

Risk-based Project Prioritization

The role of Data Governance in becoming an industry-
best-practice utility



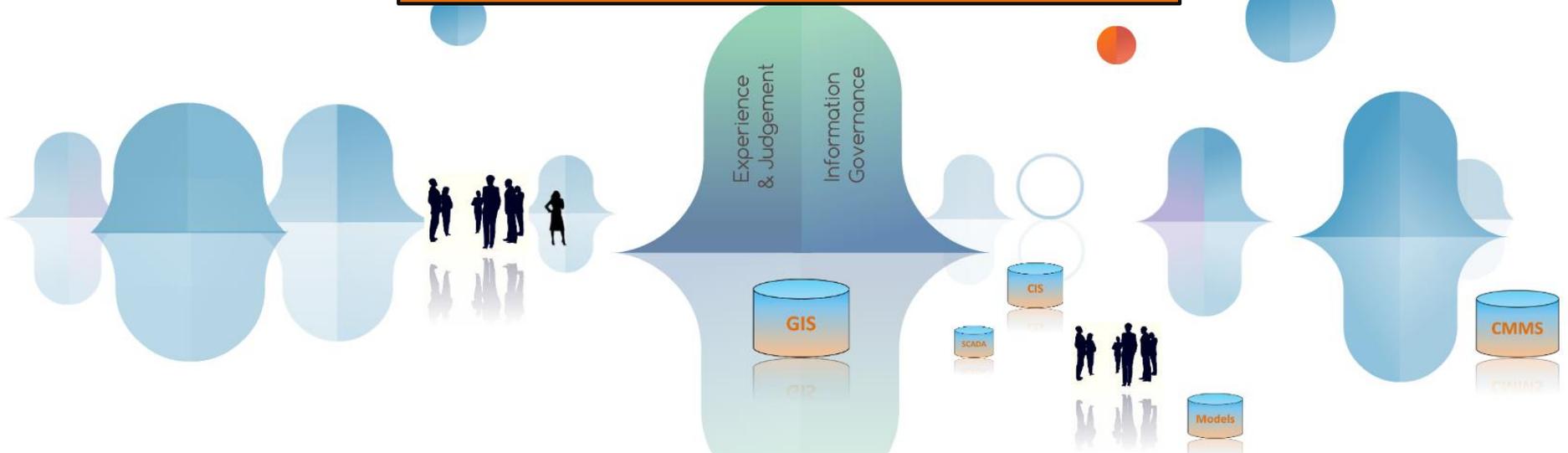
Brandon Pfleckl, GISP, PMP
Enterprise Asset Management Manager
bpfleckl@pwcsa.org

Conceptual process review and case-study discussion of the Prince William County Service Authority's Roadmap to becoming and *industry-best-practice* utility through risk-based project prioritization and data governance.

