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International Institute for  
Software Technology

# Open Government Data W3C Discussion Summary

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# AIM AND OVERVIEW

## AIM

Recall the W3C EGOV Interest Group roadmap, summarize 20 cases of Open Government Data presented during 9 recent group meetings, carry out cross-case analysis of the findings according to the roadmap.

## OVERVIEW

- 1 W3C EGOV INTEREST GROUP ROADMAP
- 2 SUMMARY OF THE GROUP DISCUSSION ON OPEN GOVERNMENT DATA
- 3 DISCUSSION FINDINGS ACCORDING TO THE ROADMAP
- 4 CONCLUSIONS

# ROADMAP – PURPOSE



Question	How to organize existing themes, discussions and outcomes of the W3C EGOV IG with respect to each other and with respect to the larger thematic context?	
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Answer	1	Consider four EGOV dimensions – what, how, why and where
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2	Formulate a set of questions along these dimensions
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3	Apply such questions to current EGOV themes
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4	Attempt to answer them through group discussions
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# ROADMAP DIMENSIONS – HOW



## HOW – MECHANICS

PLANNING	DESIGN	IMPLEMENTATION	OPERATIONS
MONITORING, EVALUATION, INSTITUTIONALIZATION			

## QUESTIONS

1	What are the areas involved in EGOV research and practice?
2	What is the process by which EGOV can be developed and maintained?
3	What principles and methods are applied in different process steps?
4	What are the main stages in the EGOV policy cycle?
	4.1 EGOV Planning
	4.2 EGOV Design
	4.3 EGOV Implementation
	4.4 EGOV Operation
	4.5 EGOV Sustainability
5	Etc.

# ROADMAP DIMENSIONS – WHY

## WHY – VALUE PROPOSITION

POLICY	EGOV				
	GOVERNMENT	TECHNOLOGY	INTERACTION	CUSTOMERS	SOCIETY
Social					
Economic					
Environmental					
Transitional					

## QUESTIONS

- 1 | What benefits are expected from EGOV?
- 2 | How can EGOV help pursue public policy objectives?
- 3 | Different measures (how) for different ends (why)?
- 4 | What policy areas are most affected?
- 5 | What experiences exist?

# ROADMAP DIMENSIONS – WHERE

## WHERE – LOCALIZATION

- |   |                           |
|---|---------------------------|
| 1 | Policy objectives         |
| 2 | Implementation conditions |
| 3 | EGOV maturity             |
| 4 | Economic development      |
| 5 | Social development        |
| 6 | Legal framework           |
| 7 | Institutions              |
| 8 | Language                  |
| 9 | Culture, etc.             |

## QUESTIONS

- |     |   |
|-----|---|
| 1   | How the does the EGOV value proposition reflect:  |
| 1.1 | local policy objectives?  |
| 1.2 | local implementation conditions?  |
| 1.3 | level of maturity in eGovernment implementation?  |
| 1.4 | level of socio-economic development in the country?   |
| 1.5 | language and cultural identify?   |
| 2   | What is the process of developing and maintaining such locally-owned EGOV value propositions? |
| 3   | How to transfer successful experiences (HOW) from one policy context to another (WHY)?        |
| 4   | What experiences exist with such transfers?   |

# ROADMAP DIMENSIONS – WHAT

## WHAT – FOUNDATIONS

The nature, definition and conceptualization of EGOV

## QUESTIONS

Does W3C definition

eGovernment is the use of the Web and other information technologies by governments to interact with the citizenry, between departments and divisions, and with other governments

reflect the current understanding and practice in EGOV?

If not, how to update it?

# ROADMAP APPLICATION – MATRIX



DIMENSIONS	QUESTIONS	THEMES										
		Open government data	Accessibility	Social media	Education and outreach	Data licensing	Cloud computing	Privacy and security	Web Platforms	Community directory	Artifacts library	Etc.
HOW	What are the stages in the EGOV policy cycle?											
	...											
WHY	What benefits are expected from EGOV?											
	...											
WHERE	How is value proposition reflecting local goals?											
	...											
WHAT	Is the W3C definition still adequate?											



