

Smarter Cities Platform

Delivering optimal business outcomes through
intelligent response and actionable insights



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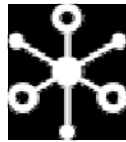
Leaders **create opportunities** from today's harsh realities



Big Data: the I3 environment



Instrumented

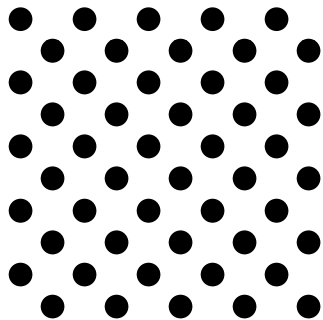


Interconnected



Intelligent

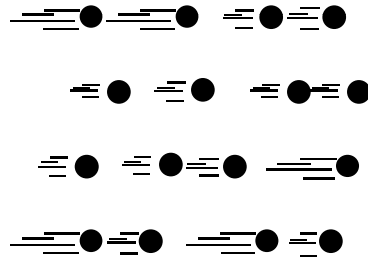
Volume



Data at rest

Terabytes to
exabytes of existing
data to process

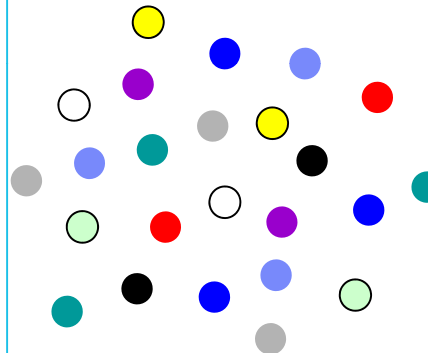
Velocity



Data in motion

Streaming data,
milliseconds to
seconds to respond

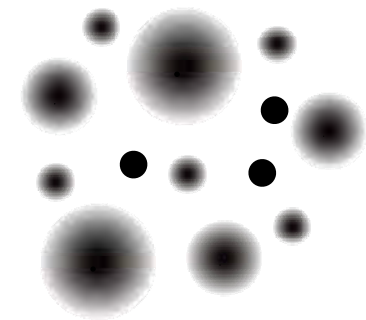
Variety



**Data in many
forms**

Structured,
unstructured, text,
multimedia

Veracity*



Data in doubt

Uncertainty due to
data inconsistency
& incompleteness,
ambiguities, latency,
deception, model
approximations

Leaders must innovate across services to **meet and exceed citizen expectations**



Planning and Management

Design and implement a city plan to realize full potential for citizens and businesses; while efficiently running daily operations

