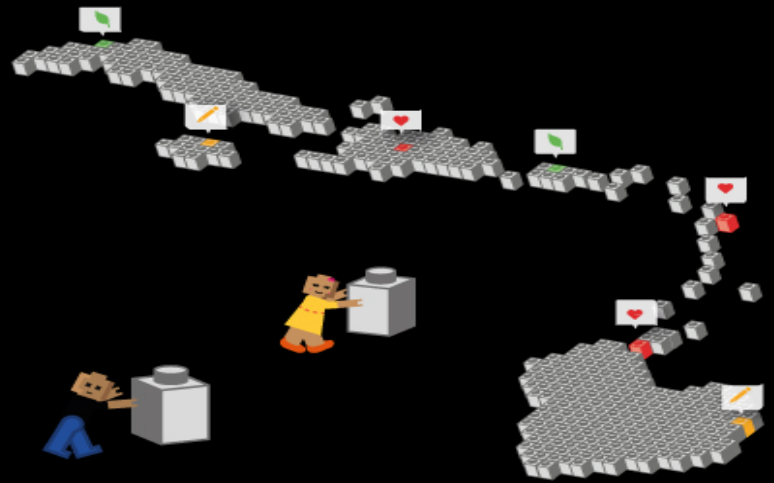


DEVELOPING THE CARIBBEAN



Open Data in the Caribbean

Advocacy | Evidence | Capacity



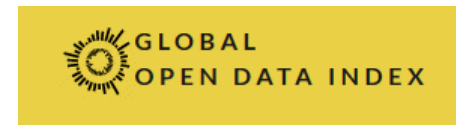
\ Open·Government·Data \ *n. v.*

“The proactive release of Government **Data in a format** that can be **freely** used, **reused** and redistributed by **anyone** for **any purpose**”

Open Data for Development Network (OD4D) Regional Hubs



Collaborative OD4D Global Initiatives



Barriers to Open Data in the Caribbean

- Cultural
 - Limited access to high quality, locally relevant data
 - Data produced using public resources is not sufficiently harnessed as public goods
 - Cultural and institutional habits that forego the use of data, and other forms of evidence, for policy and decision making
 - Capacity-building efforts are required to effectively use new technologies to investigate, analyse, communicate and inform policy/decision-making
- Structural / Institutional
 - Small Island Developing States with limited scalability & resource endowments
 - Civil Society and Media Apathy towards Open Data, Governments slow to embrace
 - Competing Policy and Political Agenda Priorities for Scarce Resources

Barriers to Open Data in the Caribbean

- Cultural

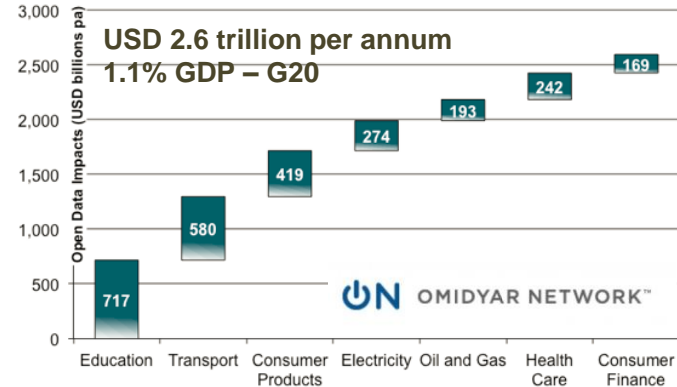
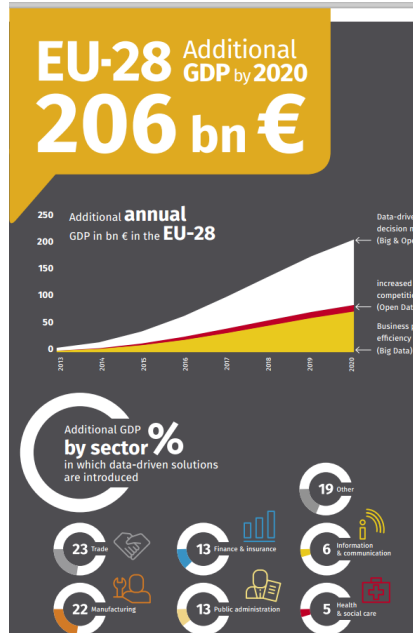
In this setting, the open data narrative demands tangible returns on the investment of scarce resources, if it is to compete for political attention

