



CORPORATE  
PRESENTATION

 **aitek**

[www.aitek.it](http://www.aitek.it)



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## >> COMPANY PROFILE

SINCE 1986, AITEK IS ALL ABOUT INNOVATIVE TECHNOLOGICAL SOLUTIONS. WE DESIGN INTELLIGENT SYSTEMS FOR TRANSPORTATION AND SECURITY, AND DEVELOP SOFTWARE APPLICATIONS BASED ON STATE-OF-THE-ART DIGITAL TECHNOLOGIES.

**Our portfolio of products supports any Aitek solution – the result of 35+ years of major contracting and on-going commitment to leading technology.**

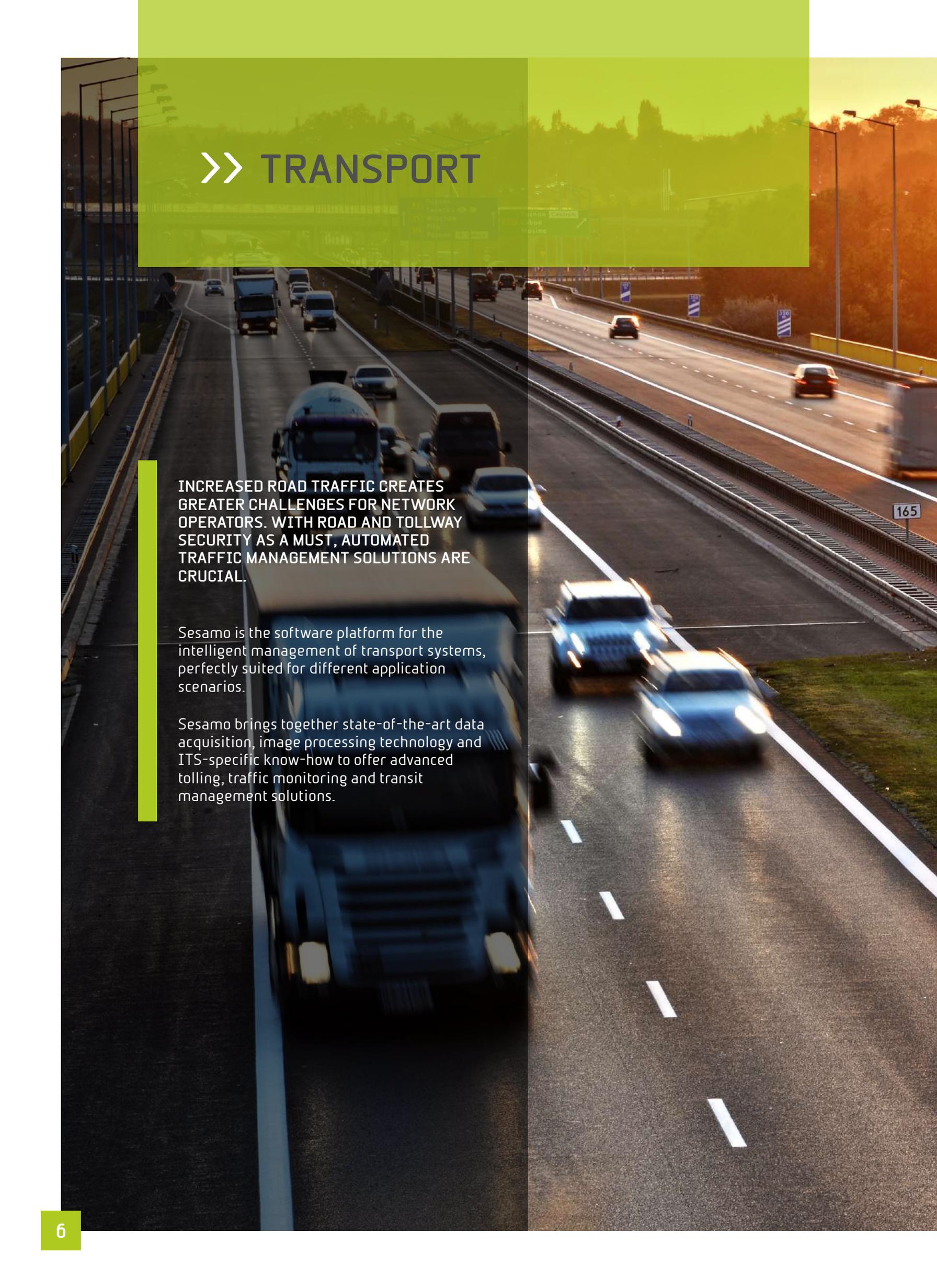
Artificial intelligence, machine learning, data engineering, microservices, containers, cloud computing: Aitek provides its know-how in selecting the most advanced technologies that best meet any operational need. This is why we support our customers step by step, from the design, to integration in their IT infrastructure, up to production.