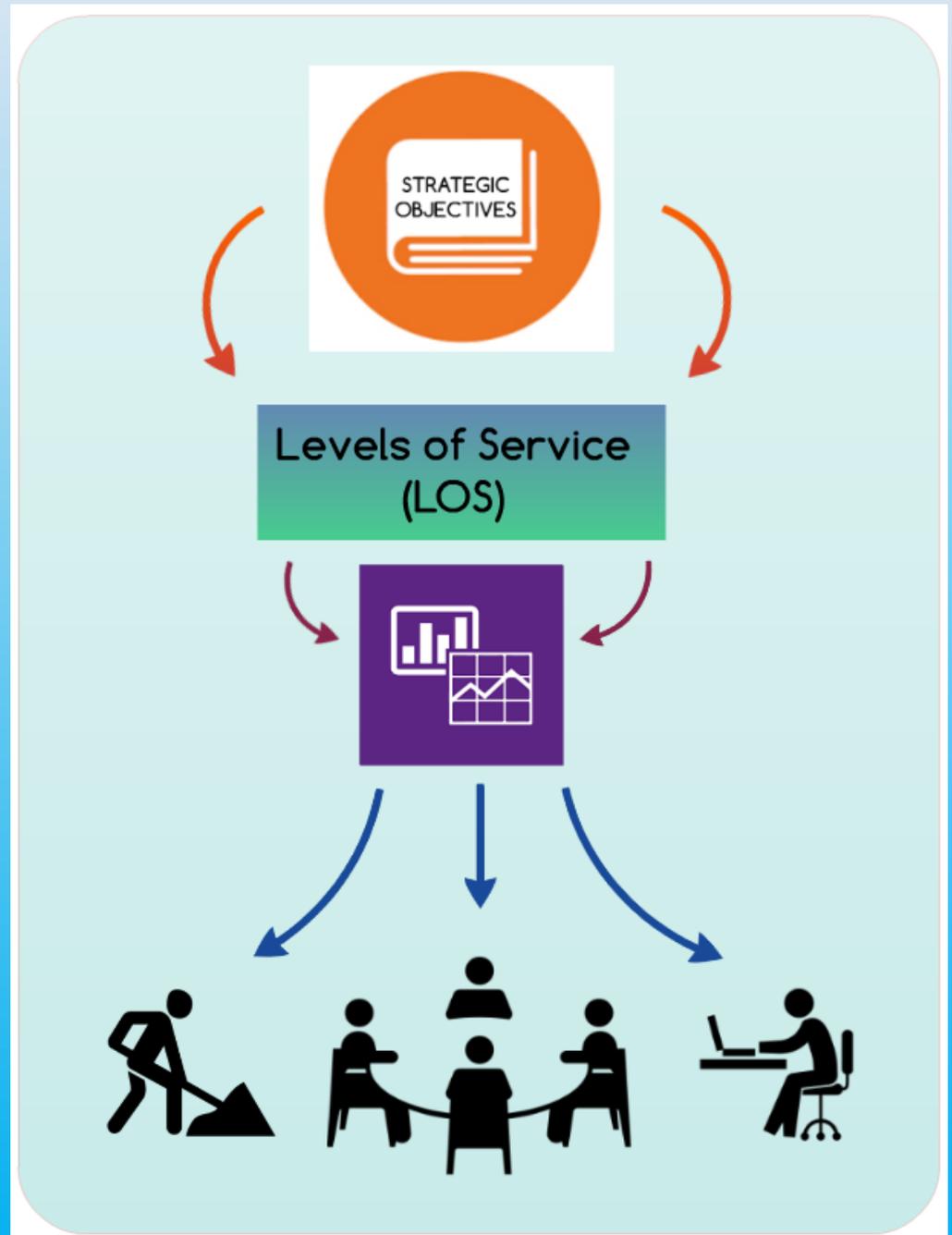
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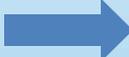
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How do you transition from a utility that prioritizes projects based on personnel experience to one that prioritizes based on data-driven decision making



