

# Risk-based Project Prioritization

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



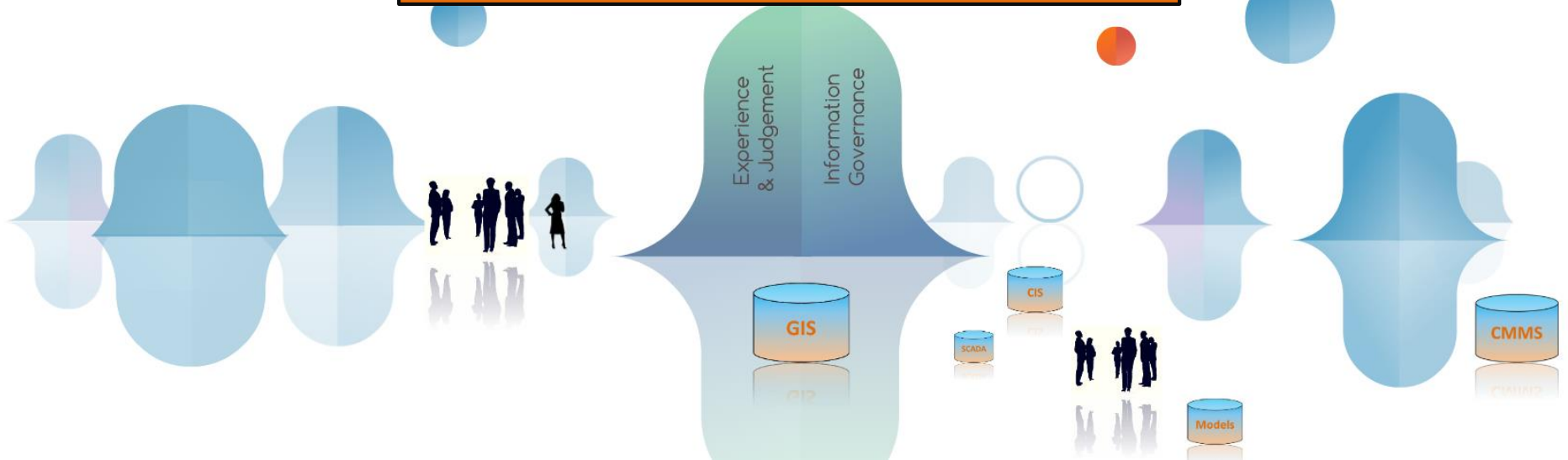
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Conceptual process review and case-study discussion of the Prince William County Service Authority's Roadmap to becoming and *industry-best-practice* utility through risk-based project prioritization and data governance.

