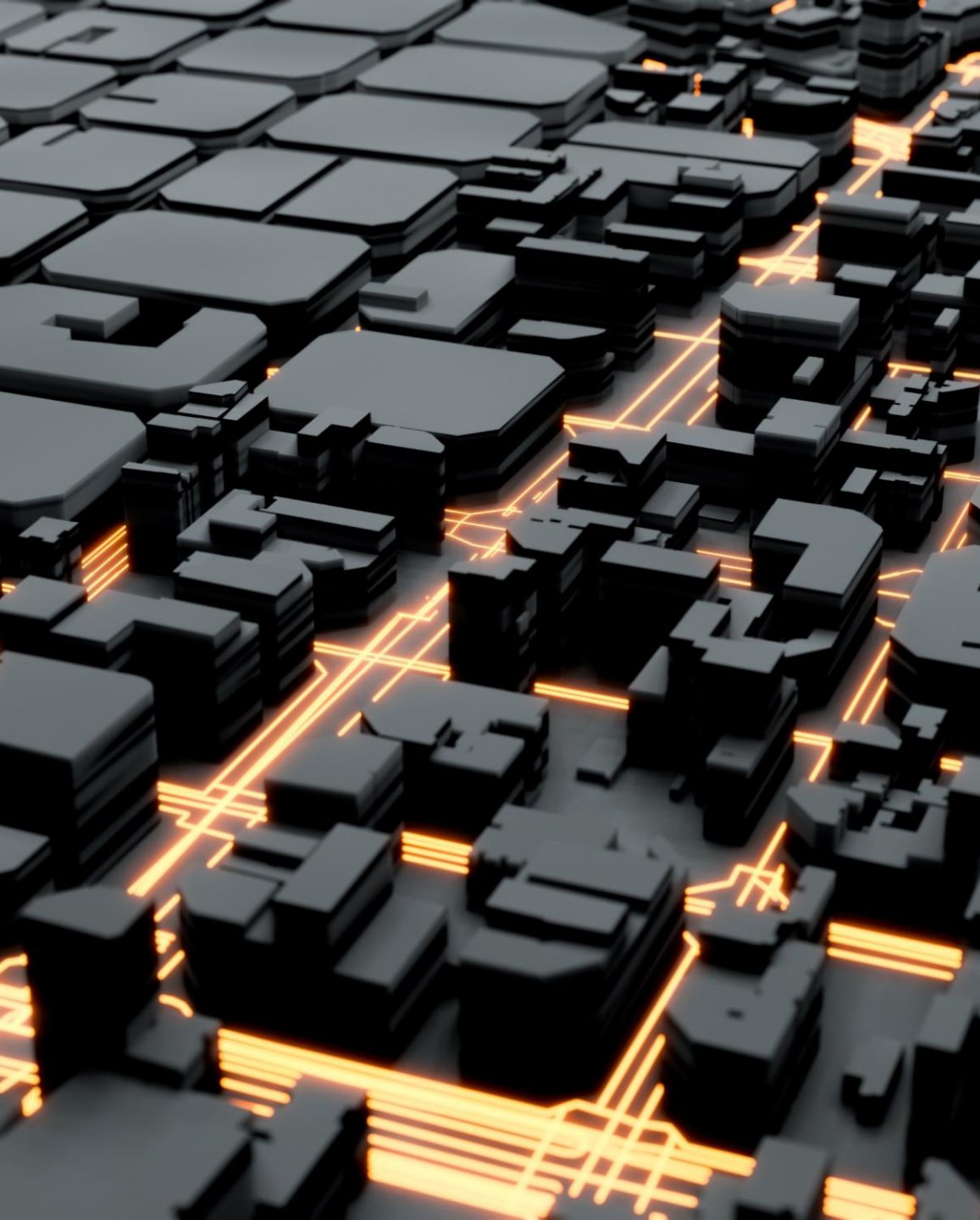


Complete Mobility Provider





## *About Us?*

ISSD has been creating innovative traffic management and electronic enforcement systems since 2009, using its expertise in systems, electronics, software design, development and integration, and signal processing and management. This expertise led to the development of the Dynamic Junction Management System CHAOS. CHAOS has been deployed at 1000+ junctions in 11 countries across the globe, in addition to that, ISSD has developed a multitude of traffic enforcement systems (Red Light Enforcement, Parking Enforcement, Average Speed Enforcement) that are ensuring road safety in over 20 countries around the world. ISSD's local market share in the field of traffic engineering is 60%.

ISSD also offers alternative data collection systems, traffic simulation software services, junction management and improvement proposal plans, and road surveys that aim to make a change in the field of traffic engineering.

# Our Awards

2022 - Productivity Award - R&D 2nd

2019 Intertraffic Traffic Management Award

2017 Intertraffic Municipality Solution Award

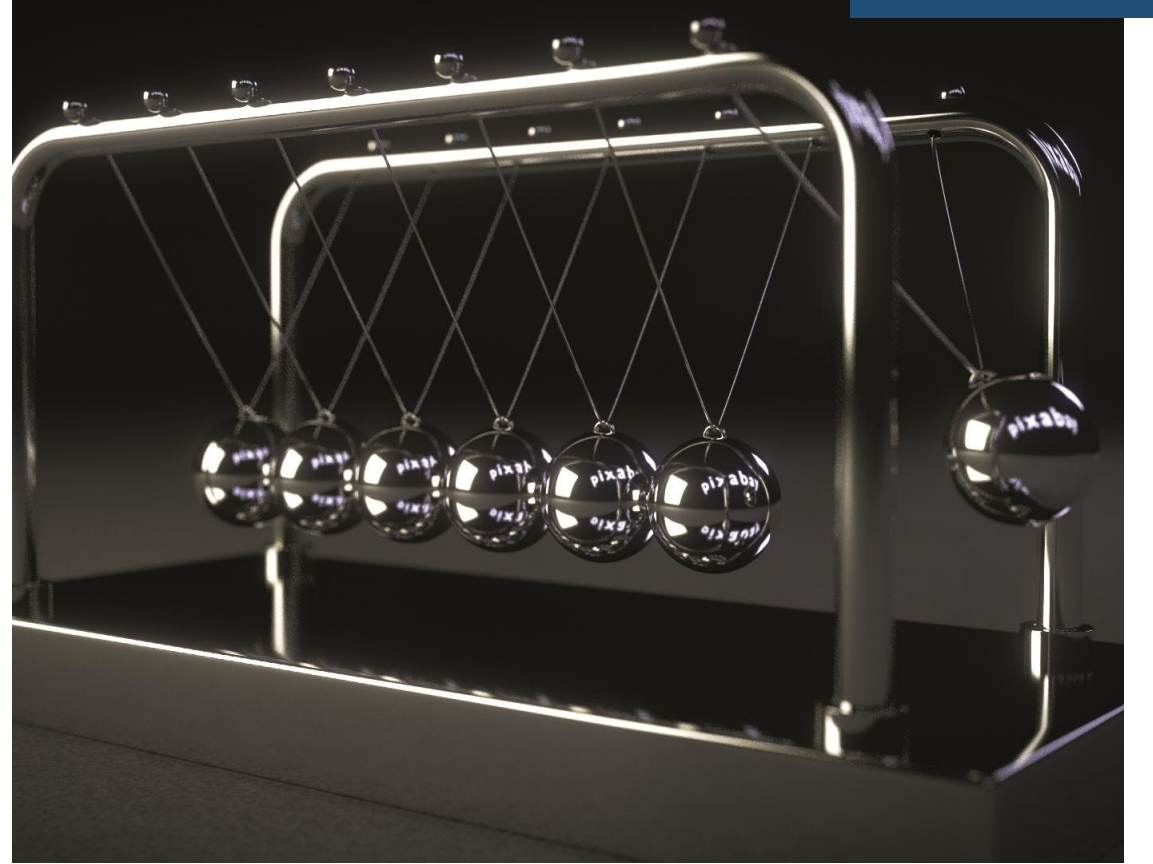
2015 TÜBİTAK ELOTEG Group, Most Successful Project

2012 Project Market Promising Business Award

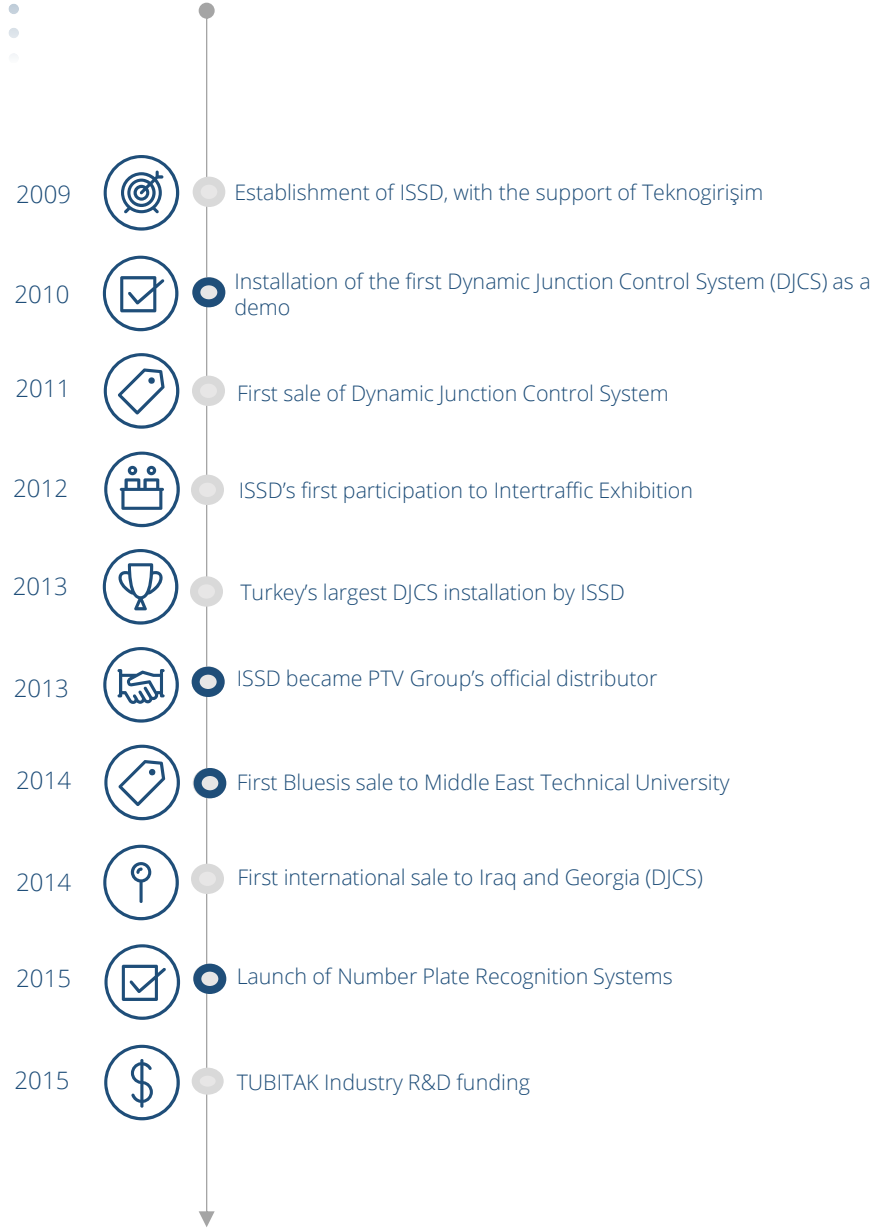
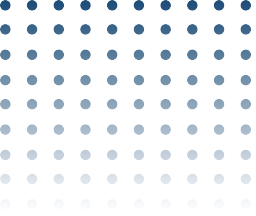
2012 Innovative Entrepreneur Award KOSGEB

