

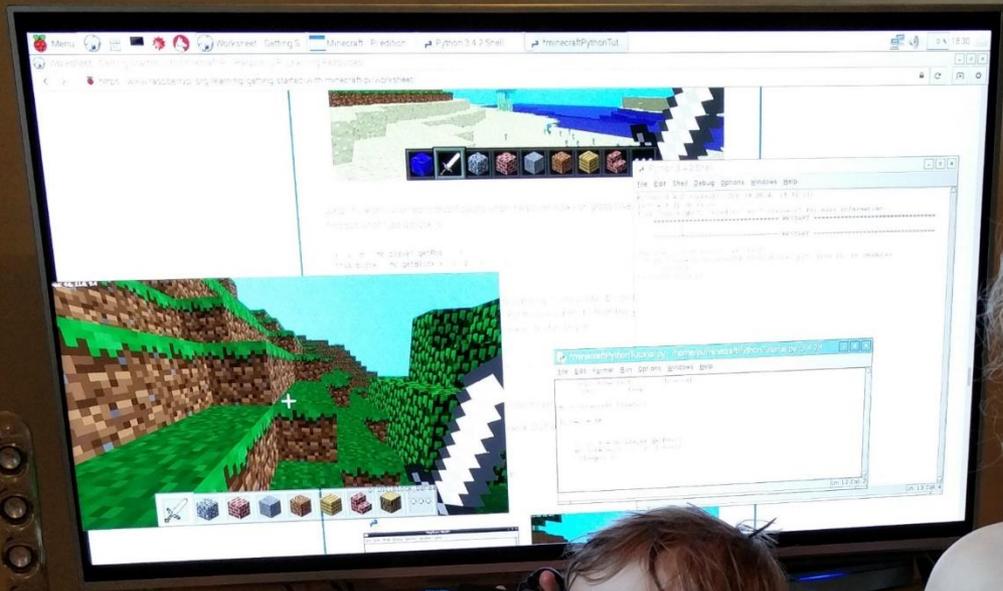


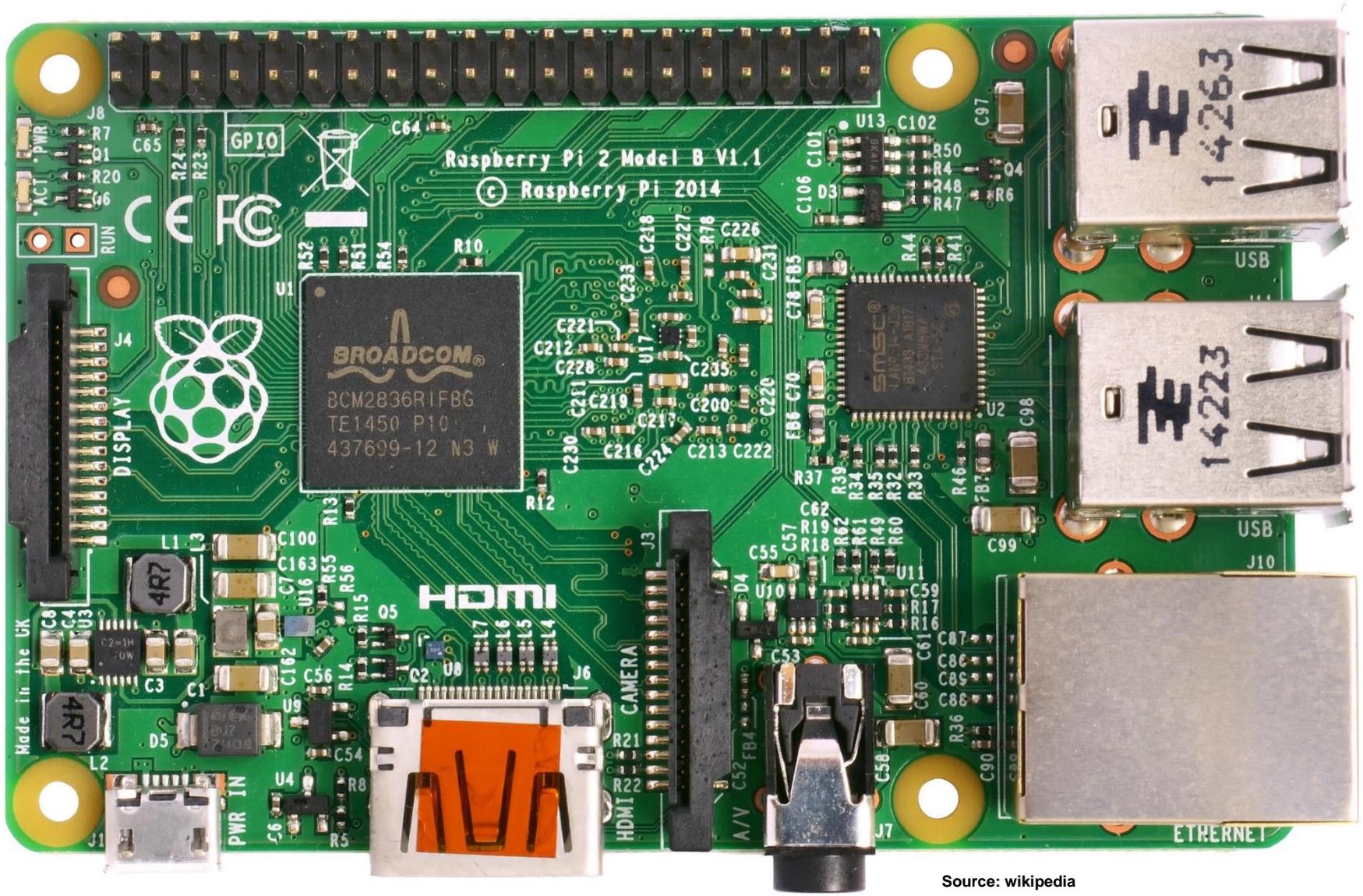
# Capacity Development & Knowledge Frameworks