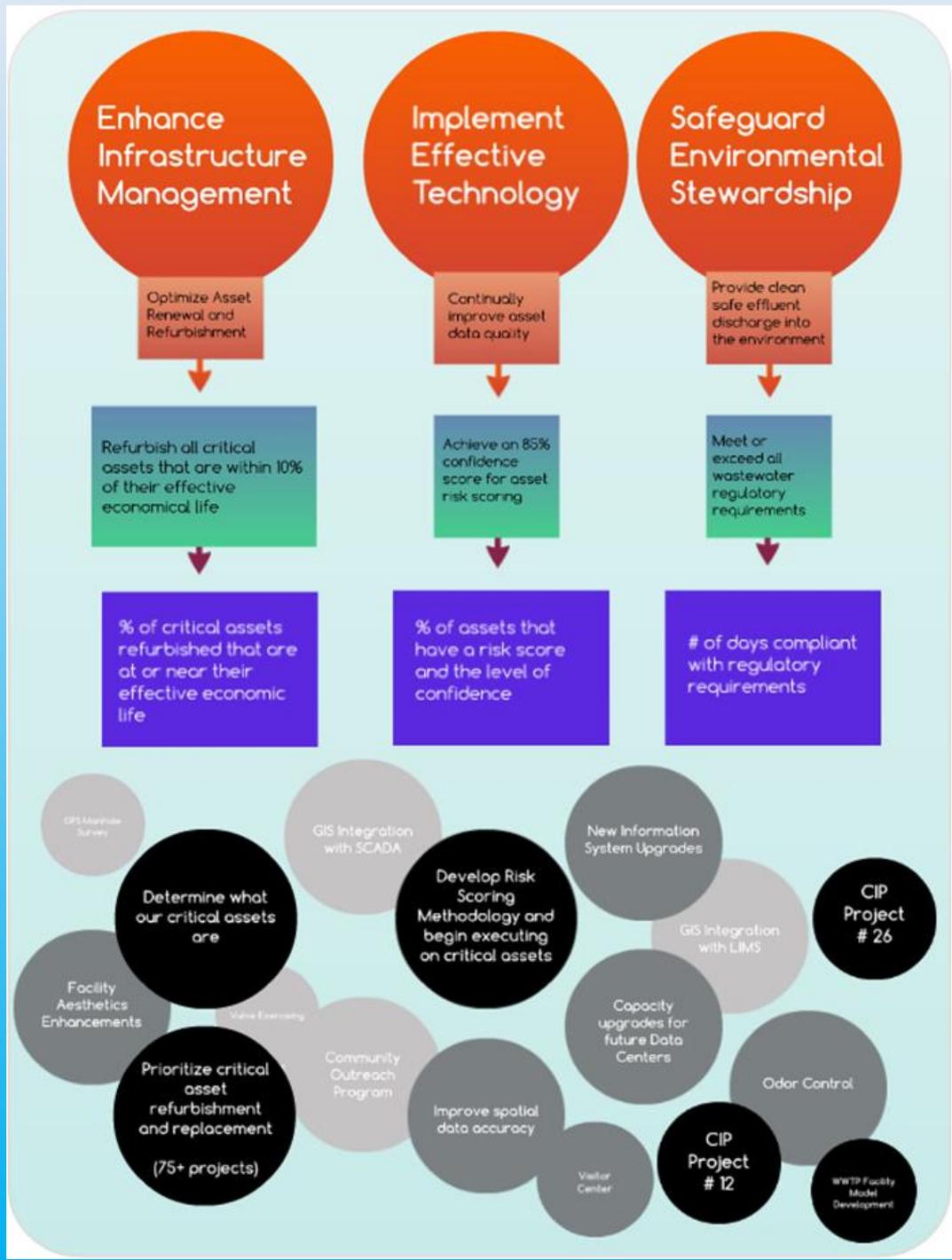
- Strategic Planning drives the development of Level of Service (LOS) Targets and related performance metrics
 - Poorly defined strategic objectives will 'trickle-down' to adversely effect the proposal and prioritization of projects
- Project proposal and prioritization is driven by the need to achieve defined performance metrics
 - Multiple projects compete for limited resources



