



# Smart cities, big data e imprese di servizi: Il valore dell'intangibile

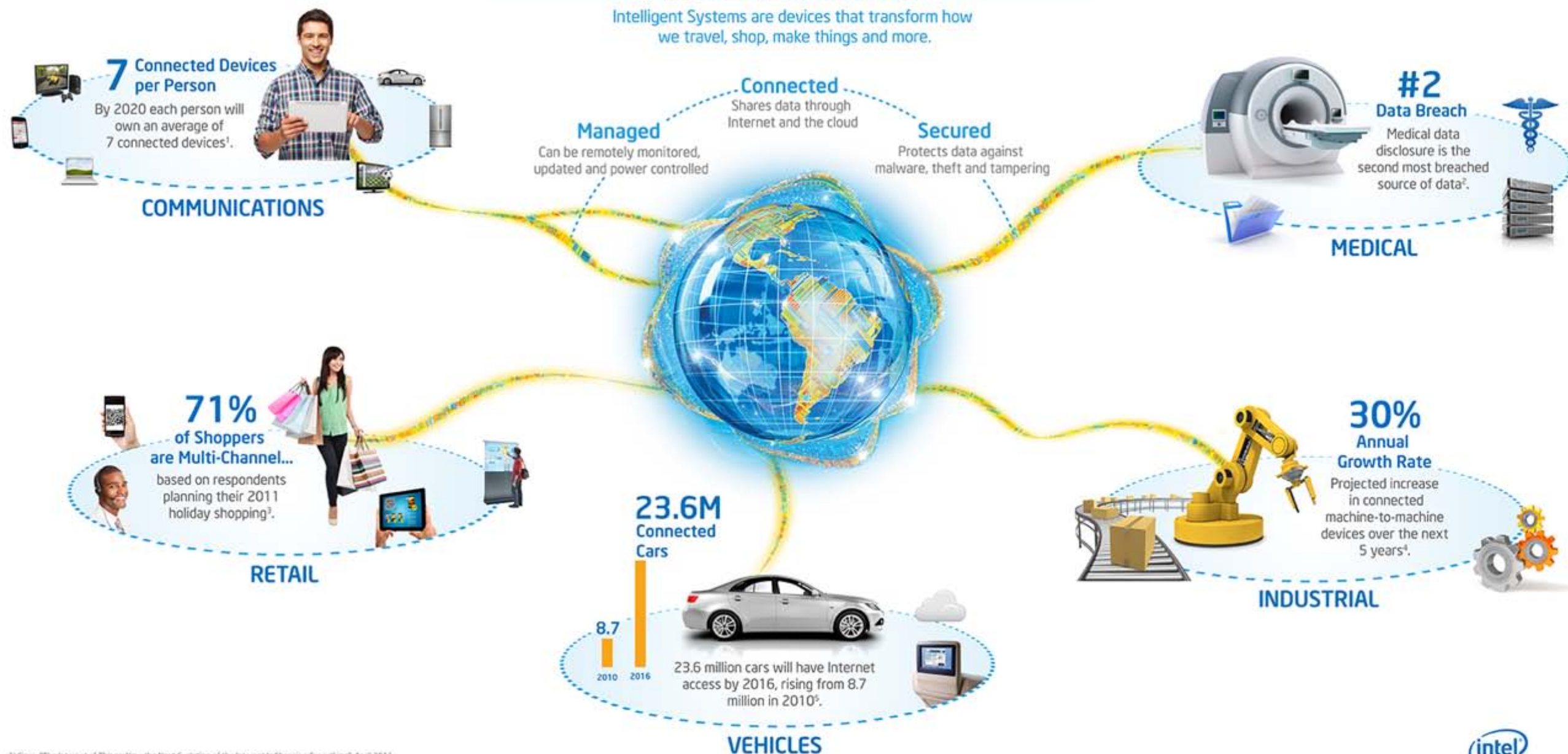
Luigi Gregori



# Intelligent Systems for a More Connected World

## WHAT ARE INTELLIGENT SYSTEMS?

Intelligent Systems are devices that transform how we travel, shop, make things and more.