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# OPEN GOVERNMENT DATA – CASES 1-10



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NO	CASE	PRESENTER
1	Open Colorado – Local-level open government data partnership	Brian Gryth
2	Economic, Social and Political Impact of Open Government Data	Tomasz Janowski
3	Open Data Protocols – Working with open data RFC-style	Rufus Pollock
4	Open Data, Open Source, Open Government by Basque Government	Serafín Olcoz
5	Government Information Sharing Framework	Elsa Estevez
6	Digital Accountability and Transparency Act (DATA)	Hudson Hollister
7	Creating Visualizations using Linked Data	Alvaro Graves
8	Open-Source Open Data Platforms	Andrew Hoppin et al.
9	Executable Open Vocabulary English	Adrian Walker
10	Open Government Information and Data in New Zealand	Keitha Booth

# OPEN GOVERNMENT DATA – CASES 11-20



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NO	CASE	PRESENTER
11	From 0 to 5 Cities – Open Data in Taiwan	TH Schee
12	Research on US Federal Government Handling of Data	Brand Niemann
13	How Linked Data is transforming e-Government	Nikos Loutas
14	Open Data at the World Bank and our Support to Developing Countries	Tariq Khokhar
15	Open Government Data: India	Neeta Verma
16	Transforming Social Media Data into Linked Government Data Assets	Mohammad Waqar
17	Open Government Data Initiative Colombia	Johanna Pimiento
18	Parliamentary Transparency - Not Only a Data Challenge	Pierre Andrews
19	Accra Hackathon – Lessons Learned	Edwin Opare
20	Towards Open Government Data Program in Uganda	Julius Peter Torach

# CASE 1 – OPEN COLORADO



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WHAT	Local-level Open Government initiative
WHY	To support a transformation towards a simple, beautiful and easy-to-use government
	How to make data findable and get it out
	From making data open, to defining and implementing open data policies
HOW	Education: City Camps, Social Media Trainings, teaching to city managers and attorneys
	Civic innovation: rating bike routes, visualizing crime-related data, etc.
	Community: helping government adopt open web technologies (code for communities)
	Tools: open data catalogue, federated catalogues, getting federal data published
	Policy: model Local Open Government Director, based on Obama's Open Government Directive
	Partnerships: city governments, council of governments, private sector
WHERE	Colorado, USA
	Cities: Arvada, Denver, Boulder, Castle Rock, and counties of Denver and Boulder
	<a href="http://www.opencolorado.org">www.opencolorado.org</a>

# CASE 2 – IMPACT OF OPEN GOVERNMENT DATA



WHAT	Expert group meeting on the impact of open government data	
WHY	Large-scale diffusion of open data initiatives around the world	
	Large expectations that such initiatives will help address the challenges of good governance, economic growth, social inclusion, innovation, participation, etc.	
	Lack of evidence that such expectations can be fulfilled to guide better practice and policy	
HOW	Economic	Reducing transaction costs within government and across jurisdictions
		Generating increased availability and quality of public services
		Fostering innovation and competition in the private sector
	Social	Holding private actors to account, for example, on environmental performance
		Leading to more policy relevant research being produced outside government
		Highlighting inequalities and mobilizing grassroots movements for change
WHERE	Developing countries	
	<a href="http://www.opendataresearch.org/post/23536123039/odrbrasil">http://www.opendataresearch.org/post/23536123039/odrbrasil</a>	

# CASE 3 – OPEN DATA PROTOCOLS



WHAT	Simple protocols and formats for working with open data, Request for Comments (RFC) style
	Establishing a rich data ecosystem where data is easy to share and easy to use
WHY	Lack of simple standards and protocols for interaction between services and tools
	Not easy to get data into a local tool, not easy to publish data
	Too much friction means less reuse and less improvement
HOW	Data Protocols is informal community to work out consensus, running code and integrated data and building wherever possible on what already exists
	Protocols and formats
	Emphasis on running code
	Make it easier to get and reuse data
	Make it easier to build tools and services
	Pattern: flat file-based (no APIs), CSV as file format, simple metadata
WHERE	<a href="http://dataprotocols.org/">http://dataprotocols.org/</a>

# CASE 4 – OPEN DATA BY BASQUE GOVERNMENT



WHAT	Open Data, Open Source, Open Government by Basque Government
WHY	Promoting and regulating openness and reuse of public sector applications
	Implementing Openness and Reuse of Applications Decree by the Basque Government
HOW	Reuse - if you want to develop software, you must see what's already available and build on that
	You are required to publish at least the dependencies as it affects everyone, not just you
	Have a global idea of what is being done using public money to develop software
	Open apps repository – agnostic about formats: data, text, code, etc.
	Public Sector Information Reuse – open assets
	Public-private and private-public partnership model
	Start the processing of a European Directive on Openness and Reuse of Applications
WHERE	Basque Government, Spain
	<a href="https://joinup.ec.europa.eu/asset/adms_foss/document/basque-openness-and-reuse-decree-software-applications">https://joinup.ec.europa.eu/asset/adms_foss/document/basque-openness-and-reuse-decree-software-applications</a>

