Computer Vision Platform

Smart vision in the wink of an eye

Trusted partner for your **Digital Journey**

Atos

What is the potential of video and image data analytics?

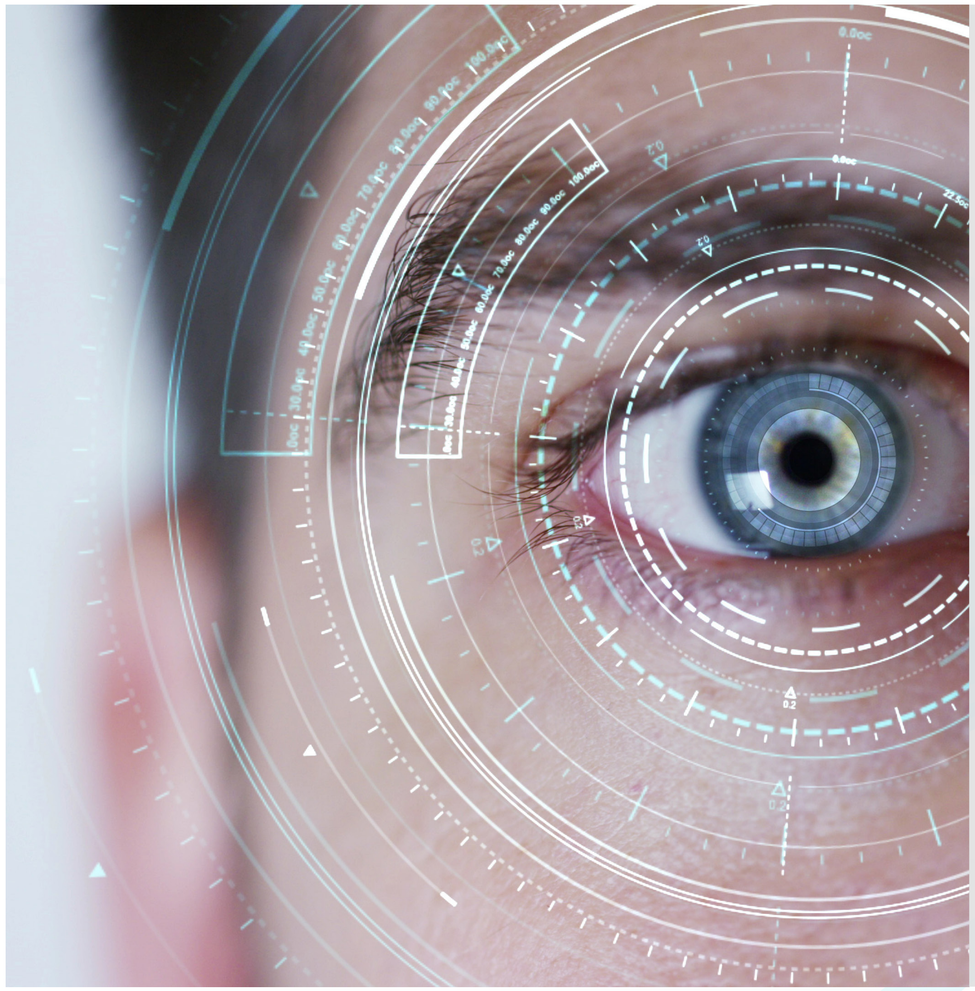
Only **5%**
of data is analyzed.

80%
of non-analyzed data are image and video due to volume and complexity.

Today, 95% of data is non-analyzed and 80% of this non analyzed data are images and videos. Analyzing this complex and voluminous data in real time can be a burden. The lack of video analysis prevent full end-to-end data analytics in use cases relevant for most industries for example:

- Traffic optimization by analyzing video surveillance streams in the cities to reduce pollution, reduce traffic jams, avoid car accidents
- Quality control by detecting defects with high quality image & video analysis
- Healthcare: detect early-stage cancer with computer vision algorithms applied on X-ray
- Transports: detect abandoned baggage and find the owner through multi camera video analytic & tracking

Computer vision: Why it matters ?



99%

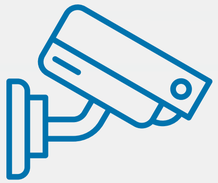
of video/image content captured for enterprise purposes will be analyzed by machines rather than humans.

Computer vision is the data science field, in which deep learning AI algorithms are trained to recognize events and trigger automatic alerts.

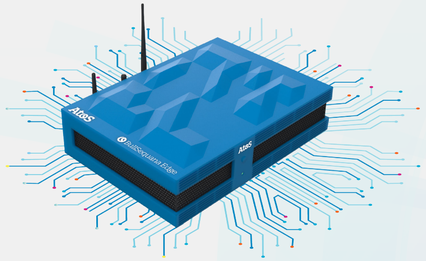
To process massive and complex data in real time, computer vision relies on technology high compute capacities enabled by GPUs (graphics processing units).

Today, computer vision is a pre-requisite to analyze the massive flow of video and images. In the next two years, 99% of video/image content captured for enterprise purposes will be analyzed by machines rather than humans.

How does computer vision work?



Cameras captures motion



Pictures are pre processed in a server

AI deep learning algorithms identify people, an abnormal situation, flows etc..

Action is taken

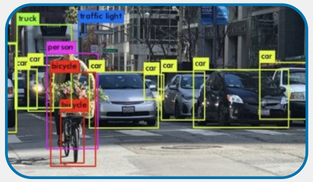
Learn more

Watch quality control process

Computer vision model types

AI deep learning algorithms can be classified in four main purposes for infinite use cases:

Detection



Quality control
Default detection
Intrusion detection
Event detection
Covid mask detection