1) Cisco, "The Internet of Things: How the Next Evolution of the Internet is Changing Everything", April 2011

2) Bloor Research, "Security challenges in the US healthcare sector" White Paper, December 2010, <http://www.mcafee.com/us/resources/white-papers/wp-bloor-healthcare-security.pdf>

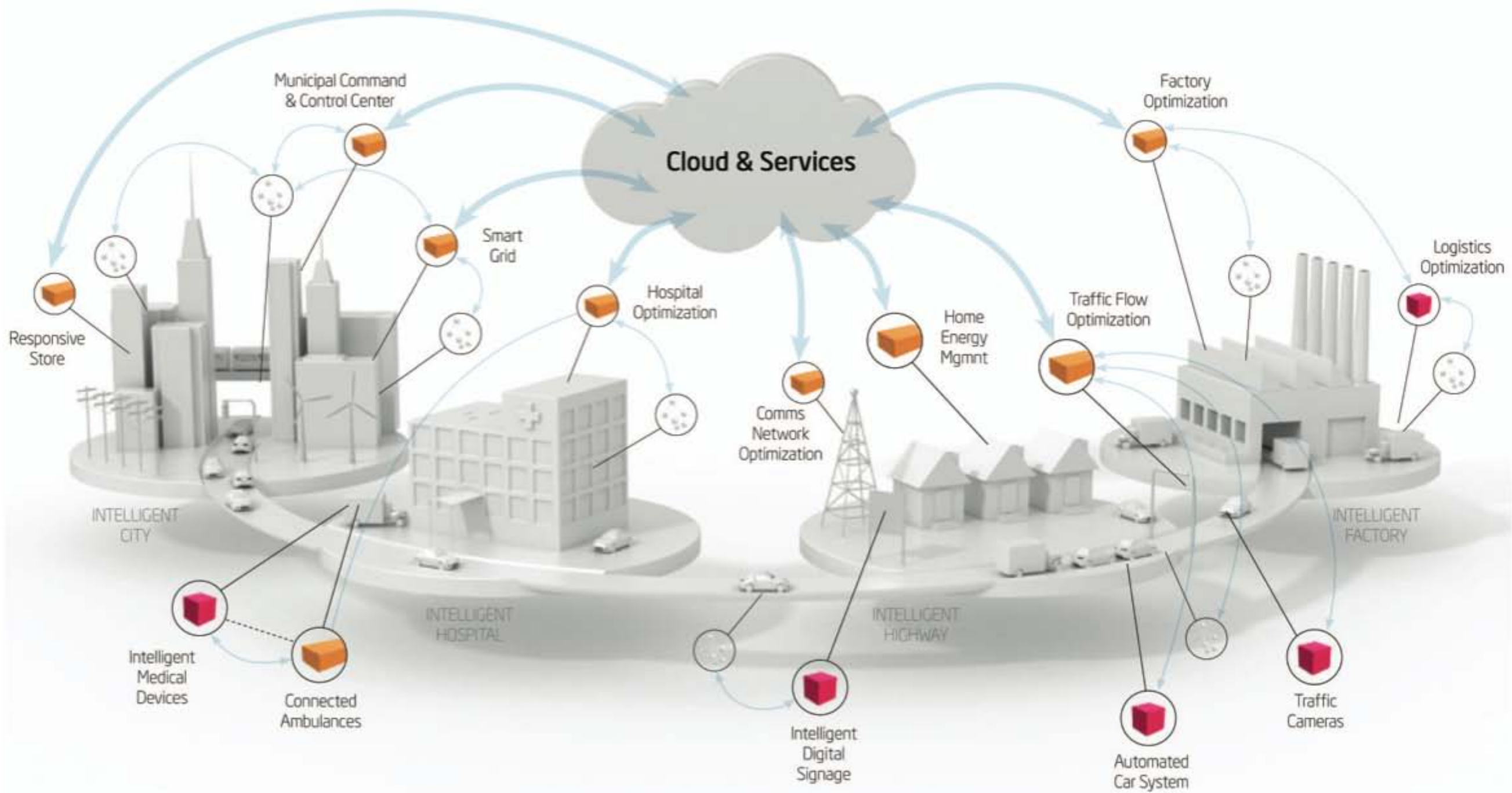
3) Deloitte U.S., 2011 Annual Holiday Survey, [http://www.deloitte.com/assets/Doc-UnitedStates/Local%20Assets/Documents/Consumer%20Business/us\\_retail\\_AnnualHolidaySurvey\\_2011\\_pr\\_102611.pdf](http://www.deloitte.com/assets/Doc-UnitedStates/Local%20Assets/Documents/Consumer%20Business/us_retail_AnnualHolidaySurvey_2011_pr_102611.pdf)