Denise McKenzie  
Open Geospatial Consortium  
22 April 2016  
Addis Ababa, Ethiopia

# #EarthDay2016





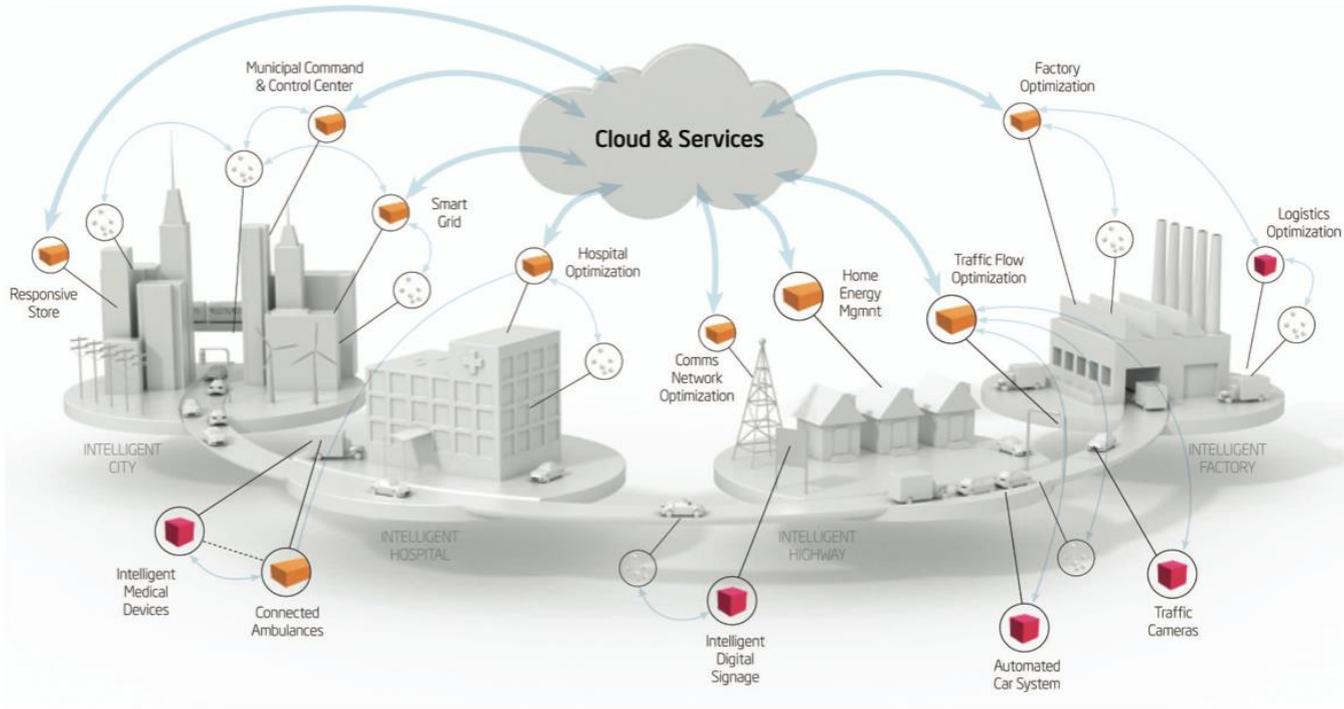


Source: wikipedia

50 billions Internet-connected things by 2020

# Sensors Everywhere

(Things or Devices)



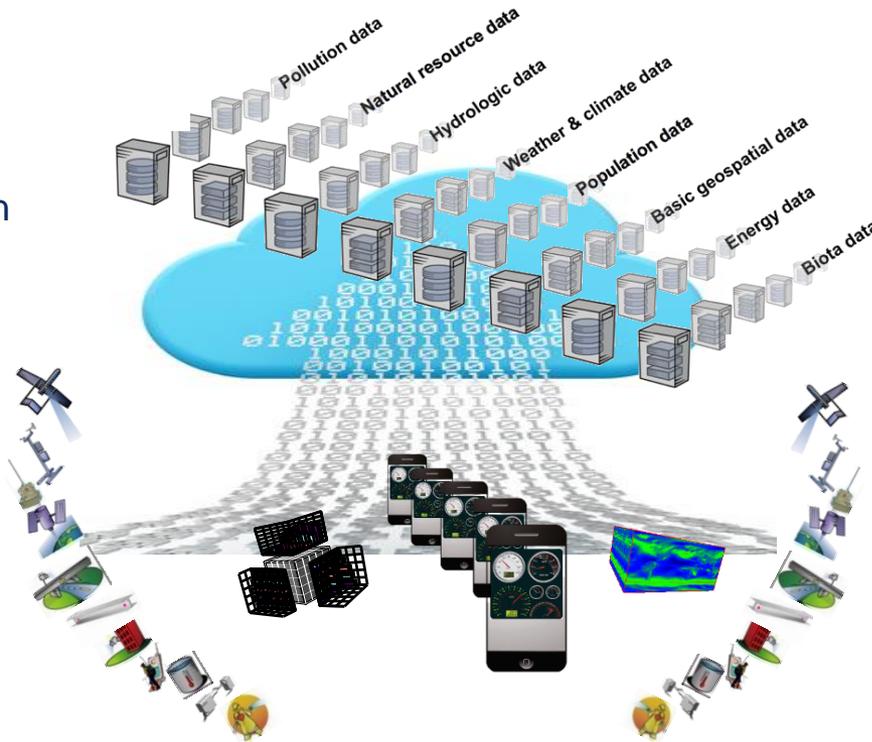
Slide source: Steve Liang, Univ. Calgary



# Exponential growth in data, but...



We get lots of data from an explosion of sensors, satellites, citizens, models, etc.



**However,** data has little value if it can't be easily discovered, assessed, accessed, aggregated, combined, passed from system to system, etc.