Innovation and Problem-solving has become the dominant means of a resonant discourse

The Economic Opportunity of Open Data




Open data
A new goldmine




Agriculture Levers/Drivers


Efficiency & Effectiveness

- Improved logistics and coordination in the agricultural sector to mitigate spoilage, surplus and shortages 
- **Improved analysis of agricultural information to inform policy and planning**
- Enhanced access and use of geospatial and meteorological data to inform farming practices for optimal yield and environmental preservation
- **Greater efficiency in the delivery of Extension Services using Open Data combined with mobile Apps**

Transparency

- Open access to business information to support farmers, retailers and consumers 
- Livestock registration mechanisms (passport) the use of Open Data to enhance the oversight and traceability of products from the farms to the final consumer

Participation & Collaboration

- Open Data and crowd-sourcing can lead to improved accuracy and currency of agriculture supply & demand data by mobilizing end users to assist in the data collection and/or verification process 
- **crowd-sourced open data on incidences of praedial larceny can provide security forces with an improved detection and investigative capability**

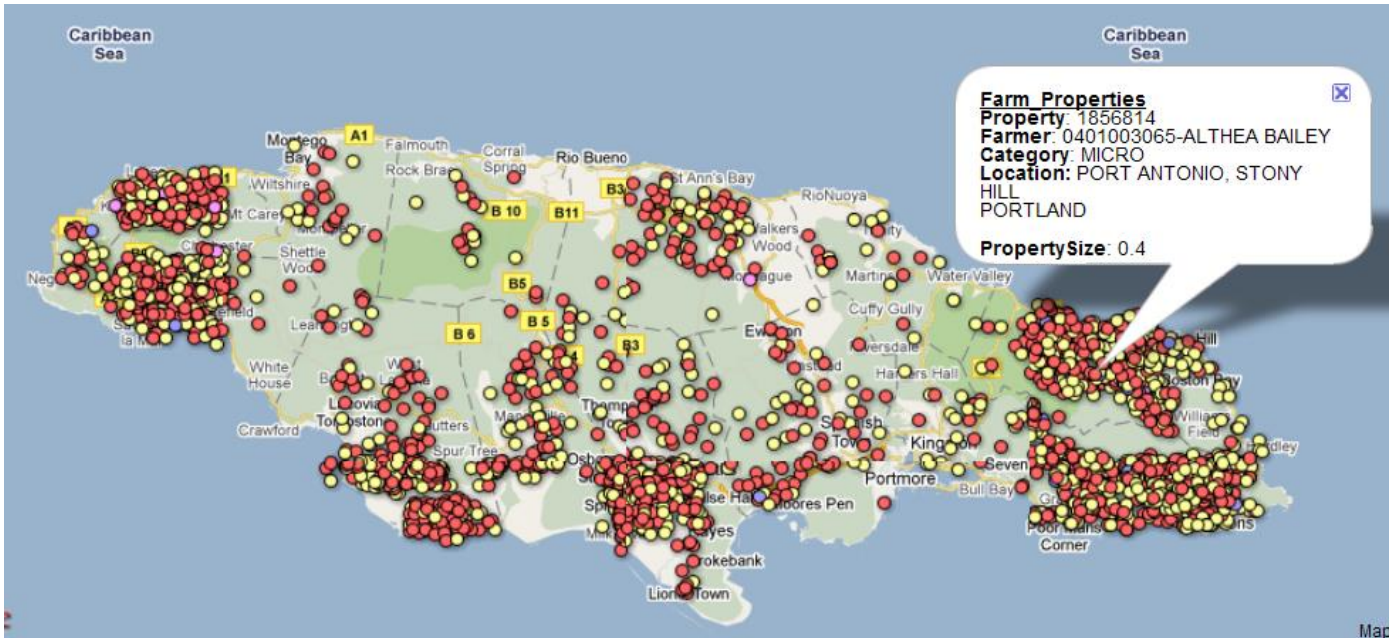
New Services & Businesses

- Open agriculture data creates the opportunity for the emergence of a variety of e-Agriculture Apps that can encourage a broad base of domain experts, technical developers, and innovators to participate in an Agriculture innovation ecosystem 
- **Published Agriculture Open Data becomes a catalyst for innovation opportunities for software developers and entrepreneurs**