4) McKinsey Global Institute analysis, "Big data: The next frontier for innovation, competition, and productivity", June 2011

5) Wall Street Journal, <http://online.wsj.com/article/SB10001424052702304066504576349763614933044.html>, estimate from research firm, Frost & Sullivan

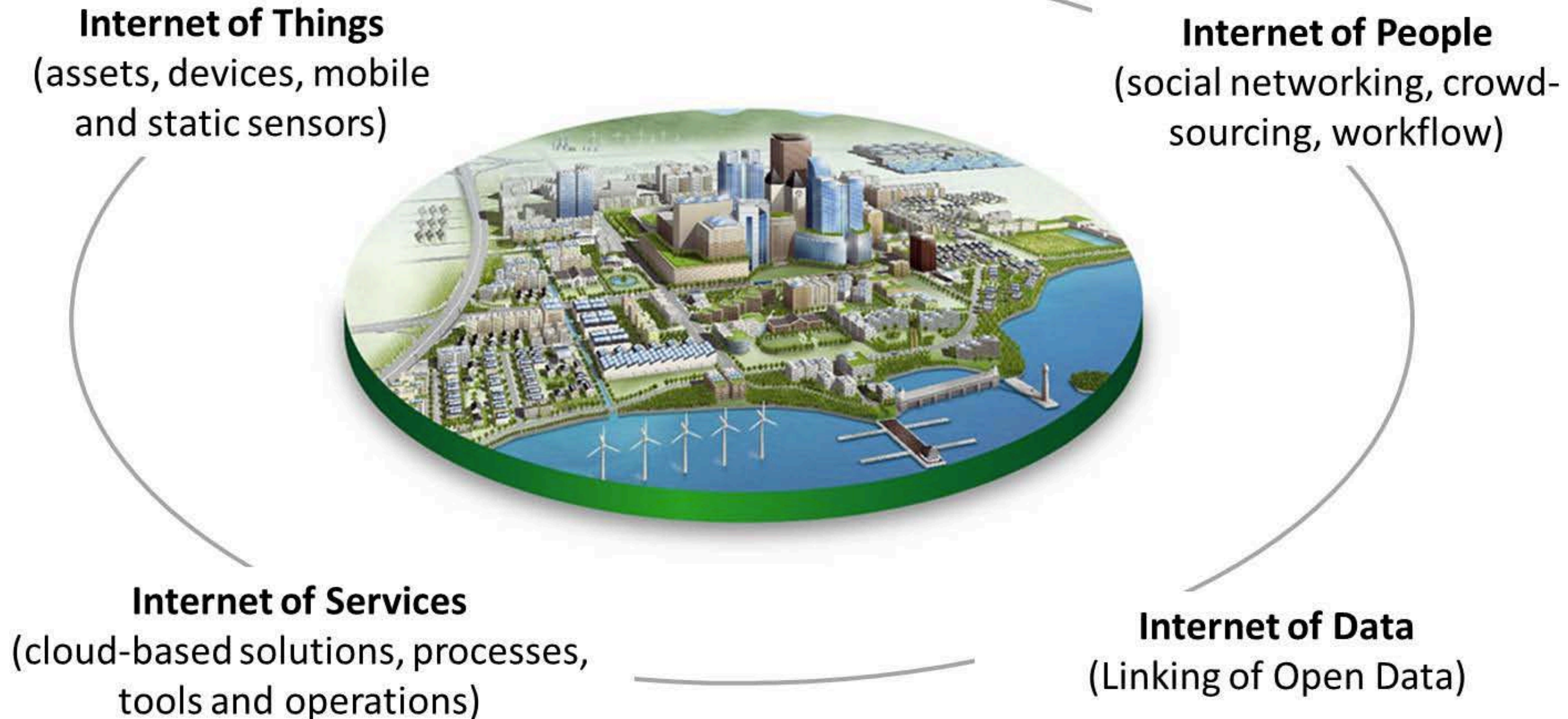
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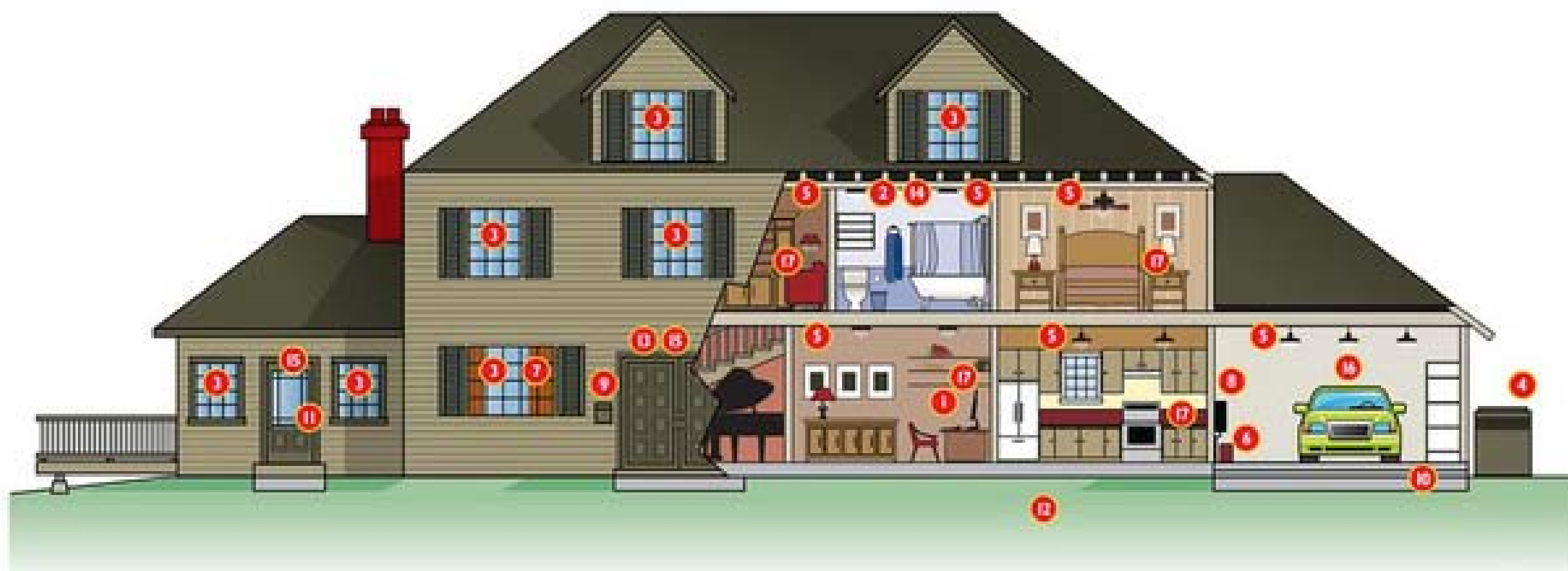






