

IBM SolutionsConnect 2013

L'IBM TechSoftware nouvelle génération

28, 29 et 30 août
IBM Client Center Paris



#solconnect13



IBM SolutionsConnect 2013

Transformation & Innovation au service du Citoyen avec l'offre Smarter Cities

Samir Naji / [Software Group](#)

Virginie Radisson / [Innovation Lab](#)



LEA09P1

IBM®

IBM SolutionsConnect 2013

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



LEA09P1

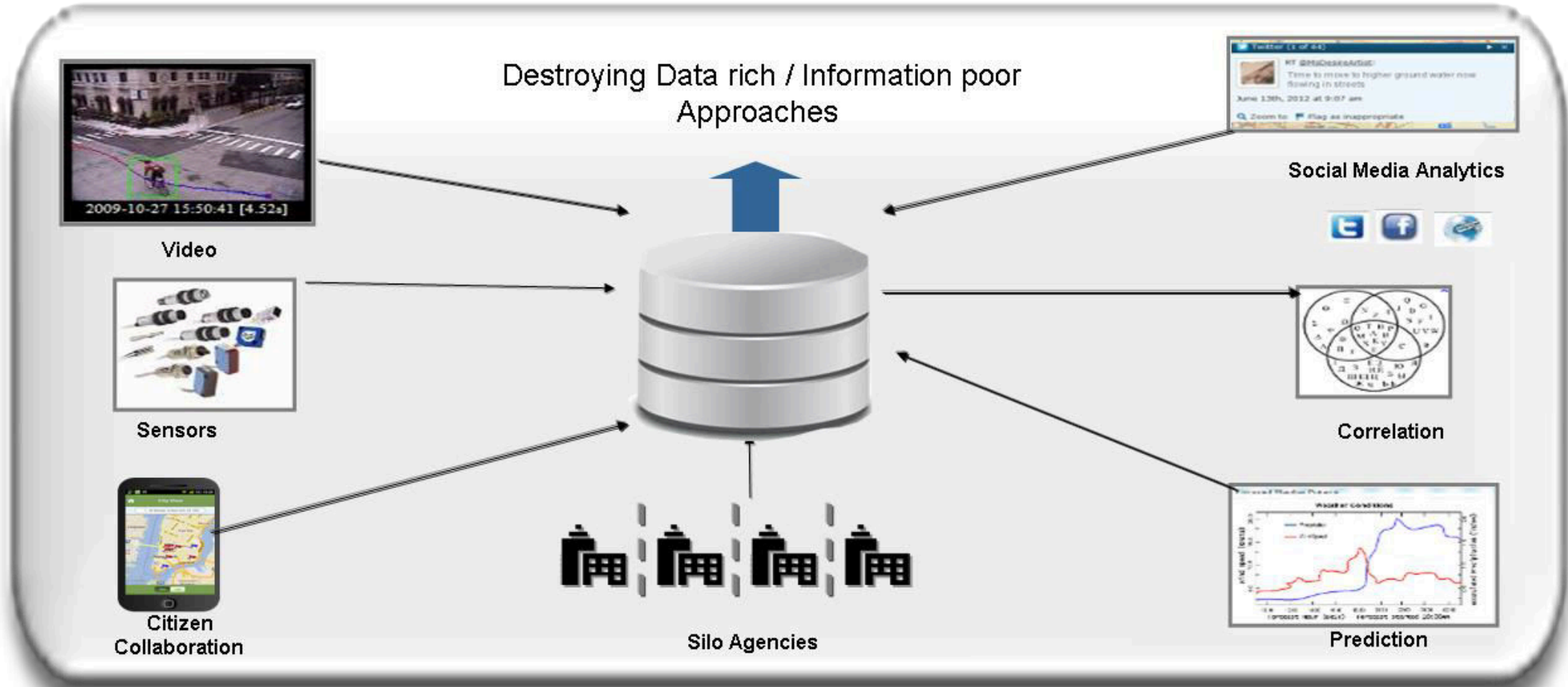


IBM SolutionsConnect 2013

Multi Source Data Ingestion:

Connecting to various distributed city data sources for a single picture of the city

