



**Institute of
Commissioning &
Assurance**

The Outcome Assurance Gap

Why Deliverables-Based Project Models Do Not Consistently Produce
Outcomes

Evidence from 1,406 Organizations Across Global Capital Projects

Institute of Commissioning & Assurance (ICxA)

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1. Executive Summary

1.1 The Central Finding: Why Deliverables-Based Project Models Do Not Consistently Produce Outcomes

Deliverables-based project models do not consistently produce outcomes because they are primarily designed to govern activities, milestones, packages, and contractual outputs - not whether those activities combine to produce an integrated operational outcome.

They measure whether work has been completed.

They do not consistently measure whether the project is truly ready to operate, perform, integrate, and achieve the business outcome it was intended to create.

As a result, projects can appear successful during execution while still failing to achieve readiness, operational capability, or long-term performance.

The research in this report conducted by ICxA provides evidence consistent with this conclusion.

Across 1,406 organizations globally, Outcome Assurance capability is consistently underdeveloped.

The average Outcome Assurance Index (OAI) score is 33.31 / 100, with a median of 32.45 / 100, indicating that while elements of outcome delivery are present, they do not function as a unified system.

More than 96% of organizations fall within “Minimal” or “Weak / Fragmented” maturity levels, while very few organizations demonstrate the characteristics associated with an “Established” level.

This pattern appears more consistent with structural constraints than with isolated variation.

The industry is highly active. What remains underdeveloped is the system that governs whether that activity converges into a controlled outcome.

1.2 What the Data Shows at a Glance

- 1,406 organizations analyzed
- Average OAI score: 33.31 / 100
- Median OAI score: 32.45 / 100
- P90 score: 43.78 / 100
- 96%+ of organizations fall in Minimal or Weak / Fragmented maturity
- No region, industry, or organizational class exceeds ~45 / 100
- Governance and Outcome Delivery are the weakest pillars
- Operational Readiness and Performance Validation are the strongest pillars

1.3 What the Data Reveals About the Industry

Across regions, industries, and organization types, a consistent pattern emerges. Capabilities associated with outcome delivery are visible, but they tend to appear in isolation rather than as part of an integrated system. Stronger scores reflect relative positioning rather than true maturity. Even the highest-performing organizations remain below approximately 44 / 100, with no evidence of convergence toward integrated capability.

This is not a market divided between leaders and laggards. It is a market constrained by the same underlying delivery logic. Some organizations perform slightly better than others, but none appear to have fully transitioned to a model that consistently governs outcomes rather than activities.

Execution appears relatively well developed, while governance and outcome control remain weaker. This contrast begins to challenge the assumption that delivery alone is sufficient.

If delivery systems are functioning as intended, what explains the inconsistency of outcomes?

1.4 The Outcome Assurance Gap

The data points toward a gap that is not immediately visible within traditional delivery models. Projects are structured around activities - engineering, construction, commissioning - each governed, optimized, and executed with increasing precision. The connection between these activities and the final outcome is rarely governed with the same clarity.

Delivery is controlled. Outcome remains largely assumed. Where this assumption holds, performance appears consistent. Where it does not, variability becomes visible.

Signals of integration, readiness, and validation are present, but there is limited evidence of a system that ensures these signals translate into a controlled result. Evidence of formalized outcome governance, consistent system-level validation, and defined ownership of the final result remains limited.

Outcomes are achieved. They are not consistently assured.

1.5 Implications for the Delivery Ecosystem

This condition presents differently across stakeholders. Asset Owners remain accountable for outcomes, yet rely on systems that do not explicitly assure them. EPC Contractors demonstrate strong execution and coordination capability, but typically operate within frameworks that do not formally extend accountability to outcomes. Engineering Authorities contribute technical depth within defined scopes, rather than across system-level performance, while System and Equipment Providers deliver high-performing components that are not always integrated into a broader outcome accountability structure.

Across the system, responsibility is widely distributed, but ownership of the final outcome is less clearly defined. At a certain point, this distribution begins to shape how outcomes are experienced.

1.6 Why This Matters Now

As projects increase in scale, complexity, and interdependency, the implications of this gap become more pronounced. Systems are no longer isolated, and performance is no longer localized. Digital infrastructure, software-enabled assets, integrated energy systems, and increasingly interconnected operations mean that failures at handover now carry larger operational, financial, and reputational consequences than in the past. Outcomes are increasingly sensitive to how well disciplines, phases, and stakeholders operate as a whole.

In this context, a delivery model centered on activity - however well executed - begins to encounter its natural limits. Not because it fails to deliver, but because it does not explicitly assure that what is delivered will perform. This distinction becomes more consequential as complexity increases.

Traditional delivery models were built for projects where systems could be completed and handed over in relative isolation. That assumption becomes more difficult to sustain as projects become more integrated and performance-sensitive.

1.7 A Defining Industry Moment

The findings of this report do not point to widespread failure. They point to a condition that is becoming increasingly visible. The capabilities required to achieve outcomes already exist across the industry. They are developed, distributed, and in many cases highly refined. What appears less developed is the system that connects these capabilities into a controlled, outcome-oriented model.

As this distinction becomes clearer, a different line of thinking begins to emerge - not how to deliver more effectively within the current structure, but how the structure itself defines success. This becomes less of a technical question and more of a structural one.

What would change if outcomes were not assumed to result from delivery, but were defined as the condition that governs it?

The answer to that question shapes the next phase of capital project delivery.

2. Introduction: From Project Delivery to Outcome Assurance

For decades, capital projects have been organized around the successful completion of activities. Engineering is completed. Construction progresses. Systems are commissioned and handed over. Each phase has developed its own methods, standards, and measures of success.

In many respects, this model has been effective. It has enabled projects of increasing scale and technical complexity to be delivered with a high degree of coordination. Progress can be tracked, milestones can be achieved, and scope can be verified.

And yet, a different pattern has become increasingly difficult to ignore. Projects that are delivered as planned do not always perform as intended. Systems that meet technical requirements do not always operate as expected. Assets that are handed over successfully do not always achieve their intended outcomes.

These instances can appear isolated, but over time they begin to look consistent. It becomes less convincing to attribute outcome variability solely to execution quality. In many cases, execution appears disciplined: activities are completed, requirements are met, and testing is performed. The question therefore begins to shift. The question is not how well projects are delivered, but what delivery is designed to ensure.

The current model is structured around completing activities. Each discipline operates within defined scope boundaries, governed by its own standards and optimized for its own deliverables. Engineering focuses on design completeness. Construction focuses on installation. Commissioning focuses on system verification. Operations focuses on performance after handover.

This structure has improved execution within each separate domain. But it has also created a condition where no single system governs the relationship between them. Outcomes are often expected to emerge from coordination rather than be controlled through design.

This distinction is subtle. Its effects are not.

The findings suggest that limitations in outcomes may not be explained solely by whether activities are performed. Historically, this limitation was easier to tolerate because many projects involved less integration between systems, technologies, and operating environments. As projects become more digital, interconnected, and performance-sensitive, the limitations of activity-based delivery become more visible.

As projects become more integrated, more digital, and more performance-sensitive, this distinction becomes more consequential. Systems no longer operate independently, and performance is no longer isolated to individual components. The outcome depends on how well the entire system functions together, under real conditions, at the moment it is required.

Within this context, a delivery model centered on activity completion begins to reveal its natural limitations. Not because it is ineffective at delivering work, but because it is not explicitly designed to assure what that work will achieve.

This leads to a consideration that is beginning to surface across the industry. If delivery does not always translate into outcomes, the question may not be how to improve delivery alone. It may be how projects are defined in relation to the outcome.

An alternative perspective begins to take shape: one in which the outcome is not treated as a downstream result of delivery, but as the reference point that governs it. A shift from delivery-based thinking to outcome-based project delivery.

Outcome Assurance is the governing system that aligns governance, integration, readiness, validation, and accountability to ensure that a project achieves its intended operational outcome. Unlike traditional delivery models, which govern the completion of activities, Outcome Assurance governs whether those activities converge into a verified and authorized result.

In such a model, progression is not based solely on completion, but on demonstrated readiness to achieve the intended result. Integration is not assumed through coordination, but verified as a system. Validation is not an activity performed after the fact, but a condition for authorization.

The components of this perspective are not unfamiliar. Elements of integration, readiness, validation, and governance are already visible across the industry. What appears less visible is the system that brings them together.

This report examines that gap not as a deficiency of capability, but as a limitation in how capability is currently governed. The issue is not that engineering, construction, commissioning, and operations are underdeveloped. The issue is that they are not consistently connected to a single governing reference point: the intended outcome. This distinction begins to define the difference between a delivery-based model and an outcome-based project delivery model.

3. ICxA Research Methodology

This research was designed to assess how Outcome Assurance capability is publicly expressed across organizations involved in major capital projects. The purpose was not to infer hidden internal practices or to audit individual organizations directly, but to evaluate whether observable public evidence indicates the presence of structured capability in the areas most critical to governing project outcomes.

The methodology followed four integrated stages:

1. Dataset construction and normalization
2. Public evidence gathering
3. Capability signal extraction
4. Scoring, calibration, and benchmarking

Each stage was designed to improve comparability, reduce distortion, and ensure that the results reflected observable capability patterns rather than simple differences in company size, website scale, or public visibility.