2010 Yeni Fikirler Yeni İşler General Category 1 st Place

2010 Yeni Fikirler Yeni İşler Defense Category 1 st Place



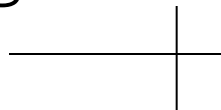
*The First Patented Traffic Management System in Turkey*







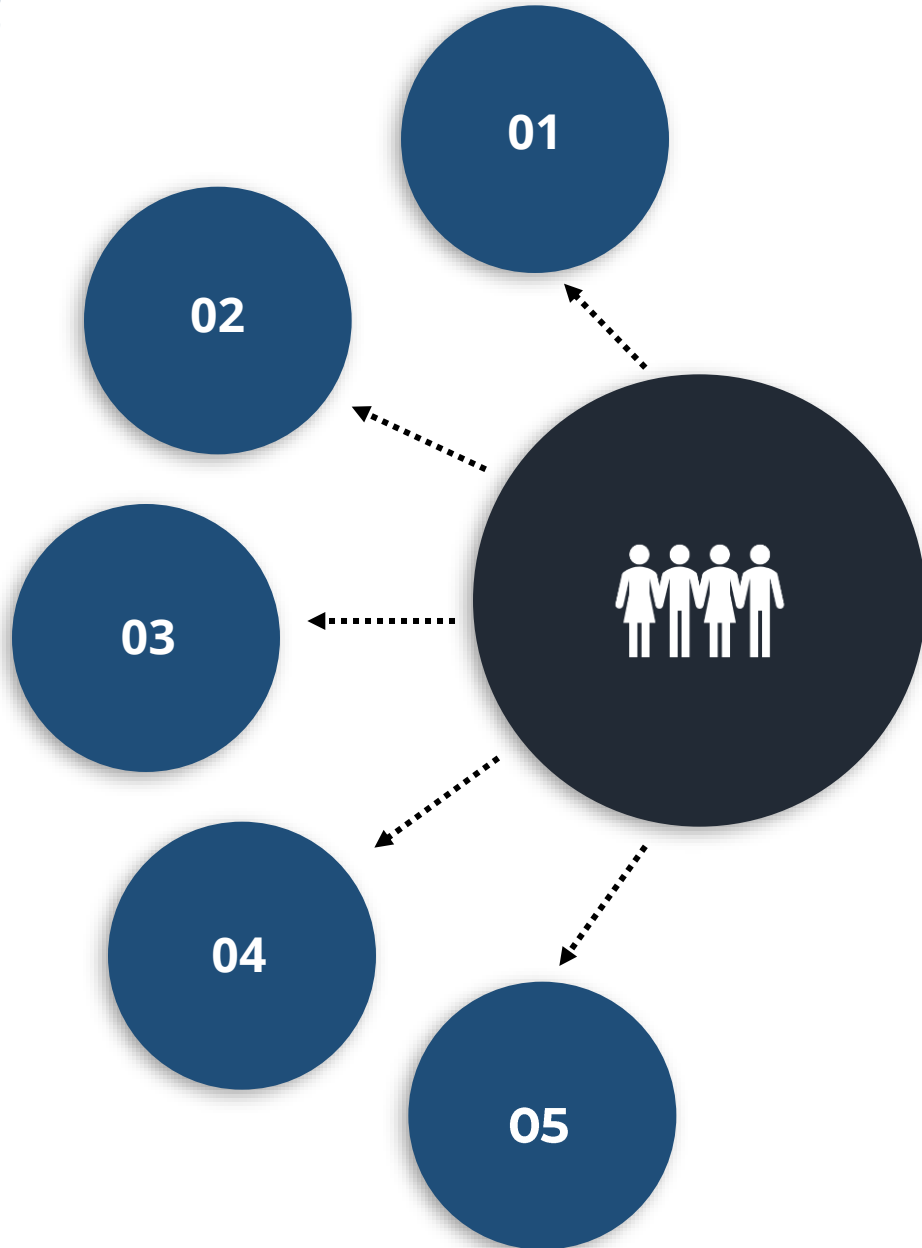
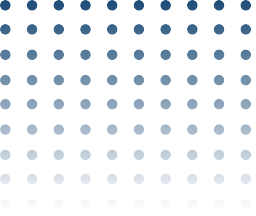
# R&D and Systems



Traffic Management Systems

Electronic Enforcement Systems

Traffic Consultancy



## R&D Teams

Mobility Team

Software Design Team

Big Data Analytics Team

Embedded Systems Team

Systems Engineering Team

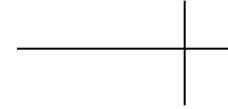
Most important resource is our human resource.



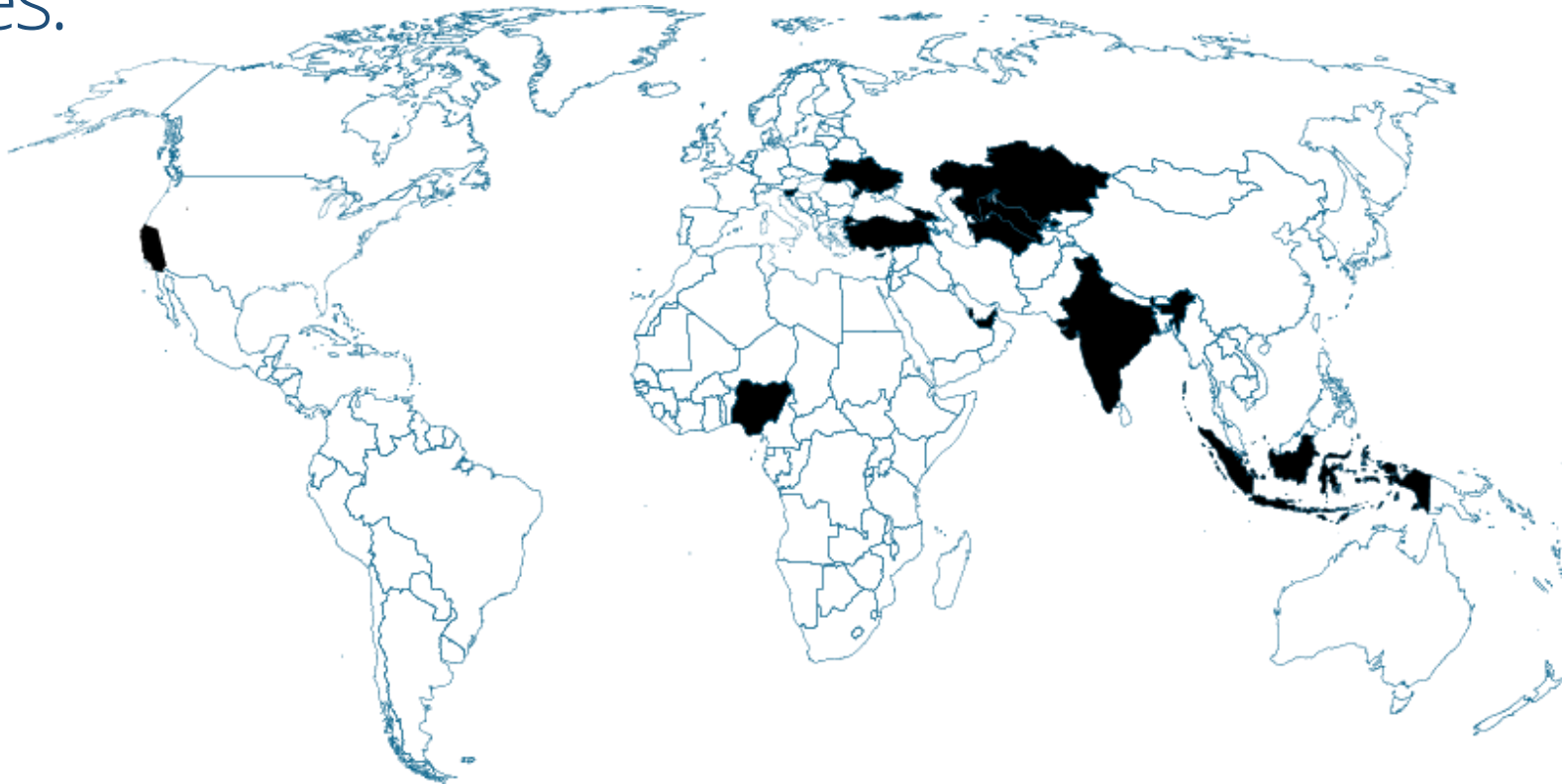
# %65

## *National Market Leader*

Ankara	Adana	Gaziantep
Konya	Çorum	Çanakkale
Mersin	Erzurum	Burdur
Diyarbakır	Batman	Karaman
Şanlıurfa	Tokat	Nevşehir
Afyonkarahisar	Kastamonu	Elazığ
Malatya	Antalya	