# Internet of ...

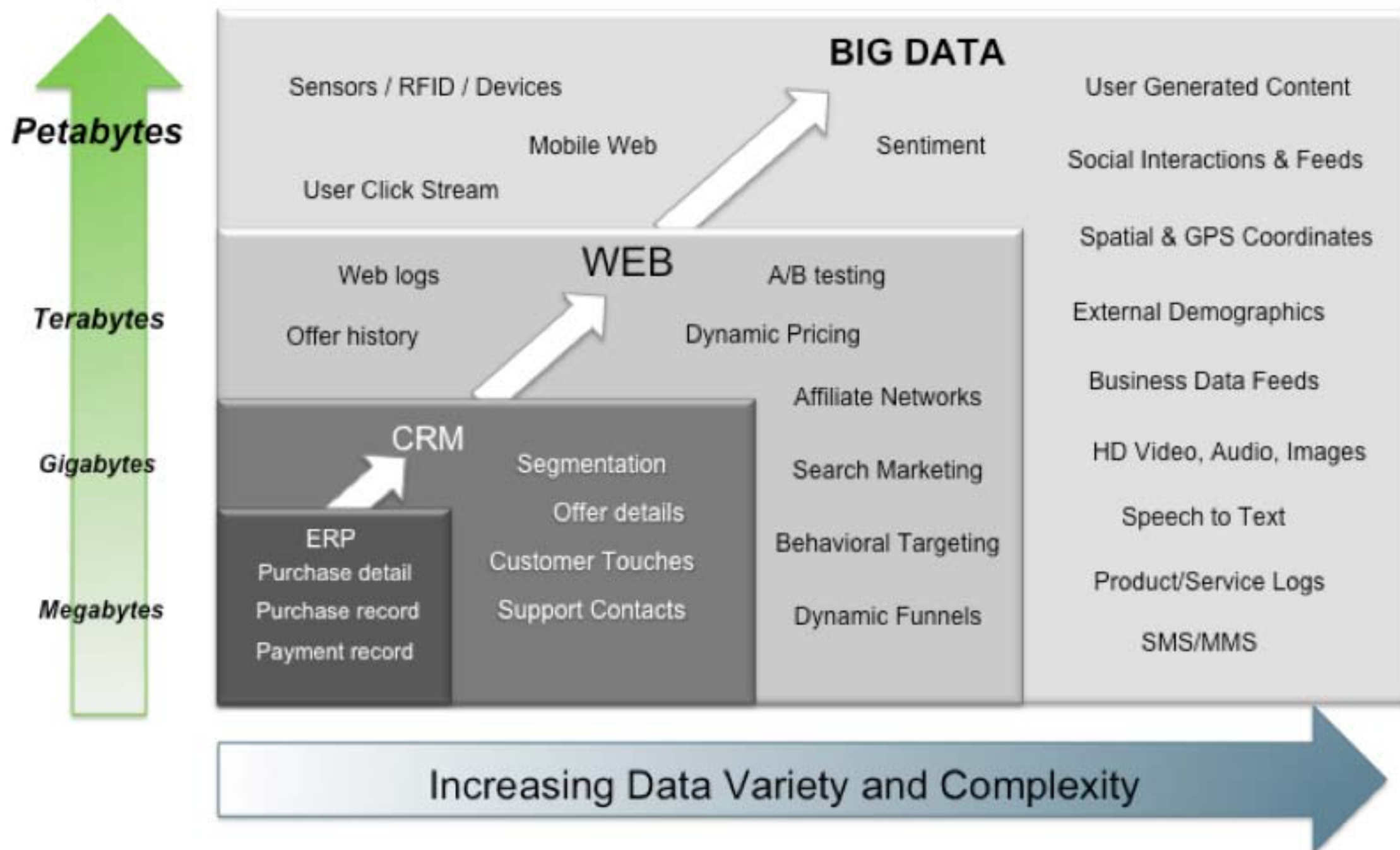




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- |  |                        |                                   |
|--|------------------------|-----------------------------------|
| 1 Ambient Intelligence Agent (Aml) Control | 6 Automatic Pet Feeder | 12 Lawn Moisture Sensor           |
| 2 Light Sensor                             | 7 Motorized Drapes     | 13 Face Recognition Sensor        |
| 3 Windows and Door Control                 | 8 Automatic Watering   | 14 Motion Sensors                 |
| 4 HVAC Control                             | 9 Mailbox Sensor       | 15 Door Sensors                   |
| 5 Lighting Control                         | 10 Driveway Sensor     | 16 Aml Interface with Car         |
|  | 11 Security System     | 17 Aml Interface with Smart Phone |

# Big Data = Transactions + Interactions + Observations



*Source: Contents of above graphic created in partnership with Teradata, Inc.*



# Big data

Volume

Velocità

Varietà

Veridicità





# Google Cloud Platform

[Go to my console](#) | [Sign out](#)[Why Google](#) **Products** [Solutions](#) [Customers](#) [Developers](#) [Support](#) [Partners](#)[Contact sales](#) or[Try it now](#)

## BigQuery

Analyze Big Data in the cloud with BigQuery. Run fast, SQL-like queries against multi-terabyte datasets in seconds. Scalable and easy to use, BigQuery gives you real-time insights about your data.

[Try it now](#)

1 Terabyte = 1.000.000.000.000 byte



Bibbia = 1 Mb = 1.000.000 byte



Welcoming the  
knowledge economy!



