GLOBAL PARTNERSHIP
FOR SUSTAINABLE DEVELOPMENT DATA

Earth Observation and Open Data for the Production of Statistics and Monitoring of Sustainable Development Indicator

9th Meeting of the Statistical Conference of the Americas
ECLAC

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October 2017

The Global Sustainable Development Goals

MDGs (2000-2015)		**SDGs (2015-2030)**
Developing country focused	→	Universal
Social	→	Social, Economic, and Environmental
Foreign Aid	→	Domestic Investment, Private Flows, and Aid
Official Statistics and Administrative Data	→	Big Data, Citizen Generated Data, Geospatial and Earth Observation Data, Open Data, and more

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- 17 Goals, 169 Targets, 230 Indicators = Huge Data Needs

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THE CHALLENGES:

Data are not available, dynamic, disaggregated, high quality, useable, accessible, open, or used effectively.

- Data on entire groups and key issues are unavailable.
- Data are not dynamic or disaggregated.
- Data quality is poor and major gaps remain.
- Data that exist are often not useable.
- Data that are useable are not accessible or open.
- Data that are accessible are often not used effectively.

DATA CHALLENGES LEAVE TOO MANY BEHIND

DATA FOR WHAT?

Improved Decision-Making and Policy

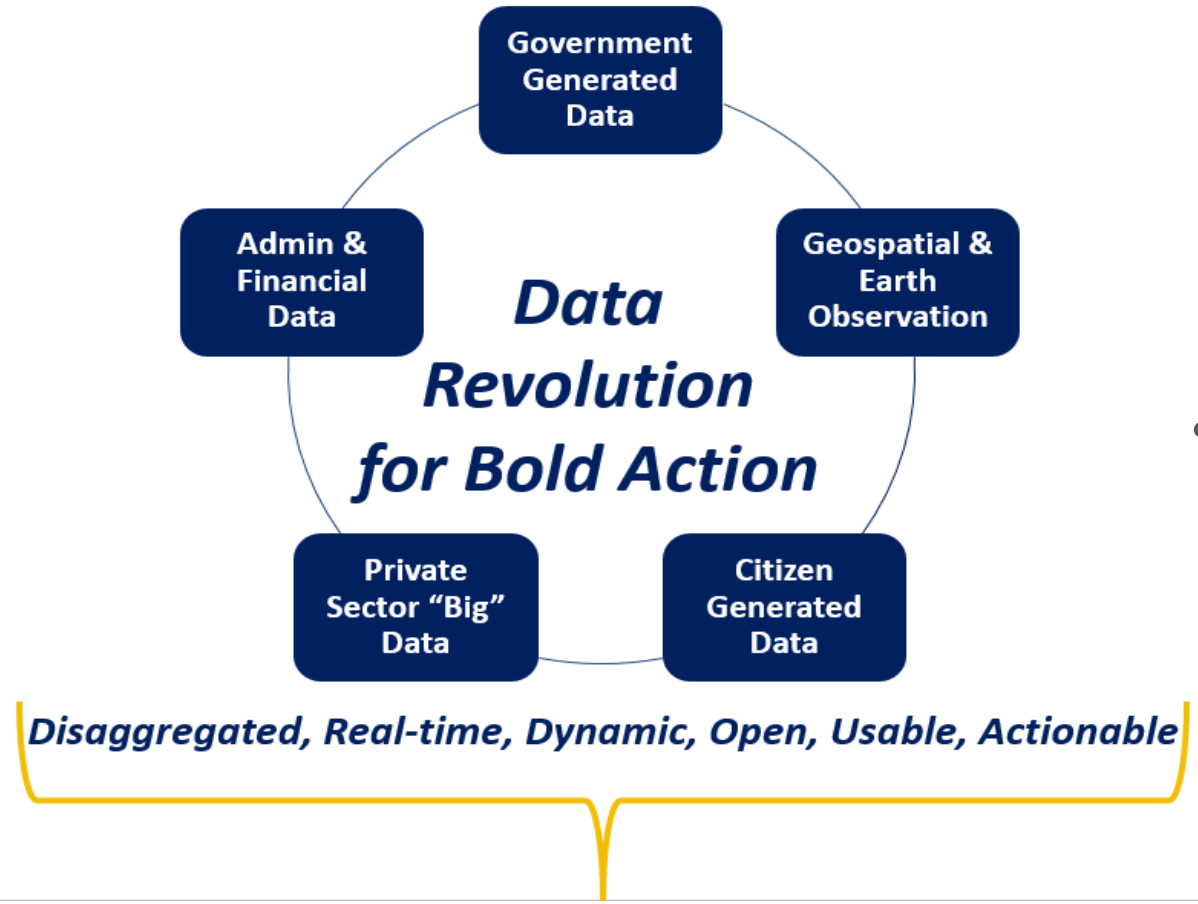
Increased Citizen Empowerment

Increased Innovation and Entrepreneurship

To Achieve and Monitor Sustainable Development

Harnessing the Data Revolution

"Data is the Oil of the 21st Century"



- Supporting and complementing government and civil society efforts to generate data for statistics for the formal SDG monitoring framework
- Unleashing innovation in production, accessibility and use of real-time, dynamic, disaggregated data from multiple sources