# References.



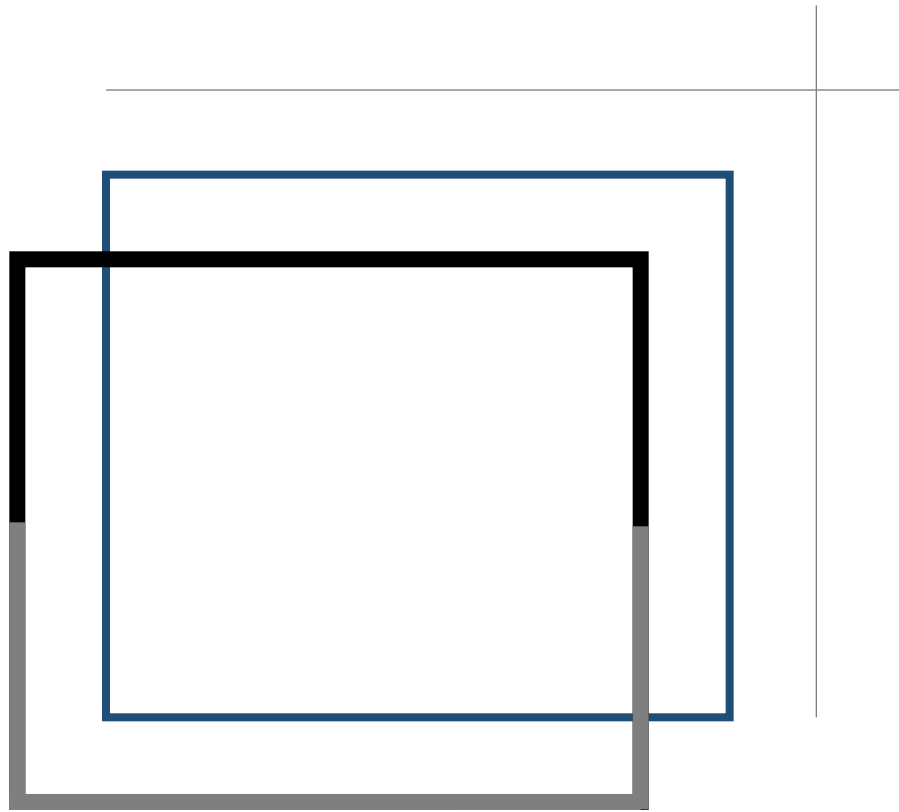
Sensors  
5000+



Locations  
100000+



Cities  
80+



# CHAOS Adaptive Traffic Management System.

Solutions that lead the way in transportation.







# CHAOS Adaptive Traffic Management System.

CHAOS decreases traffic delays and traffic emissions at signalized junctions by dynamically changing signalization times depending on vehicle density.

CHAOS is composed of two modules:  
Vehicle Counting System (VIERO-AI)  
Dynamic Junction Control Unit (CENTRIS)







## In Turkey And Around The Globe

CHAOS is actively working at more than 1000 junctions in Turkey and in 11 countries around the world.



## 100% ISSD Product

CHAOS was developed by experts in the field of traffic and software engineering whose coordinated work resulted in the country's first patented algorithm.



## A Decrease of Traffic Accidents

A decrease of 1/3 in traffic accidents.



## Remote Control

Quick and safe access to the system with built-in remote access features.



## Userfriendly Interface

Simple and efficient design that enables quick access to system settings and critical traffic data.



## Improvement In Delay

With the dynamic management of junction traffic, waiting times can be reduced by 40%.

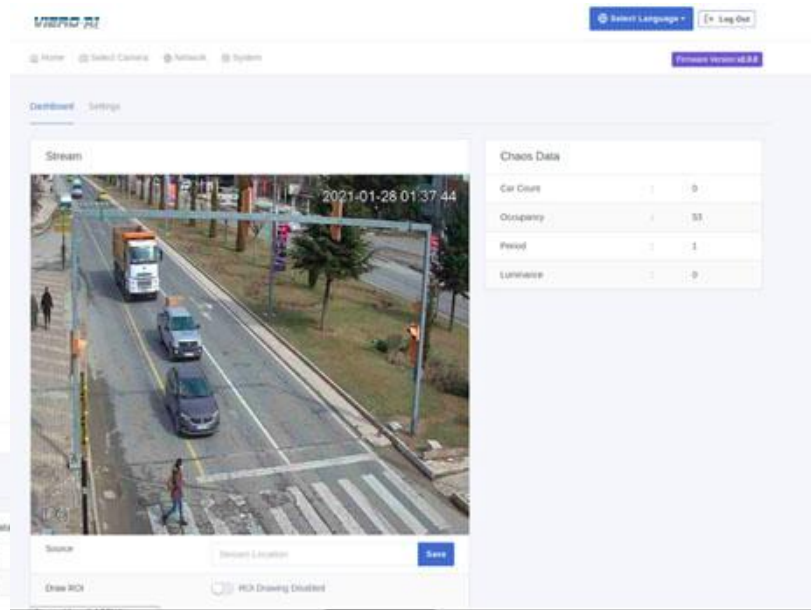
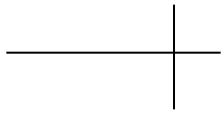
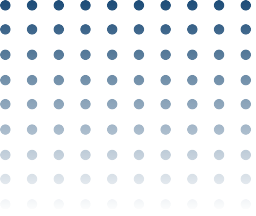


# VIERO – AI Vehicle Counting System.

VIERO-AI has image-based analysis capabilities to provide accurate vehicle count data around the clock and within different weather conditions.

VIERO-AI, owing to its in-house developed image processing algorithms, is capable of average speed measurements, in addition to road density and speed information all with a margin of error of less than 8% and two different modes optimized to work within day and night lighting conditions.





VIERO-AI produces vehicle count, density measurements and image-based vehicle tracking and average speed measurements. The obtained data can be used by the Dynamic Intersection Control System CHAOS for signal time optimization purposes. The obtained data is also suited for traffic feasibility studies, geometric regulation studies and road safety studies.

# The easiest way to obtain traffic data





# *CENTRIS –MS*

## *Dynamic Junction*

### *Control Unit.*

Remote management of phase durations

Remote management of junction controller operation mode

Operator notification of junction equipment malfunction


Integration with junction control systems

Live-view from the junction



# Features.

- Phase Duration Optimization
- Junction Controller Data Acquisition
- Junction Equipment Malfunction Notification
- Real-Time Phase Duration Manipulation
- Restart the Junction Control Unit
- Emergency Vehicle Priority
- Signal Phase Monitoring in Real-Time
- Giving Instant Extra Time to the Desired Direction



Junction Controller Data Acquisition

## Junction Equipment Malfunction Notification

## Real-Time Phase Duration Manipulation

## Restart the Junction Control Unit

## Emergency Vehicle Priority

## Signal Phase Monitoring in Real-Time

## Giving Instant Extra Time to the Desired Direction

## Notifying Traffic Control Center About Blackout



Plan 3					Plan 4					Plan 5					Plan 6				
MIN - TS :59		MAX - TS :94			MIN - TS :61		MAX - TS :179			MIN - TS :80		MAX - TS :180			MIN - TS :94		MAX - TS :180		
Faz		Eksi	Ort	Artı	Faz		Eksi	Ort	Artı	Faz		Eksi	Ort	Artı	Faz		Eksi	Ort	Artı
1-Adalihan Geliş		4	15	15	1-Adalihan Geliş					1-Adalihan Geliş		20	35	10	1-Adalihan Geliş		12	27	10
3-Hastane Geliş ve Adalihan Geliş Sağ		5	13	3	3-Hastane Geliş ve Adalihan Geliş Sağ					3-Hastane Geliş ve Adalihan Geliş Sağ		15	25	10	3-Hastane Geliş ve Adalihan Geliş Sağ		5	25	10
2-Nalçacı Geliş		4	15	4	2-Nalçacı Geliş					2-Nalçacı Geliş		15	30	15	2-Nalçacı Geliş		10	35	10
4-Tramvay		0	6	0	4-Tramvay					4-Tramvay		0	6	0	4-Tramvay		0	6	0



[ [www.issd.com.tr](http://www.issd.com.tr)]



# MANGONew Generation Traffic Management Central Software.

MANGO is interactive traffic management software. Thanks to its user-friendly, web-based interface, it offers the possibility to monitor, analyze, manage and control different traffic systems and sensor sets.

MANGO is not only limited to intersection signal control, but can also be enhanced with real-time traffic information from different data sources. As a centralized software, it provides control of the proposed ATMS and has features such as remote intersection control and statistical analysis based on a digital map.









## Simple and Intuitive User Interface

In our software, communication between the system and users is established quickly and easily through a single intuitive user interface. Users have both a holistic management opportunity and can easily access customized data/reports according to their needs.

## Open Data, Platform and API

The methods of our software are open to third party developers. Developers who want to access the system interface can use shared API information and the system can integrate with new devices/applications.



## Integration

Our traffic management software has a system design that can work with 3rd party software. Any level of integration is allowed for MANGO.

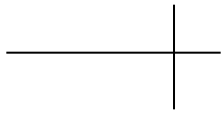
## Security

Our software is protected by encryption at the device level and in the center to secure sensitive data of existing applications.