Demo example

Localization

Person searching
Product localization in storage or store

Demo example

Recognition

Facial recognition
Object recognition

Demo example

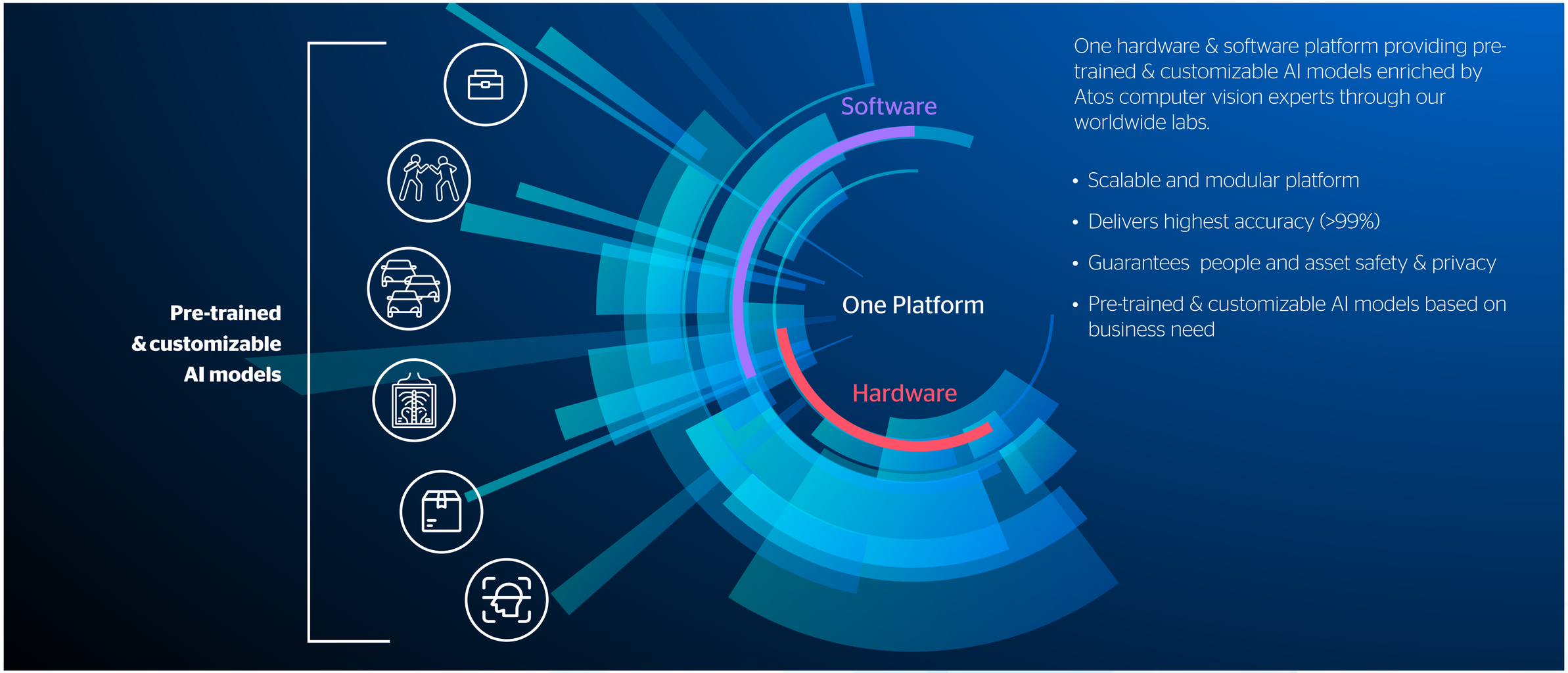
Motion analysis

Person tracking
Flow management
Crowd management
Customer path in retail store

Demo example

Computer Vision Platform

The highly scalable end-to-end computer vision platform



One hardware & software platform providing pre-trained & customizable AI models enriched by Atos computer vision experts through our worldwide labs.

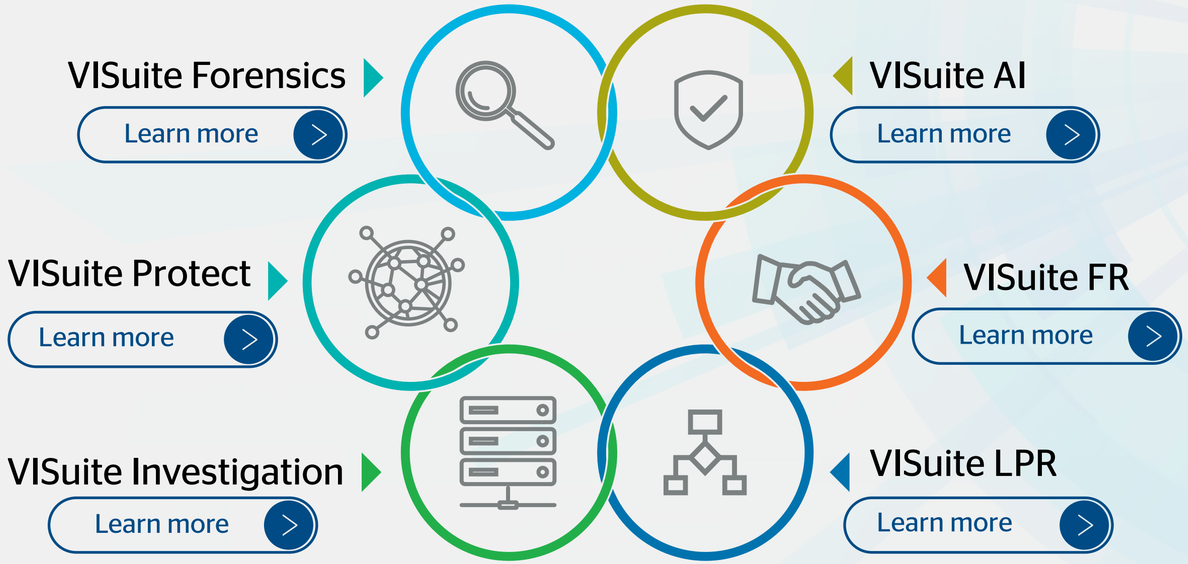
- Scalable and modular platform
- Delivers highest accuracy (>99%)
- Guarantees people and asset safety & privacy
- Pre-trained & customizable AI models based on business need

VISuite

an atos company

VISuite empowers automation in CCTV applications through premium high end video analytics for live response and forensic investigations. It has been successfully deployed in mission critical solutions globally, across multiple verticals. VISuite is at the forefront of the Artificial Intelligence revolution backed by strong global patents.

