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Performance and Risk-based Pipeline Integrity Management Framework

Hassan Iqbal, Rehan Sadiq, Solomon Tesfamariam

School of Engineering, The University of British Columbia (Okanagan Campus), Kelowna, BC, Canada

Contact: hassan.iqbal@ubc.ca

Introduction

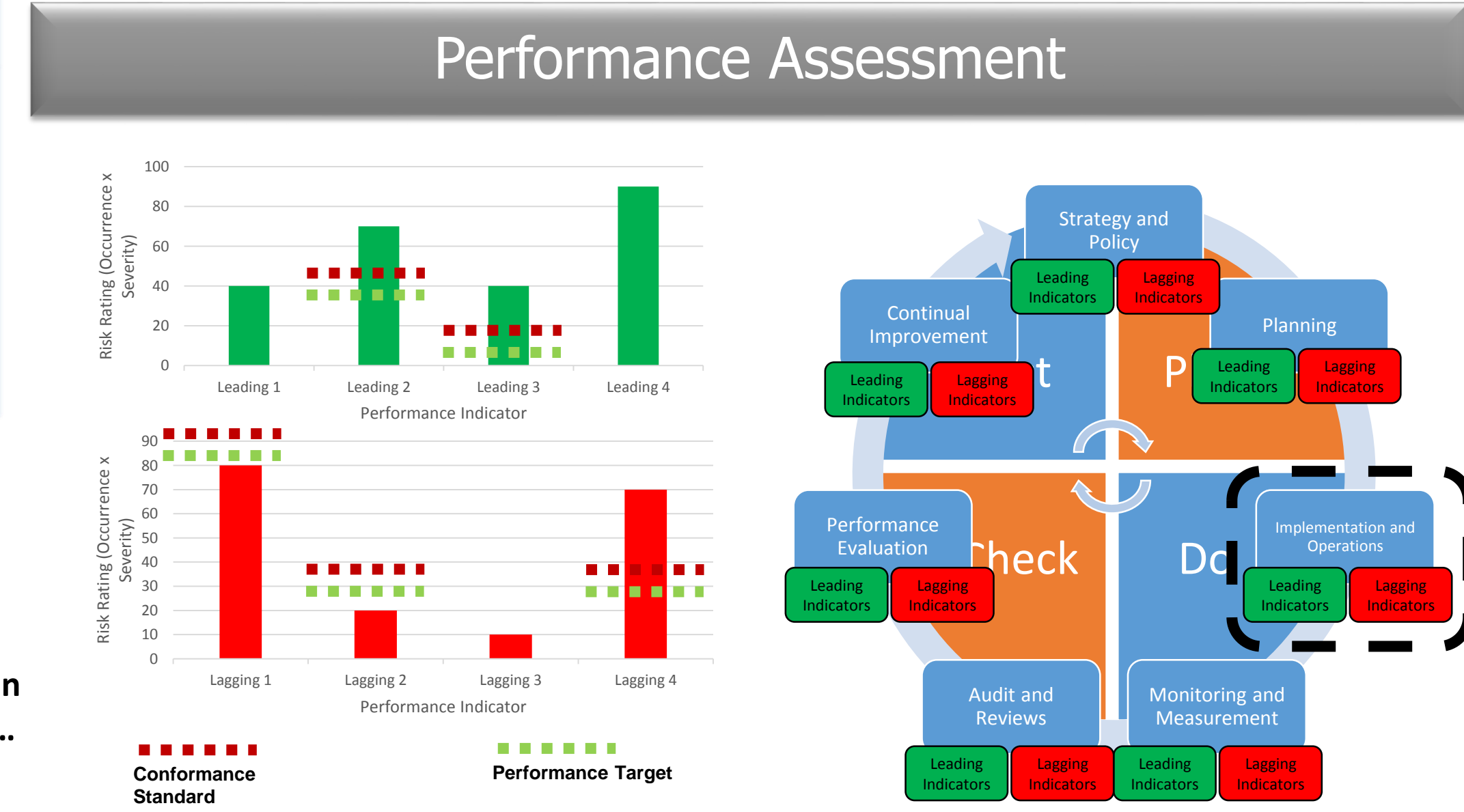
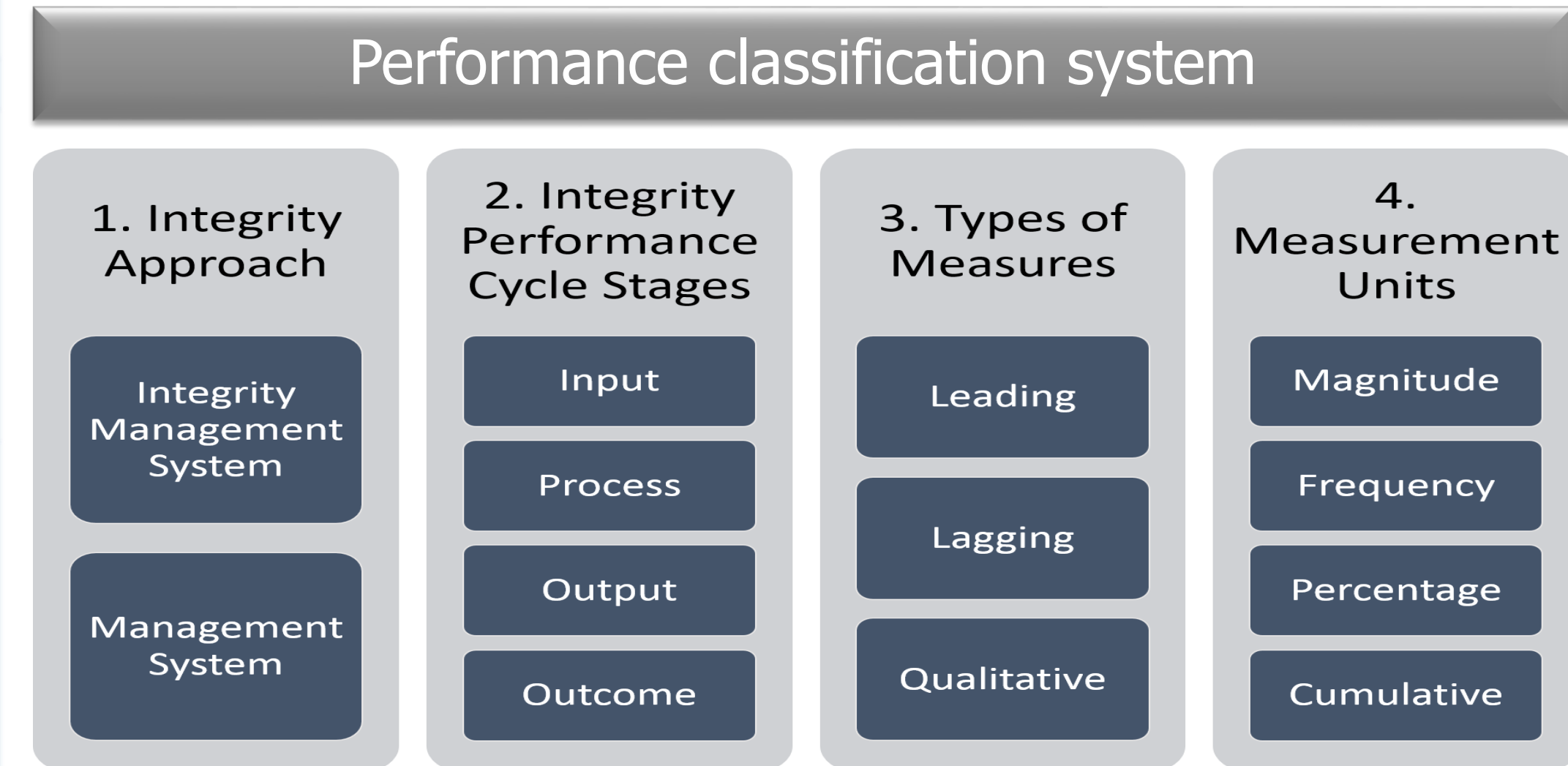
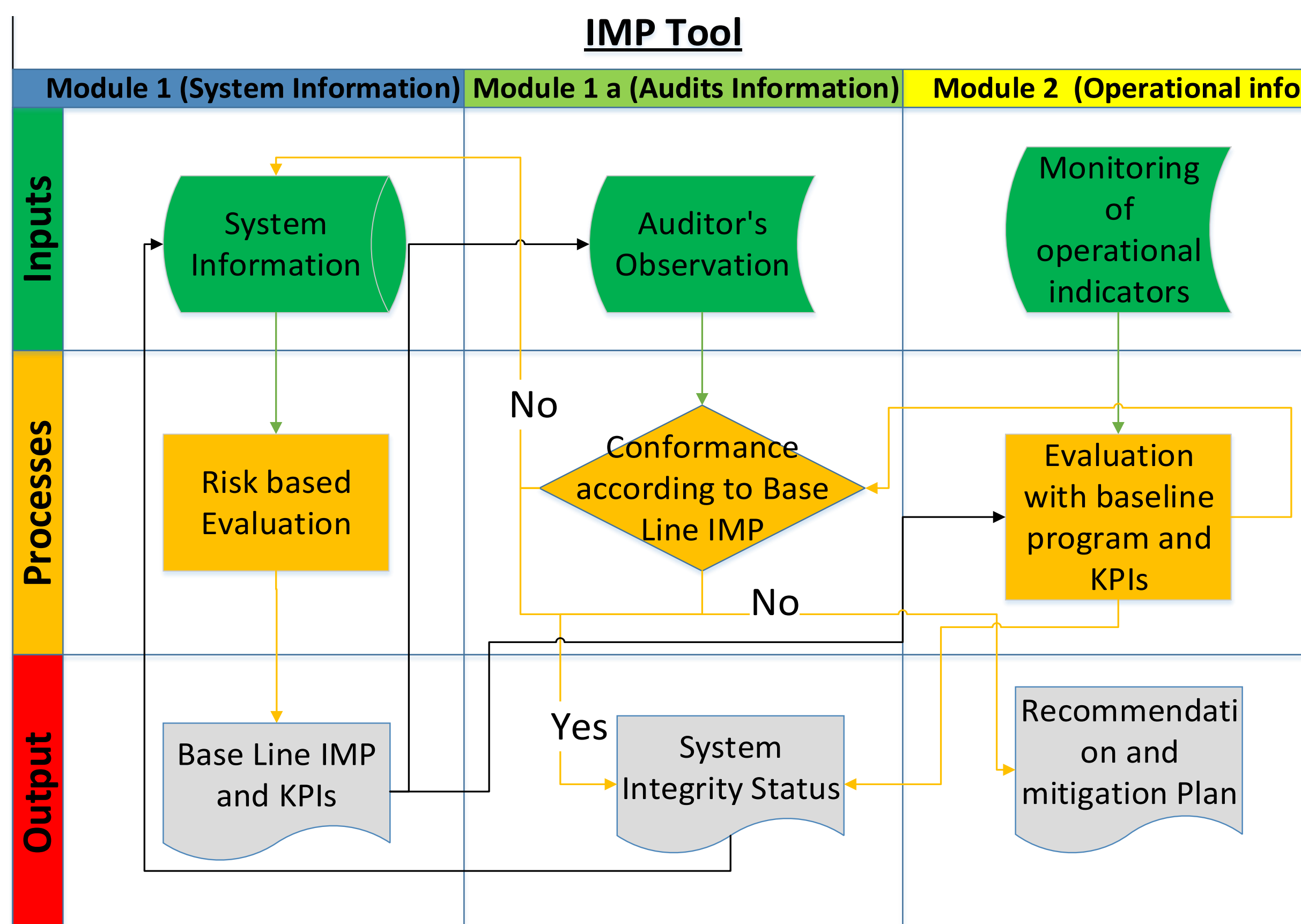