Today, cybersecurity is a fundamental aspect of any project. Following the security-by-design approach, Aitek solutions are designed from the beginning to be inherently secure: an innovative software development methodology, thanks to which all our systems are protected from any unexpected attacks and vulnerabilities.

**Reliability, integration and customization are our watchwords. All our solutions respect them: here's why Aitek is your ideal technology partner to meet together the challenges of an increasingly competitive market.**

## OUR MILESTONES

- 1986** - JUNE 6TH, AITEK S.R.L. IS ESTABLISHED IN GENOA.
- 1991** - AITEK BECOMES PRIME CONTRACTOR FOR THE “ESPRIT II P5363 GLAD-IN-ART” EUROPEAN RESEARCH PROJECT.
- 1994** - AITEK BECOMES DIRECT SUPPLIER OF AUTOSTRADA S.P.A. (ITALIAN MOTORWAYS OPERATOR)
- 1995** - AITEK ENTERS THE SECURITY AND VIDEO SURVEILLANCE MARKET WITH ITS OWN “AIVU” SOFTWARE PLATFORM.
- 1997** - AITEK IS GRANTED THE “RADIATION-SENSITIVE MEANS OR SENSOR IN RETINA-LIKE CONFIGURATION” EUROPEAN PATENT.
- 1998** - AITEK DEVELOPS ITS OWN QUALITY MANAGEMENT SYSTEM WHICH IS GRANTED ISO9001 CERTIFICATION
- 1999** - AITEK IS AWARDED THE EUROPEAN “IST” PRIZE FOR THE GIOTTO PROJECT: A RETINA-LIKE SPACE VARIANT GEOMETRY CMOS DIGITAL VIDEO-CAMERA.
- 2001** - AITEK BECOMES A JOINT-STOCK COMPANY.
- 2003** - AITEK’S OPERATIVE BRANCH IN SAVONA IS INAUGURATED.
- 2004** - AITEK IS GRANTED THE “QUALITÀ DEL LAVORO” (LABOUR QUALITY) PRIZE BY THE EUROPEAN SOCIAL FUND, THE ITALIAN MINISTRY OF LABOUR AND LIGURIA REGION
- 2005** - AITEK ENTERS THE MULTIMEDIA MARKET WITH ITS OWN “TVIP” DIGITAL SIGNAGE PLATFORM.
- 2006** - AITEK FILES AN INTERNATIONAL PATENT FOR THE “RANGER” VEHICLE SAFETY DISTANCE MEASUREMENT SYSTEM.
- 2010** - AITEK GROWS AND EXPANDS ITS FINE PREMISES OF MORE THAN 1000 SQM.
- 2011** - AITEK DEVELOPS THE “SESAMO-GATE” SOLUTION FOR THE AUTOMATED TRANSIT CONTROL AT ROADWAY AND RAILWAY GATES.
- 2014** - CIRCLE S.P.A. AND AITEK S.P.A. CREATE THE LOG@SEA BUSINESS NETWORK - LOGISTICS AND MARITIME SOLUTIONS
- 2015** - AITEK IS ONE OF THE FIRST ITALIAN COMPANIES TO BE AWARDED THE QUALIFICATION OF “INNOVATIVE SME” BY THE ITALIAN MINISTRY OF ECONOMIC DEVELOPMENT
- 2016** - THE “AIVU”, “SESAMO” AND “TVIP” SOFTWARE PRODUCTS ARE REGISTERED AT SIAE (ITALIAN SOCIETY OF AUTHORS AND PUBLISHERS)
- 2017** - AITEK FILES A PATENT APPLICATION FOR ITS “SYSTEM AND METHOD FOR TICKET GENERATION AND AUTHENTICATION USING ANTI-COUNTERFEITING BARCODES”.
- 2020** - AITEK ACQUIRES CIRCLE GARAGE S.R.L., A SPIN-OFF OF THE ITALIAN INSTITUTE OF TECHNOLOGY
- TODAY** - TO BE CONTINUED...



