



Civilution

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Focus on: National Treasury Standard for Infrastructure Procurement and Delivery Management



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Guidance for client and delivery teams

The *Standard for Infrastructure Procurement and Delivery Management (SIPDM)* establishes requirements for institutional arrangements for organs of state who are responsible for infrastructure delivery. Such requirements relate to:

- the establishment of a suitable infrastructure procurement and delivery supply chain management policy to implement the standard, which as a minimum:
 - assigns responsibilities for approving or accepting deliverables associated with a gate in the control framework, or authorising a procurement process or procedure
 - establishes committees that are required by law, or equivalent quality management and governance arrangements
 - establishes delegations for the awarding of a contract or the issuing of an order
 - establishes ethical standards for those involved in the procurement and delivery of infrastructure; and
- the entering into agency agreements between organs of state where responsibilities for implementation are delegated or assigned to other organs of state.

There is a need to understand the roles and responsibilities of the client and delivery teams in order to develop a suitable supply chain management (SCM) policy to implement the standard and to structure an agency agreement which satisfies the minimum requirements of the SIPDM.

THE ROLE OF THE CLIENT

A client initiates, commissions and pays for infrastructure projects. The role and performance of the client is perhaps the single most important factor in determining the success of an infrastructure project regardless of its size, complexity and location.

The principal role of the client is to ensure that a solution to the business case for a project is achieved. The client as such owns the business case of the project and needs to provide effective leadership of the project throughout the project life cycle, commencing at a strategic level and ending at the close-out of a project after the beneficiary of the project has accepted and operates the delivered infrastructure. Typically, a named individual is held accountable for the outcomes of the project. The

client needs to:

- establish a clear business case at the inception of a project, constantly revisit it, and verify its assumptions, objectives and ongoing validity;
- create and communicate a vision for the project which enables all participants to understand its purpose;
- create an enabling environment within which decisions and authorisations can be made to progress projects in an efficient and effective manner;
- apply effective leadership and governance in the way in which a project is authorised, conducted and overseen in order to create a business environment for success;
- provide strategic thinking, intent and approach;
- set the priorities between time, cost and quality and the attainment of developmental and other objectives to provide

crucial direction to the project team when hard choices have to be made to steer a project through the complexities of decision-making;

- carefully monitor projects and remain vigilant to changes that can impact on a project and its business case;
- gain insight into and find ways where possible to satisfy the requirements of stakeholders;
- ensure that:
 - the budget contained in the business case is realistic and provides value for money
 - the programme is not only realistic, but is also likely to be attractive to the market and attract competitive prices; and
- focus on strategy, the project environment, the business case, high-level progress, corrective action, communi-

cation, and managing internal and external stakeholders and lessons learned. A public sector client, as a custodian of public funds, needs in addition to ensure a culture of governance and accountability which:

- resonates with Section 195(1) of the Constitution of the Republic of South Africa, 1996, in particular with respect to a high standard of professional ethics and standards, and the efficient, economic and effective use of resources;
- balances the competing needs of cost-effectiveness, affordability, sustainability and South Africa as a developmental state;
- caps project scope and costs;
- avoids prohibited practices, improper conduct and maladministration, whether by act or omission;
- avoids political interference resulting in improper conduct; and
- delivers not only value for money, but also achieves results.

A client needs to be bold enough to make timely decisions such as to press the 'start' button if corrective action is necessary and to push the 'stop' button if the project becomes unviable, or if there is insufficient budget to complete the project or related projects. A client also needs to manage demand to ensure that goods, services and engineering and construction works which are required to support the business plan are delivered at the right price, time and place, and that the quality and quantity of such goods or services satisfy needs.

Clients need to either have in-house resources or procure the resources that are necessary to function as a client, to deliver projects once a decision has been made to proceed with implementation and to interface with stakeholders during the delivery process as indicated in Figure 1. The functions of the design team and the supply team (constructor and manufacturer) are most often outsourced. The functions of the project manager and the technical resources may, depending upon the capacity and capabilities of the client, be performed by employees of the client or professional service providers. It is also possible for a client to assign or delegate certain client team responsibilities to another organ of state, i.e. an implementer. Where such delegation or assignment is made, the *sponsor/owner* and the *implementer*, although being different organs of state, collectively function as the 'client team'.

