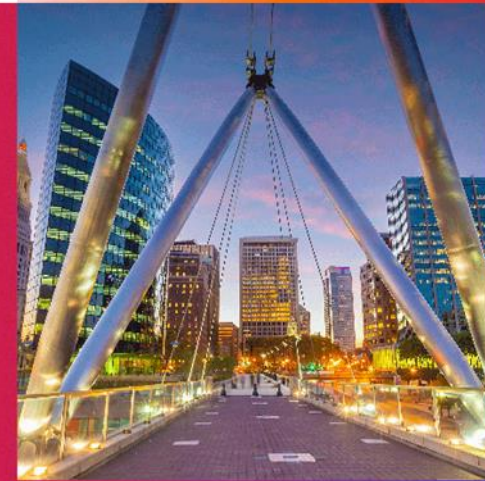


# Cybersecurity for Smart Cities

Dylan Goulooze / Hans Rooden  
30 November 2023



# We are CGI

Founded in 1976  
46 years of excellence

CA\$14.3 billion revenue

91,500 consultants

400 locations in 40 countries

5,500 clients benefiting from  
end-to-end services

Serving 50,000 clients  
through our IP-based  
solutions

## Our expertise is where you are

- Groningen
- Amsterdam
- Amstelveen
- Arnhem
- Rotterdam
- Eindhoven
- Maastricht



**2,500**

staff

**7**

sites

**12**

Industries

Processing of

**40%**

of worldwide foreign-  
exchange payments

Supporting

**200**

space missions

and programs such as  
Galileo, H2Sat and Rosetta

Prevention of

**43m**

cyberattacks

a day on vital military  
and secret service  
networks

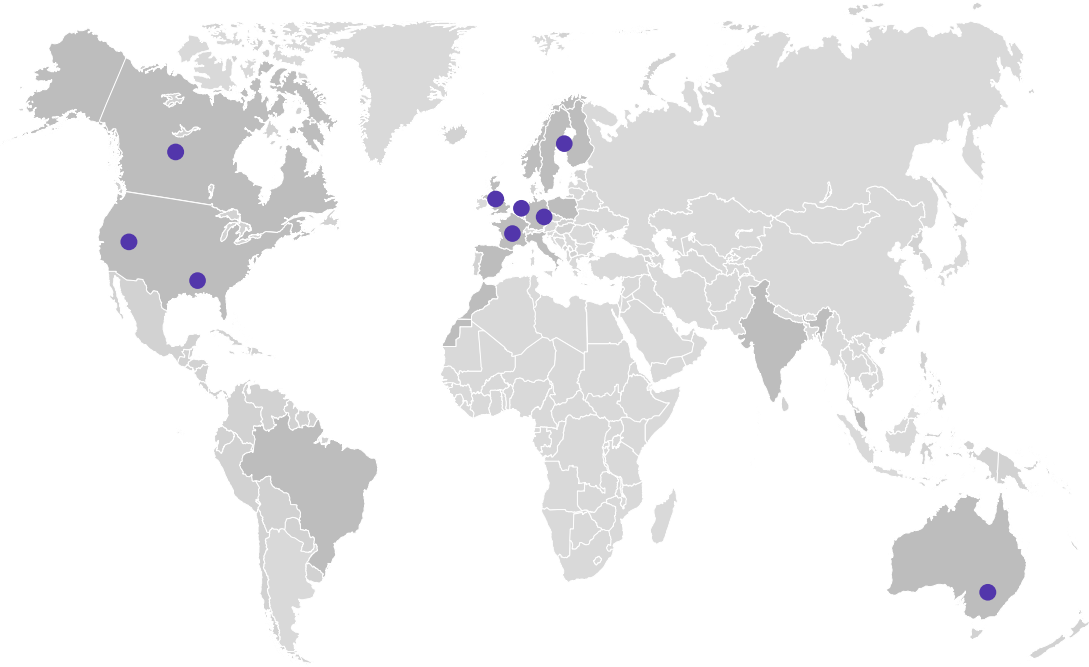
Processing of

**28,000**

train movements

per day

# 40 Years Cybersecurity Services



**1,700+**

Experienced and credentialed security specialists combine their proficiency in best-of-breed tooling and industry-recognized concepts to deliver relevant advice to fit your unique needs