# Why are Standards important?

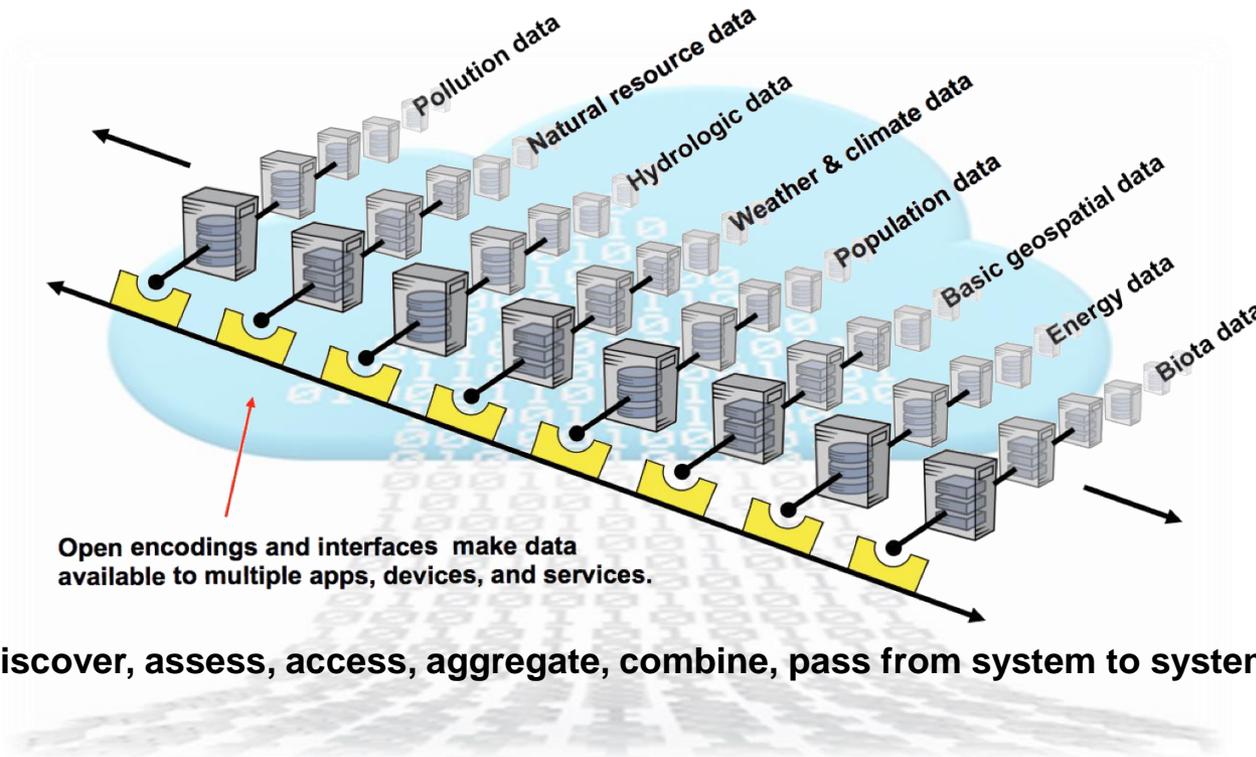


- A light bulb fits a socket
- Individuals can withdraw money from their bank accounts through any ATM anywhere in the world
- Mobile phones work across multiple countries around the world
- Latitude and Longitude provide a standard reference system for the Earth
- GPS coordinates are always provided in the same format

