

# IOT FROM THE NORTH

THE FASTEST ROUTE TO IOT

IOT-TICKET®

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# IOT-TICKET® BROUGHT TO YOU BY WAPICE LTD.

IoT-TICKET® is part of **Wapice Ltd.**, a **Finnish** IoT and AI company, **established in 1999**. Headquartered in Vaasa, having 10 offices in all largest cities in Finland, and Wapice employees 350+ IoT and AI experts. Wapice serves both local and global companies.

IoT-TICKET® service is developed and offered according to standards of ISO 9001, 14001 and 27001 certifications.



# SO, WHAT IS IOT?

Because I am IoT nerd, I asked ChatGPT to generate generic description of IoT

## THE INTERNET OF THINGS (IOT)

- The Internet of Things (IoT) is a vast network of interconnected devices embedded with sensors, software, and connectivity.
- These devices collect and exchange data over the internet, enabling them to interact with the environment autonomously or under human supervision. IoT connects previously unconnected objects, enabling seamless communication and collaboration.
- It facilitates data gathering, smart automation, efficiency, and sustainability. However, security and privacy considerations are essential.
- The future of IoT holds limitless possibilities with advancements in connectivity, computing, and AI, paving the way for a more connected, efficient, and intelligent world.



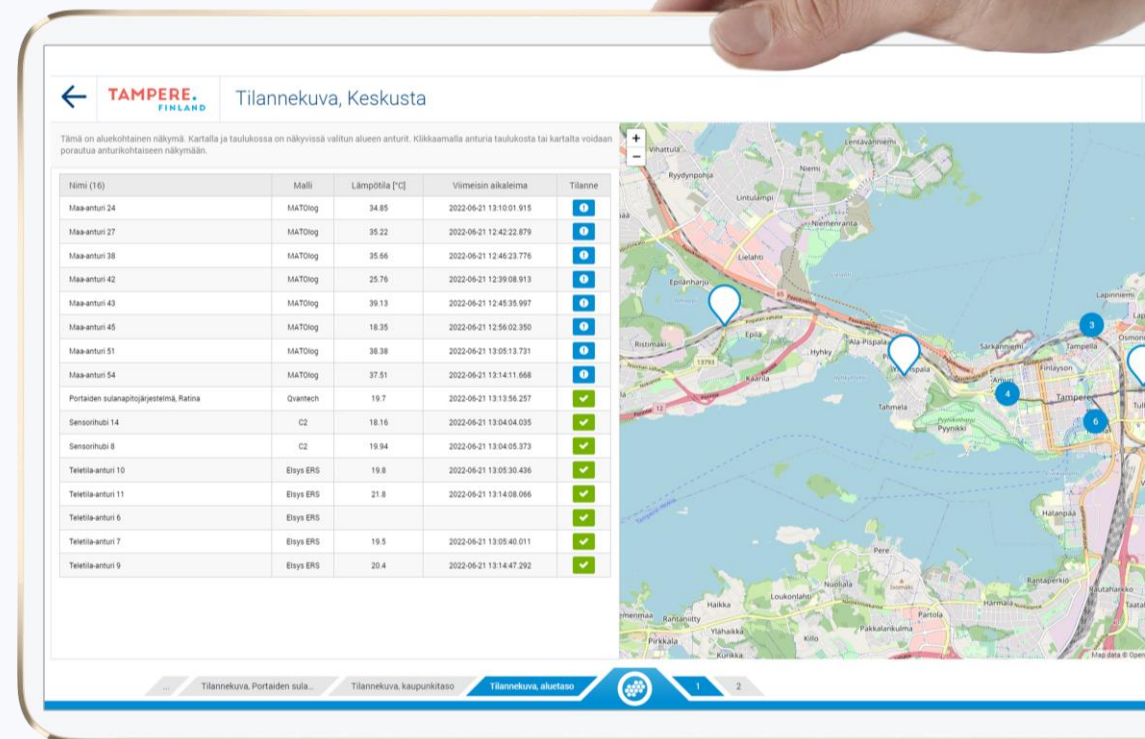
# THIS IS IOT-TICKET®

**IoT-TICKET®** is innovative, subscription based Nordic IoT and AI platform, designed for creating market ready solutions within minutes and without a single line of code.

It is the most advanced IoT software and service, which is scalable from specific use cases to massive scale projects, servicing customers from medium sized companies to global corporations.

