How “situational awareness” is applied as a predictive model, and how research helps mitigating the X-event

Moti Shabtai, President

Qognify FORMERLY NICE SECURITY

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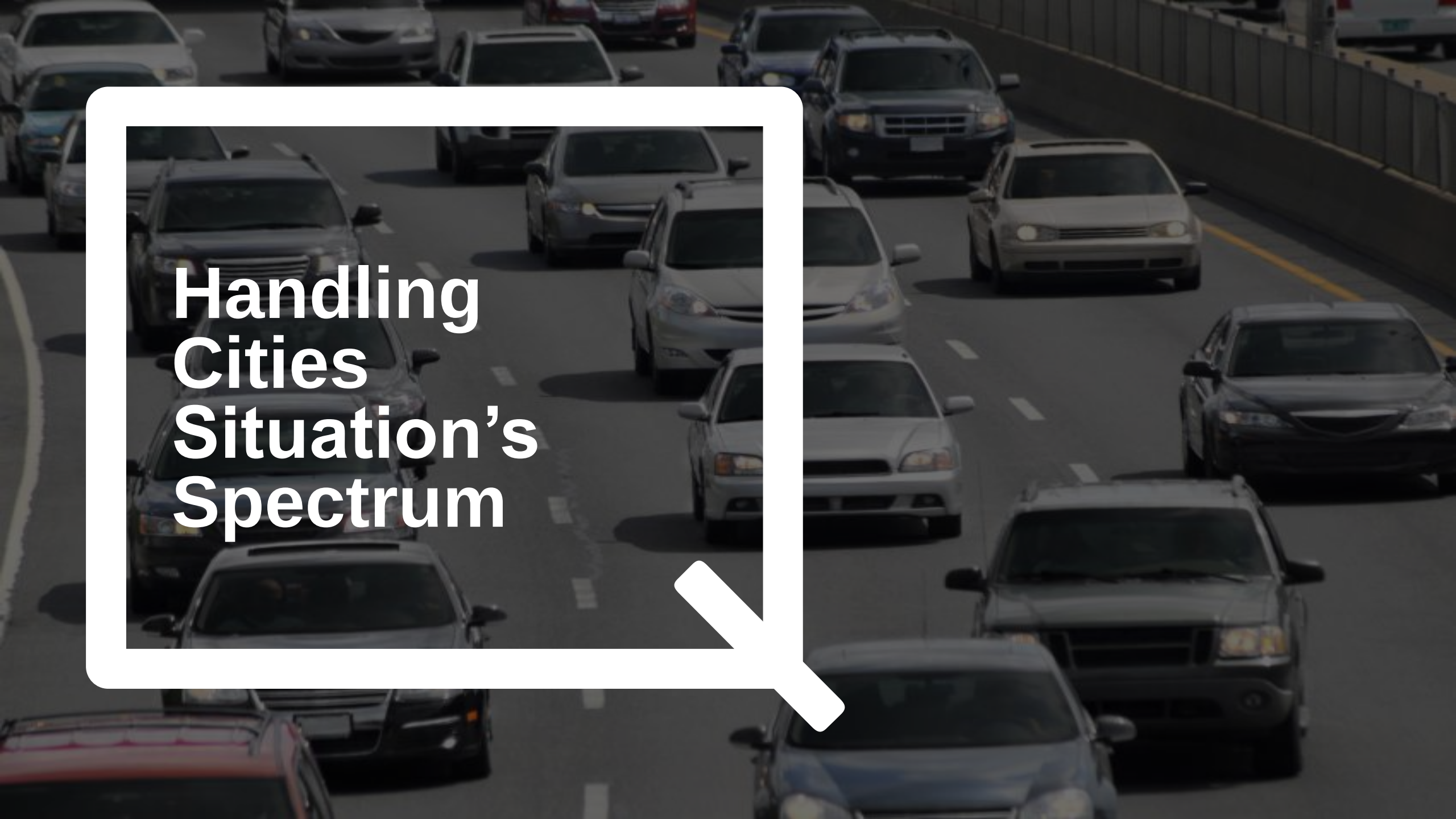
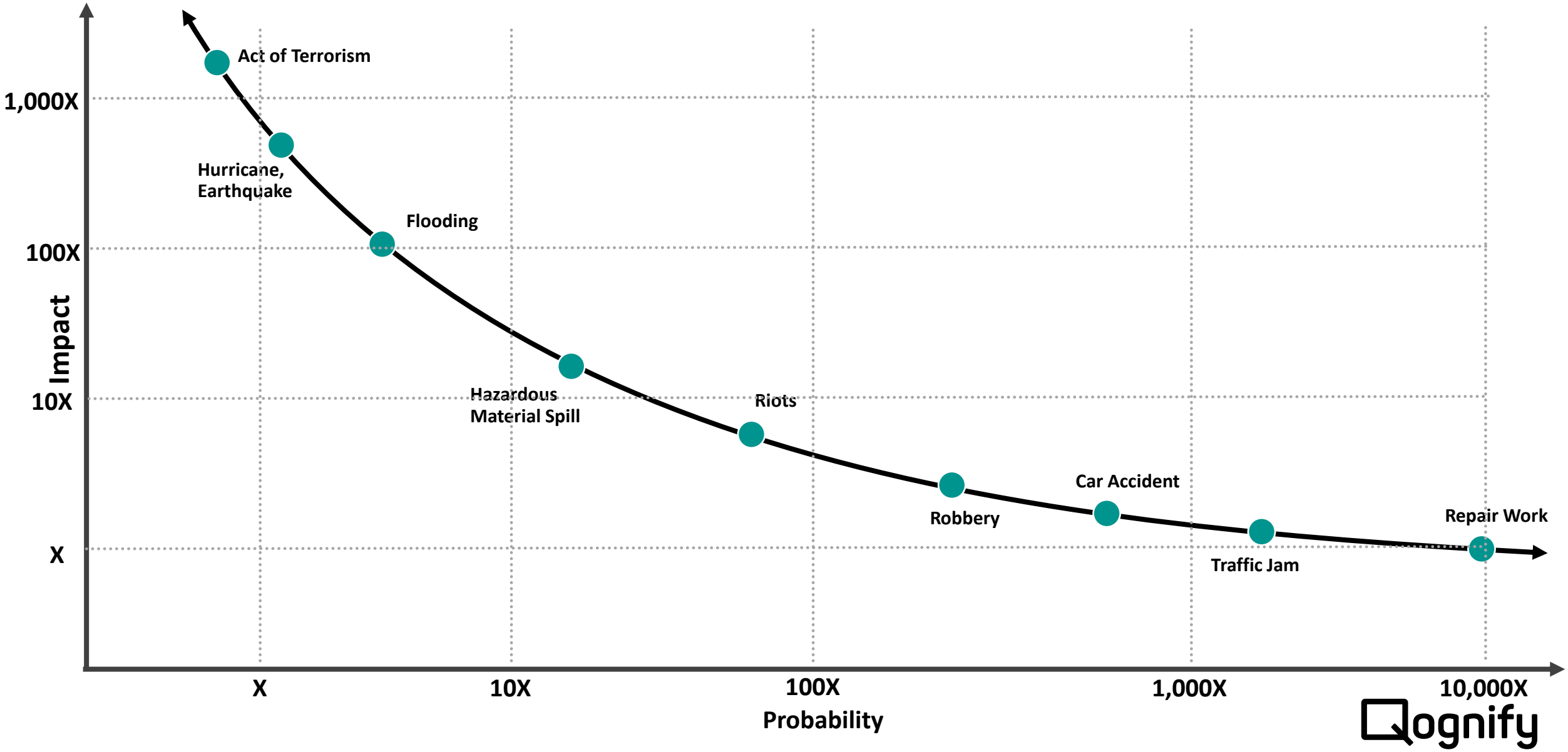
Keeping Cities Safe and Moving


