KALEIDO RESEARCH ABSTRACT

Cost Readiness Levels as a Leading Indicator for Contingency Determination and Lifecycle Uncertainty Management

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Published: 2026-04-09

Source: AACE Technical Paper RISK-4731

Abstract

The paper argues that contingency quality depends on the quality of the estimate and its evidence base, not just on the mechanics of quantitative risk analysis. CRL is presented as an assurance layer that makes that dependency explicit.

Why this matters for Kaleido

This research underpins one of Kaleido's clearest product and service differentiators: using readiness as a forward signal for decision quality, not just as a documentation checklist.

Source excerpt

AACE International's estimate classification system measures the completeness of project definition deliverables but does not assess whether the estimate built upon those deliverables is fit for the decisions being made on the basis of it. Classification and maturity are not the same as input readiness: two estimates at the same class can differ substantially in data quality, risk treatment, and commercial position — yet the classification system treats them identically and provides no structured basis for differentiation. This paper introduces Cost Readiness Levels (CRLs) as a readiness assurance layer that complements AACE's existing architecture. CRL assesses estimate fitness-for-purpose across six proposed dimensions — Method, Data Quality, Uncertainty & Risk, Benchmarking, Scope Definition, and Contract Type Alignment — using a weakest-link aggregation principle that bounds assessed readiness by the least reliable dimension. The framework is demonstrated through an illustrative nuclear new build case study comprising sixteen work packages across five projects, categorised by three cross-cutting sub-programmes: Civils, Mechanical, Electrical and HVAC (MEH), and Plant and Systems. This three-way view combines CRL assessment with base weight and contingency weight at work package level, revealing where contingency risk concentrates. A lifecycle trajectory tracks CRL progression against proximity to commercial commitment at decision gates, functioning as a leading indicator of contingency adequacy. A direct comparison against RP 115R-21 estimate classification shows that projects sharing the same class reveal fundamentally different readiness profiles — differences that only the CRL assessment can surface. The paper concludes with recommendations for evidence-based ass

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Vault source: wiki/research/risk-4731-crl-contingency.md