## Scalability

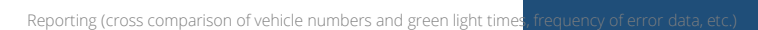
Our software is scalable and 99% available, with an architecture that can process trillions of data regardless of system and sensor size.

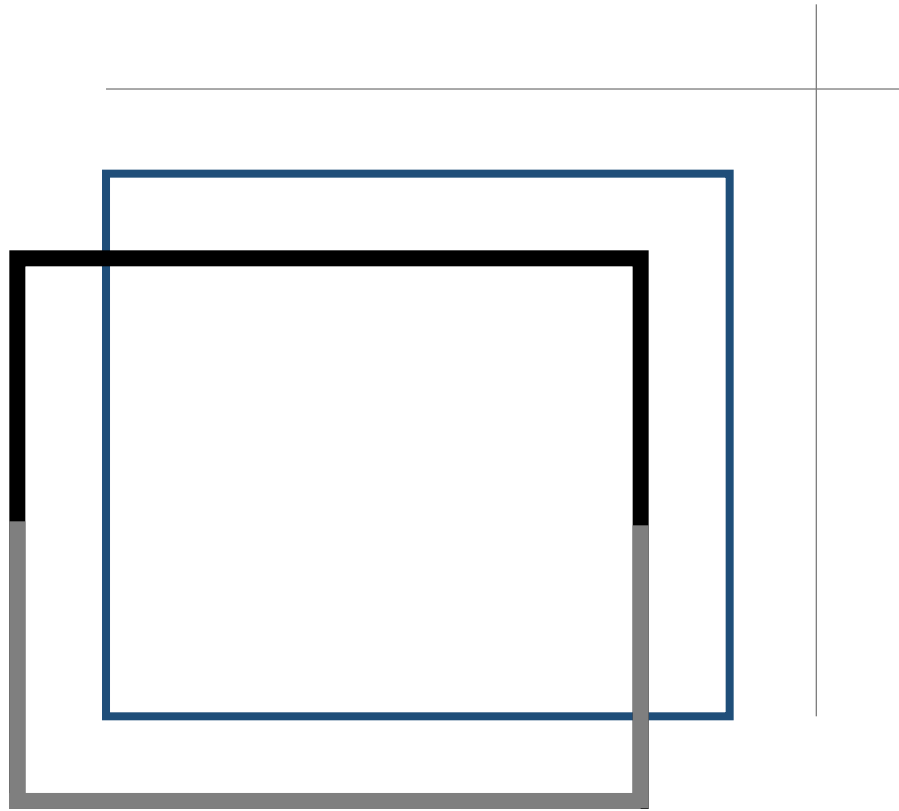




MANGO is a fully web-based traffic control center platform with the ability to remotely control intersections and perform statistical analysis based on current and historical traffic data.

MANGO is a fully web-based traffic control center platform with the ability to remotely control intersections and perform statistical analysis based on current and historical traffic data.

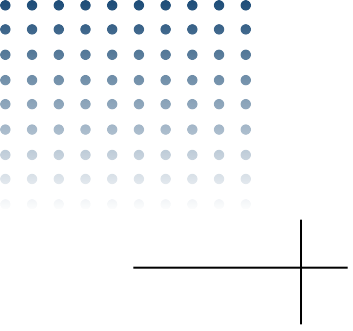




## VIERO-360 Junction Analysis System.

A cost-effective solution for  
accurate junction analysis



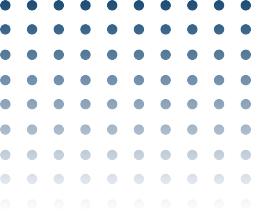


# VIERO-360 Junction Analysis System

VIERO 360 intersection analysis system utilizes Fisheye Cameras and Artificial Intelligence based detection algorithms to extract vehicle direction & distribution data within junction with an accuracy of 90% during daylight conditions







## 24/7 Excellent Performance

Vehicle counting and density measurement with artificial intelligence based system.



## Remote Access Capability

Quick and safe access to the system with built-in remote access features.



## Coverage area of 100m radius

Image based vehicle tracking & lane distribution.



## User Friendly Interface

Easy access to system settings and data with a convenient and simple design.



## Data Transfer

Data Transfer to remote centers over the network.



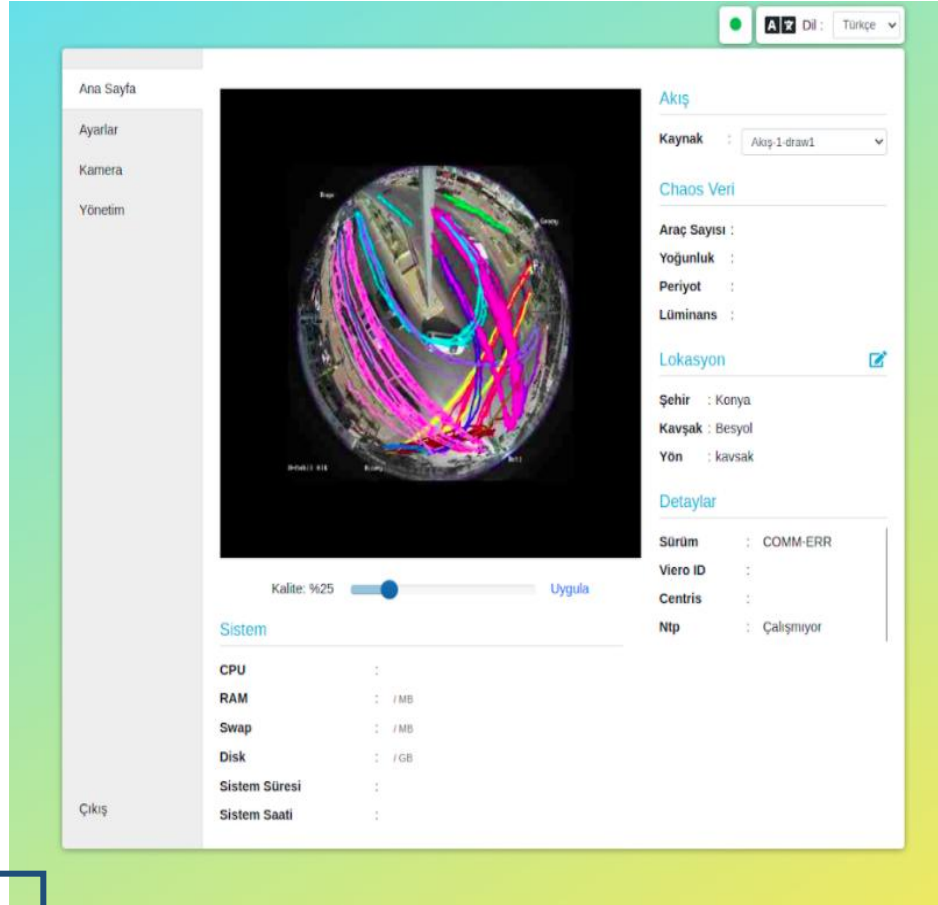
## Operating Temperatures

-40 ° C ~ + 60 ° C (-40 ° F ~ + 140 ° F) / Less than 95% RH.

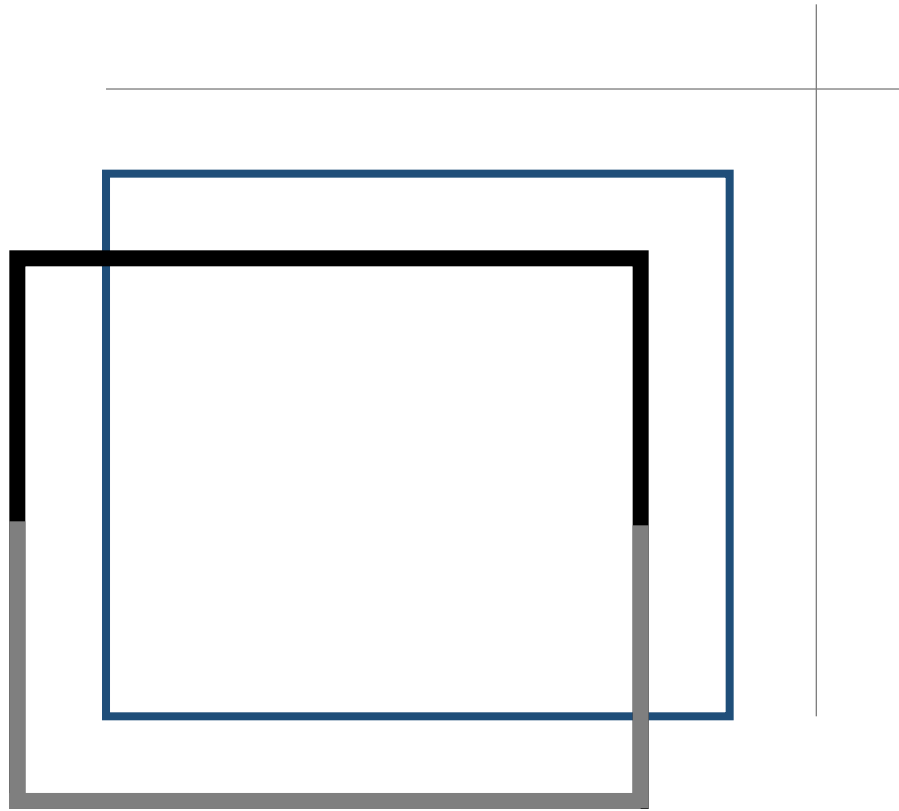




*A cost-effective  
solution for  
accurate  
junction analysis.*



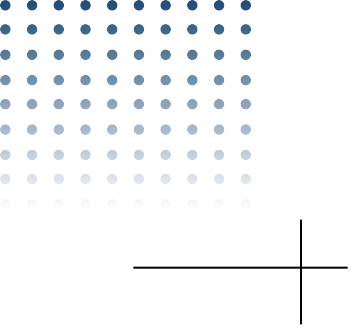
VIERO-360, is capable of producing a multitude of traffic data types, those being vehicle count, density measurements and image-based vehicle tracking and speed measurements. The data produced by VIERO-360 can be utilized for Dynamic Junction Control Systems CHAOS in addition to being utilized for traffic feasibility studies, geometric regulation studies and many similar road safety and design studies.



