

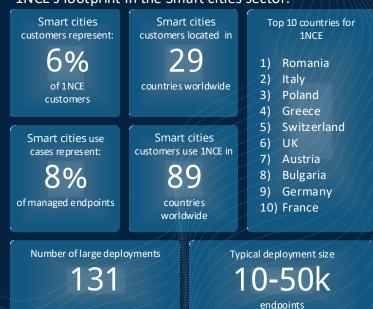


# Smart Cities sector is a growing IoT industry requiring global coverage

Relevance of smart cities use cases for the IoT market



1NCE's footprint in the Smart cities sector:



Sources: Market data courtesy of Transforma Insights, 1NCE Customer Insights
As of Jan 2025, 1NCE served 23,000 customers of which 6% are active in the smart city sector.
Common use cases supported are car and micromobility sharing, smart parking, street lighting, waste management, etc.

# 6% of our customers are building solutions in the Smart City sector, including environmental and equipment monitoring

Customers %		Typical applications		Selected customers	
Utilities	20%	<ul><li> Electricity meters</li><li> Gas meters</li></ul>	<ul><li>Water meters</li><li>Leak prevention</li></ul>	Network monitoring     Smart grid	Scast4all
Infrastructure	8%	Remote Maintenance for elevators	<ul><li>Solar Energy Monitoring</li><li>Charging stations</li></ul>	Water and heating metering	OCEA OLOXAM
Logitics	7%	<ul><li> Asset tracking</li><li> Temperature monitoring</li></ul>	<ul><li>Telemetry for vehicles</li><li>Geo-fencing</li></ul>	Cold-chain monitoring	blulog V Trackting
Automotive	17%	<ul><li> Usage based insurance</li><li> Road-charging</li></ul>	<ul><li>Fleet management</li><li>Car sharing</li></ul>	<ul><li>Stolen vehicle recovery</li><li>Fuel level monitoring</li></ul>	VIMCAR OTARGA
Industry	9%	<ul><li>Oil monitoring</li><li>Industrial automation</li></ul>	<ul><li> Tank monitoring</li><li> Equipment monitoring</li></ul>	Industrial sensors	metasphere
Agriculture	7%	• Remote analysis of bee colonies	<ul><li>Pest control</li><li>Yield monitoring</li></ul>	Geofencing and alerting	FARM eMitter
Smart Cities	6%	Cost and energy reduction	Water leakage monitoring	• Elevator management solutions	<b>⊕</b> FLASHNET convadis
Healthcare	2%	<ul><li>Health monitoring</li><li>Refrigeration monitoring</li></ul>	<ul> <li>Cleaning monitoring (hotels)</li> </ul>	Digital signage	Zenicor DEFENDER
Consumer	7%	Indoor Wellbeing Monitoring	• Professional Coffee Machines' Monitoring	<ul> <li>Energy consumption monitoring</li> </ul>	Sentinum Switchee
Retail	1%	<ul> <li>Vending Machines</li> <li>Monitoring</li> </ul>	Payment Processing		CASYOPE

# Key IoT use cases in Smart cities

### **Car Sharing**

Car and micromobility sharing services use IoT to enable efficient tracking, management, and user access through connected vehicles. Sensors provide realtime data on vehicle location, usage, and battery levels, while cellular connectivity solutions help to deliver this data to cloud services and apps.



### **Smart Parking**

Smart parking powered with IoT solutions helps to remotely monitor parking space occupancy, providing real-time information to both users and owners. Sensors in parking spaces detect vehicle presence, while the delivered data enable space optimization, improve traffic flow and dynamic pricing.



### **Street Lighting**

IoT-based smart street lighting systems contribute to public safety and energy efficiency by using sensors, adaptive brightness, and remote control. They can automatically adjust illumination based on time, weather, or activity, reducing energy consumption and costs.



## Key IoT use cases in Smart cities

### Waste Management

Smart waste management solutions use IoTenabled sensors and data analytics to optimize collection routes and monitor bin levels in real time. This reduces operational costs, minimizes environmental impact, and improves service quality. Advanced systems also enable waste sorting and recycling for more sustainability.



### **Road Traffic Monitoring**

Road traffic monitoring encompasses diverse services associated with road infrastructure, such as road condition monitoring, congestion charging, road tolls, traffic volume monitoring, road signs, traffic lights, and enforcement cameras.