## >> TRANSPORT

**INCREASED ROAD TRAFFIC CREATES GREATER CHALLENGES FOR NETWORK OPERATORS. WITH ROAD AND TOLLWAY SECURITY AS A MUST, AUTOMATED TRAFFIC MANAGEMENT SOLUTIONS ARE CRUCIAL.**

Sesamo is the software platform for the intelligent management of transport systems, perfectly suited for different application scenarios.

Sesamo brings together state-of-the-art data acquisition, image processing technology and ITS-specific know-how to offer advanced tolling, traffic monitoring and transit management solutions.



## ≡ APPLICATION FIELDS

### **TOLL SYSTEMS**

For motorway companies, toll collection is the most important task. This is why employing reliable tools capable of automating transit procedures at entry and exit gates is essential. Aitek's solutions originate from skills acquired in over 30 years of expertise: tested features for the complete management of all toll collection procedures, from payment procedures to central data processing.

### **VIDEO MONITORING**

The complete control of a motorway, a port, a railway or subway network cannot do without a reliable and "intelligent" video system. Aitek provides solutions that satisfy all the typical needs of a high-level video surveillance system, integrated with video analysis applications for the real-time detection of events relating to people, vehicles or objects within the monitored areas. A wide range of algorithms, developed employing advanced Artificial Intelligence and Deep Learning techniques, allows to detect with the utmost reliability events and behaviors that may represent a threat to the security of people, goods and infrastructure.

### **E-TICKETING AND DIGITAL PAYMENTS**

In a large city, promoting sustainable mobility also means improving the usability of public transport. Employing new technologies allows not only to create modern, efficient and safe infrastructure, but also to provide services in line with the new habits and expectations of users. Aitek develops software applications for real-time verification and validation of "dematerialized" travel tickets in the form of QR codes and for payment of travel tickets via EMV contactless bank cards, that allow rail and subway passengers to cross the turnstiles with a simple tap of their smartphone or credit card.

### **ON-BOARD SECURITY AND PASSENGER INFORMATION**

To improve the quality of travel and provide features that go well beyond the basic transport service, Aitek has developed AiVu-Mobile, an innovative solution designed for bus, taxi, rail and subway companies. AiVu-Mobile enhances security thanks to on-board video surveillance, while optionally providing advanced services such as service information, entertainment and advertisement on on-board displays and WiFi connectivity.



## >> GATE AUTOMATION

TO THIS DAY, MANY CHECKS AT ACCESS GATES REQUIRE THE PRESENCE OF PERSONNEL AND THIS NEGATIVELY AFFECTS THE EFFICIENCY OF CONTROL PROCEDURES (INCREASED TIME DURATION, NOT ALWAYS RELIABLE INSPECTIONS).

The Sesamo platform developed by Aitek provides a wide range of features for the automatic management of road/rail access gates, offering custom solutions that can be specifically tailored to the operational needs and physical constraints of your gates.

Sesamo uses well-proven, state-of-the-art technology for the remote management of transit procedures, automatic plate acquisition and code identification, and high-accuracy inspections and measurement operations.

Sesamo solutions can be natively integrated with AiVu, Aitek's video surveillance and video analysis software platform. By exploiting advanced artificial intelligence techniques such as deep learning, our systems provide the real-time detection of events such as the presence of people in unsafe areas (for example drivers outside vehicles in gate lanes, people too close to the operation space of cranes or heavy machinery), intrusions, smoke, fires and many more.



## ≡ SESAMO-GATE

**SESAMO-GATE IS AITEK'S SOFTWARE PLATFORM FOR THE AUTOMATED MANAGEMENT OF VEHICLE, GOODS AND PEOPLE TRANSITS AT ROAD AND RAIL ACCESS GATES, CHOSEN BY NEXT-GENERATION PORTS AND LOGISTIC HUBS.**

The combined use of cameras, laser scanners, sensors and interfaces allows the automation of control processes carried out at the gate lanes and the real-time acquisition of vehicle/ trailer license plates, ISO6346, ILU, UIC and Kemler-ONU codes, shape and dimensions of vehicles, HD images of transits for load integrity verification.

