



# Reforming procurement standards in order to effectively deliver public infrastructure: Rethinking the regulatory environment in post-pandemic South Africa

**Authors:**

Jonathan Klaaren<sup>1</sup>   
Ron Watermeyer<sup>2</sup> 

**Affiliations:**

<sup>1</sup>Department of Law, Faculty of Commerce, Law, and Management, University of the Witwatersrand, Johannesburg, South Africa

<sup>2</sup>Department of Construction Economics and Management, Faculty of Engineering, University of the Witwatersrand, Johannesburg, South Africa

**Corresponding author:**

Jonathan Klaaren,  
jonathan.klaaren@wits.ac.za

**Dates:**

Received: 04 Dec. 2021  
Accepted: 17 June 2022  
Published: 27 Sept. 2022

**How to cite this article:**

Klaaren, J. & Watermeyer, R., 2022, 'Reforming procurement standards in order to effectively deliver public infrastructure: Rethinking the regulatory environment in post-pandemic South Africa', *South African Journal of Economic and Management Sciences* 25(1), a4465. <https://doi.org/10.4102/sajems.v25i1.4465>

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This research study identifies a specific layer of regulation within the governance regime which is a key factor impeding the procurement and delivery of public infrastructure in South Africa. We first identify current weaknesses of conflict and confusion at the level of soft law in the procurement and delivery of public infrastructure projects. Then we present a detailed case study of a successful South African megaproject (the procurement and delivery of the public infrastructure for two new universities, the New Universities Project) to demonstrate that these weaknesses can be avoided. The research note's regulatory account focuses on the key element of quality in the South African public procurement regime, distinguishing that concept from the often conflated notion of value-for-money. We discuss how the problems identified could be addressed by means of changes to soft law prior to the finalisation of the current and ongoing public procurement legislative reform process.

**Contribution:** Through a case study of the on-time and with-budget public procurement and delivery of two new universities for South Africa, the article demonstrated that national policy on public infrastructure can be successfully implemented, with attention to the key soft law layer of regulation.

**Keywords:** supply chain management; standards; public procurement; public management; regulation; soft law; value-for-money; megaprojects; public infrastructure.

## Introduction

South Africa's response to the coronavirus disease 2019 (COVID-19) pandemic envisioned an eventual focus on longer-term policy reform to ignite inclusive economic growth. This is reinforced in the National Infrastructure Plan 2050 (NIP 2050) which seeks to create a foundation for achieving the National Development Plan's (NDP) vision of inclusive growth and to promote dynamism in infrastructure delivery, address institutional blockages and weaknesses, and guide the building of stronger institutions. This research study identifies a specific layer of regulation within the governance regime which, if rectified, will promote the efficient, economic and effective delivery of public infrastructure in South Africa.

While money is tight, it is clear that one element of this longer-term response will be a significant investment in new infrastructure (Planting n.d.). This research study supports incorporating a strategic and developmental approach into South Africa's public procurement policy regime and applying such an approach specifically in implementing investment in new infrastructure post-COVID19. A strategic and developmental approach to public procurement would represent a major advance beyond the administrative paradigm currently dominating the procurement regime. This study's focus upon the regulatory framework in terms of which a pipeline of megaprojects can be delivered is crucial. As is broadly admitted across various government levels, it is not the availability of money but the 'regulatory and policy environment' that is weak in regard to infrastructure delivery (Planting 2020). This sentiment is confirmed in a recent National Planning Commission (NPC) background paper which found significant underspending of infrastructure budgets in all spheres of government and state-owned entities, as well as many differences in the understanding and interpretation of infrastructure regulation, policy and practice which undermine the effective and efficient procurement of public infrastructure (Watermeyer & Phillips 2020). Research has shown government policies are one of the significant factors exerting influence on supply chain flexibility. In turn, supply chain flexibility exerts a positive influence on the performance of the public supply chain (Mhelembe & Mafini 2019).

We begin our study in Part Two by contextualising the strategic and developmental approach to public procurement with historic experience and economic reasoning. We situate our policy proposal in the recent history of the South African public procurement regime (Brunette, Klaaren & Nqaba 2019) and show the basis of this approach in the evidence marshalled in the recent NPC background paper on infrastructure delivery (Watermeyer & Phillips 2020). In Part Two the significant question of the degree to which infrastructure delivery is conceptually unlike the procurement of other public goods and services is raised and discussed.

