

Orchestrating a brighter world

NEC



Digital Transformation Meets Cities

NEC



Subsidiaries

238



Sales

EUR 22.3 billion



Employees

107.729



Business Areas

- Public Sector
- Enterprise
- Telecom Carriers



Established

1899



Fortune Global 500

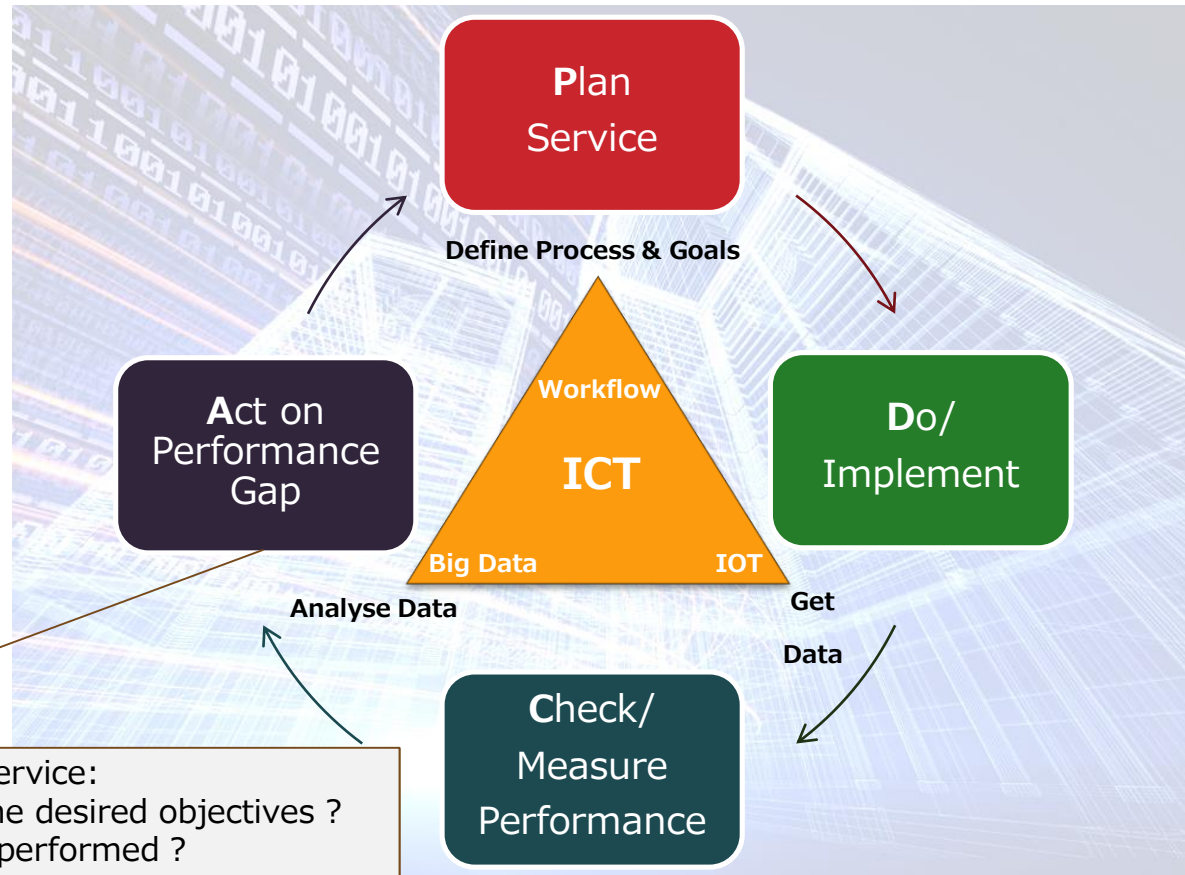
470

**To be a leading global company
leveraging the power of innovation
to realize an information society
friendly to humans and the earth**



Technology as enabler of a More Efficient City

- Provides data which allows us to “read” and “understand” what is happening in the city.
- Closes the services PDCA loop allowing a continuous improvement in the efficiency and quality of the urban processes.



