

GCC Construction AI Roll Ups Combining Progress Claims and Cost Data

An Acquisition Framework for Project Evidence Workflow Control and Integration Value

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Abstract

Artificial intelligence is moving into construction workflows that observe physical progress, maintain schedules, forecast cost, assemble claims and support payment certification. Acquisitions can combine reality-capture systems, common data environments, contract records, cost ledgers and specialist models. They can also combine incompatible data definitions, disputed evidence and customer implementations whose economics depend on extensive services. A buyer therefore needs to establish whether a target controls a repeatable project workflow and whether its data can support decisions that counterparties accept.

This paper develops an acquisition framework for GCC construction-AI roll-ups. It asks whether shared project data produces defensible insight across progress, claims and cost; whether the target owns a durable workflow; whether source records, transformations and approvals remain reproducible; whether customer cohorts support recurring cash; and whether integration can create value after migration, assurance, security and change-management costs. The framework separates observed project facts from model estimates, reported EBITDA from sustainable EBITDA, and gross synergy from evidence-weighted value.

The analysis draws on IFRS 15, FIDIC materials, ISO information-management standards, NIST's AI Risk Management Framework, Saudi and UAE public-sector construction and data sources, and disclosed construction-technology transactions [1-50]. These sources establish relevant frameworks and disclosed market facts. They do not establish the compliance, accuracy, customer economics or value of a particular target. Transaction teams need current legal, regulatory, technical, accounting, commercial, cyber and project-specific diligence.

A hypothetical case illustrates the method. The target group reports AED 310 million of annual revenue and AED 72 million of EBITDA. Normalising capitalised development, implementation labour, model evaluation, data operations, cyber controls and key-person continuity reduces sustainable EBITDA to AED 41 million. Gross annual synergy of AED 65 million becomes AED 26 million after continuing integration, assurance, migration and retention costs. An illustrative valuation bridge begins with thirteen times sustainable EBITDA, adds AED 95 million of evidence-weighted synergy present value and deducts AED 148 million for integration, remediation and customer risk, producing AED 480 million. Every amount is a management assumption used solely to demonstrate the framework.

The analysis finds that roll-up value depends on a connected evidence chain: site event, authorised capture, common data model, contract context, approved progress, cost consequence, commercial decision and cash. Buyers should price only earnings and synergies supported at workflow, project-cohort and cash levels. Deal terms and integration gates should defer value that depends on untested models, uncertain data rights, undocumented claims evidence or forced customer migration.

JEL Classification: G24, G34, L22, L74, M15, O33, R42

Keywords: construction AI, project controls, progress measurement, claims management, cost data, mergers and acquisitions, valuation, integration, Gulf Cooperation Council

Introduction

Construction projects generate abundant data and persistent disagreement. Photographs, drone surveys, schedules, building-information models, daily reports, quantities, variations, payment applications, cost ledgers and correspondence may describe the same work through different structures and dates. AI can help classify, reconcile and interpret these records. Acquisition value arises only when the combined workflow converts them into decisions that owners, contractors, engineers, lenders and dispute forums can examine.

GCC governments and project owners are digitising project delivery. Saudi Arabia's National Projects Platform describes a central capability for collecting reliable government-project data and supporting automated measurement and approved cost calculations [8]. Dubai Municipality has disclosed digital construction-monitoring, BIM and geographic-information initiatives [16-20]. These developments support demand for connected project information. They do not prove the economics or accuracy of any private product.

The transaction market shows strategic interest in construction workflow and field data. Autodesk acquired BuildingConnected for USD 275 million and previously acquired Assemble, PlanGrid and Pype; Procore acquired INDUS.AI and later announced an agreement to acquire DroneDeploy [31-35]. The disclosures show interest in preconstruction networks, project management, computer vision, reality capture and document automation. They are not direct valuation comparables for a GCC roll-up.

This paper is designed for strategic buyers, private-capital investors, lenders, boards and management teams evaluating construction-AI combinations. It focuses on the acquisition decision: what is being bought, which evidence supports value, how integration changes risk and when synergy may enter cash flow. It does not provide legal, engineering, accounting, tax or valuation advice.

1 State the acquisition thesis in evidence terms

The acquisition thesis should identify the project decision expected to improve after closing. Examples include verifying installed quantities, detecting schedule divergence, forecasting cost to complete, substantiating an extension-of-time claim, reconciling variation exposure or accelerating an accepted payment certificate. A label such as construction AI does not define the asset. Each decision uses different records, contractual authority and tolerances.

The thesis should name the target asset, buyer contribution and cash mechanism. The target asset may be a reality-capture network, labelled progress corpus, schedule engine, claims graph, cost-control platform, common data environment, field distribution channel or specialist implementation team. The buyer may contribute installed customers, tender access, project data, integrations, balance-sheet capacity or a larger workflow. Value may arise through retention, cross-sell, reduced rework, lower claims leakage, faster certification or improved forecast reliability.

Every mechanism needs an owner, baseline, timing, continuing cost and failure condition. A claim that the combination will automate progress measurement should specify the work packages, capture method, tolerance, approval route and contractual use. A claim that it will improve claims outcomes should identify which notices, cause-and-effect records, programme analyses and quantum calculations are affected. The buyer should assign no value to an output that cannot be traced to authorised source records and accepted by the responsible decision maker.

