: 384 m Time: 6:52:27 am Date: 03/21/19 Mission ID: HU345e45 Mission started: 03/21/19 1:55 am Mission ends: 03/21/19 8:00 pm	03.21.2019	17:29:10	46.63512, 19.13813	14	1200	ID4356	vehicle	1350	alarm
	03.21.2019	17:28:52	46.63922, 19.14008	0	750	ID4357	animal	1350	rejected
	03.21.2019	17:28:52	46.63922, 19.14007	0	750	ID4358	animal	1350	rejected
	03.21.2019	17:28:13	46.63636, 19.14024	3	1000	ID4359	human	1351	alarm
	03.21.2019	17:28:11	46.62571, 19.14220	4	2250	ID4360	human	1352	alarm
	03.21.2019	17:22:02	46.64231, 19.12737	2	350	ID4361	human	1353	alarm



LOGIPIX HIGHWAY VIDEO SURVEILLANCE SOLUTION

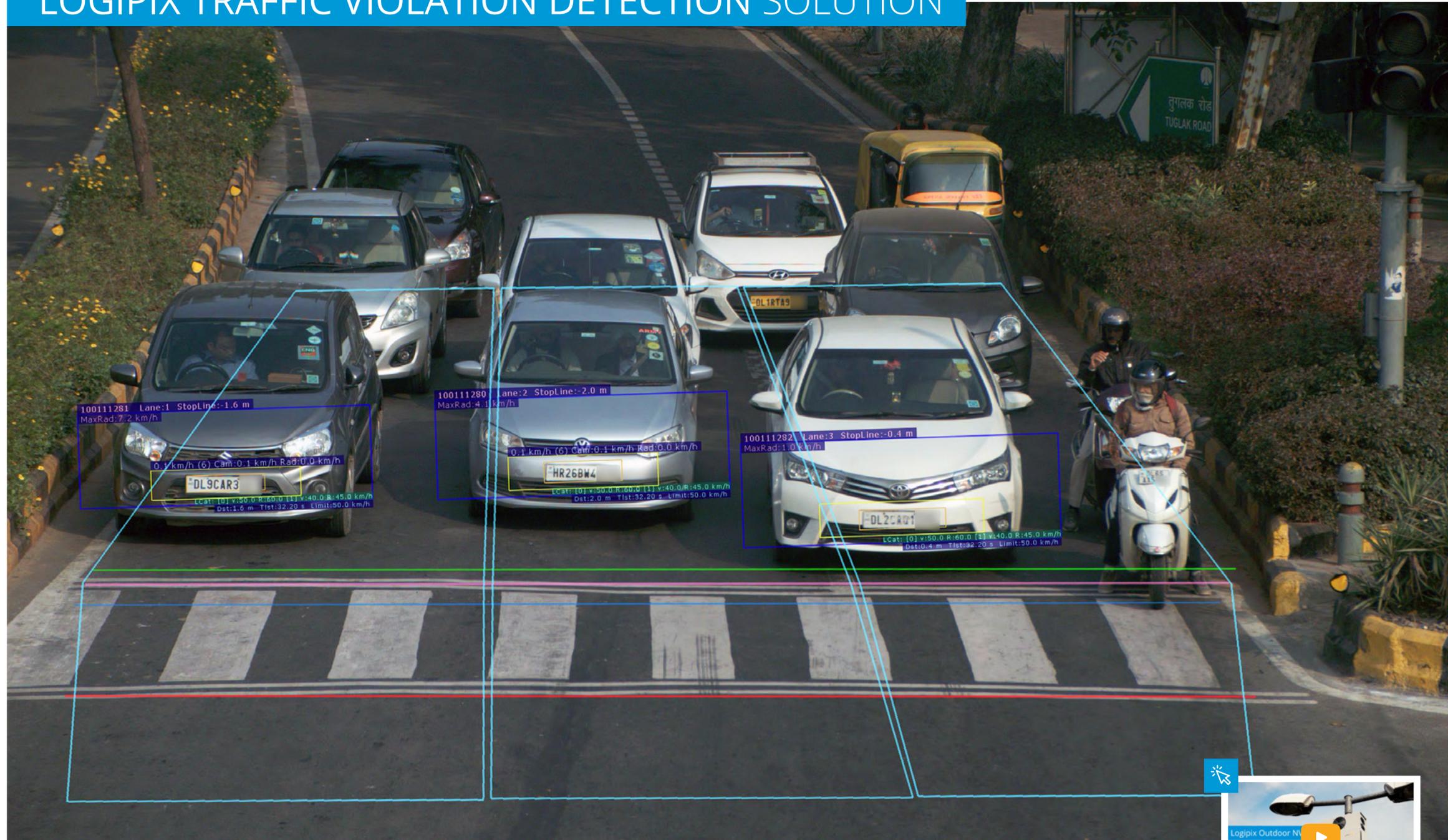
- Improving highway security by intelligent video monitoring on long highway sections
- Accelerated emergency responds, accurately guided patrol units and effectively assisted incident investigation
- Increased resolution level and immense area coverage
- Automatic object tracking and motion behavior analysis
- Detecting unsafe vehicle movements
- Detecting road obstructions, traffic congestion and accidents
- Automatic zoom on the incident with the highest priority
- Virtual road maintenance tour
- Cross-mapped, interactive map
- Traffic counting without physically installed loops



