



ROAD TRAFFIC TECHNOLOGY

**GOOD JOURNEY  
INNOVATIONS**

# CROSS HOLDING

The company dates back to 1994 and set out by installing systems comprising stand-alone traffic light controllers. We have grown and diversified ever since to the extent that our staff now carry out major Smart City and road projects all around the world. Enabling smooth, safe travel for everyone is the goal of CROSS - a family-run business - and the team it employs.



Ing. Tomáš Juřík  
CEO

## VISION

To be at the forefront of developing and implementing innovative traffic technologies. To deliver world-class services, technology and products to our partners and customers.

## WHY CROSS?

- State-of-the-art technology
- In-house R&D
- Experts and transport engineers
- Wealth of real-world experience
- Customized solutions
- Flexibility

1994

BEGINNING OF THE STORY

200+

EMPLOYEES

50+

DEVELOPERS

500+

MILLION CZK IN REVENUE

The advanced technologies we develop in-house at CROSS are applied in everything we do - ITS and Smart Cities projects, Traffic Control, Parking, Weigh-In-Motion, Road Telematics and Road Weather status. We have specialists on hand for consultation capable of discussing a potential project of any scale, covering all the bases - from A to Z. An important factor for

clients is the knowledge that any state-of-the-art proposal from us will be interoperable with the software or hardware they already have in place and can be customized to suit the given application. Systems by CROSS have been installed in locations from Japan to Brazil, Norway to Tanzania with the aim of keeping traffic moving whatever the local conditions.

### CROSS HOLDING:

CROSS Zlín, a. s. | Incinity, s. r. o. | Lab Systém, s. r. o. | Cross Türkiye | Cross Deutschland | Spinnea



INTERTRAFFIC INNOVATION AWARDS 2018  
Winner in the Infrastructure category



INTERTRAFFIC INNOVATION AWARDS 2016  
Overall winner



INTERTRAFFIC INNOVATION AWARDS 2016  
Winner in the Smart Mobility category



SMART CITY SERVICE AWARD 2017  
Winner



- CROSS headquarters
- CROSS branches
- CROSS installations

## MISSION

We aim to improve conditions for road-based travel through applying the latest technologies. Our priorities are safety and the efficient traffic flow of all vehicles and freight.

# PRODUCT OVERVIEW

[www.cross-traffic.com](http://www.cross-traffic.com)

## WEIGH IN MOTION

An advanced and progressive Weigh-in-Motion system for weighing fast-moving vehicles in combination with loop detectors, road sensors and a core WIM module. CROSS software enables on-line measurement as well as immediate validation and enforcement.

[www.optiwim.com](http://www.optiwim.com)



- CrossWIM** dynamic weighing unit with a facility for direct enforcement
- #OPTIWIM** certified as the most precise system for assessing dynamic weight

## TRAFFIC CONTROL

Complete systems and hardware for intelligent control of traffic in cities, including traffic light controllers and control centres for comprehensive monitoring purposes and adaptive traffic management.



- CROSS RS 4** traffic light controller
- CROSS RS 4S** traffic light controller
- eDaptiva** full-featured urban traffic management centre
- PTC** maintenance and programming software

## PARKING SYSTEMS

A complete solution for parking in outdoor areas, urban zones, garages or car parks. Every device is integrated with a system that handles all management and control, including payment terminals for off-street and on-street parking.



- CrossPark** parking system with automatic barriers
- CROSS APTM** universal payment terminal
- CROSS APTL** payment terminal lite

## ROAD WEATHER

A system for monitoring and predicting weather conditions on roads and in cities. It can be extended to form a comprehensive solution with numerous options for intelligent management of wintertime road maintenance.

[www.metis4.com](http://www.metis4.com)



- CrossMet** road and urban meteorological stations
- METIS** advanced road weather information system
- SSWM** system to aid decision-making in road maintenance
- WMI** performance of wintertime maintenance and cost analysis

## TRAFFIC VIOLATIONS

Solutions for eliminating illegal stopping and parking on the streets of city centres. Systems for evaluating authorized or unauthorized entry and transit in areas where traffic is regulated.



- CROSS Pavis** parking violation system
- CROSS Avis** entry and transit detection

## DATA COLLECTION

State-of-the-art systems for classifying and counting vehicles, based on inductive loops, cameras or radars. The ability to monitor traffic flow and calculate travel times.



- CrossCount** traffic counter and classification device
- Travel Time module** traffic detectors and unit for traffic flow monitoring and predicting travel times
- CROSS ControlUnit** universal unit for collecting and transferring telematic data

## INVIPO

A platform that enables the visualisation and integration of solutions for smart cities and intelligent road networks.

[www.invipo.com](http://www.invipo.com)

COMPREHENSIVE SMART CITY PROJECT

# ITS: SMART TRAFFIC SYSTEM



Izmir is the third largest city in Turkey, the administrative centre for its province and home to almost 4 million inhabitants.

CROSS was tasked with supplying and installing infrastructure that included traffic lights, equipment for detecting and monitoring traffic flow, parking violation systems, meteorological devices to gauge weather conditions on roads and other technologies for its transition into a smart city. In total, over 3,000 individual items were incorporated in the system, which communicates on-line with Invipo - the Smart City platform.

ITS IZMIR was awarded the Smart City Service trophy in 2017



- TRAFFIC CONTROL: 400 intersections
- TRAFFIC CONTROL CENTRE: 9 x 6 m video wall
- PRIORITY FOR PUBLIC TRANSPORT: 1,500 vehicles
- PARKING: 60 navigation boards
- ON-STREET PARKING: 2,000 road sensors
- INFO PANELS: 108 digital message boards

- PEDESTRIAN ZONES: 107 sets of bollards
- ROAD WEATHER SYSTEMS: 30 stations
- PAVIS: 116 monitoring locations
- TRAFFIC VIOLATIONS: 100 locations
- DATA COLLECTION: 209 traffic points

[www.itsizmir.com](http://www.itsizmir.com)

# REFERENCES

Other references



## Hungary

Network of 106 Weigh-in-Motion stations



## Mošnov, Czech Republic

Comprehensive airport parking



## Czech Republic

Road weather national system



## Aarhus, Denmark

Cloud-based urban traffic control system

5 CONTINENTS

55 COUNTRIES

1000+ SATISFIED CUSTOMERS



## St. Petersburg, Russia

Traffic control on Vasilevsky Island



## Bulgaria

Data collection, network of 200 CrossCount stations



## Saudi Arabia

Weigh-in-Motion



## Czech Republic

Weigh-in-Motion for direct enforcement



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EUROPEAN UNION  
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