Figure 2 indicates the typical roles and responsibilities of the client and delivery teams. The client cannot outsource client team responsibilities to the private sector. It can, however, adopt delivery and procurement strategies which minimise the number of contracts that it needs to put in place to deliver projects to manageable levels.

Units or divisions within an institution may perform different roles in the delivery of infrastructure. Some units may not assume responsibility for all the areas or may only provide the necessary technical advice to progress projects as indicated in Figure 2. Some of the responsibilities may

be assigned to other units or departments. Accordingly one unit may function as the *sponsor/owner* and another unit as an *implementer*. Typically, the *implementer* assumes responsibility for programme management, procurement, payment of contractors, administration of contracts, and the provision of technical advice and inputs. The *sponsor/owner* and the *implementer* collectively function as the client.

ASSIGNING AND DELEGATING CLIENT RESPONSIBILITIES

The unit or department acting as the *sponsor/owner* in such circumstances typically retains responsibility for ensuring the strategic alignment of the project or programme. As such it is the owner of the investment and enables the realisation of benefits by ensuring continuity of focus on the business case, having clear authority and actively managing risks and stakeholders. The unit or department acting as the *implementer*, on the other hand, is typically responsible for specifying requirements to external participants and managing delivery outcomes. Fundamental to this is the procurement of appropriate private sector participants and the management of those relationships to maximise value. An *implementer* as such needs to ensure that:

- specified requirements will achieve the required benefits of the business case and provide value for money;
- momentum is maintained for the investment appropriate to the needs of the stakeholders and the delivery team

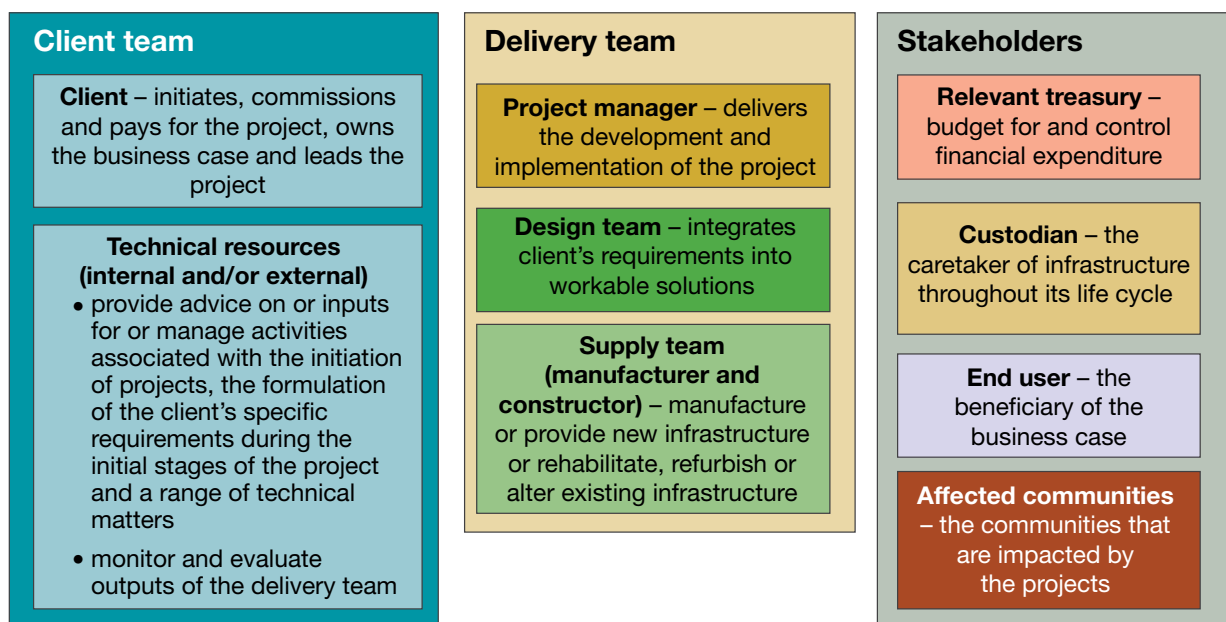


Figure 1: The principal role players in the delivery of infrastructure

Client team

Client:

- Initiates, commissions and pays for infrastructure projects.
- Ensures that a solution to the business case for infrastructure projects is achieved.
- Owns the business case of the infrastructure projects and needs to provide effective leadership of the project.