Handling
Cities
Situation’s
Spectrum

City’s situations spectrum



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Implications of Long Tail Incidents – Road Closures

- Direct cost to respond to a **road accident** - **$100,000/hour**
- If **HAZMAT** is involved the cost increases to **$250,000/hour**
- Overall Economic Impact for a **major road closure** – **$800K to $1M /hour**

CDOT Annual report , 2012

City - a complex environment

Difficult to coordinate response in real time

Slowed decision making

Inefficient staff deployment

Costly delays, shutdowns

Sensors

People

Systems

Processes

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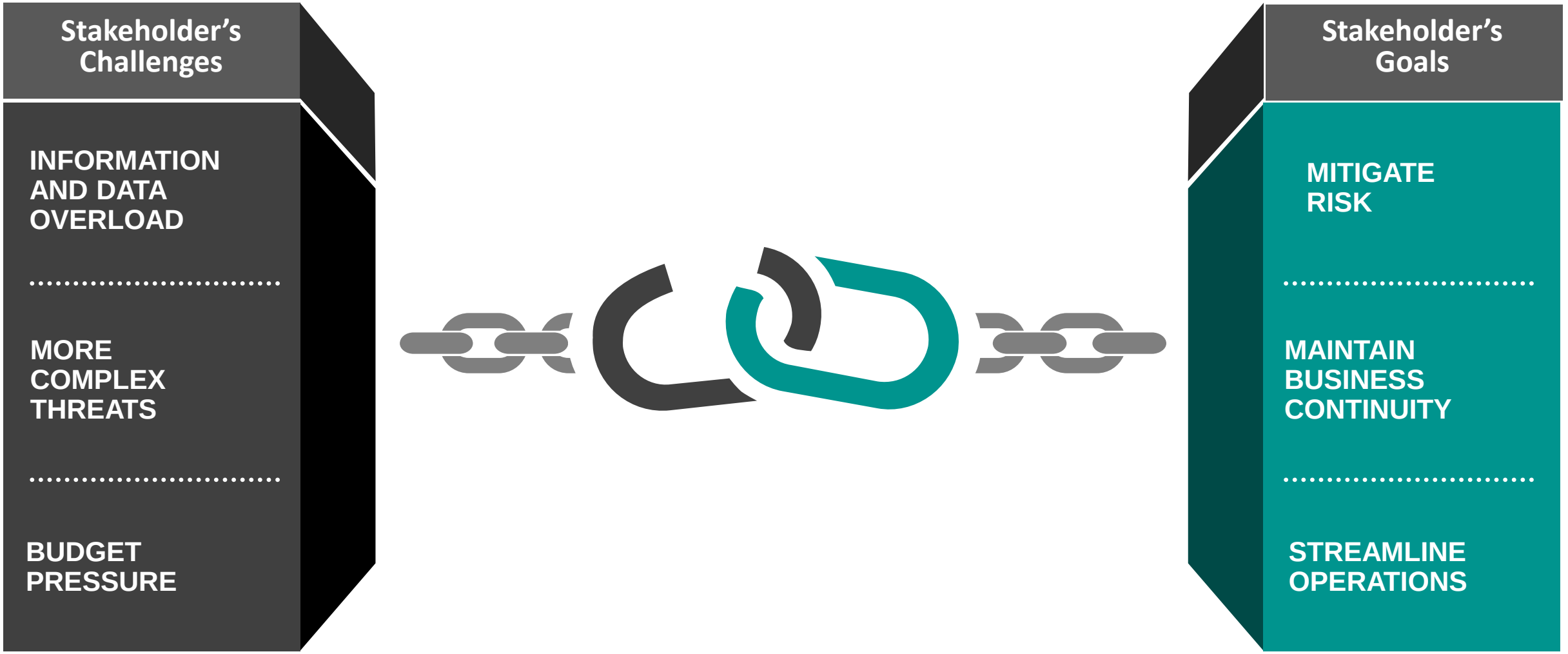
The challenge



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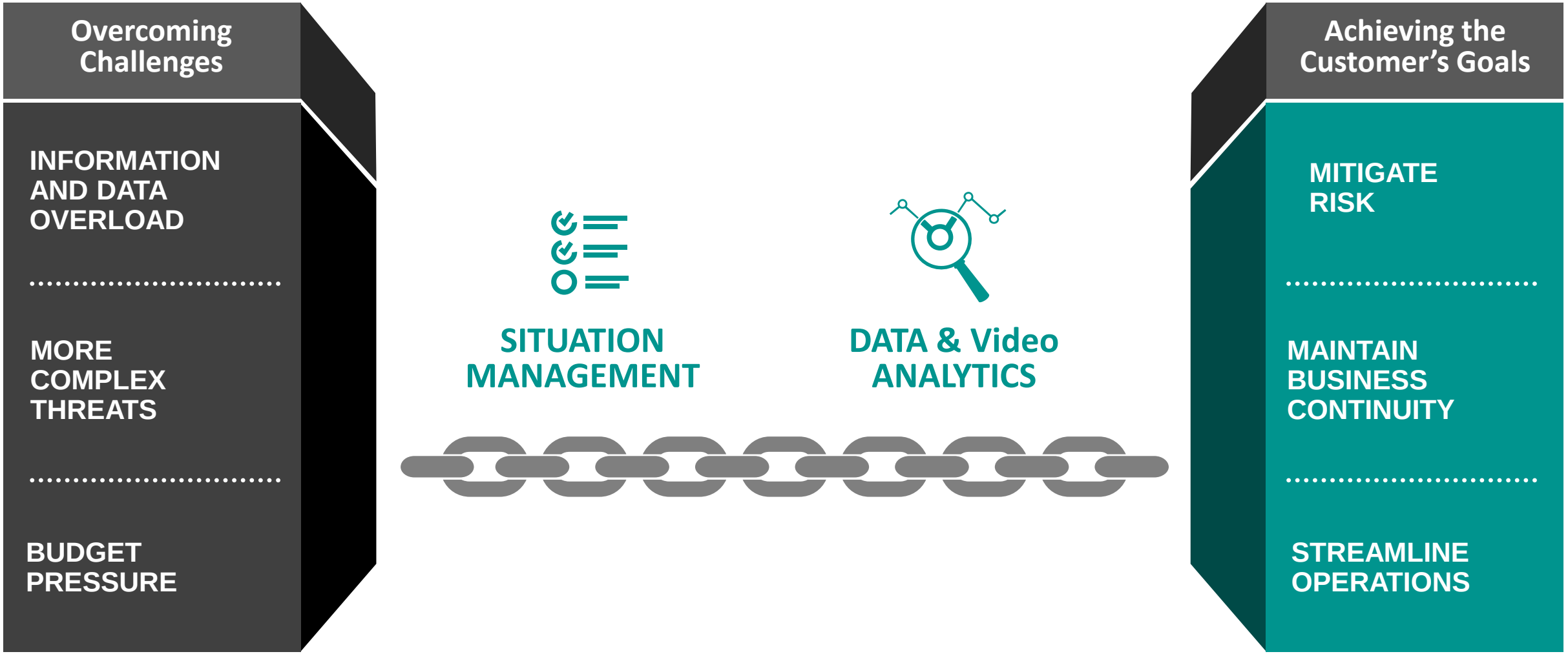
The solution



