NEC Global Smart City

NEC Indonesia
November 2023

NEC at a Glance

289+ **group companies** doing business in **50+** countries

North America **26**

Latin America **14**

Europe **85**

Africa **15**

Middle East **5**

Asia Pacific **73**

Japan **71**

Established 1899

Revenue Over **¥3,014.1B** in annual revenue

Employees 117,000

Patents 45,000

AI Researchers 1800

Tech Leadership World **No. 1**

Face Recognition

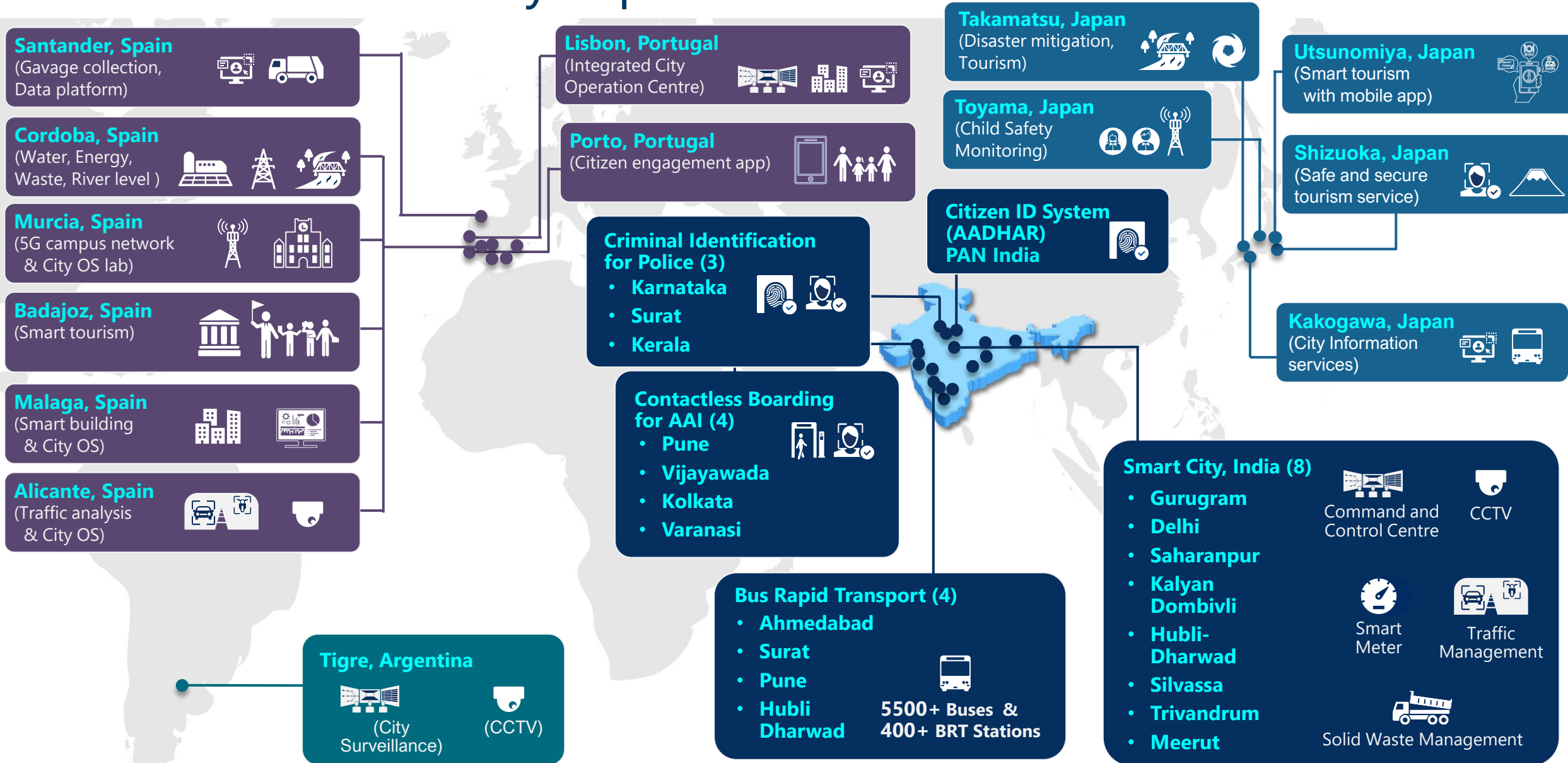Iris Recognition

Fingerprint Recognition

Rate of contribution Approx **5.2 times** to CO2 emission reductions across supply chain

A List Inclusion in the CDP Climate Change and Water A List

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NEC Global Smart City Experience

Santander, Spain
(Gavage collection, Data platform)

Cordoba, Spain
(Water, Energy, Waste, River level)