# CASE 5 – GOVERNMENT INFORMATION SHARING



WHAT	Conceptual framework to guide the development of Government Information Sharing (GIS) policies, strategies and implementations
WHY	GIS is a key capability required for one-stop and networked government
	GIS faces technical, organizational, cultural, etc. barriers which are difficult to address by agencies
	Developing GSI capabilities is a challenging task that requires government-wide coordination, explicit policies and strategies, and concrete implementation frameworks
HOW	Abstract view: <ul style="list-style-type: none"><li>○ Technological, Organizational, Inter-organizational and Environmental dimensions</li><li>○ Maturity stages: 1) Experience Sharing, 2) Infrastructure Support and 3) Information Strategy</li></ul>
	Detailed view: <ol style="list-style-type: none"><li>1. Stage 1: Scope, Principle, Lifecycle, Unit, Data Component, Risk, Benefits, Barriers</li><li>2. Stage 2: Best Practices, Components (dimensions)</li><li>3. Stage 3: Initiatives (dimensions)</li></ol>
WHERE	<a href="http://iist.unu.edu/sites/iist.unu.edu/files/biblio/tj-pub-72.pdf">http://iist.unu.edu/sites/iist.unu.edu/files/biblio/tj-pub-72.pdf</a>



# CASE 6 – THE DATA ACT



WHAT	Digital Accountability and Transparency Act (DATA)
WHY	US Government is the most expensive organization on earth and the most outdated
	It does not report its spending in one place, different agencies use different databases
	Federal spending is not transparent
HOW	DATA has been proposed to congress to reform the way government reports its spending
	DATA will standardize all reporting to a single, consistent electronic format
	DATA will consolidate all spending data into a single public website
	DATA will provide complete, accurate and searchable data on all federal spending
	DATA will all the public expose cases of fraud, waste and abuse
	DATS will lead to program performance, regulatory filings, financial disclosures, legislative actions and judicial documents becoming more easily accessible
	Data Transparency Coalition – technology companies and nonprofit organizations
WHERE	USA, <a href="http://www.datacoalition.org">www.datacoalition.org</a>

# CASE 7 – CREATING LINKED DATA VISUALIZATIONS



WHAT	Creating Visualizations using Linked Data
WHY	Publishing is not enough: <ul style="list-style-type: none"><li>○ How do we make easier for users to consume it?</li><li>○ How do we explore the data?</li><li>○ How can we discover trends?</li><li>○ How can we find errors or outliers?</li></ul>
	Visualization tools are hard: many technologies, learning curve, difficult to create prototypes
HOW	Visualbox: <ul style="list-style-type: none"><li>○ Environment for creating Linked Data visualizations</li><li>○ Multiple visualizations types: maps, graphs, charts, timelines</li><li>○ Simple creation process</li><li>○ Trivial to share</li></ul>
	Linked Data makes it easy to query and mix data
	Visualbox makes it easy to visualize data
WHERE	<a href="http://visualbox.org">http://visualbox.org</a>

# CASE 8 – OPEN-SOURCE OPEN DATA PLATFORMS



WHAT	Open-Source Open Data Platforms
WHY	Help to Publish, customize, store and manage data
	Data users to explore, collaborate, use, and extend data & systems
	Open source – no lock-in, security/transparency, open formats/standards, innovation, cost
HOW	CKAN – powerful data management system to enable publishing, sharing, finding and using data
	Aimed at data publishers (governments, companies, etc.) wanting to make their data open
	Data.gov soon to be based on CKAN and Drupal
	Drupal - open source, widely used, hosting and consulting support, large skilled user community
	DKAN – Drupal-native CKAN
	DKAN benefits - extensible, rapid new development, mature platform, broad support, cloud and local hosting options, integrates DMS and CMS
	Data isn't static but both real-time changing and augmentable
WHERE	<a href="http://drupal.org/project/dkan">http://drupal.org/project/dkan</a>

# CASE 9 – EXECUTABLE OPEN VOCABULARY ENGLISH



WHAT	A Wiki for Executable Open Vocabulary English with an example semantically linking DOE data
WHY	Creating “smart connections” - connecting non-technical people to data
	400,000 datasets on data.gov plus extraction tools need applications to give meaning to data
	Google indexes and searches apps that are written in English
HOW	A wiki for content in executable open vocabulary English: <ul style="list-style-type: none"><li>○ Write business rules in Open Vocabulary English in a browser</li><li>○ Run the rules using the browser</li><li>○ See English explanations of the results</li></ul>
	The vocabulary and syntax (to a large extent) are open
	No dictionary or grammar maintenance is needed
	Strict semantics is achieved via declarations, with jargons and terms supported
	Supports writing executable English knowledge containing terms, acronyms, logical expressions
	To query and manage, supports controlled vocabularies, taxonomies, ontologies and RDF
WHERE	<a href="http://www.reengineeringllc.com/A%20Wiki%20for%20Business%20Rules%20in%20Open%20Vocabulary%20Executable%20English.pdf">www.reengineeringllc.com/A Wiki for Business Rules in Open Vocabulary Executable English.pdf</a>