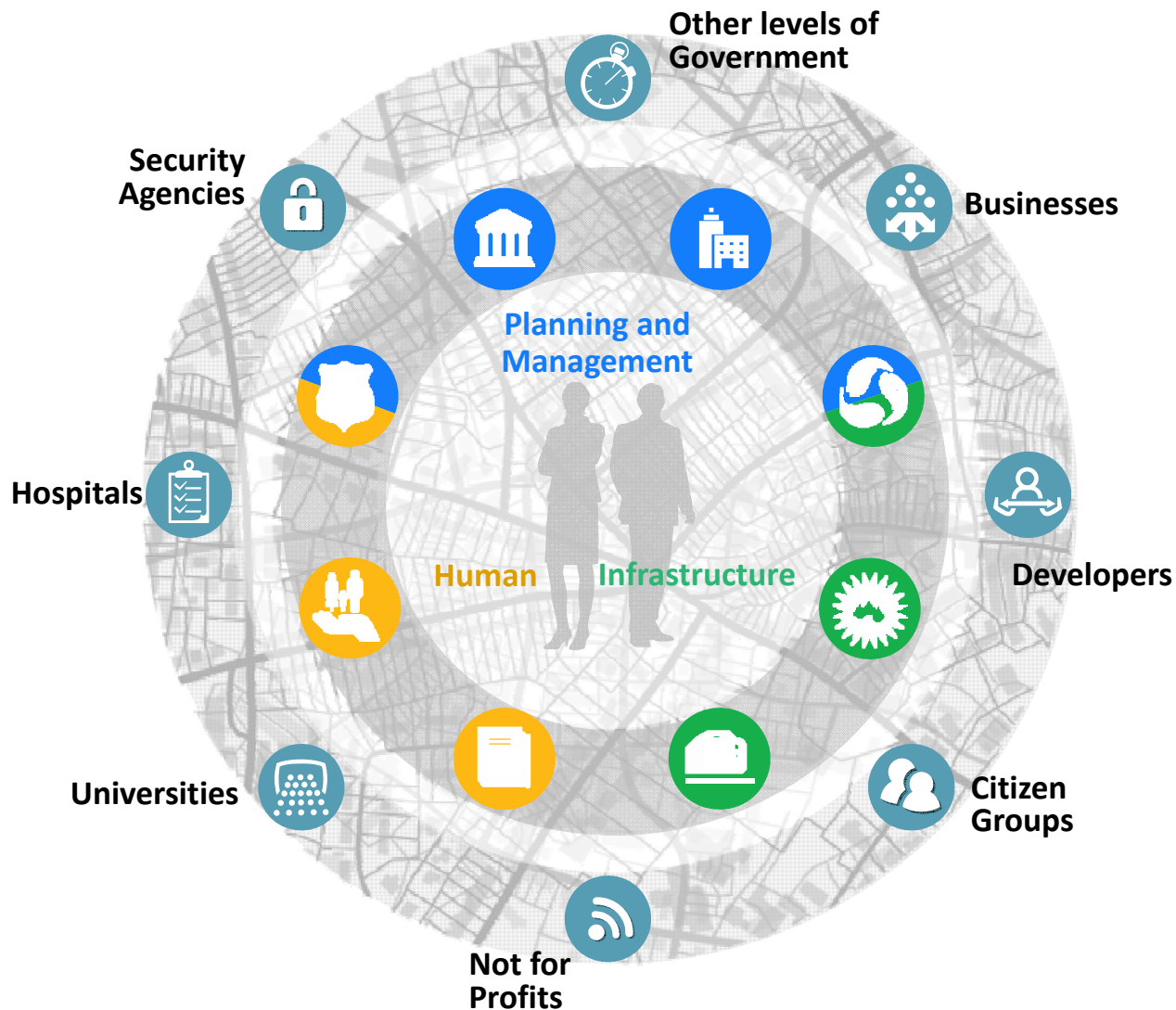
Infrastructure

Deliver efficient fundamental city services that make a city desirable for citizens

Human

Provide effective services that support the economic, social and health needs of citizens

Recognizing the need to collaborate with business and external agencies



Planning and Management

Design and implement a city plan to realize full potential for citizens and businesses; while efficiently running daily operations