3.1 Dataset Construction and Public Evidence Gathering

The first stage was the construction of a broad dataset of organizations materially connected to major capital projects. The final dataset included 1,406 organizations across multiple sectors, regions, and stakeholder classes, including owners, operators, EPC contractors, engineering firms, industrial suppliers, technology providers, and other organizations with a visible role in project planning, delivery, integration, commissioning, startup, operational readiness, transfer, or operations.

The dataset was intentionally diversified to avoid overrepresentation from any single geography, sector, or stakeholder type. This was important because Outcome Assurance capability is not expressed uniformly across the market. Different sectors, regions, and delivery roles formalize and communicate capability differently, and the dataset was constructed to reflect that variation.

A normalization process was then applied to improve identity consistency and reduce duplicate distortion. Company names were standardized to remove minor naming differences such as punctuation, capitalization, and legal suffixes. Website domains were normalized to improve matching across records. Country, region, sector, and organization-class labels were standardized so that organizations could be compared on a consistent basis.

A structured entity-resolution process was then applied to identify exact duplicates and related entities. Exact duplicate records were removed where they represented the same public entity and the same evidence footprint. However, regional subsidiaries, business units, and geographically distinct operating entities were often retained where they appeared to represent separate public evidence sets, separate market presence, or distinct delivery capability.

This was a deliberate methodological choice. In major capital projects, capability is often expressed regionally rather than only at the parent-company level. Retaining such entities where appropriate allowed the analysis to capture how capability is actually visible across different operating environments.

For each organization, ICxA assembled a targeted public evidence set from sources reasonably capable of revealing how delivery capability is formalized, communicated, and resourced. These sources included:

- Company websites
- Service, project, and about pages
- Career pages
- Google-indexed search result text
- Public case studies, press releases, and project announcements

- Other public-facing descriptions of delivery capability

Evidence gathering was targeted rather than indiscriminate. The objective was not to scrape all available public material, but to collect a sufficiently comparable, multi-source evidence set for each organization that was relevant to delivery capability.

3.1.1 Relative Strength of Evidence Sources

Not all evidence sources were treated equally.

Careers content was treated as relatively strong evidence because it reflects how organizations define responsibilities, allocate resources, and operationalize capability. Repeated references to operational readiness managers, system integration leads, commissioning authorities, startup specialists, test engineers, or performance managers were interpreted as stronger evidence of institutionalized capability than broad statements of intent.

Company websites were treated as moderate-strength evidence. Website content reflects how organizations publicly position their delivery model, governance structures, integration capability, readiness activities, testing practices, and relationship to operational performance. References to stage-gates, integrated testing, operational readiness, interface management, performance validation, transfer to operations, or outcome accountability were treated as more significant than generic statements about quality, safety, innovation, or project excellence.

Project pages, case studies, press releases, and public announcements were treated as supporting evidence. These sources were particularly valuable where they revealed repeatable patterns across multiple projects, business units, or operating regions.

Google-indexed content was used as a supplementary evidence layer. This helped surface discoverable references that may not have been prominent within a company's own website structure but still contributed to the observable evidence base.

Signals that appeared consistently across multiple source types were assigned greater confidence than signals appearing in only one location. Repeated evidence across website content, careers text, project pages, and indexed public references was treated as a stronger indication that a capability was embedded within the organization rather than communicated in isolation.

3.2 Capability Signal Extraction and Validation

The gathered evidence was translated into structured capability signals across the five pillars of the Outcome Assurance Index (OAI):

- Governance

- System Integration
- Operational Readiness
- Performance Validation
- Outcome Delivery

The signal extraction process was designed to identify evidence of real delivery architecture rather than generic positive language. For each pillar, the analysis looked for four forms of observable evidence:

- Explicit capability language
- Role evidence
- Process evidence
- Outcome evidence

This distinction was important because generic statements about quality, innovation, or project success contributed little unless they were supported by more specific evidence of governance, integration, readiness, validation, or outcome accountability.

For example:

- References to decision gates, readiness reviews, risk-based progression criteria, or formal authorization processes contributed to Governance scores.
- References to interface management, cross-discipline coordination, system-level planning, or integrated delivery teams contributed to System Integration scores.
- References to operator training, turnover planning, operational procedures, readiness programs, or simulation exercises contributed to Operational Readiness scores.
- References to factory acceptance testing, site acceptance testing, integrated system testing, reliability testing, performance guarantees, or demonstration of operating conditions contributed to Performance Validation scores.
- References to operational ownership, long-term asset performance, residual risk acceptance, or explicit accountability for business outcomes contributed to Outcome Delivery scores.

Each pillar score was calculated using a weighted combination of the four evidence categories:

$$S_p = 0.35E_p + 0.20R_p + 0.25P_p + 0.20O_p$$

Where:

- S_p = score for pillar p
- E_p = explicit capability evidence
- R_p = role evidence
- P_p = process evidence
- O_p = outcome evidence

The model was designed to reward coherent and repeated evidence of capability rather than sheer content volume. References contributed to the score only up to defined saturation thresholds so that organizations with very large websites or repeated marketing language did not receive disproportionate advantage simply from publishing more material.

3.2.1 Validation of Observable Signals

This methodology is based on observable public signals rather than direct access to internal project systems, governance processes, operating procedures, or performance data.

At the level of an individual organization, the relationship between visible signals and actual capability is not exact. Some organizations may possess stronger internal systems than they communicate publicly, while others may communicate capability more extensively than they operationalize.

However, across a dataset of 1,406 organizations, recurring patterns become more meaningful. Signals that appear repeatedly across industries, regions, and stakeholder types become less likely to reflect isolated communication choices and more likely to reflect what the market has collectively formalized, prioritized, resourced, and embedded.

What is consistently visible tends to indicate what organizations collectively regard as structurally important. Conversely, what remains fragmented, weakly expressed, or largely absent begins to suggest not isolated omission, but a broader systemic condition.

The purpose of this analysis is therefore not to determine whether any one organization possesses hidden capability. It is to assess whether Outcome Assurance appears consistently as a visible, coherent, system-level discipline across the organizations most responsible for delivering major capital projects.

3.2.2 Confidence Levels of Observable Evidence

Evidence was assigned different confidence levels based on its strength, specificity, repetition, and cross-source reinforcement.

Higher-confidence evidence was given greater weighting within the scoring model because it is more likely to reflect embedded organizational capability rather than isolated communication.

Table 1: Confidence Levels of Observable Evidence

Confidence Level	Example Evidence
High Confidence	Multiple references across job postings, websites, and project examples to stage-gates, operational readiness programs, integrated testing, system-level accountability, or outcome-based decision frameworks
Medium Confidence	One or two references to readiness, testing, integration, or governance, but with limited evidence of how these activities are connected
Low Confidence	Generic statements about quality, safety, delivery excellence, or technical capability without supporting evidence of structured governance, readiness, validation, or outcome accountability

Repeated evidence across multiple source types increased confidence that a capability was structurally embedded rather than communicated in isolation. Conversely, isolated references, generic marketing language, or weakly contextualized claims contributed less to the final score and were treated more conservatively during calibration.

3.3 Outcome Assurance Index (OAI) Framework

To enable consistent comparison across organizations, observable signals were structured into a unified scoring model: the Outcome Assurance Index (OAI).

The OAI evaluates the extent to which Outcome Assurance capability is expressed as a connected system rather than as isolated activities.

The framework is built around five pillars:

- Governance
- System Integration
- Operational Readiness
- Performance Validation
- Outcome Delivery

Table 2: Outcome Assurance Index (OAI) Framework

Pillar	Description	Example Observable Signals
Governance	Degree to which decisions and progression are linked to outcome readiness	Stage-gates, decision frameworks, outcome-based criteria
System Integration	Extent to which systems are considered and managed as a whole	Interface management, system-level planning, cross-discipline coordination
Operational Readiness	Preparation of systems and teams for real operating conditions	Readiness programs, training, operational procedures
Performance Validation	Evidence that systems perform as intended under defined conditions	Testing regimes, verification processes, performance demonstrations
Outcome Delivery	Explicit ownership and control of the final result	Outcome accountability, performance guarantees, system-level responsibility

The OAI does not measure the volume of activity. It reflects the degree to which capability appears to be structured as an integrated system oriented toward outcomes.

Organizations may demonstrate strength within individual pillars. Higher OAI scores are associated with evidence that these pillars are connected, governed, and aligned to a common reference point. At lower scores, capability tends to appear fragmented — developed within domains, but not consistently integrated. At higher scores, capability begins to converge into a more coherent system.

This distinction is central to interpreting the results. A company may demonstrate strong engineering, commissioning, construction, or operations capability in isolation, while still showing limited evidence that those capabilities are governed as an integrated system oriented toward project outcomes.

The five pillar scores were combined into an overall OAI Score using fixed weights:

$$OAI = 0.25G + 0.20SI + 0.20OR + 0.20PV + 0.15OD$$

Where:

- *G*= Governance
- *SI*= System Integration

- *OR*= Operational Readiness
- *PV*= Performance Validation
- *OD*= Outcome Delivery

Governance was weighted slightly more heavily because it defines the decision logic and authorization structure within which the other capabilities operate. Outcome Delivery was weighted slightly less not because it is less important, but because public evidence of outcome accountability is typically harder to observe directly than more procedural or operational evidence.