# CASE 10 – OPEN GOVERNMENT IN NEW ZEALAND



WHAT	Open Government Information and Data in New Zealand
WHY	IT facilitates electronic publication of official information without it being requested by anyone
	Government should proactively make information available to the public
	Declaration on Open and Transparent Government
HOW	Data and information management principles: reusable, reasonably priced, well-managed, trusted and authoritative, readily available, protected, open
	Open Access and Licensing Framework: recommended guidelines for agencies to use when releasing copyright and non-copyright material for reuse by third parties
	Report on Agency Adoption of the Declaration on Open and Transparent Government
	Economic and Social Impact: economic benefits rather than revenue
	Transparency and Democratic Impact: disclosure of chief executive expenses
	Efficiency Impact: better public services
	New apps emerging that use public data
WHERE	New Zealand

# CASE 11 – OPEN DATA IN TAIWAN



WHAT	From 0 to 5 Cities – Open Data in Taiwan
WHY	Open Data movement growing in Taiwan
	Open Data Regulation drafted, cabinet-level support
	Public support from five biggest cities
HOW	Open Data Strategy: <ul style="list-style-type: none"><li>○ Freedom of Information Act and Local Regulations</li><li>○ Government Clouds and Cloud Computing</li><li>○ Data Portals by ministries and city governments</li><li>○ City Apps by governments</li></ul>
	City government apps: hundreds, low update frequency, developer-unfriendly
	Multi-stakeholder approach: data users involved, government innovation, media support
	Progression: from software code to legal code, from crowd to mass
WHERE	Taiwan

# CASE 12 – US GOVERNMENT HANDLING OF DATA



WHAT	Analysis of the current open government initiatives and programs in the US
	Research on rules governing data and information disclosure
WHY	We have big data and “bring your own device, data, etc.” technology
	Governments have data: statistical, open, classified
	Governments have concerns: privacy (personal information), security (need to know)
HOW	Governments need: Chief Data Officers, Data Scientists and Statisticians, Return on Investment
	Governments should: work with the right data (statistical and open), work with the right people (Data Scientists) and work on the right projects (Pilot Dashboards)
	<p>Steps for Open Government Data:</p> <ol style="list-style-type: none"> <li>1. Put the Best Content into a Knowledge Base (e.g. MindTouch*)</li> <li>2. Put the Knowledge Base into a Spreadsheet (Excel*)</li> <li>3. Put the Spreadsheet into a Dashboard (Spotfire*)</li> <li>4. Put the Dashboard into a Semantic Model (Excel*)</li> <li>5. Put the Semantic Model into Dynamic Case Management (Be Informed*)</li> </ol>
WHERE	US

# CASE 13 – HOW LINKED DATA TRANSFORMS EGOV



WHAT	How Linked Data is transforming e-Government
WHY	Opening-up data often happens ad-hoc with thousands of datasets published without adhering to commonly-agreed data and metadata standards and without reusing common identifiers
HOW	Linked data is a set of design principles for sharing machine-readable data on the Web for use by public administrations, business and citizens
	7 Good Practices for publishing Linked Data: <ol style="list-style-type: none"><li>1. Model the data</li><li>2. Re-use vocabularies whenever possible</li><li>3. Name things with persistent URIs</li><li>4. Publish human and machine readable descriptions</li><li>5. Convert data to RDF</li><li>6. Specify an appropriate license</li><li>7. Host the Linked Dataset publicly and announce it!</li></ol>
	Interoperability Solutions for European Public Administration promotes interoperability through Linked Data: best practices, pilots, vocabularies, online search service
WHERE	European Union



# CASE 14 – OPEN DATA AT THE WORLD BANK



WHAT	Open Data at the World Bank and our Support to Developing Countries
WHY	Open about what we know, open about what we do, supporting others to be open
HOW	World Bank Open Data Initiative: <ul style="list-style-type: none"><li>○ 20 million+ visits since launch, internationally acclaimed</li><li>○ 1/3 of all web traffic to the World Bank is for open data</li><li>○ Over 100 major datasets listed in the catalog, 8,000+ indicators</li><li>○ A central index for all data across the Bank</li></ul>
	Indicators: World Development Indicators, International Debt Statistics, Governance Indicators
	Principles: <ol style="list-style-type: none"><li>1. Can't do open data without data to open up</li><li>2. Free data is not free – revenues versus investment</li><li>3. But it's good for the data business</li><li>4. Being legally open is just as important as being technically open</li><li>5. Make it easy for others to use our data (build for reuse)</li><li>6. And it will get used: mobile apps for health, jobs and poverty, life expectancy</li><li>7. Help others do Open Data: Open Government Data Toolkit</li></ol>
WHERE	<a href="http://data.worldbank.org">data.worldbank.org</a>