Learn more



Full range of edge computing servers from edge datacenter/cloud to far edge

Atos Computer Vision Platform is based on compute intensive servers allowing cloud to edge computer vision models to process data in real time anywhere, whatever business constraints

BullSequana Edge nano

Plug & play analytics in a compact & ruggedized server

Learn more

BullSequana Edge

AI inference and training outside the datacenter

Learn more

BullSequana SA20G

AI inference & training inside the datacenter

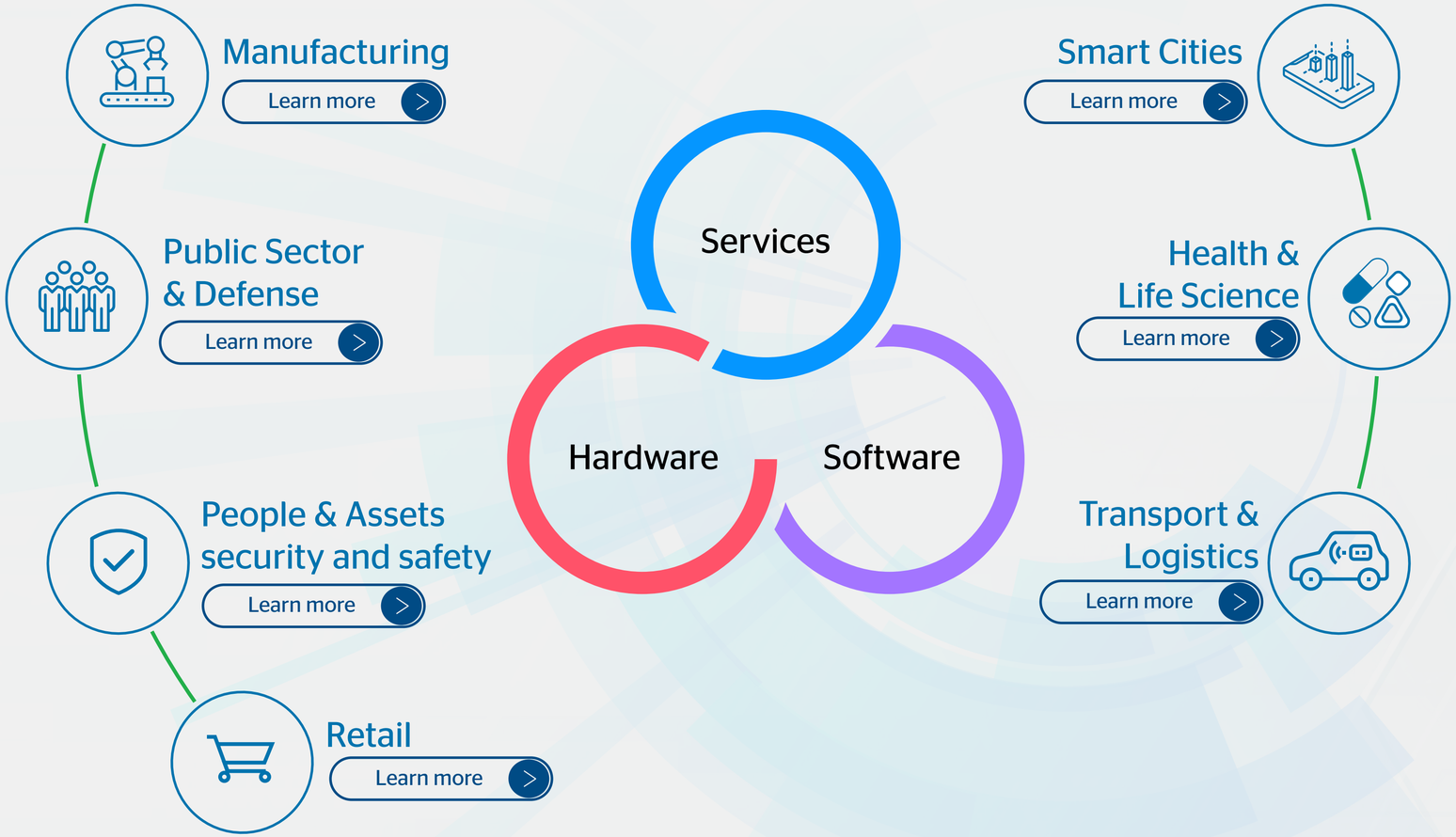
Learn more

BullSequana X451

High performance computer vision computing for training

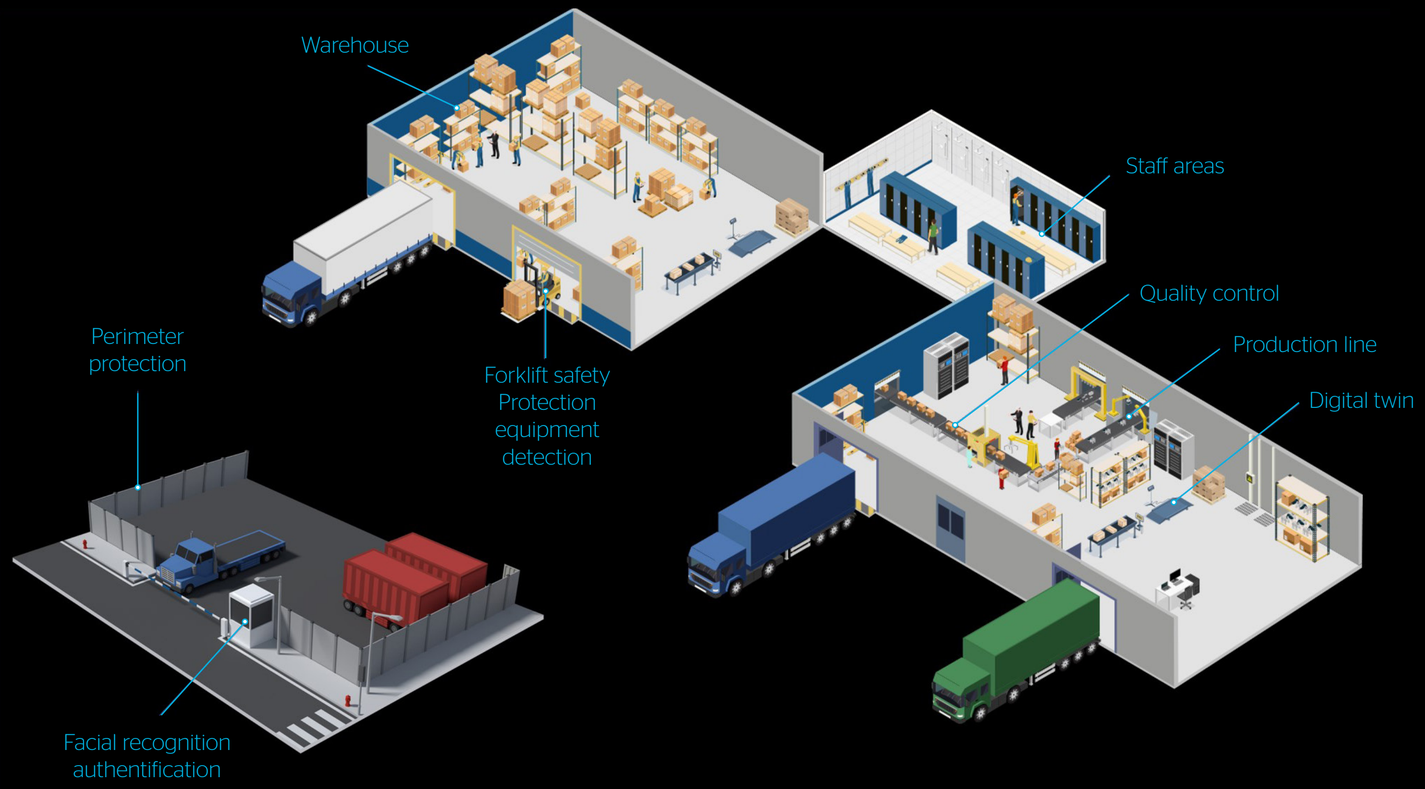
Learn more

Atos is the first highly scalable end-to-end video analytics platform designed for a smarter and safer world.



Manufacturing

Combining human experience, insight, and AI techniques, manufacturers are discovering new ways to differentiate themselves while driving down costs, protecting employees and increasing margins. Over the last 5 years, manufacturers drove massive data collection, major progress were made on the production line, however drivers of productivity (quality, time, automation, etc.) is