**43 million**

Cyber attacks we protect against each day on military and intelligence networks and infrastructure

**10**

Security Operations Centers globally delivering around-the-clock cyber detection and prevention services to business and government clients

Netherlands

Canada

U.S.A. West

Germany

Nordics

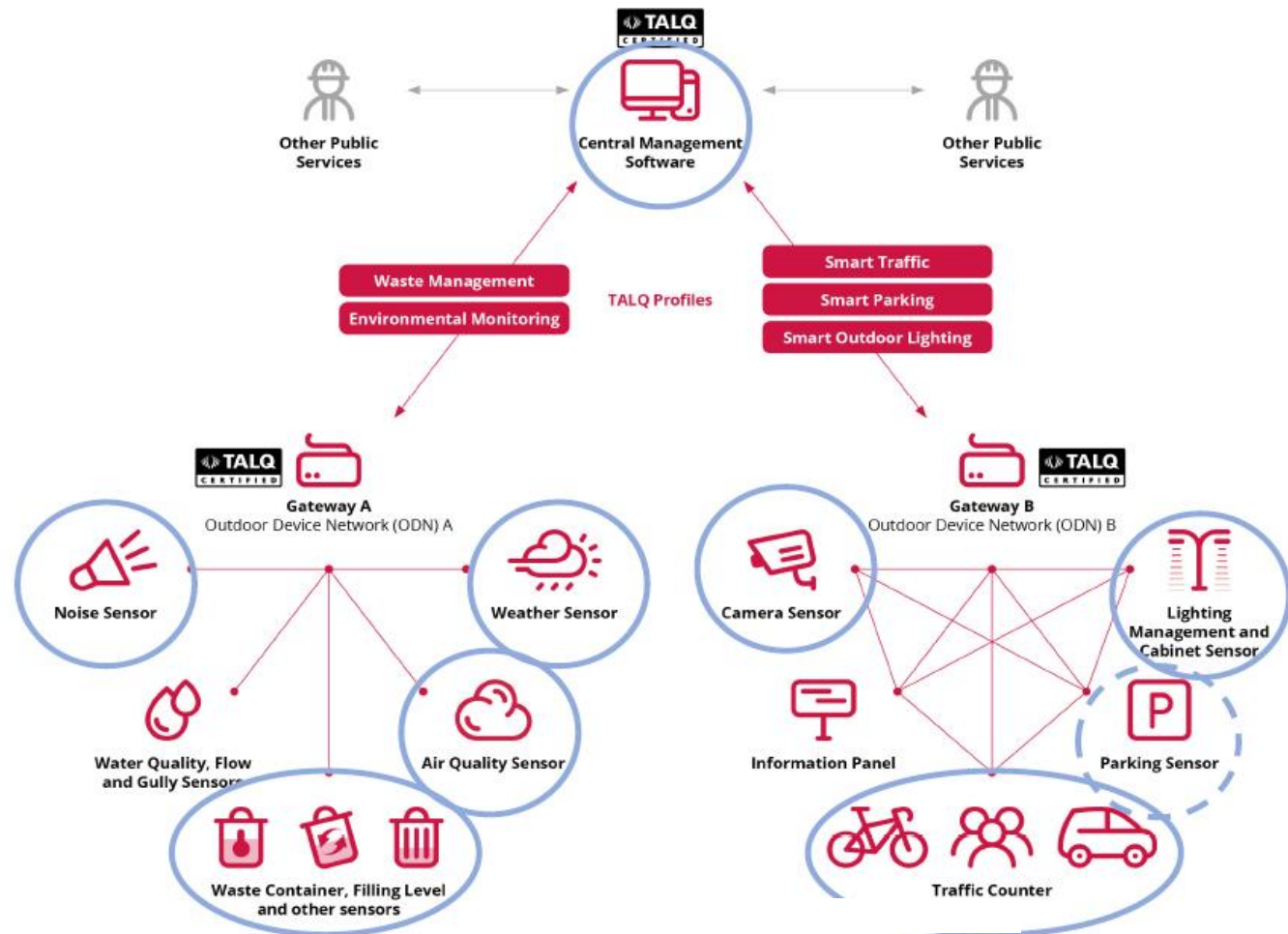
United Kingdom

France

Australia



# IBOR – Innovative solutions for the outdoor space



# Integrated light management on the Dutch highways

RWS, as the Dutch Ministry of Infrastructure and Water Management wants to switch off street lighting during the night and needs an application to switch light on when required (emergencies, weather conditions, etc.)

CGI IBOR (IP) is designed for the management of lighting, pumps, sensors and other remote assets typically used in the outdoor space. With IBOR, luminaires can be switched on for emergencies, bad weather conditions, etc. from