Digital Transformation Meets Cities

Vertical Solutions for the Cities

Vertical Solutions for the Cities

Security

- ✓ Occurrences Management
- ✓ Automatic Behaviour Detection



Energy and Sustainability

- ✓ Smart Waste Management
- ✓ Electrical Mobility



Urban Mobility

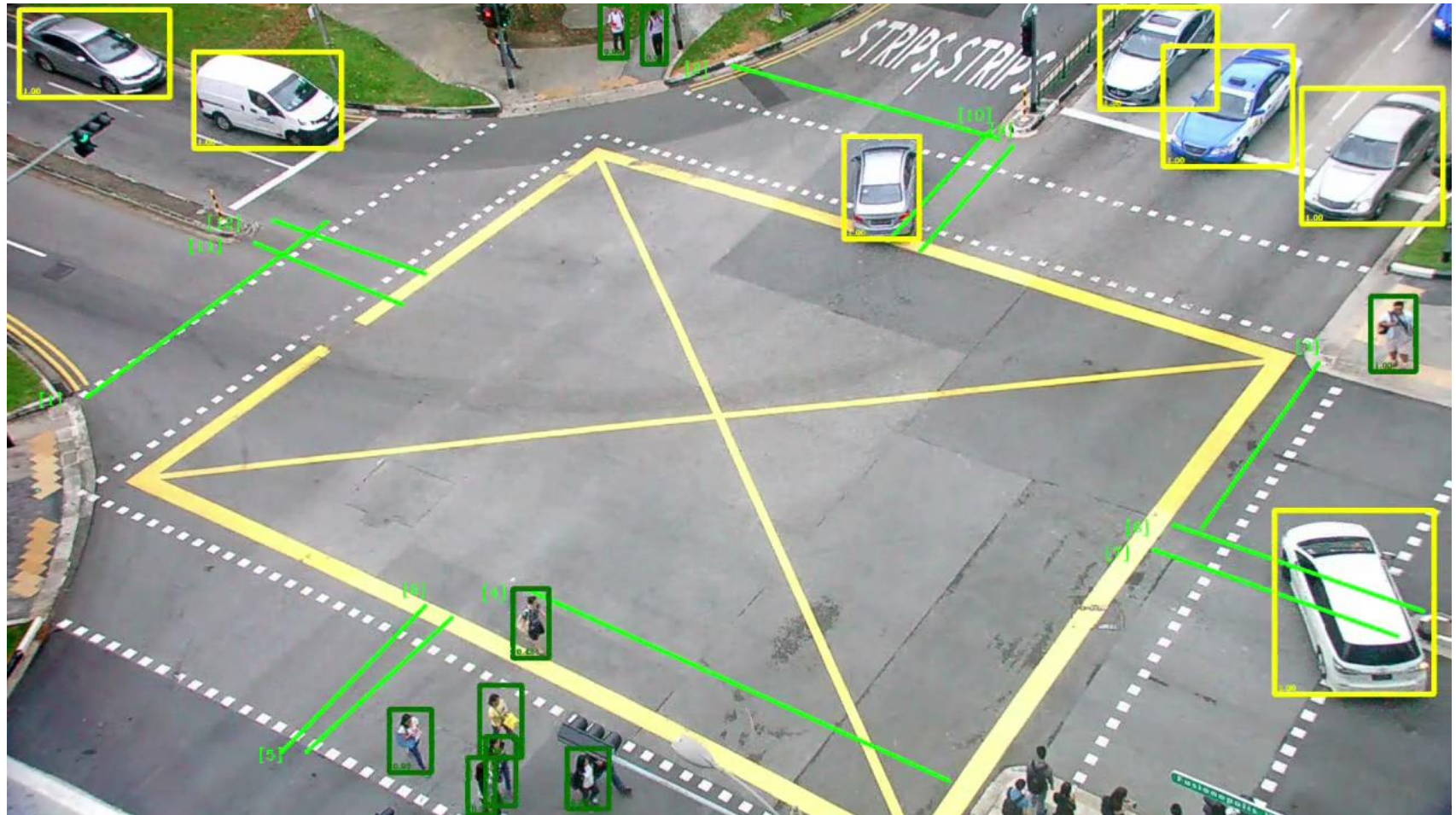
- ✓ Smart Parking
- ✓ Automatic Counting of People and Vehicles



Urban Security – Automatic Video Analytics



Urban Mobility – Detection & Counting of Vehicles and People



Digital Transformation Meets Cities

City Operational Management Platform

The success of a City journey means collaboration

Today, cities do not control their services in a coordinated way:



Water Management



Waste Management



Lighting



Safety

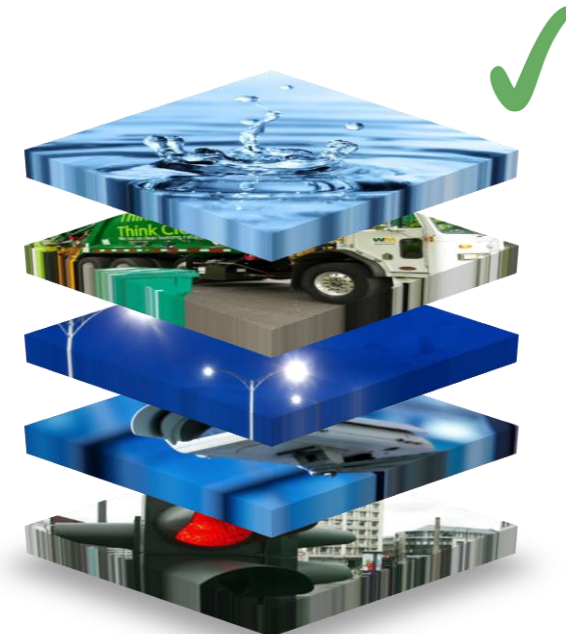


Mobility



- City services work in silos, making the city dependent upon isolated processes, technologies, products and suppliers for the resolution of each problem, without coordination nor sharing of information between services.
- The silos approach replicates investments in infrastructures and ITC

This fragmented approach is neither the most efficient nor the most economical one



From Silo Solutions to an Integrated Approach

Vertical solutions for city services are focused on solving the problems of one specific area (eg. Traffic congestion, waste collection, emergencies management, etc.), typically being implemented by separate entities



To promote a greater efficiency in the usage of the city resources, it is necessary to break away from the silos in which the city is traditionally organized.

An **integrated approach** that aggregates and coordinates the different city services provides a more economical and efficient management of the city, improving the quality of the service to the citizen



Holistic Approach

Digital Transformation Platform - NEC DUP (Data Usage Platform)



BI Reports

Incident Management

Predictive Analytics

Public Indicators

CITY SERVICES

COUNCIL SYSTEMS

CITIZENS

- | | | | | | | | | | | |
|--|---|---|---|--|--|---|---|--|---|---|
| <p>URBAN MOBILITY</p> <ul style="list-style-type: none"> - Traffic Control - Public Transport - Parking - Municipal Fleets - Bike & Car Sharing - Electric vehicles | <p>PUBLIC SAFETY</p> <ul style="list-style-type: none"> - Video Surveillance - Facial Recognition - Fingerprint ID - Data Protection - Emergency Situations Control | <p>SMART WATER</p> <ul style="list-style-type: none"> - Water Consumption & Quality - Water Leak Detection - Supply Failures Detection - Sanitation and Sewage Network | <p>SMART WASTE</p> <ul style="list-style-type: none"> - Intelligent Collection routes - Street Cleaning - Bins & Containers fill-levels - Detect Collection Failures | <p>SMART TOURISM</p> <ul style="list-style-type: none"> - Restoration & Accommodation - Information Points - Tourist Routes - Ports & Airports - Portal for tourists | <p>SMART ENERGY</p> <ul style="list-style-type: none"> - Street Lighting - Municipal & Public buildings | <p>SOCIAL CARE</p> <ul style="list-style-type: none"> - Children Services - Adult Social Care - Thinking Family | <p>TAX COLLECTION</p> <ul style="list-style-type: none"> - Housing - Revenues & Benefits | <p>INTERNAL SYSTEMS</p> <ul style="list-style-type: none"> - Geographic Information System (GIS) - Geodesy & Cartography Information System - City Multimodal Information System - Operation Center System - Municipality Portal - City Portal For Tourists - Citizen Contact Services - Internal City Apps | <p>EXTERNAL SYSTEMS</p> <ul style="list-style-type: none"> - Law Enforcement Systems (Police, firefighters, etc.) - Hydrographic Institute - Highway Management Concessionaire - Water Supply & Distribution - Energy Supply & Distribution - National Institute of Statistics - Ports & Airports Administration - Universities - Postal Services - Google | <p>Requests & Claims</p> <ul style="list-style-type: none"> - Digital Procedures - Complaints - Denouncements - Robberies - Fires - Tree falls - Weather Alarms - Others |
|--|---|---|---|--|--|---|---|--|---|---|

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