Murcia, Spain
(5G campus network & City OS lab)

Badajoz, Spain
(Smart tourism)

Malaga, Spain
(Smart building & City OS)

Alicante, Spain
(Traffic analysis & City OS)

Lisbon, Portugal
(Integrated City Operation Centre)

Porto, Portugal
(Citizen engagement app)

Takamatsu, Japan
(Disaster mitigation, Tourism)

Toyama, Japan
(Child Safety Monitoring)

Utsunomiya, Japan
(Smart tourism with mobile app)

Shizuoka, Japan
(Safe and secure tourism service)

Kakogawa, Japan
(City Information services)

Citizen ID System (AADHAR) PAN India

Criminal Identification for Police (3)
- **Karnataka**
- **Surat**
- **Kerala**

Contactless Boarding for AAI (4)
- **Pune**
- **Vijayawada**
- **Kolkata**
- **Varanasi**

Bus Rapid Transport (4)
- **Ahmedabad**
- **Surat**
- **Pune**
- **Hubli Dharwad**

5500+ Buses & 400+ BRT Stations

Smart City, India (8)
- **Gurugram**
- **Delhi**
- **Saharanpur**
- **Kalyan Dombivli**
- **Hubli-Dharwad**
- **Silvassa**
- **Trivandrum**
- **Meerut**

Command and Control Centre   CCTV

Smart Meter   Traffic Management

Solid Waste Management

Tigre, Argentina
(City Surveillance)   (CCTV)

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NEC Smart City solution

Single, Unified Platform for City & Business Operations

- Command & Control Center
- Solid Waste Management
- Streetlight
- Video Surveillance
- Transit Management
- Parking Management
- Workforce Management
- Citizens
- Environment

Real-Time Predictive Analytics
- Utilizes advanced algorithms & machine learning capabilities.
- Proactively anticipates urban challenges.
- Enables pre-emptive decision-making.
- Reduces response time in critical situations.

Cross-Domain Integration
- Seamless integration of data from multiple domains.
- Holistic insights for effective urban management.
- Cross-sector collaboration enabled for better decision-making.

Intelligent Resource Optimization
- Real-time data analysis optimizes resource allocation.
- Minimizes wastage & maximizes efficiency across city services.
- Leads to cost savings & improved sustainability.

Proactive Risk Mitigation
- Advanced risk prediction and early warning system in ICCC.
- Identifies potential threats in advance (floods, traffic congestion, etc.).
- Enables authorities to take preventive measures and ensure citizen safety.

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Case Study

Key Challenges

- **Information spread** across applications
- **Limited collaboration** between institutions
- **Reactive and sporadic** city management

NEC Solution

- Implementation of the **Lisbon Intelligent Management Platform**
- Collects, stores and analyzes data sources via AI, IoT and open APIs
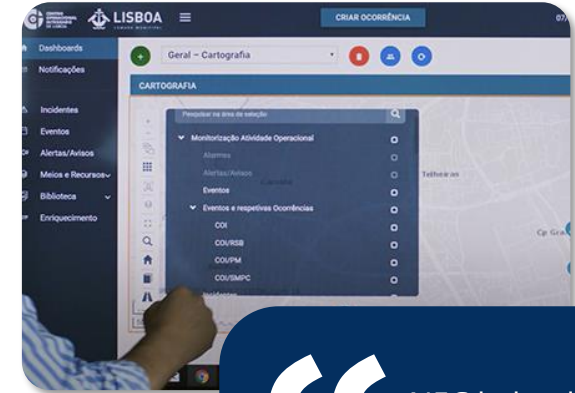- Open architecture platform

Impact Delivered

Efficient Management of the city operations

Improved Air Quality

Reduced Traffic Congestion

Improved emergency response times

> NEC helped Lisbon Council aggregate, manage and optimize data from internal information systems and 30+ public and private institutions to improve transport safety, resource management and sustainability.
>
> **NEC Solutions Smart City, Region Portugal**

Links
https://www.nec.com/en/case/lisbon_council/index.html
https://www.youtube.com/watch?v=fEcy8q_642s

Case Study

Smart City, Takamatsu

Wide Area Disaster Management platform with FIWARE technology - supports prompt decision-making through situational analysis on integrated data source.