# CASE 15 – OPEN GOVERNMENT DATA IN INDIA



WHAT	Open Government Data in India
WHY	National Data Sharing & Accessibility Policy (NDSAP)
	Enabling provision and platform for providing proactive and open access to government data
HOW	Mandate: All Ministries/Departments should ensure that the maximum possible datasets are made available in the public domain for the implementation of NDSAP
	Implementation guidelines: data controller, NDSAP cell within each department, data formats, metadata schema, how to release datasets in open domain
	Open Government Platform India (OGPL): <ul style="list-style-type: none"> <li>○ Data Management: data catalogs, workflow, standard metadata, validation, analytics</li> <li>○ Data portal: single point access, search &amp; discovery, open formats, citizen engagement</li> </ul>
	Facilitates Citizen Engagement: rate data sets; comment on dataset quality; embed datasets in website, blogs, social media pages; suggest datasets; communities of specific interest
	Open Government Data: sustained release of high value, high quality data sets
WHERE	data.gov.in, India

# CASE 16 – TRANSFORMING SOCIAL MEDIA DATA



WHAT	Transforming Social Media Data into Linked Government Data Assets
WHY	Governments understand the benefits derivable from harnessing social media data
	Technical challenges have contributed to limited exploitation of available social media contents
	Pulling social media content is challenging: many sources, different APIs, APIs call limitations, different return APIs formats, privacy limitations, noise in data
	Integrating social media contents into EGOV enterprise data is a significant engineering effort.
HOW	<p>Social Media Linked Data Space:</p> <ul style="list-style-type: none"> <li>○ Repository for holding social media content from different sources</li> <li>○ Transforms all captured contents into single machine readable format - RDF</li> <li>○ Enriches and integrates homogenized social data with existing Enterprise Data Hub</li> </ul>
	<p>Employing:</p> <ul style="list-style-type: none"> <li>○ Semantic Web and Linked Data for information integration within the government enterprise</li> <li>○ Natural Language Processing for social media content or text analysis</li> </ul>
	Building services around Social Media Linked Data Space to improve decision making, etc.
WHERE	<a href="http://www.deri.ie">www.deri.ie</a>

# CASE 17 – OPEN GOVERNMENT IN COLOMBIA



WHAT	Open Government Data Initiative Colombia
WHY	E-Government Strategy: Efficiency and Collaboration, Transparency, Citizen Participation, Competitiveness and Quality of life
HOW	<p>Asking People: Which type of services would you like to have from public agencies?</p> <p>Building up a flexible approach: organizational, political, financial, socio-cultural, technological</p> <p>Framework:</p> <ul style="list-style-type: none"> <li>○ Strategic – open data objectives and alignment with EGOV strategy</li> <li>○ Tactic – institutional and public policy articulation</li> <li>○ Operational – open data offer, demand and value-added services</li> <li>○ Support – legal and regulatory, processes, technology</li> </ul> <p>Opening cycle: identify (inventory), analyze (unclassified, non-confidential), prioritize (demand, impact, difficulty), structure (metadata), publish (upload, web service), exploit (incentives)</p> <p>A framework for data opening in a structured and organized manner, establishing balance and sustainability between supply and demand of data.</p>
WHERE	Colombia

# CASE 18 – PARLIAMENTARY TRANSPARENCY



WHAT	Parliamentary Transparency – Not Only a Data Challenge
WHY	Lay citizens do not care about standard models or exchange formats
	Citizens are not involved in the legislative process
	Transparency should be about enabling citizens and not about technical challenges
HOW	Automatic Citizen
	Enable participation of the citizens in the parliamentary process: Who are the representatives? What do they do: commissions, travels, etc.? Who votes on what?
	Issues: <ul style="list-style-type: none"> <li>○ Gather legislative data from heterogeneous sources</li> <li>○ Extract semantic information from data and inter-links</li> <li>○ Summarize legislations for citizens</li> <li>○ Filter and recommend: legislations, topics, representatives, etc.</li> </ul>
	Challenges: Understand the citizen needs, make data machine-understandable, make data valuable to citizens e.g. recommend laws that users want to support or are against
WHERE	Brazil

