Paper Size: A4

Card Size: (A7), 126x82mm. (Similar to the size of an iPhone 7/8).
This is a Recommended for working by yourself or with a group.

DATA-DRIVEN & SMART LGUS

Getting Started

The Getting Started Cards offer a practical overview and guidance on getting started with being smart and data-driven for local government units (LGUs). It provides a set of tools to be smart and data-driven based on the building block cards.

This first iteration of the Getting Started Card Kit for Being Data-Driven and Smart has 11 Getting Started cards which are connected to several building blocks as foundations to accomplish the getting started goal.

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DATA-DRIVEN & SMART LGUS

Getting Started

- how to gather data
- how to do a data inventory
- how to get started with data-driven policies
- how to digitize data
- how to open up data
- how to analyze data
- how to present data
- how to share data internally
- how to be data literate
- how to be a smart city
- how to use data for disasters

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Card 1

Gather Data

KEY CONSIDERATIONS

- Needs : What data to collect?Why? How? How frequent?
- Skills : What are the Skills required for this collection?
- Data Governance: covered by what rules?
- Data Standards & File Format: Do you need spatial data, photos, flat files, Excel files, XML files?

METHODS

The 4 methods for acquiring data are Collecting new data, converting/transforming legacy data, sharing/exchanging data, & purchasing data. This also includes from manual or automated collection like weather data, surveys, records of decisions or ongoing transactions, aggregation of many records such as crime data, & mathematical modelling which is usually used in population projections, etc.

🔧 BUILD A SOLID FOUNDATION!

Gather these Building Block Cards before taking action!

- Data
- Data Inventory
- Data Governance

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Card 2

Data Inventory

PREREQUISITES

- Data literacy to promote the capacity of the LGU work force
- Organization awareness on the timeline & goals as inventorying works best as LGU-wide effort
- Allot resources as Inventorying is a continual process -- updating of the inventory should be done routinely & regularly

STEPS

- Establish an Oversight Authority
- Determine the Data Inventory Scope & Plan
- Catalog Data Assets in Accordance with Inventory Plan
- Data Inventory Quality Checks; Initiate Data Prioritization Efforts

🔧 BUILD A SOLID FOUNDATION!

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- Data Literacy
- Data Inventory
- Data Governance

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Card 3

Data-Driven Policy

PREREQUISITES

- standardisation of data collection & recording procedures
- adopt Open data & FAIR data principles (findable, accessible, interoperable, reusable)
- infrastructure to ensure the safe storage & exchange of data
- data literacy & skills to promote the capacity of the LGU work force

PILLARS

- linking new data sources, such as (real-time) sensor data to traditional statistics
- co-creation & collaboration between LGUs & citizens in policy implementation, policy evaluation, & transparency & accountability
- allowing for experimentation with new policies & developing new data-driven methodologies at the same

🔧 BUILD A SOLID FOUNDATION!

Gather these Building Block Cards before taking action!

- Data Literacy
- Data Driven Organization
- Data Governance

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Card 4

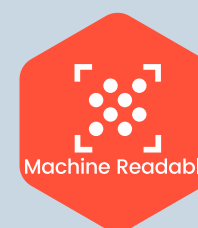**Digitize Data**

PREREQUISITES

- Data/Document selection criteria to digitize
- Method/s or Tools for Digitizing
- Digitization team/service
- Storage & Management methods
- Data Governance & Stewardship documents

STEPS

- Initiation & mobilization of the project - Selection of documents/records for digitization
- Preparation of documents & Conversion to digital form
- Editing of the digitized documents & their storage method
- Organization of digital collection using metadata
- Access & maintenance

🔧 BUILD A SOLID FOUNDATION!

Gather these Building Block Cards before taking action!

- Data Literacy
- Machine Readable
- Data Governance

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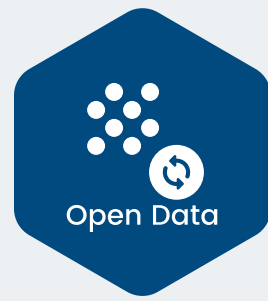
Open Data

PREREQUISITES
- Open Data Policy & Data Governance
- Data selection criteria
- Method for sharing/storage open data
- Open Data team
- Open source procurement policies to encourage the use of open source software when possible

STEPS
- Identify key LGU problems that could be resolved by open data & Choose your dataset;
- Apply an open license & Make the data available in bulk & in useful format;
- Make it discoverable by posting it on the web or organize a central catalogue to list your open datasets
- Support the open data community through an online forum where new data sets, ideas, visualizations & proof of concepts can be discussed
- Establish priority for ongoing release

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Gather these Building Block Cards before taking action!

