



**safma**

Conference & Exhibition  
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DR CHRIS ETTMAYR

ICT & RENEWABLE ENERGY

SPECIALIST: ELIDZ

My Instruction...

***“Convert the East London IDZ into an  
Industry 4.0 ready park!”***



- So I participated in a Summer School focusing on Innovative IoT for Sustainable Citizens
  - Water
  - Energy
  - Mobility
  - Environment



# South African **Smart City** Trade Mission

- The **United States Trade and Development Agency (USTDA)** developed the reverse trade mission to:
  - *Introduce delegates to US government and industry to discuss best practice and innovative technologies with regards to smart city development*
  - *Meetings were established with leading US companies with expertise in smart city solutions, technologies and services*
  - *The intention is to assist SA cities to develop and deploy their own smart city solutions*
- The delegation were also joined by a **technical expert of 30 years** in the industry to facilitate discussion and meetings

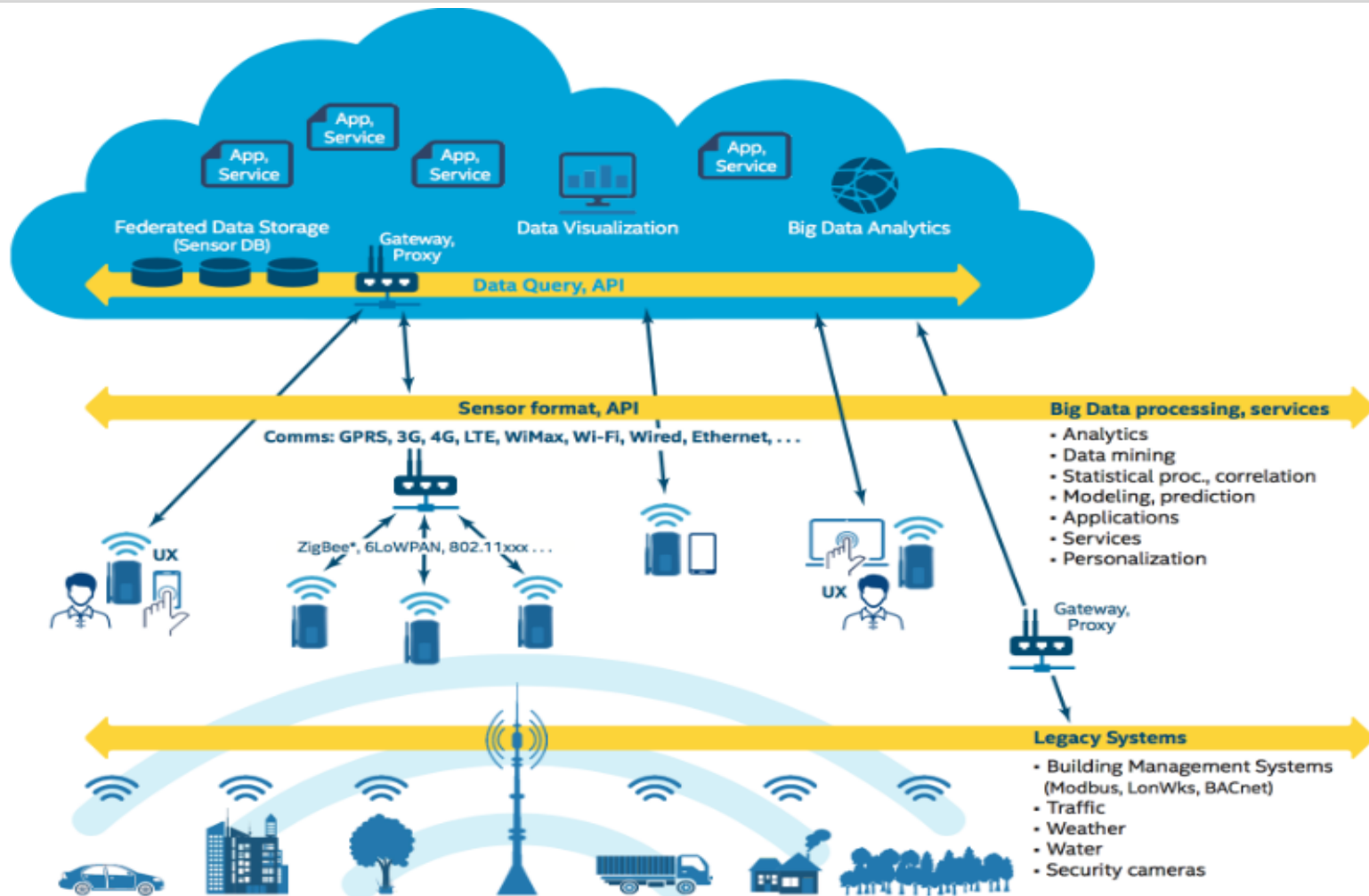


# What Does a Smart City Do?

A Smart City utilizes Information and Communication Technology to:

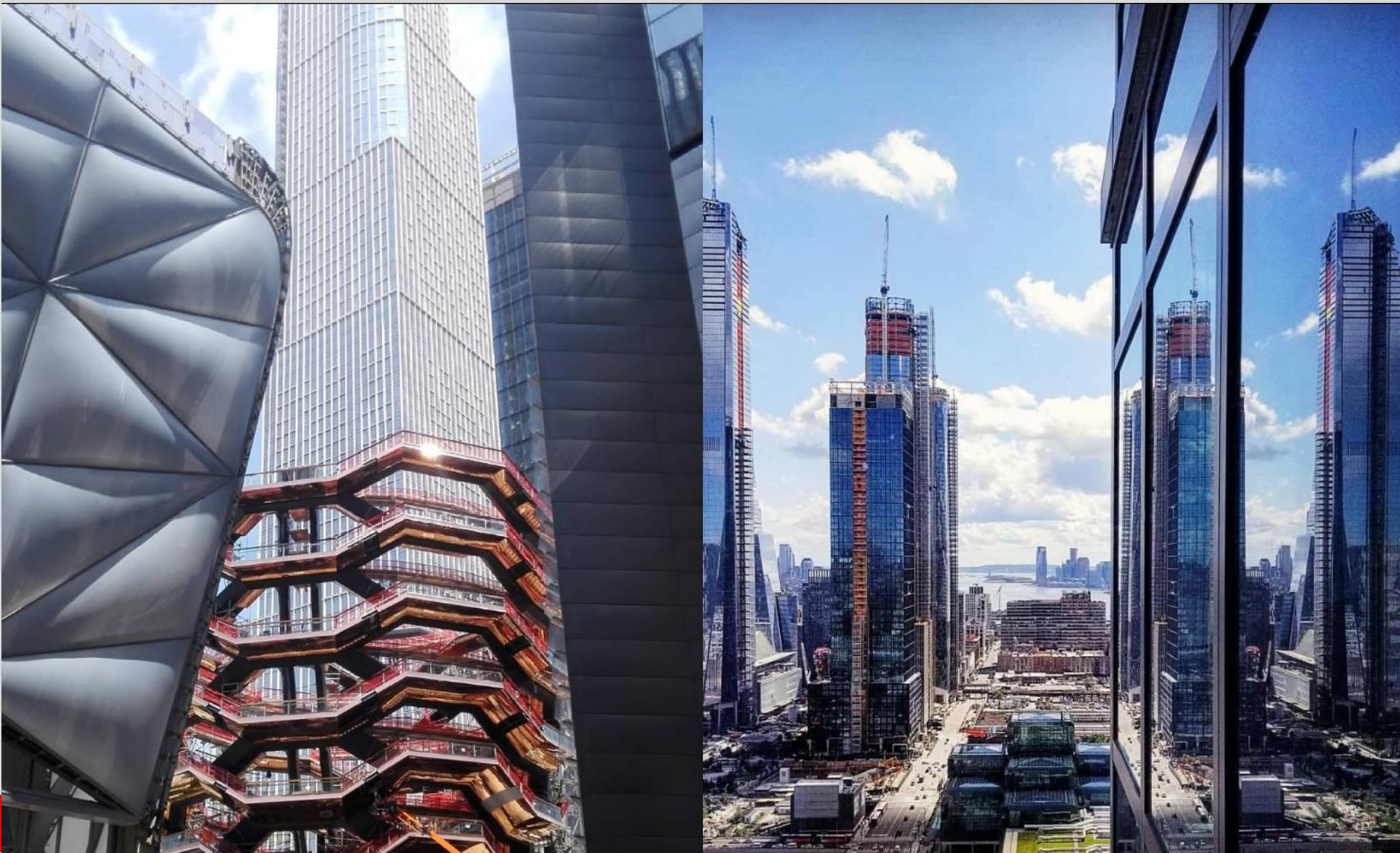
- ***Collect Data***
- ***Communicate Data***
- ***Crunch Data***