still scarce. By providing real time analytics, Atos Computer Vision Platform allows manufacturers to increase and improve quality control, ensure employees safety, improve development of products and production, protect site and assets and optimize inventory.

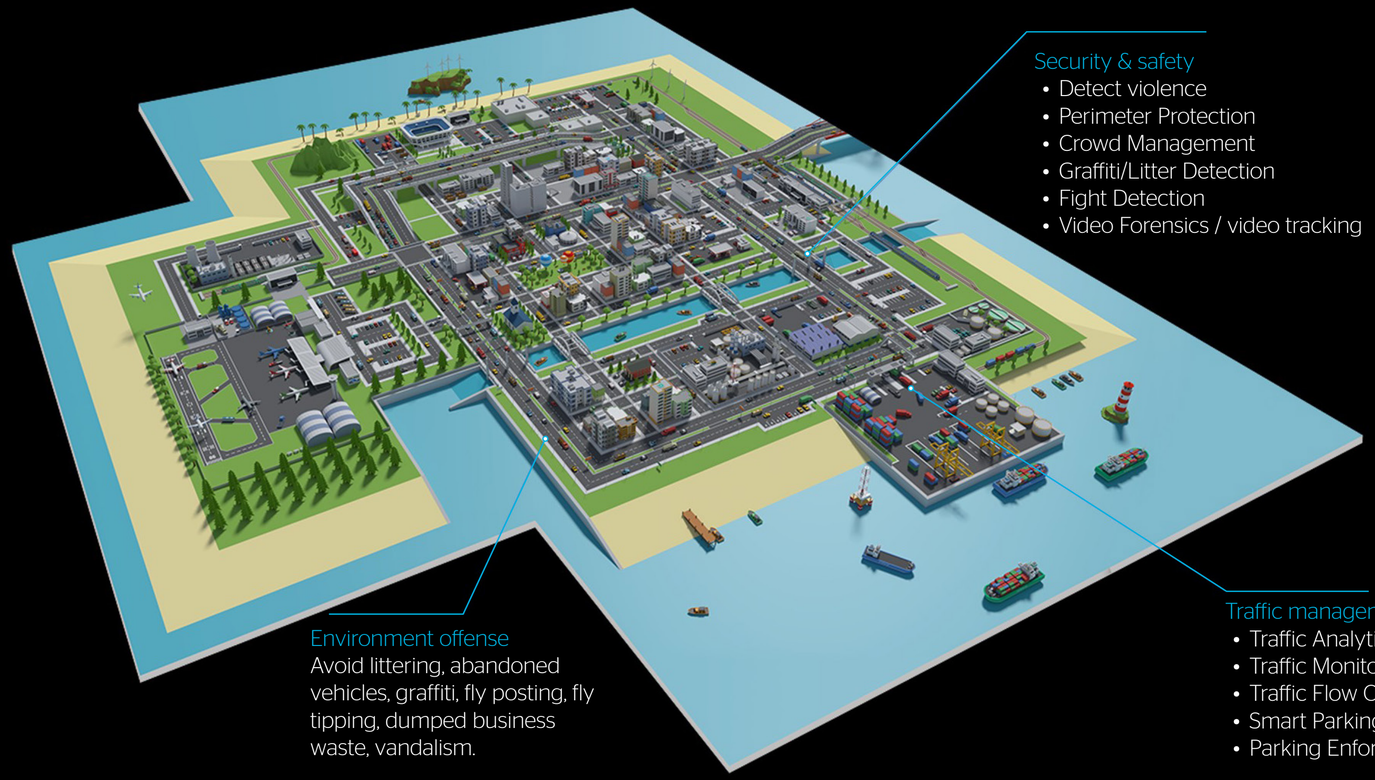


Resources

- Web page
- Brochure
- Quality control demo
- Worker safety demo

Smart city

Due to the diversity of events and mass population in cities, city organizations are overwhelmed by the flow of information. Indeed, between accidents, violence, emergency assistance, traffic jams and resources management etc.. processing the information on time to drive decision can be a burden for public authorities and organizations. Atos Computer Vision Platform provides real time insights and triggers automatic alerts in case of specific events, making cities smarter and safer.



Security & safety
- Detect violence
- Perimeter Protection
- Crowd Management
- Graffiti/Litter Detection
- Fight Detection
- Video Forensics / video tracking

Environment offense
Avoid littering, abandoned vehicles, graffiti, fly posting, fly tipping, dumped business waste, vandalism.