Table 1 Construction AI acquisition diligence perimeter

Value claim	Required evidence	Decision question	Principal risk
controlled workflow	process maps telemetry accepted outputs and systems of record	does the target control a complete valuable task	feature use without workflow ownership
defensible project evidence	source lineage versions transformations review and retention	can a reviewer reproduce the material conclusion	plausible output without sufficient evidence
contractual usefulness	authority notices approvals and customer procedures	can the output support certification or claim decisions	insight lacks contractual standing
customer depth	cohorts project use renewal and migration behaviour	will customers remain through integration	contract renewal hides shallow adoption
data and model rights	provenance licences purposes locations and change-of-control terms	can the combined group continue each use	rights narrow or terminate after closing
sustainable economics	full model data assurance security support and integration cost	what recurring cash remains after control cost	reported margin omits essential operations

Proposed structure; target-specific legal regulatory engineering technical commercial accounting cyber and project review is required.

2 Map the project evidence chain

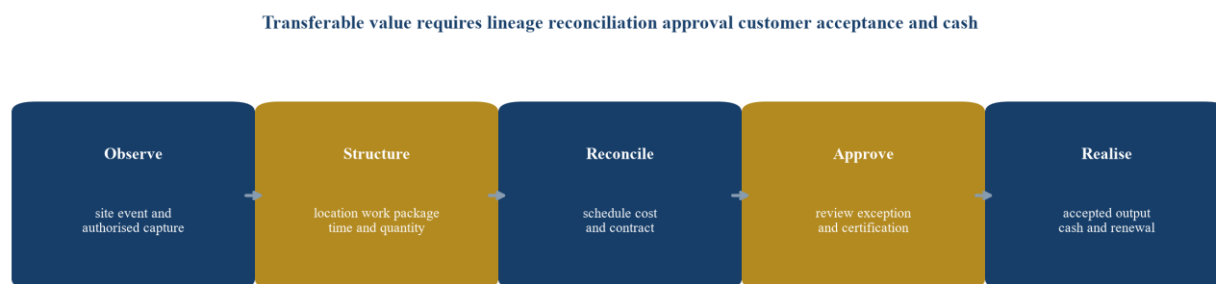
The evidence chain starts with a physical event and ends with an authorised commercial outcome. Between those points sit capture, identity, location, time, work-package classification, quantity, quality, schedule status, cost code, contract entitlement, review, approval and retention. The acquisition team should map these stages for every material product and customer cohort.

The map should distinguish observations, management records, derived estimates and authorised decisions. A geotagged image can be an observation. An approved daily report is a management record. A computer-vision completion percentage is a derived estimate. A certified payment is an authorised decision. Combining these layers without lineage can make an efficient product difficult to defend when progress or entitlement is disputed.

Systems of record and systems of action should be identified separately. The common data environment may own documents and models. The scheduling system may own the accepted programme. The ERP system may own commitments and actual cost. The contract-management platform may own notices and variations. An AI layer may orchestrate analysis without controlling any authoritative record. Transferable value depends on durable access, customer trust and contractual rights across these systems.

Telemetry should connect the source event, data version, model or rule, human reviewer, exception, correction, approved output, elapsed time, project result, invoice and renewal. Image counts, prompts and generated text provide weak evidence of value. Accepted measurements, controlled decisions, reduced rework, improved forecast accuracy and collected cash provide stronger evidence.

Figure 1 Construction project evidence chain



Proposed acquisition map; actual controls should reflect the contract customer systems and approval authority.

3 Test workflow ownership

Workflow ownership means that customers repeatedly enter a valuable process through the product, complete material steps inside it and rely on retained evidence when the process is reviewed. A target can have high user activity without ownership when customers export data to spreadsheets, depend on consultants to finish the work or treat the tool as a narrow drafting assistant.

The buyer should determine which system controls entity identity, work-breakdown and cost-code structure, source documents, project permissions, version history, exception resolution, final approval and record retention. It should trace where users start and finish, which integrations are necessary and what happens if one supplier withdraws an interface. A connector can be commercially valuable, but its bargaining power differs from that of a system of record or a system holding the accepted workpaper.

Workflow depth can be measured through the proportion of eligible entities or projects using the product, share of process steps completed, exception-resolution rate, reviewer intervention, acceptance after review, persistence of retained context and switching effort. These measures should be analysed by customer type, workflow and implementation cohort. Average usage can conceal a small group of embedded customers and a larger group of trials.

The acquisition model should distinguish licensed access from active workflow control. Contracted annual recurring revenue can continue during a period of low use. It can therefore lag deterioration in product acceptance. Cohort evidence should connect depth, renewal, expansion, support cost and collected cash.

4 Define authority and accountability

Authority in construction is distributed. The contractor records and proposes; the engineer or contract administrator may review or certify; the employer decides reserved matters; the lender's technical adviser may test drawdown evidence; and dispute forums may later examine the record. An AI product does not inherit any of these authorities.

The diligence team should create a responsibility map covering the product provider, customer, contractor, consultant, certifier, project director, data owner and outsourced services. For each material action, the map should identify who captures, configures, validates, reviews, approves, overrides, notifies and remediates it. A human-review label has limited value unless the reviewer has the evidence, competence, time and contractual authority to challenge the result.

FIDIC materials emphasise records and contract administration in claims practice [3-5]. ISO 19650 provides a framework for managing information over the asset life cycle, including the common data environment and information requirements [6-7]. These frameworks reinforce a transaction principle: the product should preserve the status, origin and approval of information rather than flatten every record into an undifferentiated data lake.