## BLUESIS Bluetooth Based Traffic Analysis System.

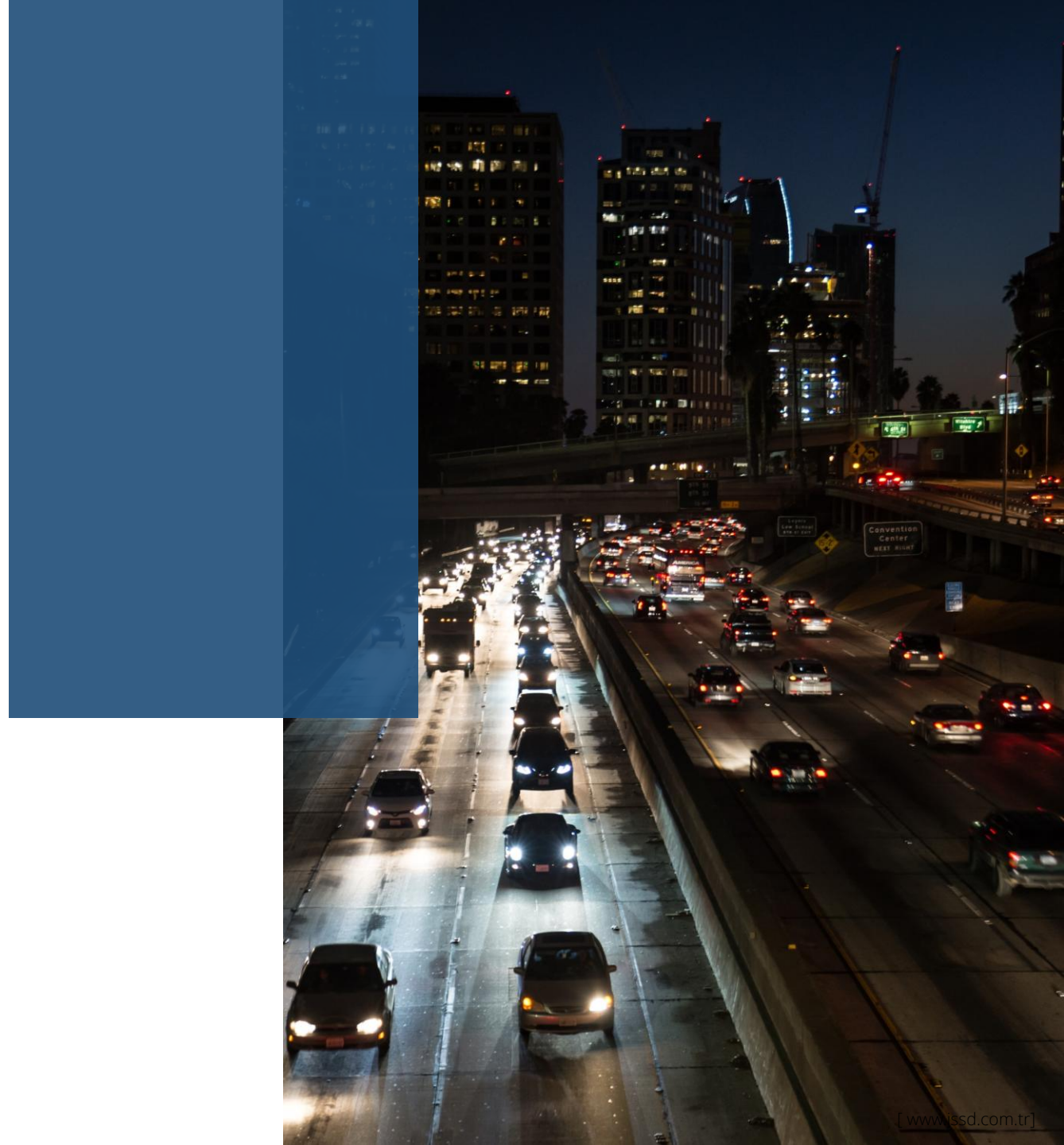
The best way to calculate average  
travel times





# BLUESIS Bluetooth Based Traffic Analysis System.

Bluetooth Based Traffic Analysis System or BLUESIS, can calculate average travel time between two or more deployment points in real-time and share the information with passengers using mobile platforms or Variable Message Signs (VMS).



# BLUESIS



## Easy Installation and Integration

Remote configuration  
Easy and fast installation without calibration  
Integration with Traffic Control Centers in OCIT/NTCIP standards.



## Low Power Consumption, Wide-ranging Sensing

Detection range with a radius of 100 meters  
Ability to work 24/7 in all weather conditions  
IP 65 enclosure  
Low power consumption  
Ability to work with solar panels (12V DC) or 220V AC  
3G/4G/4.5G and wired communication support.



## Wireless Data Transfer

BLUESIS can transmit data wirelessly. Thus, it is not a big challenge to install the system in site locations where the infrastructure is not available.  
BLUESIS also can save collected data onto an SD memory card and prevents data loss in case of failure in communication channels.





## Average Travel Time

Average travel times can be calculated via detection points of MAC addresses of vehicle handsfree kits, mobile phones, wireless headphones, and other Bluetooth operating devices.



## Remote Control

Fast and secure access to the system using its remote access features.



## OD Matrix Calculation

Passenger Origin-Destination matrices can be estimated, helping with traffic prediction.



## User Friendly Interface

Convenient and simple interface that enables easy access to traffic data and traffic network control.



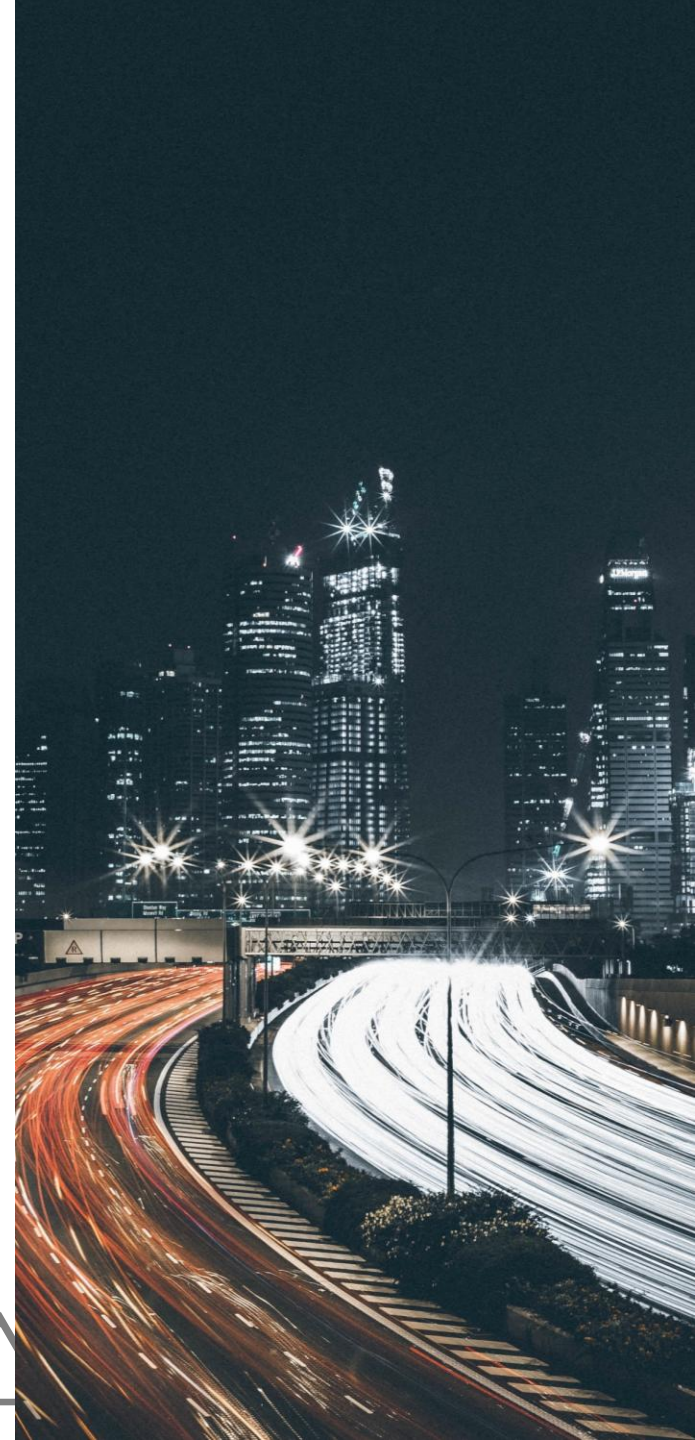
## Average Speed Measurement

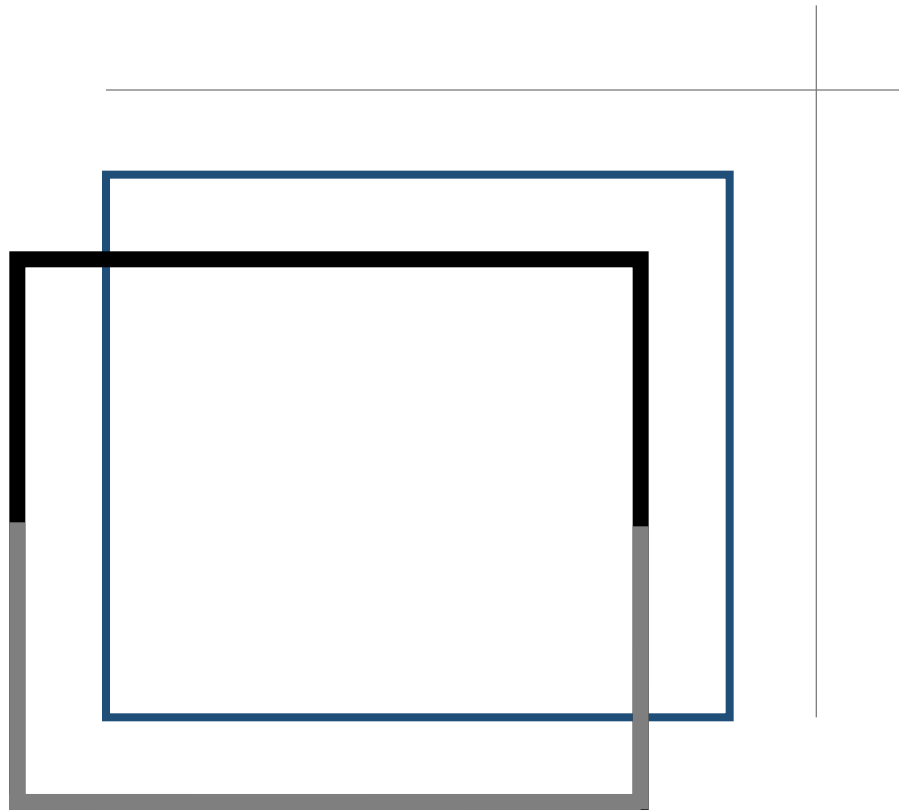
Average velocity can be determined via determination of travel time between two or more BLUESIS units.