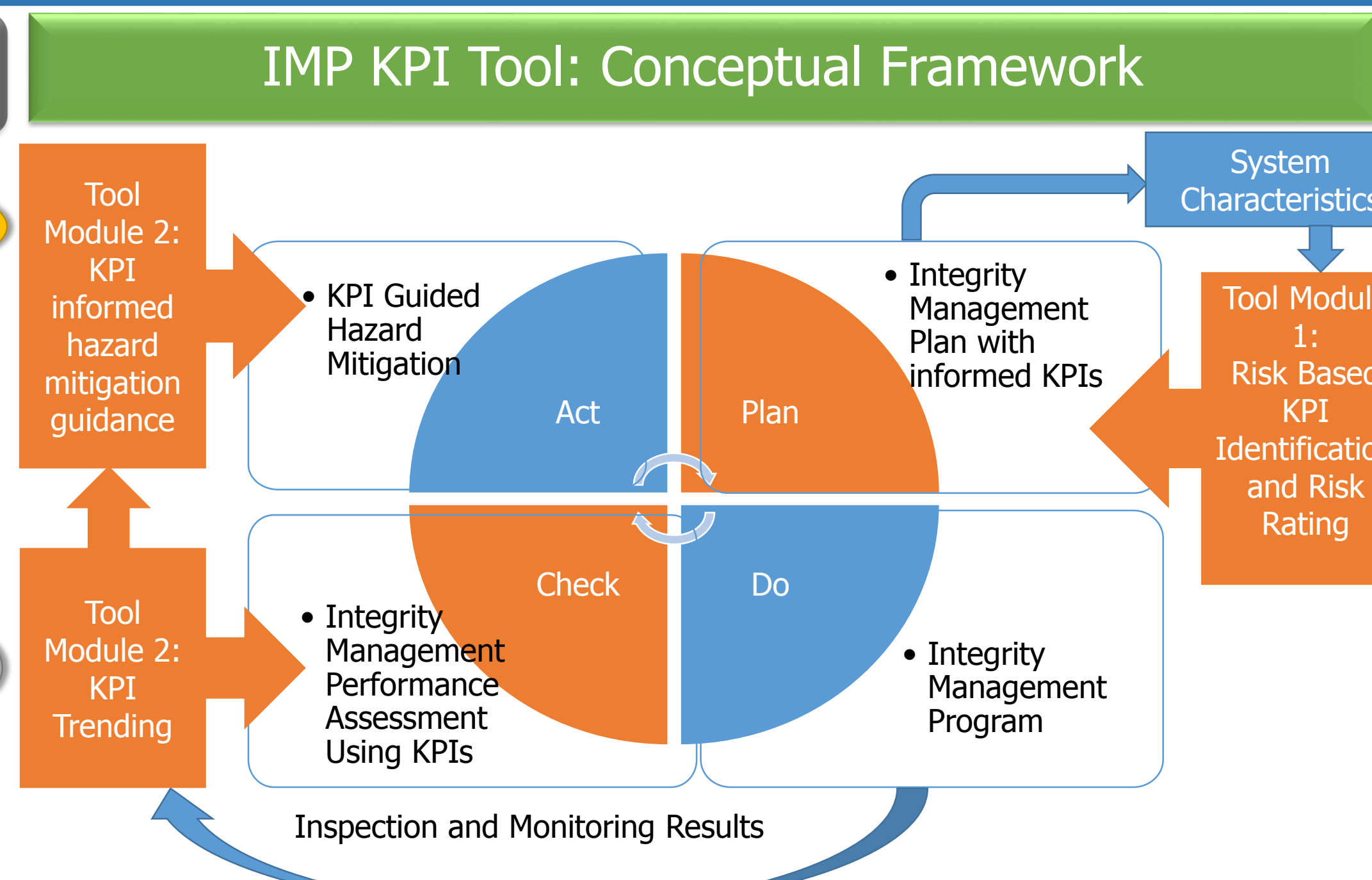
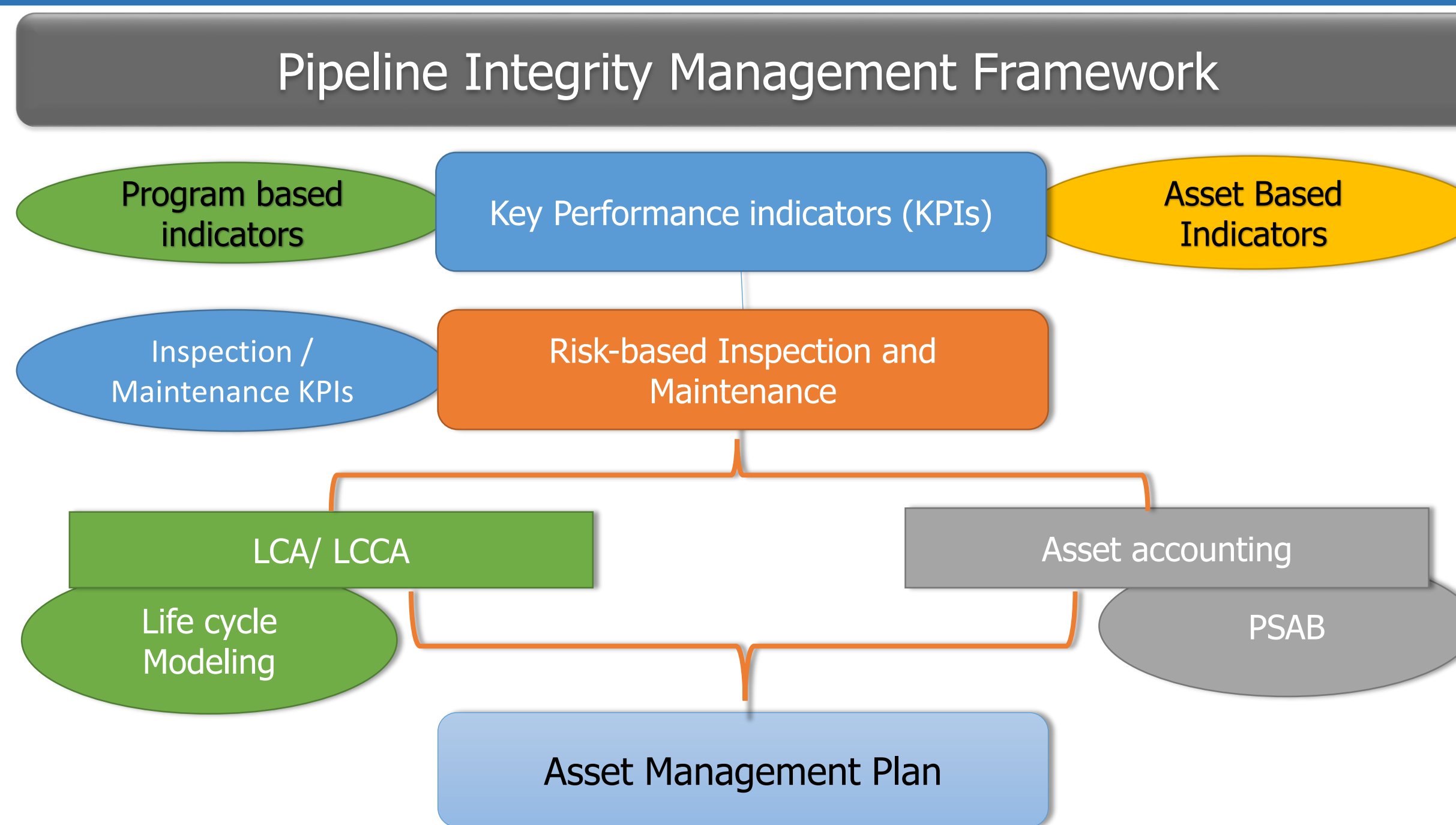
- The British Columbia Oil and Gas Commission (BCOGC) regulates over 40,000 km of pipelines transporting refined and unrefined petroleum products.
- A Pipeline Integrity Management Plan (IMP) is a system that outlines the policies and practices used by an operator to ensure safe, environmentally responsible and reliable service.
- CSA Z662 Annex N provides informative recommendations regarding the core components of an IMP. However, little standardized guidance exists for comprehensive Integrity Management program
- The Deming cycle Plan-Do-Check-Act (P-D-C-A) effectively captures the flow of an integrity management program.

Objectives

- To provide comprehensive integrity management program
- Risk based key performance indicator (KPIs) Criteria of leading and lagging indicators
- Evaluate the KPIs of risk based inspection and maintenance
- Life cycle assessment and costing
- Asset accounting framework compliance with national accounting systems e.g PSAB

Performance Indicators

- The performance indicator are to characterize
- The success of IMP policies and procedures
 - The effectiveness of policies and practices to achieve integrity.
- Leading indicators:**
- A forecasting metric that characterizes the accomplishment of integrity programs to mitigate risk.
 - How well an operator is implementing the specific elements of IMP.
- Lagging indicator:**
- A retrospective metric describes the outcomes and activities to manage risk.
 - Lagging indicators are based on the occurrence of incidents.



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