Leverage information to make better decisions



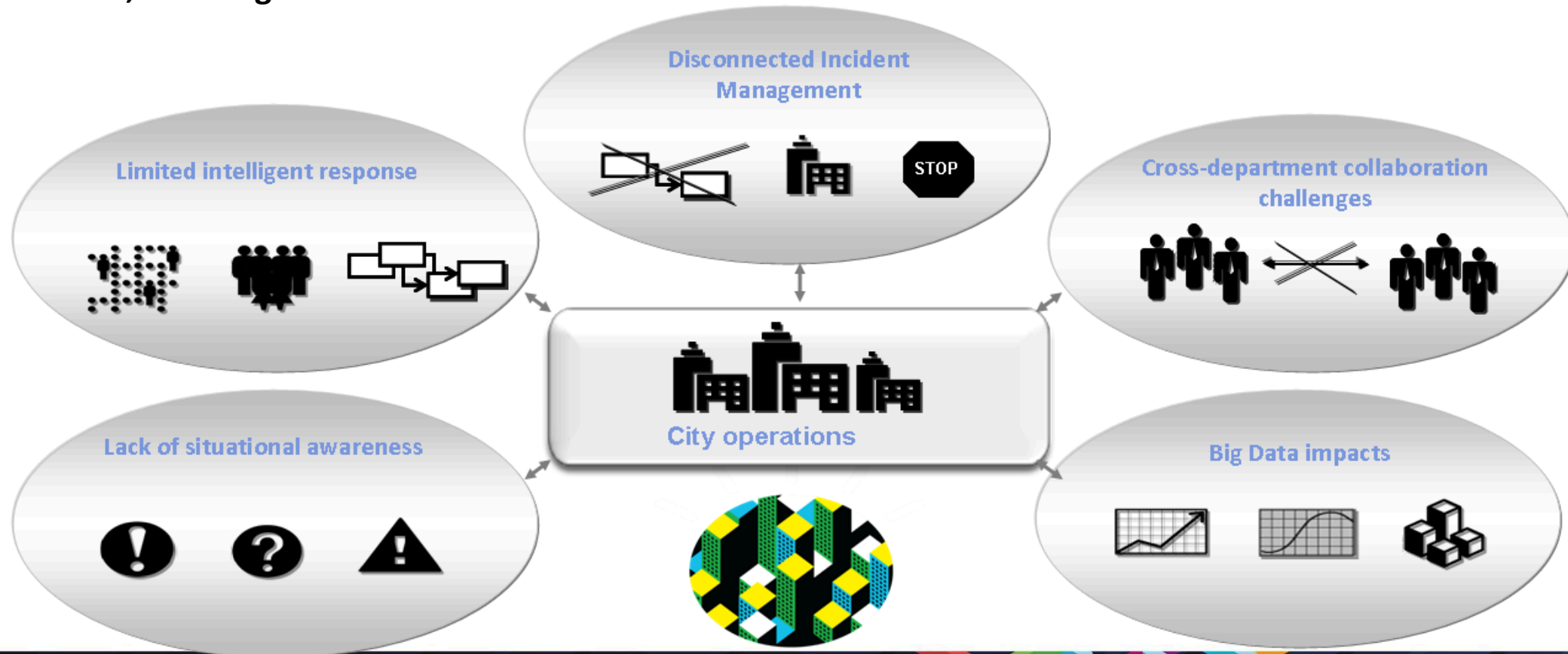
LEA09P1



IBM SolutionsConnect 2013

Challenges that are facing smarter city operations

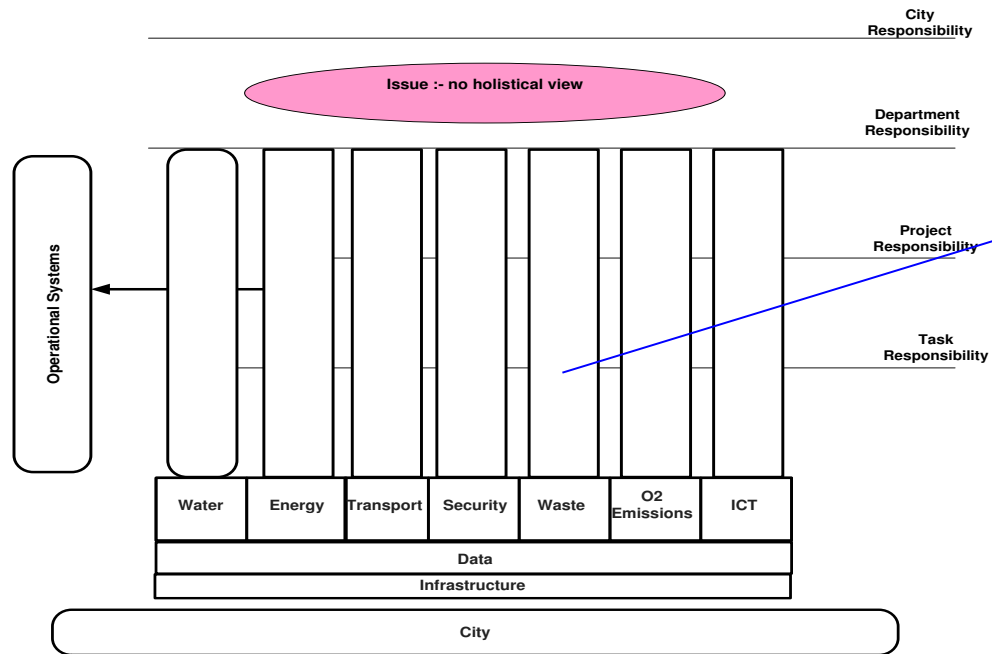
Lack of visibility inhibits the delivery of an optimal response which can **increase budgets, create redundant resource requirements, and lengthen the time to resolution**



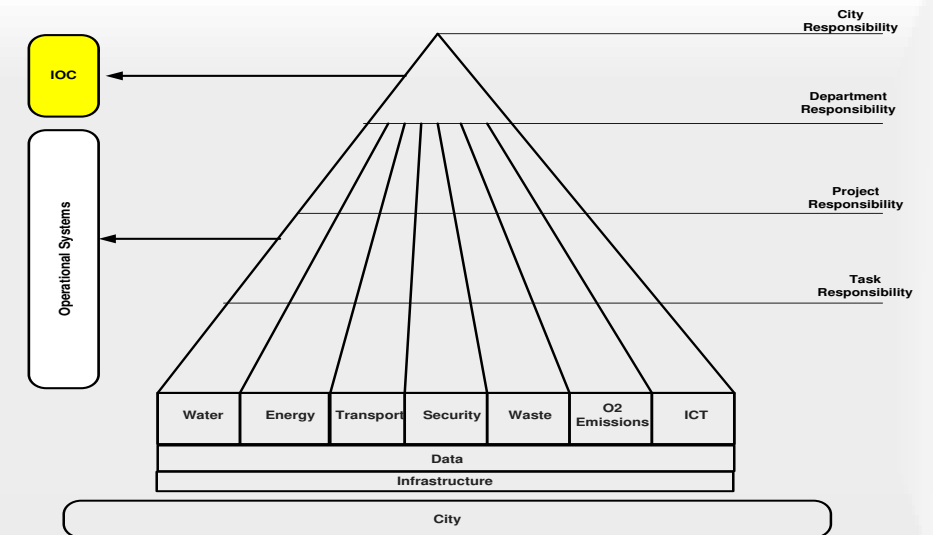
IBM SolutionsConnect 2013

Fundamental thinking of the Intelligent Operations Centre

Current pain point: no system of systems thinking



Intelligent Operations provides interconnection and intelligence



The Intelligent Operations Center has the ability to extract significant events information from the individual domains and other data sources to act as a central point of domain **insight** and **optimization**.



