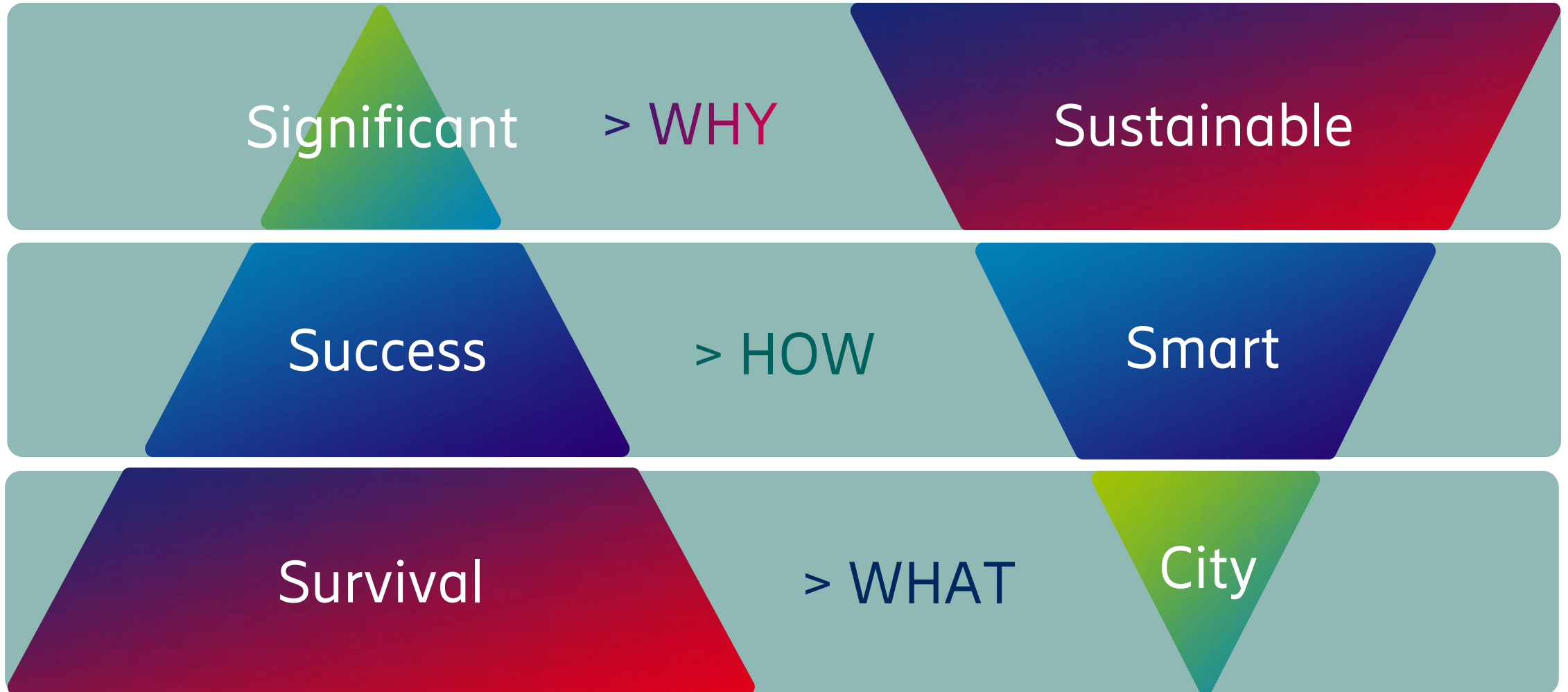# Smart Sustainable Cities Opportunities and Challenges

Dann Yao

CTO, Ericsson Taiwan

# Level of life and business

# Sustainability & Corporate Responsibility

**Company purpose: 'Innovating Technology for Good'**

**Wanted position**

Be a responsible and relevant driver of positive change in society

**Global goals**

We use the Sustainable Development Goals as the framework for measuring our impact on society

**Report annually**

Each year we report S&CR* results, progress and initiatives relevant to our stakeholders

\* Sustainability & Corporate Responsibility

**THE GLOBAL GOALS**
For Sustainable Development

\>

1 NO POVERTY
2 ZERO HUNGER
3 GOOD HEALTH AND WELL-BEING
4 QUALITY EDUCATION
5 GENDER EQUALITY
6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY
8 DECENT WORK AND ECONOMIC GROWTH
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
10 REDUCED INEQUALITIES
11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION
14 LIFE BELOW WATER
15 LIFE ON LAND
16 PEACE AND JUSTICE STRONG INSTITUTIONS
17 PARTNERSHIPS FOR THE GOALS

# Five critical considerations

for successful transformation into a smart sustainable city

| Government, NGOs, Businesses | Government | NGOs, Businesses |
|---|---|---|

| Define | An agreed Vision, Strategy, and Targets |
|---|---|
| Create | Informed Networked governance structures |
| Develop | Organizational Capacity |
| Engage | All relevant Stakeholders |
| Evolve | Strong and Long-term partnerships |

