HICD FORWARD IN PRACTICE

When Technical Performance Depends on the Whole Institution

An institutional case study showing how engineering, operations, procurement, finance, leadership, and learning combined to improve infrastructure delivery and service reliability.

Resource type	Institutional Case Study
Intended users	Utility leaders, infrastructure teams, functional managers, reform advisers, and OD practitioners
HICD Forward movement	All four movements
Related pillars	Performance, Human Architecture, Workflow, Alignment, Capability, Leadership, and Learning
Estimated use time	10 minutes

WHY THIS CASE MATTERS

Infrastructure performance depends on more than technical design. Value is created when the whole institution can move decisions, resources, contracts, information, and operational readiness together.

The Case at a Glance

A public utility was implementing a five year infrastructure program to replace aging equipment, reduce losses, expand access, and improve service reliability. The engineering plan was technically credible and funding had been approved, but project delivery continued to fall behind schedule. Engineering, procurement, finance, operations, legal, human resources, and safety each saw a different cause and reported performance through separate systems.

Leaders initially believed stronger project management training and more detailed reporting would solve the problem. The HICD Forward lens reframed it as an institutional delivery problem. The utility needed to connect the full pathway from project definition to operational handover and make cross functional performance visible and manageable.

The Operating Context

Major projects depended on engineering design, budgeting, procurement, contract management, environmental review, staffing, construction, commissioning, and operations readiness. These responsibilities were formally assigned, but they did not operate as one delivery system. Projects waited between functions, documents returned for correction, and critical specialists often entered too late.

Separate Functions, One Delivery Failure

Engineering blamed procurement delays. Procurement cited incomplete specifications. Finance identified weak forecasts and payment packages. Operations reported that maintenance requirements were considered too late. Human resources struggled to deploy specialists quickly enough. Senior leaders intervened in individual projects, but recurring causes remained hidden across the portfolio.

What Leaders Initially Assumed

Leaders believed project managers needed stronger tools, tighter schedules, and more reporting discipline. These actions could help individual teams, but project managers did not control many of the decisions, resources, approvals, and functional inputs required to deliver complete operational assets.

KEY INSIGHT

The utility did not have a project management problem alone. It had an institutional delivery pathway that fragmented accountability across the life of every project.

What This Meant in Practice

The work began by agreeing on the result that mattered: converting approved investment into safe, reliable, maintainable assets within required time, cost, quality, and service conditions. This created one performance boundary across technical and support functions.

The Visible Performance Problem

The baseline showed that approved investment was not moving through the institution at the speed or reliability required. Six measures defined the starting point.

41 PERCENT Capital projects meeting approved schedule milestones.	**168 DAYS** Average procurement cycle for major equipment.
39 DAYS Average time required to approve contractor invoices.	**23 PERCENT** Equipment purchases using emergency or exceptional procurement.
5.6 HOURS Average duration of a service interruption.	**$6.5 MILLION** Estimated additional annual cost from delay, emergency work, and claims.

CENTRAL MESSAGE

The performance problem did not sit inside one technical or support function. It emerged through the handoffs, decisions, measures, and accountabilities connecting the full project lifecycle.

What the HICD Forward Lens Revealed

The diagnosis focused on the conditions most likely to explain the performance gap. The pillars were used as one connected lens, not as separate assessments.

WORKFLOW

Design, budgeting, procurement, contract management, commissioning, and operations readiness were managed as separate processes. No one could see the complete delivery pathway.

ALIGNMENT

Project managers were accountable for results but lacked authority over many required decisions and resources. Ownership shifted between functions as each project moved.

HUMAN ARCHITECTURE

Functions were rewarded for their own controls and outputs. No function was measured against complete, timely, safe, and operationally ready project delivery.

LEADERSHIP

Senior reviews focused on individual delayed projects and explanations. Leaders rarely examined recurring constraints across the portfolio or resolved institutional causes.

Additional Conditions

- Capability: Gaps existed in contract management, project controls, and commissioning, but specialists were also assigned late and worked from incomplete or changing information.
- Performance: Schedule, expenditure, procurement, safety, staffing, and operations readiness data were stored separately and reviewed at different times.
- Learning: Lessons were documented after projects but rarely changed future design standards, approval gates, contract requirements, or staffing decisions.
- Performance and value: Leaders agreed that success would be judged through milestone reliability, procurement speed, payment flow, safe commissioning, service continuity, and avoided cost.