Data Visualizing vs Statistics Increases Utility

Farmer Registration Info.

| PARISH | #REGISTERED |
|---------------------------------|-------------|
| ST.ANN | 17,391 |
| TRELAWNY | 7,561 |
| CLARENDON | 18,976 |
| ST.MARY | 8,388 |
| ST.CATHERINE | 12,271 |
| ST.JAMES | 7,054 |
| HANOVER | 5,803 |
| ST.THOMAS | 8,931 |
| MANCHESTER | 17,892 |
| WESTMORELAND | 9,565 |
| PORTLAND | 7,841 |
| ST.ANDREW | 5,552 |
| ST.ELIZABETH | 21,360 |
| Total Registered 148,585 | |



Caribbean Open Data Use-Cases

Commodity Price Trends

Commodity Price Trend for Carrot in the Parishes of: Kingston & St Andrew, St Elizabeth, Westmoreland

- Parish
- Kingston & St A..
 - St Elizabeth
 - Westmoreland

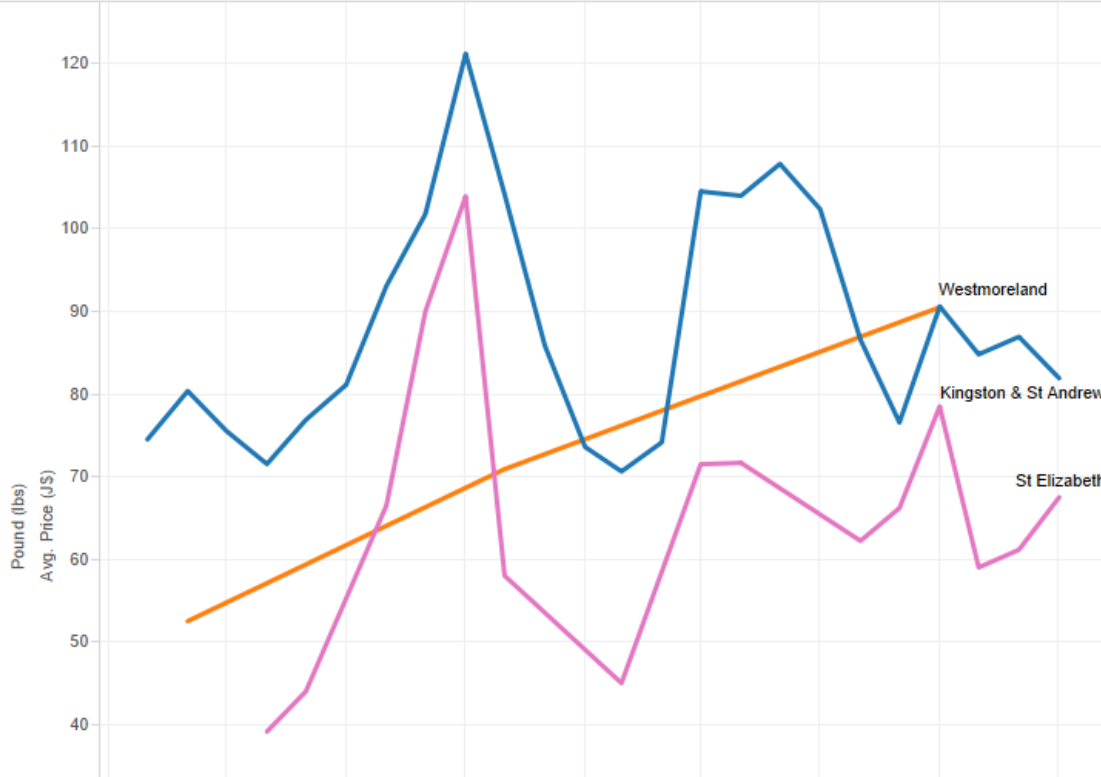
- Parish
- Clarendon
 - Hanover
 - Kingston & St Andrew
 - Manchester
 - Portland
 - St Ann
 - St Catherine
 - St Elizabeth
 - St James
 - St Mary
 - St Thomas
 - Trelawny
 - Westmoreland

- Commodity
- Cabbage (Green)
 - Cabbage (Red)
 - Callaloo
 - Cantaloupe
 - Carrot
 - Cauliflower
 - Coco
 - Cucumber
 - Dasheen
 - Escallion
 - Ginger
 - Green Banana
 - Gungo Peas
 - Irish Potato
 - Lettuce