Table 2 Project authority map

Decision	Product provider	Project organisation	Authorised decision maker	Required record
approve use case	disclose capability limits and evidence	set process and risk acceptance	confirm contractual suitability	approval scope and conditions
validate output	maintain tests versions and monitoring	provide representative project cases	accept tolerance and review method	validation results and exceptions
configure workflow	control models rules and permissions	approve data and process configuration	confirm delegated authorities	configuration and change history
review result	expose sources limitations and confidence	provide trained review process	exercise judgement and approve outcome	review corrections and sign-off
manage change	notify and retest material changes	approve deployment timing	reassess reliance and notice effects	release record and renewed approval

Proposed allocation; exact responsibilities depend on the contract procurement route governing law and customer procedure.

5 Establish the project-evidence threshold

Project evidence should be sufficient for the decision it supports. A progress dashboard used for internal coordination can tolerate a different error profile from a quantity used in a payment certificate or a record relied upon in a delay claim. Diligence should classify outputs by consequence before testing accuracy.

The buyer should avoid treating a demonstration as proof. Demonstrations often use curated data, known locations and complete records. Diligence should test representative projects, incomplete imagery, changed design, hidden work, night conditions, multiple subcontractors, revised programmes, disputed variations and inconsistent cost codes. The record should preserve inputs, transformations, exceptions, human work and final disposition so that failures can be assigned to capture, data, integration, model, configuration or review.

Evidence quality has several dimensions. Provenance establishes origin. Integrity addresses unauthorised change. Completeness addresses whether the relevant population was captured. Accuracy addresses faithful measurement or transformation. Relevance addresses the contract or management decision. Reproducibility allows an independent reviewer to reach the same material basis. Retention preserves the record for later challenge.

Where a model supports certification, entitlement or forecast, the reviewer needs more than a confidence score. The underlying record, measurement method, version, tolerance, exception logic, reviewer action and approval must remain available. A buyer should treat missing lineage as a control gap and a valuation issue.

6 Validate models in the actual workflow

Model validation should match the consequence of the task. An extraction model that proposes payment certificate fields presents a different risk from an agent that selects project-control procedures or drafts a

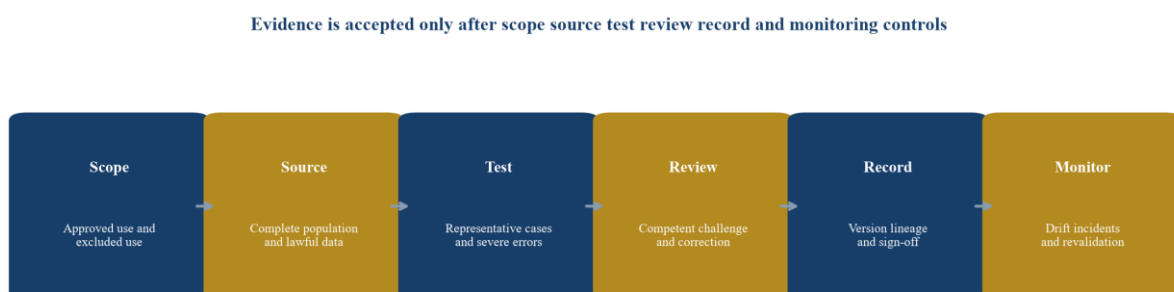
conclusion. The validation design should cover intended use, excluded use, data representativeness, benchmark performance, error severity, calibration, robustness, security, human review and monitoring.

The target should maintain a controlled inventory of models, prompts, rules, external services and versions. Each entry should have an owner, approved purpose, validation record, data dependency, change threshold, monitoring metric and retirement process. Undocumented experimentation within customer work creates a quality and transaction risk because the buyer cannot establish which system produced which evidence.

Aggregate accuracy can conceal material failure. A model may achieve high overall extraction accuracy while performing poorly on a rare field that controls payment or commercial treatment. The test set should therefore weight errors by financial and professional consequence. False negatives, false positives and abstentions should be reported separately. Performance should be segmented by customer, document type, contract and project context, language, period and workflow stage where relevant.

The buyer should test reproducibility across versions. If the same evidence can yield a materially different output after an unrecorded model update, the workpaper becomes difficult to reperform. Version freezing, retained inputs, source links and documented review can preserve the decision record while the live product continues to evolve.

Figure 2 Evidence acceptance control



Proposed control sequence; acceptance thresholds should be defined for the specific project decision and contractual use.

7 Preserve contemporary records and reproducibility

Claims and payment disputes are frequently decided through records created during delivery. FIDIC guidance identifies the importance of contemporary records in substantiating claims [3-5]. An acquisition target that organises notices, programme versions, instructions, quantities, resources, photographs and cost effects can occupy a valuable workflow. Its value depends on authenticity, completeness and retrieval under challenge.

Documentation should enable an experienced reviewer to understand the event, source record, transformation, exception, human work and conclusion. The combined system should preserve hashes or equivalent integrity controls, access history, version status, timestamps, location, authorship and approval. It should distinguish a contemporaneous source from a later narrative assembled for a claim.

Reproducibility does not require every probabilistic output to repeat word for word. It requires the material basis of the decision to remain available and understandable. The buyer should select certified

progress items, rejected variations and closed claims, then trace each back to source evidence and recreate the calculations that mattered. Failed traces should become quantified remediation items.

8 Secure data rights privacy and confidentiality

Construction data can include site imagery, worker identity, geolocation, security layouts, critical-infrastructure details, design intellectual property, tender pricing, supplier terms and privileged dispute material. The acquisition team should trace each route through capture, storage, training, inference, support, analytics, backup, export and deletion. It should identify the controller or equivalent responsible entity, purpose, location, retention and subprocessor.