Areas of responsibilities:

- Manage demand to ensure alignment with strategic and operational commitments.
- Manage a portfolio of projects to achieve strategic business objectives.
- Manage programmes (interrelated projects) to realise specific benefits, focusing on cost, schedule and performance objectives.
- Manage projects which are necessary to progress projects and support implementation.
- Procure resources to plan and implement projects.
- Manage budgets and cash flows.
- Pay contractors and account for expenditure.
- Comply with legislation including occupational health and safety, environmental legislation, etc.
- Obtain the necessary statutory permissions.
- Communicate with stakeholders.
- Provide client direction to and accept the outputs of the project team.
- Administer the contract with project management professional service providers and specialist consultants involved in the initial stages of a project.
- Oversee the commissioning, fine-tuning and handover of completed infrastructure, including record information, to the end user / custodian.
- Post implementation review, revalidate business case and implementation of lessons learned.
- Etc.

Technical resources (internal and/or external) to:

- Provide advice on, inputs for or manage activities associated with the initiation of projects, the formulation of the client's specific requirements during the initial stages of the project, and matters relating to:
 - o financing
 - o procurement
 - o planning
 - o land assembly
 - o costs
 - o compliance with legislation
 - o the commissioning of studies
 - o acceptability of end-of-stage deliverables
 - o etc.
- Monitor and evaluate outputs of the delivery team.

Project manager:

- Manages the development and implementation of the project.
- Administers professional service contracts on behalf of the client/implementer.

Procurement leader:

- Oversees the development of the procurement documents and manages the procurement process.

Manufacturer / constructor:

- Manufactures or provides new infrastructure or rehabilitates, refurbishes or alters existing infrastructure.

Contract manager:

- Administers a contract or an order on behalf of the employer.

Supervising agent:

- Confirms that the works are proceeding in accordance with the provisions of the contract.

Lead designer:

- Establishes and refines the design approach or solution so that it achieves the required standards and is coordinated within the project team.

Designer:

- Provides design or conditional assessment services.

Cost controller:

- Provides independent and impartial estimation and control of the cost of constructing, rehabilitating and altering infrastructure.

Health and safety agent:

- Assumes statutory responsibilities imposed by the Construction Regulations and leads health and safety risk management compliance processes.

Project leader:

- Leads and directs the design team in a non-technical role including the monitoring and integration of the activities, development and maintenance of a schedule, monitoring of progress and facilitation of the client acceptance of an end-of-stage deliverable.

Delivery team

Package

Package

Package

Delivery team for a package

Figure 2: Client and delivery teams and their typical respective responsibilities

for the efficient delivery of outcomes;

- requirements are translated into project or programme purpose, delivery principles and roles before the detail;
- value is added through the establishment of relationships and the incorporation of best practice;
- a clear governance structure, founded on the principles of honesty, accountability and integrity, is established and maintained; and
- interface management occurs which aligns all stakeholder organisations so as to maximise the potential of the project or programme to deliver on the required outcomes.

On the other hand, it may be more appropriate to assign or delegate responsibilities for implementation to another organ of state, in which case:

- the *sponsor/owner* initiates, commissions and pays for infrastructure projects; and
- the *implementer* is responsible for the implementation of infrastructure projects.

Such delegation or assignment in terms of the SIPDM needs to be performed through a written agency agreement which:

- establishes principles and requirements relating to the recovery of costs associated with the rendering of the service, claims for payments made on an agency basis including the release of retention sums, the settling of claims for payment and the documentation required to accompany such claims; and
- includes a service delivery agreement which, as relevant, sets out at least the following:
 - overall aims, objectives and priorities
 - governance structures
 - reporting requirements
 - the scope of the services to be performed by the *implementer* during each financial year
 - the projects and packages which are included in the infrastructure plan which are to be delivered, and the time frames for doing so
 - the roles and responsibilities of the parties to the agreement, including requirements for the engagement and management of stakeholders
 - delegations to the *implementer* to accept end-of-stage deliverables on an agency basis
 - contributing resources, including human resources
 - dispute resolution procedures.