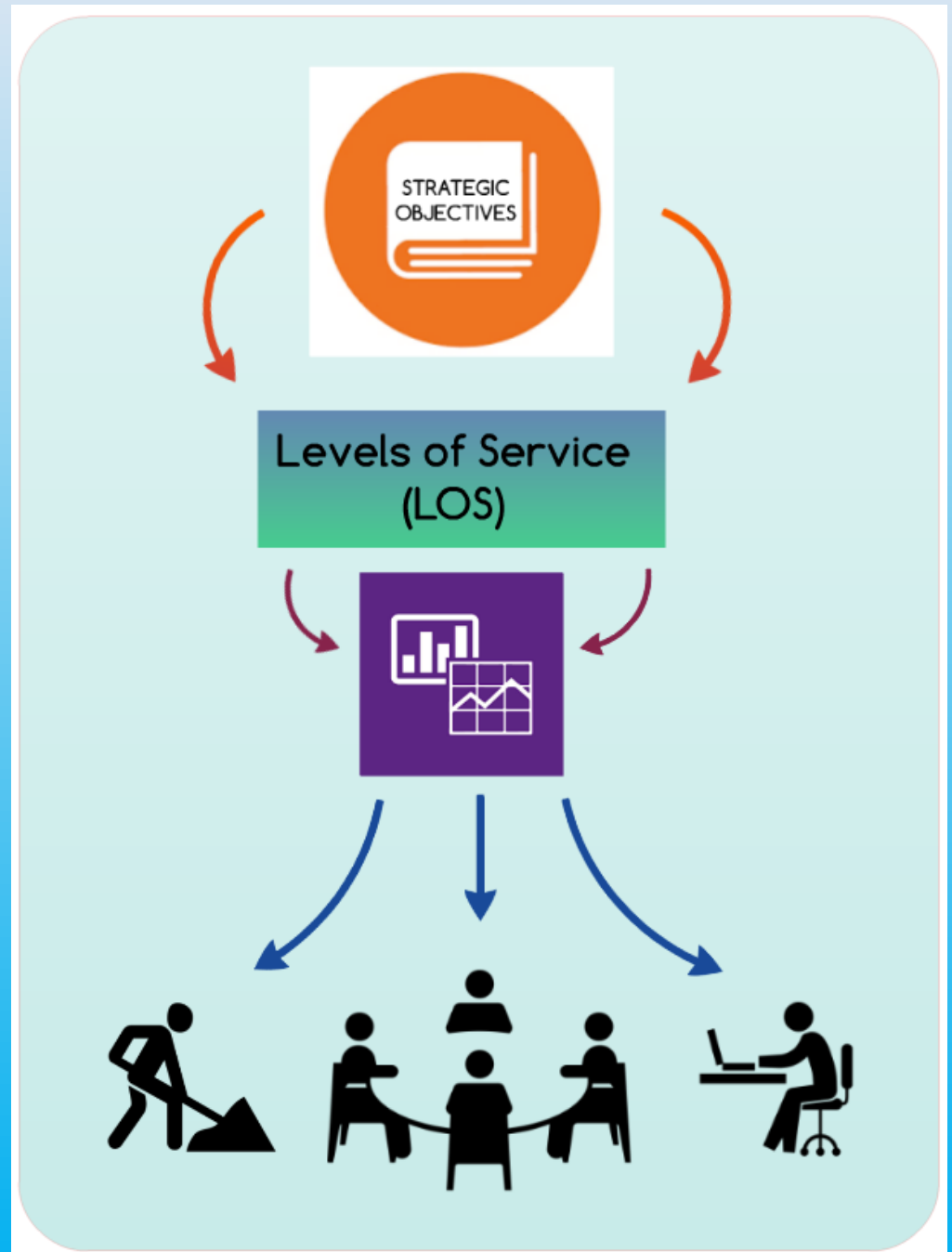
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How do you transition from a utility that prioritizes projects based on personnel experience to one that prioritizes based on data-driven decision making