Commodity / Variety / UnitOfMeasure

Carrot

Local



Economics of Caribbean Open Data

eg. Tourism Levers/Drivers

Efficiency & Effectiveness

- **Improved quality of service delivery in support services such as transportation, entertainment and merchandising.** eg. Open-Data-enabled mobile Apps
- **Enhanced tourism product information** and diversity of choices for discriminating visitors with niche interests
- Enhanced Market analysis and selective targeting through access to tourism origin data to stimulate Apps development, and enhance sector analysis and visualization



Participation & Collaboration

- **Increased linkages between tourism and other sectors** such as Agriculture, Manufacturing, arts & craft, self-employed service providers
- Empower Community Tourism interests and stakeholders with greater participation and collaboration in the development of the community tourism product; Open Data initiatives can impact positively on the visibility, inclusiveness and welfare of small operators



Transparency

- Increased transparency in the allocation and disposal of resources/funds for the development of the sector (i.e. Tourism Enhancement fund; JSIF – community-based tourism development)



New Services & Businesses

- Increased visibility and clientele for smaller hotel properties, attractions
- Enable product development and market access for community-based tourism initiatives
- **Innovation opportunities for software developers and other service entrepreneurs**

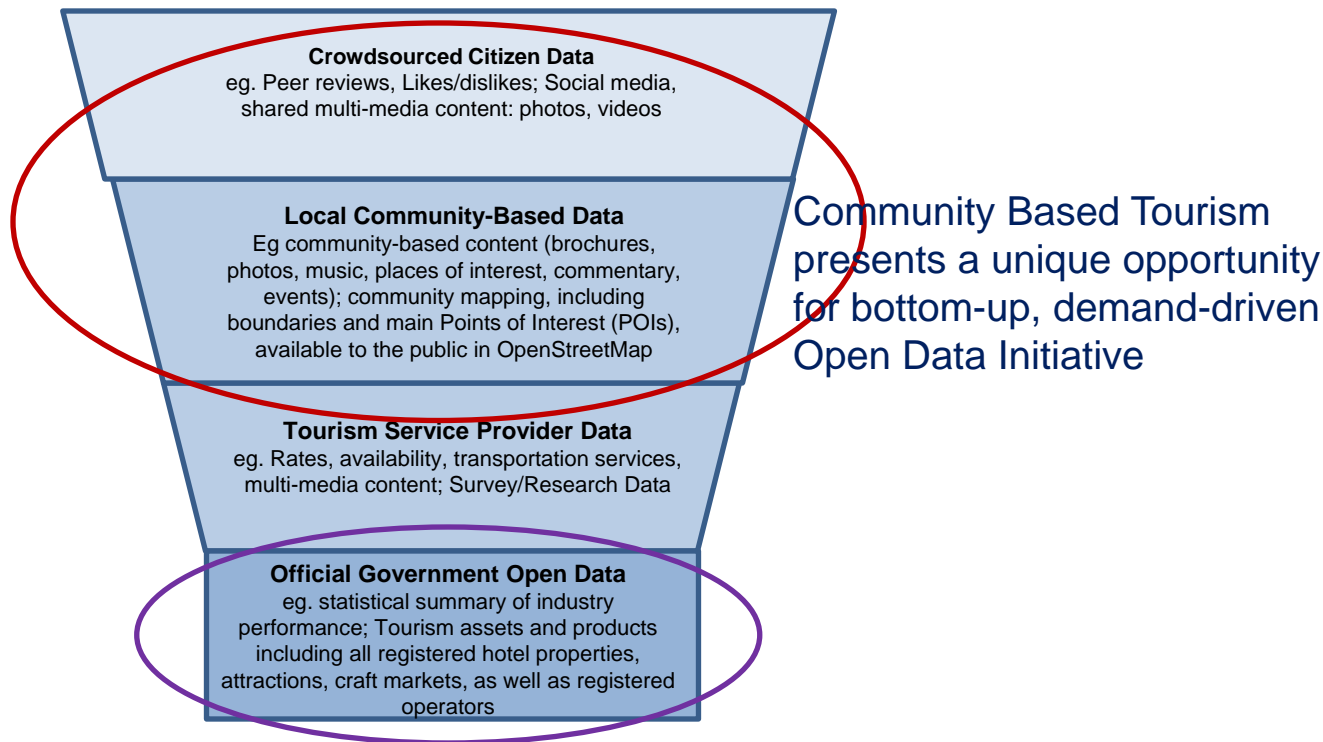


Open Data And Interactive Community Mapping



A Strategy for Empowering Local Communities

A Layered Model for Tourism Open Data



Catalysts

see the value of GeoData, especially when Open. They know that "locals know best" and enable and teach people to Map. They advocate and facilitate government agencies and professionals to create and use open geodata.