Where an organ of state is delegated to function as an *implementer*, agreement needs to be reached as to what precisely is addressed by the *sponsor/owner* and what is addressed by the *implementer* so that collectively all the *client* functions are covered by the two organs of state.

The allocation of roles and responsibilities between the *sponsor/owner* and the *implementer*, and the governance arrangement need to be such that:

- the *sponsor/owner* is able to retain ownership and control over the business case and the *implementer* is able to efficiently deliver infrastructure through the delivery team; and
 - there is little or no duplication of effort.
- If, however, a management contractor is appointed to manage the delivery team on an “engineer, procure and construct basis”, the management contractor replaces the project manager and administers all contracts with professional service providers and constructors as subcontracts. The *client* is, in terms of this contracting strategy, required to only administer the contract with the management contractor. This arrangement reduces the demands on the resources of a client to the extent that it may not be necessary to assign implementing responsibilities to units or divisions.

PROJECT GOVERNANCE

Governance is the system by which the whole organisation is directed and controlled and held accountable to achieve its core purpose over the long term. Management, on the other hand, is the act of bringing people together to accomplish desired goals and objectives, using available resources in an efficient, effective and risk-aware manner. Accordingly, management is about getting the work done, whereas governance is about ensuring that the right purpose is pursued in the right way and that the organisation continuously develops overall.

An effective governance system needs to encompass the principles of accountability, direction and control as indicated in Table 1.

Project governance describes the way in which projects are authorised, conducted and overseen by the *client* and significant interested parties. It:

- comprises those areas of governance that are specifically related to project activities;

- is a mechanism for engaging the *client* institution in a project, for obtaining buy-in of key players and for driving executive decision-making;
- provides a comprehensive, consistent method of controlling the project and ensuring its success; and
- includes the establishment of appropriate and effective delegations of responsibility.

Project governance is the framework within which project decisions are made. Project governance is a critical element of any project since, while the accountabilities and responsibilities associated with an organ of state’s business as usual activities are laid down in their governance arrangements, seldom does an equivalent framework exist to govern the development of its infrastructure projects, unless there is in place a specifically developed project governance policy for project development activity. This is particularly true where responsibilities as *sponsor/owner* and *implementer* sit between two different organs of state.

The role of project governance is to provide a decision-making framework that is logical, robust and repeatable to govern an organ of state’s delivery of infrastructure projects. This provides an organ of state with a structured approach to conducting both its business-as-usual activities and its business-change, or project, activities. There is no one-size-fits-all governance structure for projects. Project governance needs to be appropriate to a particular project and organ of state. A *client board* or *project steering committee* is typically established to fulfil the governance function for projects. Alternatively, *programme boards* or *portfolio boards* may be more appropriate to provide governance for programmes and portfolios of projects, respectively.

Project governance typically involves:

- the *client*, who authorises the project, makes executive decisions and solves problems and conflicts beyond the project manager’s authority;
 - the *project steering committee* or *board*, which contributes to the project by providing senior-level guidance to the project; and
 - *stakeholders* such as end users and custodians, who contribute to the project by specifying project requirements and accepting the project deliverables.
- Projects are usually organised into stages that are determined by

governance and control needs, and follow a logical sequence with a start and an end, divided by decision points. The stages and gates within the delivery management process shown in the SIPDM provide a suitable project life cycle for the delivery of infrastructure and the necessary controls for author-

ising the proceeding with an activity within a process or commencing with the next process.

DELIVERY TEAM SERVICES

The basic services which are provided by the delivery team are outlined in Figure 2. These services can be broken down into

four basic categories:

- project management and cost control;
- design services;
- construction and manufacturing services; and
- health and safety services.