Learn more about the Logipix Highway Video Surveillance Solution:



LOGIPIX TRAFFIC VIOLATION DETECTION SOLUTION



- Automatic, Video Content Analysis based detection of various types of traffic violations
- Image-based traffic counting
- Custom scale system from a few intersections to city-wide projects
- Complete, automated workflow from violation detection to compiling detailed violation packages, wherein only violation verification requires human resources
- Processing even hundred thousands of violations daily
- Accurate violation detection 24/7
- High-end 20 MP traffic cameras for multi-lane coverage
- On-site operation with outdoor NVR, capability for standalone operation
- Integrated ANPR and connected vehicle databases
- Operator activity and violation processing status monitoring

[Learn more about the Logipix Traffic Violation Detection Solution:](#)





LOGIPIX SAFE & SMART CITY SOLUTION



Learn more about the Logipix Safe & Smart City Solution:

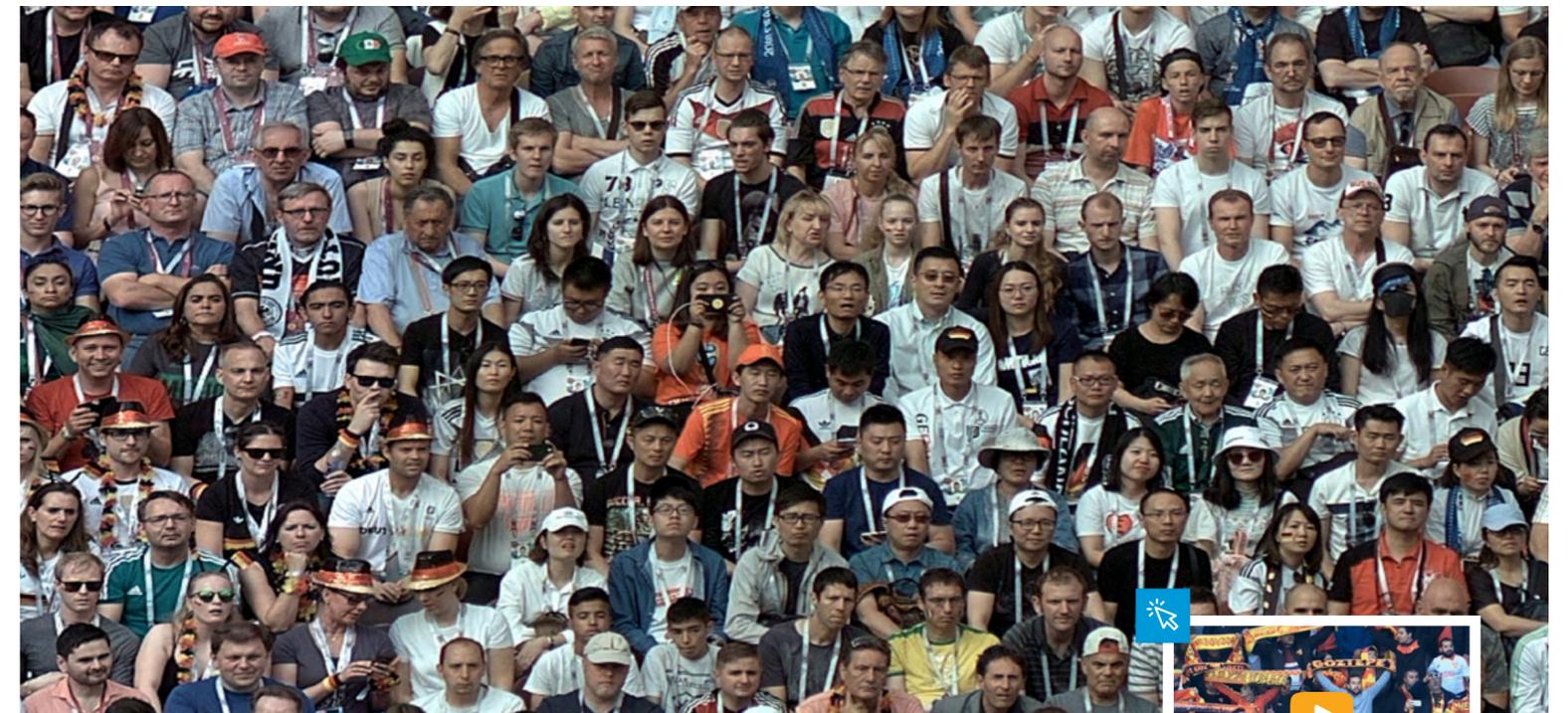
- Multi-purpose solution to simultaneously fulfill traffic violation detection and city video surveillance tasks
- Flexible system structure that quickly adapts to future city developments
- Automatic, Video Content Analysis based detection of various types of traffic violations
- Image-based traffic counting
- Complete, automated workflow from violation detection to compiling detailed violation packages, wherein only violation verification requires human resources
- Accurate violation detection 24/7
- High-end 20 MP traffic cameras, which cover not only the traffic lanes but their broader surrounding area too
- 200 MP Panorama Cameras to effectively monitor parks and squares
- Recognizable faces in all lighting conditions
- VCA-based detection of abandoned objects and vandalism