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Earth Observation Data

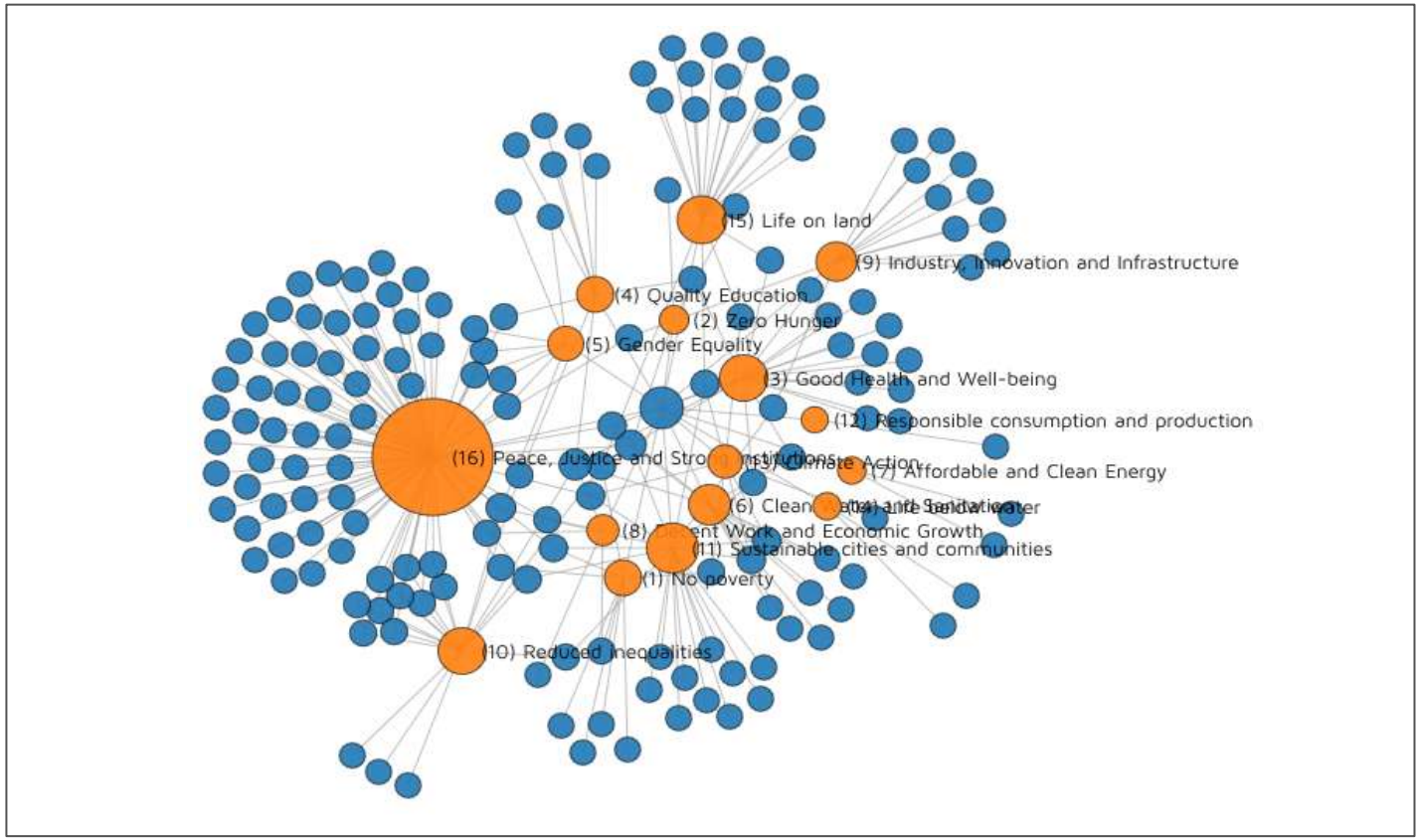
GEO GROUP ON EARTH OBSERVATIONS

NASA

esa

CEOS Committee on Earth Observation Satellites

Citizen-Generated Data



DATASHIFT

http://staging.winguweb.org/2015/datashift/

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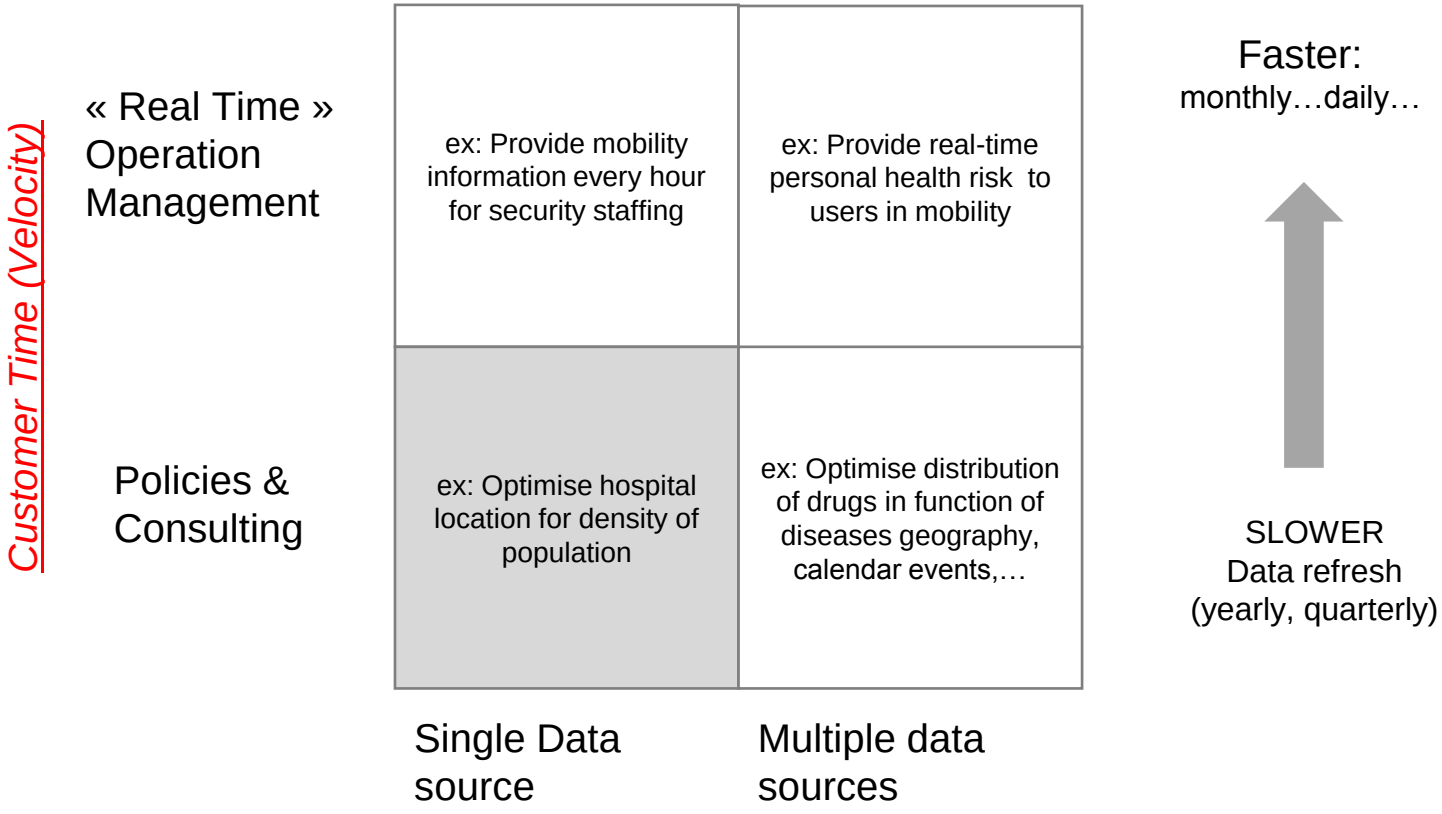
Privately Held (Big) Data



Variety of Sources for Data Analysis

Open Data

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WE CONVENE

WE CONNECT

WE CATALYZE…

better, more accessible, and usable data to help end poverty, fight inequality and injustice, and combat climate change.