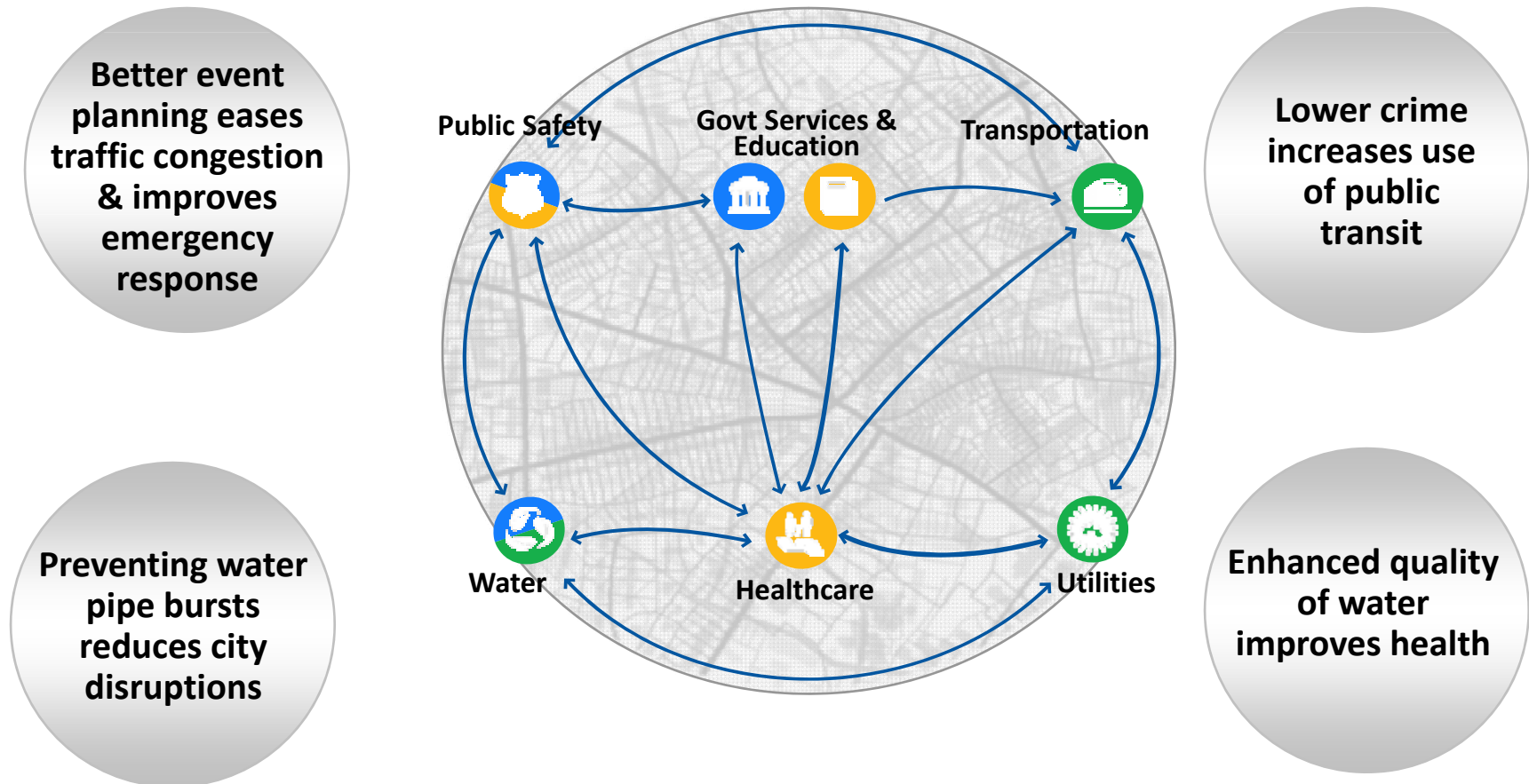
Infrastructure

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Agency specific and **interconnections across systems** are critical



Examples of Smarter Cities Solutions that exists in the 4 corners of the world, (in 12 languages)



Miami Dade:-

Smarter Cities initiative to **improve services** for residents and help **agencies share information** among the 35 municipalities within the county.



City of Zhenjiang:-

Transportation solution to provide city managers with a **consolidated view of the transportation** network, and initiate a new bus scheduling system