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The Evolution to Safer and Smarter City
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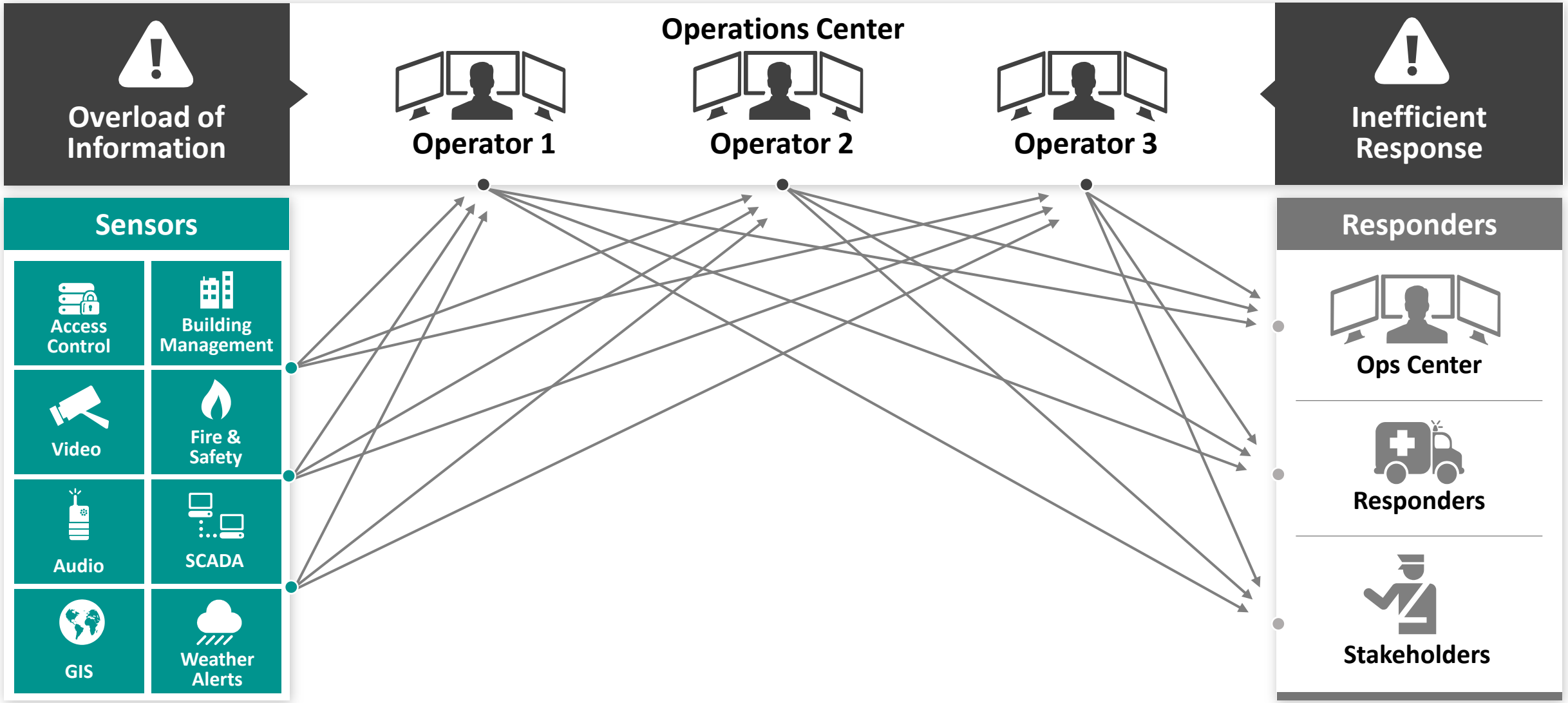
The situation today



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Advanced Situation Management