### **Environmental Monitoring**

Smart environmental monitoring uses IoT connectivity and software to monitor and optimize environmental factors like temperature, CO2 levels, noise, and air quality. Sensors collect real-time data, enabling systems to adjust conditions for better energy efficiency, health, and sustainability.

# Overview of players with traction in the market

### Key players in Smart Street Lighting

Player	Logo	Location	Description	Website
Signify	(S)ignify	Netherlands	Connected LED lighting systems for street lighting	<u>Link</u>
Schréder	Schréder Excets in Aghtsky Hy?	Belgium	Adaptive lighting systems that adjust brightness	Link
Lucy Zodion	Ency Zufon	UK	Intelligent urban lighting controls and management	<u>Link</u>
Flashnet (Lucy Group)	S FLASHNET	Romania	Advanced lighting control and cloud-based management	Link
TVILIGHT	TVILIGHT	Netherlands	Real-time light control based on movement	Link
Ubicquia	ubicquia	USA	Streetlight control systems like UbiCell & UbiHub	Link
Quantela	Quantela	USA	Al-powered automation solutions for street lighting	Link

# Overview of players with traction in the market

### Key players in Waste Management

Player	Logo	Location	Description	Website
BH Technologies	BH	USA	Solutions for waste collection routes optimization	<u>Link</u>
Bigbelly	₿igbelly	USA	Smart waste and recycling services	Link
Bintel	bintel 🗘	Australia	Waste monitoring systems provider	<u>Link</u>
Dingtek Technology	CNDINGIEK	China	Intelligent waste bins and collection systems	Link
Ecube Labs	) CUBE	South Korea	Solar-powered compacting bins provider	Link
Roadrunner	ROADRUNNER	USA	Fully-managed waste and recycling services	<u>Link</u>
Evreka	# evreka	Turkey	Intelligent waste management software	Link

# Overview of players with traction in the market

### Key players in Environmental Monitoring

Player	Logo	Location	Description	Website
Aclima	ACLIMA"	USA	Hyperlocal air quality monitoring	<u> Link</u>
Airly		Poland	Real-time air pollution monitoring	Link
Clarity Movement	€clarity	USA	Al-powered air quality monitoring networks	<u>Link</u>
Breeze Technologies	BREEZE Det Promotogies	Germany	Al-driven air quality sensors and data analytics	Link
Oizom	OIZOM REDEFINING RESOURCES	India	Environmental monitoring for tracking air quality	Link
Vaisala	VAISALA	Finland	Environmental sensors for air quality monitoring	<u>Link</u>
Libelium	শু libelium	Spain	Sensor networks for real-time air pollution tracking	Link

# Players 1NCE is supporting in the field

Player		Use Case	More info
Cocoparks	cocoparks	Curb management platform and Cocospots – small detectors designed for easy installation on lampposts	<u>Link</u>
Embever	EMBEVER <>	A platform for connecting low-power IoT devices with customers on board like Deutsche Bahn and VISIO/ONE	<u>Link</u>
Flashnet	S FLASHNET	Maintenance of street lighting infrastructure often via walk-by and re-actively (fixing after problem occurs)	Link
Ecomesure	ECOMESURE	Air monitoring in public spaces, industrial sites, and other environments	Link
Fahfon Sence	FAHFON	An all-in-one station measuring 17 parameters, i.e., rain, humidity, wind speed / direction, pressure, light, UV index, PM1, PM2.5, PM4, PM10, and CO2.	Link
iotech	iotech	The secure distribution of COVID-19 vaccines; environmental monitoring	Link
Sensoneo	((SENSONEO))	Waste management across the large number of bins in real-time	Link
Pixoo	PIXOO	IoT-based monitoring in stores, offices, and accommodation facilities	Link
Powerdot	pwdt	Developing and operating electric vehicle (EV) charging infrastructure	Link

## Understanding the roles of players along the value chain

Creating connected products in the Smart City industry means to maneuver through the IoT ecosystem

Sensor Manufacturer



IoT Device Manufacturer



OEM manufacturer



System Integrator



Solution Provider



Building components measuring environmental data such as:

- Traffic flow
- Air quality
- Noise levels
- Waste levels
- Pedestrian movement
- Weather conditions
- Etc.

