

"Has the key to unlocking Big Data been found?"

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1. Moving the
Big Data
debate on



2. Shedding
light on Dark
Data



3. Introducing
Smart City
Informatics



Unlocking Big Data is complex

Every Geo

Every City

Every Type

=

Even more data.....



....Some of this data goes dark.....



Insight Buried in Unstructured Content

Dark Data?

Content segregated or hidden within an organization

Organizations hoard unanalyzed information because its value is unknown and storage is “cheap”

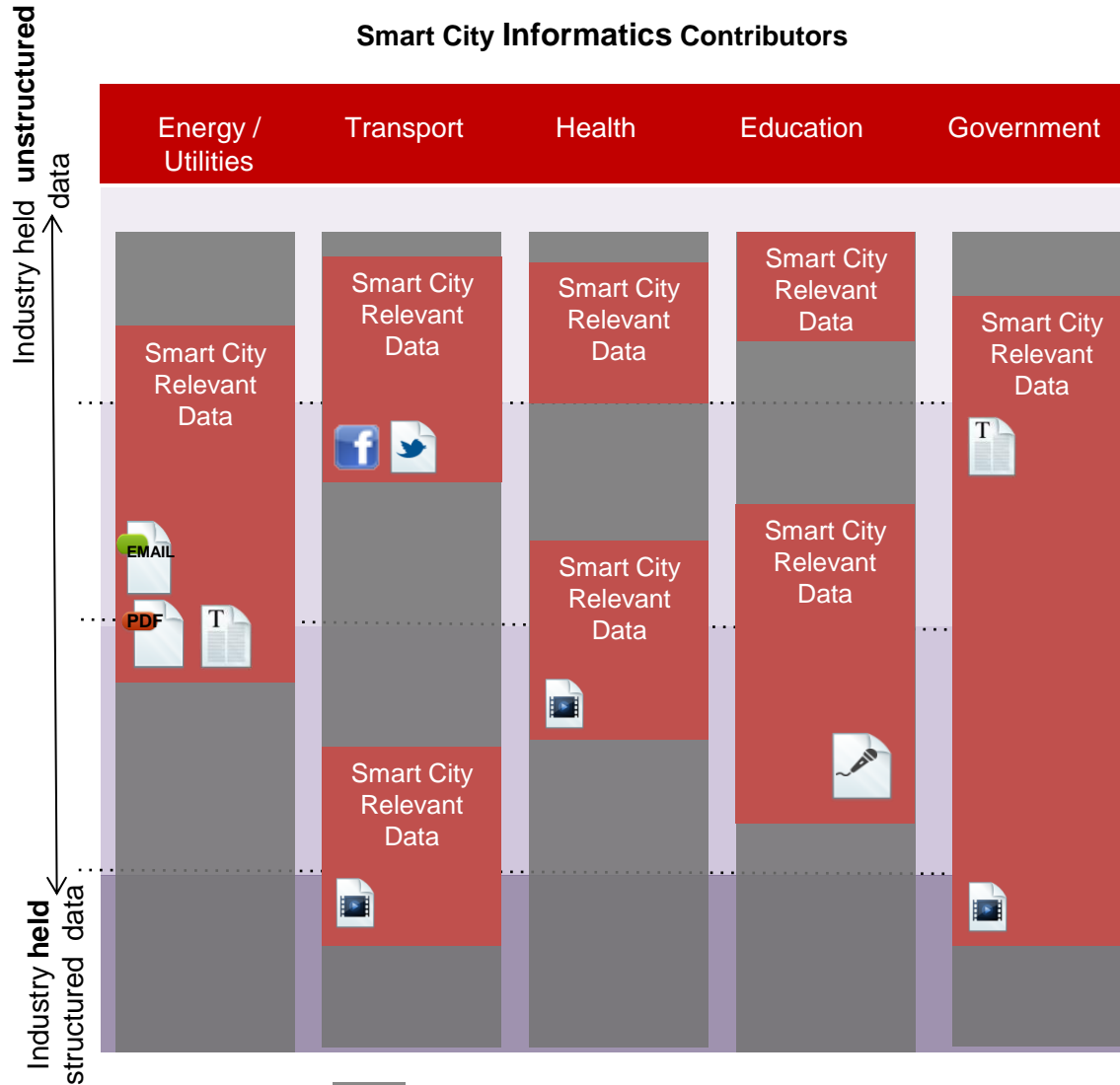
Market opportunity associated with this concept:

- Unstructured content is the biggest untapped source of insight
- Over 2ZB of unstructured content created in 2012
- Less than 0.5 % of total data analyzed today

- IDC believes around 20% could deliver value if analyzed
- That's more than 600EB !
- Unlocking Dark Data has significant impacts on the value of Smart City relevant information
- Solutions are needed that integrate industry wide data sets and unlock dark or silo data

Unlocking Dark Data for more empowerment

Smart City Informatics Contributors



 = Where there are Silos, there is Dark Data

Value lies in breaking down and integrating smart city data held in a number of different sectors.

- Smart Energy:
 - Demand management, EV Systems, renewable energy integration, Smart meters, grid analytics, etc.
- Smart Transportation
 - Traffic monitoring, congestion management, smart parking, vehicle telematics, etc.
- Smart Buildings
 - Security surveillance, building energy management, intelligent lighting, etc.
- Smart Government
 - Social care, tele-health, citizen portals, waste collection, public safety etc.
- Smart Water
 - Consumption monitoring, flood management, weather forecasting

Case Study: How Hitachi is unlocking Dark Data

Improving Public Safety by turning Dark Data into actionable Smart City information.



