

Existing Generation Strategies: Life Extensions and Asset Management



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2025 GENERATION SYMPOSIUM

UTILITY CONSULTING SESSION

Reliability & Life Extension Projects



Condition Assessments



Maintenance Optimization and Reliability Framework



Equipment Condition Documentation (ECD)



Online Monitoring and Advanced Analytics

Condition Assessments

Detailed Inspection Document Reviews

Personnel Interviews

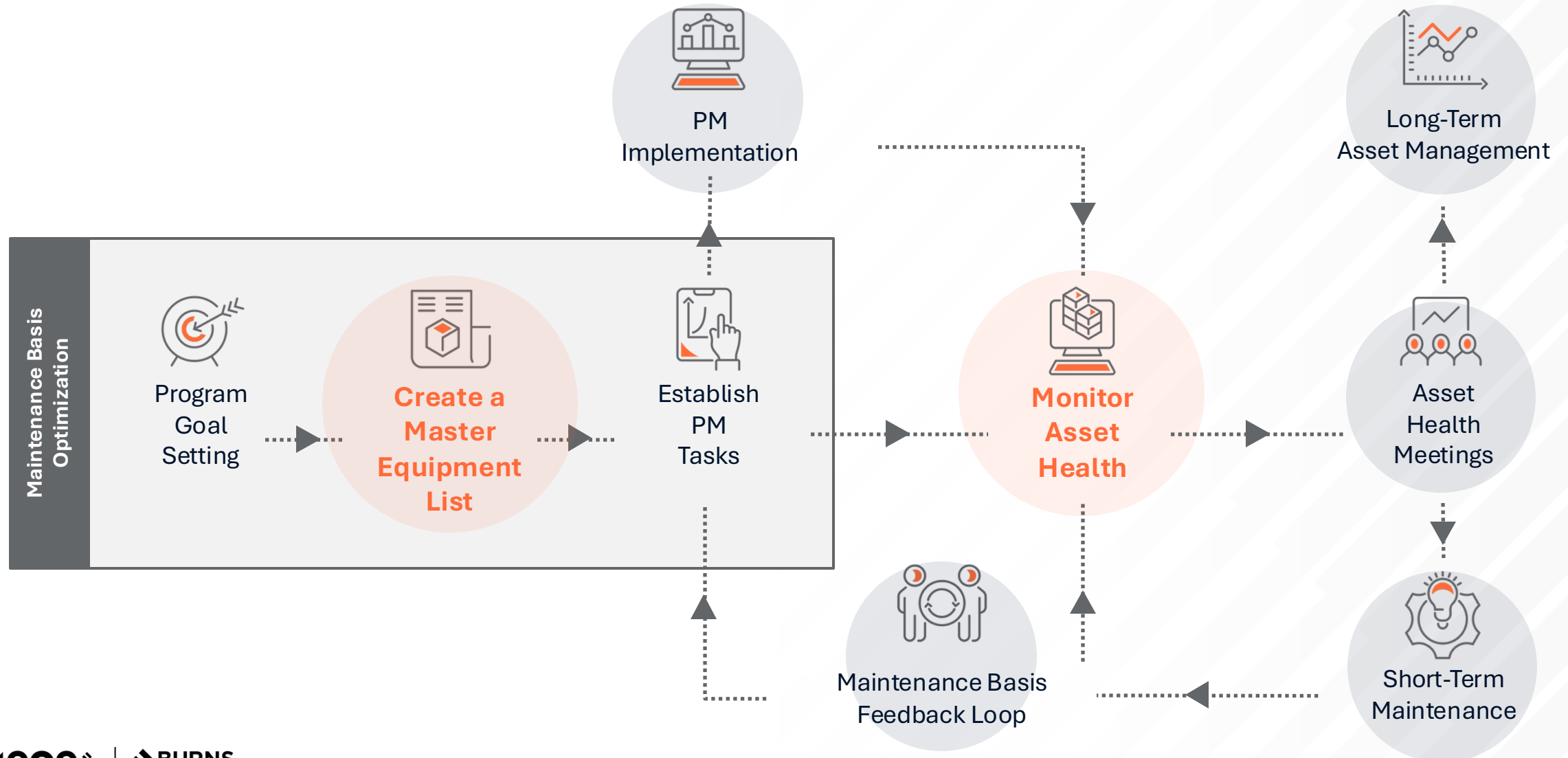
Benchmarking

CMMS Data Review

Typical Projects Identified

- Combustion turbine & steam turbine major and minor inspections
- Recommended service bulletins & technical Information letters
- Rotor end of life / rotor replacement
- Generator rewinds
- Electrical & control system upgrades
- Generator step-up & auxiliary transformer replacement / repairs
- Balance of plant equipment
- High-energy piping & flow-accelerated corrosion piping replacements

Reliability Framework



What is an ECD? How is it different?