operator terminals, tablets and smart phones. Power consumption is monitored as part of IBOR service portfolio as well as the physical state of the roadside cabinets.

## Key benefits

- € 91  
yearly savings per luminaire
- 438 kg  
reduction of CO2 emission
- 2 years  
return on Investment



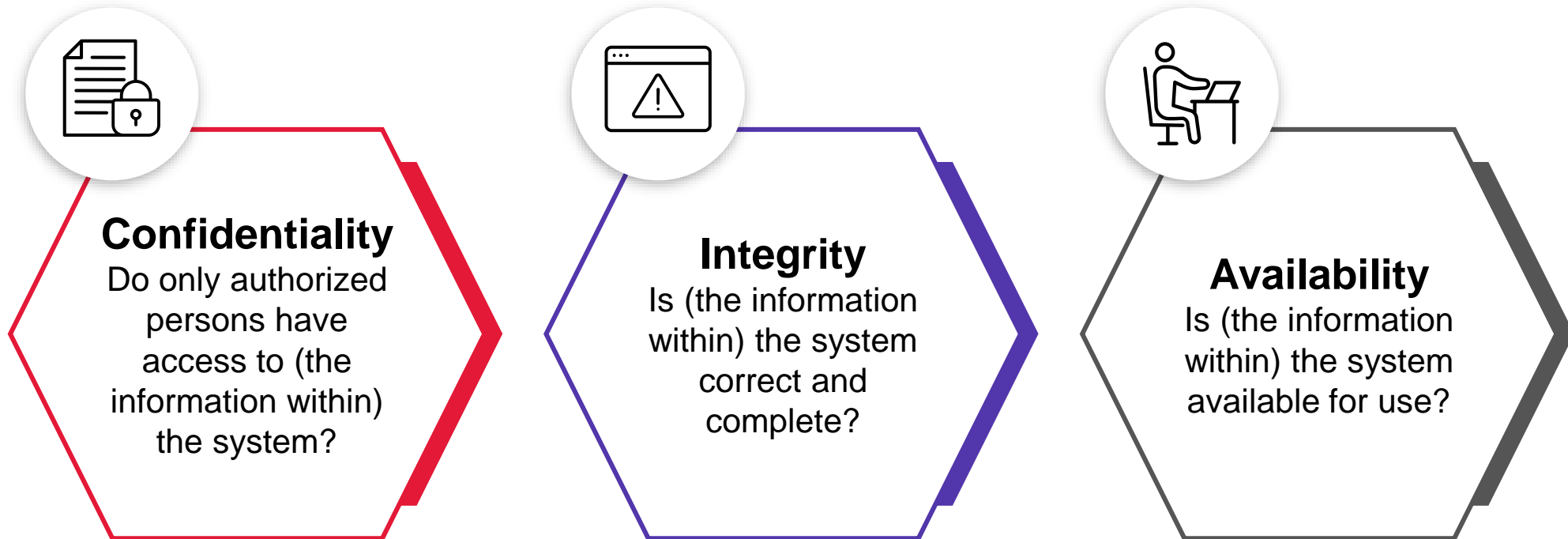
Rijkswaterstaat  
Ministry of Infrastructure  
and Water Management

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**Asset Control, Integration,  
Safety, Cost savings**

Country: Netherlands  
Industry: Government, Utilities

# Information Technology vs Operational Technology



# OT Cyber Security Center of Excellence

## Assessments / NIS2 Compliance

CGI's OT security assessment solution provides insight into all security aspects of a production environment. Our Asset management program provides insights for ongoing predictive maintenance and safeguarding the OT environment.