LEA09P1

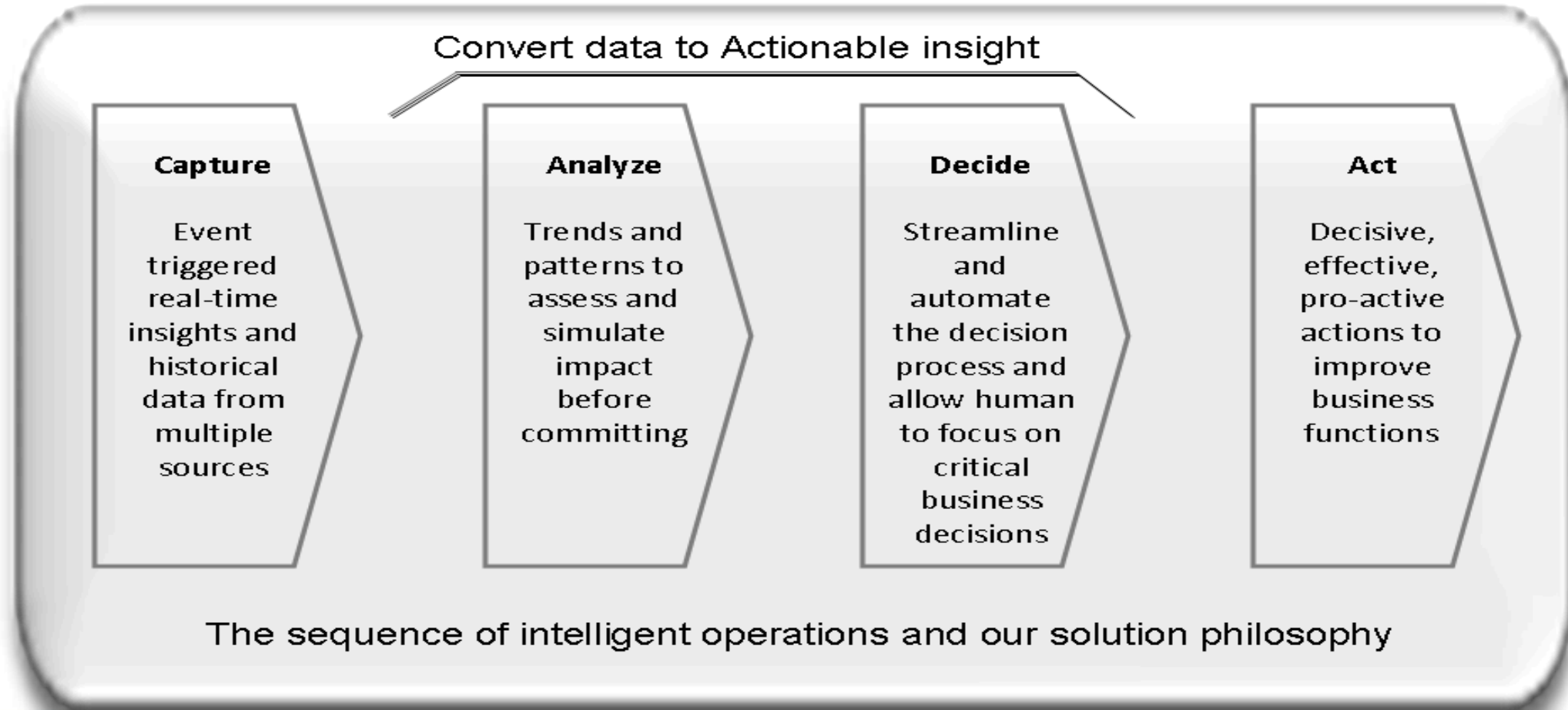


IBM SolutionsConnect 2013

Advanced Situational Awareness:-

Understand in real time the correlation of events that make up a situational and intelligently responded to minimize or avert any impacts to the city

Anticipate **problems to resolve them proactively**



LEA09P1

IBM

IBM SolutionsConnect 2013

IBM Smarter Cities solution

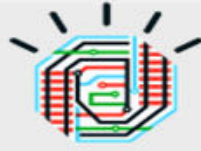
Prioritized Industries



Public Safety



Government



Transportation



Energy



Healthcare



Water

Solutions

Planning and Management

- Operations insight
- Law enforcement and public safety
- Building management

Infrastructure

- Transportation management
- Water management
- Utility Network management
- Asset Management

Human

- Social program management
- Citizen health and safety
- Educational outcomes

Business Partner Solutions

Smarter City Operations

Consulting and Services, Research, Workload Optimized Systems & Flexible Delivery Models, IGF