# What Does a Smart City Do?





# What Does a Smart Facility do?





# Lets Visit the Hudson Yards Project



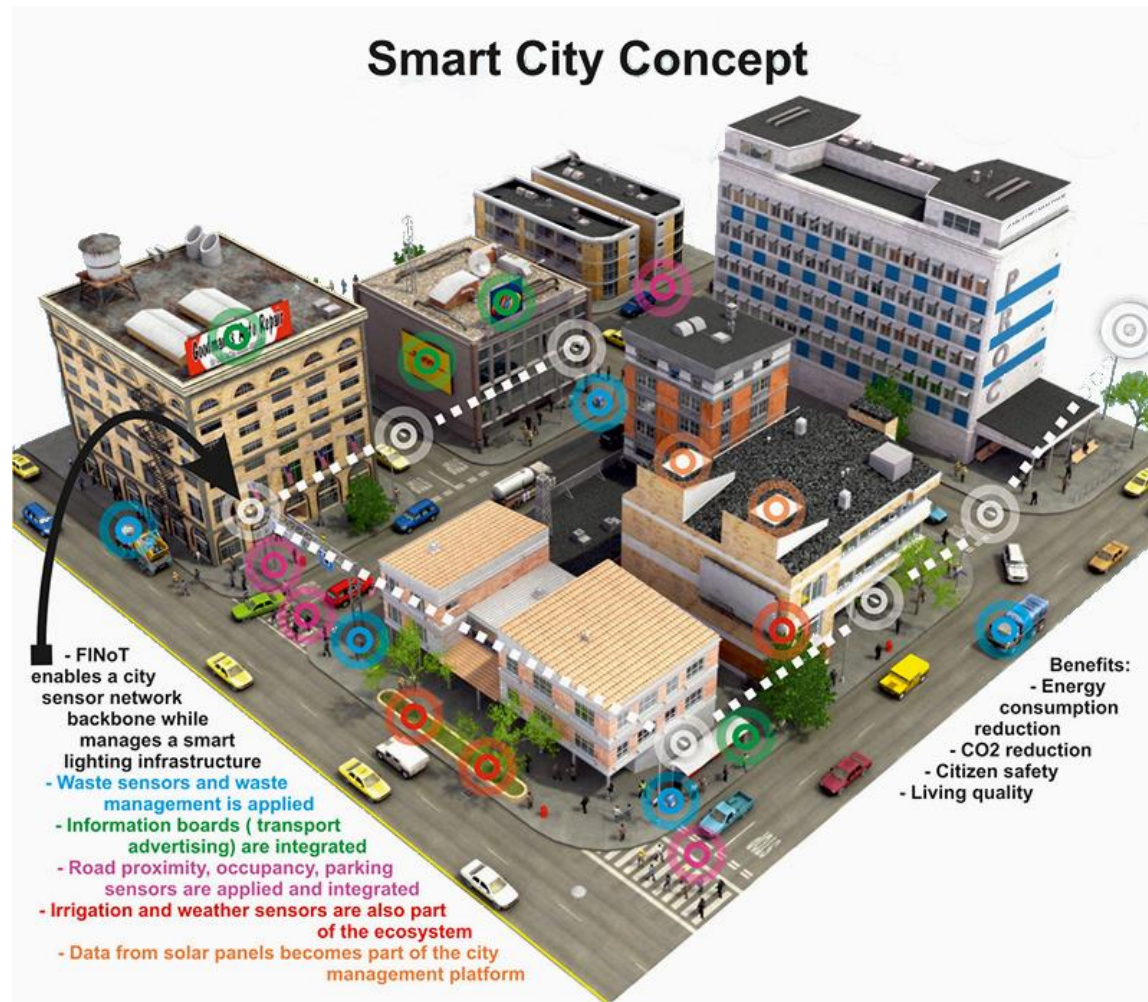


# Lets Visit the Hudson Yards Project





# Hudson Yards Recommendations About IoT – ***Develop Your Own Platform!***



# Facility and Housing Trends

- In 2000 there were 200m devices connected to the internet, in 2012 there were 10bn and by 2020 there will be 50bn connected devices
- Smarter cities can improve the quality of business operations, provide quicker communication. Improve resource utilization, save costs, increase infrastructure longevity at lower costs, reduce waste, improve customer satisfaction
- Productivity gains are already being achieved through the use of automation and artificial intelligence. It is estimated that government expenditure could decrease by as much as 10% through “e-services”. Once again, citing the US market, a 10% saving would result in US\$3.6 trillion per annum being released
- The automotive sector is currently going through a global transition away from the typical ownership of a vehicle. Driverless cars and shared-ownership will allow for US\$1 trillion of spend on automobiles and related services to be freed up for households in the US alone.
- It has been estimated that in the US, over the next 8 years, about US\$2.4 trillion of affordable housing costs could be saved through modern design and technology innovations.
- Low voltage systems (5V) being built into facilities
- Parking with 20 year lifespan



# Typical **Challenges** to be Expected



# Typical **Challenges** to be Expected

- *Siloed mentality*
- *Piecemeal implementation*
- *Lack of financing*
- *Lack of ICT know-how and expertise*
- *Poor tenant engagement*
- *Lack of integrated services*
- *Lack of smart facility vision*

A smart facility takes time and investment into a long term plan!



# The Benefits of Becoming a Smart Facility

- More effective **resource utilization**