All the acquired information is managed by Sesamo-GOS, the Gate Operating System that communicates with information systems such as PCS and TOS to allow the display on a single interface of data and associated images of each transit. To better integrate with the Customer's IT infrastructure, Sesamo-GOS can be implemented within cloud-based architectures or it can be provided in SaaS (Software-as-a-Service) mode.

But that's not all: Sesamo-Gate provides a number of features for the control of railway gates and the real-time acquisition of ID codes of containers and wagons in transit. A unique solution in the Italian market, already widely tested in important port and industrial operating scenarios.





# >> SECURITY

**AITEK HAS FOCUSED ITS EXPERTISE ON APPLICATIONS BASED ON VIDEO SURVEILLANCE AND VIDEO ANALYTICS, THANKS TO PARTNERSHIPS WITH INDUSTRY-LEADING COMPANIES AND TO THE DEVELOPMENT OF HIGHLY-PROFESSIONAL SOLUTIONS FOR A WIDE RANGE OF MARKETS.**

Aitek has developed AiVu, an IP video surveillance software platform designed for large-scale security applications requiring reliability and high-performance standards.

Besides video surveillance, AiVu provides an innovative suite of video analytics modules for the real-time detection of a wide range of events capable of affecting the security of monitored areas and related to people, objects or vehicles.

A new generation of analytics aims at making the most of image data and providing useful information by exploiting the potential offered by deep learning, the artificial intelligence technology for implementing algorithms capable of learning from experience by analyzing data extracted from processed images. An innovative approach to strengthen the video analytics performance and provide state-of-the-art solutions.

Very often video systems are “subsystems” of other, more complex applications. AiVu provides system integrators with all the tools required to export video security features in third-party supervisory applications, such as platforms for road or railway traffic monitoring, SCADA, access control systems, port security systems, etc.



## ≡ APPLICATION FIELDS

### **RAILWAYS AND SUBWAYS**

Aitek offers a wide range of customizable rail transportation solutions that include video-surveillance integrated with “smart” video-analytics functionalities. The many software modules allow to design highly-personalized solutions which simplify the management of video security systems monitoring an entire rail network.

### **PORTS AND INLAND PORTS**

In port terminals the real-time detection of events or scenarios which may represent a threat to the security of operating areas is crucial. AiVu addresses your port security requirements through HD video-surveillance of quays, access gates, perimeter areas, buildings, warehouses, loading docks and parking lots.

### **ROAD TRAFFIC**

Highway control centers can easily manage hundreds of video cameras monitoring traffic. In addition to video surveillance, AiVu solutions provide several features allowing an efficient control of road networks, such as video analytics, dynamic video wall control and integration with “mobile” video systems on board service vehicles.

### **CITY SURVEILLANCE**

Aitek provides Public Administration Bodies and Police Forces with a wide range of tools and advanced features for 24/7 access to footage from surveillance cameras in public buildings, town squares, roads and parks.

### **BANKS**

AiVu provides specific video surveillance solutions for banking scenarios which can be integrated with anti-intrusion systems and with Aitek’s own video analytics platform, therefore guaranteeing complete, around-the-clock control and the real-time detection of events which may occur in the proximity of the branch, near the ATMs and in indoor areas (full-height turnstiles, counters, vaults).

### **RETAIL**

The AiVu video security platform is the ideal solution for the efficient and secure management of large department stores or shopping centers. In order to protect sale areas and support your business to the fullest, a wide range of video analytics functionalities integrate the AiVu video security platform.

### **ON-BOARD SECURITY AND PASSENGER INFORMATION**

AiVu-Mobile is the innovative solution for security on board public transport, integrating video surveillance with Passenger Information applications displaying service information and advertisement on on-board displays. An effective solution to turn investment in security into profit from ad sales.

### **CRITICAL INFRASTRUCTURE**

Aitek offers a wealth of solutions meant for critical infrastructure such as industrial production facilities, power-generation plants, military sites, etc. Our wide range of functionalities ensures full control of any production site, even the largest, most dangerous or most difficult to access.

# >> DIGITAL SIGNAGE

TVIP IS AITEK'S DIGITAL SIGNAGE PLATFORM FOR DYNAMIC COMMUNICATION AND EFFECTIVE ADVERTISING, SERVICE INFORMATION AND NEWS FLASHES IN HIGHLY-ATTENDED LOCATIONS SUCH AS STORES, SHOPPING MALLS, RAIL STATIONS, AIRPORT TERMINALS, MUSEUMS, CRUISE TERMINALS, AND MUCH MORE.