Situation Awareness

Operations Center

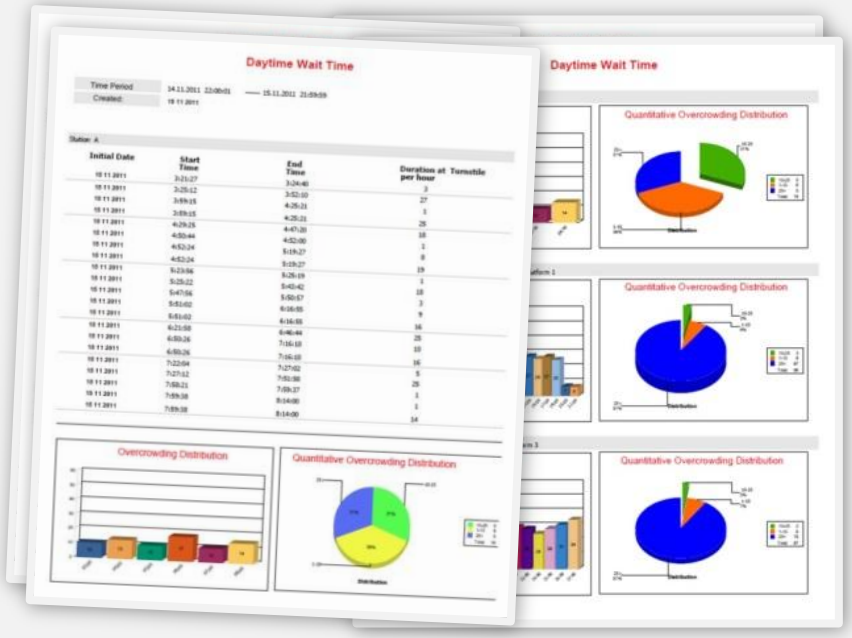
Operator 1 | **Operator 2** | Operator 3

Situation Management

Sensors

- Access Control
- Building Management
- Video
- Fire & Safety
- Audio
- SCADA
- GIS
- Weather Alerts

Detailed Reporting



Responders

- Ops Center
- Investigation & Reporting
- Responders
- Stakeholders

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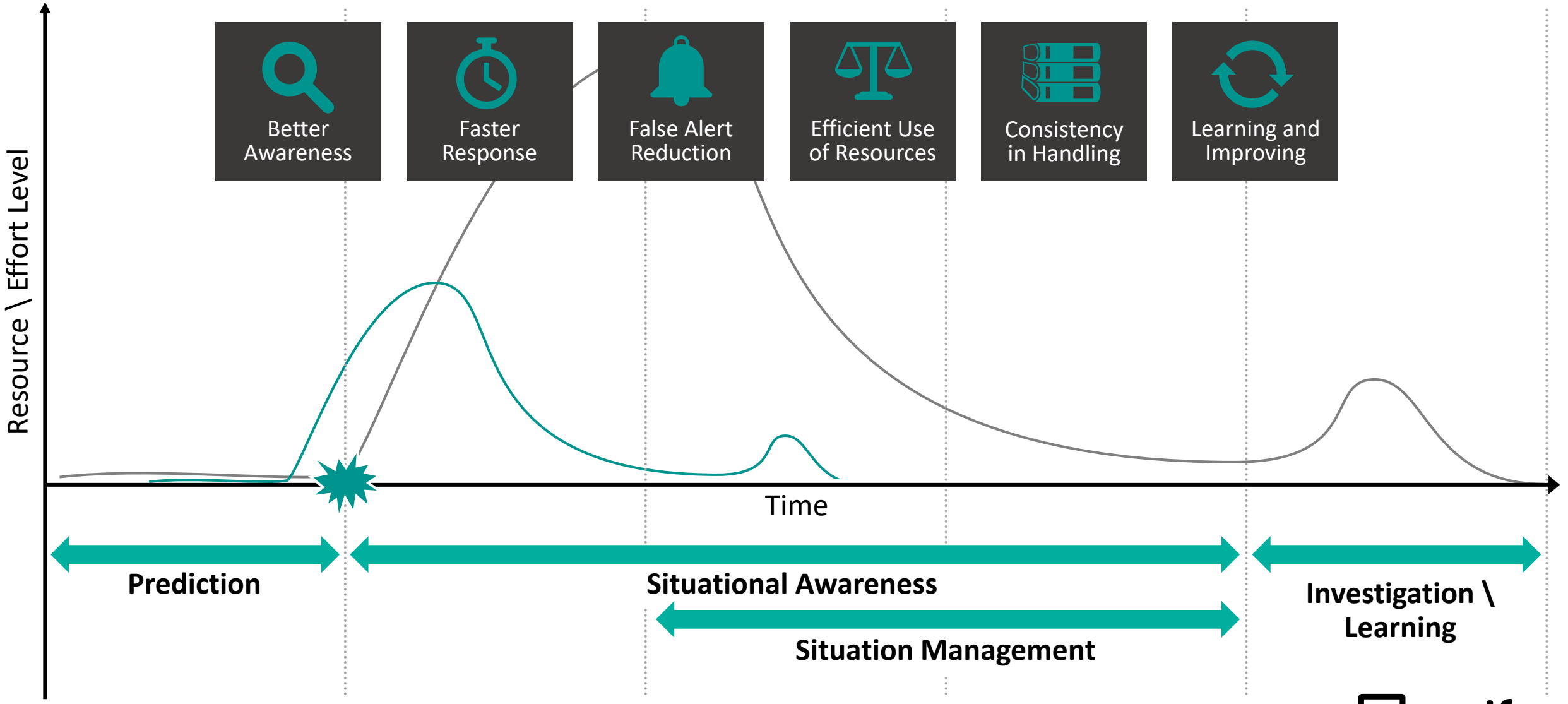
Handling the complete incident lifecycle