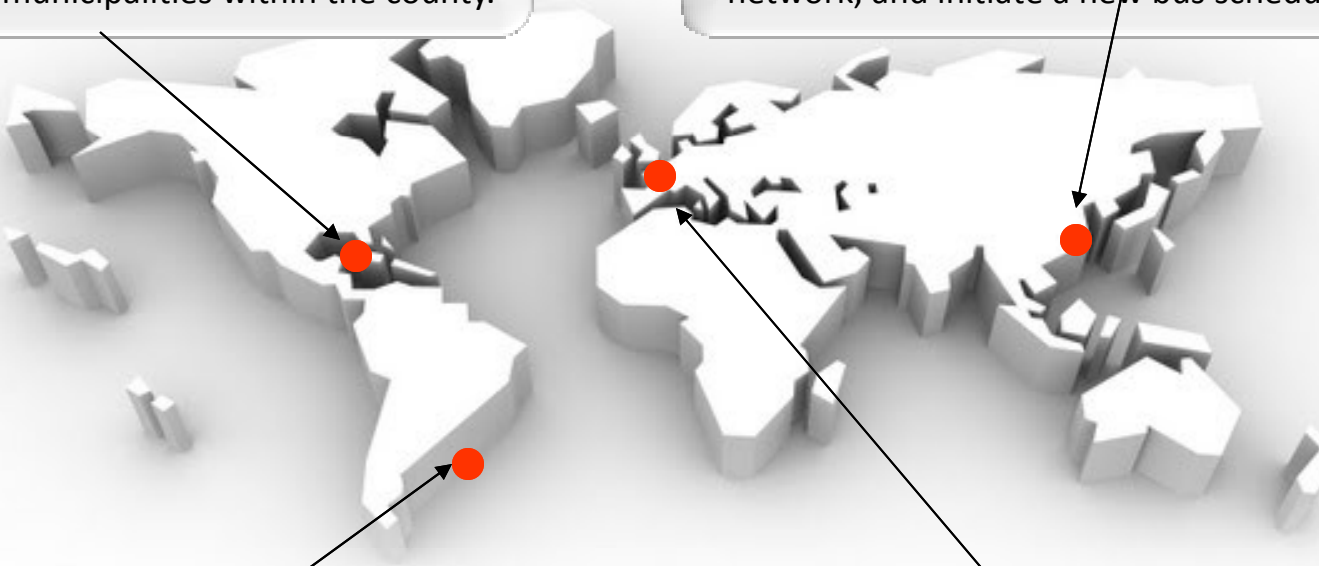
City of Rio de Janeiro:-

New capabilities to further improve the city's emergency response system, and give citizens access to information that will help them better manage their daily lives.