Open Data | Smart City | Freedom of Information

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Analyze Data
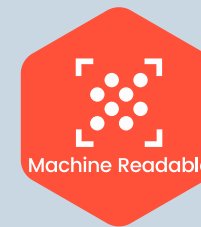
KEY CONSIDERATIONS
- Data Quality & Provenance
- Standardized Methods
- Openness & Transparency
- Reproducibility – Reference your data sources
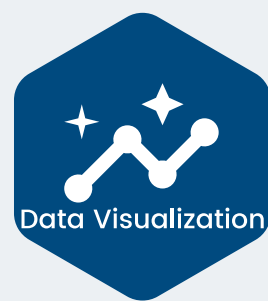- Documentation of the tools and methods used in analysis

STEPS
- Define your goals
- Clean your data
- Build your data analysis toolkit which depending on the amount & type of data for analysis
- Look for patterns & trends in the data
- Compare current data against historical trends
- Look for data that goes against your expectations/outliers & investigate further
- Visualize your data & interpret results

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Machine Readable | Data Fallacy | Data Ethics

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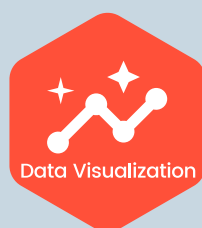## Data Visualization

DESIGN PRINCIPLES
- Less is more. Make every pixel and word count
- Avoid decorative use of graphics
- Avoid three-dimensional charts & pie charts. Start bar charts at zero
- Use bullet graphs instead of gauges to save space
- Use color only to highlight or accentuate meaning

STEPS
- understand the context
- choose an effective visual
- eliminate clutter
- focus the audience' attention to key details
- tell a story

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Gather these Building Block Cards before taking action!

Data Visualization | Data Literacy | Dashboard

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Data Sharing | Internal | External

METHODS
- Data catalog - page listing out all the available dataset with links
- Data portal - rich web application providing an improved user experience

STEPS
- create a data management plan - includes strategy, policies, data sharing agreements, access controls and copyrights, and software management
- acquire, process & analyze the data if & when needed
- storing, managing & securing the data as well as any accompanying documentation & analytical findings, for future use
- publish and share the data to the relevant audiences- internally or externally. Key considerations include the recipients of the data set, the sensitivity of the data that is being shared, the choice of which metadata should be included, & the data sharing license.

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Gather these Building Block Cards before taking action!

Data Sharing | Data Stewardship | Data Privacy

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Card 1

Data Literacy

PREREQUISITES

- Identify critical data skills needed for the agency
- Assess the current staff capacity for those data skills
- Perform a data skills gap analysis to prioritize the agency's needs
- Appoint a data champion/lead & management team

STEPS

- Clear- align leaders around the strategic aims , ambition & success factors for becoming data literate
- Aware-Communicate the vision & case for change & begin to create ownership of the data literacy program top down & bottom up
- Assess & Train - Design the tools & training based on the assessment (see prerequisites)
- Sustain - continuously manage, communicate, update & monitoring the data literacy skills of the LGU workforce

🔧 **BUILD A SOLID FOUNDATION!**

Gather these Building Block Cards before taking action!

- Smart City
- Data Literacy
- Data Driven Organization

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Card 2
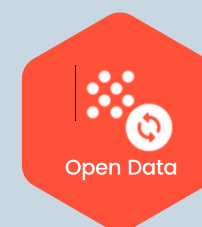
Smart City

DOMAINS

- data - e.g. open data, data governance
- governance - e.g. procurement, accessibility
- hardware & software - e.g. interoperability, open source
- people & engagement - e.g. civic tech community, data literacy

STEPS

- pass necessary policies: e.g. open data, data governance, open-source software-first, open government
- have a champion & create a management team
- assess interoperability & quality of your data, systems & infrastructures & address the gaps
- make data inventory a routine & prioritize the quality of your data
- crowdsource/ask the residents what digital services they need/want
- practice open innovation & sustain digital & data literacy

🔧 **BUILD A SOLID FOUNDATION!**

Gather these Building Block Cards before taking action!

- Open Data
- Data Literacy
- Data Driven
- Data Governance

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Card 3

Disaster Data

DATA BY MAJOR NATURAL HAZARD TYPE

- Earthquake : Natural hazard maps, Historical catalog, Monitoring Network
- Flood : Natural hazard maps, Monitoring Network
- Landslide : Natural hazard maps. , Historical catalog
- Drought: Natural hazard maps, Climate Change projections

STEPS

- Refer to existing global & national open data efforts
- Assess current Natural Hazard Datasets for Operational Purposes
- Creation of a spatial data repository
- Build local capacity within governments to manage spatial data & local scientific capacity
- Preparation of natural hazard data availability profile

🔧 **BUILD A SOLID FOUNDATION!**

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- Data
- Data Inventory
- Data Governance

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