Saudi Arabia's Personal Data Protection Law framework and the UAE's federal data-protection regime require current jurisdiction-specific review [12-14]. Critical and government projects can also impose contractual localisation, security-clearance or access constraints beyond general privacy law. The buyer should test whether customer data was used to train shared models, whether licences permit change of control, and whether derived features can be separated when a customer leaves.

Security architecture should be tested at project and group levels. A roll-up can connect previously separated customer environments and create a wider attack surface. Minimum evidence includes tenant separation, privileged-access controls, encryption, secrets management, model and data logging, incident response, supplier assurance, vulnerability management and recoverable backups.

Table 3 Construction data rights and control register

Data class	Required evidence	Principal risk	Transaction response
site imagery and scans	capture authority location purpose and retention	surveillance or critical-site exposure	restrict purpose location access and model use
BIM and design files	ownership licences revisions and export rights	design rights or versions cannot transfer	obtain consents preserve versions and limit use
schedules and claims	contract status privilege notices and authorship	draft analysis presented as authoritative fact	preserve status and segregate privileged work
cost and supplier data	confidentiality purpose and change-of-control terms	combined use breaches customer or supplier terms	consent ring-fence or exclude from model training
telemetry and support logs	minimisation roles tickets analytics and deletion	support access exposes customer information	redesign roles minimise and review access

Proposed register; current legal contractual cyber and project-specific review is required.

9 Connect project assurance to product operation

A construction-AI product becomes part of the customer's project-control environment. Its operating model should therefore include approved use cases, representative validation, release control, incident handling, monitoring and remediation. Technology can support assurance; customer governance and contractual authority still determine how an output is used.

The buyer should inspect the target's quality loop. Product incidents, rejected outputs, customer complaints, drift, integration failures and disputed uses should feed root-cause analysis, corrective action and retesting. Repeated manual workarounds indicate a workflow-design or data-model problem. A low recorded-incident count can reflect weak detection, so diligence should reconcile tickets, logs, concessions and customer interviews.

Recurring assurance cost belongs in sustainable earnings. It includes data-quality operations, representative test sets, model and rules validation, release evidence, customer-specific configuration review, monitoring, support and incident response. Removing these functions to achieve a synergy target can weaken the evidence chain on which revenue depends.

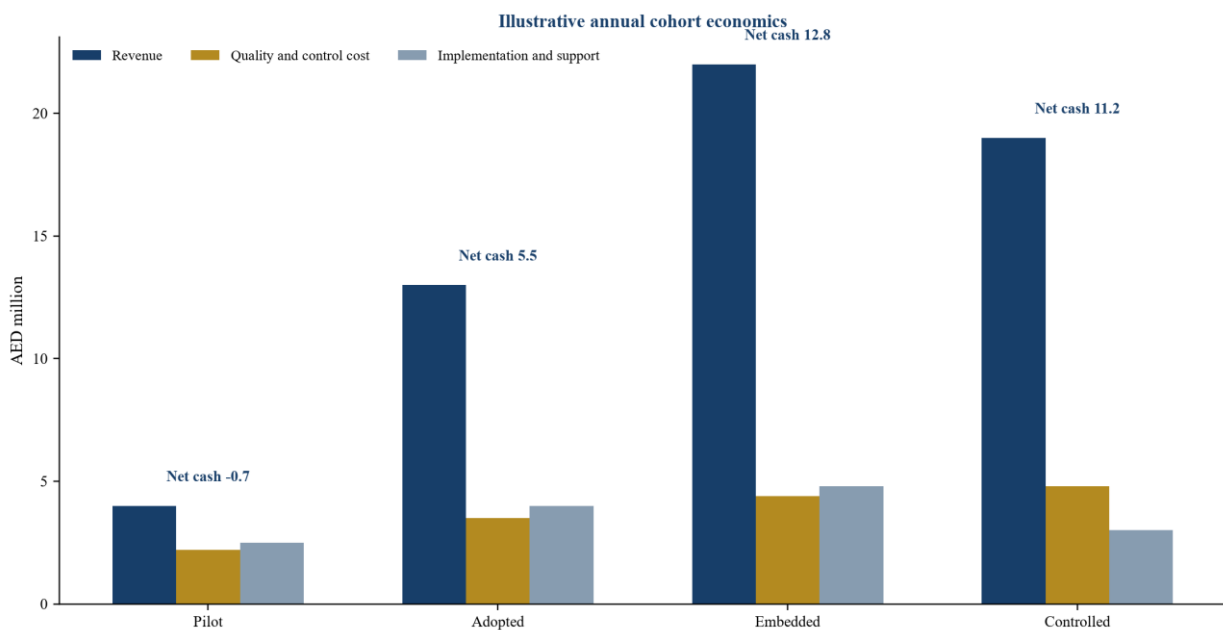
10 Test customer acceptance and cohort economics

Customer retention should be tested below the contract level. The acquisition team should build cohorts by product, workflow, customer type, implementation period and depth of use. For each cohort it should track contracted revenue, active entities or projects, accepted outputs, seat depth, support hours, implementation cost, renewal, expansion, contraction and cash collection.

A product embedded in monthly progress cycle or final account may show seasonal activity. The analysis should account for workflow frequency rather than treating quiet periods as churn. It should also distinguish use driven by a small internal champion from institutional adoption supported by policy, training and process ownership.

Customer references should address evidence and accountability. Questions should cover which tasks are completed, how outputs are reviewed, where errors occur, what records are retained, which integrations are critical, how updates are approved and what would cause the customer to leave. Reference selection should include recent implementations, mature users, reduced projects and customers that declined expansion.