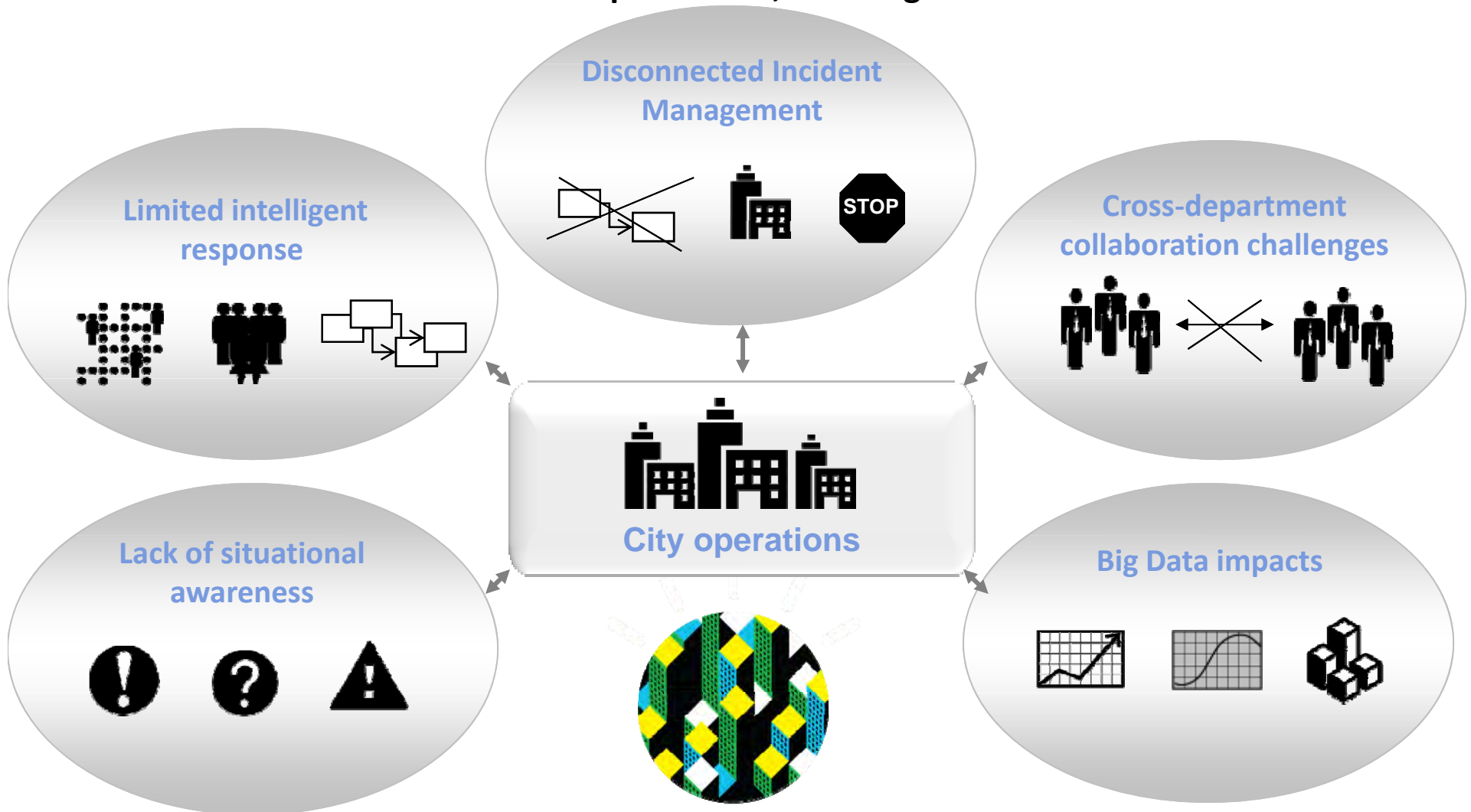
Netherlands:-

Digital delta is a **big data** driven water management system for better flood control.



Challenges that are facing smarter city operations

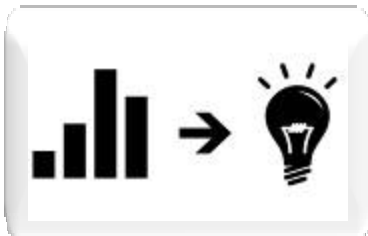
Lack of visibility inhibits the delivery of an optimal response which can **increase budgets**, **create redundant resource requirements**, and **lengthen the time to resolution**



Smarter city operations business value for cross-agency
and line of business users:



Faster time to value



Actionable insight



Intelligent response

....driving Improved Outcomes for **Citizen Benefit,**
Economic Vitality, Operational Excellence

A smarter city operations solution combines key capabilities:



Multi Source Data Ingestion



Advanced Situational Awareness



Stakeholder Collaboration

Leverage information
to make better decisions

Anticipate problems to
resolve them proactively

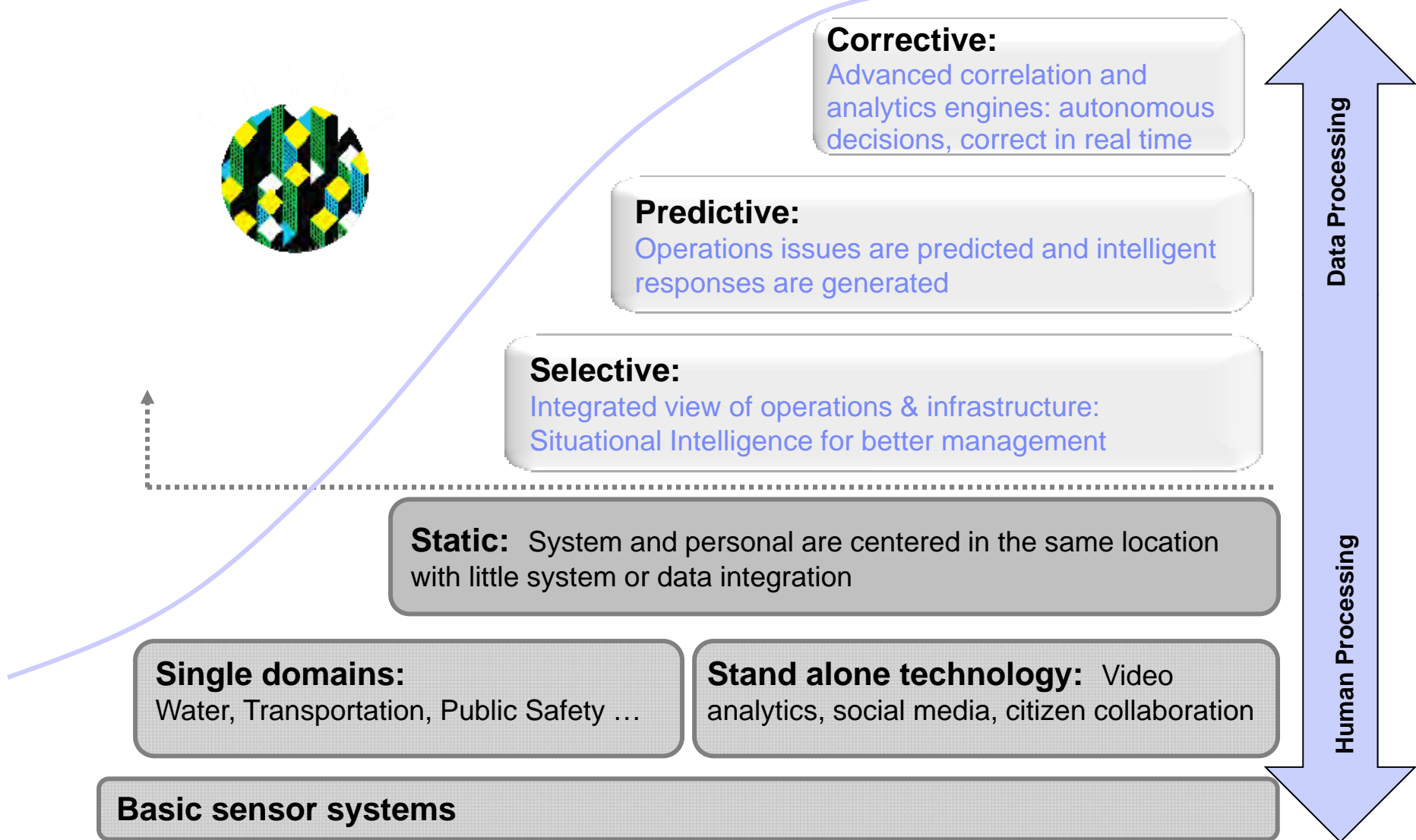
Coordinate resources
and processes to
operate effectively

A smarter city platform should allow to build integrated verticals on top of a robust, scalable and trusted foundation



Improved Outcomes for Citizen Benefit, Economic Vitality, Operational Excellence

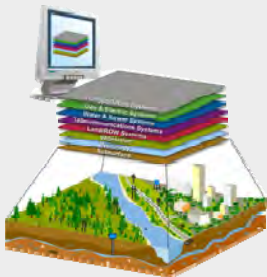
The **evolution curve** in large complex environments



Smarter City Platform



Connect to your distributed data sources
(sensors, predictive, social media, video, etc)