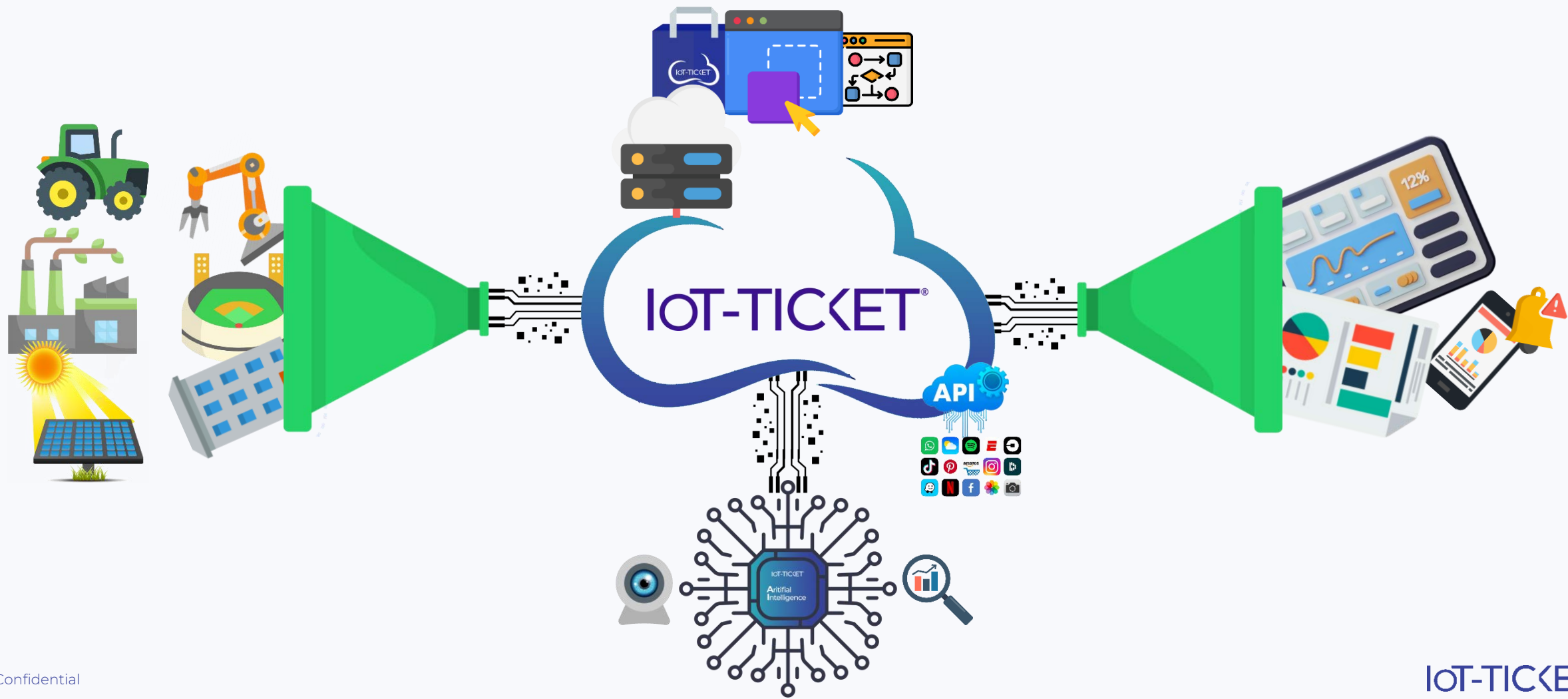
## THE FASTEST ROUTE TO IOT & AI

- 🕒 Award winning, **easy to use** Low-code - no-code platform where **anyone can create** massive scale, AI enabled IoT solutions **stunningly fast**. Offering **major cost savings** and **faster time-to-market**.
- 👥 **Concentrate on business development** instead of software and **harness your employees domain knowledge** to drive innovations, without heavy R&D, infrastructure and project management costs.
- ☁️ Offered as monthly subscription model from secure IoT-TICKET® cloud or deployed as on-premise installation from customer premises, and integrates directly into your existing ecosystems.



# IOT-TICKET®

CONNECT ANY DATA, RUN ANYWHERE



# GLOBALLY AWARDED SOLUTION

IoT-TICKET® has won **Microsoft Global Application Innovation Award**, being the only Nordic brand having the award.

IoT-TICKET® is a Microsoft supported cloud service.