- Sparking local involvement by "non-professionals"
- Motivating governments and businesses to open up data
- Training & Capacity Building, Research
- implementing standards, documenting APIs, opening "easy access"



Enablers

are enthusiastic about technology, they know what is going on in their neighbourhood. They love to go out, map and document what is there and how

- Mapping their Communities
- Making data available in OpenStreetMap
- Making data available for which the license is incompatible with OpenStreetMap
- creating metadata, describing and promoting datasets



Builders

are Tech savy, they have the skills to turn Geodata into applications. Using Open Source and API's, they turn it into prototypes

- geeks, programmers, students and businesses that add value to and through the data...
- people that want to create applications or "output" (like statistical maps, visualizations) in the broadest sense



Runners

spot new opportunities. Taking prototypes to the next level. Offering jobs and find the right audience

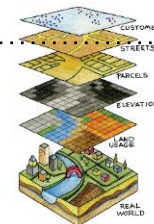
- Reaching out to people that are willing to test and use apps created by the "Builders"
- Contribute either financial or from a user / market perspective



Custodians

owners of Data that can be convinced of the merits of opening up and contributing their Data assets to the geodata ecosystem

- Government Agencies that collect and maintain GIS Data Assets
- Businesses, Entrepreneurs that generate valuable spatial or attribute data



Catalysts

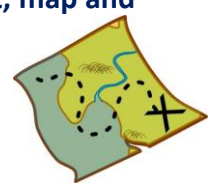
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- "access"

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- Mapping their Communities
- Making data available in OpenStreetMap



Users

interact with the real-world communities, engaged and empowered by the digital artifacts (maps, images, visualizations and mobile apps)

- Tourists interacting with Communities
- Citizens learning about their heritage, geography, history

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light audience

that are willing to

created by the "Builders"

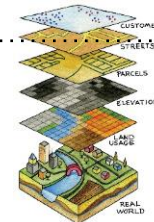
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Three Target Communities