DIAGNOSTIC CONCLUSION

The visible project delay was being produced by a fragmented delivery pathway, competing functional measures, unclear authority, late capability, separate data, and leadership attention focused on cases rather than patterns.

The Coordinated Response

The utility designed one infrastructure delivery model. Each action connected functions around the complete project lifecycle and created evidence for portfolio and leadership decisions.

Intervention component	What changed	Implementation evidence
Delivery pathway	One institutional pathway connected concept approval, design, procurement, construction, commissioning, and operational handover.	Milestone flow, waiting time, rework, exceptions, and handover readiness.
Readiness gates	Joint gates confirmed technical, financial, procurement, environmental, staffing, safety, and operations conditions before progression.	Gate completion, missing inputs, delayed approvals, and repeated deficiencies.
Decision rights	Project managers received authority for routine coordination while named functional authorities retained defined risk decisions.	Decision time, escalations, ownership gaps, and unresolved exceptions.
Portfolio delivery team	A cross functional team resolved issues affecting the complete pathway without replacing functional accountability.	Issues closed, cycle time, recurring barriers, and portfolio risk.
Shared evidence	One dashboard combined schedule, procurement, payment, contract, safety, staffing, and operations readiness signals.	Data completeness, forecast accuracy, risks, and leadership actions.
Capability and learning	Coaching was embedded in active projects and lessons were converted into standards, gates, templates, and future decisions.	Observed performance, recurring errors, lessons applied, and scale changes.

Measurable Outcomes

Eighteen months after implementation, the utility recorded improvement across project delivery, procurement, payment flow, service reliability, safety, handover quality, and cost.

What Changed

- Projects moved through one visible lifecycle with agreed readiness conditions and fewer incomplete handoffs.
- Functional leaders retained specialist authority while project managers gained clearer power to resolve routine coordination issues.
- Leadership reviews used portfolio evidence to remove recurring constraints instead of repeatedly intervening in isolated projects.

How to Interpret the Results

- The outcomes resulted from connecting technical and institutional conditions, not from tighter project schedules alone.
- Joint readiness gates prevented incomplete work from moving forward and creating larger delays later in the lifecycle.
- Shared evidence and embedded learning helped the utility improve future projects rather than solve the same problem repeatedly.

Before and After

The figures below demonstrate the scale and range of results that a connected institutional response could reasonably target.

Performance measure	Before	After 18 months
Projects meeting approved milestones	41 percent	76 percent
Major equipment procurement cycle	168 days	112 days
Contractor invoice approval time	39 days	18 days
Emergency equipment procurement	23 percent	11 percent
Average service interruption duration	5.6 hours	3.8 hours
Corrective actions closed on time	68 percent	93 percent
Complete operating documents at handover	52 percent	91 percent
Estimated annual avoided cost	Not quantified	$4.1 million

What This Case Demonstrates

The utility did not need engineering, procurement, finance, or operations to work harder in isolation. It needed an institutional environment that connected their decisions, evidence, responsibilities, and timing around complete asset delivery. Technical investment produced greater value when the utility managed infrastructure as one performance system.

HICD FORWARD CONNECTION

Movement 1 aligned leaders around the asset delivery and service performance gap. Movement 2 revealed cross functional handoffs, authority gaps, competing measures, capability constraints, and weak portfolio learning. Movement 3 translated those findings into one delivery pathway and coordinated intervention package. Movement 4 used portfolio evidence, gate reviews, project learning, and leadership decisions to adjust and sustain the model.

Questions for Your Institution

- Where does work wait between technical and support functions in your project lifecycle?
- Who is accountable for complete asset delivery and what authority do they actually hold?
- Which functional measures unintentionally compete with portfolio or service performance?
- How are lessons from current projects changing the standards and decisions used on the next ones?

About This Case

This case study presents realistic institutional conditions, decisions, interventions, and illustrative outcomes. It demonstrates how the HICD Forward approach can be applied to a common utility and infrastructure performance challenge and is not presented as a verified account of a specific client engagement.

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