Figure 3 Hypothetical workflow cohort economics



Management assumptions used solely to demonstrate cohort analysis; figures do not describe a company or market.

11 Rebuild sustainable earnings

Reported EBITDA should be rebuilt from the operating requirements of accepted workflows. Adjustments may include capitalised development, founder compensation, data licensing, cloud and model charges, security, validation, customer implementation, specialist support, incident response, regulatory change and product maintenance. The purpose is to identify the recurring cash cost of delivering the product within its intended control environment.

Development accounting needs particular attention. Capitalisation can make a product company appear more profitable while current cash funds continuing development. The buyer should analyse engineering spend by maintenance, control remediation, customer implementation, new capability and research. It should assess useful lives, impairment indicators and whether acquired technology will be replaced during integration.

Revenue quality should be tested against acceptance. Multi-year contracts and upfront billing can support reported recurring revenue while workflow depth weakens. The buyer should connect revenue to active

use, accepted output, support burden, renewal decision and cash. Services hidden in software gross margin should be separated where customer-specific work is necessary to make the product function.

Table 4 Hypothetical sustainable EBITDA bridge

Item	Amount	Diligence treatment
Reported EBITDA	15.0	starting point
capitalised development normalisation	-2.0	recurring cash development required for current product
model evaluation and evidence control	-1.2	recurring regulated-workflow cost
data and technical content	-0.8	sustainable licensing and provenance cost
cyber privacy and customer assurance	-0.7	recurring control operation
implementation and specialist support	-1.0	cost required for accepted customer outcomes
key-person and governance normalisation	-0.6	replacement and oversight capacity
Sustainable EBITDA	8.7	basis for illustrative valuation

AED millions; management assumptions used solely to demonstrate the framework.

12 Convert synergy into evidence-weighted cash

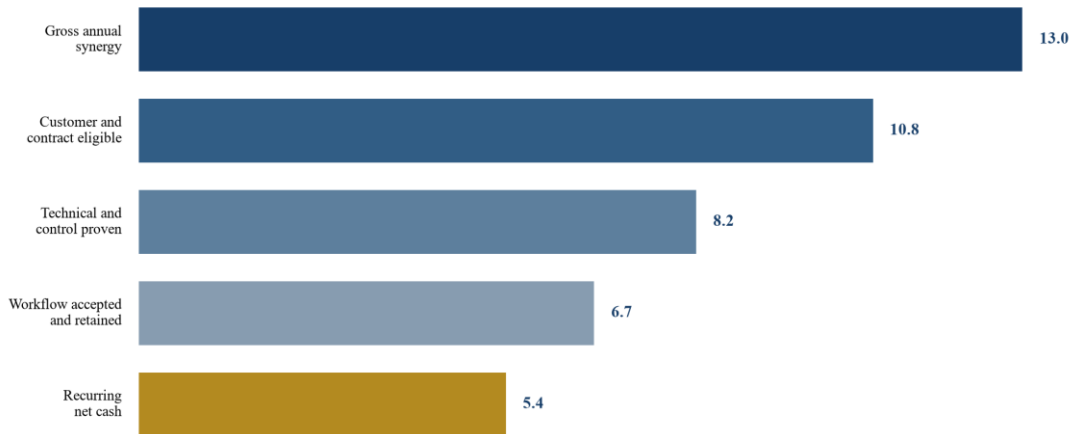
Synergy should be traced from commercial claim to recurring cash. Cross-sell requires eligible customers, permission to contact, product fit, integration, trained sales teams, implemented workflow, accepted output, renewal and collection. Cost savings require an activity that can genuinely stop without weakening product quality or customer service.

The buyer should classify synergy as committed, evidenced, contingent or aspirational. Committed synergy is supported by approved actions and enforceable arrangements. Evidenced synergy has representative customer or operating proof. Contingent synergy depends on a defined event such as successful validation. Aspirational synergy lacks sufficient proof and should remain outside the base valuation.

Integration costs should include continuing expenses, not only one-time projects. A combined platform may need additional model evaluation, interface support, data-rights work, security monitoring, customer migration, professional review and release management. Where those activities continue, they reduce recurring synergy.

Figure 4 Hypothetical synergy evidence funnel

Illustrative conversion from gross claim to recurring net cash



AED millions; management assumptions used solely to demonstrate the framework.

13 Build the valuation bridge

The valuation bridge should begin with sustainable earnings. A multiple should reflect growth, retention, workflow depth, concentration, control maturity, technical dependence and expected capital requirements. A high growth rate does not compensate automatically for weak evidence or customer acceptance.

Synergy value should be probability weighted and discounted for timing, cost and tax. Integration and control risk should be deducted separately so that the investment committee can see which assumptions create the proposed price. Double counting is a recurring danger: the same workflow position can influence the multiple, synergy and terminal value.

The hypothetical case begins with AED 8.7 million of sustainable EBITDA and a thirteen-times multiple, producing AED 113 million. It adds AED 95 million of evidence-weighted synergy present value. It deducts AED 12 million for integration and migration, AED 8 million for control remediation and historical exposure, AED 6 million for customer and interoperability risk, and AED 5 million for key-person and execution risk. The resulting illustrative value is AED 480 million.