**TAMPERE.**  
**FINLAND**

**IoT-TICKET<sup>®</sup>** for **smart cities**

# TAMPERE. CASE STORY

## FINLAND



### CUSTOMER INTRO

- The largest inland city in the Nordic countries
- Over 500 000 inhabitants in Tampere region
- Centre of Finnish industry
- One of the most rapidly developing regions in Finland



### SOLUTION

- IoT-TICKET® as city wide IoT-platform solution
- Outdoor lighting control system and urban environment sensing
- Data ecosystem for companies, R&D and education to work together
- Marketplace for IoT apps and data
- Citizen development enabler



### KEY RESULTS

- Support ecologically sustainable change
- Improve the quality of citizens' services
- Automate operations, anticipate maintenance needs
- Information to support planning, decision-making and management
- Innovation platform



## What is it all about?

Data driven decision making in today's modern cities is an enabler for sustainable growth considering environmental and economical impacts. Our offering allows to bring the city data together from any devices to **build holistic view of your city.**

Use **data driven decision making like never before.** When the funds go where they make the biggest difference, everybody wins. You and your citizens.

**See the big picture:** Focus services to where it matters the most and give your citizens easy access through digital applications.

**Measure what matters:** Measure and optimize the energy efficiency and carbon footprint. Analyze and predict maintenance needs.

# smart cities **focus areas**

We offer **market ready IoT, analytics and AI solutions** to enable cities to take the leap towards data driven decision making and automation through combining data and analytics into intelligent market ready service offering.



## sustainable and easy **MOBILITY**

IoT-TICKET® for mobility offer holistic city people flow, traffic and parking management.

Optimize mobility fluency and make local businesses flourish.



## safe and clean **URBAN AREAS**

IoT-TICKET® for urban areas introduces flexible and efficient way to maintain and develop city urban areas.

Optimize the urban area safety, living comfort, carbon footprint, and costs.



## carbon negative and healthy **PROPERTY MANAGEMENT**

IoT-TICKET® for property management offer holistic building fleet management.

Optimize building fleet maintenance and carbon footprint.



## green and flexible **ENERGY**

IoT-TICKET® for energy introduces flexible and efficient way to manage green & flexible energy systems.

Optimize energy production and maintenance.

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Use case example: Nokia arena people flow

# people flow

## case nokia arena: the challenge

- Multipurpose arena
- Host big mass events
- Home of Ice Hockey World Championship 2022 & 2023
- Challenges
  - Enhanced, extended visitor experience
  - Cost efficiency
  - Event safety
  - Urban environment economic growth



