



# Big Space Data

State of play, opportunities and challenges

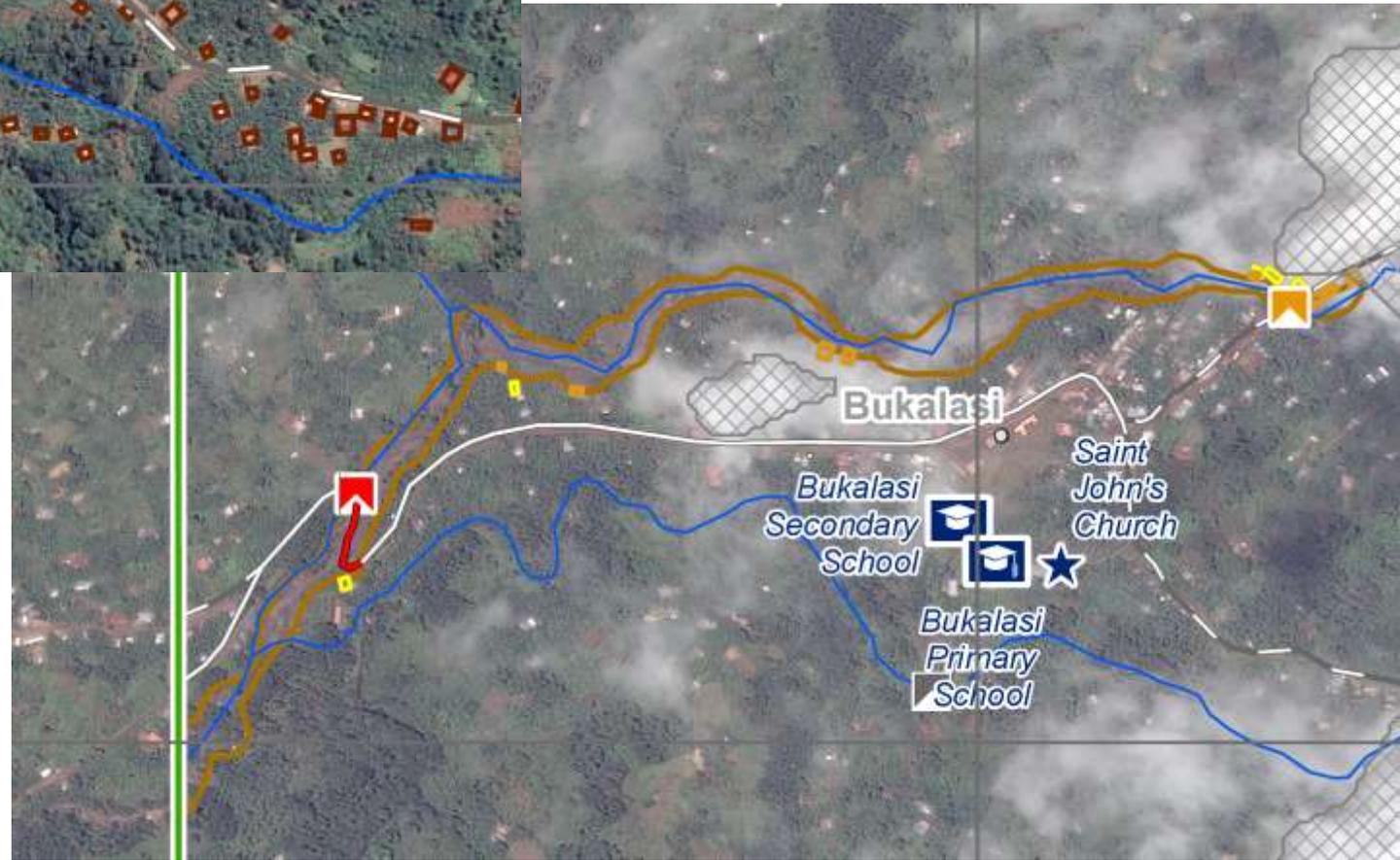
Bertrand Frot



*Empowered lives.  
Resilient nations.*



**Floods in Bukalasi  
(eastern Uganda),  
Thursday 11 October 2018**



Work in progress

# State of play - Planning, Monitoring, Analysis

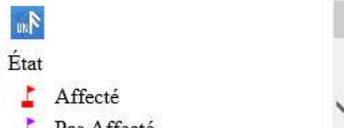
Tombouctou

## Février 2013

Points clés de la carte:

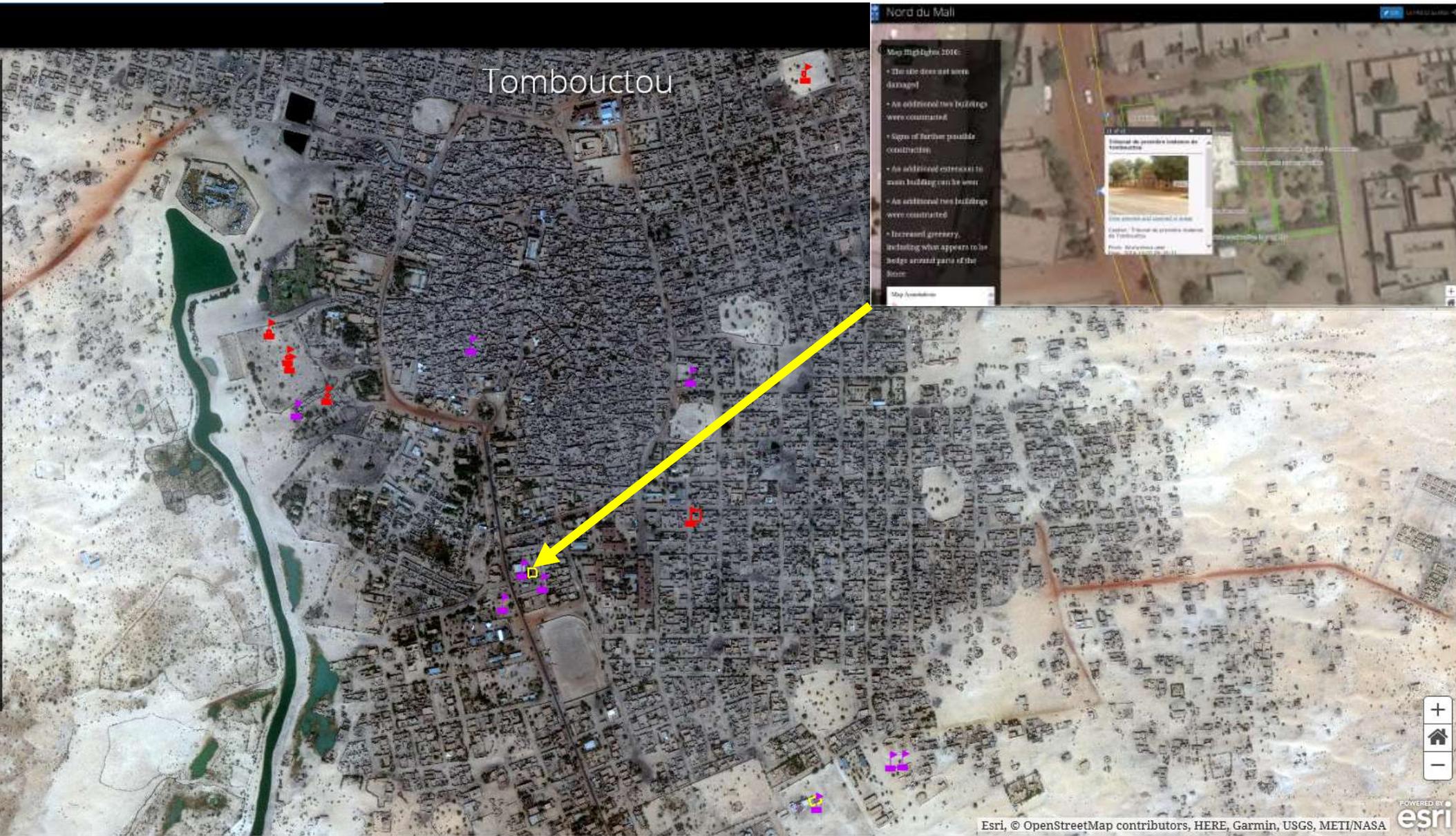
- En Février 2013, l'analyse a montré que 6 des 17 points d'intérêts ont été totalement détruit et 2 présentent des dommages.
- De plus, 2 zones (Le tribunal de grande instance ainsi que la résidence du gouverneur) présentent des aménagements pour d'éventuelles constructions.