Table 5 Hypothetical valuation bridge

Component	Amount	Evidence requirement
sustainable EBITDA	8.7	rebuilt recurring cash earnings
illustrative multiple	13.0x	cohort quality workflow depth and risk
standalone enterprise value	113.1	multiplication before transaction adjustments
evidence-weighted synergy present value	18.0	customer technical acceptance and cash proof
integration and migration deduction	-12.0	executable plan and cost estimate
control and historical exposure deduction	-8.0	validation documentation and remediation evidence
customer and interoperability deduction	-6.0	retention and ecosystem evidence
key-person and execution deduction	-5.1	continuity plan and delivery capacity

Component	Amount	Evidence requirement
Illustrative enterprise value	100.0	rounded framework output

AED millions; management assumptions used solely to demonstrate the framework and not an opinion of value.

14 Test competition interoperability and portability

Construction software markets contain switching costs, project-specific history, network effects and integration dependencies. The buyer should assess whether the combination could restrict interfaces, bundle products, degrade export or make it harder for customers to preserve their project record. This analysis matters commercially and may also matter under the relevant GCC competition regimes.

Roll-up strategy can create value by connecting previously fragmented records. It can also destroy value if customers view the buyer as controlling their evidence or forcing migration during delivery. The integration plan should provide usable export, stable interfaces, documented schemas and continuity through project close-out and claims periods. Product retirement should follow objective evidence that the replacement preserves records, functions and contractual status.

The buyer should map overlapping products, complementary datasets, customer segments, alternatives and potential foreclosure mechanisms. Internal documents should describe the commercial thesis accurately. Competition and legal advice should be based on current transaction facts and applicable regimes [15].

15 Assess technical and vendor dependence

An AI product may depend on external models, cloud infrastructure, document-processing services, construction-data providers, identity platforms and customer-system interfaces. The buyer should map each dependency to contractual rights, technical substitutability, cost, concentration, service level, security and change notification.

Model dependence requires more than a supplier list. The team should determine whether performance arises from proprietary data, prompts, orchestration, retrieval, workflow design or the underlying foundation model. It should test the time and cost to substitute the model while preserving accepted outputs. A target whose differentiation disappears when a supplier changes price or policy may have limited durable value.

Software architecture should support evidence isolation. Development, test and production environments should be separated. Customer data should not enter model development without rights and controls. Logging should be sufficient for incident investigation while minimising sensitive data. Release management should identify which customer workflows are affected by a change.

Cyber diligence should cover identity, tenant isolation, encryption, secrets, software supply chain, vulnerability management, incident response, backup, recovery and third-party access. A penetration test is one input. The buyer also needs evidence that the control environment operates over time.

16 Analyse people and project and commercial knowledge

Construction-AI products often depend on a small group who understand both the software and the project workflow. The acquisition team should identify product architects, domain leaders, data stewards, security owners, implementation specialists and customer champions. It should assess responsibilities, decision rights, documented knowledge, succession and retention.

Domain expertise should be tested through product evidence rather than biography alone. The team should inspect how engineering, project-control and contract requirements enter product design, validation cases,

release approval, training and customer support. A product that depends on undocumented judgement by one founder may face a larger integration risk than its headcount suggests.

The buyer should also examine organisational incentives. Sales targets can encourage claims beyond validated use. Engineering incentives can favour release speed over evidence. Professional staff may lack authority to stop deployment. A durable operating model gives quality, security and data owners clear escalation and veto rights within defined thresholds.

Retention arrangements should align with evidence transfer, customer continuity and control remediation. Cash or equity retention alone does not document the workflow. The integration plan should require operating manuals, validation assets, customer histories, dependency maps and trained successors.

17 Structure transaction protection

Deal terms should follow identified evidence gaps. Representations can address data rights, model and software ownership, compliance, customer contracts, cyber incidents, accuracy claims, validation records and professional-use limitations. Disclosure should be specific enough to allow the buyer to price known matters.

Closing conditions may be appropriate where a material right, customer consent, technical remediation or regulatory outcome is required for the thesis. A pre-closing covenant can preserve evidence, restrict material model changes and require ordinary-course support. The buyer should avoid a condition that cannot be objectively tested.

Escrow, indemnity or contingent consideration can address historical exposure and uncertain value. Earn-out metrics should follow accepted workflow and cash rather than prompt volume or unreviewed output. Examples include retained controlled customers, accepted workflow volume, validated performance within defined error thresholds and collected recurring revenue after support cost.

Table 6 Evidence gap to transaction response

Evidence gap	Value consequence	Potential transaction response	Post-close gate
uncertain data or content rights	workflow cannot lawfully continue	consent condition covenant indemnity or exclusion	verified rights inventory
incomplete model validation	reliance and retention uncertain	price deferral and validation milestone	representative test passed
weak historical documentation	inspection or claim exposure	escrow indemnity and remediation reserve	affected cohorts remediated
customer concentration	cash exposed to limited decisions	retention condition earn-out or price adjustment	named cohort renewal and collection
key-person dependence	product and customer continuity risk	retention succession and knowledge-transfer covenant	trained successor operating independently
uncertain integration	synergy timing and cost risk	staged consideration and board release gates	accepted parallel migration

Proposed framework; legal drafting and allocation depend on the transaction and governing law.