## Mitigation / Remediation

Based on the findings of our assessment program the mitigation program addresses all required steps from implementation, via governance to monitoring and maintenance of the security dimensions to establish a secured OT environment

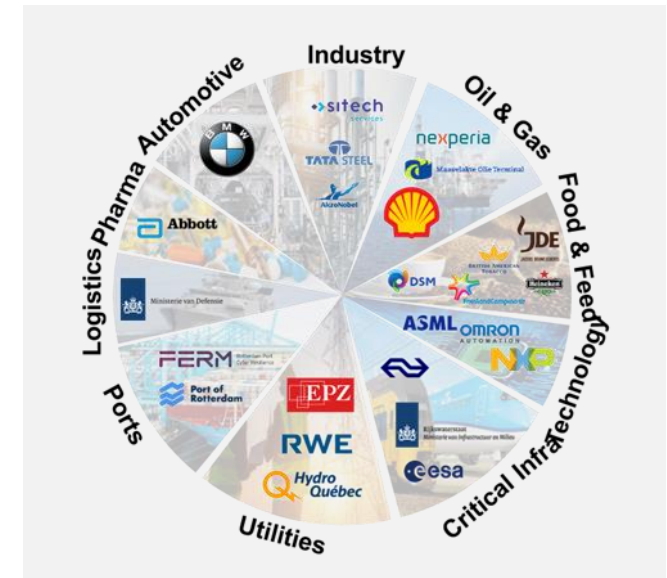
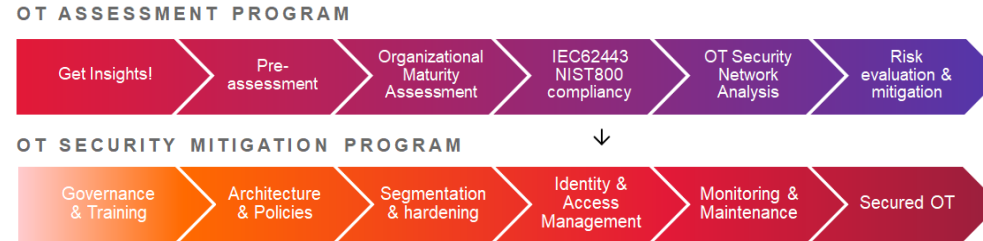
## Security Training and Awareness

A first step of security is being aware of the implied risks. Our security training and awareness support includes e-learnings, awareness videos, testing and content creation. We train our clients to achieve their GICSP certificate.

## Cybersecurity Consulting

We help our clients to get a handle on their risks, build secure outcomes and operate with. Cybersecurity is part of everything we do—we're always working to ensure controls are "baked in, not bolted on." Furthermore, we are running Cybersecurity operations centers across the globe.

Partners:

Typical measurable results:

- › Increased awareness
- › Full OT Security audit
- › Improved cyber resilience
- › Mature OT security operations

CGI accelerators:

- › OT Cyber Security Management Framework
- › OT Reference Architecture
- › Risk Assessment Tool – CREATE
- › Reusable policy & standards templates

# CGI's Nozomi Partnership & Services



## Discovery

CGI uses Nozomi to perform OT asset & network discovery to identify vulnerabilities and visualize the network topology during OT Cybersecurity Assessments

## Implementation

CGI serves its customers with sizing, designing and configuring the Nozomi Scadaguardian and Central Management Console solution

## Monitoring

CGI uses Nozomi as the industry leading tool to monitor business critical environments worldwide, from its Security Operations Centers in The Netherlands, Finland and Australia