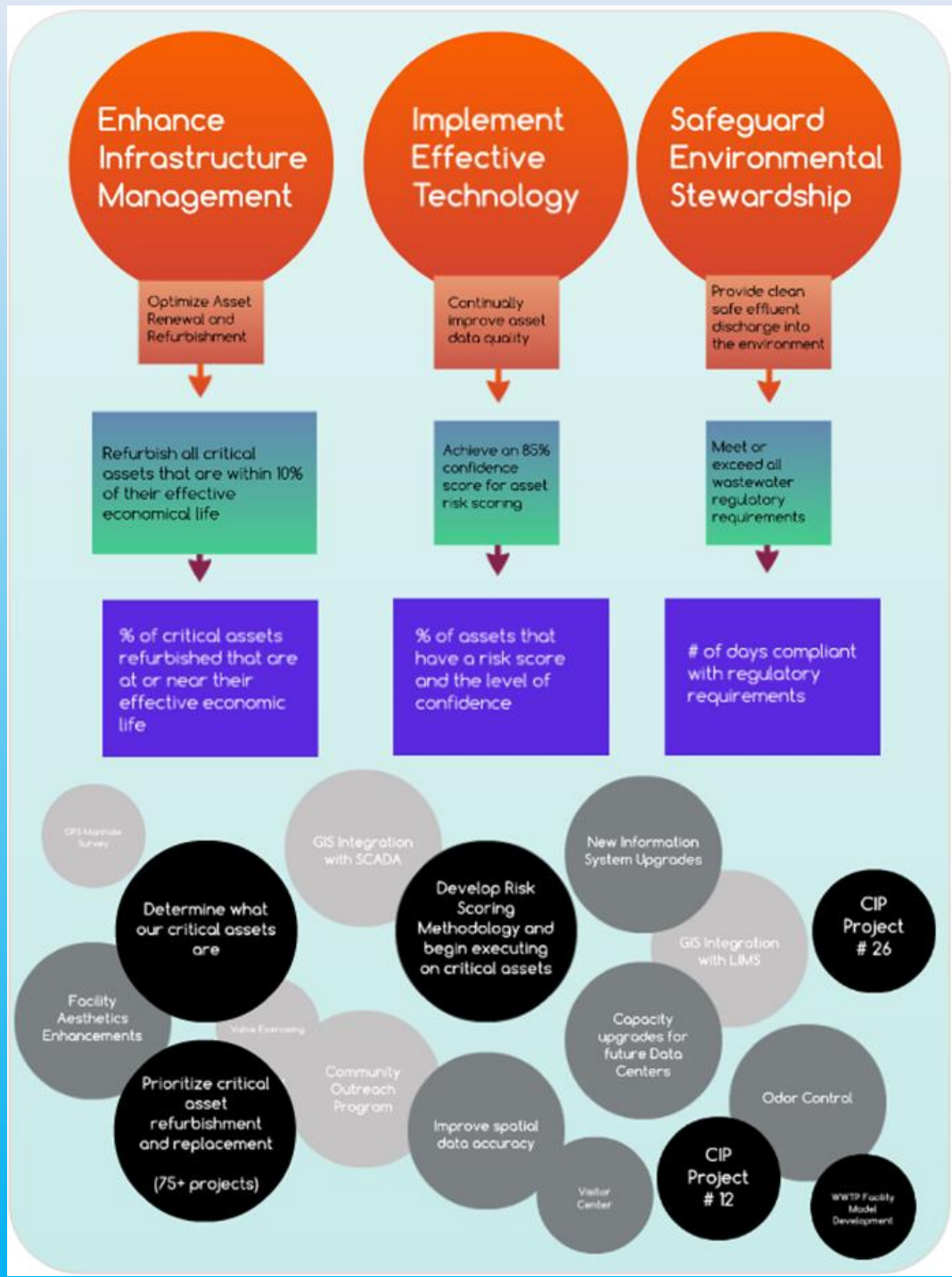
- Strategic Planning drives the development of Level of Service (LOS) Targets and related performance metrics
  - Poorly defined strategic objectives will 'trickle-down' to adversely effect the proposal and prioritization of projects
- Project proposal and prioritization is driven by the need to achieve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



- Example Strategic Objectives that drive the development of LOS Targets 

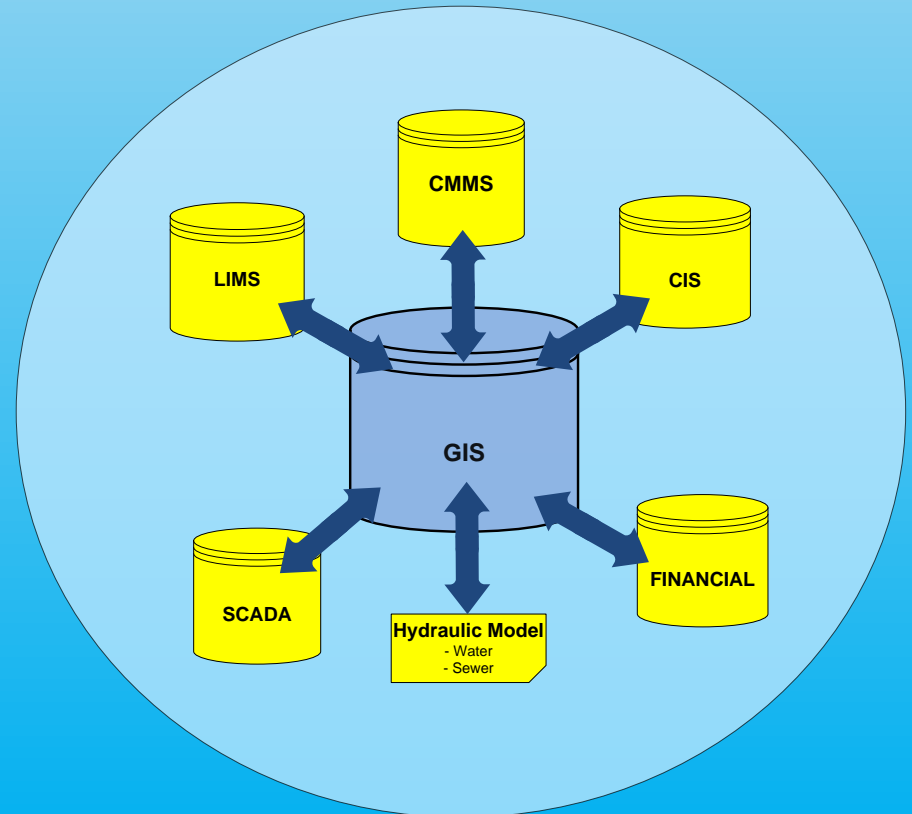
- LOS Targets and related performance metrics 