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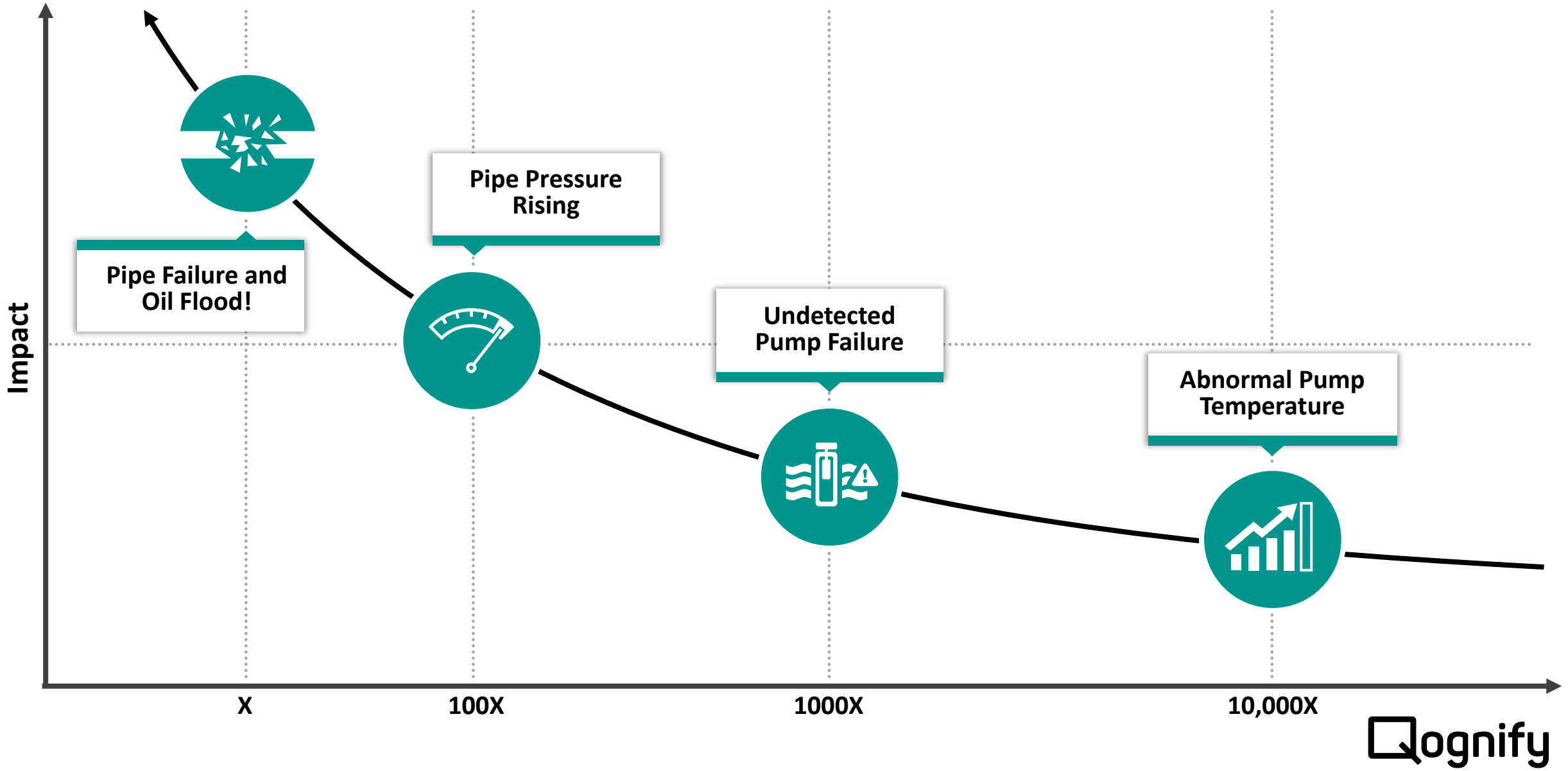
Escalation cycle – from a daily event to an X-Event