August Town
community, a cultural
& heritage Mecca

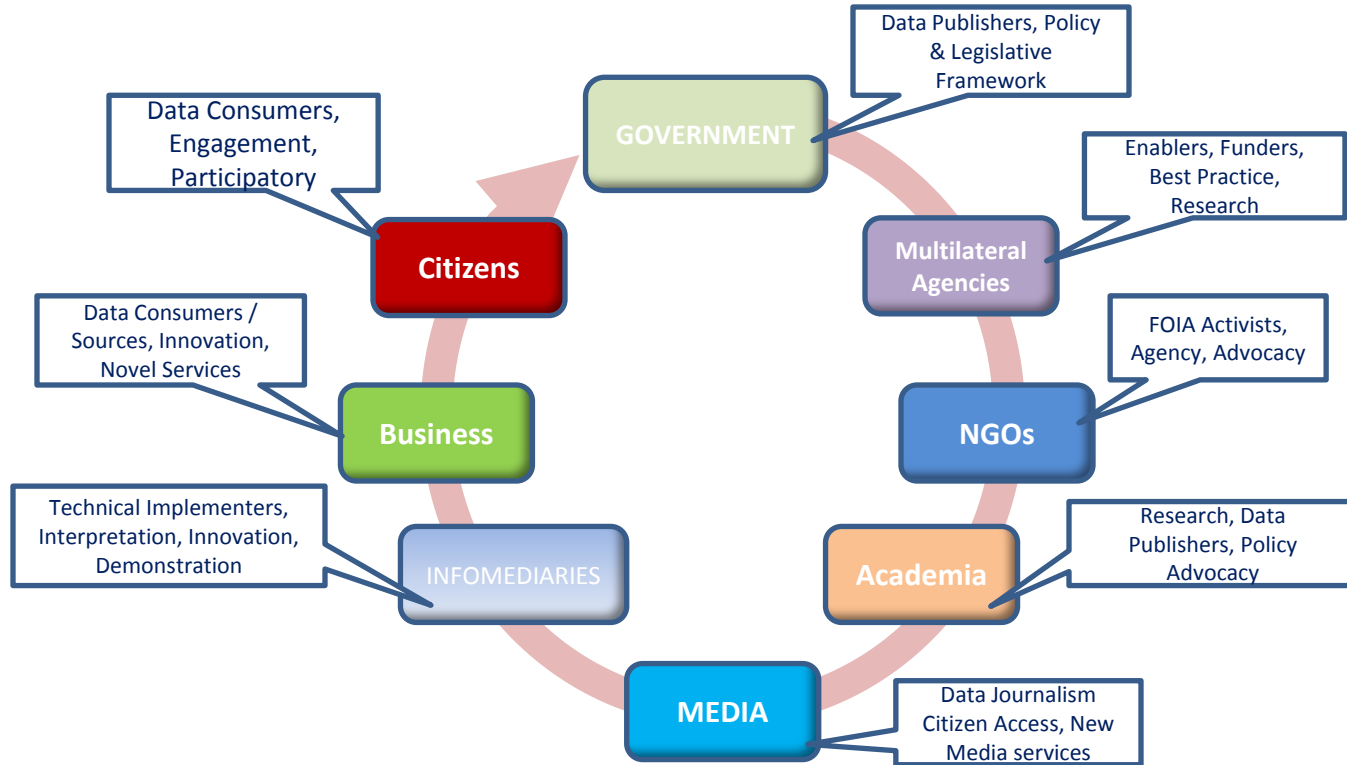


The Rastafarian Indigenous
Village, Montego River
Gardens, St James



Treasure beach, a gem for
travelers in search of the off-
beat. You won't find a more
authentically charming and relaxing
place in Jamaica

Open Data Ecosystem / Actors





DevCa

Developing
the Caribbean 2016

Towards A Caribbean
Data Revolution
May 5th-6th

DevCA is a Multi-Country Open Data Conference & Codesprint

DevCA has had 4 Editions (2012, 2013, 2015, 2016)

- Conference Sites: Jamaica, Trinidad, Dominican Republic
- Codesprint sites: Barbados, Guyana, Cuba, St.Kitts

Thematic Areas: Agriculture, Tourism, Education, Data Journalism, Census 2010, Consumer Prices, Elections, Zika

Outcomes: Awareness, Advocacy, Engagement, Experimentation, Entrepreneurship



DevCA Engages with Caribbean Leaders...



DevCA Engages with International Experts...



DevCA Engages with Caribbean Academics...



DevCa
Developing
the Caribbean | 2015

DevCA Engages with Caribbean Technologists...