- **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

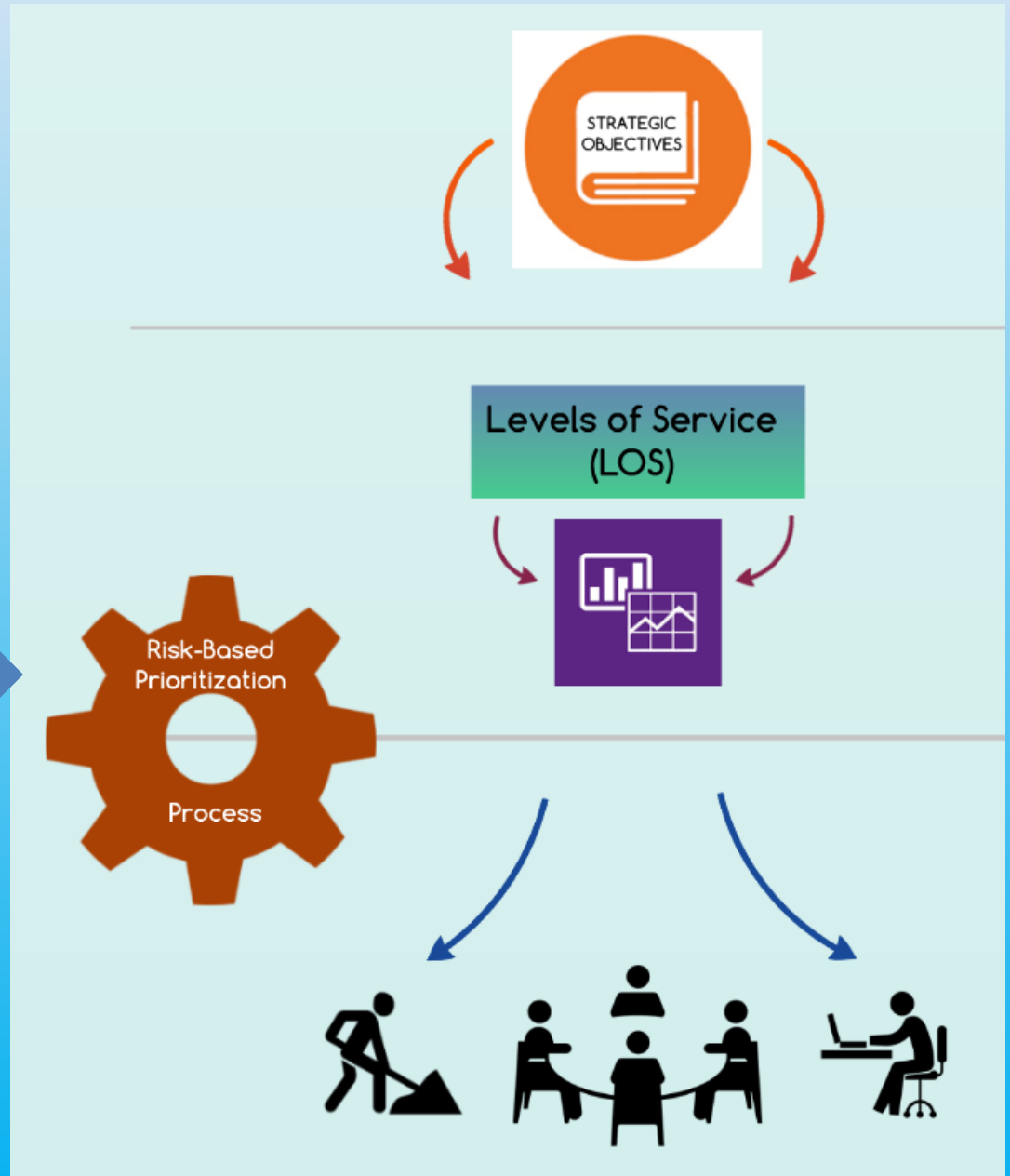


# Roadmap forward

- **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

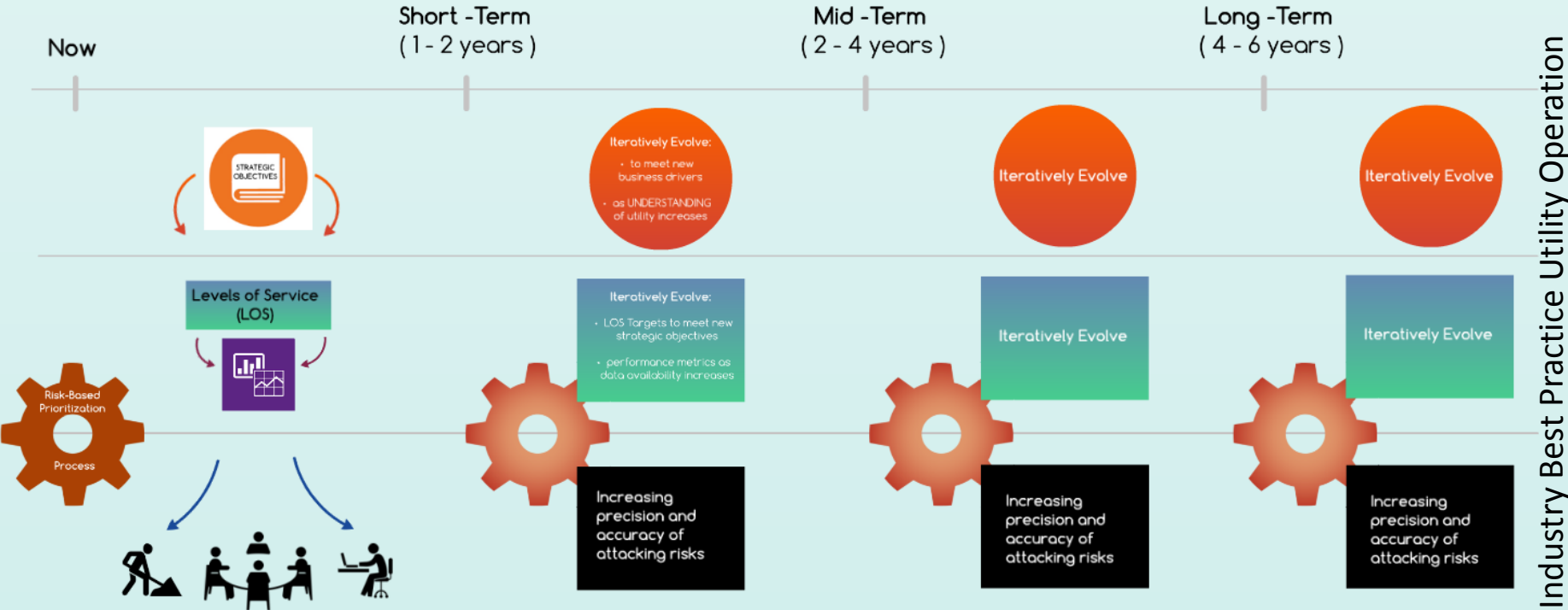
- **Determine data strategy and related enterprise-wide data needs**
  - Link to the Strategic Objectives of the organization
- **Understand and assess Current-State of data management**
  - Do you have the data you need to make informed data-driven decisions
  - Do formal policies exist on data quality 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