Photos sur le terrain



État

-  Affecté
-  Pas Affecté



# State of play - Slums and access to schools and hospitals facilities

Work in progress

Bookmark

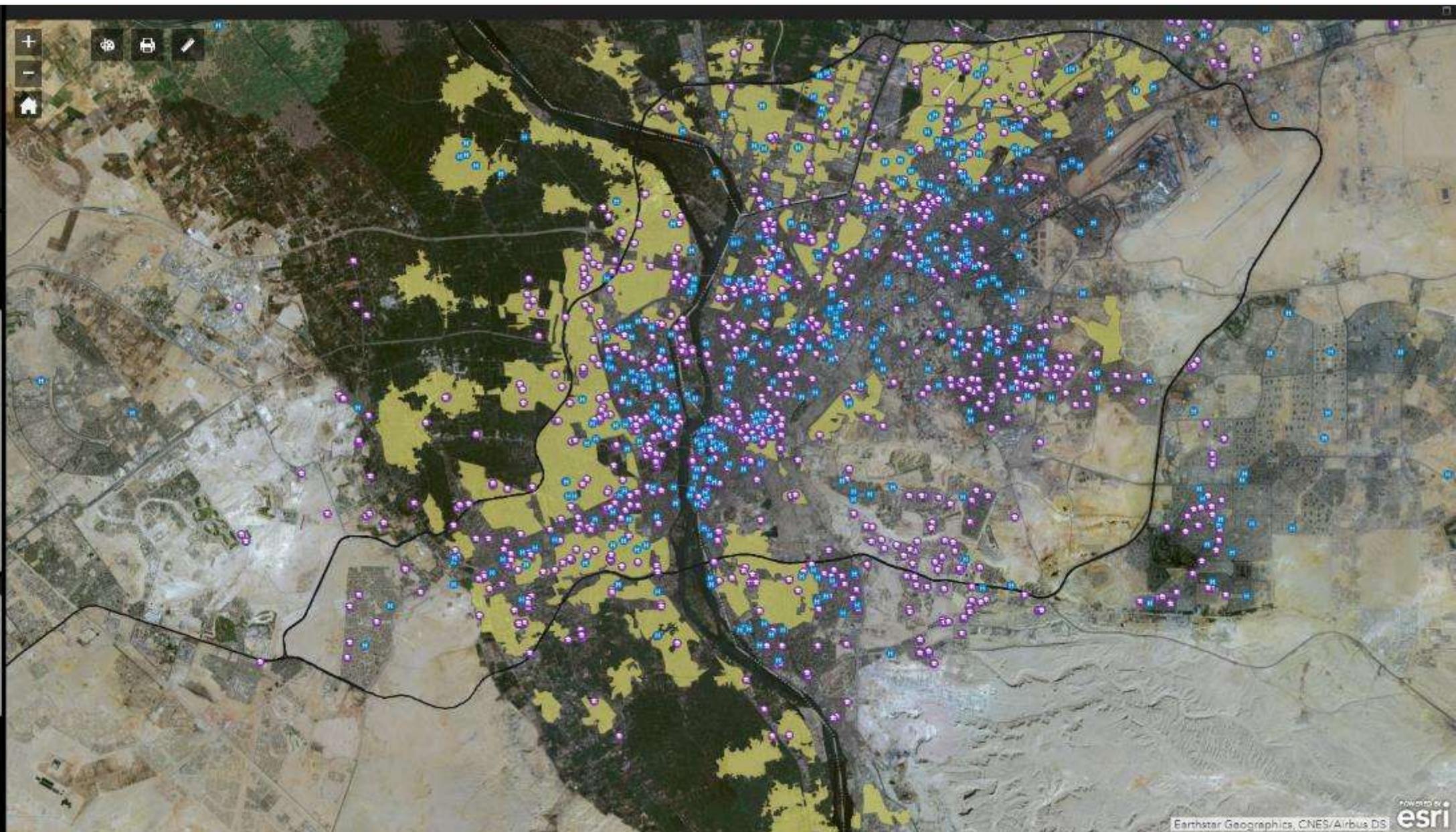
Slums Area 1 Slums Area 2

Layer List

- Hospitals
- Schools
- Roads
- Road Ring
- Slums
- Governorates

Basemap Gallery

- Dark Gray Canvas
- Imagery
- Imagery with Labels
- Light Gray Canvas



# The future of disaster response?



HAPS  
High Flying Pseudo Satellites  
*c AIRBUS*



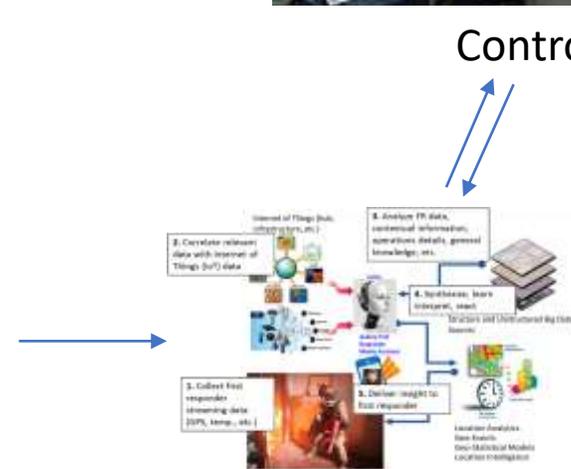
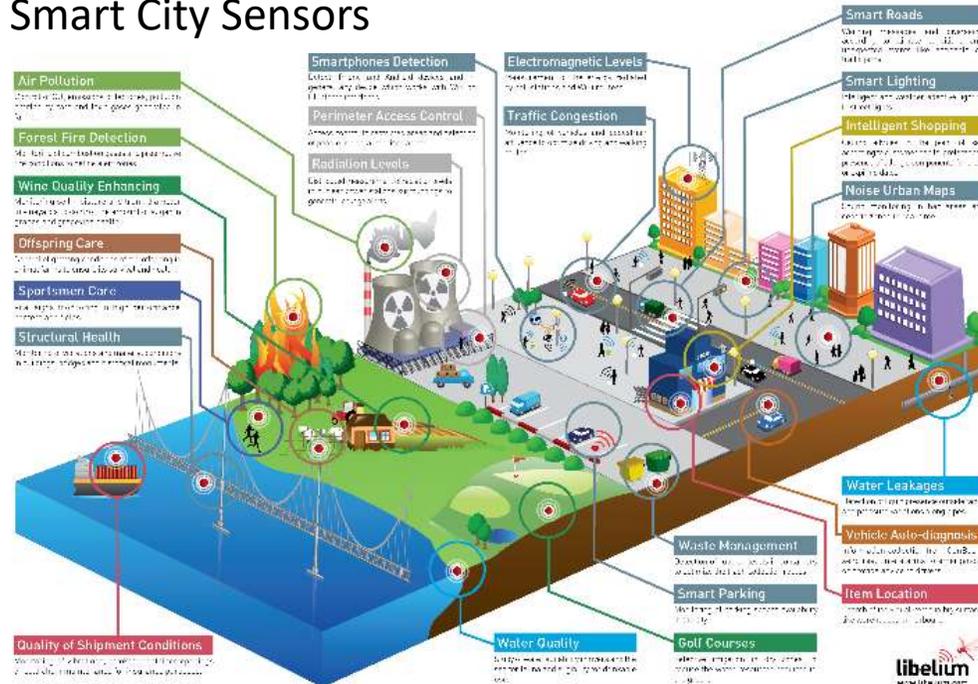
Control Room

## Body-Worn Mobile Sensors



*c NASA – JPL sponsored by US department of Homeland security*

## Smart City Sensors



Artificial Intelligent Agent for Next Generation First Responder (NGFR),  
*c NASA – JPL sponsored by US department of Homeland security*

# Opportunities?

- **Connectivity and electricity**
  - **Mobile technologies**
  - **Policies - Digital privacy, Open data,...**
  - **Collaboration across jurisdictions**
  - **New technologies (*HAPS, Decision Making with Incomplete / Difficult Observations and Communications, Predictive Recommendations in Real-time, Human-System Interface in High Stress Environments,...*)**
  - **Inclusion of women**
- 
- A photograph of a young man in traditional Maasai attire, including a colorful shuka (a wrap around his waist) and a beaded necklace. He is holding a smartphone in both hands and looking down at it. He is standing in a rural, open landscape with several cows in the foreground and hills in the background under a cloudy sky.



Natural disasters disproportionately affect women and children, especially in countries where women's socioeconomic status is low.

Death toll from the December 2004 tsunami in the Indian Ocean:  
up to four times more women than men had died;

# What to do?

perhaps the best opportunity is simply to ensure that more women have a say in decisions related to risk reduction and response

- [20-point checklist](#) developed by the United Nations Office for Disaster Risk Reduction.
- Gender-specific strategies for disaster planning and response: [report](#) published by UNDP and UNWomen



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Space technologies are  
fantastic for development...

... and special thanks to the space community,  
you are saving lives every day



U N  
D P

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