LEA09P1

IBM

IBM SolutionsConnect 2013

IBM Smarter Cities solution **Intelligent Operations Center**



Improved Outcomes for Citizen Benefit, Economic Vitality, Operational Excellence



LEA09P1

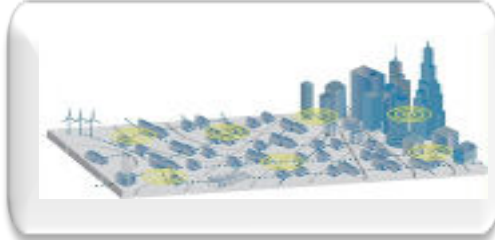


IBM SolutionsConnect 2013

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 IBM Smarter Cities
solution



LEA09P1

IBM

IBM SolutionsConnect 2013

Intelligent Operations Center , end to end solutions, Runtime Operations

This screenshot shows a GIS-based monitoring interface. The main map displays a city street grid with several purple butterfly icons representing assets. A chat window is open over the map, showing a conversation with 'Jac Harkness, Water Utility Executive Available'. The chat text reads: 'jsharkness: Hey! What's going on? Do we have an overflow? 10:15 AM'. Below the map, there is a table of 'Events and Incidents'.

Status	Name	Asset Type	Key Measurement	Value	Unit	Trend	Sent
CRITICAL	CS0038	CSO Diversion St	CS0038-CS0038Leve	7	Feet	↓	2012-06-20 09:51:10
	CS0028	CSO Diversion St	CS0028-CS0028Leve		Feet	↓	
	CS0006	CSO Diversion St	CS0006-CS0006Leve		Feet	↓	
	CS0018	CSO Diversion St	CS0018-CS018Level		Feet	↓	
	CS0008	CSO Diversion St	CS0008-CS0LevelInc		Feet	↓	
	Colfax-LiftStation	Rain Gauge	Colfax-RainGauge-Co		Inches	↓	

This screenshot shows a 'Supervisor Operations' dashboard. It features a central map with red location markers. A notification banner at the top reads: 'Planned street repair conflicts with planned rally on Saturday in uptown 3rd district'. Below the map, there is a 'Police CAD' gauge showing a blue circle. To the right, a 'Notifications' panel lists several alerts with their send dates and times.

Notification	Sent Date & Time
Conflicting events uptown	Mar 15, 2013 8:48:35 AM
KPI Status Changed	Mar 15, 2013 8:48:35 AM
Watermain repair scheduled	Mar 15, 2013 8:48:35 AM
Accident on highway 51	Mar 15, 2013 8:48:35 AM
KPI Status Changed	Mar 15, 2013 8:48:35 AM

This screenshot shows a 'City View' dashboard with a navigation bar for 'City Name', 'Citywide', 'Water', and 'Administration'. Below the navigation, there are tabs for 'Operator: Operations' and 'Executive: Status'. The main area displays status indicators for three categories: 'Inflow', 'Aeration Tank', and 'Secondary Treated Water'. Each category has three colored buttons representing different metrics.

Category	Indicator	Status
Inflow	Incoming Flow	Acceptable
	pH	Acceptable
	Temperature	Acceptable
Aeration Tank	DO	Acceptable
	Nitrate	Caution
	Ammonium	Acceptable
Secondary Treated Water	BOD	Acceptable
	pH	Acceptable
	TSS	Take Action



This screenshot shows a tablet displaying a map with various colored overlays and a data visualization at the bottom. The map appears to be a street view with different colored lines and markers. The data visualization at the bottom is a bar chart with multiple bars of different colors.

This screenshot shows a smartphone displaying a 'City View' map. The map shows a city street grid with various colored markers and overlays. The phone's status bar at the top shows the time as 15:15:29.

IBM SolutionsConnect 2013

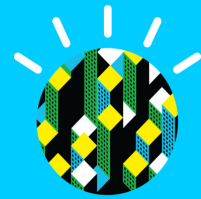
Examples of Smarter Cities Solutions that exists in the 4 corners of the world, (in 12 languages)

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



Montpellier

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.



