



GeoReadiness Enterprise Metrics

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GeoReadiness Enterprise Metrics Agenda



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- Leveraging Business Drivers
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GeoReadiness Enterprise Metrics Introduction



- **In our presentation, we'll describe how the GeoReadiness program is establishing enterprise-wide measurement practices for data requestors, users, and processes.**
- **These metrics will be used to track and report progress towards return on investment goals set by Navy leaders.**



GeoReadiness Enterprise Metrics Drivers



- **CNIC leadership is asking:**
 - *What does GeoReadiness do for the mission?*
 - *How is the investment being utilized?*
 - *Who else is using it and why?*
 - *Are we getting what we paid for?*
- **We need to improve GeoReadiness program sustainability through periodic value-based assessments**



GeoReadiness Enterprise Metrics Background



- **Every Enterprise GIS program is faced with questions posed by its leaders/investors:**
 - *What am I buying?*
 - *Is the investment being utilized for its intended purposes?*
 - *How do I know if I have enough GIS capacity? Do I need more or less?*
 - *What value does GIS provide to my business and mission?*



GeoReadiness Enterprise Metrics Background



- **Common Enterprise GIS program challenges ...**
 - **“Chances are you will find yourself needing to justify a GIS project or a request for funding, or respond to a threat to your existing resources.”¹**
 - **“What difference does your GIS make in reaching organizational goals?”¹**
 - **“It is likely [that] your organization leadership undervalues the contribution of GIS”¹**

“We’ve asked our GIS staff to document the Return on Investment that has come about from our focused investment in GIS. I am pleased and somewhat surprised by the magnitude of the GIS contribution”

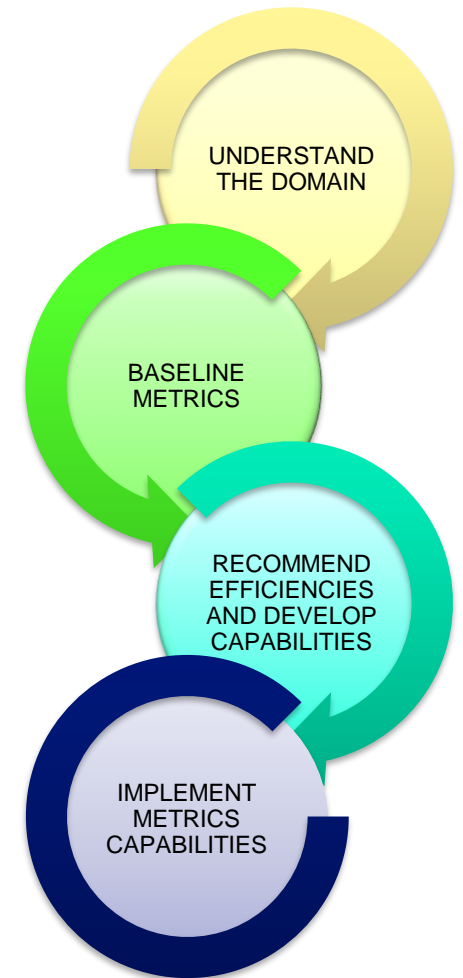
Mike Styler, State of Utah DNR Executive Director²



GeoReadiness Enterprise Metrics Project Summary



- **Understand the Domain**
 - Establish Protocols, Identify Customers, and Assess Utilization
- **Baseline Metrics**
 - Determine Metrics and Measures
 - Data, Products, and Services Assessment
 - Identify Product and Service Gaps and Mission Impacts
- **Recommend Efficiencies and Develop Capabilities**
 - Enhance Data Discovery
 - Develop Data Metrics and Reporting Tools
- **Implement Metrics Capabilities**
 - GeoReadiness Data Metrics Reporting Tools
 - Develop GeoReadiness Data Metrics Monitoring Plan