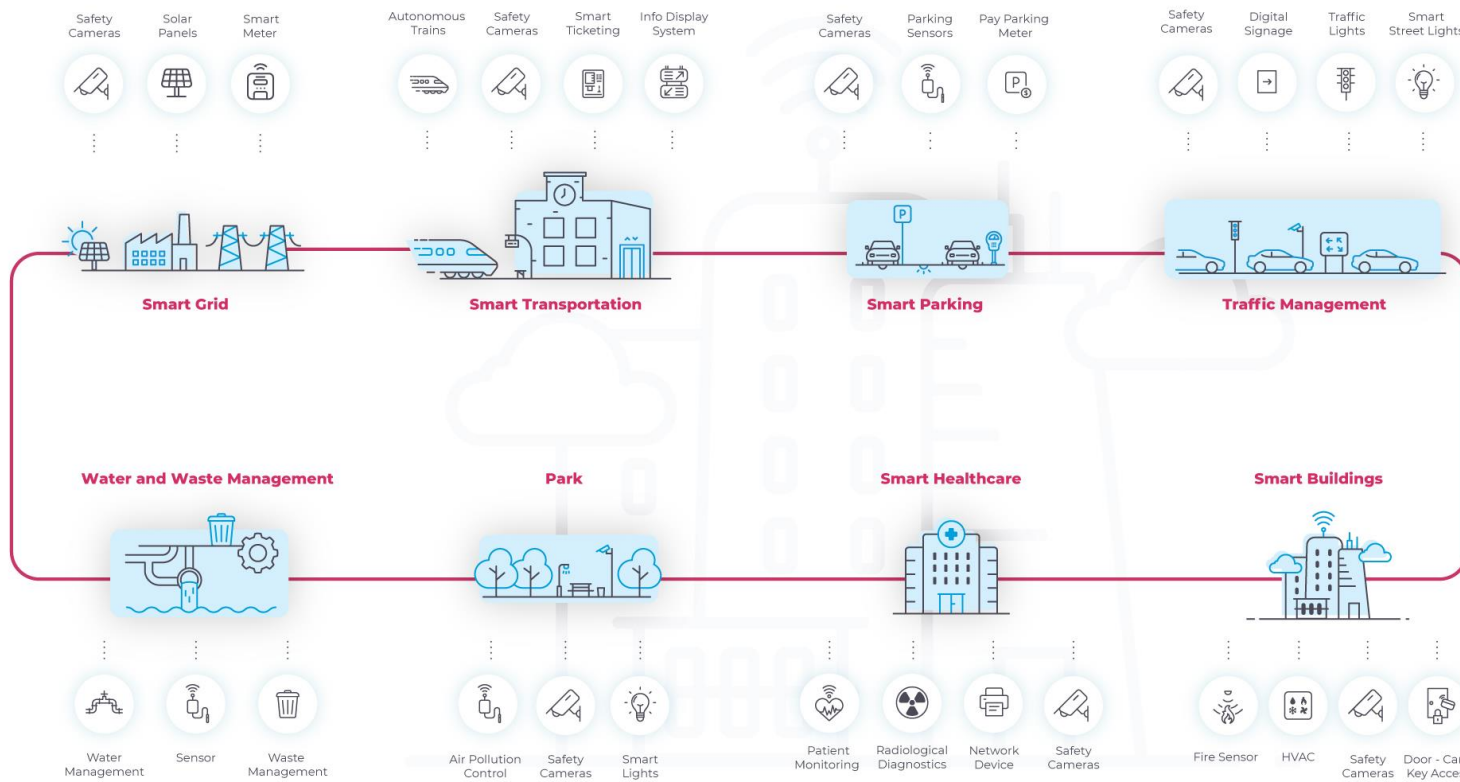


# Cybersecurity for **Smart Cities**



# Intro: Smart City Cyber Security

As smart cities grow more complex and interconnected, they become more vulnerable to increasingly sophisticated cyberattacks. A strong cybersecurity posture begins with asset visibility and coordinated threat defense across services.