IBM SolutionsConnect 2013

Innovation Lab mission



IBM Centers for Advanced Studies

Smarter Cities and R&D Projects Leverage IBM Infrastructure & Data

Smarter Water

Unique expertise
Combine HPC knowledge
and IBM solutions and
assets

Smarter Cities

European Reference
Focus Transport & Water
Locally hosted

Energy & Buildings

1st R&D Project
Pilot in Montpellier
European Project

BIG Data, Business Analytics and Predictive analysis

IBM Smarter Cities Software Stack and Solutions
Replicable assets, demonstrations

IBM Infrastructure
PureSystem, System z, POWER, Intel clusters
HPC Clusters



LEA09P1

IBM

IBM SolutionsConnect 2013

Smarter Water CoE

Coastal flooding : LittoCMS

- Development of **specialized tools based on advanced analytics for real time alert and crisis management.**
- Enable major cities WW to forecast and **manage coastal flood risk**

Urban Flood Risk Management

- Build a new Urban Flood Forecast solution, through a R&D Partnership Enable major cities WW to forecast and **manage coastal flood risk**
- Combine Surface Flow Modelling & Ground/Infiltration Modelling. 3D Visualization of flood prediction /Validation of the solution with data from Montpellier City
- IBM Role High Performance Computing Skills (Application Tuning, Model Coupling) & Infrastructure access

Weather forecast : Deep Thunder

- IBM Research Solution, deployed in Rio city command center for **Urban Flooding Prediction based on HPC Weather Forecast Models**
- Produce **operational weather forecasts** for urban and suburban areas at a **~1km horizontal scale** with sufficient lead time, typically 2 days. Combines Environmental modelling for Flood Prediction, Decision Making and Damage Modelling
- Based on short scale, high-resolution weather forecast (a couple of kms) and flood modelling (down to a few 10s of meters)



IBM SolutionsConnect 2013

Smarter Energy/ Building

RIDER Project – Smarter Building



- A vision of “Improving Energy Efficiencies Through the Use of IT”
- First Innovation Lab R&D project (3 years) – started April 2010
- A consortium, led by IBM, of large, small & medium enterprises and university labs in the Languedoc Roussillon region (France).
- The objective of RIDER is to improve energy efficiency by analyzing and increasing data knowledge through the use of sensor data and various other data

“IDEAS” FP7 Project



It will contribute to the **European Energy-Efficient Initiative** by **developing management and control systems, and decision-support systems** addressing the dynamics of energy supply and demand in neighbourhoods and extended urban/rural communities.

In addition, it will consider appropriate business models, how to split incentives, engage end users and public authorities to deploying such systems



IBM SolutionsConnect 2013

Smarter Cities - Real case summary

Promote and develop innovative and assets around Data applied to Smarter Cities in order to engage customer and collaborative R&D projects

- Identify with national and european cluster the technology bottleneck and engage on creating a breakthrough
- IBM solution engaged : SW Smarter Cities, Infrastructure solutions, GBS expertise
- Technical solutions benefit : Integrate, combine real time data and predictive analytics to provide a centralized view to decision makers and operations



IBM SolutionsConnect 2013

Smarter Cities : contacts

YouTube : View our videos on IBM Client Center Montpellier
[YouTube playlist](#)
[Montpellier Smarter Planet Showcase](#)
[IBM Innovation Lab Montpellier](#)
[IBM Smarter Cities](#)
[IBM Intelligent Operations Center on IBM System z for Smarter Cities](#)
IBM Client Center Intranet
Visit our Smarter Water Management page on our new designed [website](#)
Twitter - Follow us [@IBMCCMPL](#)
IBM Internet
[Smarter Water Management](#)
[Water for Tomorrow](#)



Philippe Sajhau
Vice President, Smarter Cities Growth Initiatives, IMT France



Wolfarth, Eric
Smarter Cities Sales Manager



Kimberly Drouot
Smarter Cities
Brand Client Representative



Samir Naji
Smarter Cities PreSales



Olivier Hess
Executive Tech Leader



Denis Gras
Smarter Cities IT Architect



Virginie Radisson
Innovation Lab Manager



Thank You