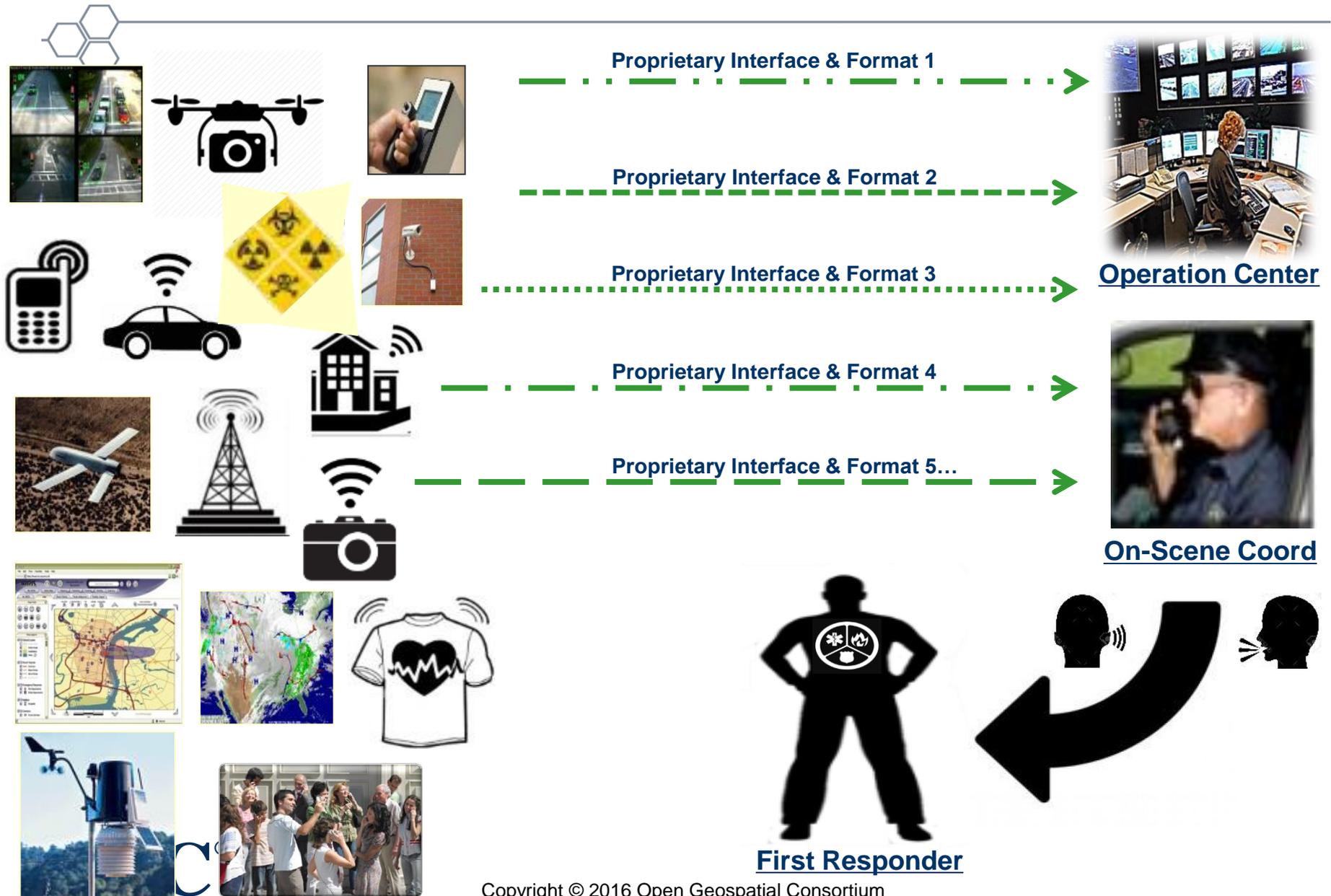


[http://en.wikipedia.org/wiki/LED\\_lamp](http://en.wikipedia.org/wiki/LED_lamp)