# La squadra

- Sensori
- Reti
- Software
- Servizi





# Smart non è



Connettività

Sensori





# Smart è



## Reazione intelligente



# Smart è



## Collaborazione

# Smart è

Aumento dei  
servizi



Ridurre i costi





# Un nuovo approccio

- Ridurre gli sprechi



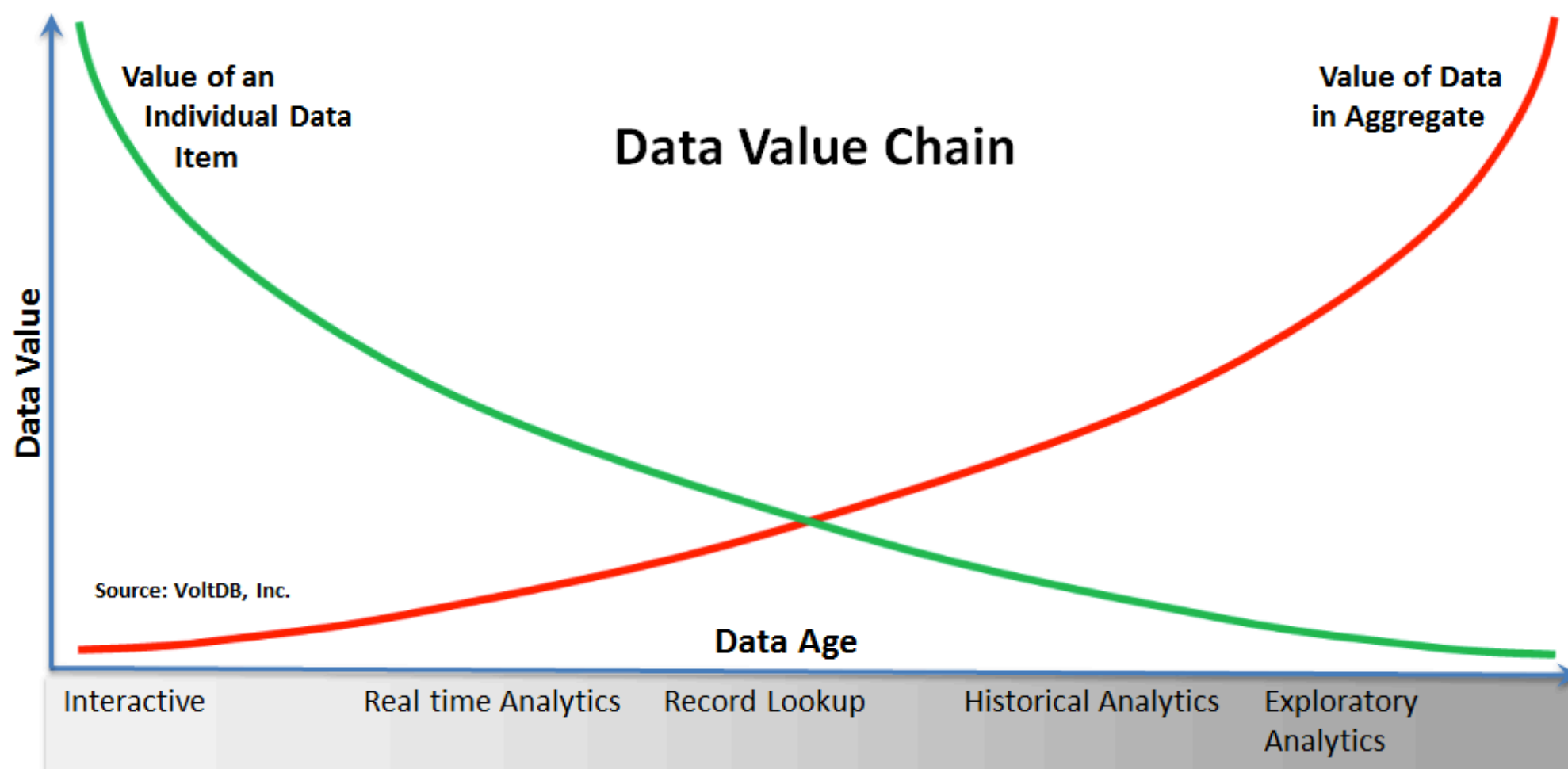
- Non fa crescere il PIL , ma rafforza l'economia!

# Il valore delle idee...

- Quanto valgono I tuoi dati?
- Sei disposto a venderli?
- Perché sembrano senza valore per te e valgono per gli altri?
- Le idee valorizzano i dati







# Quanto valiamo?



\$ 110



\$ 98



\$ 93

Forbes 7.11.2013



# I fattori abilitanti

- Cloud Computing
- Big Data
- Open Data
- Big Code

Google | [google.com/datacenters](http://google.com/datacenters)