Traffic management
- Traffic Analytics
- Traffic Monitoring
- Traffic Flow Optimization
- Smart Parking
- Parking Enforcement

Resources

Web page >

Brochure >

Related resources

Face mask and protection equipment detection

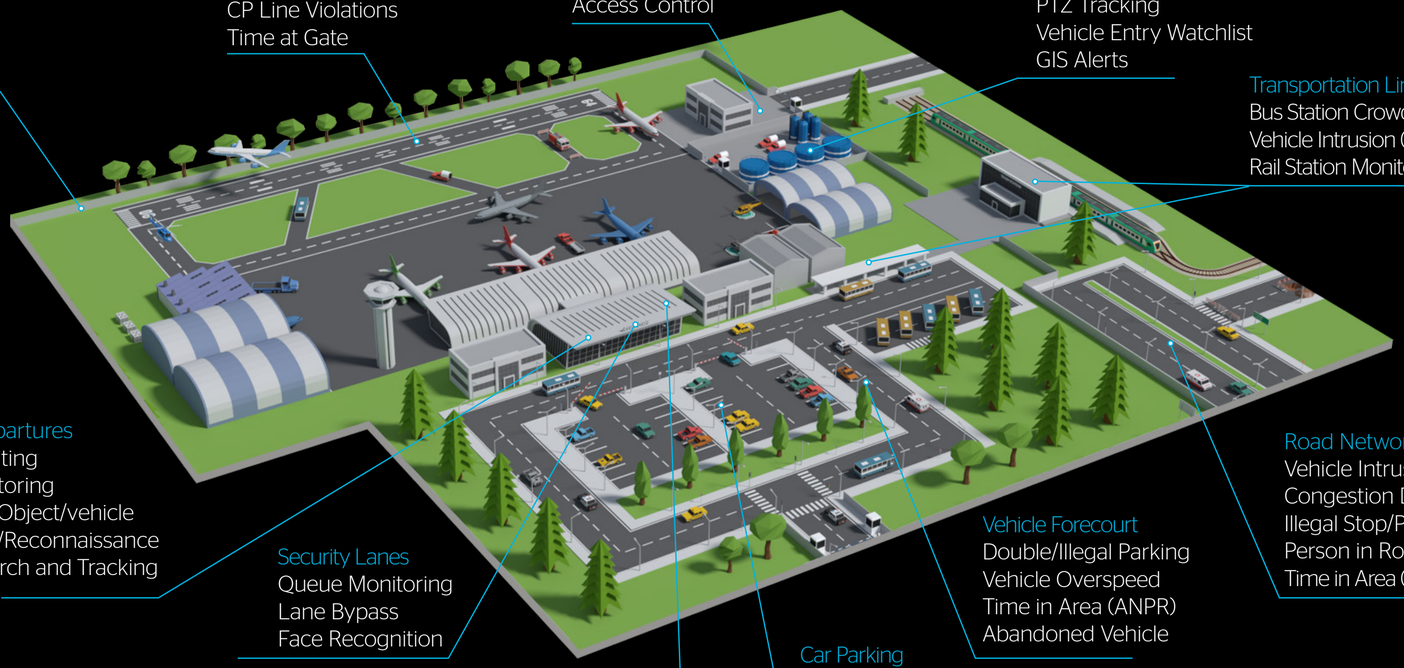
Crowd counting

Perimeter protection demo

Airport

Since 2001, airport environments have remained one of the most challenging sites to manage and secure due to their scale, the diversity of environments and operations, high security risks, and national importance. Entering the 2020's, security managers must continue to balance site and passenger risks whilst navigating new health concerns with the coronavirus pandemic.

As a result of each airport's complexity and criticality, thousands of CCTV cameras may be deployed to help security and operational staff understand passenger movement and threats. Atos Computer Vision Platform has been designed to overcome these challenges.



Perimeter Fence
Intrusion
PTZ Tracking
GIS Alerts

Airfield
Intrusion
CP Line Violations
Time at Gate

Cargo
Dynamic Zone Intrusion
Access Control

Fuel Farm
Intrusion
PTZ Tracking
Vehicle Entry Watchlist
GIS Alerts

Transportation Links
Bus Station Crowd Monitoring
Vehicle Intrusion (Car in Bus Area)
Rail Station Monitoring

Terminal-Departures
People Counting
Queue Monitoring
Abandoned Object/vehicle
FR Watchlist/Reconnaissance
Forensic Search and Tracking

Security Lanes
Queue Monitoring
Lane Bypass
Face Recognition

Arrivals
Anti-Backtrack
People Counting
Incident Response Search

Car Parking
Vehicle Counting
ANPR
Restricted Routes
Bay Occupancy Estimate

Vehicle Forecourt
Double/Illegal Parking
Vehicle Overspeed
Time in Area (ANPR)
Abandoned Vehicle

Road Network
Vehicle Intrusion
Congestion Detection
Illegal Stop/Parking
Person in Roadway
Time in Area (ANPR)