- Example Strategic Objectives that drive the development of LOS Targets 

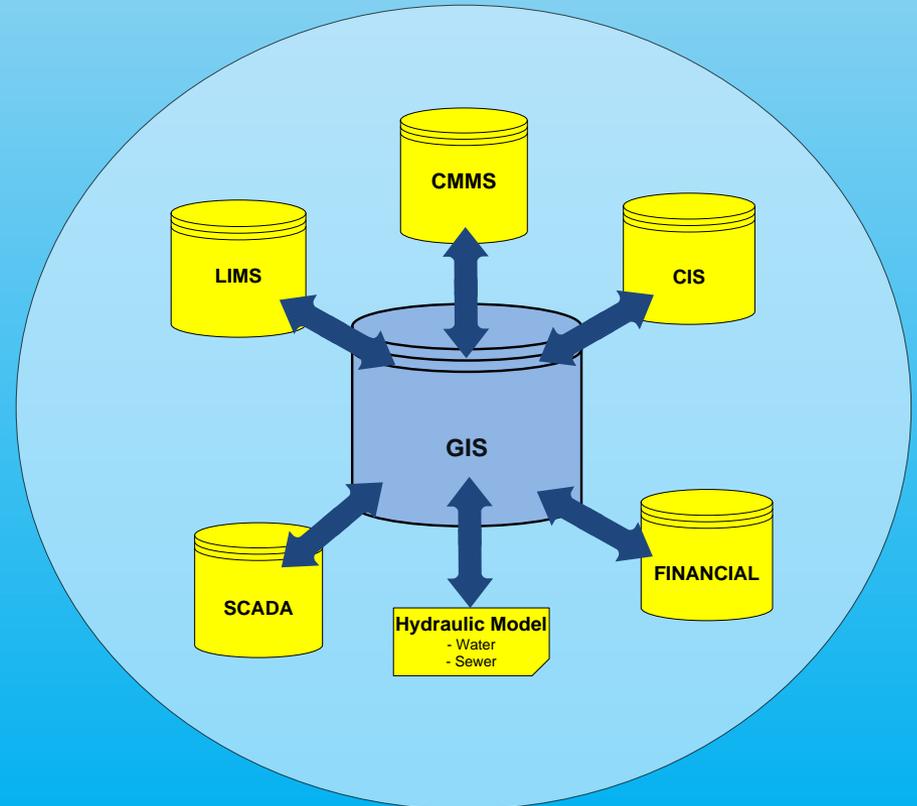
- LOS Targets and related performance metrics 

- **Wide variety of competing projects that require prioritization** 
 - Most utilities rely on personnel experience and judgement to prioritize



Becoming a Industry-Best-Practice (IBP) Utility

- **Transition from the use of experience and judgement to data-driven decision making**
 - Subject matter expert (SME) judgement is valuable; however, data-driven analysis and decision making is more reliable, comprehensive, defensible, and allows for an enterprise-wide perspective
- **Requires a holistic understanding of utility information**
 - GIS the central enabling technology
 - Formal data governance program needed to manage enterprise-wide data