The Global Partnership has 200+ Data Champions

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Harnessing the data revolution for sustainable development

Enablers: Political Environment

Showcase how data can remove political and social barriers, and address data gaps

Stimulate collaboration between public-private actors in support and tracking of the SDGs

Demand Side

Drive awareness and political buy-in on how and why data makes a difference

Ensure visibility and under-standing of data for filling gaps and decision making

Opportunities

Supply Side

Harness real time data flows for sustainable development

Ensure access to data in public domains; including open data

Catalyse data innovations for the delivery of the SDGs

Enablers: Structural Environment that fosters trust

Forster private sector engagement to address market failures by providing expertise and knowledge

Support the establishment of fair use of data

Foster mechanisms to improve access and interoperability that enables widespread usage of SDG data

Data Roadmaps for Sustainable Development

Support countries at national and sub-national levels to develop and implement **whole of government** and **multi-stakeholder** data roadmaps for harnessing the data revolution for sustainable development, with particular emphasis on the SDGs and local priorities articulated in national plans.

Veep opens forum on data collection

• For sustainable development

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Country Led Approaches

- The Data Roadmaps for Sustainable Development approach is iterative, based on experiences and implementation models from partner countries
  - Colombia
  - Philippines
  - Sierra Leone
  - Kenya
  - Tanzania
  - Senegal
  - USA
  - Ghana

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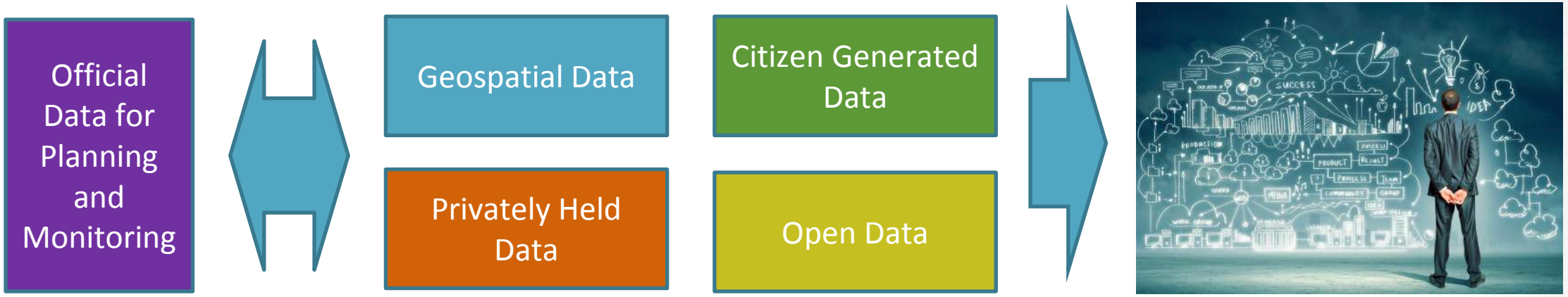
Data for Action



- Fill data gaps more efficiently, frequently and cost effectively
- Real-time, dynamic, disaggregated data
- Official and non-official data
- Use innovative approaches and range of stakeholder to solve problems

Country Level Lessons Learned

INSTITUTIONAL

- Strengthening institutional cooperation
- Engagement with the private sector
- Mobilization of funding and resources
- Data literacy

TECHNICAL

- Interoperability
- Alignment between open data and the SDGs
- Data sharing frameworks
- New innovation, data and platforms
- Environmental data
- Geospatial methods

