

INDEPENDENT PROJECT ASSURANCE FOR ENGINEERING AND CONSTRUCTION PROJECTS



1. BACKGROUND

The quest to constantly manage projects successfully remains elusive. Despite the advent of many tools, software applications, standards, guidelines, research, training and certifications, too many projects still fail to meet their objectives. There is no magic wand, no secret formula or fail proof method that will guarantee project success. The variables are just too many and the reliance on logic to unravel complexity is not always possible. Despite the gloom, there are evidence of practices that do improve chances of project success. Especially in the large capital project sector recent empirical studies have, once again, demonstrated that answers to success often lies in simplicity and attending to the day to day managerial aspects across the project life-cycle. Much value lies in validating the truthfulness of project performance indicators, reliability of budgets and expenditures, the current schedule status and forecast, spreading risk and general well-being of the project effort and its team members. ***The inherent complexity of especially large capital projects makes it even more worthwhile to conduct a liability appraisal of the project state and future course at a given point in time.*** The sensitivity in this process lies here since it implicitly provides a judgement of the organisations' capability to delivery the project and the inevitable clash between subjectivity of views and the need to expose the project to the most honest objectivity possible (Cavallone, 1987).

A project remains a system of multifactorial features, relations, events, values and resources concentrated around the project manager. The project system is intrinsically non-linear thereby making it difficult to identify single causes and proportional effects that could have a negative influence. Project assurance should not disrupt normal project management activities. It should be short, limited to factors with negative trends and adverse long-term impact. The findings and analysis should be as quantitative as possible based on actual data. The level of risk to the project and company should be clear with specific recommendations for remedy. This paper aims to explain the context, approach and value of independent project assurance as a project governance function to improve project performance.

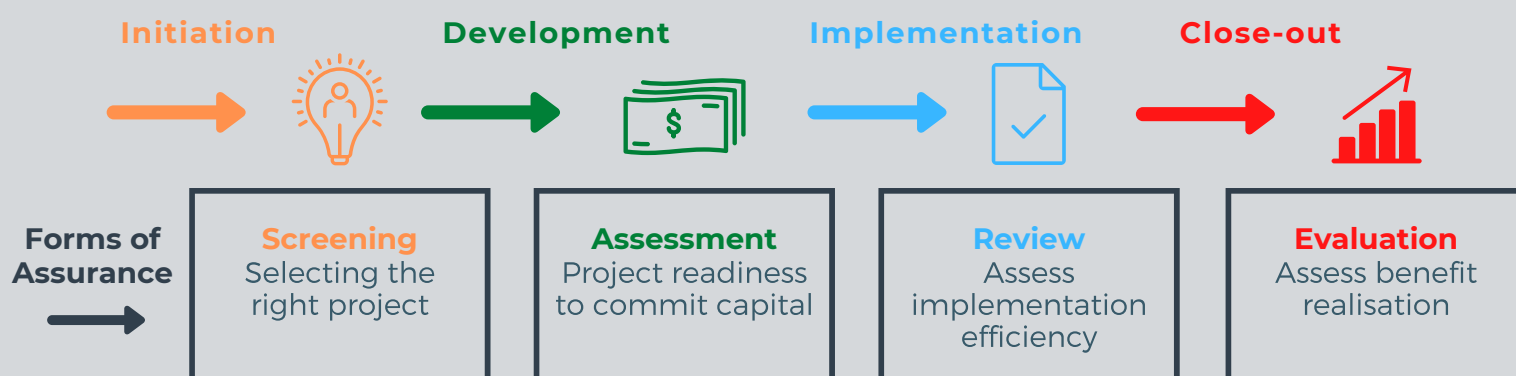


"Project Assurance is an important Project Governance fuction"

2. THE PROJECT LIFE-CYCLE

The project life-cycle (PLC) provide a sequential guide to the project team. Each phase address specific objectives and deliverables that needs to be attended in a timely manner.

The most simplistic representation of a PLC contains an Initiation phase, followed by Development, Implementation and Close-out. To ensure each phase are done right, the appropriate assurance approach and validation should be applied.