Platform shared among **3 Local Municipalities**

Key Challenges

- **Decision-making takes longer time** as no real-time data collected for flood monitoring
- **No shared disaster management platform** and limited information sharing among cities

NEC Solution

- **Real-time data collection** to support better understanding of disaster situations
- **Integrated data collaboration platform** for wide-area disaster management among three municipalities

Impact Delivered

Higher precision and real-time understanding of the situation

More appropriate and timely decision-making for evacuation order announcements to residents

Prompt and inter-operatable information collaboration among the cities

> Takamatsu was the first city in Japan to introduce FIWARE, implemented by NEC and move forward to fully leverage IoT. It has now become a highly visible reference in Japan attracting the attention of many other Japanese municipalities.
>
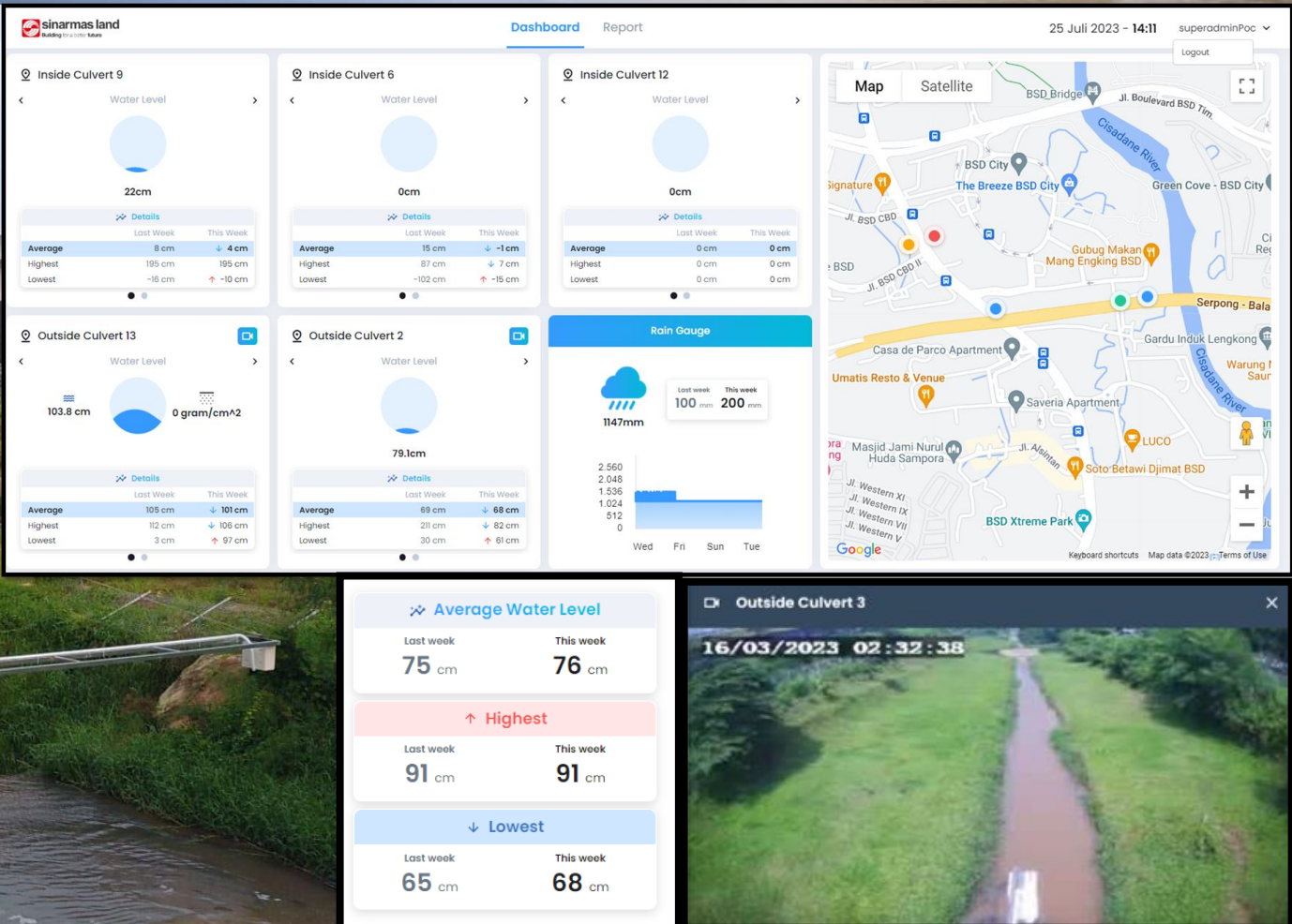> **NEC Solutions Smart City, Region Japan**

Links
https://www.nec.com/en/global/csr/eco/pdf/2020_02.pdf
https://jpn.nec.com/techrep/journal/g18/n01/180106.html

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Mi-CITY Citizen Engagement Portal

Discover . Connect . Empower

Unleash the Power of Citizen Engagement for a Resilient and Secure Future

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Mi-Command

Single, Unified Platform for Efficient City Operations

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Mi-Eye

Mi-Eye

Unlocking the Full Potential of your Surveillance system for Enhanced Decision - Making through End-to-End Video Analytics

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