# CASE 19 – ACCRA HACKATHON – LESSONS LEARNED



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WHAT	Accra Hackathon – Lessons Learned
WHY	Ghana Open Data Initiative
	<p>Develop an open data community bringing together government and various non-state actors to interact with one another through open data portal in order to provide feedback to government:</p> <ul style="list-style-type: none"> <li>○ Promote evidence-based decision making</li> <li>○ Promote socio-economic development</li> <li>○ Promote improved government service delivery</li> <li>○ Drive innovation and wealth co-creation</li> </ul>
HOW	Building Initiative focuses on building open data “Ecosystem” comprising government, civil society, developers, academia, journalists, citizens
	Accra Hackathon: presentations, brainstorming, voting, breaking into groups, data visualization tutorials; mix of developers, creative designers, academia, government, data journalists, media
	Participant perspective: internet connectivity, compliments on DataViz & Scrapping tutorials, brainstorming process. Organizer perspective: organized brainstorming sessions.
WHERE	Ghana, <a href="http://www.data.gov.gh">www.data.gov.gh</a>

# CASE 20 – OPEN GOVERNMENT DATA IN UGANDA



WHAT	Towards Open Government Data Program in Uganda
WHY	National Information Technology Authority
	Mission: To transform Uganda into a knowledge based society by leveraging IT as a strategic resource to enhance government services, enrich businesses and empower citizens
	Open Data: 1) improve service delivery, 2) improve the productivity government, 3) create more accountable government, 4) increase transparency and fight corruption, 5) empower public access to information, 6) improve the quality of life for disadvantaged communities, etc.
HOW	Building Blocks for Open Government: 1) Policy & legislative framework, 2) Leadership & support, 3) Licensing, 4) Data standards, 5) Data portal, 6) Datasets, 7) Feedback loops, 8) Capacity development, 9) Outreach & engagement, 10) User interfaces / apps, etc.
	Challenges: 1) high cost of connections, 2) expensive content and app hosting, 3) multiplicity of data sources, 4) unreliable interactions, 5) expensive software, 6) repetitive/disjointed processes
WHERE	Uganda, <a href="http://www.nita.go.ug">www.nita.go.ug</a>

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# COMPARISON FRAMEWORK



WHAT	WHY	HOW	WHERE
NATURE	BENEFITS	SECTOR	COUNTRY
	POLICY	PROCESS	SECTOR
	END RESULTS	PRINCIPLES	LEVEL
	AREA	STAGES	REGION
	EXPERIENCE	STAKEHOLDERS	
		TOOLS	
		ACTIVITIES	