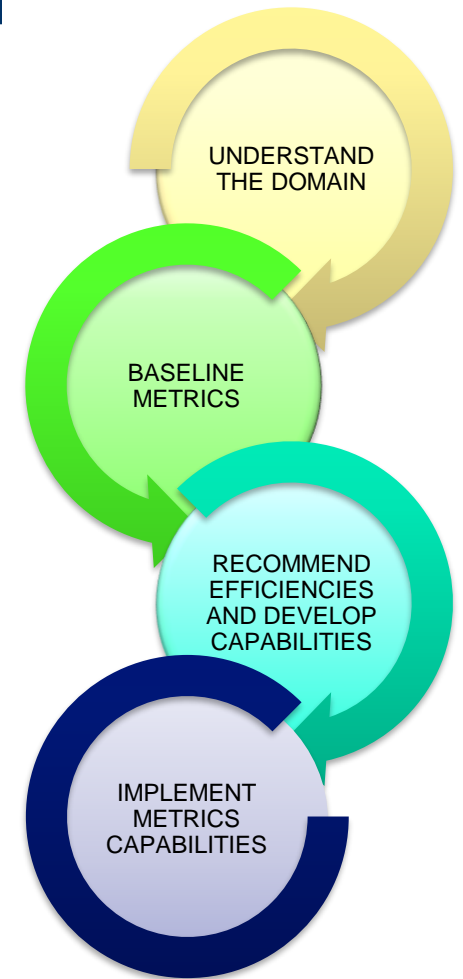




GeoReadiness Enterprise Metrics Project Outcomes



- To inform CNIC leadership, NAVFAC, N-Codes, and other stakeholders of the value of the GeoReadiness program across the Navy Shore Enterprise.
 - Identify and baseline metrics that measure effectiveness of program
 - Implement capabilities and procedures that utilize metrics to continually measure and document the effectiveness of program
 - Identify and document gaps in products and services that may be addressed to better meet customer needs and support mission goals
 - Ensure that business processes are complete and consistent to enable and support the program





GeoReadiness Enterprise Metrics Measures and Metrics



The difference between a metric and a measure. In the context of this project, they are defined as follows:

- **Measure**

- it may be qualitative or quantitative
- it represents a single condition at a single time
- they are the building blocks for metrics