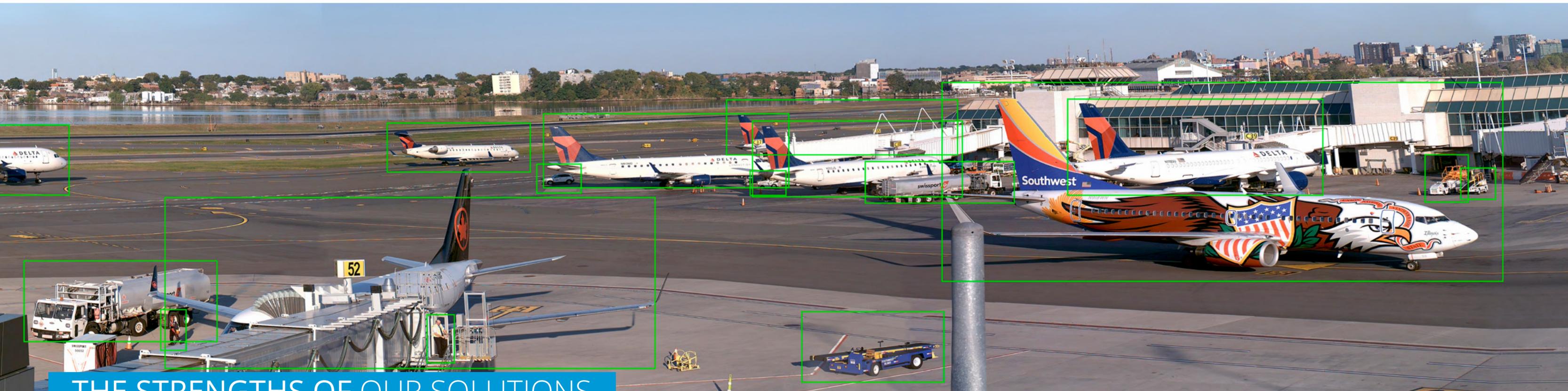
LOGIPIX STADIUM VIDEO SURVEILLANCE SOLUTION

- Keep stadium crowds under surveillance before, after and during events
- Providing a resolution level that is high enough to identify all spectators in and around the venue
- High-resolution coverage of the entire seating area with only a few 120-300 MP Virtual Panorama Cameras
- PTZ and Panorama camera cross-mapping that makes it possible to control PTZ cameras selecting the area of interest on the panoramic image
- Advanced zoom functions to seamlessly track individuals
- High structural flexibility in order to best adapt to any stadium environment, and easy rearrangement of the Virtual Panorama in case of future stadium expansion.
- Specially developed features to overcome challenging environmental factors like hazy weather or disturbing lens flares caused by stadium reflectors
- Stadium Event Management with dual system configuration
- Aging storage technology, which prolongs storage periods by periodically reducing the frame rate of the stored footage



Learn more about the
Logipix Stadium Video Surveillance Solution:





THE STRENGTHS OF OUR SOLUTIONS

- Logipix solutions were created to meet the special requirements of individual application areas.
- We design high-resolution thermal cameras and panorama cameras with hundreds of megapixels and high fps to provide the best video quality available on the market.
- Logipix Computer Vision Technologies, which include Artificial Intelligence, Video Content Analysis and Augmented Reality features make video surveillance more efficient and automatic.
- Our devices are developed and manufactured to operate with high MTBF in even extreme outdoor environments.
- The Logipix end-to-end solutions can do more with less resources. The Logipix Panorama Cameras can replace dozens of 4K CCTV cameras, ensure transparent monitor profiles and increase spatial orientation for operators within the monitored area.
- Logipix engineers develop leading-edge technologies that ensure our systems avoid both physical and technological obsolescence for a long time.
- All of our components are developed and manufactured in Hungary with the highest quality standards.
- The whole Logipix system installation procedure is fast and uncomplicated.
- Logipix developed a complete remote maintenance system that helps both preventive and corrective maintenance. Physical maintenance is also effortless as the high-end Logipix components have a self-cleaning system. Cleaning procedures can be scheduled and started automatically.



Learn more at www.logipix.com