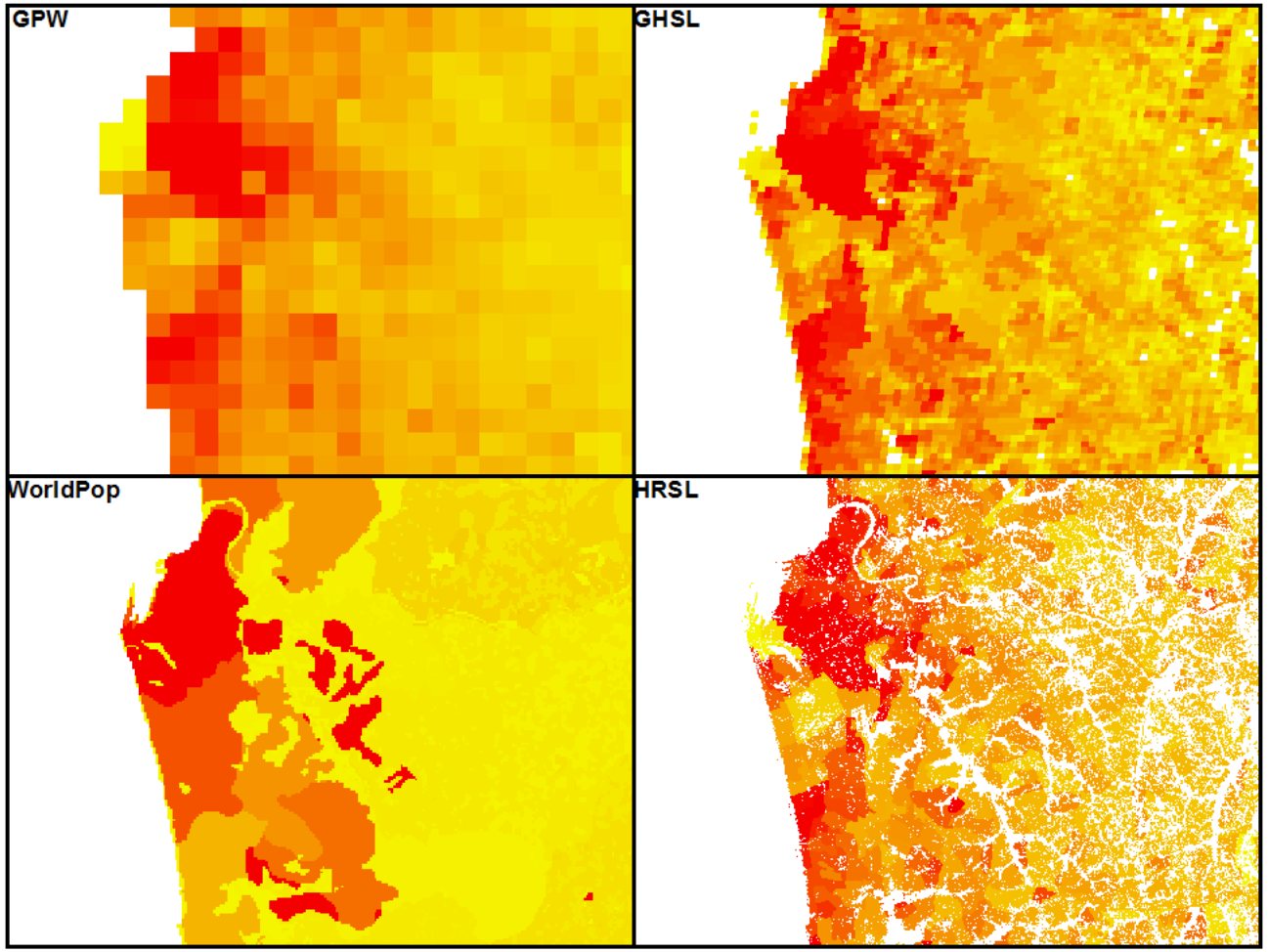
Data Collaboratives - 2017

- Leave No One Behind
  - Data disaggregation
  - Citizen generated data
  - Marginalized populations
  - Inclusive Data Charter
- Data Interoperability
  - Addressing core issues at the country level and piloting methods for increased interoperability
- Environmental Data
  - Climate open data – Tanzania and Sierra Leone
  - Earth observation data applied to environmental issues
  - Illegal mining in Ghana

Other Initiatives

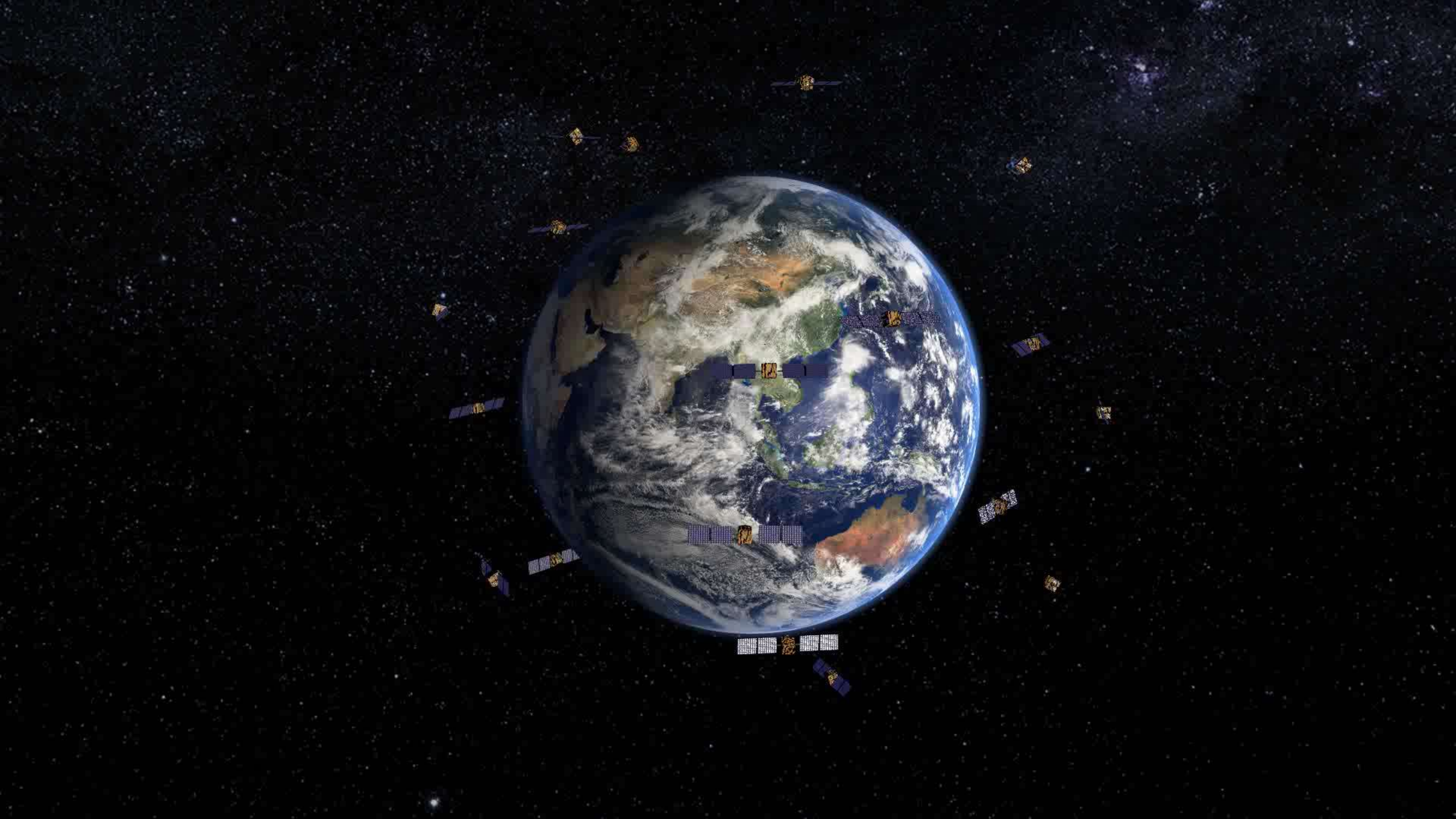
- Better engagement with the Private Sector
- What makes a successful private-public-partnership
- Working with DIAL and GSMA on mobile data for the SDGs
- Innovation Fund with the World Bank and DFID
  - 2nd call focused on environment and leave no one behind. Total 4.5 million USD
- Financing on data for development
- A new, integrated GPSDD website to be launched any day

