Explaining the Value of GIS to Management

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This is hard!
Key Elements for Success

- No Particular Order
- No Particular Priority
- Some overlap
• Business Leaders Speak Many Dialects
  - Technical Disciplines
  - Business Lingo
• GIS Teams Speak Many Dialects
  - GIS, Tech, Data Analysis
• Learn the Lingo for Success
  - Key Business Disciplines
  - The Language of Business Motivation
Tech Value is:
- Key to Generating Business Value
- Not Self-Explanatory
• Learn to Translate...
  - Tech Terms => Business Terms
  - Tech Contributions => Business Value
• Organizations Consist of People Performing Many Tasks
• Each Person is a Hero
• Learn Key Business Stories
• Arm Your Organizations Heroes with GIS
• Business Teams Might Not Speak Your Dialects
• GIS Does Not Easily => Business Value
• Your Organizations Employees Need Your Help to Save the Day
• GIS Teams Can...
  - Learn Business Dialects
  - Connect GIS to Business Value
  - Arm Business Teams with GIS
Business Language
Interpreting the business language of motivation
Many Dialects of Business

- Inspections Engineering
- Construction Trades

- Criminology
- Forensics
- Penology

- Transportation Safety
- Transportation Engineering
- Maritime Operations

- GAP... offense... physiognomy...

- consignment... receiver... deadhead...
One Language to Rule Them All...
Other approaches can be a bit complex...
We need to **reduce violent crime**...

Is there anything we can do to help?
We need to reduce violent crime...
We need to reduce violent crime...

We have some maps and apps...
Sounds interesting but how can that help exactly?

...generate online maps for your users...
Sounds interesting but how can that help exactly?
One Language to Rule Them All...
Motivation

Describes the Need to Change
- Drivers & Trends
- Goals & Objectives

Respond by
- Seeking more information
Motivation

Examples

Drivers & Trends
- Need to protect life
- Need to create awareness
- Desire to achieve top ranking
- Reacting to slowing new supply
- Consider future cities initiatives

Goals & Objectives
- Reduce violent crime
- Increase sales
- Optimize operations
- Stop delivering packages to the wrong place
We need to reduce violent crime...

Which...? How much...? Known causes...?
Assessments

Describes Business Impact
- Performance & Outcomes
- Customers & Environments

Respond by
- Exploring Analysis & Prediction
...uptick in shootings, poverty rising...

...current state vs preferred...
use GIS to find patterns in areas of concentration...uptick in shootings, poverty rising...
Describes Offerings and Ops
• Products & Services
• Processes & Capabilities

Respond by
• Exploring Automation & Enabling
...requires new patrol strategies...

...enable by informing & automating...
Basic Relationships

- Motivation Requires Assessment
- Motivation Impacts Business Services
- Business Services Improve Through Assessment
GIS Delivers Value

- By Enabling and Performing Assessments
- By Enabling and Automating Business Services
Business Value

Describing how GIS delivers business value
Technology is amazing
How?
How?
Technology Value

- Spatiotemporal
- High Availability
- Data / Maps
- Analysis / Trends
- Data Quality & Accuracy

Business Value

- Real-time / Instant
- Reliable / *Always working
- Better-informed Decisions
- Getting ahead of the curve
- Compliance / Safety
Technology

- volume of data
- # of views
- reduced downtime

models executed

# of transactions

Business

- customers
- decreased costs
- sales
- Increased $
Technology Value

Generates 100s of maps
1000s of views
Many TBs of data
Executes tons of models

Business Value

Supports the efforts of many users daily
Manages massive amounts of critical information
Providing answers in seconds instead of minutes, minutes instead of hours
requires new patrol strategies

enable by informing & automating...
find patterns in areas of concentration... requires new patrol strategies...
...requires new patrol strategies...

...enable teams to find the best places to deploy...
Really? Tell me more.

...informing your users whenever, wherever...
How GIS/Tech teams sometimes describe value...

Maps Service Requests

Volumes of Data

50 TB

Focused on impact to the platform
How GIS teams really generate value...

Focused on impact to the business

- Cases Closed: 30/45
- Online Sales: $50K
Business Story

Adding GIS to business stories to create better outcomes
GIS professionals say...
Thinking of users, apps, and data...

Q: What do the users need?

A: Data, Apps, Maps
Types of Stories

Fictitious Use Case
- Names
- Actions

Processes
- Actors/Roles
- Responsibilities/Tasks
Thinking of processes...
Roles and Responsibilities

Q: What do the detectives need?