DevCA Engages with the Business Community



Calling all
Coders
Designers
Engineers

Come and
HACK
ZIKA

DevCa
ZIKA | Hackathon

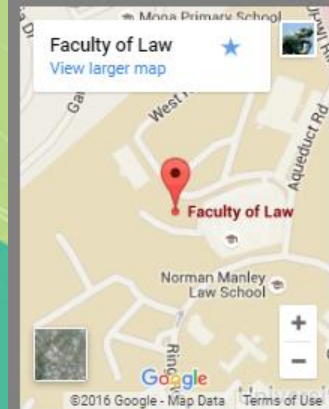
Institutional Partners

- CARPHA, PAHO, MOH-Jamaica
- Specific Problem statements

DevCA Cuba Hackathon

- 83 Developers
- 10 Prototypes developed

When: Thu May 5 to Fri May 6
Venue: Faculty of Law, UWI Mona





#DevCa2016: Electoral Hackaton, live after 10 days with Participación Ciudadana

Hackaton Electoral
#DevCa2016



ORGANIZAN _____



FINANCIA _____



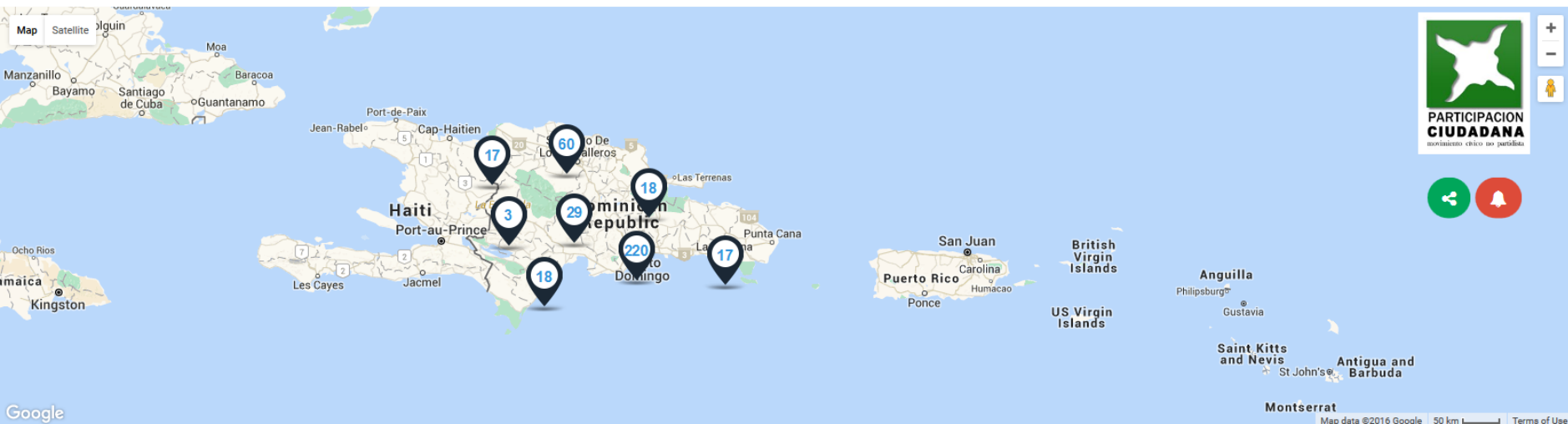
COLABORAN _____



Hackaton Electoral #devca2016

#OBSERVACIÓN2016

INICIO CANDIDATURAS DENUNCIAR NOSOTROS



PARTICIPACION
CIUDADANA
movimiento cívico por partidos



Mapa de incidentes verificados por Participación Ciudadana (y si tiene una, deje su [Denuncia](#) o [Reporte](#))



502

Reportes Recibidos



181

Verificados



90

Rechazados

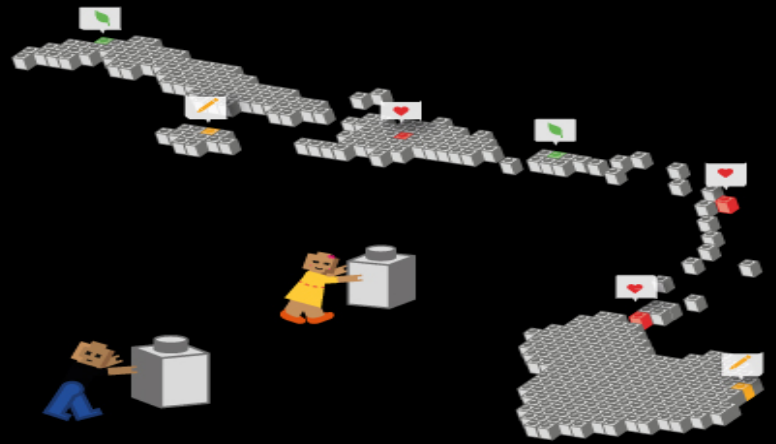


231

En Proceso de Verificación

Emerging Insights...

- **Innovation fellowships** provide an important mechanism for collaborative government-civil society co-creation in key developmental areas
- **Governments' role** will require active participation on supply and demand sides of the Caribbean open data ecosystem
- Scale limits and resource deficits will require a common set of technology platforms, tools, standards and code repositories for shared use i.e. **the Caribbean Digital Commons**
- The value sustainability of the open data initiatives in the region will ultimately rely on the emergence of a **vibrant Caribbean open data ecosystem** of actors and investment in individual and community **capacity-building** across the whole open data value-chain



The Caribbean Digital Commons

Imagining the Future Digital Caribbean

- **Regional Open Data Portal:** Open Caribbean Datasets for Entrepreneurs and Innovators, including Geospatial Data
- **Caribbean School of Data:** Building Data literacy and Digital Competency across the Caribbean
- **Evolving DevCA:** *A Platform (Open Space) for convening multiple stakeholders around Digital Services-enabled problem-solving & Innovation*
- **Caribbean Apps Ecosystem:** Technology platforms, tools, standards and code repositories for Shared Indigenous Solutions

