

PERFORMANCE MEASUREMENT

The ‘How to’ of Performance Measurement

October 2026

Focus of the Paper

This paper provides practical guidance on how to measure performance effectively across construction programmes and projects. It sets out a clear, repeatable approach for translating strategic intent into measurable delivery expectations, ensuring that what organisations value is consistently reflected in what they measure.

The guidance explains how strategic objectives become value drivers, KPIs and metrics; how alignment and pull-through are maintained across different scales of clients and delivery models. It also outlines how value-based decision-making tools, such as the Value Toolkit, strengthen this process.

By establishing a common structure and shared language, the paper helps clients, consultants, contractors and the wider supply chain to measure what matters, track progress reliably, and demonstrate the real benefits achieved through the built environment.

Tips for success

- Be clear about why performance is being measured and who it is for
- Use shared definitions to avoid confusion across organisations and supply chains
- Focus on outcomes and benefits, not just activities or outputs
- Apply the approach consistently across programmes and projects

	Definition	Example
Outcomes	Description of the impact of something you’ve done, following completion a capital project or programme. What is the outcome in its operational phase?	Hospital can take better care of patients
KPIs	A strategic and prioritised metric chosen to track performance against specific objectives	Cost variance from budget to actual performance
Metrics	One or more measures derived for a meaningful requirement usually in the form of a calculation or ratio.	Cost per square metre
Measures	A measure is a quantitative value that can be captured directly. It’s the raw data or number.	A wall is 3m high
Benchmarks	A standard or reference point by which you’re trying to achieve, in the form of a numerical value.	Benchmark for scheduling: percentage of projects finish on time.

Performance measurement terms and definitions

Start with the End in Mind

Capital projects and programmes can only make informed decisions when there is a consistent approach to measurement. Without some level of commonality, it becomes difficult to compare performance, identify risks or understand whether a project is on track.

Our first paper focussed on ‘Why should we measure?’ This second paper focuses on how we deliver performance measurement across programmes and projects. It considers both private and public sector, and the different subsectors, like residential, buildings, civil and infrastructure, including water, health, defence, etc. and how to best determine the right decisions to benefit capital projects.

We measure because we want to meet the goals of a programme or project to be delivered. Often, KPIs are established between the client and the main contractor, but both the measures applied and the KPIs selected can differ from those used across the wider and deeper supply chain. Benefits and outcomes mean different things to different sections of the construction industry. This document aims to address those differences and provide.

Tips for Success

- Define success in terms of outcomes and benefits before selecting KPIs
- Avoid measuring what is easiest rather than what matters
- Recognise that different stakeholders value different outcomes
- Agree a small number of priorities early and stick to them

Determining common measurements can often be complex and different for every project. This document sets out the basis of an ecosystem on how to measure, and considers the following:

- The construction industry’s shift towards outcomes and benefit realisation demonstrating the differences between outcomes, specifications, KPIs, KPI’s and benefits.
- How to measure performance across programme and project lifecycles of different scales
- The need to create a common thread through the supply chain, and across the project or programme workflow gateways
- How benefits are linked to perceived value and used to inform value drivers.
- Value drivers take a strategic objective and make it a tangible reality
- The central role of KPIs to measure the delivery of strategic value driven objectives into beneficial outcomes.
- How the measurement approach can be utilised across different delivery models, from traditional to fully industrialised platform/kit of parts and DfMA.