sustainable and easy **mobility**

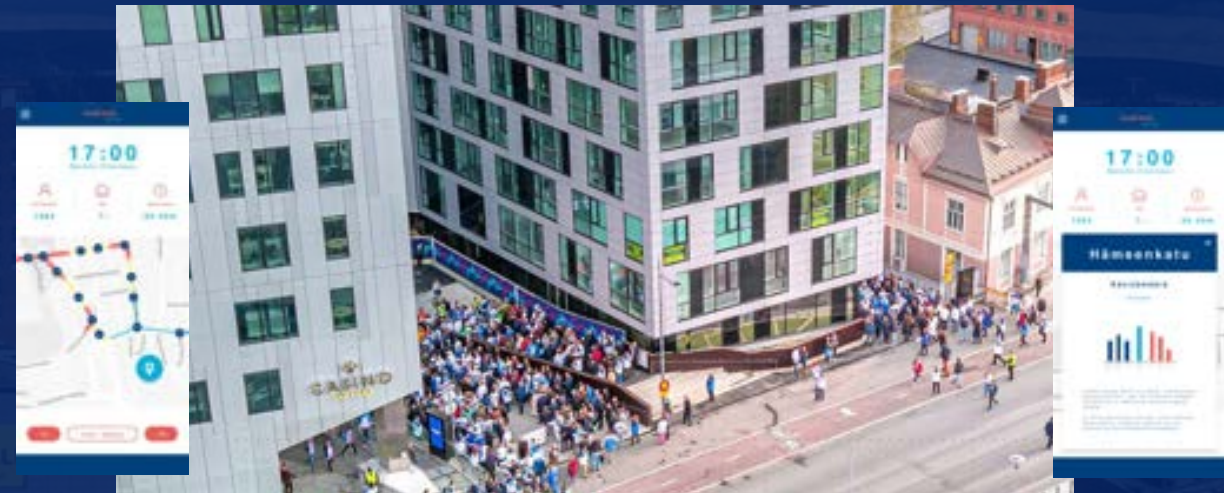
IoT-TICKET®

# people flow

## case nokia arena: the solution

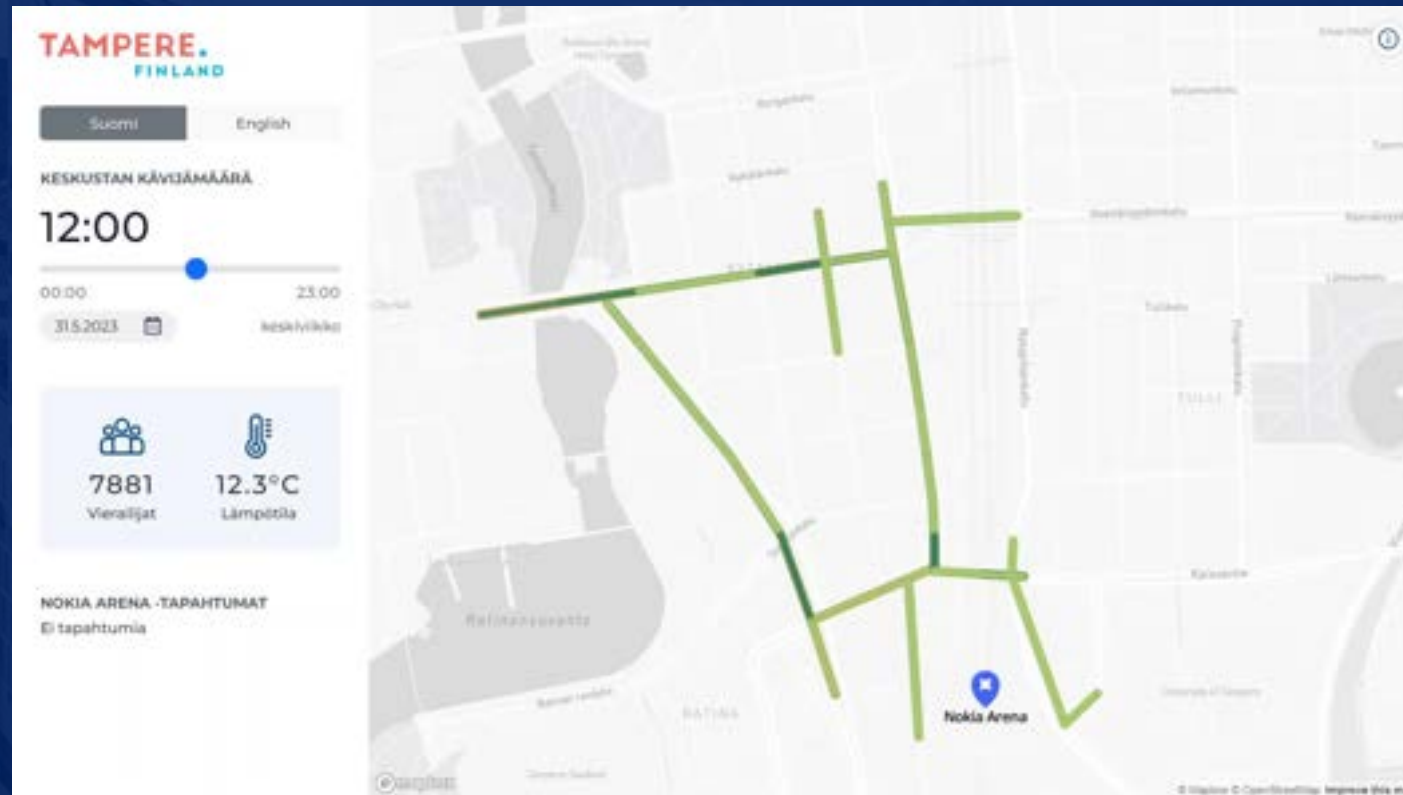
Data driven leadership to

- ⦿ Optimize visitor flow, maximize the event experience, get people to visit the city and the venue again
- ⦿ Real-time leadership, act based on real-time situation
- ⦿ Plan future events, utilize history data for future events
- ⦿ Measure the change ROI, by data comparison
- ⦿ Data driven pricing, for advertisement and rents
- ⦿ Help local businesses to flourish with data driven opening hour and staff planning



sustainable and easy **mobility**

# people flow case nokia arena: tampereen pulssi



sustainable and easy **mobility**

# people flow

## case nokia arena: key benefits

Role: Development Manager (facility level)