Putting together required technical components such as:

- Chipset
- Modem
- Sensors
- Battery / Power

Line production and integration of IoT devices into assets:

- Smart street lights
- Smart parking solutions
- · Connected waste bins
- Environmental monitoring stations
- Etc.

Specialized in bringing software and hardware components together:

- Hardware design
- Connectivity design
- Cloud integration
- Software enablement

End-to-end owner of the solution, focus on selling and servicing:

- City government partnerships
- Infrastructure development contractors
- Smart City-as-a-Service
- Etc.

# 1NCE has a dedicated offering for Smart Agriculture

	Typical customer requirements	Standard offerings	1NCE Offering
Pricing	<ul><li>Single SKU</li><li>Cost transparency</li><li>Often only low data use cases</li></ul>	<ul><li>Multiple suppliers for each region</li><li>Monthly fees, overage charges</li><li>Data selling focus, high data preferred</li></ul>	<ul> <li>✓ All-in-1: \$15/10 years of service</li> <li>✓ Transparent: no monthly fees</li> <li>✓ Lifetime Flat: 500 MB, 250 SMS</li> </ul>
Coverage	<ul><li>Global coverage</li><li>Support of LPWA technology</li><li>Multiple network and operator switch</li></ul>	<ul> <li>Country group pricing, zoning</li> <li>No or limited NB-IoT and LTE-M support</li> <li>Different SIMs for different regions</li> </ul>	<ul> <li>✓ 173 countries coverage; no zoning</li> <li>✓ +50 LPWA networks supported</li> <li>✓ Global SIM with eUICC support</li> </ul>
Service	<ul><li>Device Management</li><li>API support</li><li>Interoperability</li></ul>	<ul> <li>Device Mgmt not included</li> <li>API use not available or at high cots</li> <li>No compatibility with 3rd party software</li> </ul>	<ul> <li>✓ Included in 1NCE OS</li> <li>✓ All functions exposable through API</li> <li>✓ Can be natively used with 1NCE Plugins</li> </ul>

# We bring your data from the sensor to the cloud



### **1NCE Platform**

### Connect

- 500 MB
- 250 SMS
- 173 countries
- VPN / APN
- Data Streamer

#### OS

- Cloud Integration
- Location Services
- Energy Saver
- APIs
- Device SDKs

\$15 for 10 years









Sensor Data

### Our 1NCE Lifetime Flat is the new standard in IoT

#### 1NCE IoT Lifetime Flat 10 years of service including: **1NCE OS 1NCE Connect** • 500 MB Cloud Integrator • 250 SMS Device Locator Energy Saver • 173 countries coverage • Device Authenticator Open VP N • API Usage & APN Device Inspector • Device SDKs and Blueprints Data Streamer • LwM2M Service Monthly data limits • Device Controller • IMFI Lock · Freedom to Switch • 3 months grace period Access to Developer Hub (Documentation) One time fee: \$15.00



- Already covers all requirements for most IoT uses cases
- Already sold to 23,000+ customers in 100 countries
- ✓ Widely used across all industries and verticals
- ✓ No minimum order quantities\*



- Add-Ons trusted by 4,000+ advanced users
- Co-developed with and for customers

### About 1NCE

### Fast



23,000+ customers won in 7 years

400+ team across Europe. Asia and US

30 million managed endpoints



+100% year on year average growth

"1NCE launched its flat rate life-time connectivity offering for connected devices in 2018 and has achieved unparalleled growth in the past two vears."

Johan Fagerberg, CEO, Berg Insight

### Strong

- Global access under a strong a family of local network operators
  - Deutsche Telekom AG - EU
  - T-Mobile US - USA
  - SoftBank Asia
  - 4 中国电信 China
  - Claro-Claro
  - Bell Bell

### Everywhere

Can be used for multiple IoT applications











Smart

Buildings











Tracking

1NCE is a company offering a software platform for connected products that delivers future-proof, hassle-free IoT in 173 countries and regions. The software platform enables customers to easily, securely and reliably collect device data and turn it into actionable intelligence. This accelerates time-to-market for data collection projects by months, increases device lifetime by years, and allows efficient management of sensors from initial deployment to the end of the product lifecycle. More than 23,000 users and 60 Fortune 500 companies trust 1NCE with 30 million connected products worldwide.

# Explore More about 1NCE







Stay up to date with us on Social Media