3.3.1 OAI Maturity Bands

To support interpretation, OAI scores were grouped into five maturity bands.

Table 3: OAI Maturity Bands

OAI Score Range	Maturity Band	Interpretation
0–20	Minimal	Outcome Assurance capability is largely absent or highly fragmented.
21–40	Weak / Fragmented	Individual capabilities are visible, but they do not function as a connected system.
41–60	Procedural	Outcome-related processes are defined in places, but remain inconsistent and only partially integrated.
61–80	Integrated	Governance, readiness, validation, and accountability operate together as a connected system.
81–100	Institutionalized	Outcome Assurance is fully embedded, consistently applied, and governs project progression across the lifecycle.

Most organizations within the current dataset fall within the Minimal or Weak / Fragmented bands. Scores associated with Integrated or Institutionalized maturity are not meaningfully observed.

3.3.2 Normalization and Calibration

Normalization was used to reduce the effect of organization size, website scale, and public content volume on scoring outcomes. Organizations with extensive websites, large numbers of career postings, or higher public visibility were not automatically scored higher than organizations with more limited public content.

The scoring model emphasized the diversity, consistency, and system-level integration of signals rather than the total quantity of references. Repeated references to the same concept across multiple pages did not automatically increase scores unless they reflected distinct evidence of capability.

A separate confidence score was also calculated for each organization to reflect the reliability of the evidence supporting the score. Confidence incorporated evidence strength, source diversity, context depth, text depth, and the number of matched source types, with penalties applied where evidence was sparse, shallow, or weakly reinforced.

In conceptual form:

$$C = f(\text{evidence strength, source diversity, context depth, text depth, matched sources}) \\ - \text{penalties}$$

Calibration was then applied to improve comparability across industries, geographies, and organization types. Unusually high or low scores supported by weak evidence were moderated, and sparse evidence conditions triggered more conservative treatment. This reduced the influence of noise, isolated claims, or differences in public visibility and improved comparability across the dataset.

3.4 Methodology Constraints and Confidence

Lower OAI scores should not be interpreted as evidence of weak technical capability or widespread project failure. Many organizations demonstrate strong execution capability across engineering, construction, commissioning, startup, and operations. Lower scores more often reflect fragmentation between these capabilities than weakness within them.

As with any large-scale market analysis, this methodology has limitations. The OAI is based on observable signals rather than direct access to internal systems, project performance data, or confidential organizational practices. Some organizations may possess stronger internal capability than is externally visible, while others may communicate capability more strongly than they operationalize it.

Organizations with limited public visibility, less English-language content, or more internalized systems may appear weaker than they are in practice. Conversely, highly visible organizations may appear stronger than they are operationally.

To reduce this effect, the analysis focuses on scale rather than isolated examples. Across a dataset of 1,406 organizations, recurring patterns become more meaningful. When the same signals appear consistently across industries, regions, and organization types, the findings become less likely to reflect communication style and more likely to reflect what the market has collectively formalized and embedded.

For this reason, the findings should not be interpreted as definitive judgments on individual organizations. They should instead be interpreted as a credible indication of how the industry currently expresses its ability to assure outcomes.

4. Global Outcome Assurance Profile

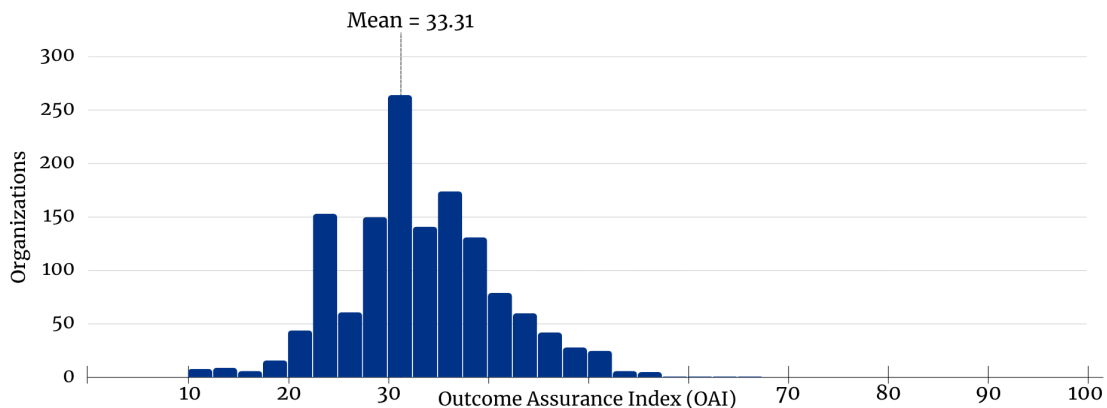


Figure 1: Global OAI Distribution Histogram

4.1 Overall Maturity Distribution

Across the global dataset, Outcome Assurance capability does not follow a typical maturity curve. The distribution itself becomes a primary signal.

In most systems, performance spreads across a range, with a minority extending into higher levels and establishing reference points for the market. That pattern is not present here.

The distribution is compressed. Across 1,406 organizations, the majority cluster within the lower third of the scale, with the effective range confined to a narrow band. This is not simply a spread. It appears more like a boundary - one potentially shaped by a delivery-based model that does not yet consistently extend to outcomes.

4.2 Distribution Compression

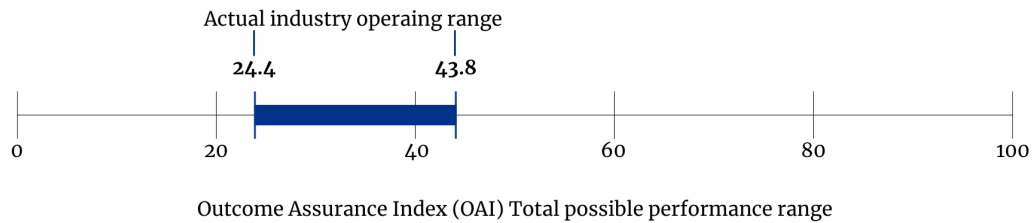


Figure 2: Box Plot P10-P90 Range

On a 100-point scale, the effective range of performance is confined to roughly 20 points. Standard deviation remains low relative to the available range, and there is no visible extension into higher bands.

Organizations differentiate slightly from one another, but they remain within the same performance envelope. The distinction between “average” and “top-performing” becomes relative rather than absolute.

4.3 Absence of Mature Systems

If higher maturity were emerging, one would expect to see a small number of organizations extending beyond the main distribution. Such a pattern is not evident.

Maximum observed scores remain below approximately 45 / 100, with no representation in higher maturity bands. If Outcome Assurance were already functioning as a system, it would be expected to appear - at least in part - within the data. Its absence suggests that it has not yet visibly formed as a mature, system-level discipline within the observable dataset.

If integrated maturity were already emerging, the data would be expected to show at least a small number of organizations extending into higher ranges. Such organizations would likely demonstrate explicit outcome ownership, evidence-based progression, continuity of accountability, and stronger alignment between governance and readiness.

That pattern is not yet visible.

Its absence suggests that Outcome Assurance does not yet appear as a mature, system-level discipline within the observable evidence across the industry.

4.4 The Capability–Outcome Gap

Operational Readiness and Performance Validation represent the strongest observed pillars, both approaching the high 30s. Governance and Outcome Delivery remain significantly lower, with a gap of approximately 13 to 15 points.

The implication is subtle. The industry appears capable of performing the activities required to prepare and verify systems. It appears less capable of governing whether those activities are sufficient to assure the outcome.

Activity appears more developed than system-level control tied directly to outcomes. The result is a growing gap between the completion of work and confidence in the outcome that work will produce. This may create a form of outcome debt: risk that can accumulate when activities are completed without proving that the integrated result will perform as intended. And without control, activity does not converge into a predictable result.

What appears to be missing is not more activity, but a governing system that links governance, integration, readiness, validation, and accountability to the intended outcome.

That governing system is what Outcome Assurance begins to provide.

4.5 Defining the Global Profile

Taken together, these patterns describe a system that produces a consistent level of performance, but within a narrow structural range.

Scores cluster in the lower third of the scale. No region, industry, or organization class demonstrates integrated maturity, and no segment extends materially beyond the same approximate range.

"The industry is not underperforming. It is operating within the limits of its current structure."

5. Pillar Deep Dive Analysis

If the global profile suggests a constrained system, the next question becomes where that constraint originates. This section examines each pillar not in isolation, but in relation to the outcome it is expected to support.

At first glance, the five pillars of Outcome Assurance appear present across the industry. Governance, System Integration, Operational Readiness, Performance Validation, and Outcome Delivery can all be identified in varying degrees within most organizations.

5.1 Governance - Control Without Outcome Reference

Governance is widely present in capital project delivery. Processes exist, oversight structures are defined, and decisions are made at regular intervals. From a distance, governance appears established.

Observed through the lens of outcomes, a different picture begins to emerge. Average governance scores remain near the mid-20s, consistently lower than other pillars. More notably, governance does not consistently appear to reference the outcome itself. It is frequently directed toward schedule, cost, and compliance, and less frequently toward whether the intended outcome will be achieved.

If governance does not explicitly reference outcomes, it cannot fully control them.

5.2 System Integration - Coordination Without Assurance

System integration is widely recognized as essential. Interfaces are managed, disciplines are coordinated, and integration plans are executed. These activities are visible, reflected in scores around the low 30s.

