

## CASE STUDY 7 – AIRPORT MAINTENANCE AND RENEWAL DECISION MAKING

**Organization context:** The organization in focus manages several commercial airports.

**Describe the event:** Partly in response to a major incident, and because there had been a series of near misses over the preceding two years, the organization and their regulator jointly proposed an independent review of the organization's approach to the asset management of its civil and structural assets.

**Explain the consequence:** The review identified numerous shortfalls in the stewardship of the assets, identified failings in the organization's asset management system, and expressed concern that the organization could not demonstrate a robust investment decision process. As a result, a significant improvement program was initiated.

Initially, the staff involved in the end-to-end management of civil assets felt under significant scrutiny and pressure. Once the improvement program began to deliver positive outcomes, it restored confidence with the regulator, improved the organization's reputation and re-energized staff.

**What were the root causes:** The organization had become overly focused on its customer-facing assets and overly reliant on individual engineering knowledge and judgement. There was an absence of a robust, structured, data driven approach to asset management, investment prioritization, and particularly the management of faults. The specific trigger incident occurred due to the corrosion of a hidden critical element within the structure that wasn't visible on the surface to inspectors.

**What can be learned from this case study (good and bad):** The main challenges encountered in delivering the improvement program were:

- Communicating difficult concepts to investment stakeholders, such as how to strike a balance between interventions driven to reduce risks, with those customer focused interventions that realize return on investment.
- Overcoming the mindset that long-life complicated assets cannot be modelled.
- Dealing with limitations and issues with data availability and quality.

The key enablers to the success of the improvement program were:

- Having top-down leadership and stakeholder backing for the program. Unfortunately, it often takes a major incident to trigger a transformational change and improvements across an organization.
- A program delivery team was mobilized with a very broad range of skills including stakeholder engagement, project management, asset management, maintenance management and delivery, information management and analytics, and risk management.
- Granular guidance was developed and rolled out to embed the improved approach to fault management.