### Enhanced Visitor Experience:

- ⦿ Optimized visitor flow for reduced waiting times and improved guidance
- ⦿ Create memorable events that encourage repeat visits

### Cost Efficiency:

- ⦿ Efficient cargo flow management to minimize expenses
- ⦿ Increased competitiveness among global event venues

### Data-Driven Leadership:

- ⦿ Improved event planning and forecasting through historical data
- ⦿ Real-time situational awareness for better decision-making and responsiveness

sustainable and easy **mobility**

Role: Urban Growth Officer (city level)

### Economic Growth:

- ⦿ Boost local businesses in event venue neighborhoods
- ⦿ Increase rental and land prices, making the city more attractive

### Extended Event Experience:

- ⦿ Seamless integration of event venues with shops, restaurants, and bars
- ⦿ Enhance visitor satisfaction and overall experience

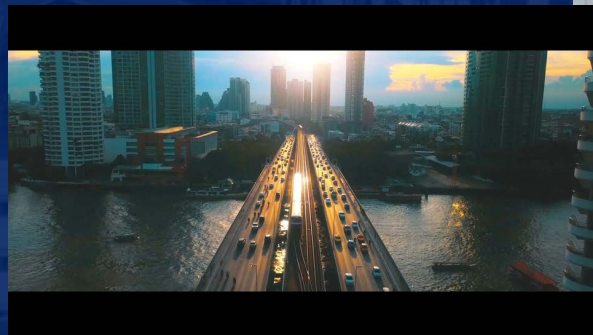
### Sustainable Transportation:

- ⦿ Promote fluid, carbon-neutral transportation options
- ⦿ Reduce emissions and support city's sustainability goals

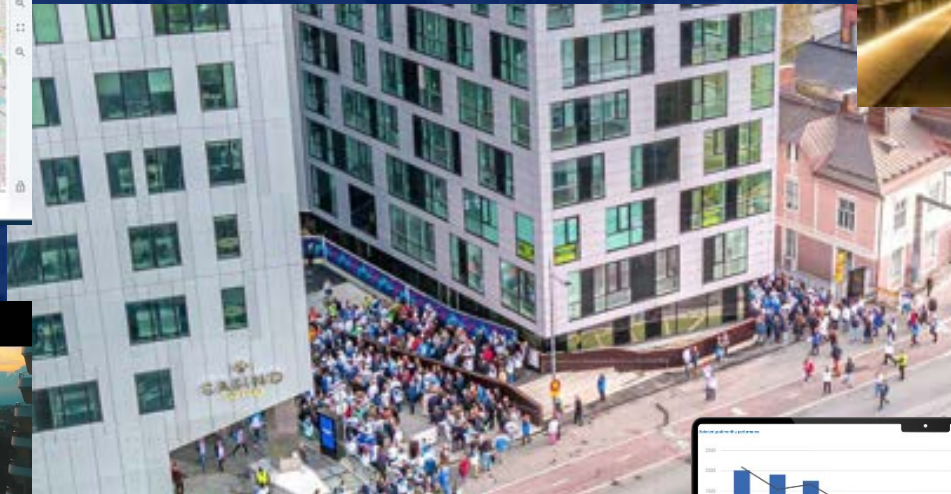
# stretching out from the arena case nokia arena: the opportunities

Lighting management &  
dynamic adaptation

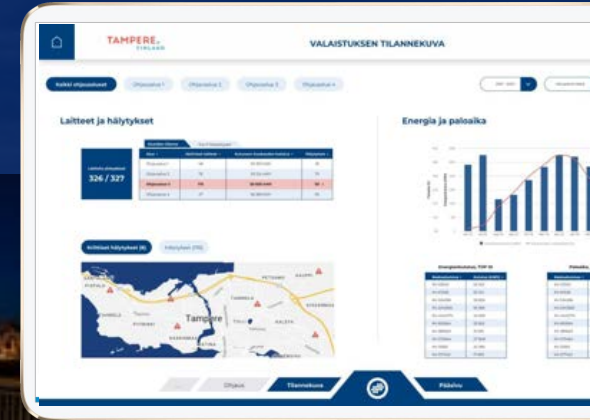
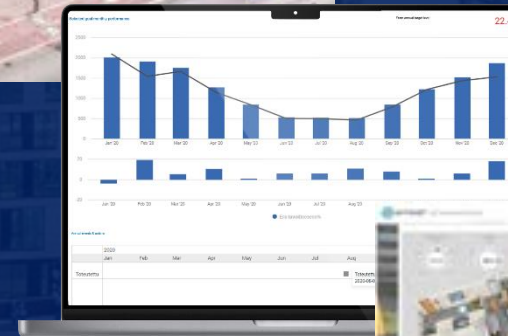
Traffic management



