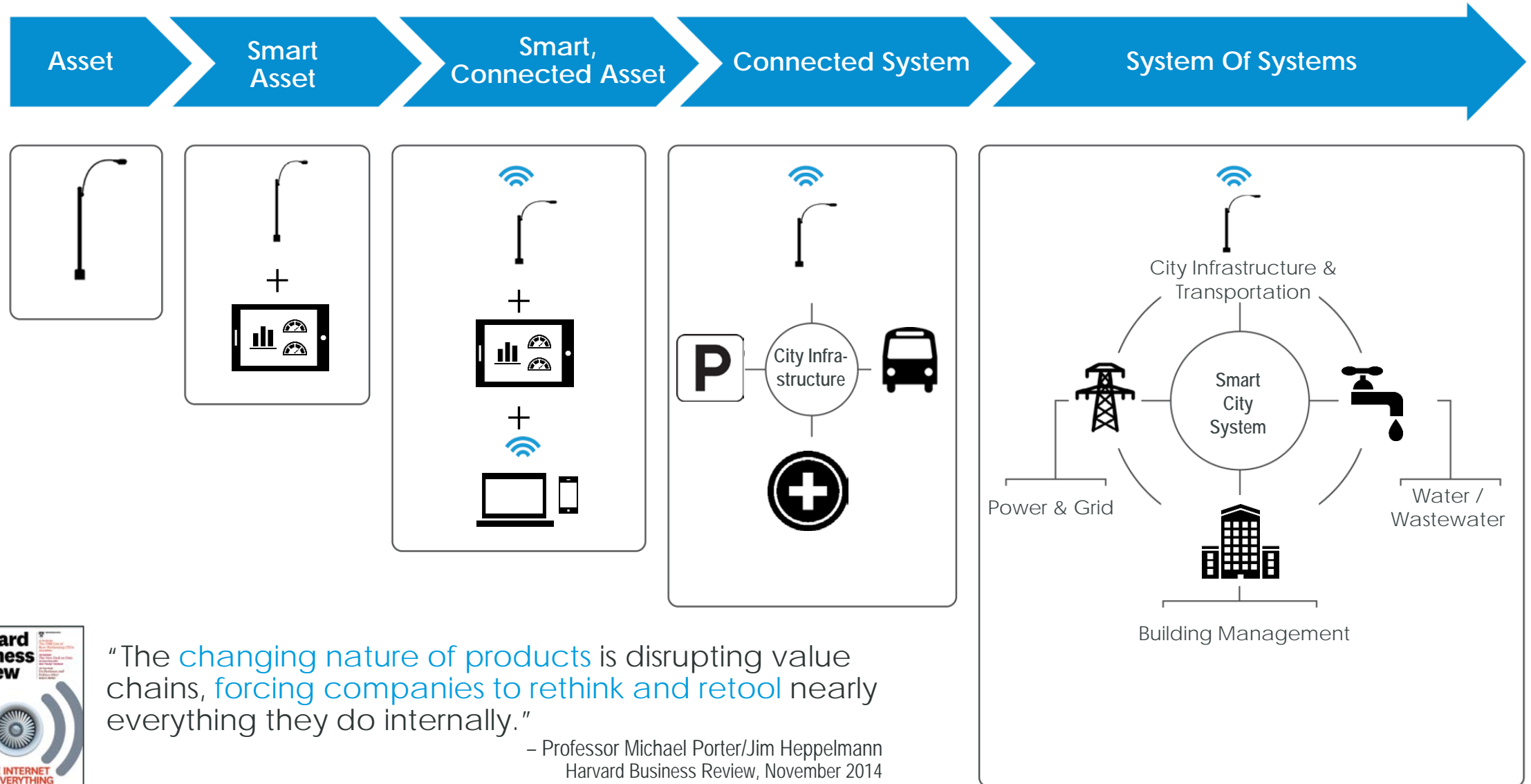


CITIES STANDING UP TO CLIMATE CHANGE

Scott McCarley
Sr. Director of Solution Management, Smart Cities



A SMART CITY IS A SYSTEM OF SYSTEMS



"The **changing nature of products** is disrupting value chains, **forcing companies to rethink and retool** nearly everything they do internally."

– Professor Michael Porter/Jim Heppelmann
Harvard Business Review, November 2014

WIDE VARIETY OF SOLUTION NEEDS, WHERE TO START?