Resources

Web page

Brochure

Airport security video

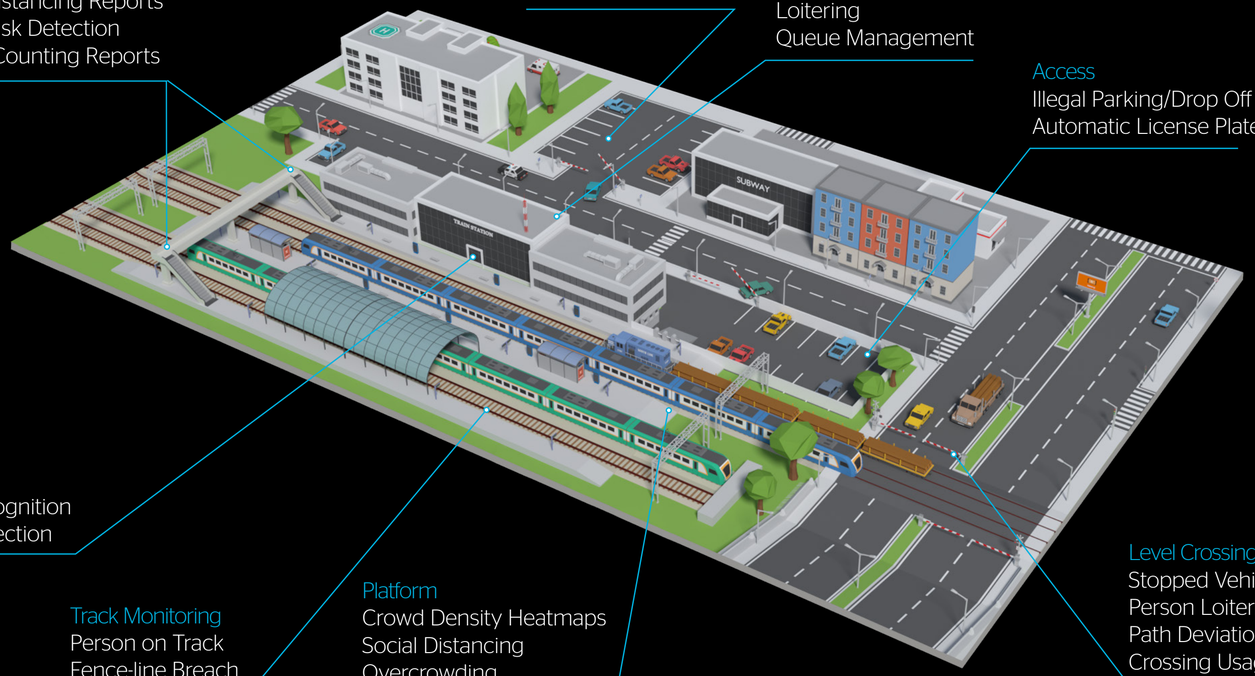
Related resources

Crowd counting

Perimeter protection demo

Rail

In France, 5 million people take trains each day. To ensure a safe and enjoyable journey, transport organization must ensure that trains don't encounter delays, intervals of trains are adaped to support demand, train station areas are easily accessible and safe. The quality of journey of passengers has a direct effect on consumption in the shopping gallery, which drives more revenue. Atos Computer Vision Platform allows to tracks a person abandoning a bag, identifying a lost child, detecting any sign of violence or abnormal situation, make sure train schedule is adapted to flow of passengers.



Walkways
Crowd Density
Social Distancing Reports
Face Mask Detection
People Counting Reports

Parking
Wrong Way (Vehicle)
Car Park Occupancy

Concourse
Social Distancing
Intrusion Out of Hours
Abandoned Object
Overcrowding
Loitering
Queue Management

Access
Illegal Parking/Drop Off
Automatic License Plate Recognition

Entrances
Face Recognition
Mask detection

Track Monitoring
Person on Track
Fence-line Breach

Platform
Crowd Density Heatmaps
Social Distancing
Overcrowding
Yellow Line Intrusion
Track Intrusion

Level Crossings
Stopped Vehicle
Person Loitering on Track
Path Deviation
Crossing Usage Reports

Resources

Web page >

Brochure >

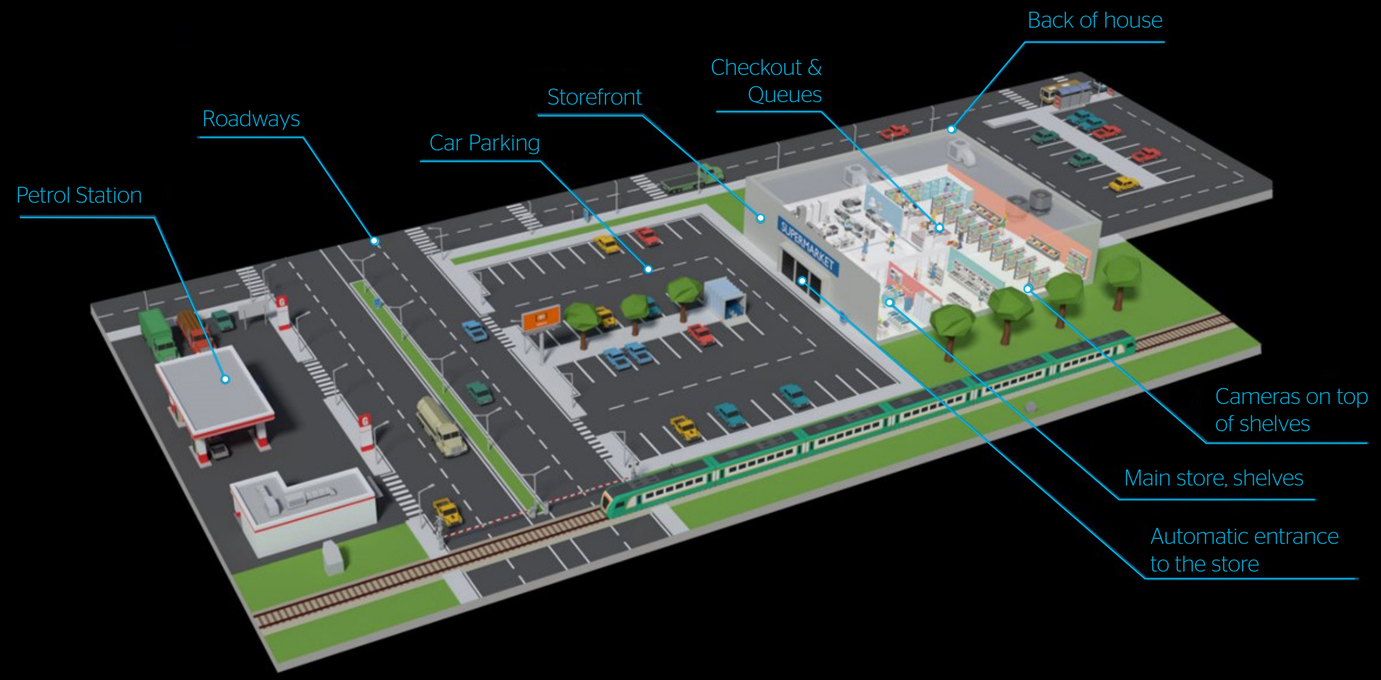
Related resources

Crowd counting

Perimeter protection demo

Retail

Over the past years, online shopping has quickly developed. Accessible anywhere, with low delivery cost, online shopping is appealing and convenient for a significant portion of the population. Online shopping has quickly made profit of customer profiling and targeting techniques, hence further improving communication and orientation of potential customers. This trend has accelerated with COVID-19 and associated lockdown measures. In November 2020, it was threatening the survival of retail stores who must constantly adapt to improve their sales.