Population Distributions



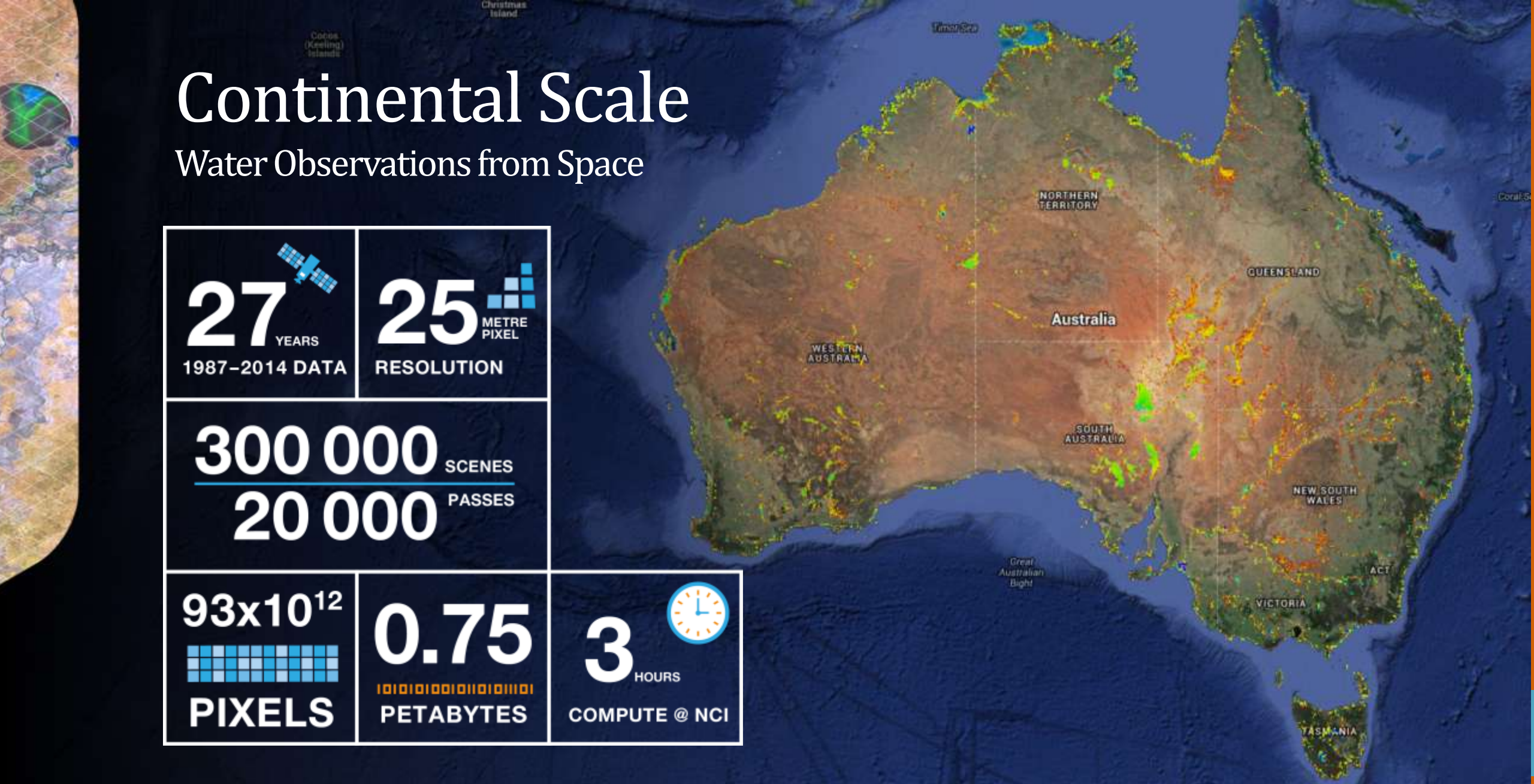
Alex de Sherbinin, CIESIN

Population estimate results at various resolutions from multiple methods



Continental Scale

Water Observations from Space




green
dry
soil
1988
2000
2006
2014

Water quality monitoring:
Lake Burley Griffin

Some prototyped applications for the data cube:

- Vegetation change, agricultural production
- Flood inundation mapping, farm dam development
- Wetland management and characterisation
- Carbon accounting
- Seagrass and substrate mapping
- Coastal change and water quality
- Shallow water bathymetry
- Mining footprint and urban development
- Bushfire scar mapping and forestry inventory

Australian Government
Geoscience Australia

Digital Earth
AUSTRALIA

www.ga.gov.au/dea
opendatacube.org

- Dr Stuart Minchin,
- Geoscience Australia

Further Information

Email: Earth.Observation@ga.gov.au

Address: Cnr Jerrabomberra Avenue and Hindmarsh Drive, Symonston ACT 2609

Country Engagement on EO Data

- Intergovernmental Network on Open Data for Agriculture and Nutrition
- Dynamic and real-time data for smallholder farmers
- Establishing data cubes initially focused on a particular thematic issue
- Making upcoming population censuses more dynamic and cost-effective
- Waste management

Sustainable Development Goals

Earth Observations in Service of the *Agenda 2030*

Target — *Contribute to progress on the Target yet not the Indicator per se*									*Goal*	*Indicator* — *Direct measure or indirect support*				
							1.4	1.5	1	1.4.2				
						2.3	2.4	2.c	2	2.4.1				
					3.3	3.4	3.9	3.d	3	3.9.1				
									4					
								5.a	5	5.a.1				
		6.1	6.3	6.4	6.5	6.6	6.a	6.b	6	6.3.1	6.3.2	6.4.2	6.5.1	6.6.1
					7.2	7.3	7.a	7.b	7	7.1.1				
								8.4	8					
					9.1	9.4	9.5	9.a	9	9.1.1	9.4.1			
						10.6	10.7	10.a	10					
	11.1	11.3	11.4	11.5	11.6	11.7	11.b	11.c	11	11.1.1	11.2.1	11.3.1	11.6.2	11.7.1
				12.2	12.4	12.8	12.a	12.b	12	12.a.1				
					13.1	13.2	13.3	13.b	13	13.1.1				
		14.1	14.2	14.3	14.4	14.6	14.7	14.a	14	14.3.1	14.4.1	14.5.1		
	15.1	15.2	15.3	15.4	15.5	15.7	15.8	15.9	15	15.1.1	15.2.1	15.3.1	15.4.1	15.4.2
								16.8	16					
17.2	17.3	17.6	17.7	17.8	17.9	17.16	17.17	17.18	17	17.6.1	17.18.1			

GROUP ON EARTH OBSERVATIONS

EO4SDG

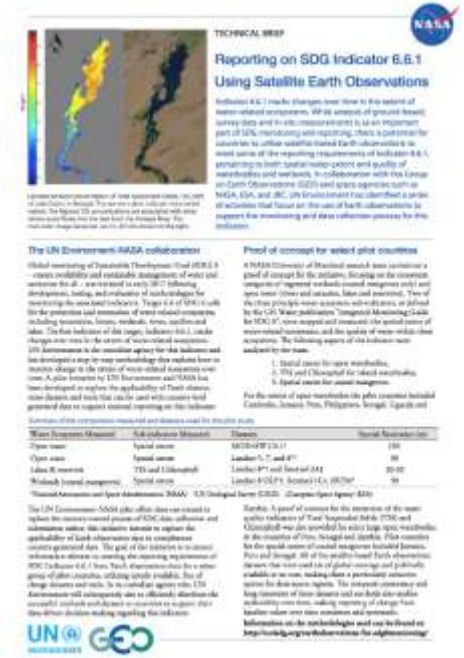
THE GLOBAL GOALS For Sustainable Development