However, integration appears to function primarily as coordination. Systems are brought together so that work can proceed, but they are less consistently governed to ensure that the combined system will achieve its intended outcome.

5.3 Operational Readiness - Preparation Without Proof

Operational Readiness emerges as the strongest pillar. At first glance, this suggests maturity. Yet overall Outcome Assurance remains low, introducing a contradiction.

Operational readiness appears stronger than most other pillars, but preparation is not the same as demonstrated readiness under real operating conditions. This infers that operational readiness may be embraced as a compliance activity, framed on the completion of pre-established parameters (e.g. checklists) rather than as a risk-driven process that is oriented to outcomes. This may be giving the false perception that operational readiness processes are more mature than they actually are, since somehow failures persist at transition and initial operations, stemming from the wrong inter-changeability of completeness and readiness.

5.4 Performance Validation - Evidence Without Authority

Performance validation is widely practiced. Testing programs are implemented, systems are verified against specifications, and scores cluster in the low-to-mid 30s.

However, validation appears to function primarily as confirmation rather than control. Evidence is produced, but it is not always clear how that evidence governs decisions. If validation does not influence progression, it remains observational. It does not become authoritative.

5.5 Outcome Delivery - The Unresolved Result

Outcome Delivery remains the lowest-scoring pillar. This is notable because it represents the point at which all preceding activity is expected to converge.

Despite the presence of capability across other pillars, outcome delivery remains limited. There is little consistent evidence of explicit ownership of the final result. Outcomes are often expected to follow from execution. They are less often governed as a condition.

5.6 Cross-Pillar Imbalance - The Source of the Constraint

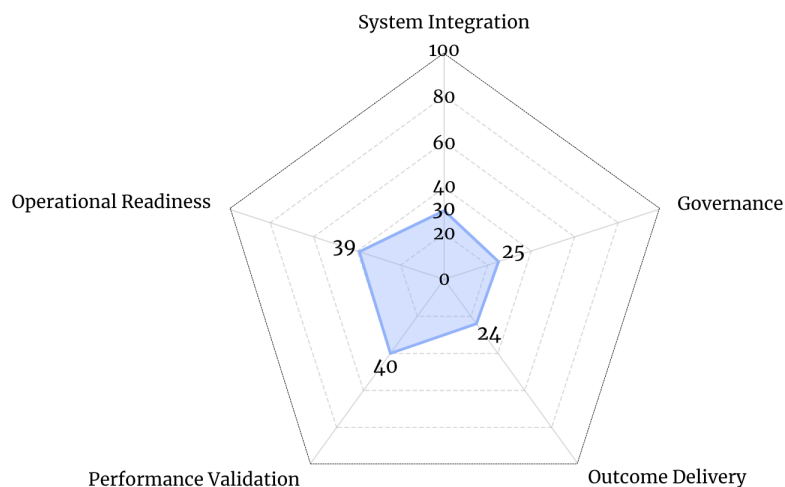


Figure 3: Radar Chart of 5 Pillars

When viewed together, the five pillars reveal a clear imbalance. Execution-oriented capabilities approach the high 30s, while Governance and Outcome Delivery remain significantly lower.

This imbalance appears significant enough to limit how effectively the system converges. Activity increases, but outcome certainty does not increase at the same rate.

"Each part is improving. The outcome is not."

This begins to suggest that the next stage of project maturity will not come from improving individual activities alone. It will come from introducing a governing system that links governance, integration, readiness, validation, and accountability directly to the intended outcome.

6. Geographic Analysis

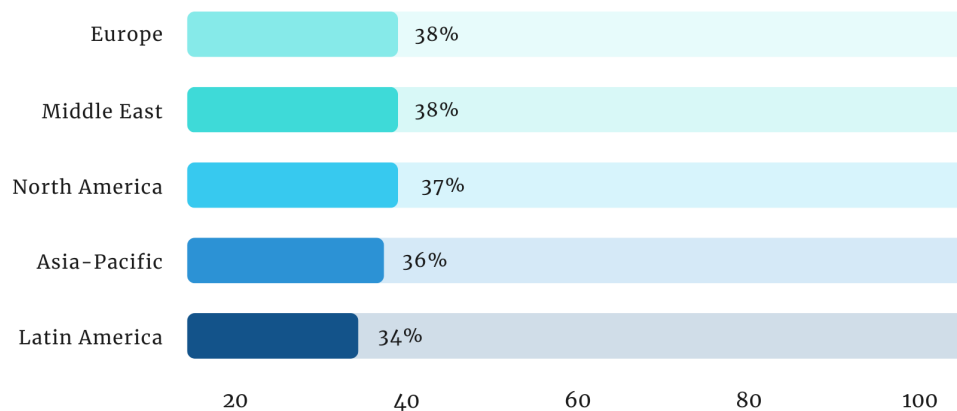


Figure 4: Regional Comparison Bar Chart

If outcome performance were primarily driven by geography, greater variation would be expected across regions. Differences in regulation, labor capability, project scale, technical maturity, operating conditions, and investment environments would, in theory, produce different levels of Outcome Assurance maturity.

What appears instead is a high degree of consistency.

6.1 Regional Comparison

Across major regions, Outcome Assurance Index scores remain closely aligned. North America averages approximately 36 / 100, Europe approximately 37 / 100, the Middle East approximately 38 / 100, Asia-Pacific approximately 35 / 100, and Latin America approximately 34 / 100. The difference between the highest- and lowest-scoring regions is limited to only a few points.

Despite significant differences in regulation, project scale, labor markets, technology adoption, and capital intensity, the overall maturity profile remains remarkably similar.

6.2 No Regional Leaders

In many areas of practice, certain regions emerge as visible leaders. They establish new methods, create reference points, and demonstrate what higher maturity looks like in practice.

That pattern is not evident here.

No region meaningfully separates itself from the rest. No region approaches high maturity, and no region extends beyond the same general performance band.

6.3 Structural Interpretation

No region meaningfully separates itself from the rest. Despite different project environments, Outcome Assurance maturity remains constrained to the same narrow range, suggesting that structural factors may play a larger role than geography.

"Consistency across regions does not indicate success. It indicates a shared constraint."

7. Industry Analysis

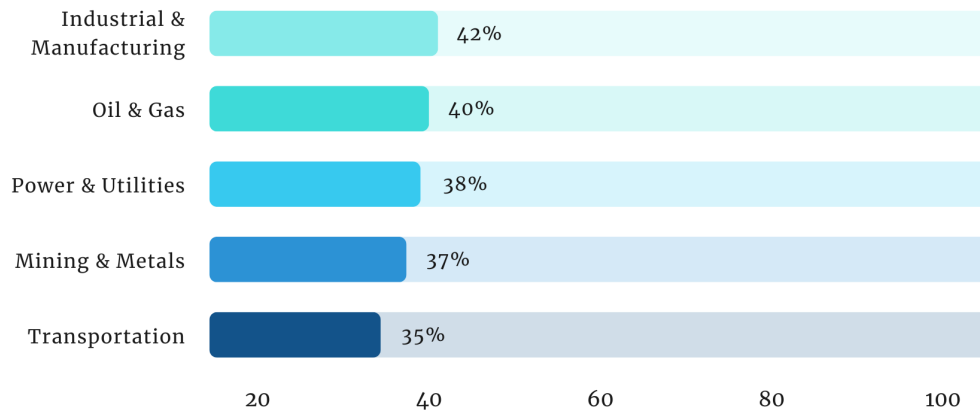


Figure 5: Industry Comparison Bar Chart

If geography does not explain variation in outcome performance, the next question is whether industry context does. Different sectors operate under very different conditions.

Risk profiles vary. Regulatory intensity differs. Asset complexity is not uniform. Some industries operate under far stricter technical requirements than others.

What appears instead is a familiar pattern.

7.1 Cross-Industry Consistency

Across major capital-intensive sectors, Outcome Assurance scores remain tightly grouped. Power & Utilities averages approximately 42 / 100, Oil & Gas approximately 40 / 100, Industrial & Manufacturing approximately 38 / 100, Mining & Metals approximately 36 / 100, and Transportation approximately 35 / 100.

Although some sectors perform slightly better than others, the spread remains limited. Even the strongest-performing industries remain below levels associated with integrated maturity.

7.2 Absence of Industry Leaders

In many areas of practice, certain industries emerge as leaders. High-risk or highly regulated sectors often develop more advanced systems because the cost of failure is higher.

As with geography, no industry meaningfully outperforms the others. Even the strongest-performing sectors remain within the same lower performance band.

7.3 Structural Interpretation

Different industries optimize for different technical, commercial, and regulatory conditions. Yet Outcome Assurance maturity remains tightly grouped across all sectors. No industry demonstrates materially different performance, suggesting the limitation lies less within sector-specific conditions and more within the shared delivery model itself.

"Different industries. Same result."