Smart parking and arrival  
sustainable and easy **mobility**



Property management  
& smart buildings





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Use case example: Traffic and parking management

# traffic flow case traffic planning

Access full lifecycle data



Monitor and compare your KPIs

View your mobility areas  
in a glance

Measure change and automate  
reporting

Utilize the power of AI based  
machine vision



Drill down to single area or  
measurement point



# IoT-TICKET® Smart Parking Solutions



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Use case example: Smart Streetlighting



# maintain streetlighting

- ⦿ Optimize city lighting maintenance
- ⦿ Improve citizen experience and urban area safety
- ⦿ Manage multi-supplier lighting control fleet

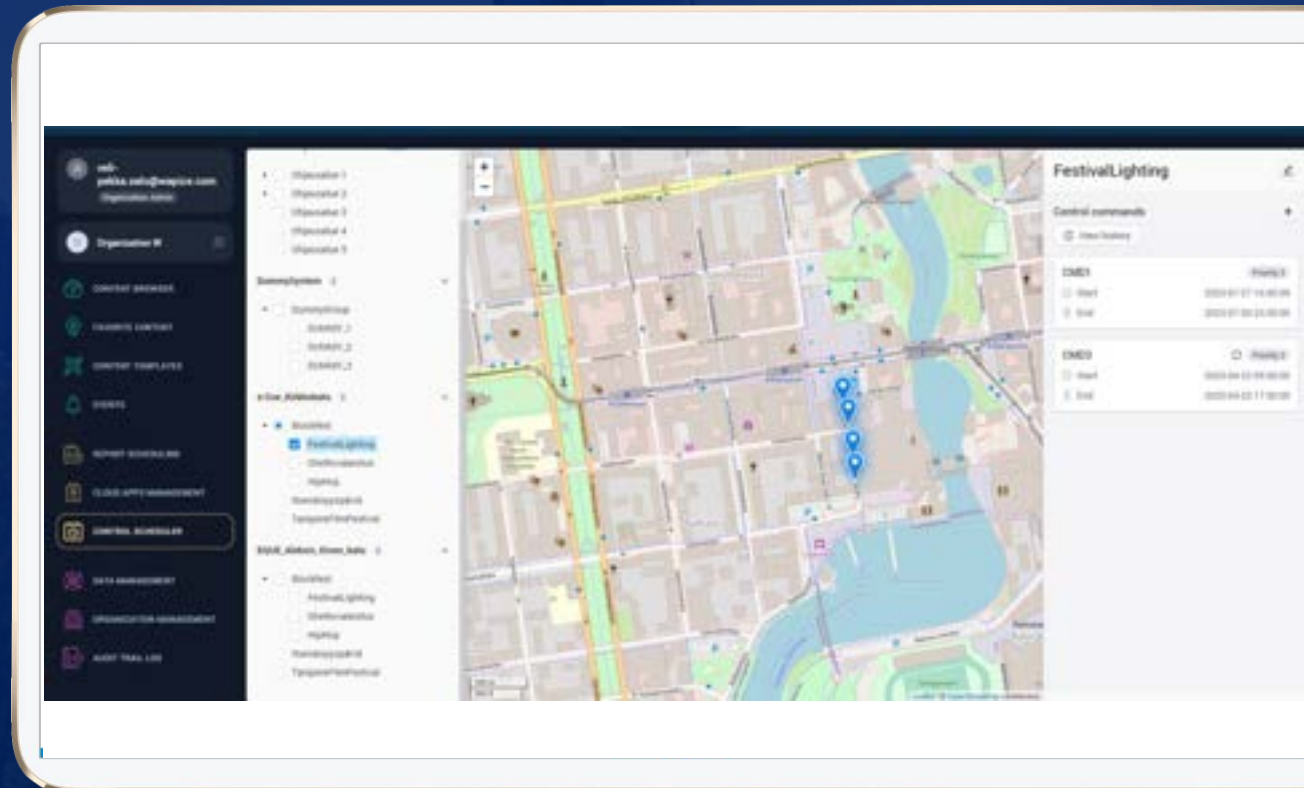


safe and clean **urban areas**



# manage streetlighting

- 🌐 Manage and schedule atmosphere and streetlighting
- 🌐 Enable vibrant city environment events
- 🌐 City lighting event producer and authority control



