Attract Public Private Partnership with Smart City Vision:

Living Lab is the key to success

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“Cities, not nation states, will determine our future survival.”

– World Economic Forum
WHY SMART CITIES?
Cities are the Problem; Cities are the Solution

PROBLEMS

- Global urban population will account for 6.3 billion people by 2050
- Cities produce nearly 80% of world’s carbon emissions
- Every day, the urban population grows by 180,000+ people

SOLUTION

"60% of the buildings that will make up the world’s fastest growing cities by 2050 are yet to be built."

Source: IBM, UN
WHY SMART CITIES?

Our society faces major challenges to achieve sustainability: social, economic and environmental. We must do our part in the built environment by accelerating green buildings, smart cities.

- **UN Sustainable Development Goals 2016~2030**
  - Linking World GBC goals to the **17 SDG’s**

- **COP21: Striving for Net Zero by 2050**
  - All new buildings and major renovations should be net zero starting in **2030**.
  - 100% of building stock should be net zero by **2050**.

- **Accelerating Climate Action in the built environment**.
  - Green building certifications vs. Net Zero
  - Net Zero legislation has begun
Why Smart Cities?

People, Planet, Profit.

Climate Change

Sustainability

Social Sustainability

Environmental Sustainability

Economic Sustainability
Financing Mechanisms for Public- and Private-Sector Projects:
- Traditional Financing
- Energy Performance Contracts (EPCs)
- Third-Party Ownership
- Green Banks/Energy Efficiency Investment
- On-Bill City-Funded City-Initiated Financing

City-Initiated Mechanisms for Private-Sector Projects:
- Energy Loan
- Subsidized or Blended Loans
- Public-Private Partnership (PPP)
- Credit Enhancement
- Property Assessed Clean Energy (PACE)
Belo Horizonte Public-Private Partnership (PPP) for LED Lighting

In 2016, Belo Horizonte, the sixth-largest city in Brazil, put in place a public-private partnership to upgrade over 175,000 streetlights with efficient LEDs. The contract was executed for **US$300 million over a 20-year time frame**, and was the largest public street-lighting contract in Latin America.
WHAT is SMART CITY?
...provide structure & a comprehensive framework to develop a ROAD MAP toward the 3P’s
Attract Public Private Partnerships with a Smart City Vision

Smart City – AmSMARTerdam

- Amsterdam, which has been working toward a “smart city” for 7 years, offers insights into the complexities facing city managers who see the opportunity with data.

- In April 2013, the City of Amsterdam held a design contest to create an international technology institute.

- Public-private platform that is formally named the Amsterdam Smart City (ASC) initiative, which encompasses projects across eight categories

- Amsterdam is a Smart city with “living labs,” redeveloping areas where it is easy to try new kinds of infrastructure experiments
Attract Public Private Partnerships with a Smart City Vision

Smart City – AmSMARTerdam

Amsterdam Smart City with Public-Private Partnerships

100+ partners, 36 municipalities, 70+ projects, 75+ foreign delegations
Attract Public Private Partnerships with a Smart City Vision

Smart City – AmSMARTerdam

Integral Approach: 3 Living Labs
CONVERGENCE OF REAL ESTATE AND TECHNOLOGY

**DIGITAL TECHNOLOGY LAYER**

*cloud-based big data platform*

**Tremendous Added Value in “Big Data”**
- Aligned with Smart City policy & objectives.
- Attract global tenants who provide smart city solutions.
- Big data business in “public-private” partnerships to nurture economic growth.

**Physical Asset Layer**

**Traditional Value in the “Bricks & Mortar”**
- Green is too expensive is a misperception!
- “Showcase” smart, sustainable development.
- Must be financially attractive.
- Net zero ready.
“To measure is to know”
“If you cannot measure it, you cannot improve it”
- Lord Kelvin

“If you can’t measure it, you can’t manage it”
- Peter Drucker