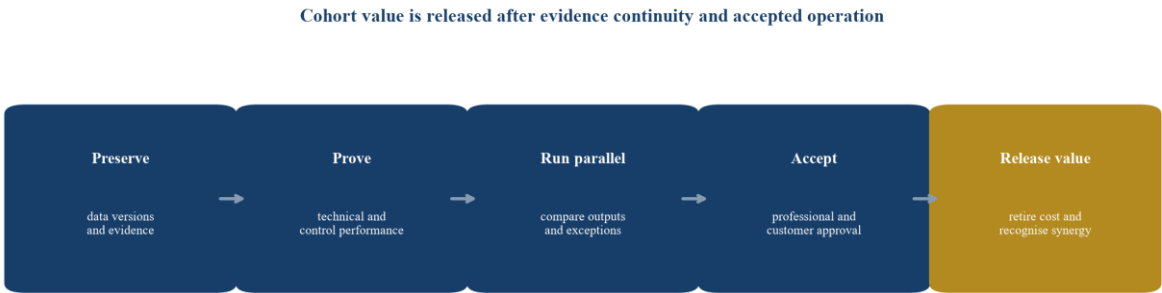
18 Integrate by workflow cohort

Integration should proceed by workflow and cohort rather than by legal-entity deadline. The sequence should preserve source data, versions, validation evidence, customer configuration and project records before any system change. Each cohort should move only after technical performance, evidence continuity, authorised approval, customer acceptance and support readiness have been demonstrated.

Parallel operation can compare old and new results for representative cases. Differences should be investigated and classified. A favourable average does not justify migration if severe errors remain in material edge cases. The decision record should state thresholds, exceptions, residual risk and the person authorised to proceed.

Product retirement should be evidence driven. The combined company may seek to reduce duplicate systems. Retirement can create value when workflows are genuinely substitutable and customers accept the replacement. It can destroy value when a product retains unique integrations, evidence history or professional trust.

Figure 5 Workflow cohort integration gates



Proposed sequence; gate criteria require target-specific technical professional contractual and customer evidence.

19 Govern the first one hundred days

The first one hundred days should protect evidence and stabilise accountability. The buyer should freeze deletion, unrecorded model changes and uncontrolled data movement at closing. It should confirm system owners, incident routes, customer commitments and release authority. A controlled freeze should still allow necessary security and service fixes through documented approval.

During the first thirty days, the combined group should reconcile the model inventory, data rights, critical dependencies, customer workflows, open incidents and validation records. It should identify gaps that affect active regulated work and assign remediation owners. Customer communication should be accurate and coordinated with contractual obligations.

Days thirty to sixty should focus on representative revalidation, access review, evidence export, continuity testing and integration design. Days sixty to one hundred should complete priority remediation, approve cohort migration pilots and establish the recurring board dashboard. Synergy recognition should follow evidence rather than the passage of time.

Table 7 First one hundred days

Period	Required action	Evidence gate	Board decision
day 0 to 10	preserve data models versions contracts and workpapers	verified preservation and ownership	authorise controlled operation

Period	Required action	Evidence gate	Board decision
day 10 to 30	reconcile inventories incidents rights and dependencies	complete risk register and accountable owners	set remediation priority and reserve
day 30 to 60	revalidate priority workflows and access controls	representative tests and exception resolution	approve limited pilot scope
day 60 to 80	run parallel cohort migration and customer acceptance	evidence continuity and accepted outcomes	approve staged migration
day 80 to 100	establish monitoring reporting and value gates	dashboard baseline and control assurance	release evidenced synergy only

Proposed operating sequence; timing should reflect transaction risk and customer commitments.

20 Use a board decision scorecard

The board should receive a compact scorecard linked to source evidence. Suggested dimensions are workflow ownership, evidence reproducibility, project accountability, data rights, customer depth, sustainable earnings, technical resilience and integration readiness. Each score should have an owner, threshold, evidence date and unresolved exception.

The scorecard should separate current condition from planned remediation. A strong roadmap does not change the condition at signing. The board should see the cash, time and dependency required to move from current to target state. It should also see which valuation components depend on that movement.

Traffic-light labels need defined criteria. A green evidence-chain score could require representative end-to-end reproduction, version retention, accepted reviewer output and no unresolved severe exception. An amber score might permit a bounded gap with funded remediation and no active customer impact. Red should identify a condition incompatible with the intended use or transaction thesis.

The final decision record should state the approved price range, downside, funding, conditions, reserved matters, value-release gates and reasons. It should identify which claims remain management assumptions. This record supports disciplined ownership after closing.

21 Assess fraud anomaly and synthetic-evidence risk

Anomaly tools can help identify duplicate invoices, improbable quantities, unusual production rates, changed timestamps, suspicious access or inconsistent progress. Their transaction risk lies in false confidence, weak explainability and incomplete investigation. A model score does not establish fraud or error.

The buyer should test population completeness, features, benchmark cases, false negatives, false positives, override behaviour and escalation. It should determine whether alerts produce documented procedures and resolved outcomes. Commercial evidence should connect alerts to accepted control improvements, recovered value or reduced rework rather than alert volume.

Generative systems create an additional risk: synthetic narratives, altered images or reconstructed records can appear authoritative. The combined platform should preserve original files, provenance, integrity checks and clear status for generated material. Claim drafts should link to sources and remain distinguishable from contemporaneous records.

22 Test portfolio programme and multi-project use

Portfolio workflows can strengthen a target's position because they coordinate projects, contractors, locations, currencies, cost structures and reporting dates. They can also amplify error when a common mapping or model is applied across dissimilar contracts and work packages.

The buyer should test project identity, work-breakdown mapping, schedule calendars, currencies, baselines, change control, consolidation adjustments and access. It should identify where local practices, languages, contract forms or data structures differ. The platform should preserve project-level evidence while supporting portfolio oversight.