safe and clean **urban areas**

# dynamic streetlighting with Signify

Lighting Management



IoT-TICKET AI



AI Traffic and  
Weather Insights



interact

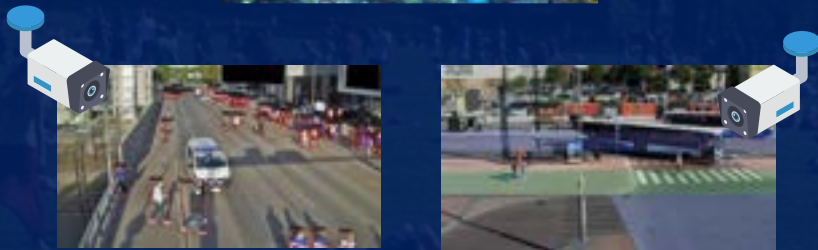
- Lighting system data
- Dynamic lighting control



IoT-TICKET®

Brightsites

- Broadband level wireless connectivity
- Unleash sensing from fibre



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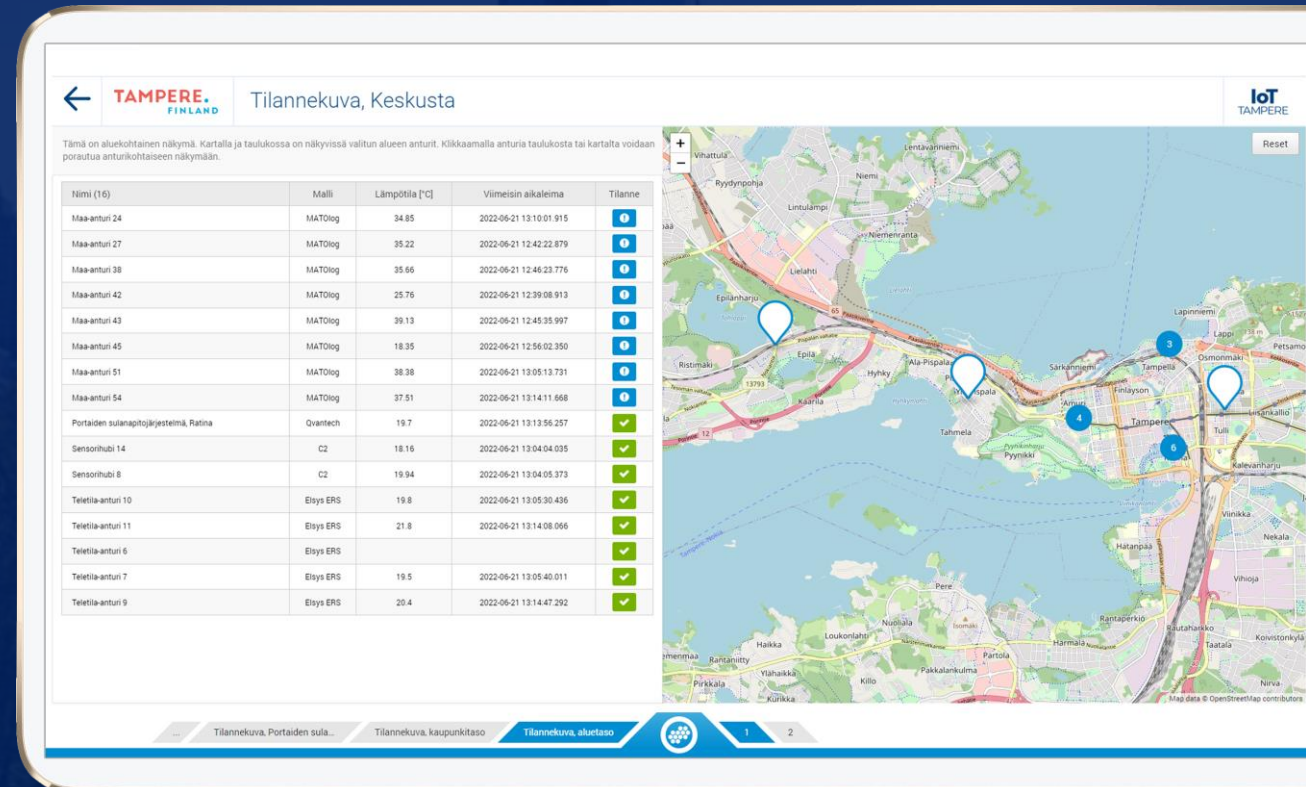
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Use case example: Outdoor maintenance