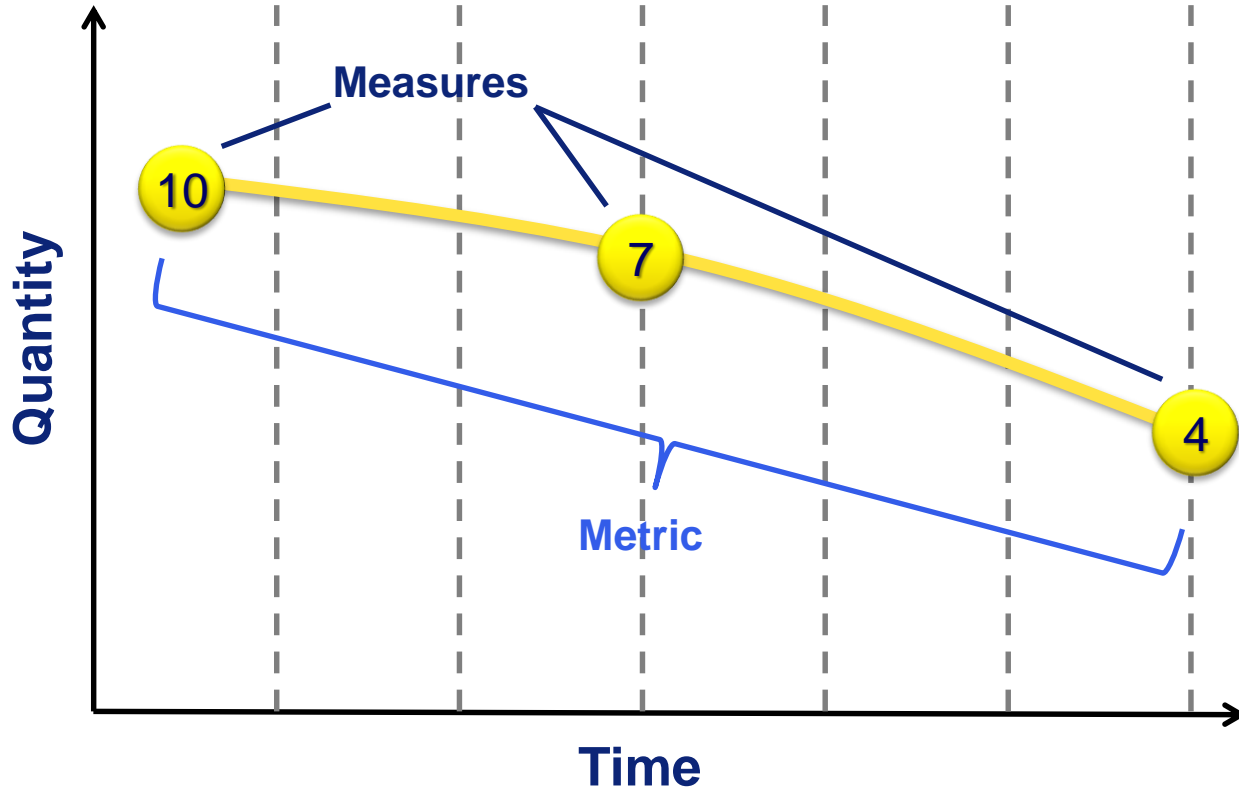


- **Metric**

- it may be qualitative or quantitative
- it may reflect the change in a measure or measures over time
- they are used to evaluate the effectiveness of established processes over time
- they are used to assess program success against established objectives



GeoReadiness Enterprise Metrics Measures and Metrics



Example Key:

Measures (x) = monthly energy usage per facility

Metric = average monthly energy usage, tracked over time

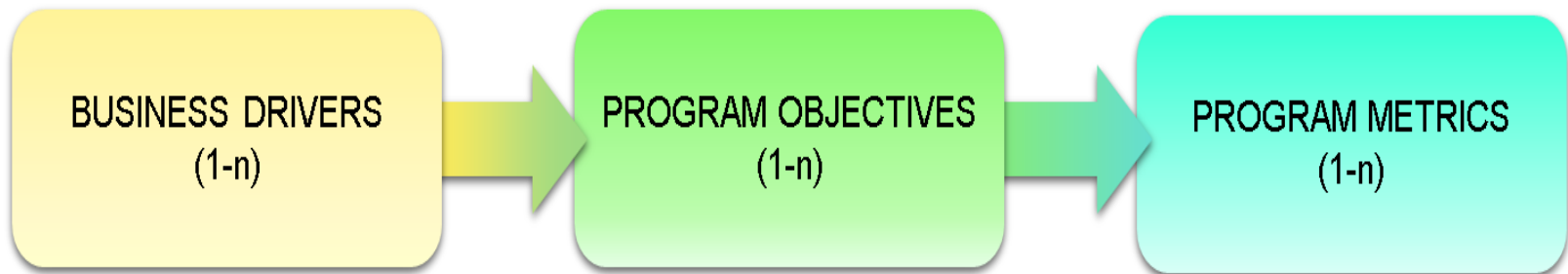


GeoReadiness Enterprise Metrics Leveraging Business Drivers



Business drivers may consist of the following:

- **Department of Defense policies and instructions**
- **Department of the Navy policies and instructions**
- **NAVFAC policies and instructions**
- **Federal and State laws**
- **Mission requirements**





GeoReadiness Enterprise Metrics Investigation



Objective:

- To obtain input towards identifying, quantifying, assessing, and measuring discrete program metrics

Approaches:

- Identify and establish metrics that are repeatable, objective, and measure success
- Identify and establish metrics that respond to business drivers and program objectives
- Identify and establish quantitative program metrics
- Identify and establish qualitative program metrics and findings, that can be used to improve communication to leadership



GeoReadiness Enterprise Metrics Investigation



Interview all Regions and select Installation organizations

- **Priority to Operational (N3, N6, others) and CNIC customers**
- **NAVFAC customers**

Typical organizations interviewed:

- **N3 (Ops, AT, RDC, ROC, Airfield Ops, Port Ops)**
- **N6 (IT, Telecommunications)**
- **N4 ARE**
- **Cadastral, RPAO, Planning**
- **GeoReadiness (GRC)**
- **Nat Res, Cult Res, Restoration, Compliance**
- **PWO, UEM, Airfield Mgmt, Grounds Maint**



GeoReadiness Enterprise Metrics Initial Findings



How often do you consume GeoReadiness products / services?