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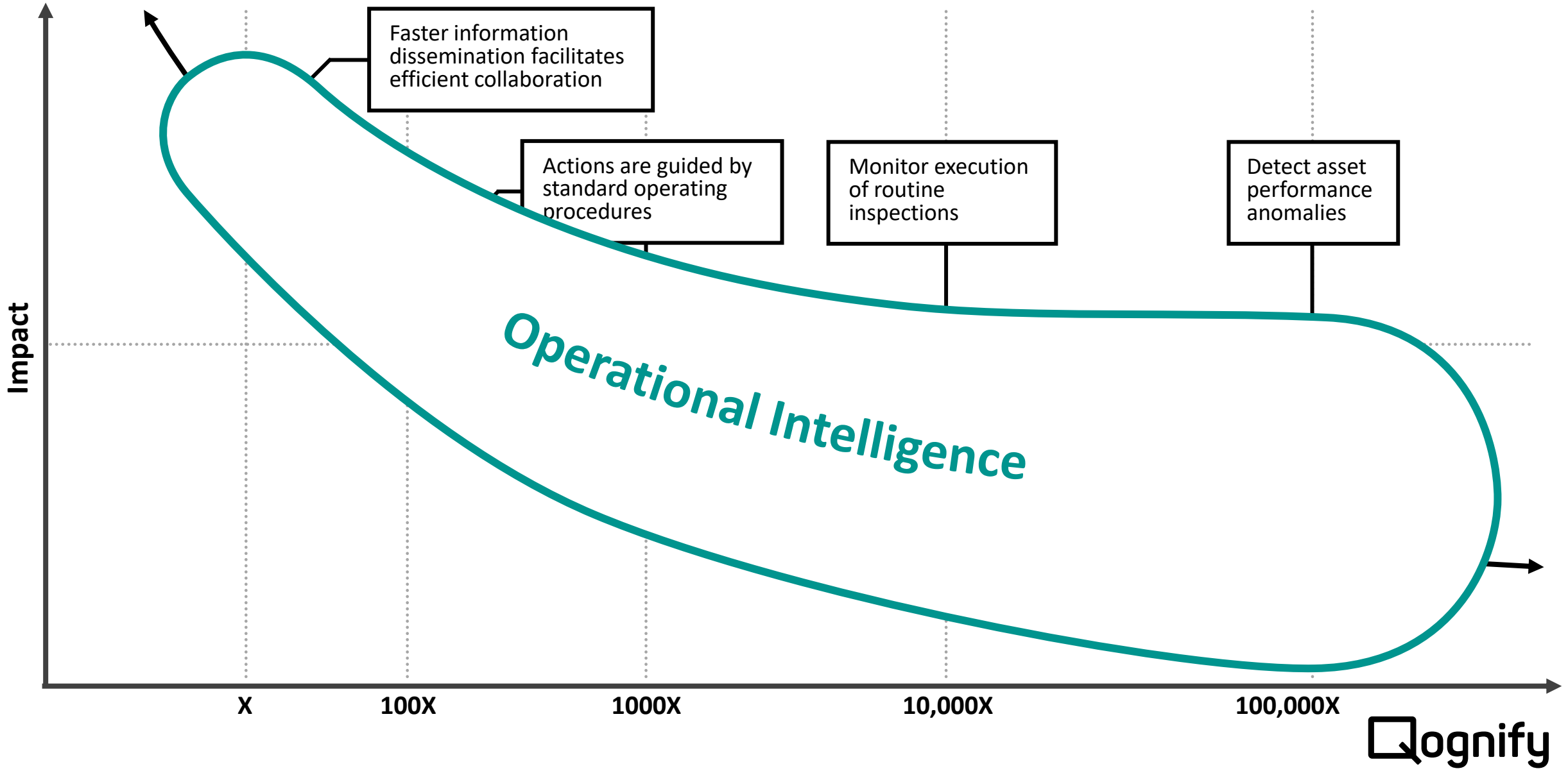
Holistic management of city situations' spectrum



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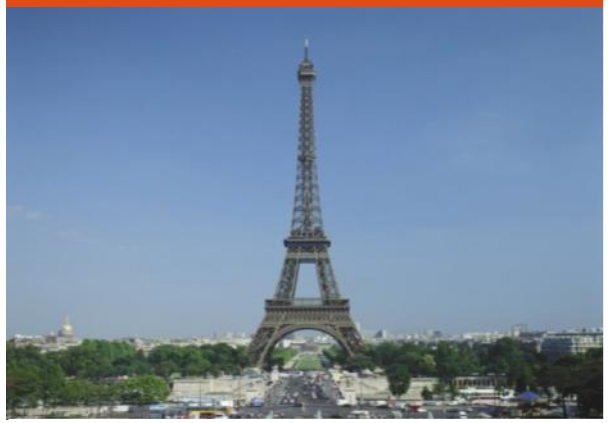
Experience