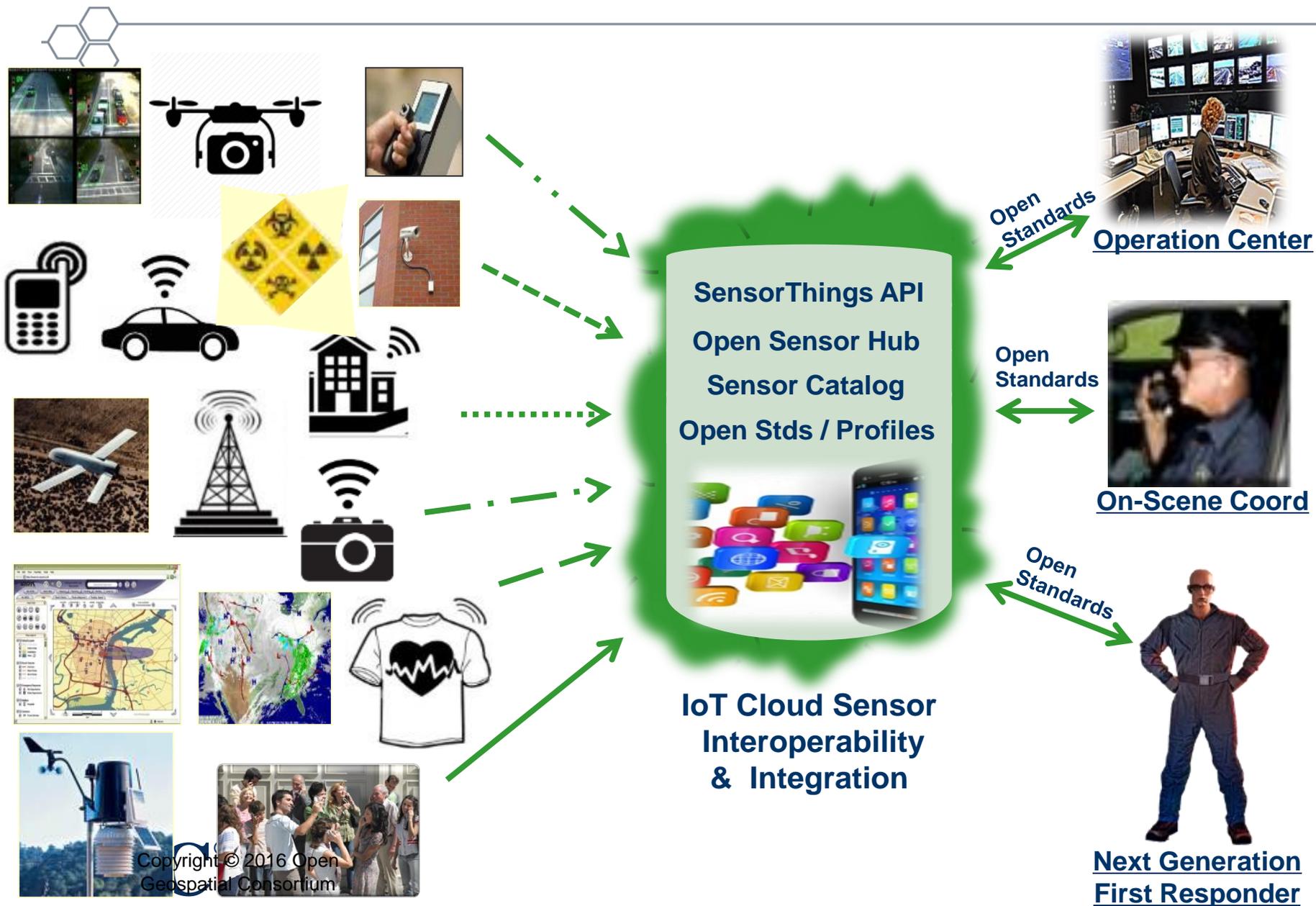
# Open standards create a World Wide Web of Data