Daily – 12 | Weekly – 2 | Monthly – 0 | Other – 1 | Never – 0

How often do you use GRX?

Daily – 3 | Weekly – 4 | Monthly – 2 | Other – 1 | Never – 1

How often do you access Citrix M&A?

Daily – 6 | Weekly – 2 | Monthly – 2 | Other – 0 | Never – 3

Do you have a local ArcGIS Desktop instance?

Yes – 6 | No – 5

How often does your organization self-perform GIS activities?

Daily – 7 | Weekly – 1 | Monthly – 0 | Other – 0 | Never – 1



GeoReadiness Enterprise Metrics Initial Findings



Do you know how to request support from the GRC or installation-level GeoReadiness staff?

Yes – 11 | No – 1

Are your GRC or installation-level GeoReadiness support requests addressed consistently and professionally?

Yes – 9 | No – 0

Are your GRC or installation-level GeoReadiness support requests addressed in a timely manner?

Yes – 9 | No – 0

Do you feel that the geospatial data that you use to support your business needs is accurate?

Yes – 7 | No – 3



GeoReadiness Enterprise Metrics Initial Findings



Do you feel that the geospatial data that you use to support your business needs is complete?

Yes – 6 | No – 6

Do you feel that the geospatial data that you use to support your business needs is current?

Yes – 4 | No – 7

Do you feel that geospatial data and technologies are important in meeting your organizational missions?