TVIP distributes multimedia content and interactive applications using any display format, touch screen, video-wall and digital kiosk, and is best suited for managing communication that is both dynamic and captivating.

TVIP brings together user-friendly scheduling tools and powerful framework control for secure and reliable real-time broadcasting of information and content that can be disseminated according to location and timing.



# » SOFTWARE DEVELOPMENT

**AITEK IS SPECIALIZED IN THE DEVELOPMENT OF SOFTWARE SOLUTIONS DESIGNED TO SATISFY THE CUSTOMER'S BUSINESS AND SECURITY NEEDS.**

For this reason, we provide our expertise throughout the entire software engineering process, from the choice of development methodologies to the definition of technologies and architectures that best meet the system requirements. The result is the creation of quality software, designed to ensure maximum reliability and operational continuity of critical infrastructure and complex systems. This is why Aitek software is designed to be inherently reliable, robust and secure.

## RELIABILITY

Aitek guarantees proper operation of its software, even in complex plants and unattended systems, reducing any risk related to system crashes, failures and operating interrupts that can affect productivity and security.

## ROBUSTNESS

Aitek software manages anomalies related to incorrect use of systems or failures of hardware devices. Reports and alarm signals are generated for each event, optimizing system management.

## CYBERSECURITY

Aitek systems are designed to reduce any risk of unwanted connections and to better protect computer networks and processed data. All our solutions guarantee the software's incorruptibility and prevent external attacks, tampering or the installation of malware.



## >> FUNDED RESEARCH

**CONTINUING RESEARCH EFFORTS ARE ESSENTIAL TO DEVELOP PRODUCT AND PROCESS INNOVATION AND MAINTAIN A HIGH LEVEL OF COMPETITIVENESS.**

For this reason, Aitek participates in national and European funded research projects and joins in consortia and industrial districts promoting partnerships between companies, Universities and Research Organizations.

The result is the industrialization of solutions that contribute to increasing the efficiency and security of our customers' activities, but also and above all to improving everyday life by making it more sustainable, simpler and more functional.

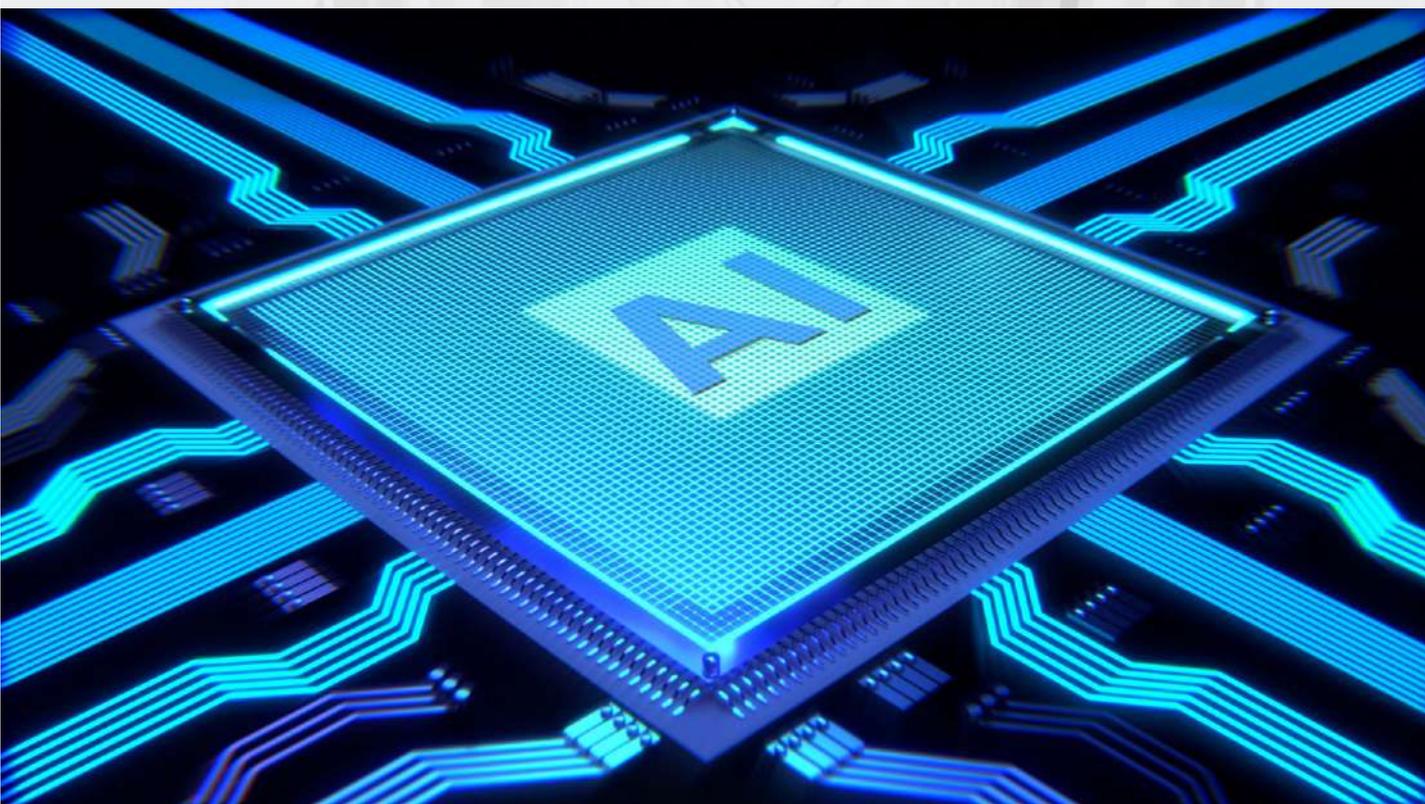
THANKS TO THIS COMMITMENT AND THE EXPERTISE ACQUIRED IN MANAGING MAJOR PROJECTS, AITEK ESTABLISHED ITSELF AS A TECHNOLOGY ADVISOR TO SUPPORT THE CUSTOMER'S STRATEGIC INNOVATION PROCESSES.