No
solution
for looking
at Dark
Data



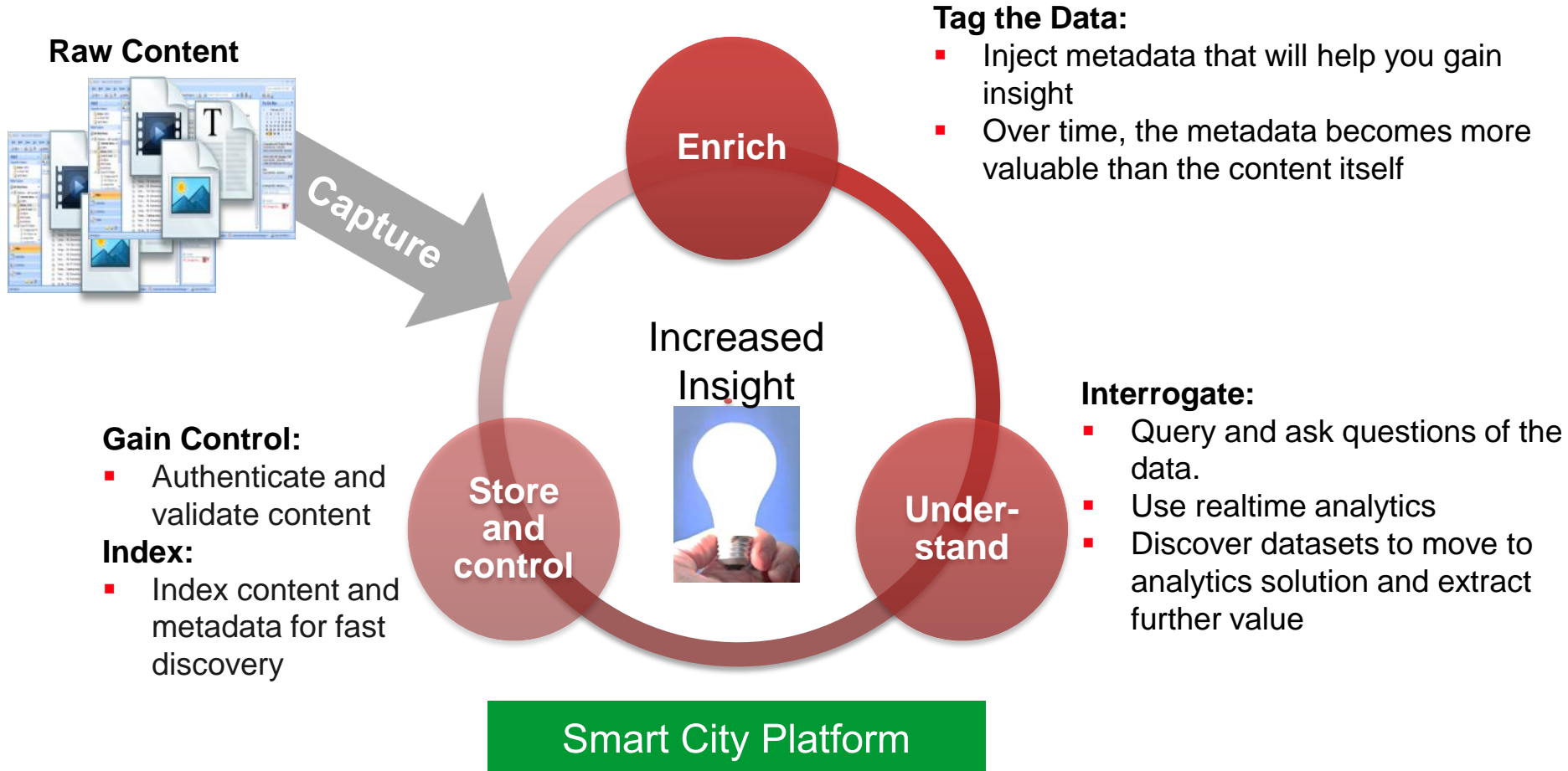
All data is
analyzed

Business challenge:

- Police dash cam video feeds captured daily but not providing actionable intelligence
- Only used for individual post-incident analysis and has limited strategic or operational value
- Limited ability to share across agencies

Solution:

- Continuous video upload into central store – so no data goes dark
- Faster footage access and sharing across City & organization boundaries
- Improved trend analysis for better City wide operations



Content is organized, validated, accessible, discoverable and ready to drive new insight

Some observations on the market:

- Smart City deployments will increase the amount of data being held.
- Connectivity for Citizens will drive explosion of data, scale , innovation
- Understanding Big Data alongside the rise of Internet of Things results in more data. This data is relevant and should not go dark.
- Strategies are required that unlock dark data in a smart city context.
- Integrating Big Data strategies alongside Smart City strategies provides a key to better information insight.
- Urban Operating Systems are evolving to address the challenges associated with Big Dark Data.

Items for management consideration:

1. A Big Data strategy must address the increase in dark data volumes.
2. Understand the frequency issues - managing real-time dark data with your analytical capabilities requires alignment of policies, processes and technical enablement.
3. People/Citizen Centricity, not just a technical solution. Behavioural Science and Belief Systems exclude closed off the shelf solutions.
4. Develop governance solutions that protect the integrity of the data - especially if it comes from external sources.
5. Develop Urban Operating Systems to manage the complexity, velocity and variety of the required data.

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