The project management, cost control and design services fall within the scope

Table 1: Principles of accountability, direction and control (after BS 15300)

Area	Principles
Governance accountability	<p>The governing body (individual or group of people ultimately responsible for the long-term direction and control of the institution) needs to:</p> <ul style="list-style-type: none"> ■ Identify, consult with and report to relevant stakeholder. ■ Exhibit leadership. ■ Determine the institution's best long-term interests. ■ Sustain clarity on the institution's purpose and values. ■ Establish an effective governance culture. ■ Establish governance competence and capacity. ■ Recognise and respond appropriately to governance performance. ■ Demonstrate sufficient transparency for accountability.
Implementing governance direction	<p>The governing body needs to:</p> <ul style="list-style-type: none"> ■ Understand and ensure the integrity of founding documentation. ■ Understand the institution's context. ■ Establish and regularly review governance policies. ■ Ensure that governance policies set standards for all aspects of organisational performance. ■ Establish governance role clarity. ■ Uphold good delegation principles. ■ Ensure that the ownership of policies is clear.
Implementing governance control	<p>The governing body needs to:</p> <ul style="list-style-type: none"> ■ Set out and embed governance controls. ■ Ensure governance policies are monitored. ■ Ensure appropriate response to monitoring results.

Table 2: Design services

Service	Principal activities
Architectural design	Plan, design and review the construction, extension or refurbishment of buildings, spaces, structures and associated site works for the use of people, by the creative organisation of materials and components with consideration to mass, space, form, volume, texture, structure, light, shadow, materials and the project brief.
Civil engineering	Plan, design and review the construction of site works comprising a structure such as a road, pipeline or sewerage system, or the results of operations such as earthworks or geotechnical processes.
Electrical engineering	Plan, design and review the installation of the electrical and electronic systems for and in a building or structure.
Fire safety	Plan, design and review the fire protection system to protect people and their environments from the destructive effects of fire and smoke.
Landscape architectural design	Plan, design and review the construction of outdoor and public spaces to achieve environmental, socio-behavioural, or aesthetic outcomes, or any combination thereof.
Mechanical engineering	Plan, design and review the construction, as relevant, of the gas installation, compressed air installations, thermal and environmental control systems, materials handling systems or mechanical equipment for and in a building.
Structural engineering	<p>Plan, design and review the construction of buildings and structures, or any component thereof, to ensure structural safety and structural serviceability performance during their working life in the environment in which they are located when subject to their intended use in terms of one or more of the following:</p> <ul style="list-style-type: none"> ■ external and internal environmental agents; ■ maintenance schedule and specified component design life; or ■ changes in form or properties.
Wet services	Plan, design and review the construction, within buildings or from a point of drainage, installations intended for the reception, conveyance, storage or treatment of sewage, and water installations which convey water for the purpose of fire-fighting or consumption, and roof drainage arrangements within a building.

of the built environment professions. The scope of these services is well understood and is described in documents published by the Council for the Built Environment (CBE), the Engineering Council of South Africa (ECSA), the South African Council for the Architectural Profession (SACAP), the South African Council for the Landscape Architectural Profession (SACLAP), the South African Council for the Project and Construction Management Professions (SACPCMP) and the South African Council for the Quantity Surveying Profession (SACQSP). There are, however, many overlaps between these professions, particularly in the control of costs and the management of projects, and between the engineering disciplines. As a result it is possible for a built environment professional to perform more than one of the functional roles indicated in Figure 2 on a project.

The project management service can, as indicated in Figure 2, be broken down into a number of discrete areas, namely the management of the design (project leader), the management of the procurement processes (procurement leader) and management of the contract (contract management). The design services provided by the architectural and landscape architectural professionals and major discipline-specific engineering professionals are outlined in Table 2. The client team needs to brief, give direction to and accept the outputs of the design team.

The client (any person for whom construction work is being performed), the designer and the contractor are responsible for ensuring compliance with the provisions of the Construction Regulations issued in terms of the Occupational Health and Safety Act of 1993. These regulations permit a client to assign their functional responsibilities to health and safety agents. Health and safety professionals are registered in terms of the Project and Construction Management Professions Act.

NOTE

Further insights and information can be obtained from:

BS 13500:2013. Code of practice for delivering effective governance of organisations. British Standards Institute.

Kershaw, S & Hutchison, D 2009. *Client Best Practice Guide*. Institution of Civil Engineers (UK). ●