# WHAT DIMENSION

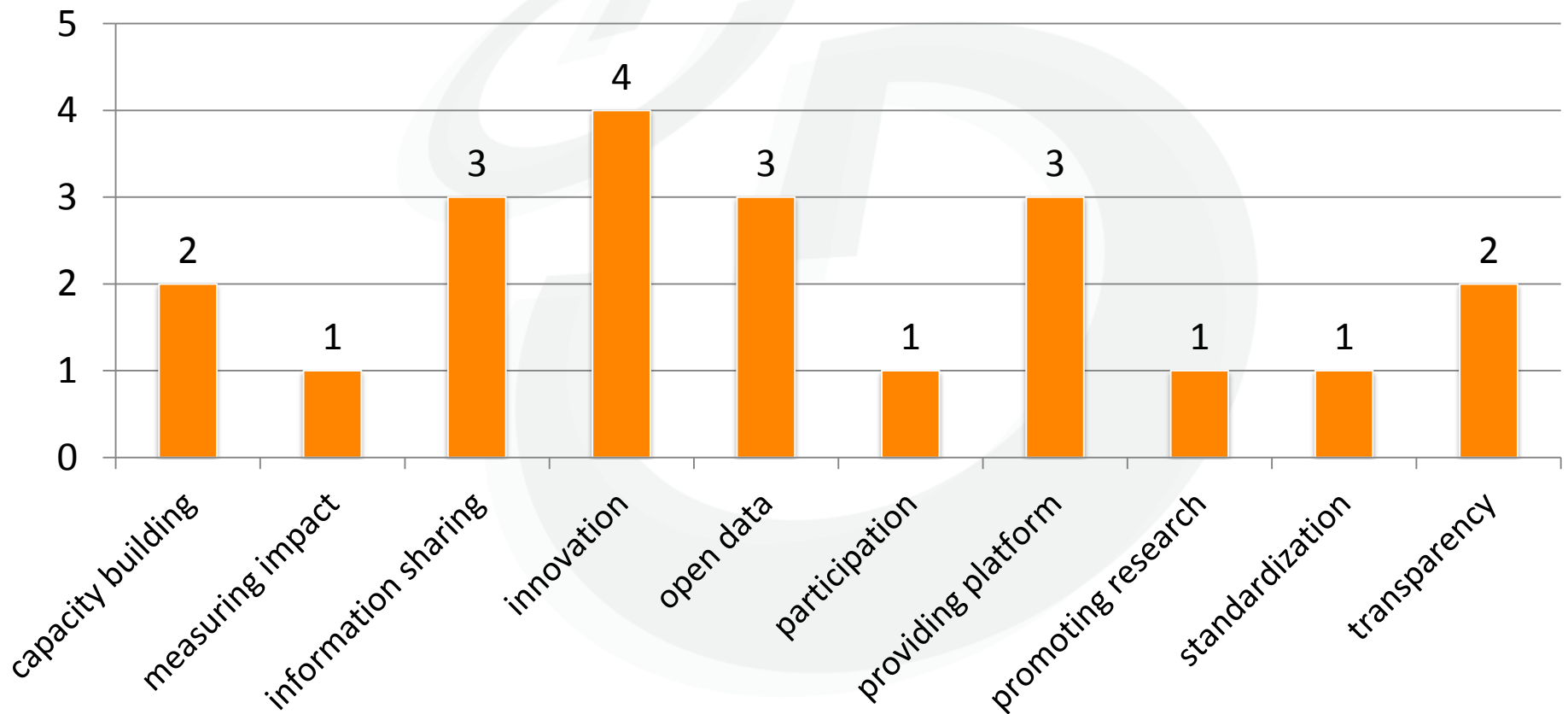


NATURE	
capacity building	2
impact measurement	1
information sharing	3
innovation	4
open data	3
participation	1
providing platform	3
promoting research	1
standardization	1
transparency	2



# WHAT DIMENSION

## NATURE



# WHY DIMENSION



POLICY	
EGOV strategy	1
accountability	1
information sharing	1
innovation	1
linked data	2
open data	4
open government data	6
open source	1
open standards	1
transparency	1

AREAS	
data visualization	1
government data	2
government spendings	1
information policy	1
information strategy	1
linked data	3
open data	9
open government	1
open government data	1
open standards	1
policy-oriented research	1
regulations	1
semantics	1
social media data	1
standards	1

BENEFITS	
avoiding vendor lock-in	1
connecting non-technical people to data	1
create more accountable government	2
data opening in an organized manner	1
discovering trends	1
driving innovation and wealth co-creation	1
easy-to-use government	1
economic benefits	1
empower public access to information	1
enabling one-stop government	1
evidence-based decision making	1
facilitate development of local tools	1
facilitate interactions	1
facilitating information consumption	1
improve decision making	1
improve service delivery	4
improve government productivity	1
increase transparency, fight corruption	5
innovative services/apps	2
participation and engagement	1
policy tracking	1
processing open data	1
promoting innovation	2
promoting research	1
reducing costs	1
research on government open data	1
socio-economic development	1
data sustainability and reuse	3



# HOW DIMENSION



STAGES	
design	13
implementation	8
operations	4
planning	8
sustainability	6

STAKEHOLDERS	
academia	2
agencies	5
attorneys	1
businesses	2
citizens	5
city managers	1
civil society	1
community	6
data publishers	1
developers	1
government	6
international	2
journalists	1
media	1
public	1
representatives	1

PROCESS	
analyse	1
building blocks for open government	1
building capacity	1
building open data ecosystem	1
building services around social media	1
citizen engagement	2
combining content from different sources	1
community support	1
consolidating data	1
enriching social media	1
extract semantic information	1
filter and recommend	1
fostering innovation	1
gather legislative data	1
managing open data	1
mobilizing grassroots movements	1
promoting availability of public services	1
promoting change	1
providing platform	1
publishing open data	9
publishing open vocabulary	1
raising awareness	1
reducing transaction costs	1
sharing government data	1
summarize legislations	1
training civil servants	1
transforming into one format	1
visualizing data	1



# WHERE DIMENSION



COUNTRY	
Brazil	2
Colombia	1
EU	1
Ghana	1
India	1
New Zealand	1
SPAIN	1
Taiwan	1
Uganda	1
USA	4

SECTOR	
academia	2
community	1
international	1
private	1
public	11
third sector	3