- **Cost savings** and **new revenue streams**
- **Control for the facility manager** (proper asset management and infrastructure longevity) and its **tenants** (enhanced transparency and customer satisfaction)
- **Risk mitigation**
- **Environmental impact** (monitoring, sustainability practices, waste reduction)
- **Future proofing** for digital disruption and spatial planning implications
- Quicker **communication** and improved **Quality** of business operations
- **Increased innovation, entrepreneurship and community engagement**

# Where do you **Start**?

1. Get a business case in place
2. Then get buy-in from tenants, government, industry and academia
3. Start with fund raising – crowdfunding, user fees, special development funds, taxes or revolving funds
4. Develop internal understanding and capacity
5. Policy and regulatory changes
6. Then experiment!

# The **Mantra** of a Smart Facility...

**"Don't be encumbered by history.  
Go off and do something wonderful."**

**- Robert Noyce**



# The **Mantra** of a Smart Facility...

- How can my facility become:
  - An inclusive facility
  - A connected and investor friendly facility
  - A sustainable facility
  - A future proofed facility

# The **Mantra** of a Smart Facility...

- My facility's core values should include:
  - Digital integration being driven by data and continuous improvement
  - A relentless focus on customer service
  - Protection and securing of data and the IT platforms
  - Favoring technology to assist the tenants and investors
  - Effectively partnering with the private sector, universities, foundations and organizations to accelerate the Smart Facility impact
  - To embrace calculated risk, pilot and demonstrate new projects before scaling
  - Push proven services into the facility and beyond
  - Allocate resources based on identified Smart Facility priorities

**Think big,  
start small,  
move fast**