AITEK HAS BEEN ONE OF THE FIRST ITALIAN COMPANIES TO JOIN THE REGISTER OF INNOVATIVE SMEs, FULLY MEETING ALL THE REQUIREMENTS INDICATED IN DECREE-LAW nr. 3/2015.

Over the years Aitek has taken part in dozens of funded research projects, at times playing important coordinating roles. Today, our commitment is aimed at developing applications based on the most advanced artificial intelligence techniques in numerous operating scenarios:

- \* **Automotive:** design and development of Driver Monitoring Systems installed and tested on driving simulators or real vehicles in collaboration with car manufacturers and industry-leading companies;
- \* **People security:** video monitoring of crowded environments such as railway stations, installation and testing of cutting-edge solutions for counting people
- \* **Security of critical infrastructure:** definition and implementation of video analytics applications that can be integrated into complex and heterogeneous cyber-physical systems for the monitoring of civil works;
- \* **Road network monitoring:** intelligent video analytics applications, especially focused on protecting vulnerable users such as pedestrians, cyclists and motorcyclists;
- \* **Ports and Logistics:** automation of goods handling processes and transit control systems at road or rail access gates;
- \* **Maritime security:** implementation of monitoring systems that integrate multispectral cameras and video analytics algorithms based on artificial intelligence techniques;
- \* **Smart agriculture:** video analytics applications for processing images acquired by drones;
- \* **Retail and advertisement:** in-store video analytics applications and platforms for the management of smart interactive kiosks for department stores and shopping malls.



## >> REFERENCES

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Almaviva S.p.A.  
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AMT S.p.A. – Azienda Mobilità e Trasporti Genova  
APM Terminals  
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Azienda Sanitaria Locale 2 – Regione Liguria  
Autorità di Sistema Portuale del Mar Ligure Occidentale  
Autostrade dei Fiori S.p.A.  
Autostrade per l'Italia S.p.A.  
Busitalia - SITA Nord S.r.l.  
Circle S.p.A.  
Consorzio Unico Campania  
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GEIE-TMB - Tunnel del Monte Bianco  
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ITI Impresa Generale S.p.A.  
Leonardo S.p.A.  
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PSA Terminal Contenitori Porto di Genova S.p.A.  
SIA S.p.A.  
Sinelec S.p.A.  
Swarco Mizar S.p.A.  
Tecnositaf S.p.A.  
Terminal Intermodale Venezia S.p.A.  
Thales Italia S.p.A.  
Tyco Fire & Security S.p.A.  
Vitrociset S.p.A.



## >> SHAREHOLDINGS & MEMBERSHIPS





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