# maintain urban environment

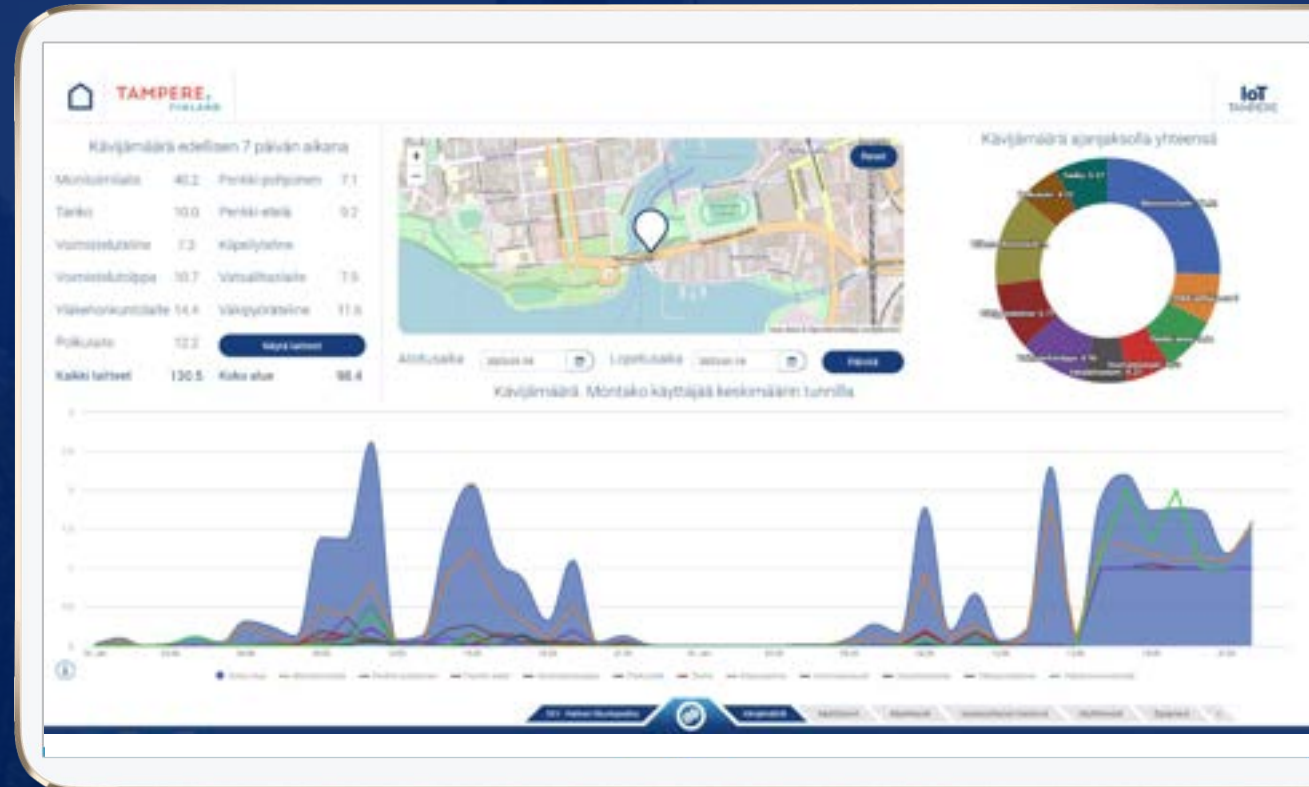
- optimize maintenance costs
- enable safe and clean urban areas for citizens
- data driven planning of urban areas



safe and clean urban areas

# manage outdoor areas

- utilization based maintenance planning
- safe equipment and areas
- visitor forecasts for the citizens



safe and clean **urban areas**



27.3°C

56.7%

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# IoT-TICKET®

Enabling *anybody* to create massive-scale, production-grade  
Internet of Things & Artificial Intelligence applications stunningly fast

IoT-TICKET®

I'M HERE FOR YOU  
**LET'S CONTINUE DISCUSSION!**



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