# Challenges: Smart City Cyber Security

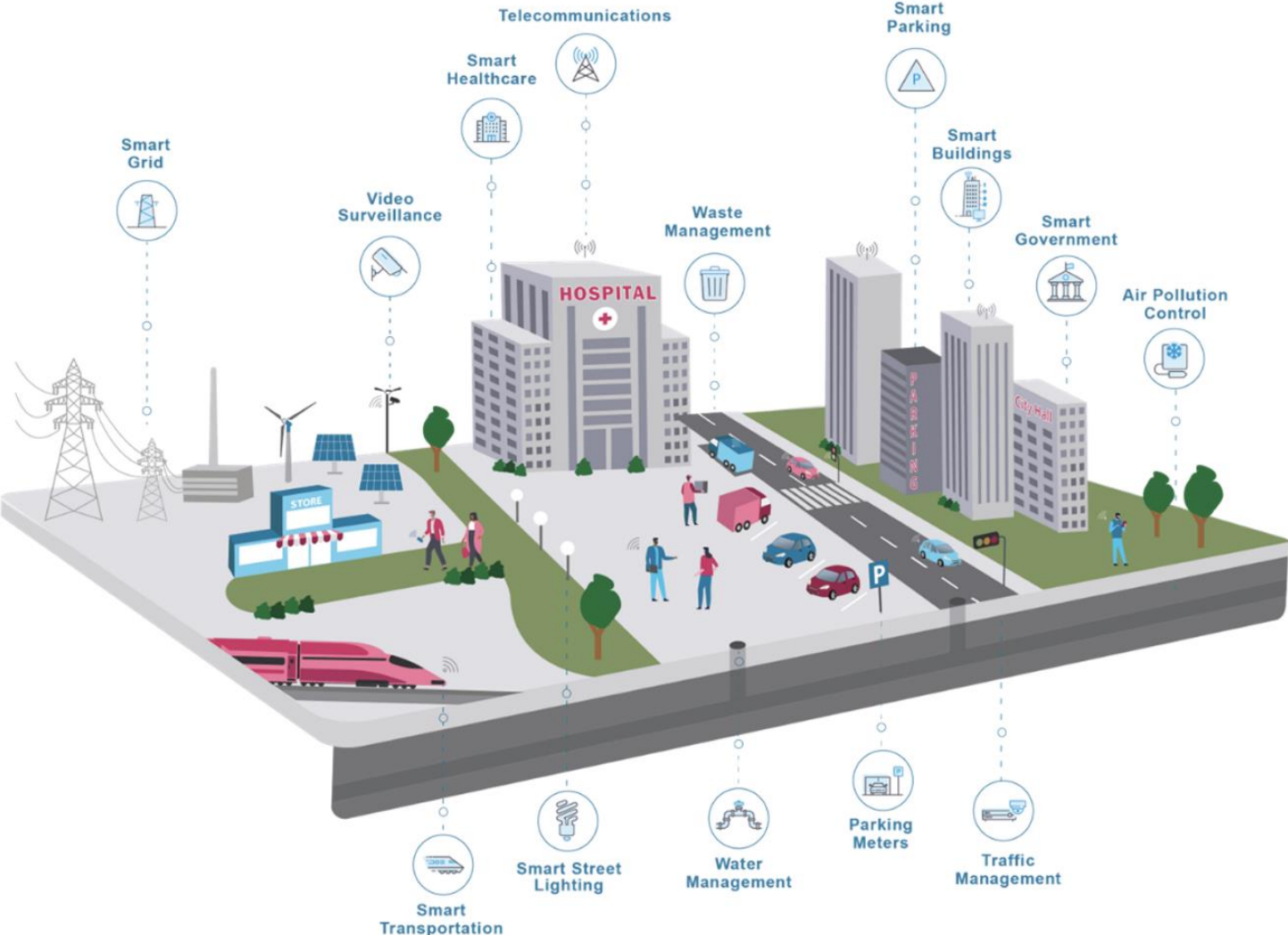
Nozomi Networks covers all smart city systems, from smart grids, metering and transportation to video surveillance and more.