World's Critical Facilities and Landmarks…

Eiffel Tower



New York City

London Underground

Los Angeles International Airport

New Jersey Transit

Beijing Airport

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…And world's large and sensitive events

New Jersey	Sochi	Glasgow
SUPER BOWL XLVIII NY NJ HOST COMMITTEE	SOCHI 2014	GLASGOW 2014 XX COMMONWEALTH GAMES
DELHI 2010 XIX COMMONWEALTH GAMES	Australia 2014	
New Delhi	Queensland	Presidential Debate (University of Denver)

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Glasgow – Commonwealth Games

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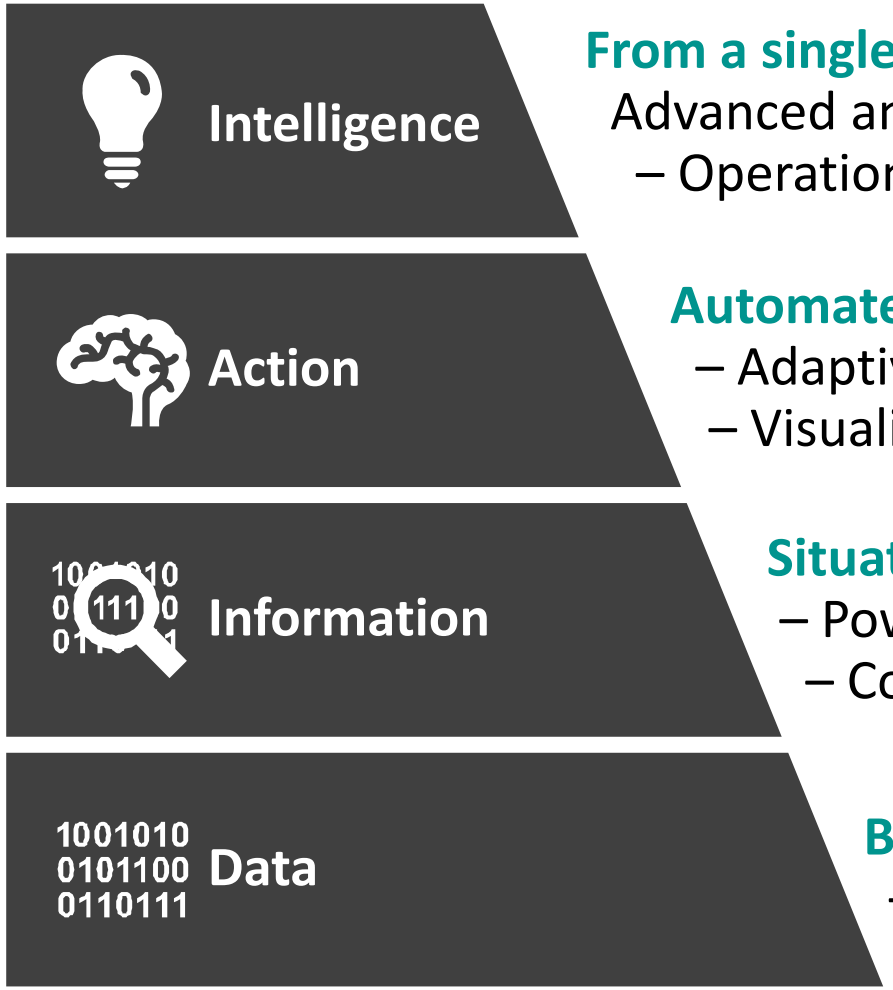
Big Data and Operational Intelligence

Transforming Data Into Operational Intelligence



From a single incident to multiple incidents & overall view of the business

Advanced analytics and reporting tools unlock hidden insights
– Operational Intelligence

Automated and actionable procedure

– Adaptive workflows transform best practices into SOPs
– Visualization of actionable data

Situational Awareness

– Powered by correlation and analysis
– Common Operating Picture (COP)

Black Box

– Integrates and collects structured and unstructured data sources

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The pioneers that lead the new paradigm shift

PUBLIC TRANSPORT

NJ TRANSIT The Way To Go.

MTA

NetworkRail

ProRail

北京地铁 BEIJING SUBWAY

AIR/SEA PORTS

LAX

MIA MIAMI INTERNATIONAL AIRPORT

Naftoport

THE PORT OF VIRGINIA

PORTMIAMI

UTILITIES

AEP AMERICAN ELECTRIC POWER

PSEG

San Diego County Water Authority

FPL

BANKS

Millennium bcp

DEUTSCHE BUNDESBANK EUROSYSTEM

MIZRAHI TEFAHOT

UNITED STATES FEDERAL RESERVE SYSTEM

CRITICAL FACILITIES

San Antonio Military Medical Center

BAYLOR UNIVERSITY 1845

THE UNIVERSITY OF CHICAGO

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Thank You

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