# AGIL®

# URBAN TRAFFIC
# MANAGEMENT SYSTEM

ST Engineering
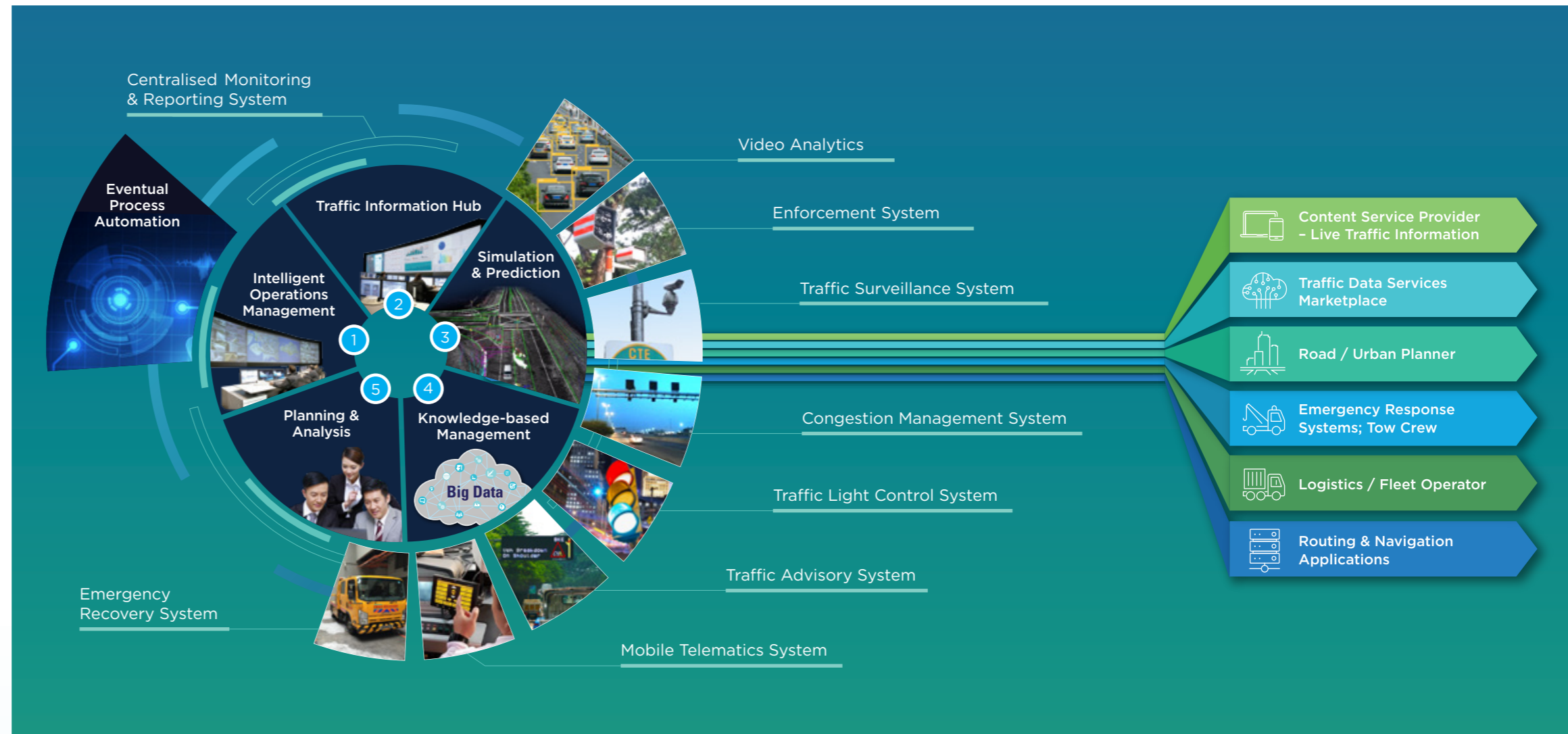
# Urban Traffic Management System

## Seamless, Safe and Reliable

Cities are facing increasing congestion due to urbanisation. Leveraging artificial intelligence (AI) and data analytics, the Urban Traffic Management System provides a single platform that unifies transport sub-systems, applications and data sources to enable authorities to better manage traffic congestions and shorten incident response time.

Commuters will benefit from receiving real-time information on-the-move to enhance their travel experiences.

## Key Capabilities

- Overview of city-wide road networks and resources

- Centralised management of various transport sub-systems

- Automated knowledge-based traffic management

- Data-driven transport management using artificial intelligence, big data and video analytics



Centralised Monitoring & Reporting System

Eventual Process Automation

Traffic Information Hub

Video Analytics

Enforcement System

Simulation & Prediction

Intelligent Operations Management

Traffic Surveillance System

Planning & Analysis

Knowledge-based Management

Congestion Management System

Big Data

Traffic Light Control System

Emergency Recovery System

Traffic Advisory System

Mobile Telematics System

Content Service Provider – Live Traffic Information

Traffic Data Services Marketplace

Road / Urban Planner

Emergency Response Systems; Tow Crew

Logistics / Fleet Operator

Routing & Navigation Applications

Data-driven Centralised Management of Multiple Sub-systems

## Artificial Intelligence-Enabled

### Video Analytics
Provide traffic information and identify traffic incidents accurately

### Automatic Incident Detection
Automate detection of incidents and anomalies to improve responsiveness

### Expert System
Capture the experience and skill sets of traffic experts to generate response plan quickly for traffic incidents

### Traffic Prediction
Forecast traffic flow with advanced simulation for pro-active traffic management and planning

## Key Benefits

- Enhance situational awareness and operational efficiency

- Reduce man-in-loop with AI to automate incident response

- Pro-active traffic management to mitigate congestions

- Enhance transport planning and policy setting

- Reduce congestions and carbon footprint

## Key Systems

**1 Intelligent Operations Management**
- Integrated control and management of various sub-systems

**2 Traffic Information Hub**
- Aggregate, integrate and disseminate information from various sources
  - Vehicle detection systems (e.g. loop sensors, radar / vision based vehicle detectors, bluetooth travel time sensors)
  - External data sources (e.g. commercial traffic services, taxis, buses and police cars)
  - Smart cameras (e.g. corners, vehicle counters)
  - Roadway weather information systems (e.g. ground sensors)

**3 Simulation and Prediction**
- Leverage dynamic simulation and traffic forecast to evaluate and recommend response plan for congestions

**4 Knowledge-based Management**
- Expert system with automated generation of incident action plan for faster response with minimal human intervention

**5 Planning and Analysis**
- Provide operations report, Key Performance Indicator (KPI) review, congestion hotspot analysis, and road network improvement

# Proven Results

Our Urban Traffic Management System has helped our customers to achieve the following improvement:
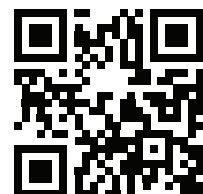
- Reduces incident handling time by more than 50%
- Reduces accident duration by more than 50%
- Reduces emergency response time by up to 30%
- Reduces travel time by up to 20%
- Reduces operator training time to half a day

Our solutions have managed more than 5000km of roads for cities worldwide.

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