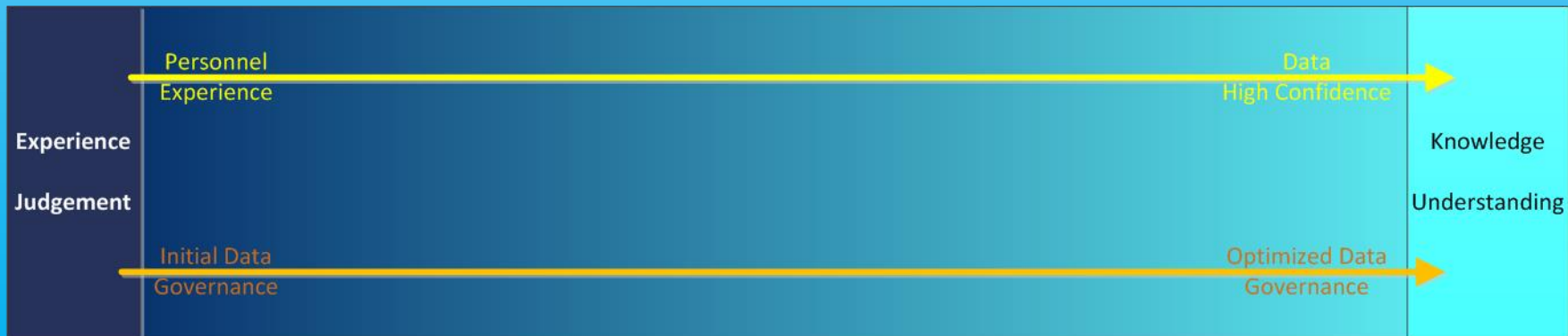
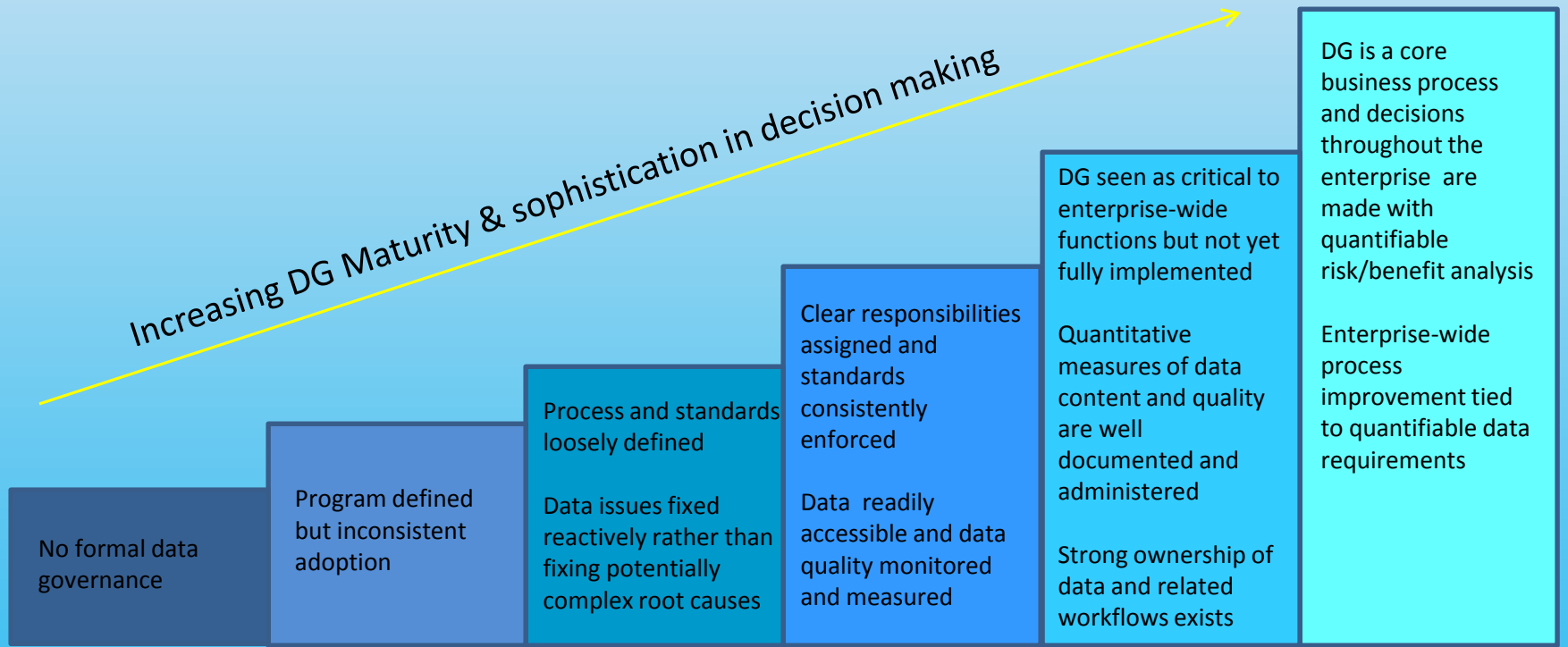
# Iterative Approach to Implementation

## 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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