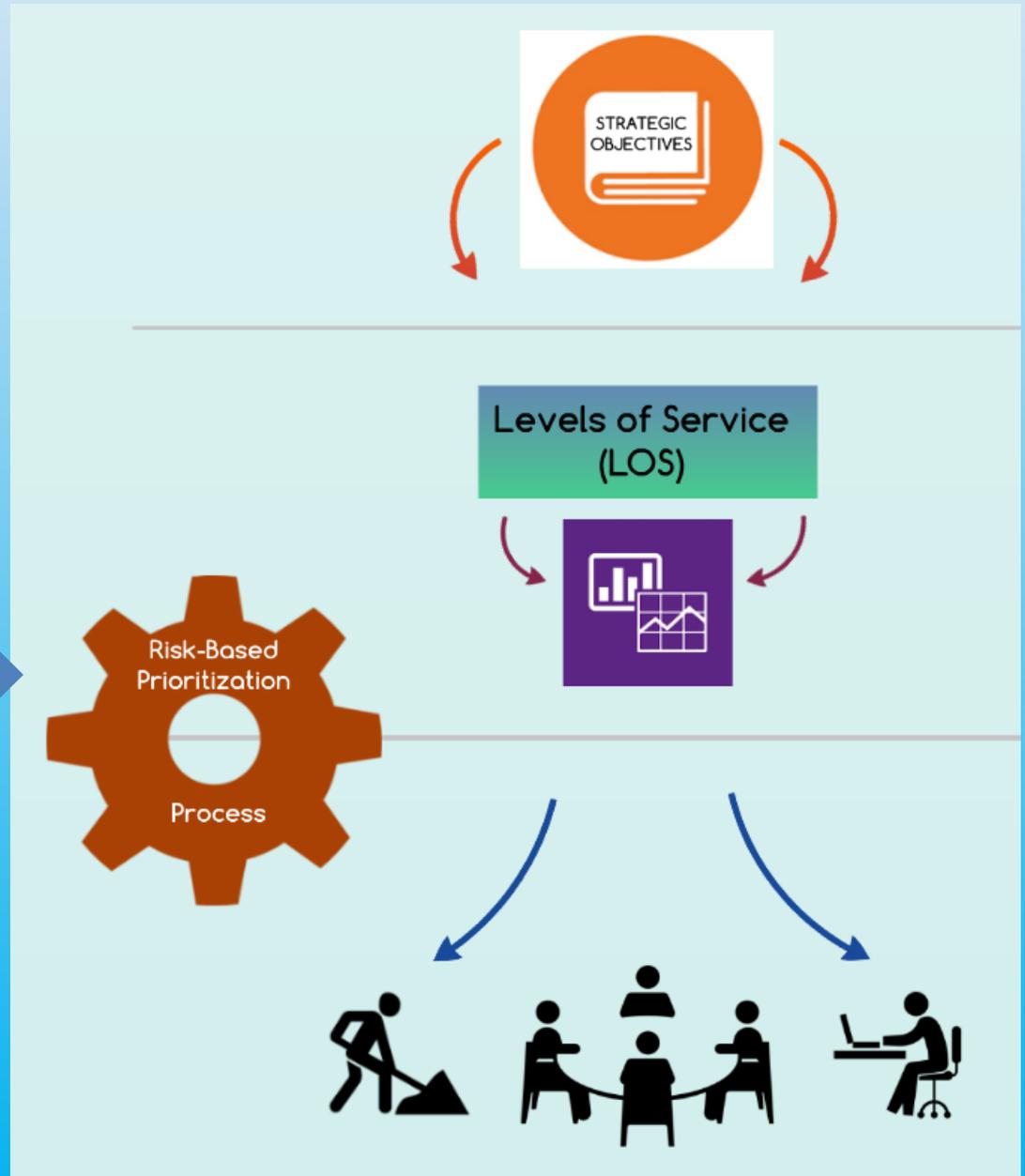


Roadmap forward

- **Develop a Risk-Based approach to proposing and prioritizing projects throughout the utility**
 - *Risk* may be looked-at from a variety of perspectives and measured qualitatively as well as quantitatively
- **Develop a Data Governance (DG) Framework to include**
 - Data strategies and related policies, standards, architecture, procedures and metrics
 - Role and Responsibility assignments to:
 - Track data policy adherence
 - Execute and administer data management projects and services
 - Manage and resolve data related issues
 - Champion the promotion of the vision of data governance
 - Formal enterprise-wide management of data from a holistic vantage
 - Value data as an asset critical to utility performance

Risk-based Project Prioritization Process

- Establishes multi-criteria project prioritization methodologies to evaluate risks/benefits of each potential project
- Risk evaluation will likely begin as predominately qualitative measures and evolve to more quantitative measures as data & information availability and quality increase