Resources

- Web page
- Brochure
- Infographic

Related resources

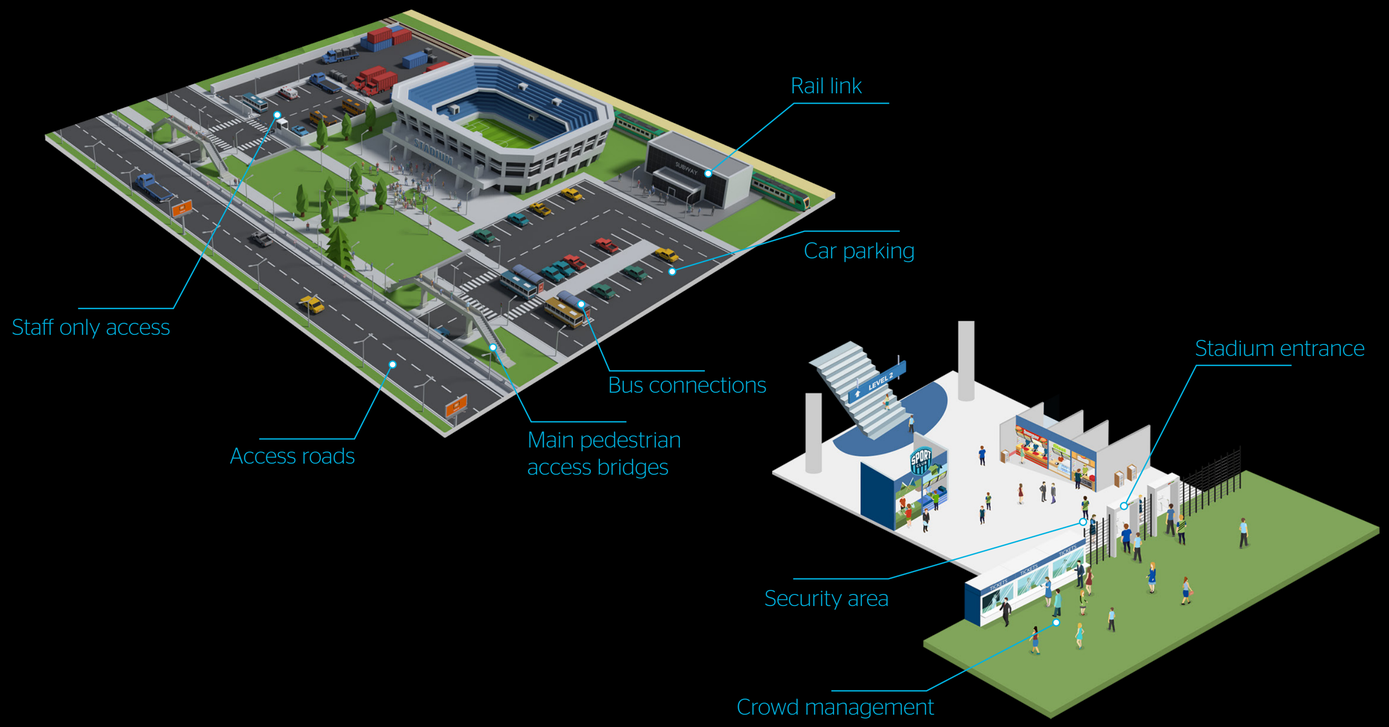
Crowd counting

Perimeter protection demo

Stadiums & sport venues

Players, coaches, and fans now have greater expectations for on field experiences as well. Fans are no longer interested in just the game alone and athletes expect to be offered first-class conveniences.

An team's success is dependent on keeping their players and fans safe while also providing them with world-class experiences. By using your existing systems, Atos Computer Vision Platform can help your stadiums and practice facilities solve these fundamental challenges.



