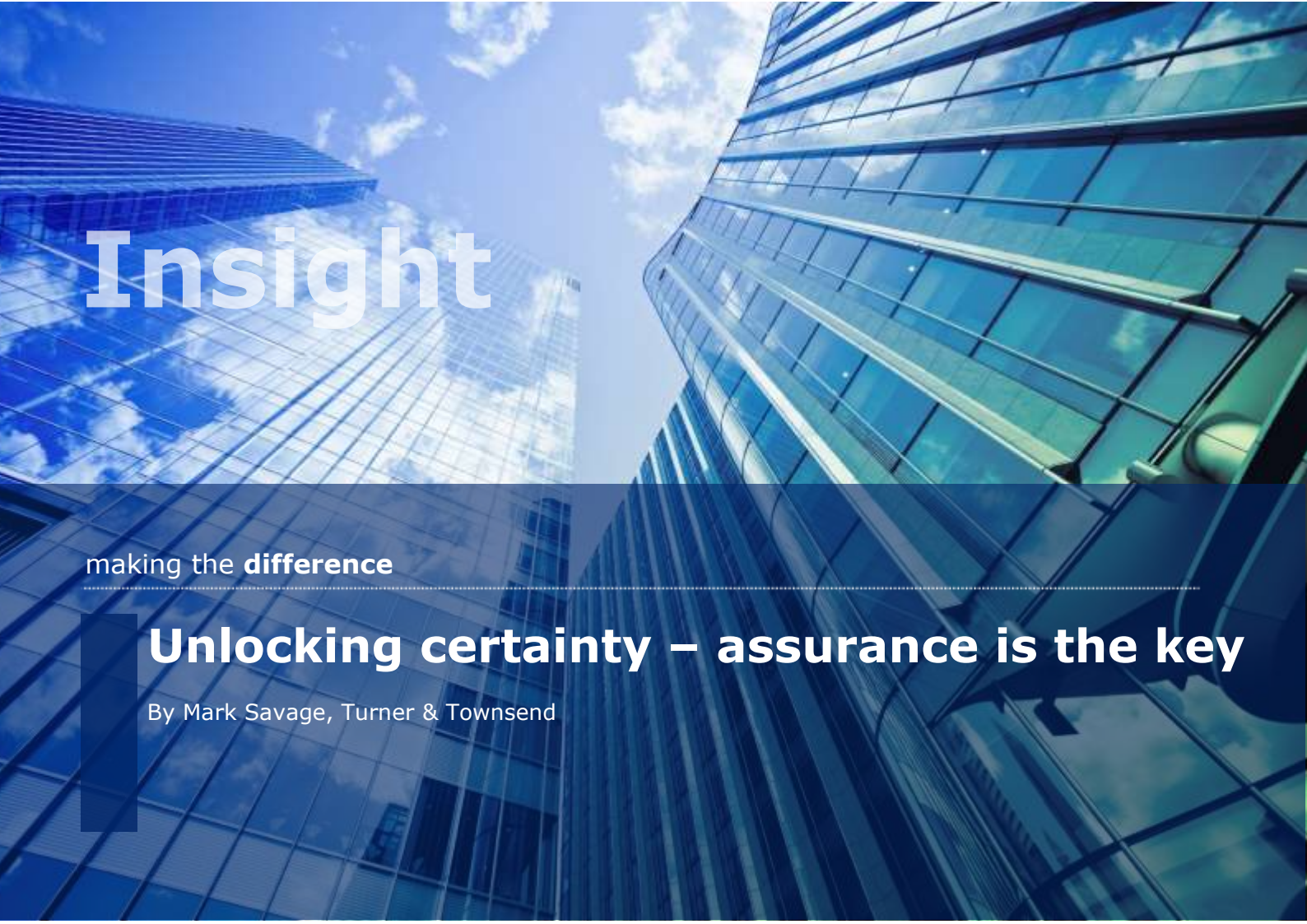

Insight

making the **difference**

Unlocking certainty – assurance is the key

By Mark Savage, Turner & Townsend

Assurance is essential for identifying and mitigating risk, but it is often introduced too late to a project to be truly effective. Embedding assurance at the earliest possible stage not only gives stakeholders confidence, it can also enhance decision-making, writes Mark Savage. When is the right time to start thinking about assurance on a project? Many stakeholders regard this discipline almost as an afterthought, something to be bolted on to the construction phase. This is understandable: at this point, the asset is becoming visible, taking on a real, as opposed to a virtual form. It is when anxieties about whether the programme is on budget and running to schedule are at their highest.

But this passive approach rarely yields the best results. Market volatility, changing legislation and the global financial crisis have, in recent years, forced public and private sector organisations to think harder about how and why they are investing in new assets. As well as seeking continual improvement and reducing risk, they need to have more certainty than ever that they are maximising the return on their investment and meeting their long-term business needs.

Assurance can play a major role in this process: applied to a range of areas including the design, cost or schedule, it can be tailored to suit particular priorities and make an important contribution to decision-making. But to be most effective, assurance should be applied proactively and integrated into the strategic plan from the very beginning.

Before a programme is even commissioned, independent assurance teams should be empowered to challenge the future viability of an asset both at a macro and a project level.

For example, external risks should be assessed, such as checking compliance with current and future legislation, whether the asset will meet changing consumer demands, and if it can adequately adapt to demographic change and population forecasts. Strategic decisions should also be challenged.

