PDCA Business Process Improvement Report

Plan: Define KPIs for response time and cost. Identify key business questions.

Do: Analyze data to find bottlenecks. Train a Gradient Boosting model to predict delays.

Check: Visualize KPIs and model performance via dashboards and charts. Model R^2 is {r2:.2f}.

Act: Generate actionable recommendations to improve processes, targeting areas identified by the model.

Key Finding 1: Departments like Water Resources show response times over 24 hours. Recommendation: Streamline their workflows to cut delays by up to 20%.

Key Finding 2: High-cost department(s) like Public Works consume a large budget share. Recommendation: Review their resource allocation for potential efficiencies.

Key Finding 3: The top predictor of response time is 'Department_Water Resources'.