8. Organizational Class Analysis

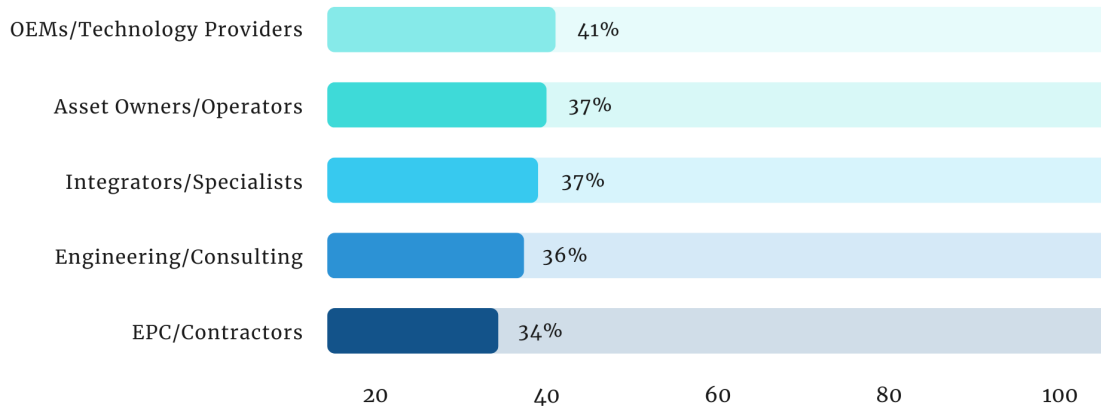


Figure 6: Organizational Class Comparison Chart

If neither geography nor industry explains the consistency in outcome performance, attention shifts to how responsibility is distributed across the delivery system itself.

Capital projects are delivered through multiple organizational classes: asset owners define intent, EPC contractors coordinate scope, engineering authorities provide technical rigor, system and equipment providers contribute components, and contractors execute work.

Each role is essential. Each role is also defined within a limited scope.

The question becomes whether the system connects those scopes into a single accountable outcome.

8.1 Strong Roles, Weak System Ownership

Average scores by organizational class remain closely grouped. Asset Owners average approximately 39 / 100, EPC Contractors approximately 37 / 100, Engineering Authorities approximately 35 / 100, System and Equipment Providers approximately 34 / 100, and Contractors approximately 33 / 100.

The differences between these groups are visible, but relatively small. No stakeholder class demonstrates the characteristics associated with a truly integrated, outcome-oriented system.

8.2 Absence of Outcome Ownership

In a system designed to assure outcomes, one would expect to find a clearly defined point of accountability for the final result.

That does not appear to exist consistently in practice.

Asset owners define outcomes but do not consistently govern delivery at the system level. EPC contractors deliver scope but remain accountable within contractual limits. Engineering authorities contribute within technical domains. System providers deliver component-level performance. Contractors execute work within specific packages and interfaces.

8.3 The Accountability Gap

When capability is distributed but accountability is not consolidated, a structural gap begins to form.

This gap is not immediately visible within individual roles because each participant can demonstrate performance within its own scope. The owner can point to governance. The EPC can point to coordination. Engineering firms can point to design quality. Contractors can point to completed work.

The gap emerges between these roles, where multiple parties contribute to the result but no single function governs whether the result will actually be achieved.

Decisions are made within scope boundaries, but not always against outcome criteria. Handovers occur, but continuity of accountability is often lost.

8.4 Contract Structure and System Behavior

This pattern is reinforced by contractual structure.

Contracts define scope, milestones, deliverables, and interfaces. They establish who is responsible for each part of the project.

They do not consistently define who is responsible for the integrated outcome across those parts.

Each participant is incentivized to perform within its own scope. The outcome depends on how well all scopes work together.

"Influenced by all. Owned by none."

Capability is distributed across stakeholders, but accountability for the integrated outcome is not. Each participant is optimized for its own scope, while ownership of the final result remains unclear. The result is a system in which outcomes are influenced by everyone, but governed by no one.

This is one of the defining limitations of a deliverables-based model. It organizes scope effectively, but it does not consistently establish who governs the integrated outcome across that scope.

9. Cross-Dimensional Insights

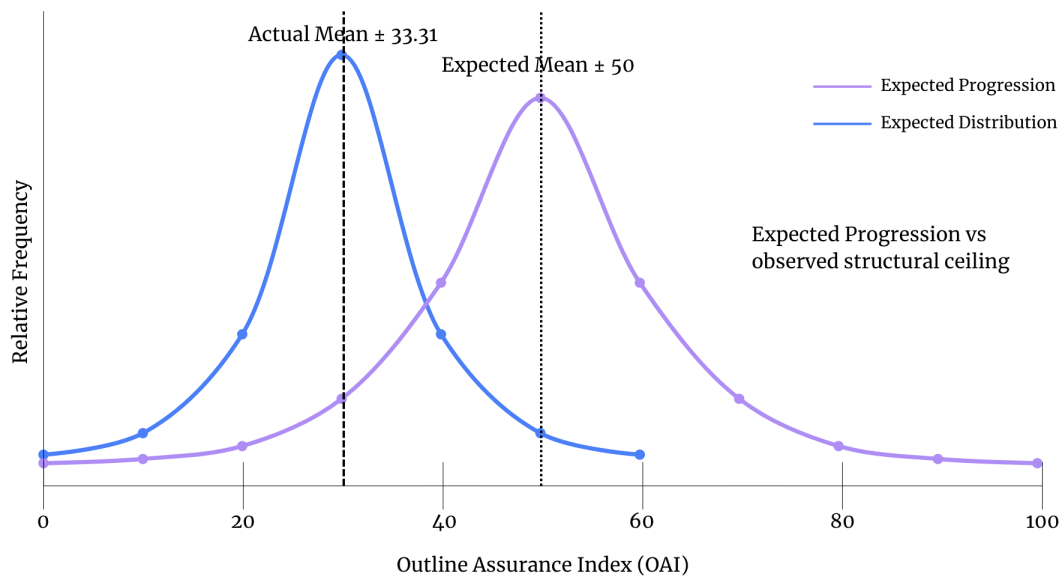


Figure 7: Maturity Curve vs Actual Distribution

When geography, industry, and organizational class are examined independently, each points toward the same conclusion.

Regional conditions do not materially change the result. Industry context does not materially change the result. Stakeholder role does not materially change the result.

When these findings are combined, a more complete picture begins to emerge.

The issue is not isolated weak performance. It is a system that appears constrained in how far it can develop.

9.1 A Compressed Maturity Profile

In most developing systems, capability distributes across a curve. Many organizations operate at lower maturity levels, while a smaller number extend into higher levels and establish reference points for the market.

That distribution does not appear in the data.

Scores cluster tightly within a narrow band in the lower third of the scale. P10 performance begins at approximately 24.44 / 100, median performance remains at 32.45 / 100, and P90 reaches only 43.78 / 100.

This means that 80% of organizations fall within an effective range of less than 20 points on a 100-point scale.

9.2 Absence of High-Maturity Organizations

If maturity were progressing within the current model, at least a small number of organizations would be expected to emerge beyond the main distribution.

There are very few organizations that extend into materially higher levels.

P10 performance begins at approximately 24.44 / 100, P25 at 28.54 / 100, median performance at 32.45 / 100, P75 at 38.37 / 100, and P90 at 43.78 / 100.

The absence of scores above the mid-40s becomes significant. It suggests that even the strongest organizations in the observable dataset do not yet appear to be operating under a fundamentally different model. They are operating slightly more effectively within the same underlying structure.

9.3 What Higher-Maturity Outcome Assurance Would Include

A higher-maturity Outcome Assurance model would not simply involve more activity, more testing, or more governance.

It would involve a different way of connecting existing capabilities into a single outcome-oriented system.

Characteristics of higher maturity would likely include:

- Explicit ownership of the final outcome
- Governance linked directly to outcome readiness rather than activity completion
- Evidence-based stage-gates tied to progression decisions
- System-level integration criteria across disciplines and interfaces
- Operational readiness demonstrated under real operating conditions
- Performance validation linked directly to authorization
- Continuity of accountability across handovers
- Outcome-based project delivery models that govern the relationship between activities and the intended result

What distinguishes higher maturity is not the presence of more activity. It is the presence of a governing logic that connects existing activities into a controlled outcome. The shift is not

from execution to bureaucracy. It is from fragmented capability to integrated outcome control.

These characteristics are not entirely absent across the industry. Elements of them are already visible in different organizations and sectors.

What appears to be missing is the system that brings them together.

10. Strongest Areas Identified

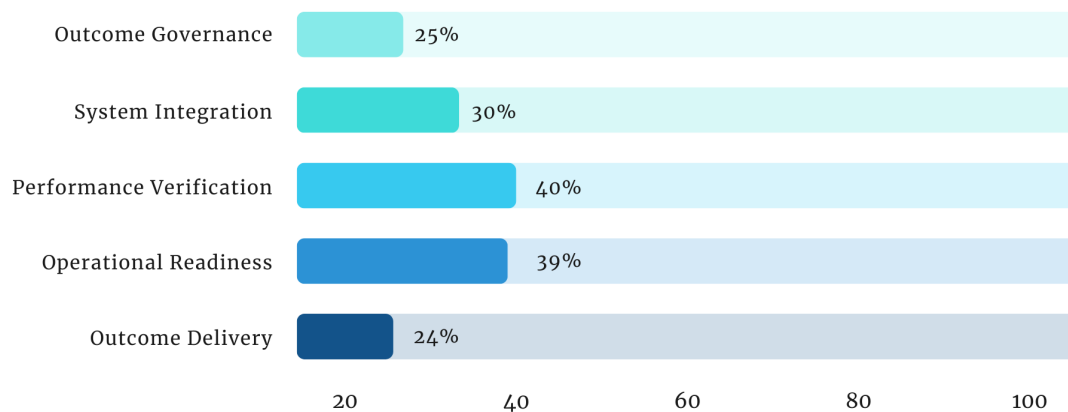


Figure 8: Pillar Strength Comparison

If the preceding analysis suggests a constrained system, it is equally important to understand where capability is most visible. This provides a grounded view of what is already working within the current model.