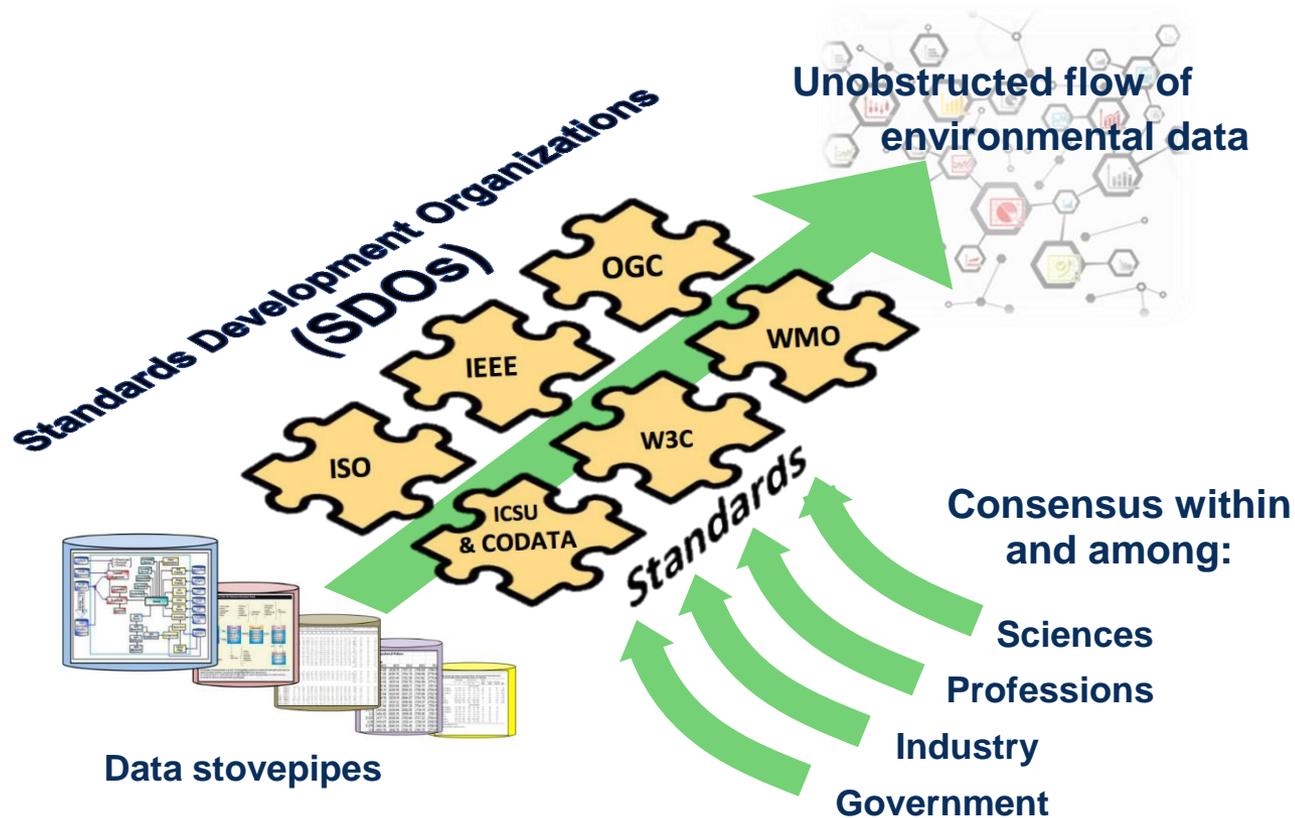
# IoT for First Responders: As-Is Environment



# IoT for First Responders: To-Be Environment



# Consensus standards are essential!



**What do you need  
to do?**

# Key to Success: Geospatial Standards Policy



The collage features several key documents and reports:

- ESA:** Developing Spatial Data Infrastructures: The SDI Cookbook (Version 12, 21 January 2004).
- JRC:** The Socio-Economic Impact of the Spatial Data Infrastructure of Catalonia (JRC Scientific and Technical Reports).
- Survey of India:** RFP FOR CREATION OF DEM STATE SPATIAL DATA INFRASTRUCTURE (SDSI) (DEPARTMENT OF SCIENCE & TECHNOLOGY, GOVT. OF INDIA).
- Canada:** Standard on Geospatial Data (Treasury Board of Canada Secretariat).
- US DoD:** Geospatial Information Infrastructure (GII) (The Department of Defense).
- INSPIRE:** Infrastructure for Spatial Information in the European Community (European Commission).
- GEO:** Group on Earth Observations (Newsroom).
- NSA:** Geospatial Intelligence Standards (Enabling a Common Vision).

# Compliance – Software Acquisition



External identifier of this OGC® document: <http://www.opengis.net>

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Additional For

Internal reference number of 1

## **OGC Compliance Overview - Guide for Software Acquisition**

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## A Guide to the Role of Standards in Geospatial Information Management

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Prepared cooperatively by the  
Open Geospatial Consortium (OGC);  
The International Organization for Standards (ISO)  
Technical Committee 211 Geographic information/Geomatics;  
and the  
International Hydrographic Organization (IHO).

July 2015



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Companion document on Standards  
Recommendations by Tier

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# Get involved

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- Don't be passive, be part of standards innovation
- This is not just about the big guys fighting it out – standards are ultimately chosen by a consumer
- Ask for your solutions to be “open” standards compliant
- As you build your solutions – do so in partnership with Standards organisations

# Data is more valuable as a shared resource



## Standards make this sharing possible



**Please keep in touch!**

**[www.opengeospatial.org](http://www.opengeospatial.org)**



**@opengeospatial**



**Open Geospatial Consortium (OGC)**



**<http://www.youtube.com/user/ogcvideo>**