Data Governance

Strategic Planning

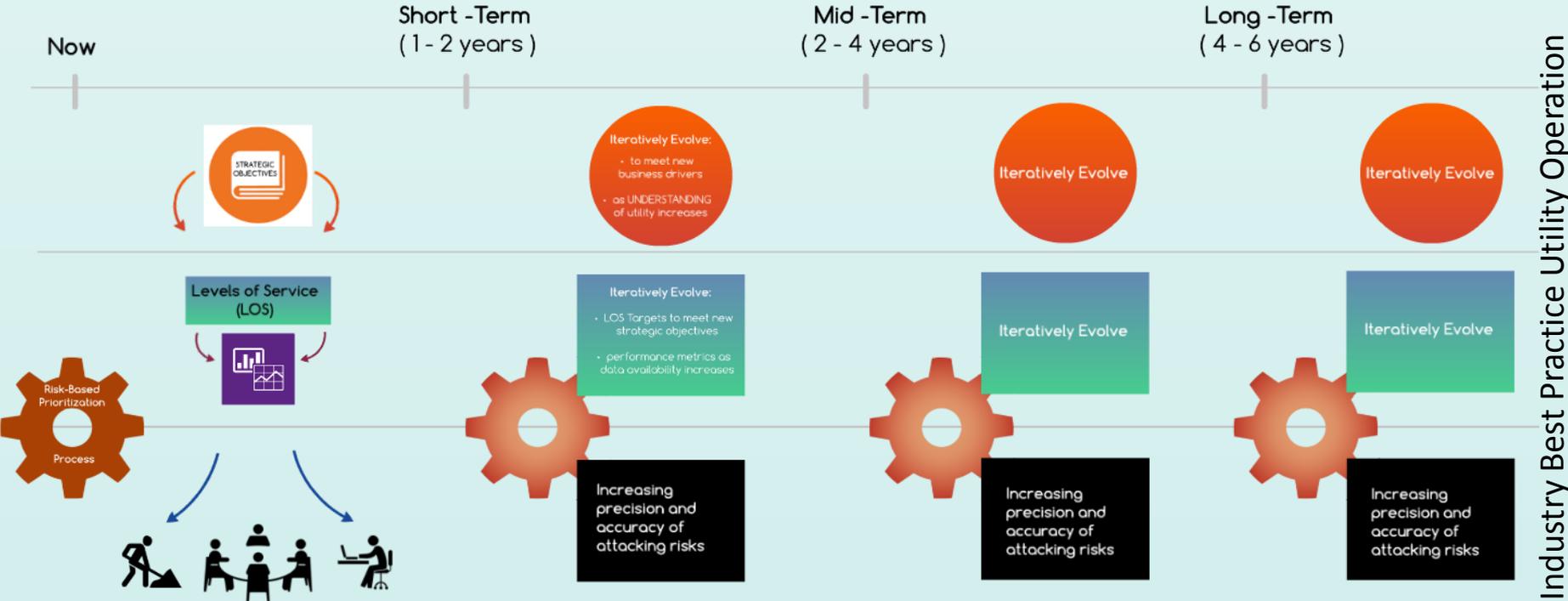
- **Determine data strategy and related enterprise-wide data needs**
 - Link to the Strategic Objectives of the organization
- **Understand and assess Current-State of data management**
 - Do you have the data you need to make informed data-driven decisions
 - Do formal policies exist on data quality and system integration
 - Do you understand what data is *critical* and hence more valuable (view data as an asset)
- **Develop Future-State of data management**
 - Must develop target for new data and information creation, quality standards, data architecture and data integrations
 - Establish criticality of your data and allocate greater resources to more valuable data

Data Governance Program

Strategic Planning

- **Establish DG roles and responsibilities**
 - Formal responsibilities must exist for the governance of data or the program will 'die on the vine'
 - Coordinate DG activities
 - Manage and resolve DG issues
 - Monitor and enforce data policies, standards and architecture
 - Communicate and promote the value of data throughout the enterprise
 - GIS personnel ideal considering the central role GIS plays in the integration and analysis of information throughout the utility
- **Develop DG policies, standards and procedures**
 - Formalization of how data should be managed and the value of data as a critical asset is a necessity