What emerges from the data is not an absence of strength. It is something more specific.

10.1 Strength Within Execution-Oriented Pillars

Operational Readiness and Performance Validation consistently represent the strongest areas of observable capability. Scores approach the high 30s, indicating a meaningful level of development relative to other pillars.

Systems are prepared, testing is performed, and verification processes are in place. These are not marginal activities. They represent significant industry capability.

10.2 The Nature of Observed Strength

The strongest areas share a common characteristic: they are closely aligned with execution. They focus on preparing systems, verifying components, and confirming that defined activities have been completed.

These capabilities are essential. They ensure that work is done. They do not, by themselves, ensure that the result of that work will perform as intended.

10.3 Strength Without System Convergence

One of the more revealing patterns is that strength in one pillar does not translate into strength across the system. Organizations with relatively higher readiness or validation scores do not demonstrate correspondingly higher overall Outcome Assurance performance.

Capability appears to develop within pillars. It does not consistently converge between them. Each area improves, but the system as a whole does not advance at the same rate.

10.4 The Role of Governance in Converting Capability

When execution strength is viewed alongside governance, a clearer pattern begins to emerge. Governance remains consistently lower than execution-oriented capabilities, introducing a structural limitation.

Without governance aligned to outcomes, the system lacks a mechanism to convert capability into assurance. Activities may be performed with increasing rigor, but their contribution to the final result remains uncertain.

10.5 Integration as a Partial Bridge

System Integration occupies a middle position within the dataset. It reflects an awareness that systems must function together.

However, where integration is not governed by outcome criteria, it tends to function as coordination rather than control. Systems are connected, but they are not necessarily assured to perform as a whole.

10.6 The Opportunity Within Existing Capability

Taken together, the strongest areas point toward an important observation. The industry already performs many of the activities required to achieve outcomes. Readiness, validation, and integration are not missing. They are present, developed, and often executed with precision.

What appears less developed is the system that connects these capabilities, aligns them to a common reference point, and governs their contribution to the final result.

This suggests a different way of interpreting the data. The question is no longer what capability needs to be added. It is how existing capability is connected and governed.

The industry does not need to build all new capabilities from the ground up. Most of the required components already exist. The opportunity is to connect them differently. This is what begins to separate an outcome-based project delivery model from a delivery-based one.

"The capability exists. The system does not."

The data does not suggest that the industry needs to build capability from the ground up. It suggests that capability already exists.

At some point, the question becomes less about adding more activity and more about how existing activity is connected, governed, and directed toward a defined outcome.

11. Weakest Areas Identified

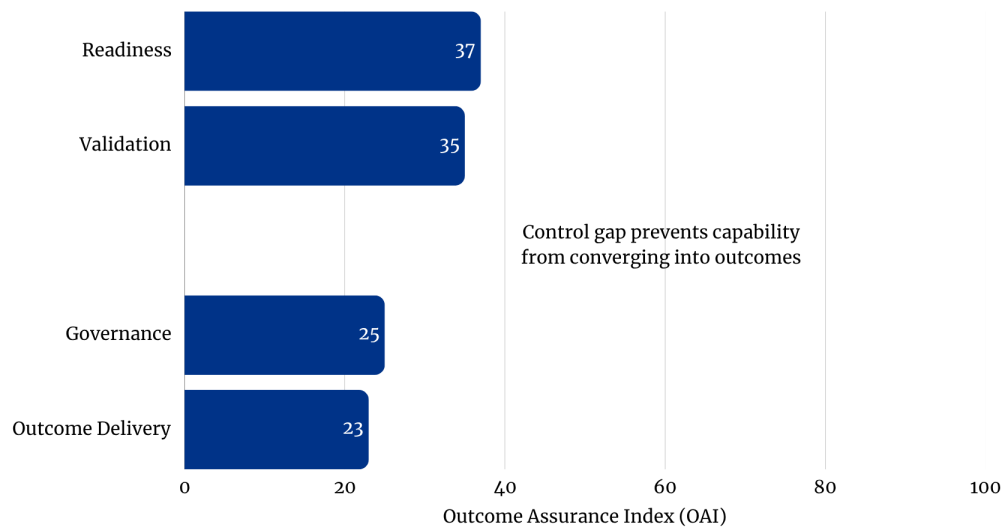


Figure 9: Governance vs Outcome Delivery Gap Chart

If the strongest areas indicate where capability is visible, the weakest areas indicate where the system does not fully connect. These gaps are not isolated deficiencies, but points where system-level control is not fully established.

These areas are less apparent within individual activities. They tend to appear where activities transition into outcomes.

11.1 Outcome Delivery - Where the System Concludes

Outcome Delivery represents the point at which all preceding activity is expected to converge. Across the dataset, this pillar remains consistently lower than others.

Outcome Delivery remains weak not because the preceding activities are absent, but because unresolved outcome debt accumulates across the lifecycle. Integration gaps, unverified assumptions, fragmented accountability, and incomplete readiness remain manageable while the project is in progress. They become visible only when the system is expected to perform as a whole.

This suggests that while systems are designed, built, integrated, and tested, the final step - ensuring that the intended result is achieved - is less explicitly governed. Outcomes are often treated as the expected result of successful execution.

Where this assumption holds, performance may be consistent. Where it does not, variability becomes more apparent.

11.2 Governance - Control Without Outcome Reference

Governance is not absent within the current model. It is extensive. Projects are governed through schedules, budgets, milestones, approvals, risk registers, and compliance structures. What remains less visible is governance explicitly tied to whether the intended outcome will be achieved. The issue is not the absence of control. It is that control is directed primarily toward activity completion rather than outcome readiness.

11.3 The Governance-Outcome Relationship

Governance and outcome delivery tend to move together. Where governance is not explicitly oriented toward outcomes, Outcome Assurance remains uncertain.

This relationship appears consistent across industries, regions, and organization classes. It is not an isolated condition. It is a systemic one.

11.4 Strength Does Not Fully Compensate

Higher levels of readiness or validation do not consistently produce higher overall Outcome Assurance performance. This suggests that strength within execution cannot fully compensate for gaps in governance and outcome delivery.

11.5 Where the System Breaks

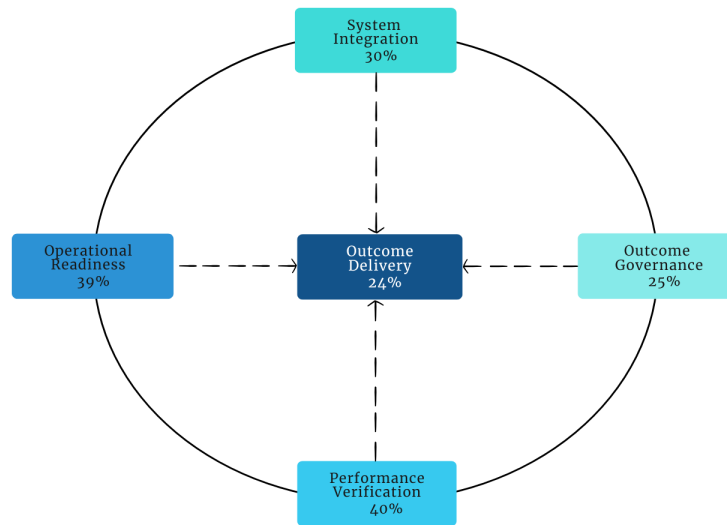
The weakest areas do not appear within individual disciplines or phases. They appear at the points where decisions are made about progression, where accountability would need to extend across scopes, and where the outcome would need to be explicitly governed.

This location is not owned by any single role. It exists between them.

"The system does not fail within activities. It fails between them."

The question is less about improving execution. It is about ensuring that execution leads to a defined and controlled result.

12. The Structural Gap



Control Gap prevents capability from converging into outcomes

Figure 10: System Gap Diagram

By this point, a consistent pattern has emerged. The observations across sections converge toward a single structural explanation.

Capabilities are visible. Execution is developed. Systems are designed, constructed, integrated, and tested with increasing sophistication. And yet, outcomes remain variable.

For leaders observing this pattern across projects, the explanation begins to become clear. This suggests not a lack of performance, but an incomplete system.

12.1 An Incomplete System

All elements required to achieve outcomes already exist. Governance is present. Integration is practiced. Readiness is pursued. Validation is performed.

The parts are developed. The system is not fully formed.

Each pillar has evolved over time, but they do not consistently converge. Improvements within one area do not reliably translate into improvements across the system.

A delivery-based system exists. An outcome-based system has not yet fully emerged.

A project can complete engineering, construction, testing, and handover on time, while still failing to achieve its intended outcome.

- A power facility may be mechanically complete but not operationally ready.
- A transport system may pass component-level testing but fail under real operating conditions.
- A digital asset may be delivered according to scope but not integrate effectively with the surrounding operating environment.