# Why cities matters ?

**7,500**
People per hour

**80%**
in cities by 2050

**3%**
of the earth's surface



**75%**
of $CO_2$ emission

**80%**
of energy consumption

# Diversity of challenges


URBAN PLANNING


JOBS


TRANSPORTATION


ENERGY


WASTE


EDUCATION


PUBLIC SAFETY


POLLUTION


HEALTH


WATER


GREEN ASPECTS
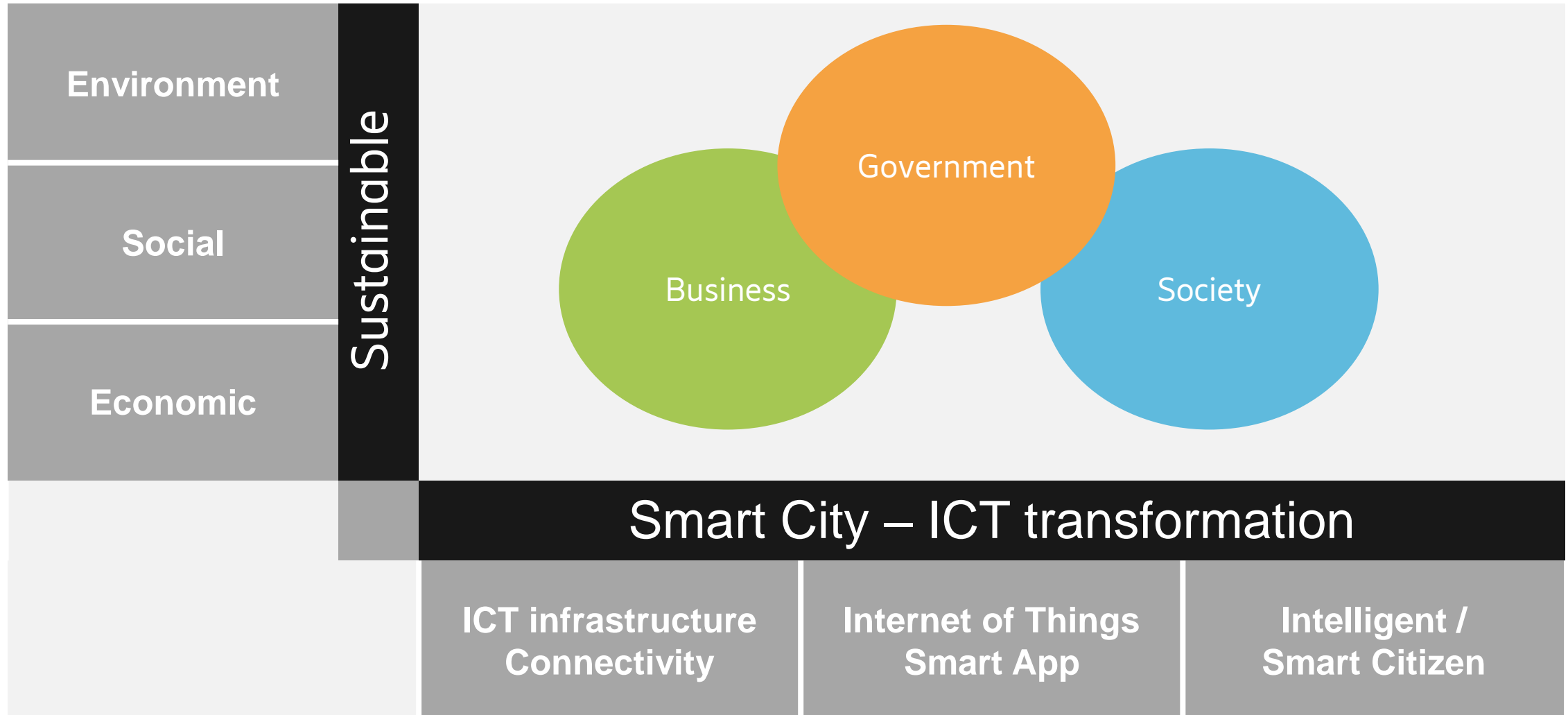

FOOD AND AGRICULTURE


URBAN DIVIDES


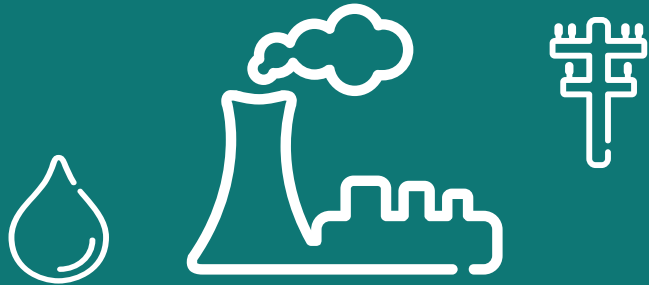HOUSING


LONG FOOD MILE

# Smart Sustainable Cities

# Three focused sectors
For Smart Sustainable Cities

## Utilities

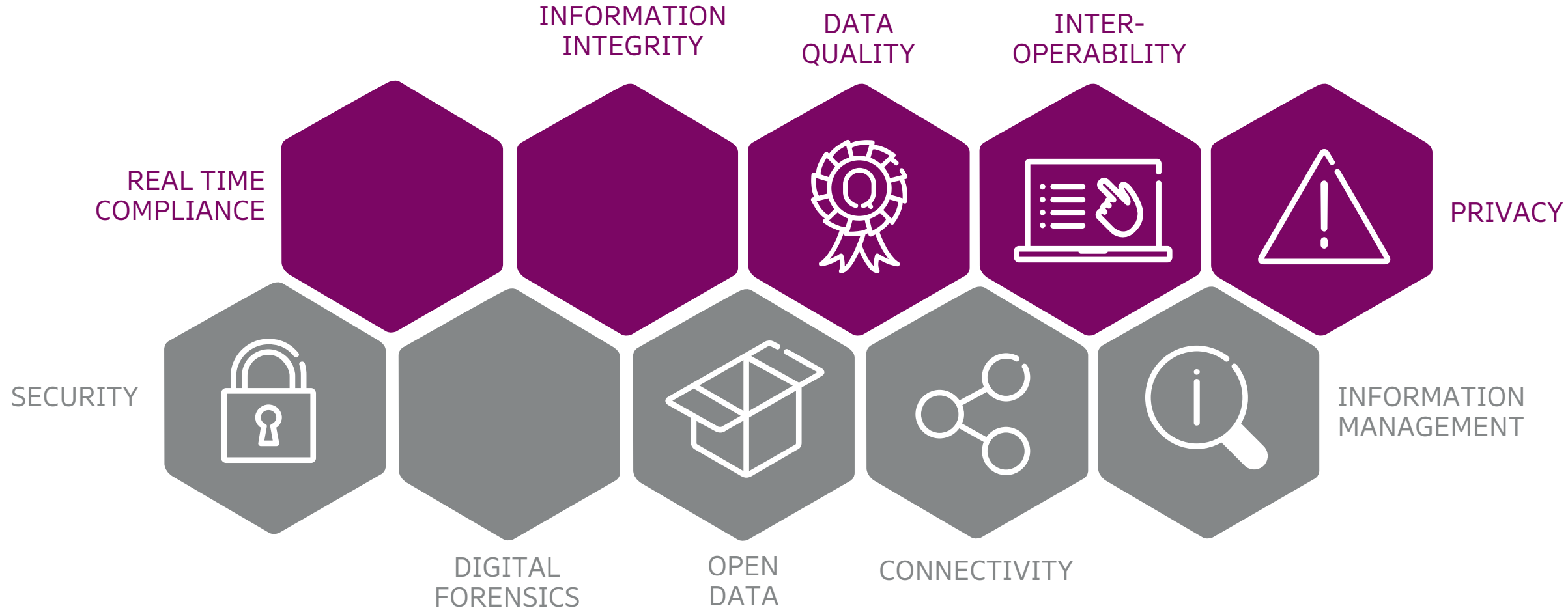Realize connectivity and data analytics in Smart Grids

## Transport

Enable Intelligent transport systems for vehicles, travelers and infrastructure

## Safety & security

Complement mission critical voice with multimedia services

# Challenges as well opportunities

# Ericsson bringing unique Cross-Industry platforms

**Customer Experience Management**

UTILITIES        TRANSPORT        PUBLIC SAFETY        OTHER INDUSTRIES

**Security & Information Management**

**Device Management**

**Connectivity Management : Industry differentiated performance**

**Network Infrastructure: Private & Public.**

TEXT

# 15%

reduction in global GHG emissions from ICT by 2030

**Source:** Ericsson Research 2015 September paper issued at ICT4S conference

# Reference cases

## SUSTAINABLE URBANIZATION

**Case: Stockholm Royal Seaport.**
Support Stockholm Royal Seaport to reach its vision for "A world class environmental urban district".

Global expertise on optimal smart grid operation

## PUBLIC SAFETY

**Case: San Jose Dos Campos.**
Develop real-time observation, dispatch and information sharing for multiple agencies.

5 year managed services commitment

## CONNECTED BUSES

**Case: Curitiba's 1,928 buses.**
Fleet management system where 3.2 million citizens benefit from electronic ticketing and a range of services.

ICT solution, M2M connectivity and eco-system applications

# Conclusion

**Better**
**Economic**

**Better**
**Social**

**Better**
**Environment**

Smart Sustainable Solutions

## Cities' ICT Transformation

4G/5G, IoT, and Big data Technology

| Purpose- Driven Planning | Networked Governance Structure | Organizational Capacity Building | Broad Stakeholder Engagement | Effective Long-term Partnership |