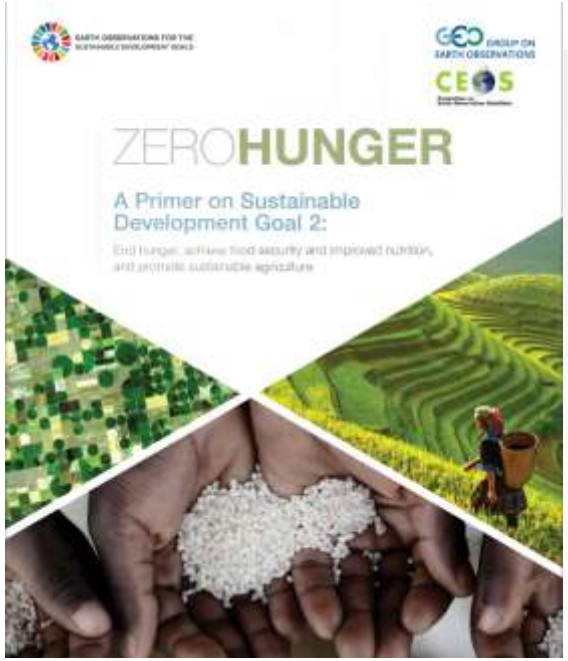
Alignment of Earth Obs. and GEO to the Goals, Targets, and Indicators

SDGs with most opportunities:

EARTH OBSERVATIONS FOR THE SUSTAINABLE DEVELOPMENT GOALS

UN Environment-GEO-NASA -UMD Collaboration on SDG 6





A Primer on SDG 2, Zero Hunger

EO Case Studies for the 2030 Agenda

Toolbox: Data for Action

EO4SDG-GPSDD-DANE Workshop at DANE HQ, Colombia

In person trainings & webinars

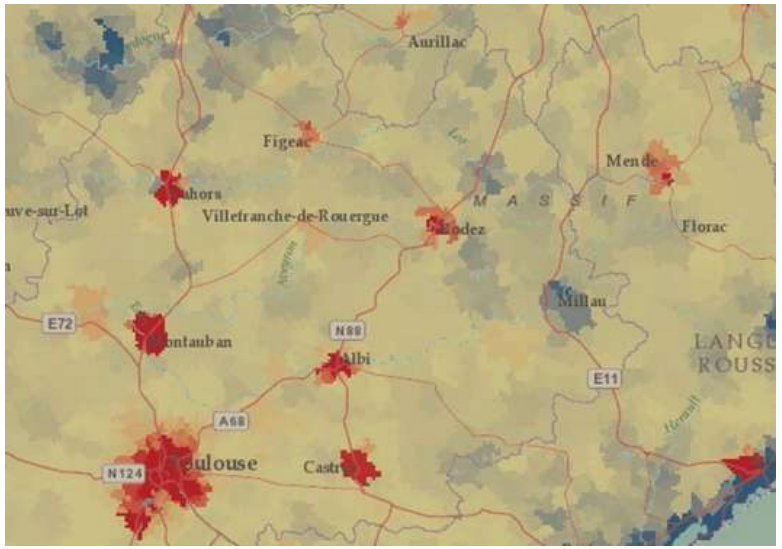
Pilot Activities

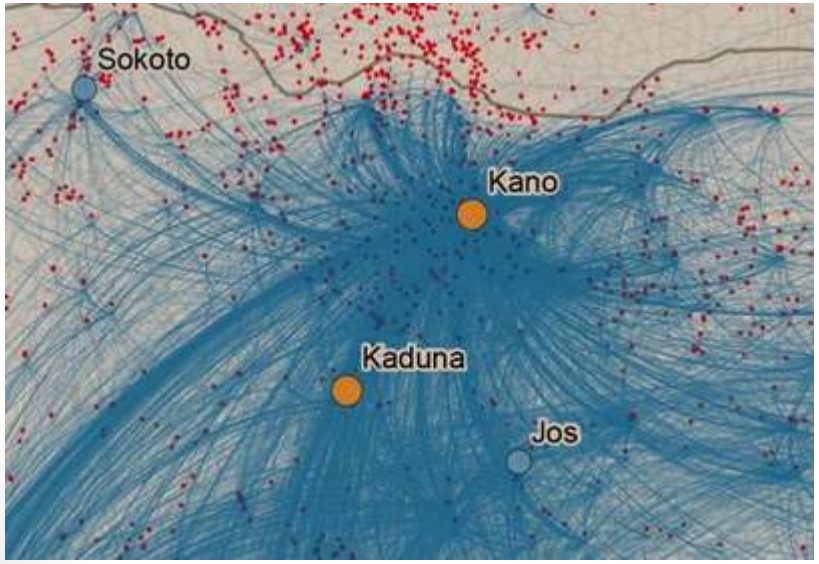
Outreach & Engagement

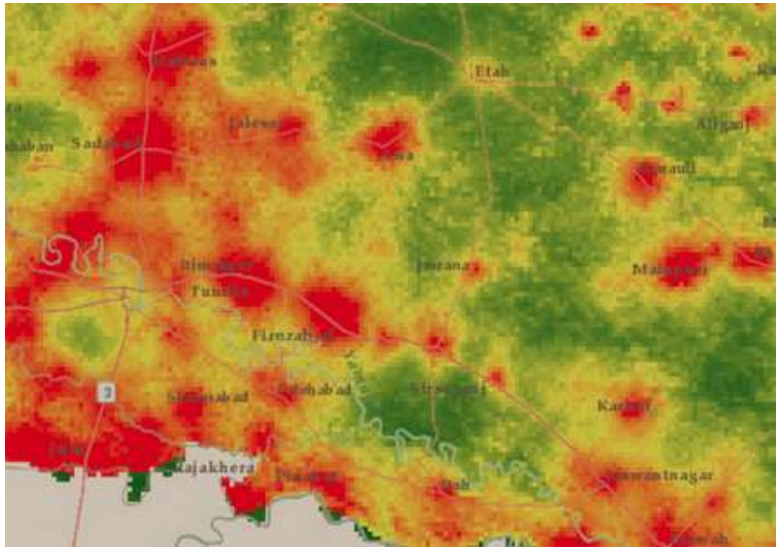
Capacity Building

Information Products

Bringing Data Sources Together







Geospatial
+
Mobile Data
+
Surveys

WorldPop Project
Flowminder.org
http://www.worldpop.org.uk/

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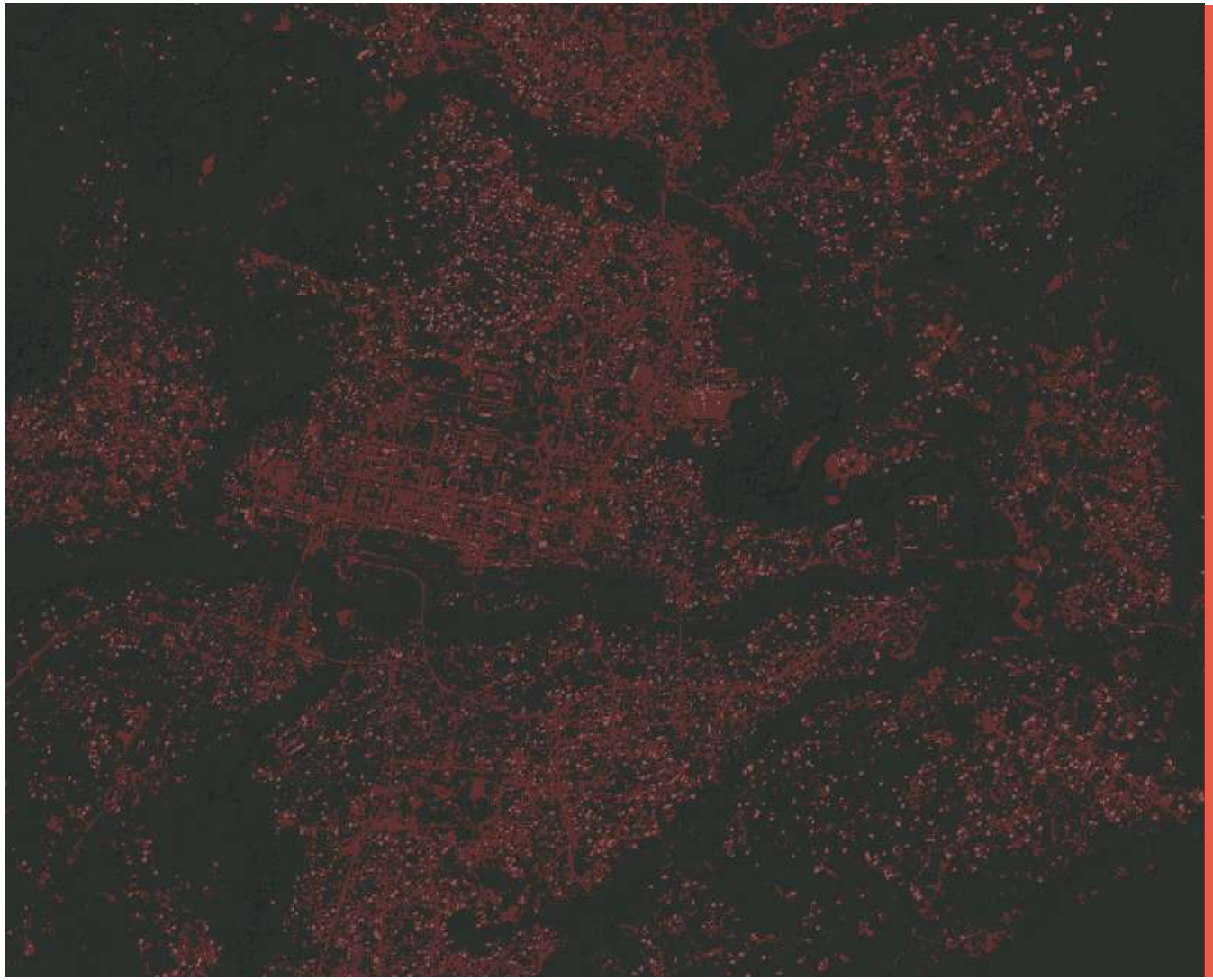