In each case, the issue is not that activities were incomplete. The issue is that no single system governed whether those activities had converged into an assured outcome.

12.2 The Missing Point of Control

In systems that produce consistent outcomes, progression is governed by the result that is intended. Completion alone is not sufficient. Readiness must be demonstrated.

Such a point of control is not clearly visible in the current model. Projects progress through phases and milestones are achieved, but the extent to which progression is consistently tied to outcome readiness remains unclear.

Without this point of control, the system continues to move forward. It progresses, but it does not necessarily converge. Whether it is moving toward an assured outcome remains uncertain.

12.3 Distributed Accountability

Where a clear control point is absent, accountability becomes distributed. Each participant contributes within scope and demonstrates performance within that scope.

The outcome depends on the integration of all scopes. It is influenced by all. It is owned by none.

In a delivery-based model, control is distributed across scopes, contracts, packages, and milestones. In an outcome-based model, control is also connected to a defined point of accountability for whether the integrated result is ready to perform. Without that point of control, progression continues even when outcome risk remains unresolved.

12.4 The Limitation of the Current Model

The prevailing delivery model is highly effective at organizing activity. It defines phases, assigns responsibilities, and enables coordination.

It is not explicitly designed to ensure that these activities, once completed, will result in a consistent and controlled outcome. This limitation becomes increasingly difficult to ignore as projects grow in complexity and integration.

12.5 A Shift in Perspective

Outcome Assurance is not a separate activity added onto delivery. It is the governing layer that connects governance, integration, readiness, validation, and accountability to the intended outcome.

"The parts are developed. The system is not."

The data does not point to a lack of capability. It points to the absence of a system that connects capability to outcome.

If the system remains structured around delivery, outcomes will continue to vary. If the system is restructured around outcomes, a different level of consistency becomes possible.

13. What This Means for the Industry

By this stage, the pattern is no longer isolated to individual observations. The implications begin to extend beyond analysis into how projects are structured going forward.

It begins to suggest broader implications for how projects are defined, governed, and delivered.

13.1 From Capability to System

For organizations beginning to observe this pattern, the industry does not appear to lack capability.

The issue is not the absence of capability. It is the absence of a system that connects capability to the intended outcome.

What appears less developed is the system that brings these capabilities together under a single governing logic. If the required capabilities already exist, the opportunity does not lie in developing new ones. It lies in connecting what already exists.

The challenge is no longer simply how to improve delivery. It is whether the current structure is capable of producing a materially different level of outcome certainty.

13.2 The Cost of the Outcome Assurance Gap

When outcomes are not explicitly governed, risk accumulates quietly across the project lifecycle. Delays at startup, prolonged stabilization periods, underperformance after handover, warranty disputes, operational disruption, missed production targets, and rework often emerge not because work was not completed, but because the relationship between completed work and the intended outcome was never fully governed.

These consequences are often treated as isolated project issues. The data suggests they are more likely to be structural symptoms of a delivery model that governs activities more explicitly than outcomes.

As projects become larger, more integrated, and more performance-sensitive, the cost of this gap becomes more significant. What appears to be a small disconnect during delivery can translate into major operational, financial, and reputational consequences after handover.

13.3 Why the Existing Model Persists

The current delivery model persists because it is effective at governing scope, schedule, cost, and contractual accountability. It creates clarity within individual functions and allows projects to be broken into manageable packages. The challenge is not that the model fails to organize work. The challenge is that it was not designed to govern whether all work converges into an integrated operational outcome.

As projects become more interconnected, software-enabled, and performance-sensitive, the limits of this model become more visible. The issue is no longer whether the project was delivered. The issue is whether the delivered project is truly ready to perform.

13.4 The Role of Alignment

When capabilities operate independently, each can improve within its domain. Engineering becomes more precise. Construction becomes more efficient. Testing becomes more comprehensive.

These improvements are real. They do not consistently produce a corresponding increase in outcome certainty.

Alignment becomes the differentiating factor. Not alignment as coordination, but alignment around a shared outcome. When that reference point is activity, progress is measured by completion. When that reference point is outcome, progress begins to be measured by readiness.

13.5 Reframing Progress

In the current model, progression is typically linked to the completion of defined activities. Milestones are achieved, phases are closed, and work advances.

This creates clarity. It also creates a subtle assumption: that completion is sufficient. The data suggests that this assumption does not always hold.

Progress may be more meaningfully defined not by what has been completed, but by what has been demonstrated. Not by activity, but by evidence.

13.6 The Emergence of a Different Structure

As the limits of the current model become more visible, a different structure begins to emerge. Activities remain necessary, and phases remain relevant. What changes is how they are connected.

Integration becomes more than coordination. Validation becomes more than confirmation. Governance becomes more than oversight. They begin to function as parts of a system oriented toward a defined result.

This shift does not appear to be optional as project complexity increases. It follows from how outcomes are produced.

13.7 The Question of Accountability

As the system shifts toward outcomes, the question of accountability becomes more prominent. If the outcome is the reference point, responsibility for that outcome must be clearly defined - not distributed implicitly, but recognized explicitly within the system.

This introduces a question that begins to take shape: where does accountability for the outcome reside?

13.8 The Opportunity Within the Pattern

The data does not suggest that the industry needs to replace what it has built. It suggests that there is an opportunity to extend it.

To move from a model that delivers activities with increasing effectiveness to one that connects those activities to a defined and assured outcome.

The components of such a model are already visible. What appears to be emerging is the need to bring them together.

"The opportunity is not to add more. It is to connect what already exists."

The question is not whether projects can be delivered. They can.

The question is whether delivery, as currently defined, is sufficient to ensure the result. And if not, what would change if projects were structured around the outcome from the outset?

14. The Emergence of Outcome Assurance

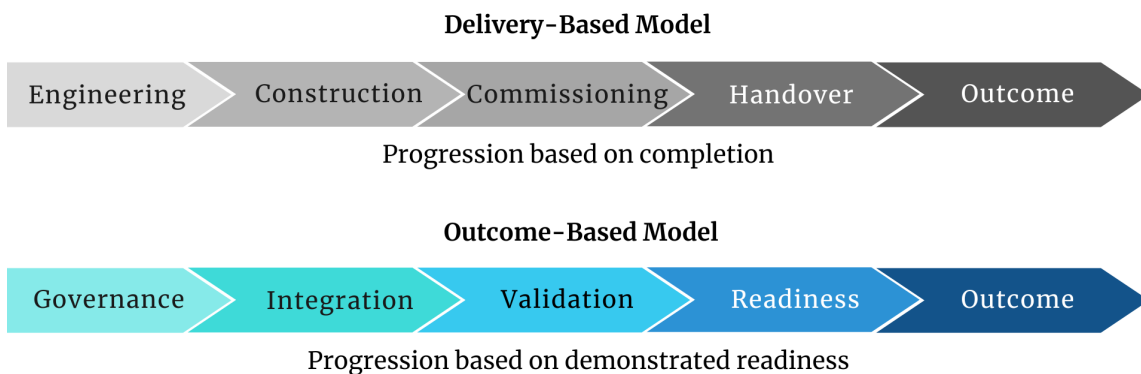


Figure 11: Delivery-Based vs Outcome-Based Model Diagram

As the preceding sections suggest, the industry does not appear to lack capability. What is changing is how that capability is being interpreted and connected.

What appears less defined is how those capabilities are organized in relation to the outcome. In this context, a pattern takes shape.

14.1 From Implicit to Explicit

What would a different model look like in practice? In many organizations, elements of outcome-focused thinking are already present. Systems are tested beyond minimum requirements. Integration is considered earlier in the lifecycle. Readiness activities are extended to reflect operational conditions. Validation goes beyond component-level checks.

These signals are not uniform. They are, however, increasingly visible. They suggest that, in practice, the industry has begun to recognize that delivery alone will not be sufficient to ensure performance.

14.2 Convergence of Existing Capabilities

When viewed collectively, these practices begin to align. Integration connects systems. Readiness prepares them. Validation confirms them. Governance oversees them.

Each addresses part of the challenge. Together, they begin to resemble a system oriented toward a single objective: the outcome.

14.3 A Shift in Reference Point

In the current model, activities serve as the primary reference point. Progress is defined by completion.

As outcome-focused practices begin to converge, the reference point begins to shift. The question is no longer only whether activities have been completed. It becomes whether the system is ready to achieve the intended result.

This shift is subtle. It changes how progress is interpreted.

14.4 Evidence as a Basis for Progression

Where outcome becomes the reference point, evidence takes on a different role. Validation is no longer an activity performed after completion. It becomes a condition for progression.

Integration is not assumed through coordination. It is demonstrated through system performance. Readiness is not inferred from preparation. It is established through evidence.

This introduces a different form of control - one based on demonstrated capability rather than completed activity.

14.5 The Reframing of Governance

As evidence becomes central, governance shifts. Oversight extends beyond tracking progress. It begins to determine whether sufficient evidence exists to proceed.

Decisions become linked to readiness. Authorization becomes linked to outcome confidence.

14.5.1 The Emergence of Outcome Authority

In an outcome-based project delivery model, accountability for the final result cannot remain distributed implicitly across disconnected stakeholders. A defined point of authority is required to govern whether the outcome is truly ready to proceed.