Portfolio benchmarking requires comparable definitions. A cost per square metre, production rate or delay indicator can mislead when scope, quality, location, procurement and risk allocation differ. The product should expose normalisation and allow reviewers to inspect the underlying projects.

23 Evaluate payment certification claims and final-account boundaries

Payment and claims workflows combine measurements, contract rules, notices, programme analyses, valuation, signatures and deadlines. The diligence team should separate deterministic calculations from model-generated interpretation. It should verify contractual authority, source ownership, approval and retention.

IFRS 15 requires entities to assess performance obligations, progress and variable consideration under applicable facts [1-2]. Construction AI can provide operational evidence; it does not decide the accounting treatment. The buyer should test how approved quantities, disputed variations, claims probability and cost forecasts pass into customer reporting and whether the product preserves the distinction between submitted, assessed, certified and paid amounts.

Customer value may arise from controlled completion rather than prediction. The buyer should measure accepted certificates, response time, rejected items, claim cycle, support effort and renewal by contract type. It should identify whether the target provides software, managed services, expert opinion or a combination, because each model carries different margin and liability.

24 Stress customer and financing downside

The acquisition model should include downside cases for slower adoption, delayed validation, customer churn, supplier repricing, remediation and product retirement. A lender should receive the same evidence chain used by the investment committee, with additional focus on cash conversion, concentration, covenant headroom and required investment.

Debt capacity should be based on recurring cash after quality and control costs. Synergy dependent on unapproved customer migration should not support near-term debt service. The downside should include the cost and timing of preserving separate products when consolidation cannot proceed.

25 Plan for regulatory and standards change

The combined company needs a controlled process for standards, law and guidance change. The process should identify applicable change, assign interpretation, assess products and customers, approve remediation, test releases and communicate limits. A current control can become insufficient when a workflow or external requirement changes.

The buyer should examine historical response to change. Timely evidence includes tracked requirements, impact assessments, release records, customer notices and post-implementation review. Repeated emergency patches or unsupported interpretations indicate higher recurring cost and execution risk.

26 Define exit and separation readiness

Exit readiness begins at acquisition. The buyer should preserve product-level economics, data rights, intellectual property, customer contracts, evidence repositories and operating knowledge. A future buyer or carve-out team will need to understand which workflows can operate independently and which depend on shared infrastructure or licences.

Separation planning also protects customers if an integration fails. Data portability, evidence export, controlled deletion, transition support and supplier substitution should be tested. These capabilities reduce lock-in risk and can strengthen the credibility of customer commitments.

27 Limitations and conclusion

This paper provides a decision framework rather than an assessment of a named company, product, transaction or project. The hypothetical financial case does not represent market data, a forecast or an opinion of value. Actual outcomes depend on customer contracts, procurement routes, project conditions, data rights, technology, regulation, competition, tax, financing and execution.

The cited standards, laws and official materials should be read in their complete current form. Their application depends on facts, contract terms and professional judgement. AI systems, supplier terms and market practices change quickly. Transaction teams should obtain current specialist advice and perform representative technical, commercial and project testing.

Public transaction disclosures provide limited information about private product economics, controls and integration. They should not be used as direct comparables without adjustment. Public digital-construction initiatives demonstrate policy and operational direction; they do not verify private demand or a target's commercial performance.

GCC construction-AI roll-up value rests on an evidence-bearing workflow. A target creates durable value when it can lawfully access project data, preserve lineage, reconcile progress, schedule, cost and contract, support authorised decisions and retain customers through controlled integration.

The buyer should begin with the project evidence chain, test workflow ownership, map authority, validate models by consequence, rebuild sustainable earnings and convert synergy into accepted recurring cash. Unresolved gaps should become price adjustments, conditions, protections, remediation reserves and post-close gates.

The resulting integration rule is practical: preserve project evidence, prove operation, run parallel where consequences are material, migrate by cohort and recognise value after customer acceptance and cash conversion.

Frequently asked questions

What makes a construction AI workflow valuable in an acquisition?

Value depends on repeated completion of a material project-control or commercial task, lawful data access, reproducible evidence, authorised review, customer acceptance and recurring cash. Usage alone does not establish workflow ownership.

Can AI-generated progress be used for payment certification?

Its use depends on the contract, measurement method, source completeness, accuracy, tolerance, review and approval authority. The system should preserve the underlying observation, transformation, exception and sign-off.

How should claims data be handled in a roll-up?

The buyer should preserve contemporaneous records, privilege where applicable, notice status, programme versions, quantum calculations and authorship. Generated narratives should remain distinguishable from original evidence.

How should a buyer test model performance?

Testing should use representative and adverse project cases, preserve inputs and versions, weight errors by consequence, examine human review and confirm monitoring and revalidation. Aggregate accuracy is insufficient for high-consequence decisions.

Which costs belong in sustainable EBITDA?

Recurring model evaluation, data operations, cloud, cyber security, privacy, project implementation, specialist support, incident response, maintenance and governance should be considered when necessary to sustain accepted revenue.

How should synergy be valued?

Synergy should be traced through eligible customers, technical proof, controlled implementation, accepted workflow, retention and collected cash. Continuing costs and timing should be included.

Should products be consolidated immediately after closing?

Each workflow cohort should pass evidence-preservation, technical, contractual and customer-acceptance gates before migration or retirement. The plan should protect export, interoperability and claims-period records.

Which deal protections are relevant?

Depending on the evidence, protections may include specific representations, closing conditions, covenants, escrow, indemnity, remediation reserves and contingent consideration tied to accepted workflows and collected cash. Legal drafting requires transaction-specific advice.

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