## Alternative Route Suggestion

BLUESIS can suggest alternative routes based on vehicle density of different routes.





EES  
Electronic  
Enforcement Systems.

Where Mobility Meets Innovation.







# EES Electronic Enforcement Systems.

- Automated Number Plate Recognition Systems
- Red Light Enforcement Systems
- Speed Corridor Enforcement Systems
- Parking Enforcement Systems
- Safety Line Enforcement Systems
- Mobile Enforcement Measurement and Detection System

Our systems are integrated into the POLNET system used by the General Directorate of Security and are available 24/7 under all weather conditions with 96% accuracy level.

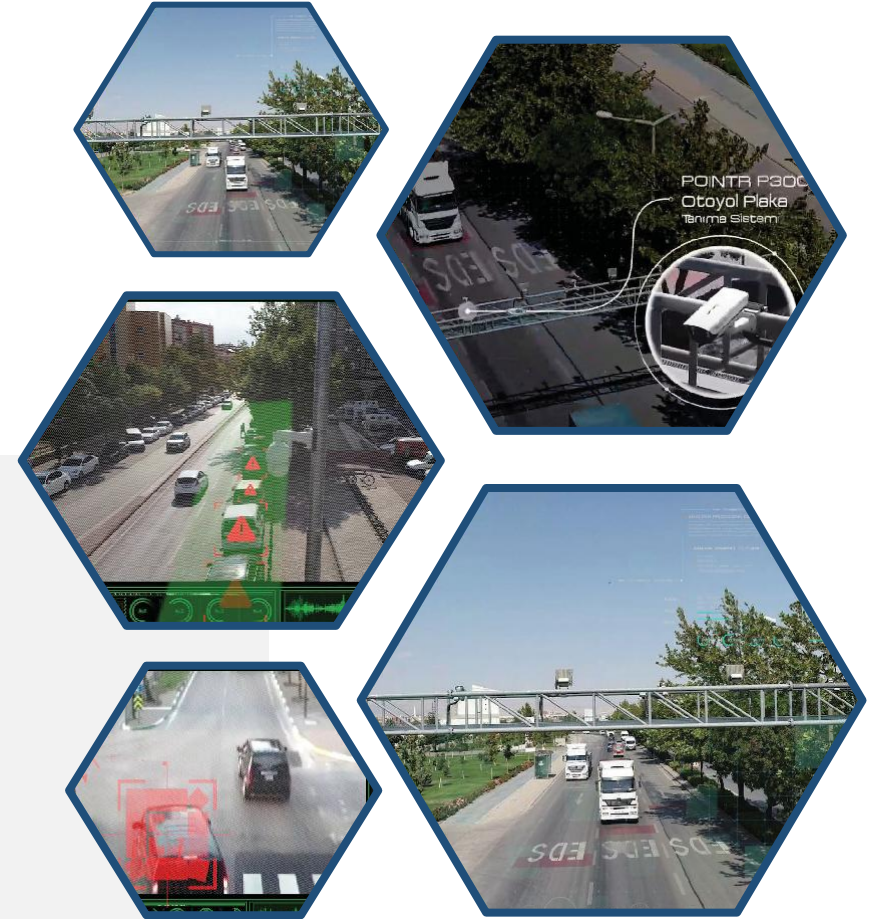


# Automated Number Plate Recognition Systems

## POINTR 3000 – POINTR Moonlight

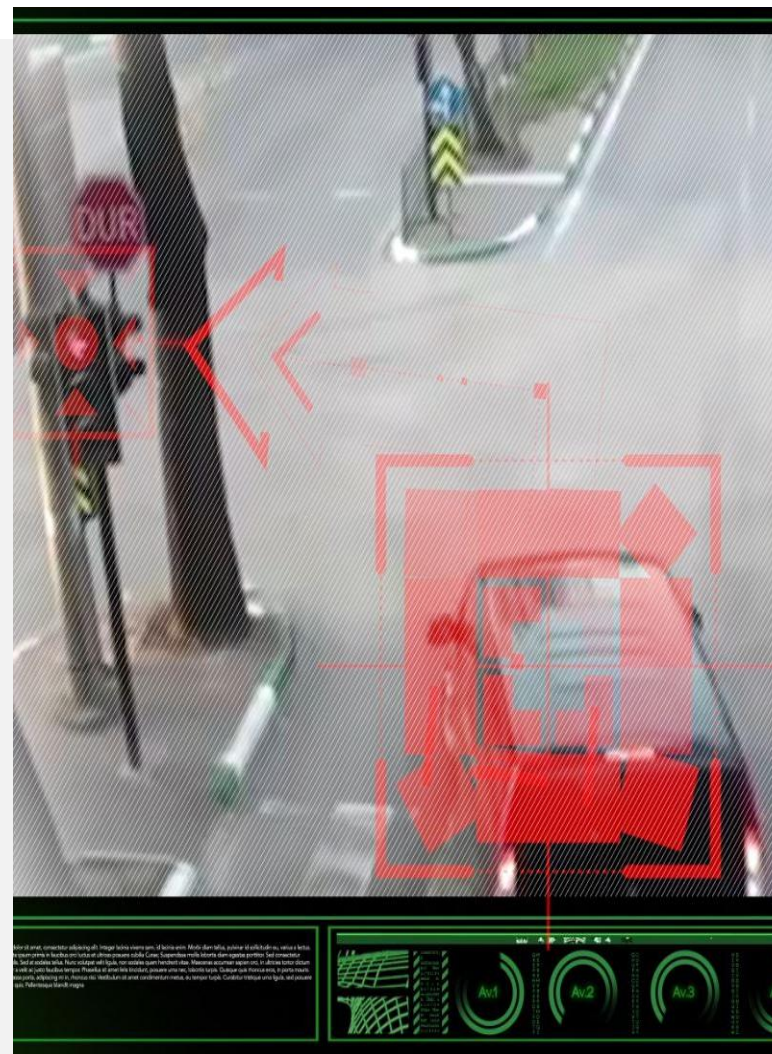
Automated Number Plate Recognition System allows the vehicle license plates to be read, stored and analyzed.

- Integrated License Plate Recognition System
- High Resolution Camera
- Continuing to work by keeping records in memory in network connection failures
- Night vision with IR Led
- IP 66, IK10 and NEMA 4x certified enclosure
- Ability to work 24/7
- Brand, type and color recognition
- Sending data to a central server via FTP
- Average speed violation detection with central software



# Red Light Enforcement Recognition Systems POINTR K3000.

Red Light Enforcement System POINTR K3000, detects vehicles that has red light violation. The system contributes to the increase of the traffic safety by minimizing the accidents that occurred due to the enforcement.







# *Red Light Enforcement Recognition Systems POINTR K3000 Features.*

Line-based red light enforcement detection

Number plate recognition

24/7 red light enforcement detection

Remote access

Automatic standby in case there is a fault in the signal

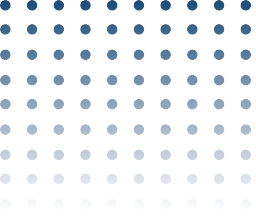
Turn off the system from the main control center when the traffic policeman  
manages the junction

High resolution video recording

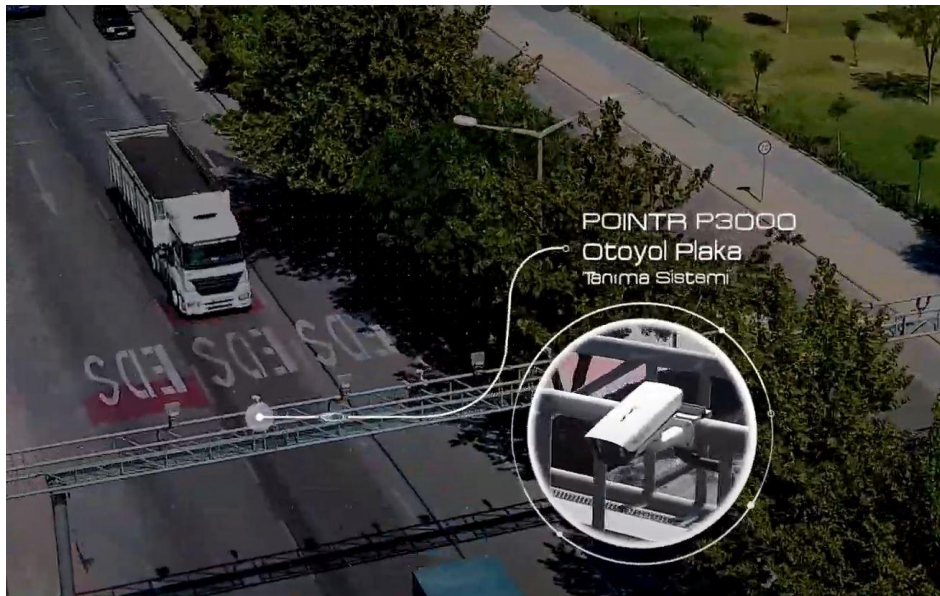
Automatic penalty receipt arrangement







## Speed Corridor Enforcement Systems POINTR P3000.



Speed Corridor Enforcement System calculates the average speeds of the vehicles between two specified points on the highways and detects the vehicles that enforce the rule.



