The Data Driven Policy Maker

Aligning GIS activities with Your Executive's Initiatives

Pat Cummens, Esri
It Starts With Identifying Priorities…

Sustainable Community
- Mobility
- Resiliency
- Smart Planning
- Asset Management

A Prosperous Community
- Economic Development
- Affordable Housing
- Destination Branding
- Tourism

A Safe Community
- Vision Zero
- Low Crime Rate
- Situational Awareness
- Effective Disaster Response

Healthy Community
- Opioid Abuse
- Access to Care
- Homelessness & Housing

A Well Run Community
- Real-Time Awareness
- Data-Driven Decision Making

It Starts With Identifying Priorities…
Priorities Lead to Government Policy Issues

Translate to GIS Solutions

- Grow the Economy & Jobs
  - (prioritize investments, where are jobs, workers, transit, opportunity zones ...)

- Safe and Resilient Communities
  - (disaster preparedness, situational awareness in EOC...)

- Modern Efficient Infrastructure
  - (real-time traffic monitoring, connected roads, intermodal connections...)

- Evolve Education and Workforce Development
  - (education attainment, technical training, code academies, skills gap...)

- Improve Environment
  - (habitat conservation, water quality, green infrastructure ...)

- Encourage Innovation & Modernize Service Delivery
  - (broadband coverage, on-line apps, citizen engagement)

- Smart Communities
  - (energy efficient, walkable, data rich and accessible ...)

![Image of a map with various data points and labels, indicating the translation of government policy priorities into GIS solutions.](image-url)
What Governors are Hearing on Data

Data is the natural resource of the 21st century - IBM

Elevate the role of your chief data officers - Deloitte
Governors Expecting More from Data and Technology

New Council on Opioid Overprescribing in N.H. to Rely on Data Analysis

"This data will allow us to not just make policy on a hunch, but really look at the data, in terms of understanding both the geographic trends you might see, the trends you might see not just with individual providers but individual situations."

NHPR January 11, 2019
What does it Mean to the Policy Makers Team?

GIS Aids Policy Makers in Many Ways

Common Patterns:
- Analyze Policy Impacts
- Improve Communications
- Engage citizens
- Understand Constituent Sentiment
- Inspire Innovation / deliver transparency
Analyze Policy Impacts .... Congress uses GIS ...

Analyze and Visualize Data .... Understand Policy Impacts

Healthcare

Federal Lands footprint

Veteran Homelessness

Senate ENR – Understanding Energy Challenges in Alaska
Analyze Policy Impacts .... Governors use GIS ...

Analyzing and visualize Data ....
Understand Policy Impacts

Opportunity Zones with No Electric Vehicle Charging Stations

16,000 public charging stations

Zipcodes with 150% of poverty – median income by age chart

Opportunity Zones with/ near Impaired Waters
Improve Communications… StoryMaps Inform & Engage Effectively

Good Jobs for All Americans

Ahead of the Curve: Innovation Governors

National Governors Association Initiatives
Improve Communications... Consumable, Compelling Facts....

The Value of Geospatial data is not always delivered in a map form.
Engage Citizens … Connect & Promote Constituent Services

- Embed maps or galleries on websites and press releases
  - Town Hall and Listening Tours
  - Information on drug drop-off locations
- Share maps through briefings and social media
Engage Citizens… tap into Crowdsourcing.
Finding things for people to rally behind for quick wins.

CommuteATL – Crowdsourced Traffic App fed by Waze following I-85 Bridge Collapse

City of Long Beach, CA – Crowdsourcing Noise Complaints

City of New Orleans, LA – Blight Survey

VDOT Northern Virginia Adopt-a-Highway

Adopt a Hwy, VA
Inspire Innovation... Deliver Transparency

Iowa DOT – Innovating to Improve Storm Management
Iowa DOT – Track A Plow

Layering Live Data Feeds for Real-Time Awareness

Begin with the basics:
- Weather
- Road conditions
- Traffic Cameras

Add new sources:
- Plow locations
- Plow dash cam photos
Iowa DOT – Getting the word out – sharing data services

…….twitter, feeding media channels, citizen self service
Iowa DOT - What else can we do with this data?

Winter Cost Calculator
Track estimated costs of keeping Iowa’s state-owned roads clear during the winter for the last 48 hours.
Refresh browser to update information

- Total cost
- Zoom to metro, county, & custom locations
- Details for road segment
Winter Cost Calculator

Cost over past 48 hours total:
material, labor, equipment

Data Collected:
• Speed
• Location
• Blade position
• Material types and rates
• Air and pavement
• Temperature
• Engine bus
• Photos

Same data different audience: Support Internal operations & inform public of cost of storms
Winter Cost Calculator

Road segment details:
- Time of last pass,
- Action taken,
- Costs
Iowa DOT – Internal applications – Winter Operations Portal & Reporting

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Manage operations
- Digital Signs
Iowa Open Data Access

Sharing data through open services – spawn new applications

http://data.iowadot.gov
Data Driven Decisions... lead to better government

- Driven by open data and supplemented by crowdsourced data
- Acting on actionable intelligence in real-time
- Leveraging Maps, Dashboards and Infographics, Reports
- Encouraging Iterative policy making