Initiation

In the words of Peter Drucker; “Leadership is doing the right things; Management is doing the things right”. Selecting the right project is all about strategy and the quest to address specific needs or capitalise on opportunities. The strategic decision is top-down and guided by a vision or mandate to commit resources responsibly. During this phase project assurance are done in the form of **screening** and focus on strategic alignment, selection processes, financial viability, method of funding, timing to market, availability of resources, statutory conditions, and strategic collaborations.





Development

During the development process technical, operational and user requirements are listed, developed, and submitted in the form a design and complete scope of work. From this the costs are estimated, schedule developed, risks assessed as well as all other items attended to for a bankable and implementable project. At the end of development, the most important decision needs to be taken – that of either continuing, re-visiting, put on hold or cancelling the project. If all goes well, capital is committed, and the project progress towards implementation. Project assurance in the development phase are done through readiness **assessments**, which aims to establish whether the project scope and conditions are sufficiently defined to commit capital within a 10% to 15% margin of contingency.



Implementation

The implementation phase is where all the action starts. The bulk of funds are expended on procurement of equipment and construction and the pressure is on to complete the project as soon as possible. During this phase various controls are put in place to help manage the project towards the final deliverable. Apart from statutory inspections, technical adherence and cost control, project assurance are done through **reviews**. It is during the implementation phase that independent project assurance can add much value by making sure (things are done right)



Close-out

The end of construction and handover does not mean the project is complete. The final deliverable needs to demonstrate that the expected benefits are realised to confirm whether the intended value was achieved. These benefits are measured against pre-determined performance parameters, level of utilisation or return on investment. Only once the realised value is confirmed through a formal **evaluation** review, can the project be deemed successful.



Despite the logical process to follow and control mechanisms in place, audits that report on project activities and compliance are retrospective and reactive. Even though audits remain a critical governance function, the value of audit findings are often for the next project. Something else is needed to help prevent projects from diverting into disarray.

3. DOING THINGS RIGHT

Project screening for selection, assessing the readiness and auditing against policies, standards and procedures for compliance have all the same objective - **doing the right things**. But once in the midst of the project and the pressure of managing day-to-day activities escalates, the attention to good project management practices and doing things right often subsides. Being under pressure is par-for-course for any project manager, leaving very little time to sit back and reflect, search for trends and looking for continuous improvement opportunities. **Without any form of assurance, the project can easily lose track of the project objectives and by the time the project is nearing the end the team could be faced with over expenditure, inaccurate reporting,** claims, unhappy stakeholders and an administrative mess. Project audits and assurance are different governance tools. In an article published by the Infrastructure and Projects Authority (IPA), the CEO Nick Smallwood mentions *eight principles for project success*. These principles are not 'auditable' but salient and forms part of assurance, or rather - doing things **right**.



THE EIGHT PRINCIPLES ARE:



1. Focus on the outcomes – not adherence or compliance but the end result. This will require taking calculated risks which is part of leadership.



2. Plan realistically – projects often lands in trouble due to a failure of estimation rather than failure of implementation. Plan the truth and beware of being overcome by the excitement of a new project.



3. Prioritise people and behaviour – probably one of the most difficult things to address. Forming a team and allowing the strength of each member mould their efforts towards meeting the objectives. There are no procedures or recipes for this, just good people skills.



4. Tell it like it is – Miss representing project progress in terms of cost and time got many a project manager fired. Misrepresentation is a dismissible offence and can lead to forensic investigations on large capital projects. Uncovering possible errors and ‘spilling the beans’ as early as possible is always the right thing to do, but even better to prevent by doing things right from the start.



5. Control scope – seasoned project managers will be quick to acknowledge that scope changes are the main source of project ‘evils’. It is the birthplace of time extensions, claims and over expenditures.



6. Manage complexity – again, something that cannot be imposed nor audited. Minimisation of internal and external dependencies as well as simplification of integration towards a single point of accountability should be the guiding strategy.