# DARPA Open Catalog

<a href="#">AA</a>	UPDATED	The Active Authentication (AA) program seeks to develop novel ways of validating the identity of computer users by focusing on the unique aspects of individuals through software-based biometrics. Biometrics are defined as the characteristics used to recognize individuals based on one or more intrinsic physical or behavioral traits. This program is focused on behavioral biometrics.
BOLT	COMING SOON	The Broad Operational Language Translation (BOLT) program is aimed at enabling communication with non-English-speaking populations and identifying important information in foreign-language sources by: 1) allowing English-speakers to understand foreign-language sources of all genres, including chat, messaging and informal conversation; 2) providing English-speakers the ability to quickly identify targeted information in foreign-language sources using natural-language queries; and 3) enabling multi-turn communication in text and speech with non-English speakers. If successful, BOLT would deliver all capabilities free from domain or genre limitations.
<a href="#">CFT</a>	UPDATED	The Cyber Fast Track (CFT) program sought revolutionary advances in cyber science, devices, and systems through low-cost, quick-turnaround projects. To achieve this, CFT engaged a novel performer base many of whom were new to government contracting. From August 2011 to April 2013 the program attracted 550 proposal submissions, of which 90 percent were from performers that had never previously worked with the government, and awarded 135 contracts.
<a href="#">CSFV</a>	NEW	Crowd Sourced Formal Verification (CSFV) is a DARPA program that aims to investigate whether large numbers of non-experts can perform formal verification faster and more cost-effectively than conventional processes. The goal is to transform verification into a more accessible task by creating fun, intuitive games that reflect formal verification problems. Playing the games would effectively help software verification tools complete corresponding formal verification proofs.
<a href="#">Cyber Defense (CyberGenome)</a>	NEW	The Cyber Defense Program is developing the core computing and networking technologies required to protect DoD's information, information infrastructure, and mission-critical information systems. This includes new cyber-forensic techniques to automate the discovery, identification, and characterization of malware variants and thereby accelerate the development of effective responses.
<a href="#">DCAPS</a>	NEW	The Detection and Computational Analysis of Psychological Signals (DCAPS) program aims to develop novel analytical tools to assess psychological status of warfighters in the hopes of improving psychological health awareness and enabling them to seek timely help. DCAPS tools will be developed to analyze patterns in everyday behaviors to detect subtle changes associated with post-traumatic stress disorder, depression and suicidal ideation. In particular, DCAPS hopes to advance the state-of-the-art in extraction and analysis of 'honest signals' from a wide variety of sensory data inherent in daily social interactions. DCAPS is not aimed at providing an exact diagnosis, but at providing a general metric of psychological health.
<a href="#">DEFT</a>	NEW	Automated, deep natural-language processing (NLP) technology may hold a solution for more efficiently processing text information and enabling understanding connections in text that might not be readily apparent to humans. DARPA created the Deep Exploration and Filtering of Text (DEFT) program to harness the power of NLP. Sophisticated artificial intelligence of this nature has the potential to enable defense analysts to efficiently investigate orders of magnitude more documents, which would enable discovery of implicitly expressed, actionable information within those documents.
<a href="#">HACMS</a>	NEW	The High-Assurance Cyber Military Systems (HACMS) program goal is to create technology for the construction of high-assurance cyber-physical systems, where high assurance is defined to mean functionally correct and satisfying appropriate safety and security properties. Key technologies include interactive software synthesis systems, verification tools, and specification languages.
<a href="#">XDATA</a>	UPDATE	XDATA is developing an open source software library for big data to help overcome the challenges of effectively scaling to modern data volume and characteristics. The program is developing the tools and techniques to process and analyze large sets of imperfect, incomplete data. Its programs and publications focus on the areas of

# Il nuovo mercato

Inventare nuovi servizi

Offrire servizi in outsourcing

Offrire servizi intelligenti (Smart)

Riusare e migliorare (open source / big code)