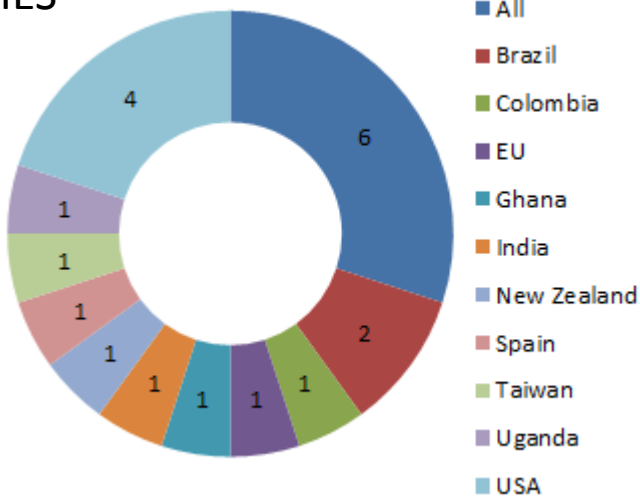
LEVEL	
international	6
local	2
national	10
regional	1
state	1

REGION	
all	1
developed	8
developing	5
global	4
transition	1

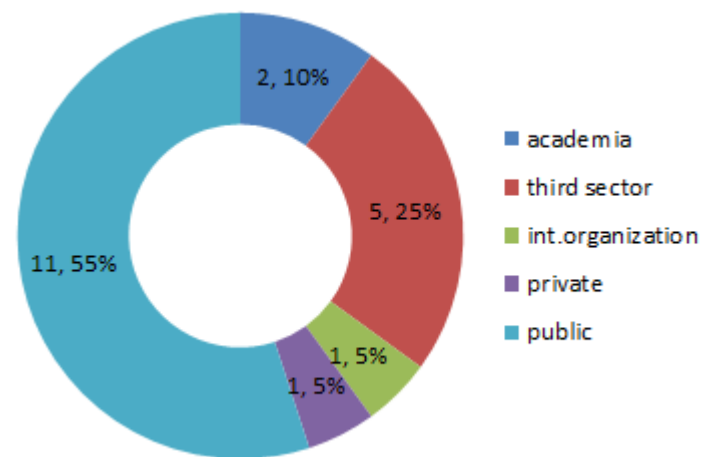


# WHERE DIMENSION

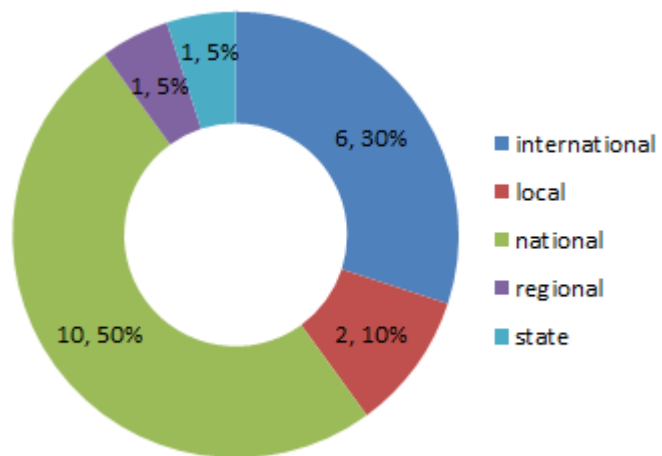
## COUNTRIES



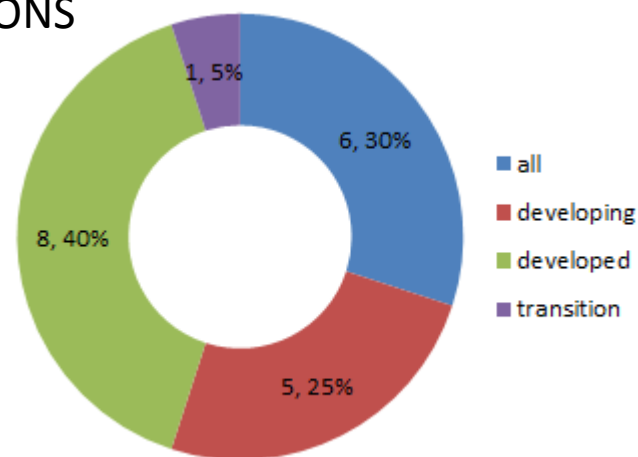
## SECTOR



## LEVEL



## REGIONS



# AIM AND OVERVIEW

## AIM

Recall the W3C EGOV Interest Group roadmap, summarize 20 cases of Open Government Data presented during 9 recent group meetings, carry out cross-case analysis of the findings according to the roadmap.

## OVERVIEW

- 1 | W3C EGOV INTEREST GROUP ROADMAP
- 2 | SUMMARY OF THE GROUP DISCUSSION ON OPEN GOVERNMENT DATA
- 3 | DISCUSSION FINDINGS ACCORDING TO THE ROADMAP
- 4 | CONCLUSIONS



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# Questions, comments?

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