A: ...to identify and locate suspects...
Thinking of use cases...

Names and Actions

Q: What did detective Maxwell need to do?

A: ...track down the shooter and known associates...
This is hard! Remember?
How do you get there?
...requires new patrol strategies...

...enable teams to find the best places to deploy...
...requires new patrol strategies...

...enable *your commanders* to find the best locations to deploy *patrols*...
Really? Tell me more.

...**informing** your **users** whenever, wherever...
Really? Tell me more.

...commanders can see *patrols in the field* and respond as the situation changes...
...officers on patrol can stay connected to command and see calls and incidents around them...

Really? Tell me more.
Resources
<table>
<thead>
<tr>
<th>Title/Description</th>
<th>Url</th>
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</thead>
<tbody>
<tr>
<td>Taxonomy of business functions and services for the Federal Government. Some elements can be adapted for state and local government.</td>
<td></td>
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<tr>
<td>A capability framework for local government currently under development.</td>
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<tr>
<td>Business Process models for the retail industry.</td>
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<tr>
<td>Water Research Foundation</td>
<td><a href="http://www.waterrf.org/">http://www.waterrf.org/</a></td>
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<tr>
<td>A not-for-profit research collaborative that provides industry insights and practical solutions to the water community.</td>
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Motivation to Assessment
Making Motivation Measurable

- Regardless of the type of motivation (Driver, Trend, Goal, or Objective)...
  - Identify Metrics and Targets
  - Identify Indicators
Motivation to Assessment

FICTITIOUS EXAMPLE

- Reduce Violent Crime
  - Metrics and Targets
    - Shootings [Number of, Rate]
    - Robberies [Number of, Rate]
    - Murders [Number of, Rate]
  - Indicators
    - Drug Related Incidents
    - Poverty
Motivation to Business Services
Making Motivation Actionable

- Regardless of the type of motivation (Driver, Trend, Goal, or Objective)...  
  - Identify Impacted Products and Services  
  - Identify Impacted Processes  
    - Roles and Responsibilities  
  - Identify Impacted Information Systems  
    - Apps and Data Systems
Motivation to Business Services

FICTITIOUS EXAMPLE

- Implement New Patrol Strategies
  - Impacted Services
    - Citizen Protection
    - Crime Prevention
  - Impacted Processes [Roles & Responsibilities]
    - Commanders
    - Patrols
    - 911
  - Impacted Information Systems
    - CAD
    - Incident Database
    - In-vehicle Computers
    - Vehicle and Officer Cameras
    - Vehicle GPS and Sensors
Strategic Alignment of GIS

Highlight the use of GIS capabilities in the planning, execution, realization, and monitoring of major change initiatives

<table>
<thead>
<tr>
<th>Strategic Initiative</th>
<th>Time Frame</th>
<th>Planning</th>
<th>Execution / Realization</th>
<th>Monitoring / Assessment</th>
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Key
✓ – Used/To Be Used

- Used
- To Be Used
Strategic Initiative Use of GIS Capabilities
Highlight the location platform needs of strategic or change initiatives

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Organizational Unit, Process, or Capability GIS Capability Usage

Highlight the degree of use of GIS Capabilities by Organizational Units, Processes, or Capabilities [Current or Future]

<table>
<thead>
<tr>
<th>Organizational Unit, Process, or Capability</th>
<th>External Collaboration</th>
<th>Internal Collaboration</th>
<th>Self-Service Mapping</th>
<th>Dashboards</th>
<th>Mobile Data Access</th>
<th>Mobile Data Collection</th>
<th>Real-time GIS</th>
<th>High Volume / Throughput Data</th>
<th>Advanced Desktop GIS</th>
<th>App / Data Integration</th>
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<td>Service Qualities</td>
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**Key**
- ● – Full Use
- ○ – Limited Use
- ○ – Not Used
- L – Low
- M – Medium
- H – High
- A – Availability
- P – Performance
Key Takeaways
This is hard!
- Learn Business Dialects
- Connect GIS to Business Value
- Arm Business Teams with GIS
Focus on the impact to business...

Cases Closed
30/45

Online Sales
$50K

Inform them with impact on activities, costs, and revenues
Think about the people trying to save the day...

**Q:** What did need to detective Maxwell do?

**A:** ...track down the shooter and known associates...

Arm them with the tools they need to succeed
I don’t care how you get there...
Sounds great! Just let me know what you need from me...
Questions???

...and maybe answers :)