Scale and Hierarchy

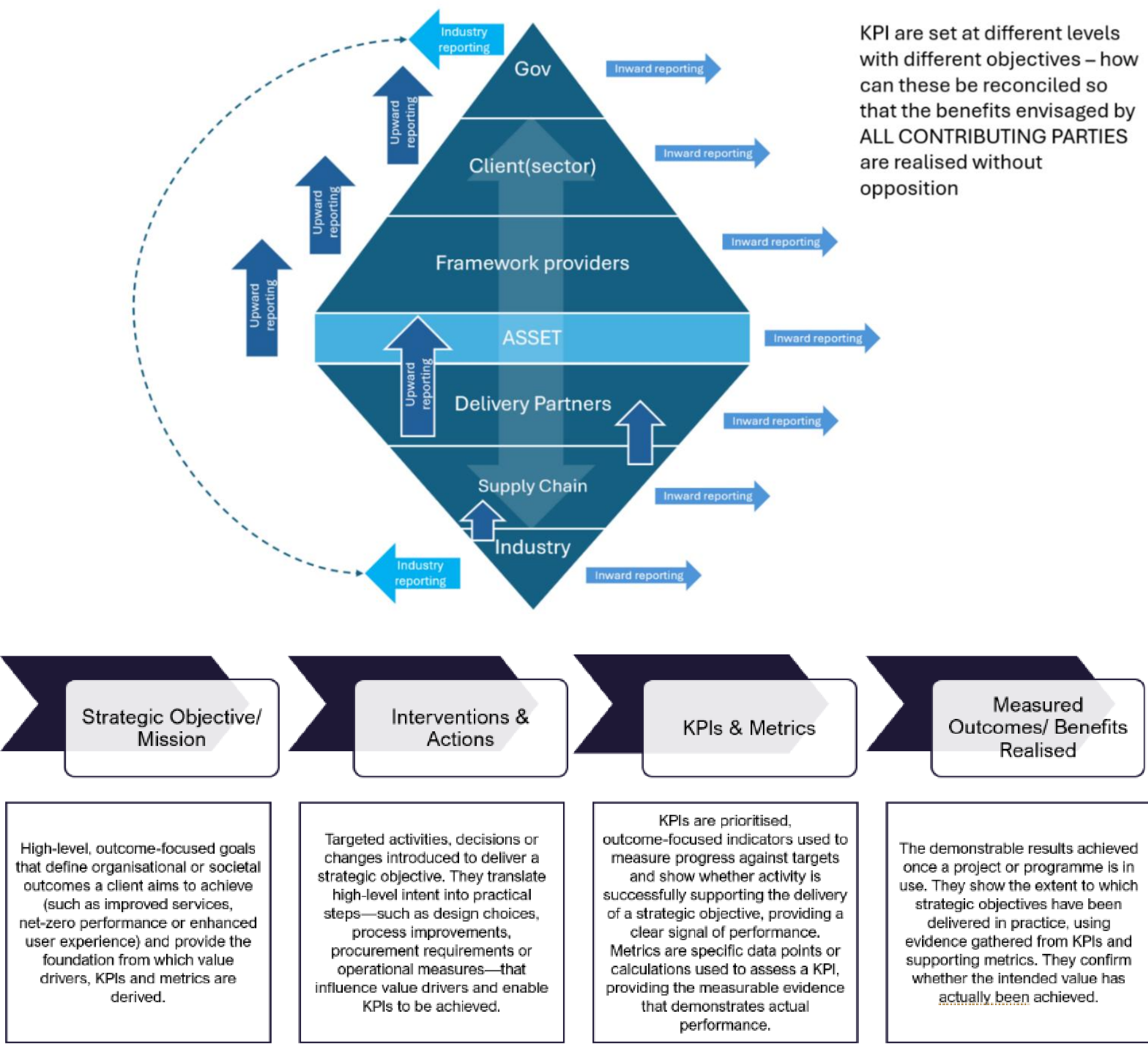
Projects and assets vary widely in scale, typology and methods of construction, but they all follow a broadly similar delivery process. Whether a scheme uses traditional construction, modern methods of construction or platform-based DfMA approaches, every project follows a similar sequence of decisions and activities. This enables performance measurement to be applied consistently across different building types and sectors.

Clients also operate at different scales. Some are single site organisations with straightforward governance; others, particularly in the public sector, are multi-tiered bodies with complex structures and diverse priorities. In these more complex environments, what matters at one level may not be relevant at another. Hierarchy and scale therefore shape how strategic objectives flow into programmes and projects, and how performance should be measured.

To avoid fragmented or “siloe” measurement, organisations should map the measurement process across every relevant level. This means identifying which objectives apply where, removing those that are not relevant, and pulling through only the ones that matter. Doing this ensures KPIs genuinely reflect the client’s priorities at each stage.

Capital projects and construction is often only one component of a much broader organisational mission, so alignment can appear less obvious. A common measurement structure helps resolve this by creating continuity from strategy to project delivery. Establishing KPIs that reflect a clear top-down intent, while also capturing bottom-up insight from delivery teams, ensures that performance measurement remains coherent, achievable and meaningful.

Adopting a consistent approach, helps the industry recognise that everything is connected across scales and sectors — but also maintain focus on what is most relevant to measure at each level of the system.