On rail infrastructure projects, for instance, has the most appropriate route been selected? In an airport, is the baggage-handling system cost-effective and future-

proofed? In a hospital, will the configuration and layout of the building meet future demand?

Benchmarking projections for the proposed new asset against other world-class assets that are already in operation can accelerate the decision-making process. But meaningful comparisons are only possible if they are based on consistent and accurate data.

Lines of defence

During the construction phase, assurance is most effective if it has been integrated into the different levels of governance – from the site to the board.

> **"Several advanced frameworks have evolved to support the way assurance is embedded into a project."**

In the past five years, several advanced frameworks have evolved to support the way assurance is embedded into a project.

Of these, the *lines of defence* model (alluding to the different levels of seniority that will scrutinise a project at various stages) is increasingly gaining international acceptance as a best practice approach.

A project should have a minimum of three lines of defence, ensuring that risks are properly and objectively considered at three management levels – the project, programme and board – before key decisions are made.

1. The first line of defence involves embedding controls, measures, checks and balances within the day-to-day delivery activities at any stage of the project. The scope of this line of defence includes delivery notes, progress, payment schedules and quality checks.

2. The second line of defence is the responsibility of the overall programme or project leader – for example, the business sponsor, programme manager or regional portfolio head. At this level, assurance verifies that the controls are effective and that the programme is progressing as intended and claimed. Trends are tracked in order to identify potential problems and clashes later in the project.

3. The third line of defence is the responsibility at the highest level of the organisation, such as the programme board, main board or investment committee. It provides assurance that management controls and objective validation procedures are being applied effectively and that the programme is meeting its baseline and business case criteria.

The benefit of the *lines of defence* model is that it can act as a tiered early-warning and escalation system, helping teams take corrective action or carry out improvements, before problems get out of hand. In some cases, a project can even be halted while corrective actions are undertaken.

Assurance reviews can be ordered at any time. Some reviews are planned into the schedule at 'gateway' points, to be carried out when the project reaches a key milestone. Others could be triggered by unplanned events or problems such as delays, spiralling costs or emerging risks. To ensure objectivity, it is particularly important that reviews commissioned by the third line of defence are carried out independently.

This could be either a third-party external auditor, or someone from a different part of the organisation.

Good assurance relies on having competent people, robust processes and reliable technology, and it is essential that it is supported by high-quality data. Inaccuracies, mistakes and misinterpretations will distort the findings, lowering confidence and weakening the entire data management system.

It is far more effective if data controls are embedded into the governance systems at the earliest possible point of a project.

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Fit-for-purpose

Although certainty is desirable in any project, it is important that the amount of assurance is proportionate to the scope of the programme. Too little assurance leaves a project vulnerable, while a heavy hand can stifle progress and compromise efficiency.

For example, on a complex major project with numerous contractors and new technology, such as a hospital or a nuclear power plant, controls will be intensive and hands-on.

Safety considerations aside, heavy control is necessary in order to reduce the risk to the programme due to the multiple interfaces between contractors and the uncertainty of new technology.

If, on the other hand, a project is straightforward, with a sole supplier and little technical or organisational complexity, the control function can be much smaller. This is because there is a proven solution, the workflow is common and the contractor is wholly responsible, with no interfaces to manage.

Implementing a project assurance system often requires new skills: as a sector, we need to increase our capabilities in analysing and interpreting the data. As well as employing techniques such as forensic accounting more frequently, we also need to realign and refocus the existing capabilities of our project teams.

Thanks to technology, assurance should increasingly become a less labour-intensive activity and less of a chore for project teams in the future, and more effective. Computers will automatically validate certain metrics, requiring human intervention only when an exception occurs.

Assurance is an invaluable means of avoiding lengthy delays and rocketing costs, or, in the worst-case scenario, risks that could derail a project altogether. Most compellingly of all, assurance can give clients confidence that they are investing wisely: building in the right way, at the right time and maximising the benefits for end users and stakeholders.

Assurance, deployed well, gives certainty and peace of mind. It should be at the heart of every project.

Using technology to enhance assurance

Traditionally, the collection of raw data is the most vulnerable link in the assurance process. Without proper protocols, misinterpretation and mistakes in the way data is manually collated and transferred can cause problems from the start.

Thankfully, smart technology is making it possible to significantly reduce the risk of human interaction, and subsequent errors.

Shared collaboration platforms, which store data in one central, place (a 'single source of truth') mean that data only needs to be input once, and does not need to be manually transferred.

Other technologies are reducing the need for human interaction even further. On large and complex projects, radio frequency identification (RFID) tags and quick response (QR) codes are being fitted to individual components such as structural steel or cladding panels. Sensors at the project entrance record the delivery of each batch of components and the information is automatically relayed to control and assurance systems.

Data tracking the progress of a project can be overwhelming, but it needn't be. Technology now makes it easy for senior stakeholders to have an understanding, in real time, of critical objectives. They can log in to a virtual 'dashboard' which gives a simple visual indication of a handful of key elements such as cost, schedule and quality.

About Turner & Townsend

Turner & Townsend has significant experience of successfully support clients throughout the procurement lifecycle. We have experience in all construction sectors including infrastructure, property and natural resources.

We offer a broad range of services from advising on strategy through to executing the most effective commercial deal.

We'd be happy to discuss your needs in more detail and how Turner & Townsend can help.

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