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- Infographic

Related resources

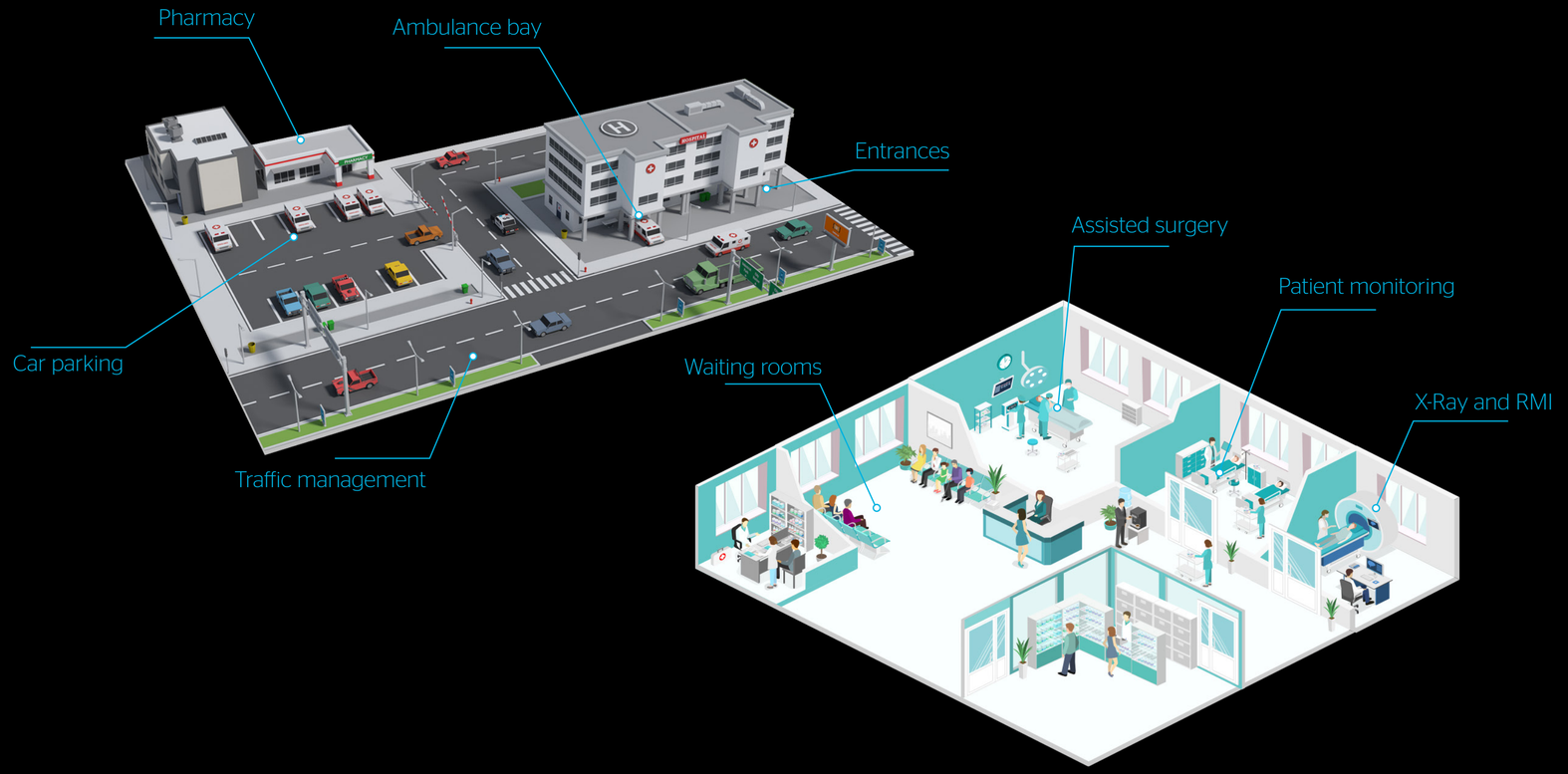
Crowd counting

Perimeter protection demo

Health organizations

In health organizations, images count for up to 90% of all medical data we possess.

With efficient computer vision solutions, patient visual data can be analyzed to deliver a faster diagnosis, offer the most accurate treatment, detect early-stage cancers and provide the best assistance in real time to surgeons. Atos Computer Vision Platform enables to overcome hospitals challenges, while preserving patient privacy and enhancing security.



Resources

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Brochure

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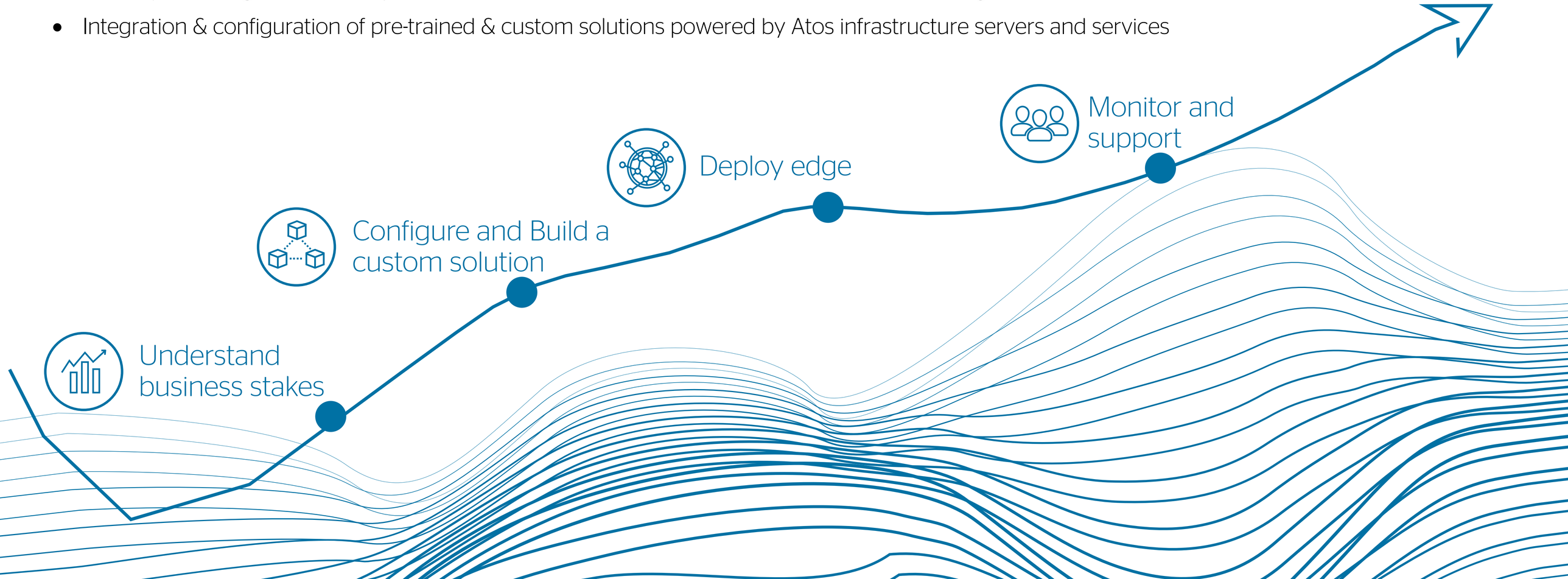
Atos delivers an end-to-end computer vision approach

We take into account your existing infrastructure and your priorities, to go from idea to realization. The Atos approach combines business and technology expertise and accelerates the passage from idea to implementation.

- Delivering custom service with our worldwide expert labs
- Delivery & managed service to provide the best model to the customer APEX/OPEXConsulting
- Integration & configuration of pre-trained & custom solutions powered by Atos infrastructure servers and services



Brochure

About Atos

Atos is a global leader in digital transformation with 105,000 employees and annual revenue of over € 11 billion. European number one in cybersecurity, cloud and high performance computing, the Group provides tailored end-to-end solutions for all industries in 71 countries. A pioneer in decarbonization services and products, Atos is committed to a secure and decarbonized digital for its clients. Atos operates under the brands Atos and Atos|Syntel. Atos is a SE (Societas Europaea), listed on the CAC40 Paris stock index.

The purpose of Atos is to help design the future of the information space. Its expertise and services support the development of knowledge, education and research in a multicultural approach and contribute to the development of scientiic and technological excellence. Across the world, the Group enables its customers and employees, and members of societies at large to live, work and develop sustainably, in a safe and secure information space.

Find out more about us
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Let's start a discussion together

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