Tips for Success

- Map objectives and measures across portfolio, programme and project levels
- Remove objectives and KPIs that are not relevant at each level
- Maintain alignment while allowing flexibility for local delivery contexts
- Ensure insights can flow both top-down and bottom-up

Aligning Strategic Objectives, Value Drivers and KPIs

Effective performance measurement begins with clarity: understanding what the organisation aims to achieve and translating that into measurable expectations for programmes and projects. This section explains how to create that alignment by establishing a clear thread from strategic objectives to value drivers, to KPIs and metrics, with benefits realised at the end.

Why alignment matters

Construction programmes operate within complex hierarchies—government priorities, industry guidance, organisational strategy, frameworks, programmes and projects. Without alignment across these levels:

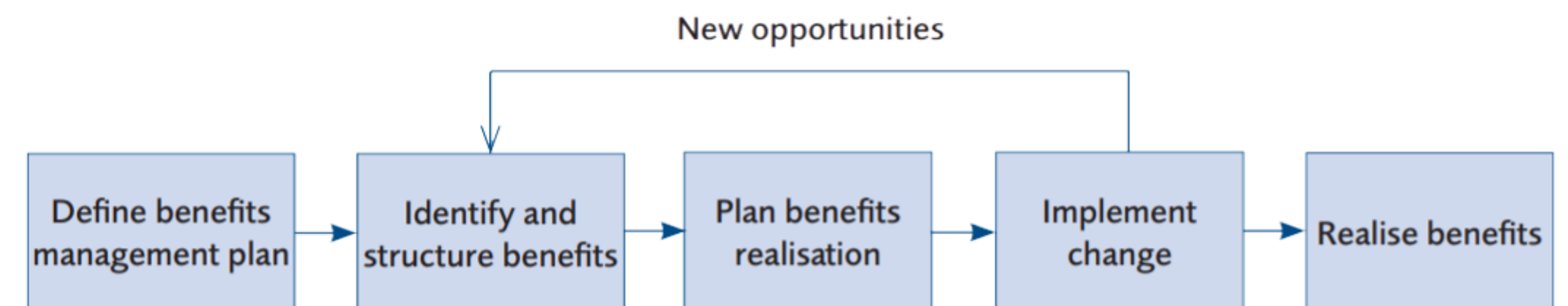
- priorities become unclear
- teams interpret “value” differently
- KPIs can feel arbitrary
- measurement fails to reflect what actually drives outcomes

Alignment creates a shared language, a common understanding of priorities and a focused basis for decision-making and improvement.

Strategic objectives (e.g., net zero, improved user experience, increased productivity, social value) only become meaningful when translated into operational expectations. To avoid confusion and create a consistent approach, this should follow a simple progression:

1. **Strategic Objectives** – what the organisation wants to achieve
2. **Value Drivers** – the levers that most influence achievement
3. **KPIs** – indicators that track whether value drivers are being delivered
4. **Metrics** – data points used to assess each KPI
5. **Benefits (Outcomes)** – realised value once KPIs demonstrate success

This structure ensures KPIs are purposeful, evidence-based and directly tied to the organisation’s intent.



Using this example flow ensures teams measure what matters rather than everything available.

Strategic objectives must be practical, relevant, and deliverable across different levels of the system. Each layer in the construction ecosystem plays a role:

- **Government** sets national direction, such as net zero, levelling up, and improved productivity
- **Industry bodies** provide policies and guidance that reinforce national goals
- **Clients / sectors** refine these into their own procurement policies and priorities
- **Frameworks** embed value expectations into how supply chains are procured and managed
- **Programmes** interpret these expectations into value drivers and KPIs
- **Projects** implement, measure and report on causes of performance using consistent metrics.

This creates a continuous golden thread from strategic ambition to front-line delivery.

Strategic Pull-Through

Strategic pull-through depends on alignment in two directions:

Top-down: Objectives and value drivers are set early, embedded in frameworks, procurement, and reporting.

Level	Activity
1. Strategy	Define strategic objectives
2. Benefits	Identify & value strategic benefits
3. KPIs	Set measurable strategic KPIs
4. Cascade	Cascade across portfolio → programme → project
5. Benchmarks	Create top-down benchmarks
6. Mapping	Produce benefit maps & driver trees
7. Ownership	Benefits register with named owners
8. Verification	Monitor & verify benefits realisation
9. Learning	Recalibrate and improve strategy

Bottom-up: Projects supply performance data, highlight risks, and surface opportunities, ensuring strategy remains realistic and evidence led.