Mamou, Guinea

29 hours
68 contributors
20,105 buildings

Humanitarian OpenStreetMap

apihighways.data4sdgs.org

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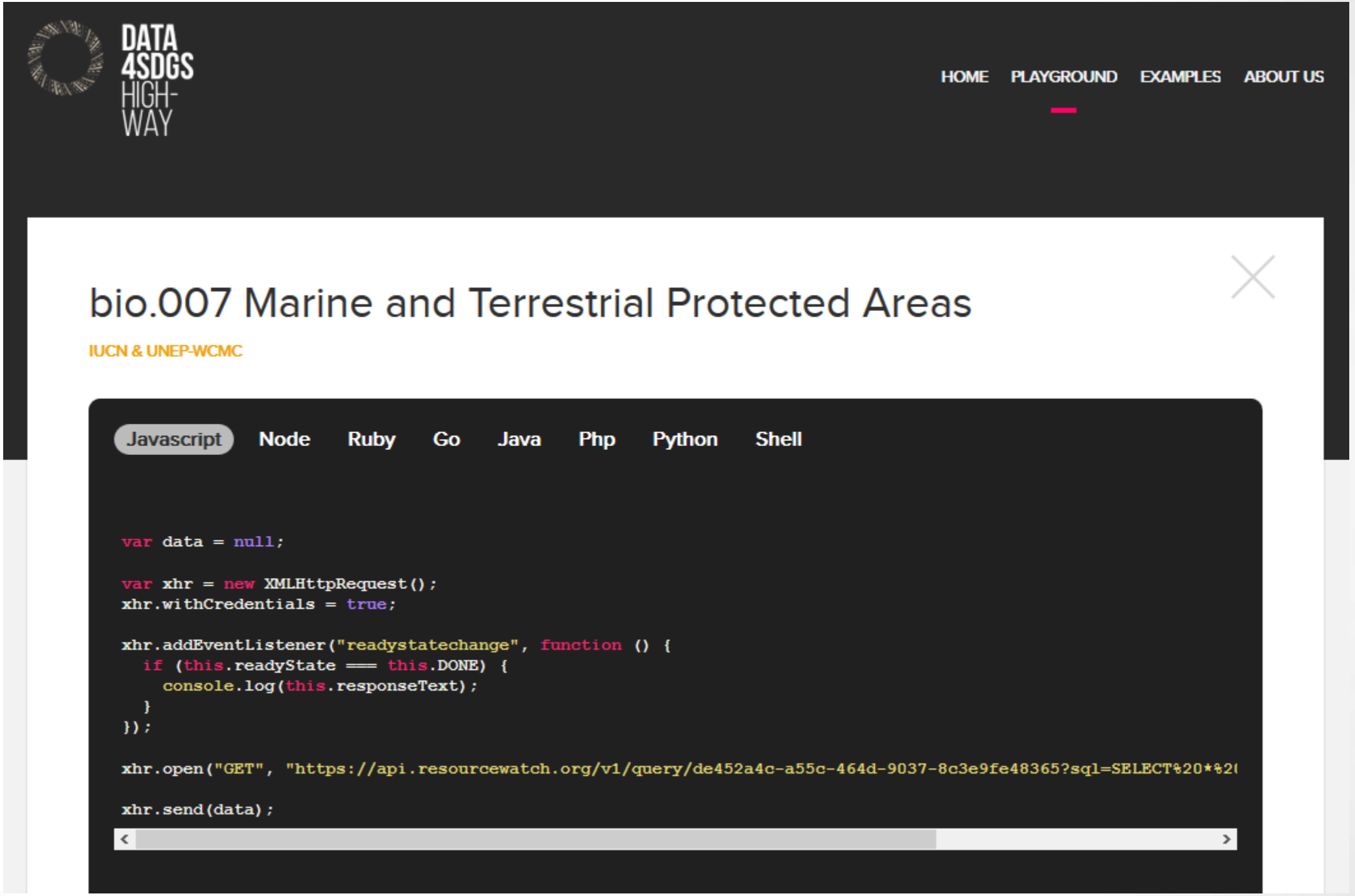
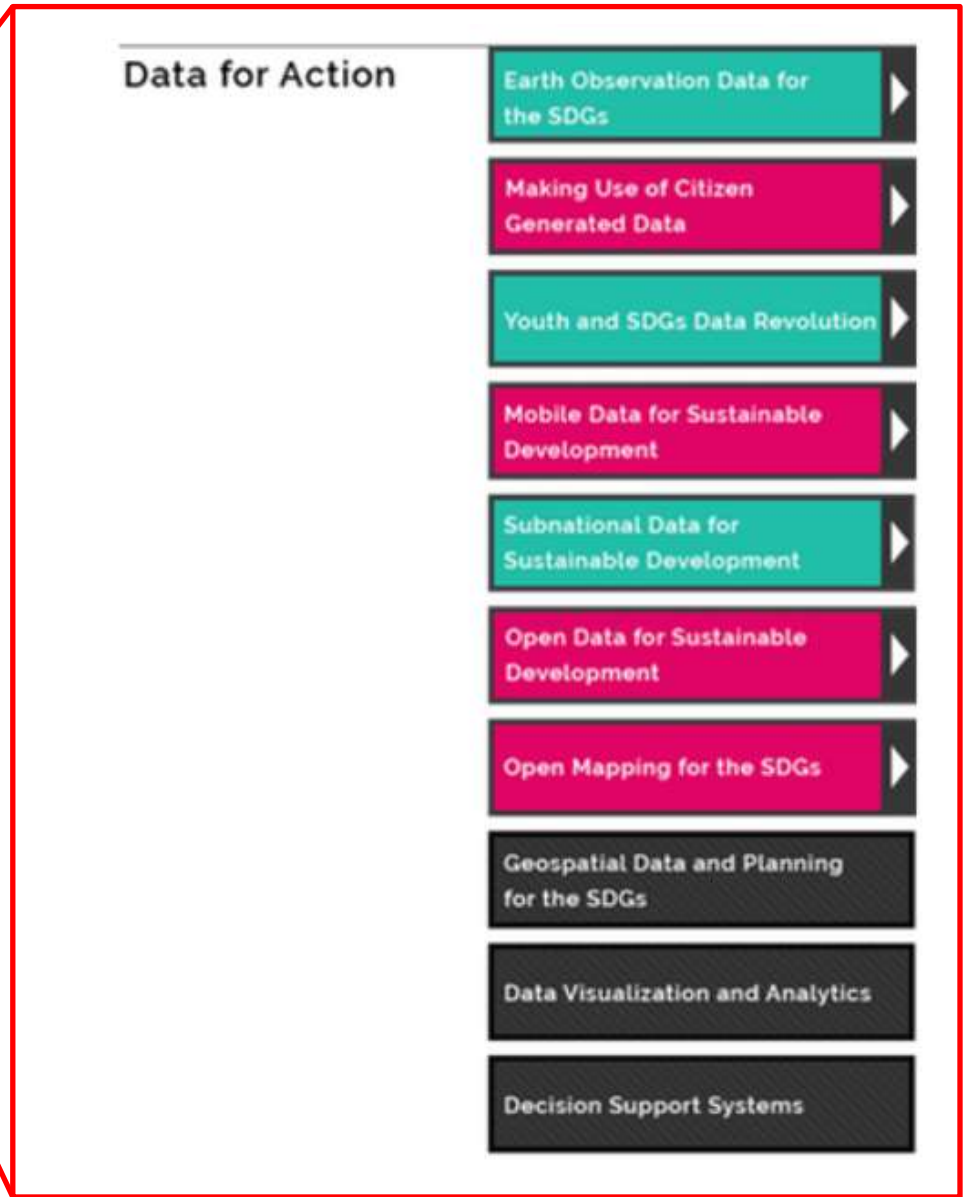

DATA 4SDGS HIGH-WAY
HOME
PLAYGROUND
EXAMPLES
ABOUT US
bio.007 Marine and Terrestrial Protected Areas
IUCN & UNEP-WCMC
Javascript
Node
Ruby
Go
Java
Php
Python
Shell
var data = null;
var xhr = new XMLHttpRequest();
xhr.withCredentials = true;
xhr.addEventListener("readystatechange", function () {
if (this.readyState === this.DONE) {
console.log(this.responseText);
}
});
xhr.open("GET", "https://api.resourcewatch.org/v1/query/de452a4c-a55c-464d-9037-8c3e9fe48365?sql=SELECT%20*%2(
xhr.send(data);


DATA 4SDGS HIGH-WAY
HOME
PLAYGROUND
EXAMPLES
ABOUT US
Conflicts related to protected areas
Regions with greatests water risks
Conflicts related to protected areas
Protected Areas
Protected Areas Surface
Events or conflicts

Data4SDGs Toolbox:

http://www.data4sdgs.org/toolbox

Data for Action



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What's Needed Moving Forward

- We must change our normal ways of working, break down silos, and become **more collaborative across sectors**
- We need to **embrace innovation** and be okay with failure – as long as we learn from it
- We need to **work at multiple scales** bringing national and sub-national planning efforts together in the interest of the SDGs
- We need to **unlock innovative funding** models that are sustainable and develop **public-private partnerships** that work
- Increase **data literacy and capacity** for data science focused on how data is used for decision making and action
- Better **link initiatives** with a common purpose to reach further impact

Thank You!

- We are working with ECLAC and Cepei to define a regional approach for further work in LAC.

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