7. Be an intelligent client – build trusting relationships and consider the whole supply chain when making decisions.



8. Learn from experience:

- Seek out relevant **experience from other projects** and use it in planning and delivering the project.
- **Value experience and learning in the project team** and build a culture of continuing professional development.
- Maintain an **‘outside view’** of the project: bring in independent perspectives and integrated assurance and learn from them.
- **Capture lessons** throughout the life of the project, and share them as feedback, stories, and case studies to improve project delivery for wider public benefit.

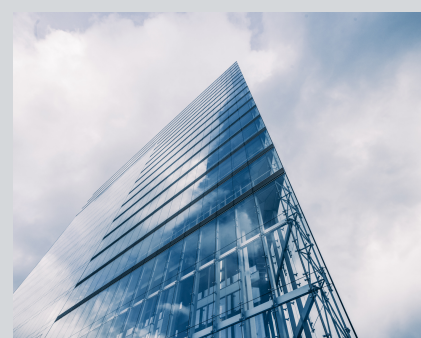
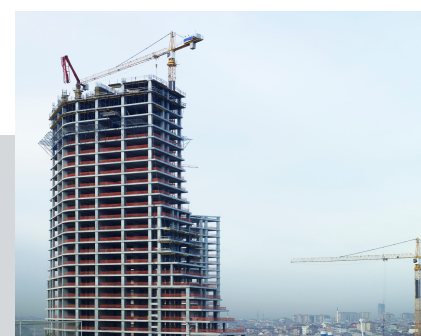
4. PROJECT SENSITIVITY

The key to proper assurance is to identify the performance sensitivities and leading indicators that, if not addressed immediately, have the potential to derail the project. These could include the identification, analysis and response to:

- Early steps taken to setup the project for success.
- Evidence of consistent actions and small steps instead of ad hoc, quantum efforts taken by the project manager over a period of time.
- Events, items or incidents distracting focus from the project.
- Record keeping, accuracy and consistency of meeting minutes, status reporting and general honesty in project communication.
- Access to project information.
- Enquiry turnaround time and response management.
- Causes of any delays whether order placement, invoicing, payment, deliveries, etc.
- Team functioning and trust.
- Individual competency, capability and commitment.
- Evidence of project leadership and accountability.

Building and maintaining trust throughout the assurance process remains a challenge. The process should not create the perception that it is a 'witch-hunt' and fault-finding mission. The purpose of assurance should always remain to improve the possibility of project success.

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5. CONDUCTING AN INDEPENDENT ASSURANCE REVIEW

Independency limits bias and hiding the truth. It should provide a report that contains unambiguous findings, projections and recommendations that should assist the project manager to make the necessary adjustment and align the project effort, where necessary, towards success. To achieve this, the following process should be followed:

- Notify the project management and team well in advance of when the assurance review will commence.
- Obtain access to all project information in advance.
- Review available project information prior to meeting with the project manager and team.
- When conducting site visits arrange for access and induction appointments well in advance.
- Setup appointments for interviews and feedback sessions in advance.
- During personal engagement, the focus should be on validating observations, trends and findings.
- Based on validated information and project data analysis, a best, worst and probable case scenario for the project should be developed. The condition for each scenario should be defined and well-articulated.
- The project manager and team should be given the opportunity to respond and provide their input and views.
- Develop a response plan.
- Document the results in an Independent Project Assurance Review Report and submit to the Project Steering Committee.



6. CONCLUSIONS

Justifying the time and cost for independent project assurance is not always easy at project initiation. However, when the initial 'honeymoon' phases are over and project reality materialise, the cost for review becomes 'small-fry'. Prevention is always better than cure and good project governance will allow for objective insights at any given time to improve the chances of project success. Project assurance should be about taking care of the interest of the project. "If the project is taken care of by management, the project will take care of all shareholders".



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References:

Cavallone, S., 1987. Auditing large plant engineering projects, International Journal of Project Management, 5 (1). IPA – Infrastructure Project Authority (UK).