This two-way movement avoids situations where projects are “squeezed” between high-level ambition and delivery constraints, making the process practical for all stakeholders and users

Tips for Success: Establishing project and programme alignment

- Articulate strategic objectives clearly and early
- Identify value drivers that influence each objective
- Select a focused set of KPIs linked to those drivers
- Define simple, meaningful metrics to support each KPI
- Embed KPIs and metrics in briefs, procurement and delivery plans
- Engage delivery partners early to test feasibility
- Use consistent reporting formats across programmes and projects
- At closeout and during operation, review whether benefits have been realised[

Why alignment matters

Construction programmes operate within complex hierarchies—government priorities, industry guidance, organisational strategy, frameworks, programmes and projects. Without alignment across these levels:

Capital	Definition (UK Gov Five Capitals Model)	How It Applies in Construction
Natural Capital	The stock of renewable and non-renewable resources that combine to yield a flow of benefits to people. Values the natural environment, addresses solutions to climate impacts and provides benefits to society throughout the full life cycle of the built assets.	• Sustainable sourcing of materials (e.g., timber, aggregates) • Minimising pollution, waste, and carbon emissions • Enhancing biodiversity on construction sites • Efficient water and energy use
Human Capital	The knowledge, skills, competencies and attributes embodied in individuals that contribute to improved performance and wellbeing. Encompasses employment opportunities, skills development, individual health and wellbeing as well as an asset's capacity to influence these factors.	• Training and upskilling workforce (e.g., digital skills, safety) • Ensuring worker health & safety on site • Apprenticeships and local employment • Fair working conditions
Social Capital	The networks, the shared norms, values and understanding that facilitate cooperation within and among groups. Refers to influence and consultation, equality and diversity, networks and connections as well as the changes people experience as a result of built assets.	• Positive community engagement • Building trust with stakeholders • Working with local authorities and community groups • Designing spaces that improve community wellbeing
Produced Capital	The man-made goods as well as all financial assets that are used to produce goods and services consumed by society. Encompasses capital cost, operational cost and revenue, covering the whole of the direct monetary spend on the project over its whole life. Also indicators of the efficiency and quality of design, construction and operational processes.	• Buildings, machinery, and construction technology (e.g., BIM, MMC) • Transport systems that support logistics • High quality, durable built assets • Efficient supply chain infrastructure • Project financing and budgeting • Cost control and value management • Investment in sustainable materials and innovation • Long-term economic value for clients and society

Projects will contribute to different categories depending on their objectives, but measurement should still start with the core alignment process (objectives → drivers → KPIs).

Who Does What

Alignment establishes what should be measured; pull-through ensures strategic objectives are acted on consistently from commissioning through to project delivery. Without clear roles and ownership, objectives risk losing clarity and impact as they move through the system.

Effective pull-through depends on each level translating strategic intent into requirements that become progressively more specific and action.



The Client

Clients are responsible for setting direction and enabling pull-through from the outset. They define strategic objectives and intended benefits, explain why these matter, and identify the value drivers that should guide delivery decisions. These expectations should be embedded into commissioning strategies, frameworks and procurement processes, with clear ownership assigned for objectives and benefits.

Consistent client leadership provides a stable reference point for programmes and projects to align delivery with organisational priorities.

Programme Managers (for major projects)

Programme leaders ensure objectives are applied coherently across portfolios and projects. They translate client objectives into programme-level value drivers, KPIs and benchmarks, ensuring measures are relevant, consistent and proportionate. At this level, pull-through also involves managing cross-project risks and dependencies, and using delivery insight to challenge or refine objectives where necessary.

This prevents fragmentation and conflicting interpretations across projects.

Project Managers and Project Teams (for smaller projects)

Project managers are responsible for converting programme expectations into day-to-day delivery control. They translate KPIs into clear project-level measures, embed them into planning, design, risk and site processes, and ensure teams understand their purpose. Performance measurement should support decision-making and early intervention, not just reporting.

Project teams also play a key role in capturing performance insight and lessons learned to inform future delivery.

Supply Chain Partners

Supply chain partners support pull-through by understanding how project measures link to wider objectives, providing reliable performance data, and raising risks or constraints early. Early engagement and open communication help ensure that objectives remain realistic and achievable in practice.

Pull-Through as a Two-Way Process

Pull-through ensures strategic intent is not lost as it moves through the system—turning alignment into action and action into measurable benefits. Although objectives flow top-down, pull-through must operate as a two-way process. Delivery insight and performance data provide essential feedback, allowing objectives and KPIs to be refined over time. This keeps performance measurement credible and aligned with delivery reality.