Costruire e giocare in squadra



# Come PMI

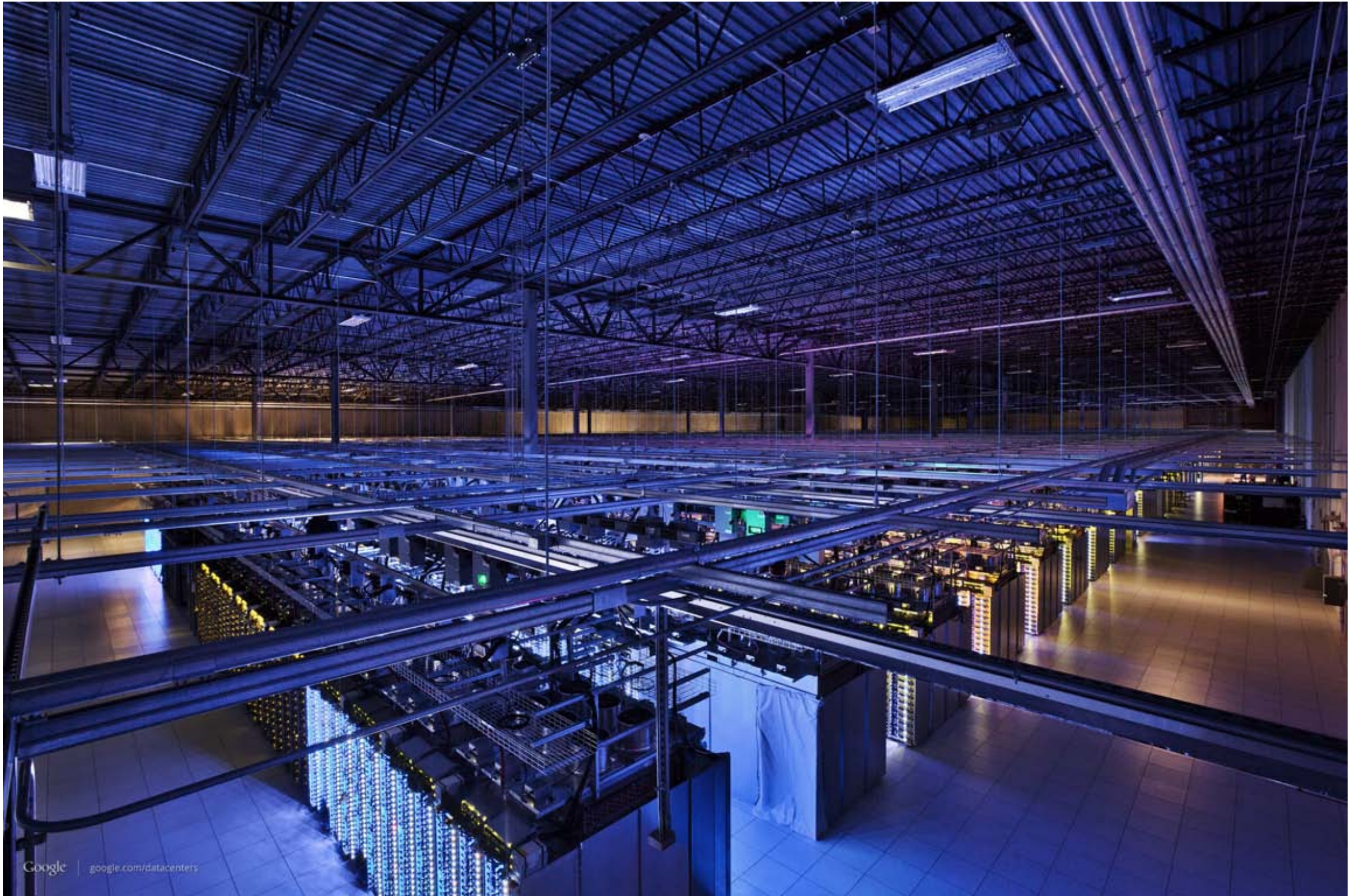
*L'intelligenza* è il fattore chiave per il successo

Formare degli Smart Users

Ripensare l'ICT: da smart cities a smart firm

Passare da DSS e BI a sistemi di inferenziali  
con AI



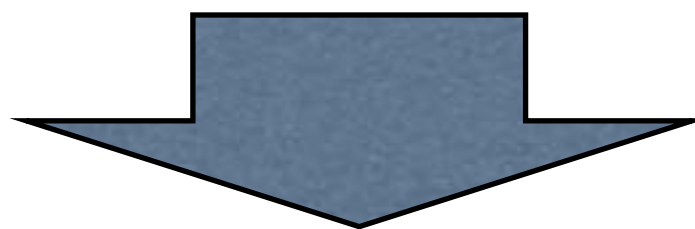




# Il valore dell'intangibile



+





# Salviamo i dati



# E la PA?

- Pianificare la gestione ed il mantenimento di Big Data
- Offrire risorse come Open Data
- Supportare le aziende di servizi che offrono soluzioni Smart
- Legiferare per forzare la condivisione dei dati da parte delle grandi aziende
- Proteggere la proprietà intellettuale su idee ed algoritmi, non con copyright ma finanziando la ricerca



**1 giorno x 100 eventi x il  
Friuli Venezia Giulia 100% digitale**



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# Partecipare insieme





# Coinvolgimento di tutti