This authority does not replace existing project roles. It provides a system-level function responsible for reviewing evidence, assessing residual risk, determining readiness, and authorizing progression at major stage-gates.

As projects become more integrated and performance-sensitive, the absence of a clearly defined Outcome Authority becomes increasingly difficult to sustain.

14.6 What Outcome Assurance is Not

Outcome Assurance is not an additional layer of bureaucracy, another testing phase, or a replacement for engineering, construction, commissioning, or operations.

It does not replace existing delivery systems.

It governs how those systems connect to the intended outcome.

Outcome Assurance does not ask organizations to do entirely new things. It asks them to connect existing capabilities to a common reference point: whether the intended outcome is ready to be achieved.

14.7 Toward an Outcome-Based Model

Taken together, these shifts begin to outline a different structure for project delivery. Activities remain necessary, but they are no longer the primary measure of success.

Integration, readiness, validation, and governance begin to operate as a connected system. Accountability no longer disappears at handover. Progression is no longer governed by completion alone. The outcome becomes the condition that determines whether the project is ready to proceed. Progression is determined by demonstrated readiness to achieve the outcome.

This perspective does not introduce entirely new practices. It brings existing practices into alignment around a common objective.

"The future model is not being invented. It is being forced into existence by the limits of the current one."

The data does not indicate a single solution, but a pattern. An approach that appears in fragments across organizations.

Where these fragments begin to align, a different model becomes visible - one that does not rely on delivery alone to produce outcomes, but organizes delivery around the outcome from the outset.

This shift is increasingly recognized as an outcome-based project delivery model: one in which outcomes are not assumed, but governed.

14.8 Deliverables-Based vs Outcome-Based Project Delivery

Table 4: Delivery-Based vs Outcome-Based Project Delivery Model

Delivery-Based Project Model	Outcome-Based Project Delivery Model
Governs completion	Governs readiness
Progression assumes residual risk is acceptable	Residual risk is explicitly reviewed and accepted
Measures activity	Measures outcome certainty
Approval authorizes activity completion	Authorization confirms readiness to proceed
Milestones drive progression	Evidence drives progression
Scope defines accountability	Outcome defines accountability
Coordination is expected to produce integration	Integration is explicitly governed
Testing confirms completion	Validation authorizes progression
Accountability weakens across handovers	Accountability continues across the lifecycle
Success is defined by delivery	Success is defined by achieved outcomes

The distinction between these two models is not the presence or absence of capability. Both rely on engineering, construction, commissioning, testing, and operational readiness.

The difference is the governing logic that connects them.

14.9 What an Outcome-Based Project Delivery Model Includes

An outcome-based project delivery model does not replace engineering, construction, commissioning, operations, or existing project controls. It governs how those functions converge into an authorized outcome.

Key characteristics include:

- Explicit ownership of the intended outcome
- Defined Outcome Authority for major progression decisions
- Evidence-based stage-gates tied to readiness rather than activity completion
- System-level integration criteria across disciplines and interfaces
- Validation under real operating conditions
- Continuity of accountability across handovers
- Explicit acceptance of residual risk before irreversible progression
- Authorization of operational readiness before transfer of control

Organizations most likely to emerge as leaders in Outcome Assurance are likely to demonstrate:

- Strong governance structures tied to readiness and progression
- Defined accountability for the integrated outcome
- Mature operational readiness practices
- System-level integration capability across disciplines
- Validation tied directly to authorization decisions
- Greater continuity of accountability across handover boundaries

These organizations may not yet represent a fully mature Outcome Assurance model, but they may provide early signals of how the next stage of industry maturity could develop.

15. Conclusion and Recommendations

Across this report, a consistent picture has emerged. The findings point toward a shift in how delivery is understood at a system level.

What emerges is not isolated underperformance, but a system operating within a defined range. Capabilities are present. Execution is well developed. Activities are performed with increasing sophistication. And yet, outcomes remain variable.

This pattern is less a matter of incremental improvement and more a matter of structure.

15.1 The Industry Is Operating as Its Structure Allows

The data does not indicate that the current model is failing. It appears to be performing as it is designed to perform.

Projects are delivered. Scope is completed. Milestones are achieved. These outcomes are consistent with a system structured around activity.

The variability emerges when the result depends on how those activities combine. Where that relationship is not explicitly governed, outcomes differ.

This is the shift from a deliverables-based project model to an outcome-based project delivery model.

A model in which the outcome is not treated as a downstream result of delivery, but as the condition that governs it.

That shift may become one of the defining changes in the next generation of major capital projects.

15.2 The Limits of Activity-Based Delivery

As projects increase in complexity and integration, the relationship between activities and outcomes becomes more difficult to manage implicitly. Systems become more interconnected, handovers become more consequential, and performance becomes more dependent on how well disciplines converge.

A model centered on activities can continue to improve the efficiency of delivery. It cannot, by itself, ensure that the delivered project will perform as intended.

The limitation is no longer within individual activities. It is in the absence of a governing system that determines whether those activities are sufficient to achieve the intended outcome.

15.3 A Question That Remains

If the capabilities required to achieve outcomes already exist - and continue to develop - why do outcomes remain inconsistent?

At some point, the question shifts. Not how to improve delivery within the current structure, but how the structure itself defines outcome success.

15.4 A Different Reference Point

A different perspective begins to take shape. One in which the outcome is not treated as a downstream result of delivery, but as the reference point that governs it.

Progression is based on demonstrated readiness. Integration, readiness, validation, and governance operate as a connected system.

The next phase of project maturity will not be defined by how efficiently organizations deliver activities. It will be defined by how effectively they govern the relationship between those activities and the intended outcome.

15.5 The Opportunity Ahead

The findings of this report do not suggest that the industry must replace what it has built. They suggest that there is an opportunity to extend it.

To move from a delivery-based project model that delivers activities with increasing effectiveness to an outcome-based project delivery model that assures the result those activities are intended to produce.

This shift does not require abandoning existing capability. It requires reorienting it.

"Delivery has been optimized. Outcomes have not."

The industry has spent decades refining how projects are delivered. As complexity increases, the next phase will be defined by how outcomes are assured.

The distinction is subtle. Its implications are not. They are already being experienced.

The next generation of industry leaders will not be defined by how efficiently they deliver activities.

They will be defined by how confidently they assure outcomes.

15.6 Recommendations and Next Steps

The findings of this report suggest that the next stage of maturity will not come from improving delivery activities alone.

It will come from connecting them.

Organizations seeking to strengthen outcome performance should begin by identifying where outcome accountability currently resides, where it becomes fragmented, and where progression continues without sufficient evidence of readiness.

In many organizations, the issue is not the absence of capability. It is the absence of a governing structure that connects capability to the intended outcome.

15.6.1 Define Explicit Ownership of the Outcome

The findings suggest that one of the most significant gaps within the current model is the absence of clearly defined ownership of the final result. Activities are distributed across multiple stakeholders, yet accountability for the integrated outcome often remains unclear. Organizations should begin by identifying where responsibility for the intended outcome resides and ensuring that this accountability extends across the full project lifecycle.

15.6.2 Govern Readiness, Not Just Completion

Traditional project models are designed to govern completion. Milestones are achieved, scope is delivered, and phases are closed. However, completion does not necessarily indicate that the project is ready to perform. Governance systems should increasingly reference readiness, integration, and operational capability - not only activity completion.

15.6.3 Introduce Evidence-Based Stage-Gates

Progression through a project should be linked not only to the completion of work, but to evidence that the next stage can be entered safely and successfully. This means introducing stage-gates based on demonstrated readiness, validated performance, and system-level integration rather than relying solely on milestone achievement.

15.6.4 Strengthen System-Level Integration

Many of the most significant risks emerge not within individual activities, but in the gaps between them. Organizations should place greater emphasis on how engineering, construction, commissioning, operations, and business requirements connect as a system. Integration should be treated as more than coordination. It should be governed as a condition for achieving the intended outcome.

15.6.5 Extend Validation Beyond Technical Completion

Testing and verification remain essential, but the research suggests that technical completion alone is not enough. Validation should increasingly focus on whether systems can perform under real operating conditions, within the broader operational environment, and in a way that supports the intended business outcome.

15.6.6 Measure Progress Differently

As projects become more complex, traditional measures of progress become less sufficient. Activity, completion, and schedule performance remain important, but they do not fully indicate whether the project is likely to succeed. Organizations should increasingly measure

progress through evidence of readiness, capability, integration, and demonstrated performance.

15.6.7 A Different Governing Logic

None of these actions require replacing existing project systems.

They require connecting them through a different governing logic.

The organizations that move first are unlikely to do so because delivery has failed.

They will do so because they recognize that delivery alone is no longer sufficient.

The next generation of project maturity will not be defined by how effectively organizations deliver activities.

It will be defined by how effectively they govern outcomes.

The future of capital projects will belong to organizations that can demonstrate not only that work has been completed, but that the intended result is ready to be achieved.

15.6.8 Immediate Actions Organizations Can Take

Organizations looking to implement immediate steps towards an outcome-based project delivery model can take these immediate steps:

1. Define an interim Outcome Authority role
2. Add explicit outcome criteria to existing stage-gates
3. Require system-level readiness evidence before progression
4. Maintain accountability continuity through handover
5. Track readiness and outcome indicators alongside schedule and cost
6. Add operational readiness reviews before startup