Tips for Success

- Assign clear ownership for objectives, benefits and KPIs
- Translate objectives into more specific requirements at each level
- Embed objectives and KPIs into procurement and delivery processes
- Ensure teams understand why measures matter
- Use delivery insight to inform future objectives and approaches

Driving Value – Value Toolkit and Other Tools

A range of national and local frameworks exist to support value-based decision-making across the built environment.

One example is the Value Toolkit which provides a structured approach for defining, prioritising and measuring value. Alternatively, on a local level organisations may use procurement frameworks such as LHC, CHIC, SCAPE or SEC which can support consistent value application when aligned to strategic objectives.

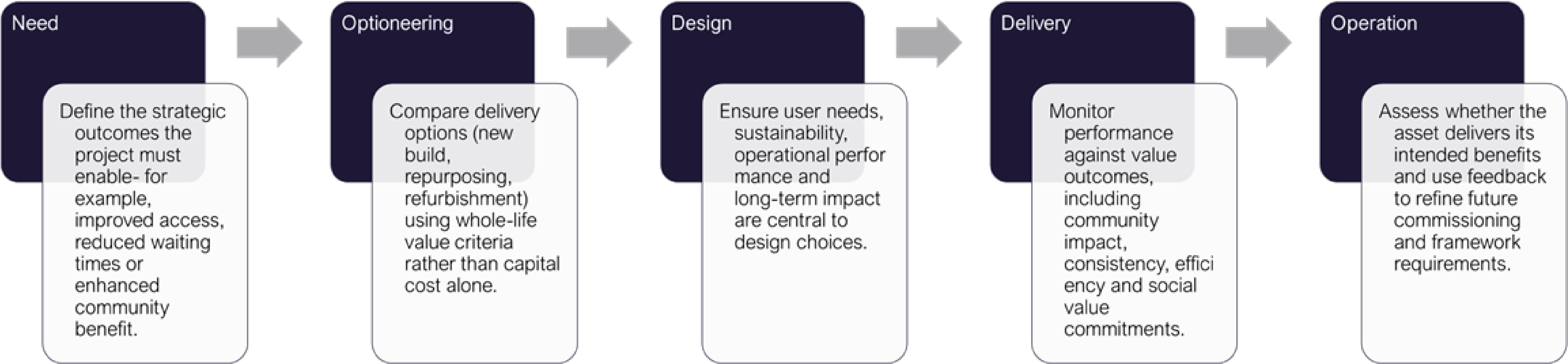
To be effective, value must be embedded as early as possible. When the Value Toolkit is applied after a programme has already been defined, its ability to shape outcomes is significantly reduced. Embedding value drivers at framework, programme and project level ensures the built environment becomes a means of delivering wider organisational outcomes, not simply an asset.

Tips for Success

- When value-based approaches are embedded from the outset:
- decisions are guided by strategic outcomes, not short-term pressures
 - KPIs and value drivers are established before procurement
 - the supply chain has clearer expectations and can plan for value delivery
 - measurement shifts from tracking activities to tracking meaningful outcomes

If an organisation uses frameworks as the primary mechanism for driving value across the asset lifecycle, they need to reinforce value at every stage of the process . — from commissioning and procurement through delivery and operation.

Frameworks and commissioning processes can use the Value Toolkit (or equivalent mechanisms) to ensure value is systematically considered at each stage. This enables organisations and programmes to demonstrate how construction contributes to long term societal, environmental and economic value.



Key Performance Indicators

Once strategic objectives have been cascaded and the commissioning body's value drivers and intended benefits are clearly established, Key Performance Indicators (KPIs) become the primary mechanism for ensuring that these objectives translate into measurable outcomes. KPIs provide the link between what an organisation aims to achieve and how effectively a project, programme or framework delivers that value in practice.

KPIs assess performance against what the project set out to do, enabling teams to track progress, identify risks and intervene early where delivery may be compromised. As outlined in Constructing Excellence's first Performance Measurement white paper, KPIs sit alongside metrics: KPIs define what success looks like; metrics provide the data that demonstrates performance.

Using the NHS as an illustrative example:

- **Strategic objective:** Reduce waiting times
- **Value driver:** Improve public health by enabling preventative care and earlier intervention, reducing pressure on NHS services
- **KPI:** Predictability time- construction: percentage on time or better.
- **Metric:** Project cycle progress, measured at key stages

To understand performance against this KPI, it is essential to consider the underlying factors that may support or inhibit timely delivery. These often include:

- Effective change control
- Proactive risk management
- Efficient, collaborative team working
- Coordination and completeness of design
- Approval and funding processes
- On site management and coordination
- Effectiveness and sequencing of site operations

Each area may require its own metric, reflecting that one KPI may depend on multiple measures to fully understand progress and potential challenges.