Energy Storage Smart Meters

Street Lighting Water Quality

Carbon Emissions Traffic Congestion

Demand Response Security Control

Smart Parking Waste Management

Leak Detection Water Treatment

Structural Health Building Energy Management

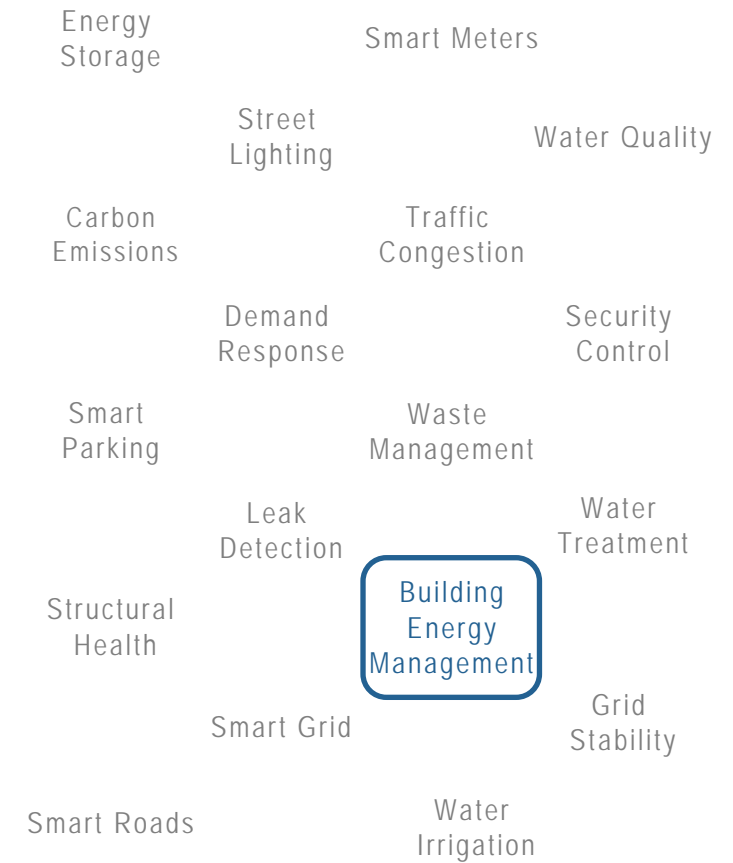
Smart Grid Grid Stability

Smart Roads Water Irrigation

WIDE VARIETY OF SOLUTION NEEDS, WHERE TO START?

Tactical Approach: *Deliver IoT Project Point Solutions*

Expensive, Resource Intensive,
System Silos, Slow



Tactical Approach:

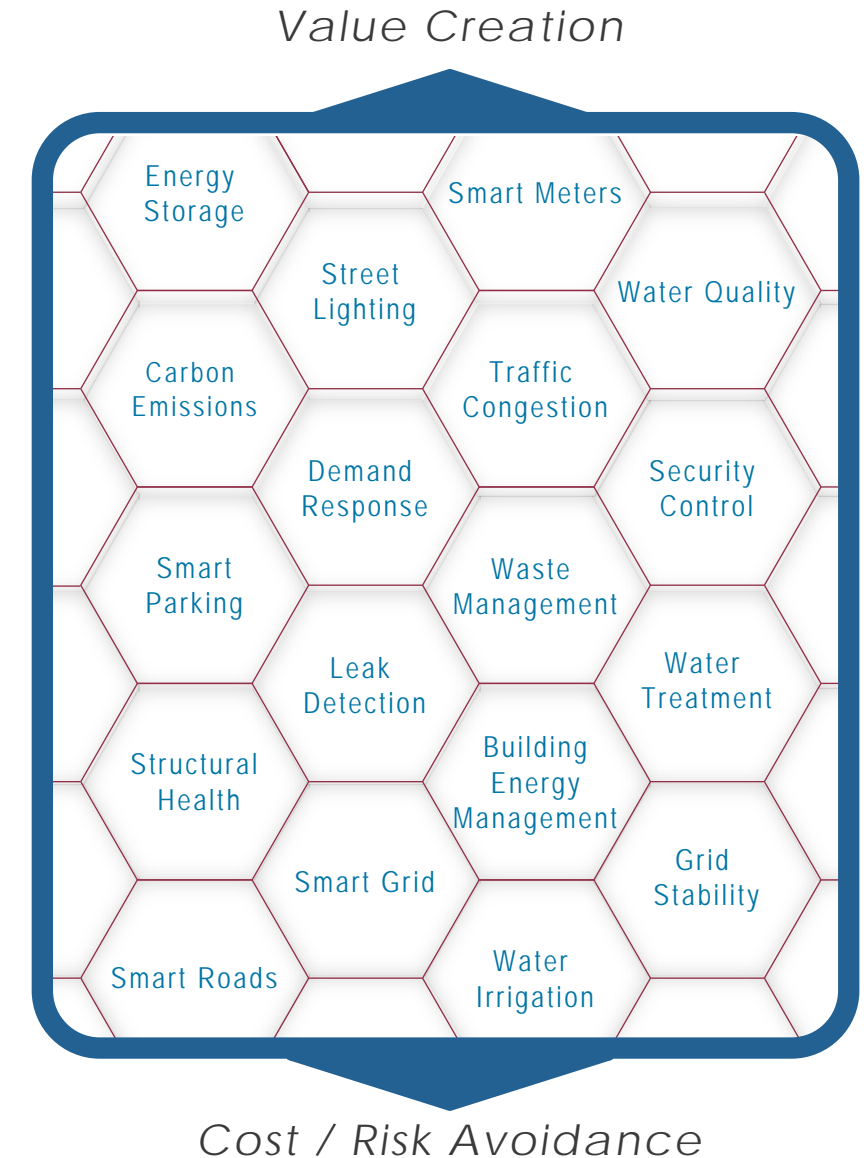
Deliver IoT Project Point Solutions

Expensive, Resource Intensive,
System Silos, Slow

Strategic Approach:

Platform

Scalable, Extensible, Flexible, Fast,
Common infrastructure, Secure



HOW CITIES LEVERAGE A PLATFORM

1. Foundation for a system of systems solution
2. Out-of-the-box Smart City solutions from Solution Providers
3. Engage ecosystem to rapidly develop new Smart City Solutions and dashboards
4. City Wide Platform that fosters innovation



EXAMPLE SOLUTIONS & PROVIDERS



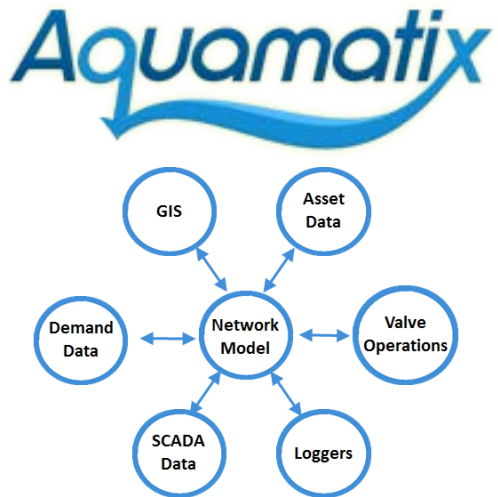
Smart Lighting & Waste



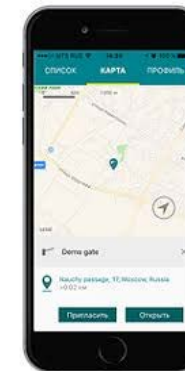
Bike Sharing



Building Energy Mgmt



Water Management



Smart Parking



L&T Technology Services

Smart Energy & Grid

PLATFORM TO ACCELERATE INNOVATION



Telstra 4G

11:49 am

88%

Scan

Water Meter ID-5376376

Home

Average Flow

3.7 L/min

Average Daily Use

4.4 KL

Max Flow

19 L/min

Daily Usage

0.6 KL

Maintenance Records

10 Oct 2016

Pulse sensor cable repaired

21 Dec 2013

SIM Logger upgraded from 2G to 3G



iPad

3:01 PM

37%

Scan

Pavilion, Bondi Beach, Sydney

Home

30% Reduction in Truck Fuel Use
830 Tonnes of Carbon Emissions Saved

Schneider Electric

Modicon M580 Installation Steps

Scan ThingMark

Scan the ThingMark or the Enter the BIM ID to locate it

Search

View Installation Steps

Follow steps below.

Locate the equipment: Basement Level

Look for: near post #063

Installation Step 2

Done

Total Steps 5

5 Open Alarms

68 Open Service Cases

3 Planned Work Orders

11 Eng. Design Changes

5 Compare As-Designed As-Built



ptc