Tracking known vulnerabilities across all assets and devices, and correctly determining patch priorities

Lack of forensic tools to diagnose breaches and identify anomalies

Lack of centralized data aggregation and correlation across services and applications

Need for non-disruptive approach to Zero Trust compliance



Achieving comprehensive visibility of all IoT and OT assets and networks, including their risk exposure

Need of clear identification and prioritization of the threats and risks that threaten security the most

Lack of consolidated information from siloed city networks and sites via one monitoring tool

Pressure to reduce security risk in a constantly changing threat landscape that includes targeted attacks

# Nozomi Networks Key Differentiators



## See

All assets and behaviors on your OT/IoT networks for comprehensive awareness



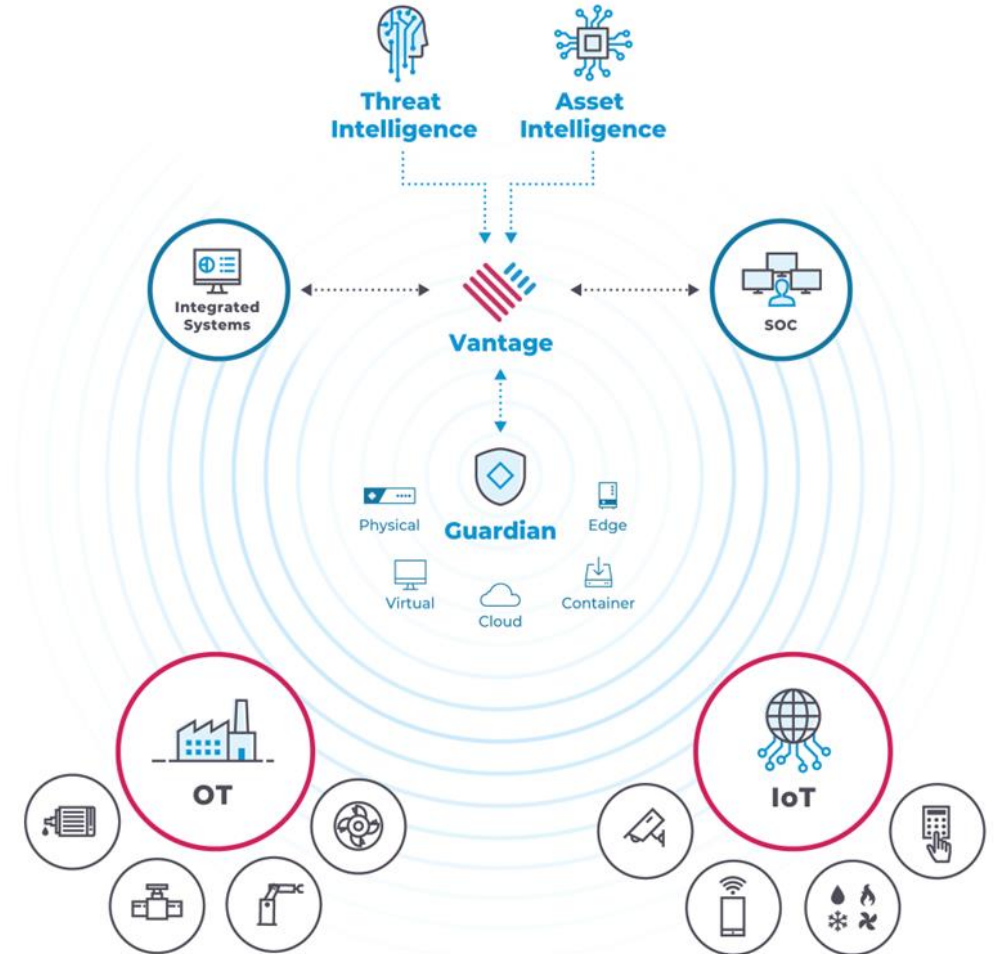
## Detect

Cyber threats, vulnerabilities, risks and anomalies for faster response



## Unify

Security, visibility and monitoring across all your assets for improved operational resilience





# Thank you

CGI & Nozomi

# More information on NIS2

The following blogposts provide more insights on NIS2:

- [NIS2: cybersecurity tot in de boardroom | CGI NL](#)
- [NIS2: het gras is altijd groener bij de burens | CGI NL](#)