This holistic approach ensures that KPIs are not seen in isolation but as part of an integrated performance system that enables early insight, transparent decision making and continuous improvement. By grounding KPIs in strategic outcomes and supporting them with well-designed metrics, commissioning bodies and delivery partners can create a clear line of sight from value intention to value realisation.

Tips for Success

- Limit KPIs to a focused set linked directly to strategic objectives
- Support each KPI with simple, reliable and well-understood metrics
- Recognise that one KPI may rely on multiple underlying measures
- Use KPIs to prompt early action, not just retrospective reporting

Data and Defining a Consistent Measurement Process

A consistent approach aligns the defined benefits with setting KPIs and collecting data is essential for maintaining the golden thread from strategic objectives through to project delivery. When organisations adopt a common process for identifying what to measure, how to measure it and how performance will be tracked, they create clarity for both clients, delivery partners and the supply chain and enable meaningful, direct performance comparisons across programmes, with similar delivery models and asset types.

Defining benefits aligned to strategic objectives

Begin by identifying the benefits the project or asset is expected to deliver. Group these under recognised industry benefit categories and ensure each benefit clearly links back to strategic objectives at government, industry and client levels. This keeps measurement focused on meaningful outcomes rather than isolated activities.

Tips for Success

- Agree a consistent process for defining benefits, KPIs and metrics
- Keep metrics simple and proportionate to the value they provide
- Establish clear reporting formats and review points
- Ensure data collection supports learning and decision-making, not bureaucracy
- Apply a consistent digital tool set

Identifying the Value Drivers

Next, determine the value drivers that will influence whether those benefits are achieved. These may be set at framework level for consistency or tailored to a specific programme or project. Value drivers translate broad outcomes into practical areas of management and focus.

Setting KPIs and anticipating barriers

For each value driver, a small and meaningful set of KPIs should be developed. These indicators provide the basis for assessing progress and determining whether delivery is on track. At this stage, it is also essential to consider any potential blockers (risks) that could prevent the KPI from being achieved—such as dependencies, resource constraints, technical challenges or external factors. By understanding these risks early, teams can put appropriate mitigations in place and manage expectations transparently.

Establishing performance metrics

KPIs require supporting metrics that provide the data needed to assess performance. These metrics should be simple, reliable and easy for delivery partners to report. Ideally, standardised metrics should be applied for supply chain performance consistency. They must be directly linked to the KPI they support and capable of being collected consistently across projects. Clear metrics help remove ambiguity and ensure that everyone involved understands exactly what data is required and why it matters.

Reporting and tracking progress

Finally, agree a consistent reporting approach that defines formats, data requirements and review points. Reporting should align directly to the agreed KPIs and metrics, enabling clear oversight at programme and project level.

Digital construction management and project control systems should be used to capture, analyse and report performance data. Dashboards and integrated cost, schedule and risk tools support timely insight, reduce manual reporting and improve data consistency.

Regular digital tracking enables early identification of risks and under-performance, while providing a robust evidence base to demonstrate benefits realisation at project close and during operation.

Conclusion & Next Steps

We invite organisations across the construction sector to adopt a consistent, value-driven approach to performance measurement and to apply a vertically integrated measurement system across live programmes and projects. Begin by mapping strategic objectives through value drivers, KPIs and metrics, and align reporting to a common structure that strengthens the golden thread from strategy to delivery.

Constructing Excellence welcomes partners to help test, refine and standardise this approach, supporting the development of an industry-wide framework that reliably measures what matters and demonstrates the real value delivered through the built environment.

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About Constructing Excellence

Constructing Excellence is a membership organisation that drives a better construction sector. Our thought leading members from the entire supply chain – clients, industry and users – share a vision to deliver a better built environment through innovation and collaboration. Our members set our agenda and are the driving force behind our movement, they use our groups and forums to explore key issues impacting the industry right now and to drive change across the industry.

About the Constructing Excellence Performance Measurement Group

The Performance Measurement group brings together Constructing Excellence members, from a range of backgrounds, to delve into issues around performance and explore how to increase the use and efficiency of performance measurement practices. The group aims to create a hub of excellence enabling members to share best practice, exploit the opportunities of digitalisation and build on our KPI capability.

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