Iterative Approach to Implementation



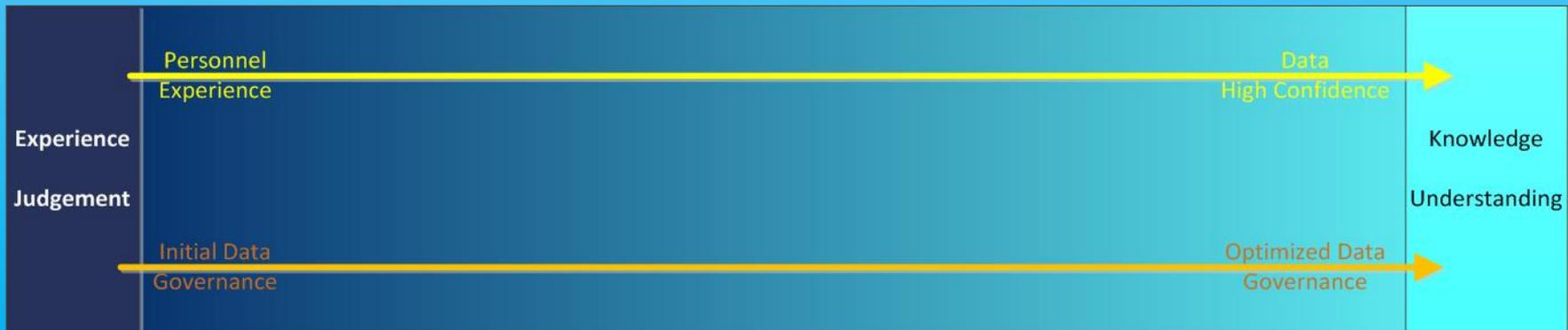
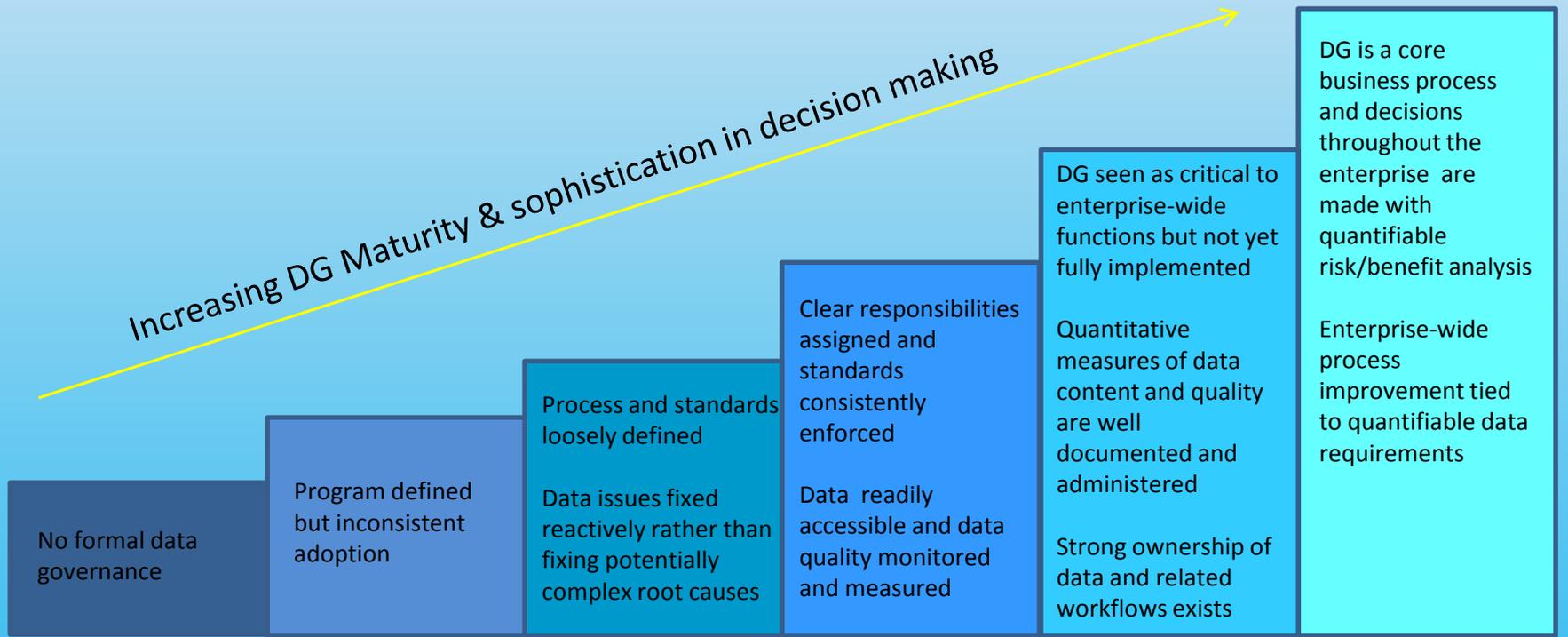
Iterative Approach to Implementation

Maturity Model

- It will take time to understand your data needs, develop policies and standards, define roles and responsibilities, transform judgement-based workflows to data-driven workflows, and transform the culture of your organization
- Utilize a DG Maturity Model to help develop a phased approach to implementation

Iterative Approach to Implementation

Maturity Model



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