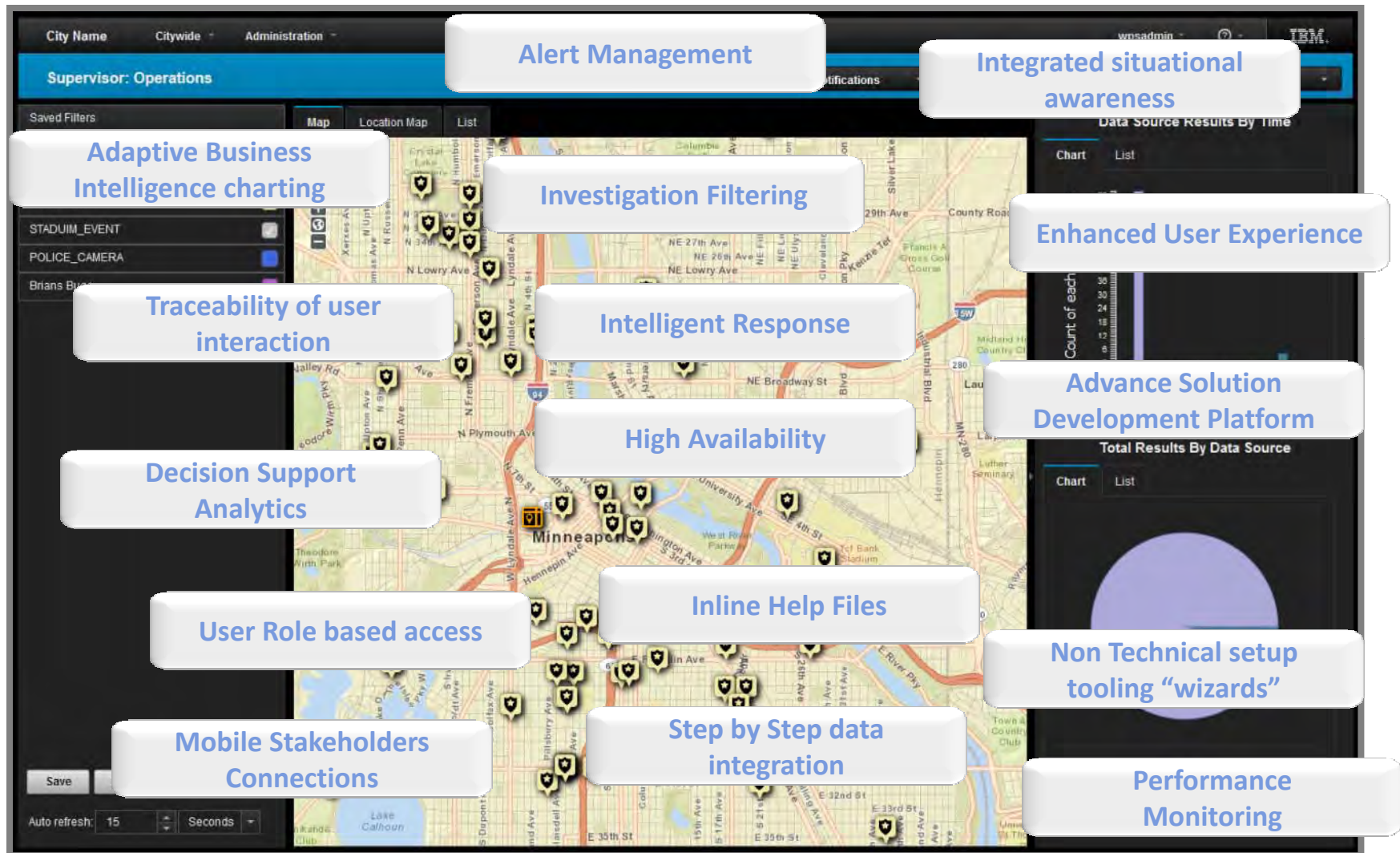


Build out the situational awareness and business intelligence of your monitored environment



Intelligently Respond to events and issues based on the condition of your resources
(stake-holders, consumables, financial, metrological, social sentiment , urgency)

Subject matter experts design the process



Faster Time to Value

The benefits of a Smarter City approach

Smarter city attributes



Collaboration between departments with decision-support systems to respond more effectively to city needs



Use data driven decisions to drive new levels of operational efficiencies and citizen involvement in city services

Traditional approach

Smarter approach

Isolated city silos

Citywide holistic solution

Lack of real-time situational awareness

Enhanced common operational picture

Disconnected incident management

Cross-city information sharing

Ineffective human processing of data

Analytics used to gain actionable insight

Custom solutions, hard to scale

Flexible platform, choice of delivery models

Thank You