# *Speed Corridor Enforcement Systems POINTR P3000 Features.*

Integrated License Plate Recognition System

High Resolution Camera

Continuing to work by keeping records in memory in network connection failures

Night vision with IR Led

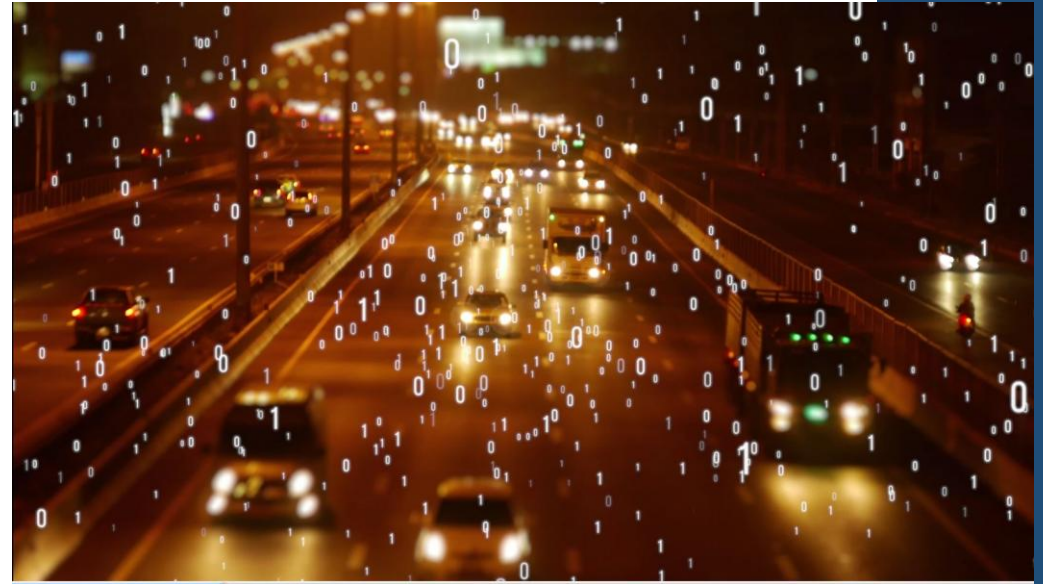
IP 66, IK10 and NEMA 4x certified enclosure

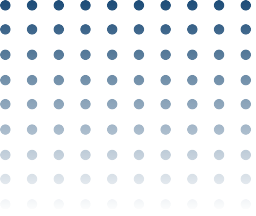
Ability to work 24/7

Brand, type and color recognition

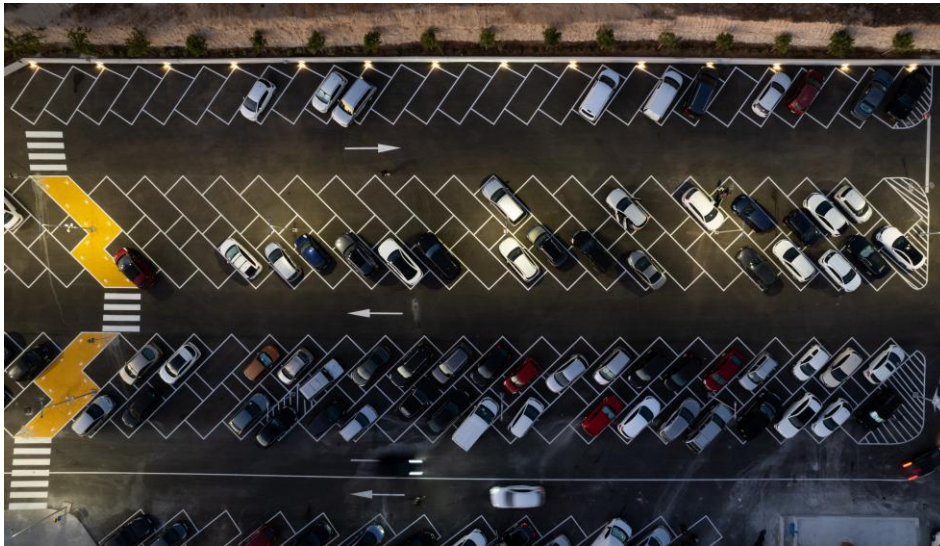
Sending data to a central server via FTP

Average speed violation detection with central software





## Automated Parking Enforcement Systems POINTR P2000.



Park Enforcement System POINTR P2000 detects the vehicles parking illegally and performs plate detection.



# *Automated Parking Enforcement Systems POINTR P2000 Features.*

Detection of enforcement at the field at a radius of 75 meters

Automatic plate recognition

Remote access

32 preset points infringement detection

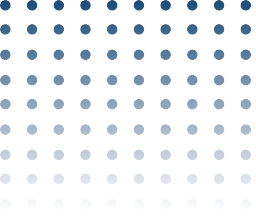
High resolution video recording

Automatic penalty receipt editing

Quick setup







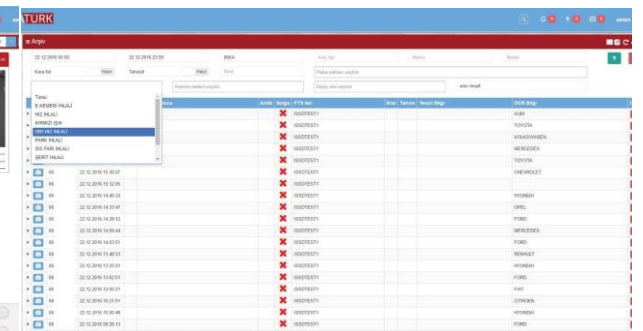
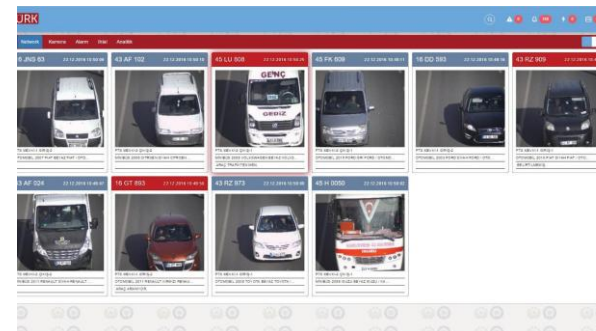
## Safety Lane Enforcement System POINTR E3000.



The Safety Lane Enforcement System can detect the license plate, brand and color of vehicles 24/7 in all weather conditions. Thanks to the system, these data can be transferred to a desired remote center either wired or wirelessly.

# Mobile Enforcement System.

MOBILE EES helps with increasing the speed, and efficiency of detection of parking, safety lane and stopping violations in addition to prediction of accidents on corridors and elements that might negatively impact traffic flow, ensuring increased levels of traffic safety.





# *Mobile Enforcement System Features.*

HTML/HTML5 web interface

Detailed archive query and reporting

User management features

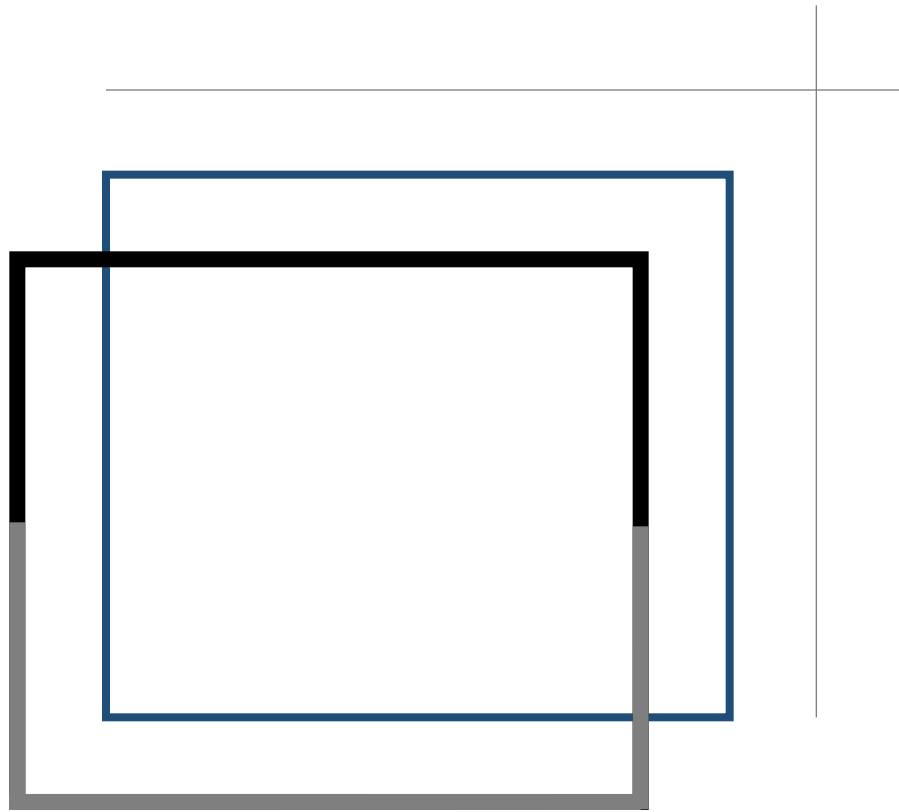
Automatic traffic receipt issuing and addition to the General