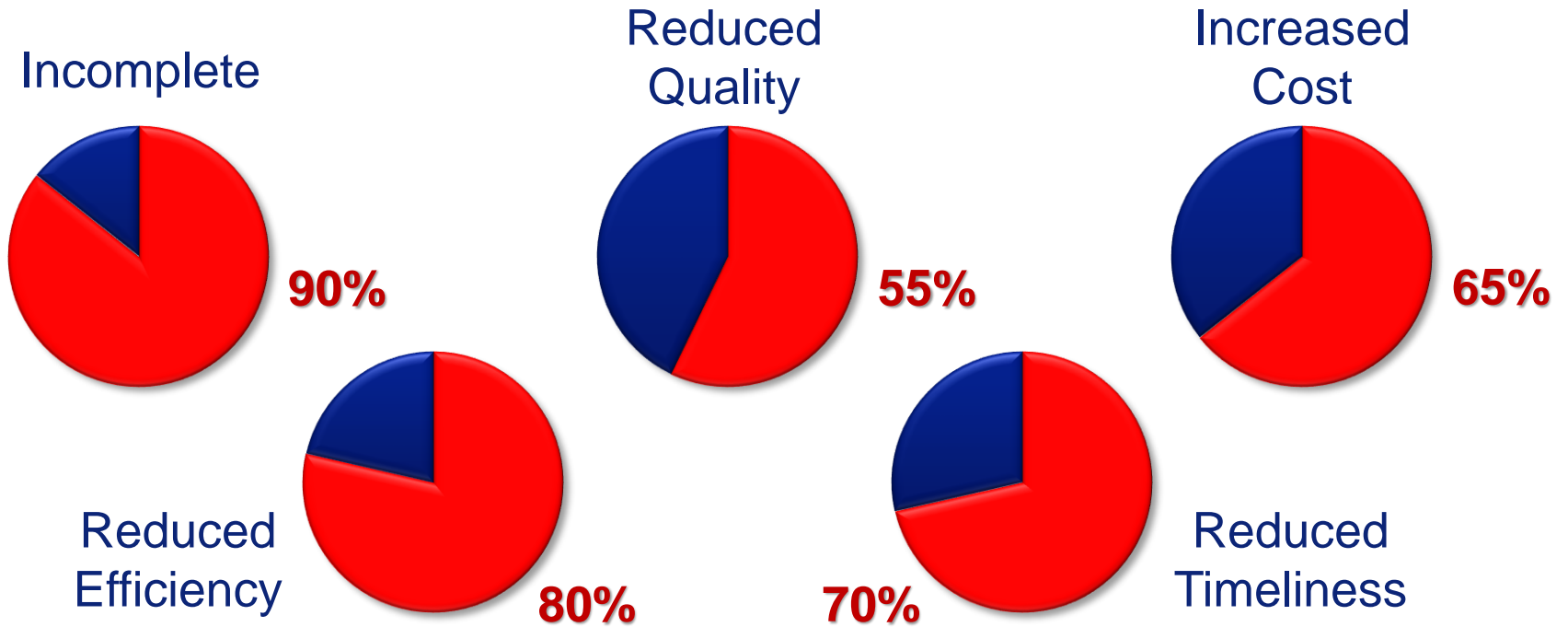
Yes – 13 | No – 0



GeoReadiness Enterprise Metrics Initial Findings



If GeoReadiness products and services were not available, what impact would this have on the GIS products and services you need?



The portion of the circle in red indicates the percentage of interviewees that identified the risk of each impact. For example, if GeoReadiness products and services were not available, 90% of interviewees responded that their products and services would be “Incomplete”.



GeoReadiness Enterprise Metrics Initial Findings



The following customer concerns were expressed by multiple interviewees:

- **Lack of policy and guidance referencing GeoReadiness and GIS**
- **Perception that Navy leadership has an incomplete understanding of the necessity of GIS throughout the organization**
- **Utilities GIS data is incomplete in many locations, and is not spatially accurate**
- **Floorplan data is very important, but incomplete and/or unavailable**
- **3D data is unavailable**
- **Lack of data sharing (e.g., NEMAP)**
- **Geometric networks are not supported**



GeoReadiness Enterprise Metrics

Example Feedback



N6 Emergency Response:

“The entire N6 map is based on the GeoReadiness CIP. Without the CIP, we would have 20,000 points sitting on the screen in empty space.”

Conservation Director:

“We don’t have errors in siting, change orders and cost overruns. Regulatory confidence and our relationship built with the community is because we have GIS.”

Cultural Resources:

“We would be lost without GRC support.”

Asset Management Business Leader:

“Good planning can’t happen without good maps. Every study we perform uses utilities and environmental data.”

Utilities Management:

“If the GIS didn’t exist, we wouldn’t be able to support dig permits or manage outages. We’d be in big trouble.”



GeoReadiness Enterprise Metrics

Example Feedback



Asset Management Business Leader:

“The program sticks when it’s so embedded with what our customer needs that nobody ever asks [for basic funding justification] again.”

Grounds Maintenance:

“If I have to measure an area with a wheel, the accuracy is diminished and the time spent in the field is extraordinary. GeoReadiness saves us thousands of man hours.”

Airfield Manager:

“It would be difficult to do my job without GIS. It’s a huge time savings.”

Regional Dispatch Center:

“Without GeoReadiness data it would have been a nightmare to create all of the base map information we needed. Having that baseline was invaluable.”

Grounds Maintenance :

“GRX is used by staff in the field to find out information quickly. This enables the development of our work product.”



GeoReadiness Enterprise Metrics Initial Recommendations



- **Navy leaders should be reminded of GeoReadiness contributions on a regular basis**
- **Having repeatable metrics and dedicated ROI workflows will help GeoReadiness continue to be mission relevant**
- **The value assigned to GIS results should be closely linked to the way the Navy as a whole measures value**
- **Regular communication of relevancy can keep leadership attention focused on how GIS impacts Navy businesses and missions, not solely on program costs**



GeoReadiness Enterprise Metrics Initial Recommendations



- **The more practical knowledge of business and mission challenges GeoReadiness staff can gain, the more they'll realize the potential difference GIS can make**
- **The more integrated GIS is with business and mission processes, the more relevant GIS will be, and the greater its value will be to the Navy**
- **Dedicated organizational learning by GeoReadiness staff, as well as measuring and communicating GIS results will capture the attention and appreciation of Navy leaders, and secure program funding**



GeoReadiness Enterprise Metrics



Questions?

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