Quantifies equipment level risk based on three criteria:

- 1** Probability of failure
- 2** Consequence of failure
- 3** Detectability of failure

Updates are needed

ECDs are living documents that should be updated in near real time as equipment conditions change, or new items are discovered.

Advanced Analytics

Use Case Examples

Cost forecasting / cost of backlog

Bad actor reporting & analysis

Work priority & capital justification

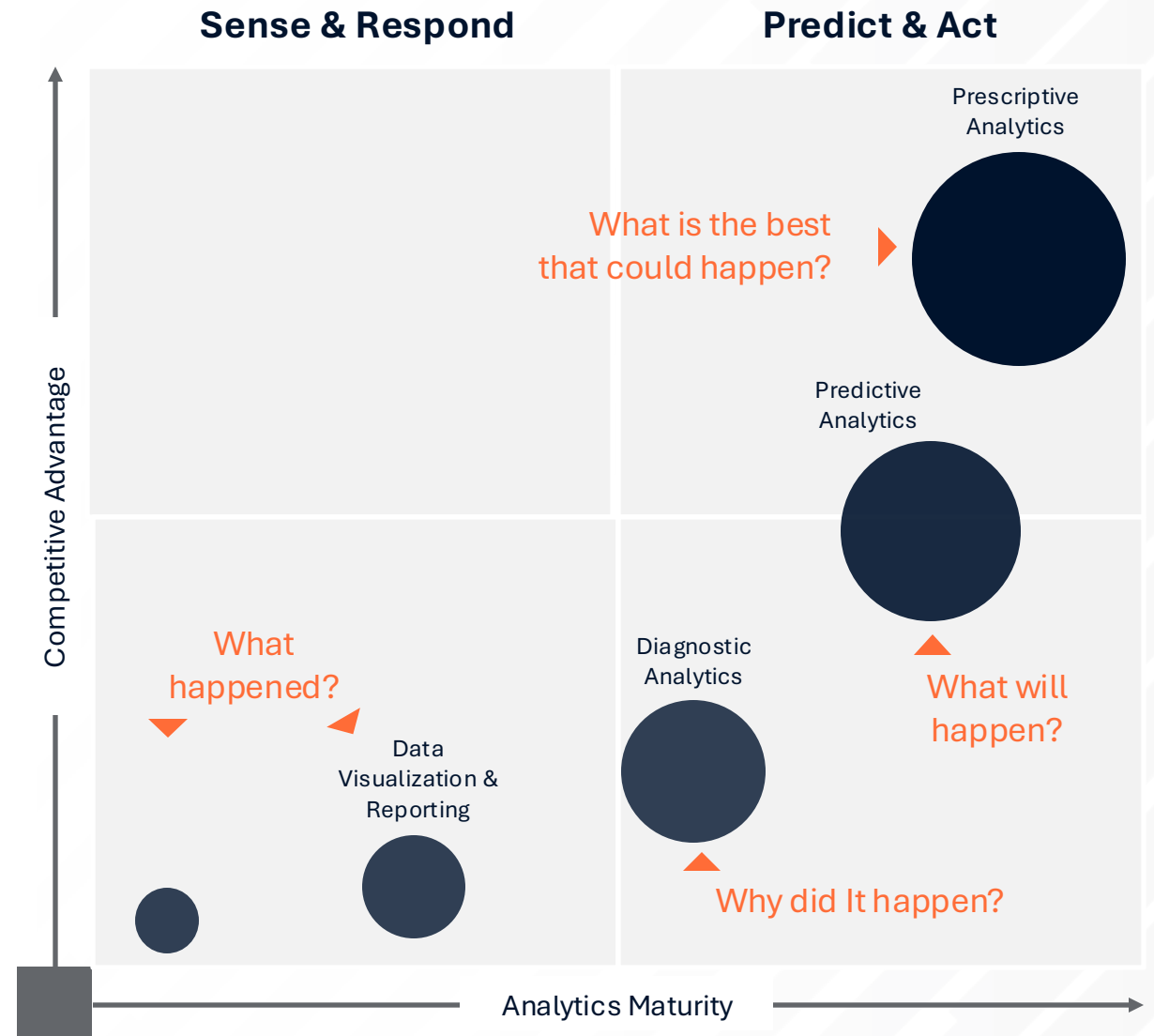
Failure mode analysis & maintenance optimization

Analytics Program Requirements

Data governance

Single source of truth

Data democratization



Asset Performance Journey