Directorate of Safety's system

Automatic receipt conversion to PDF format

Violation Detection Scheduling for EES violations



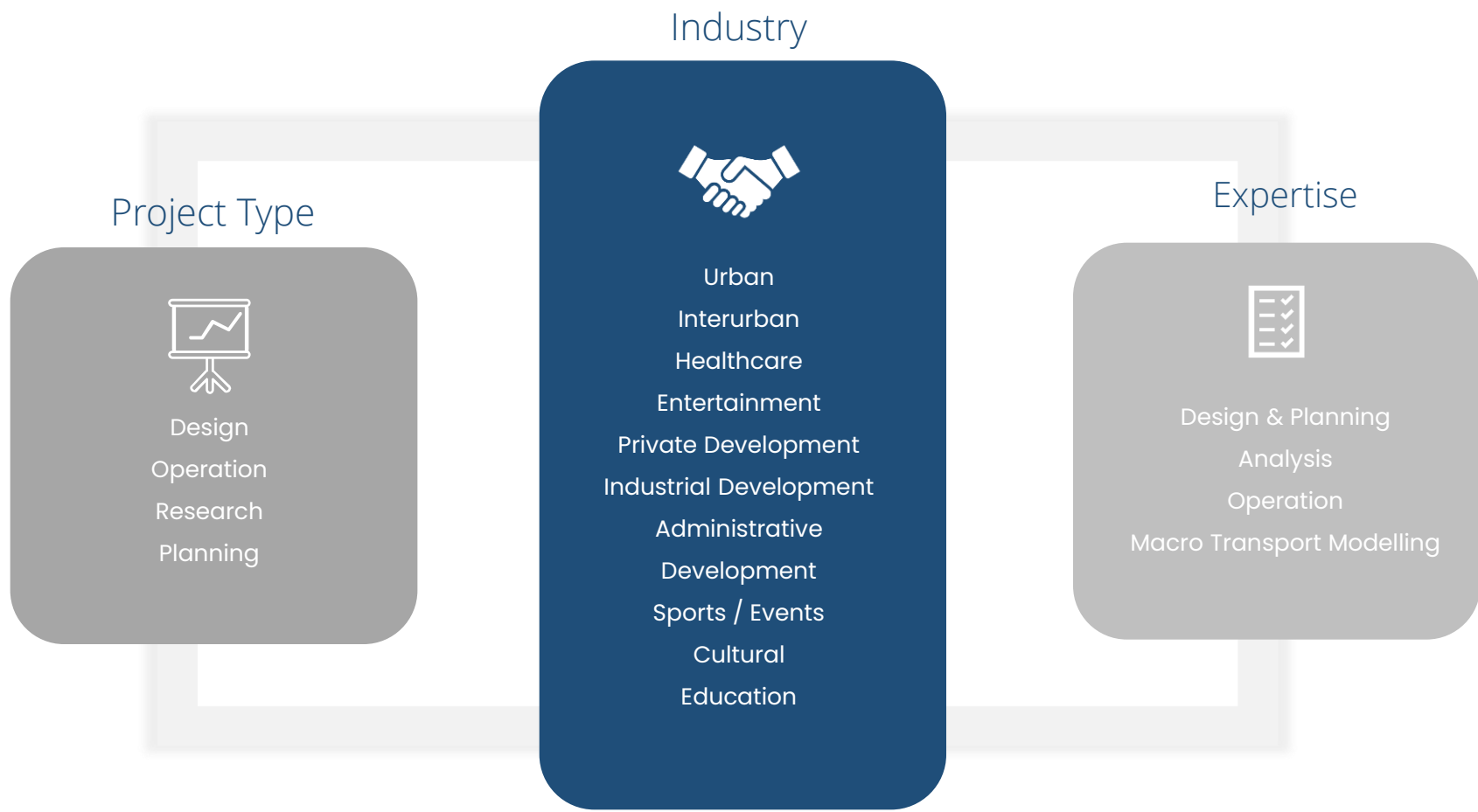
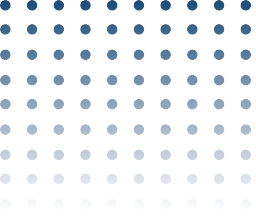


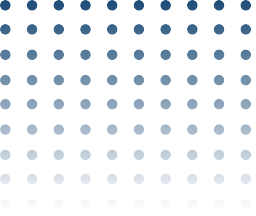
MOBILITY  
Areas of expertise.

Where Mobility Meets Innovation.



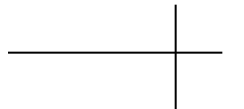






# Design & Planning

- Waynding Design
- Traffic Safety Superstructure Design
- Intersection Design
- Corridor Design & Planning
- Preliminary Design
- Final Roadway Design
- Traffic Signal Design
- ITS Design & Planning
- Complete Street Design
- Roundabout Design & Planning
- Parking Studies & Management Plans
- Signing & Striping
- Bicycle & Pedestrian Studies
- Transit Facilities Design





## Analysis

Traffic Modelling & Simulation

Traffic Impact Assessment

Swept Path Analysis

Signal Warrant Analysis

Accessibility Analysis

Dynamic Traffic Assignment

Trip Generation & Distribution

## Operation

Multimodal Operations

Freeway Operations

Intersection Operations

Special Event Traffic Management

Performance Measurement

Transit Signal Priority

Traffic Circulation / Regional Traffic Planning

Macro Traffic Analysis

Public Transport Modelling

Sustainable Urban Mobility Plan

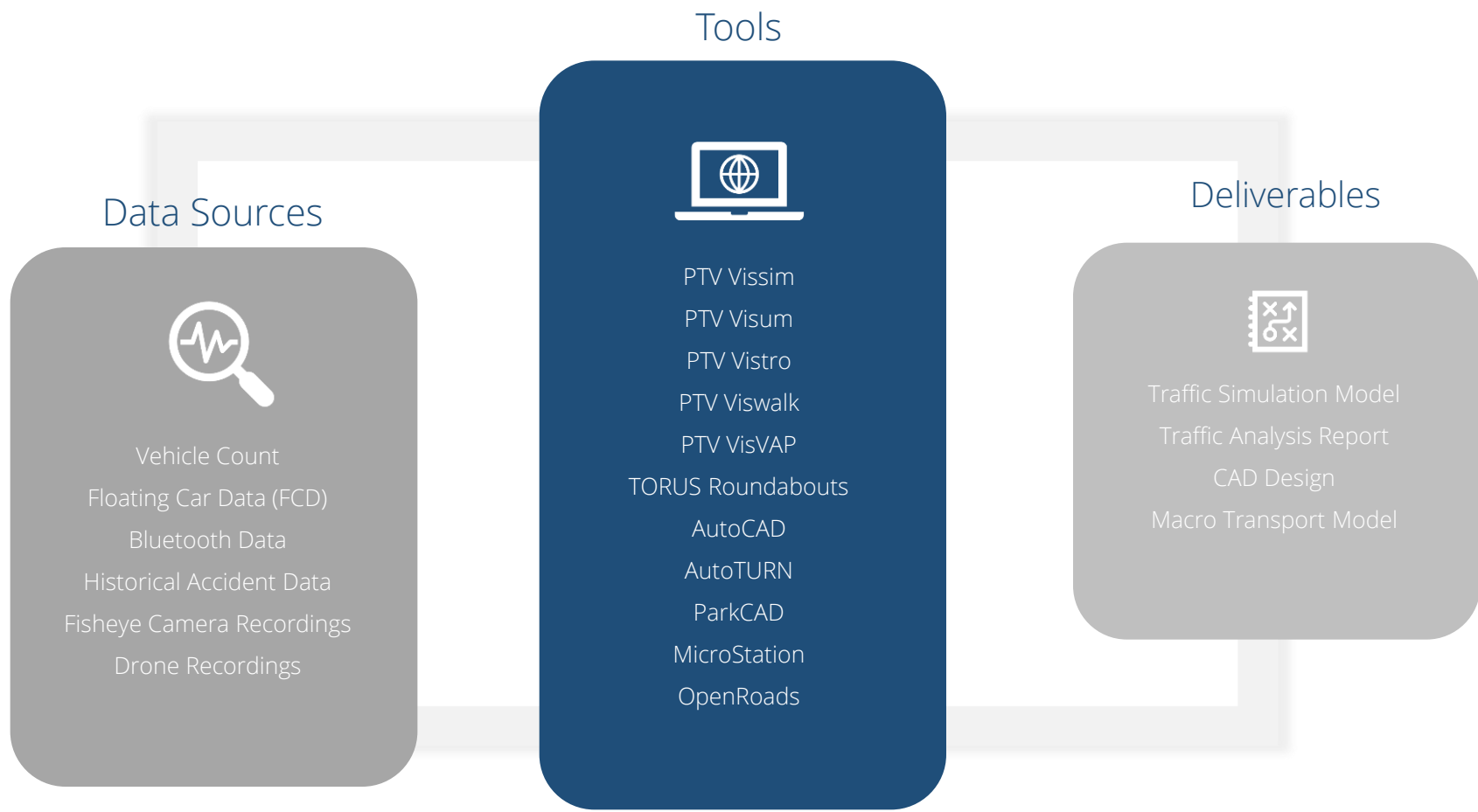
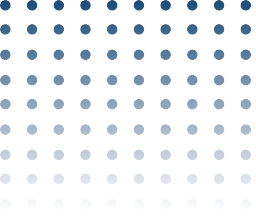
Travel Demand Modelling

Network Modelling



## Macro Transport Modelling







## Contact Us

ISSD Biliřim Elektronik Eđitim Sanayi ve Ticaret A.ř. Adres:  
Üniversiteler Mahallesi İhsan Doğramacı Bulvarı  
Halıcı Binası No:33 ODTÜ Teknokent Çankaya Ankara Türkiye

### İletişim:

Tel: +90 312 210 00 15

Fax: +90 312 210 10 75

E-Posta: [info@issd.com.tr](mailto:info@issd.com.tr)