In Part Three a case study is presented of a megaproject for which there is detailed information publicly available: the delivery of two new universities in the Northern Cape and Mpumalanga Provinces. Implementing this case study research method and highlighting the particular megaproject, should contribute to deepening and augmenting the South African literature in this area.

In this part and in the research study as a whole, our research method is a case study analysis, a method with a long social science tradition. In one of the established research handbooks in this field the scope of a case study is defined as 'an empirical method that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context may not be clearly evident' (Yin 2017). We collected primary public documents relating to the New Universities Project (NUP). This was facilitated by the participation of one co-author in the management of this megaproject (specifically as a member of the NUP Management Team [NUPMT], see below Part 3). Employing then a socio-legal approach to the case study analysis, we researched further legal and governance instruments and referred to relevant local and international secondary literature to assist in understanding the case study and its context (Argyrou 2017). Broadly speaking, the case study method has been applied to other megaprojects in Southern Africa including the Gautrain (Fombad 2015). Case studies in the performance of megaprojects with particular attention to their linkages to the governance arrangements in South Africa are beginning to emerge (Laryea 2019; Laryea & Watermeyer 2020; Watermeyer 2022). This welcome trend has nonetheless in part been triggered by enquiries into infrastructure project failures and the poor performance of megaprojects in countries such as the UK (Denicol, Davies & Krystallis 2020; Watermeyer 2019).

In a concluding section, Part Four, we argue for drawing the connections between a strategic and development approach to government procurement policies, the objective to deliver a quality-ensured megaproject within budget and on time, and the sort of value-for-money essential in order to conduce to a transformed, resilient, and sustainable post-pandemic South Africa society. While we do not consider the broader public impacts of the infrastructure megaprojects themselves, this section interrogates the principle of value-for-money and identifies as beneficiaries both the fiscus and the suppliers and contractors interacting with the delivery of the public infrastructure project

during its delivery. This part also ties together the preceding sections of our research study.

## **A strategic and developmental approach to infrastructure procurement in South Africa**

### **The historical context of the contract state**

History shows the importance of understanding the government policies around public procurement. Since around 1980, South Africa has followed the international trend of an expanding 'contract state'. Public procurement has become increasingly important to state operational and allocative concerns. This has made attempts to change the form and content of its public procurement regime significant. Since 1994, South Africa's public procurement regime has become progressively configured into an essentially decentralised organisational form (Brunette et al. 2019).

However, due to domestic public procurement politics, the further development of this organisational form of the state has been truncated. This has resulted in the establishment of only limited central steering capacity and the elaboration of a regime pursuing procurement through financial management rules. The result – apparent soon after 2010, if not before – has been a public procurement regulatory regime which is fragmented, incoherent, and formalistic, as a whole contributing to problems of state incapacity and corruption (Brunette et al. 2019).

In 2013 South Africa's Minister of Finance announced a major push to reform South Africa's contract state. The effort aims to better establish, locate and extend the public procurement regulatory authority. It has begun to elaborate a centred, strategic and increasingly developmental procurement methodology. It is moving towards more flexibility, which is effectively an attempt to reduce rigidity in rules, while building more robust and distributed disciplinary mechanisms, ones which take account of deficits in regulatory capacity and political will (Brunette et al. 2019). Most recently, National Treasury has published draft legislation (the draft Public Procurement Bill of February 2020) promising to overhaul this regime. At the same time, the Presidency embarked upon its drive to establish a pipeline of shovel-ready fundable infrastructure megaprojects.

### **Economic reasoning**

The economic reasoning behind the provision of public infrastructure in a post-pandemic South Africa is fairly straightforward and compelling. 'The NDP 2030: Our future – make it work' sets a target for public infrastructure expenditure of 10% of the General Domestic Product (GDP) and anticipated that government's inability to spend its infrastructure budgets would be addressed over a period of time. However, instead of a steady increase in infrastructure investment during the last decade, as envisaged in the NDP, such investment has been in decline in real terms and has hovered around half this target. Furthermore, underspending has increased rather than decreased. Nevertheless, the NDP's

identification a need for an increase in gross fixed capital formation to realise inclusive growth remains valid. An increase in the quality and quantum of public infrastructure is required to enable the economy to grow faster and become more productive (Watermeyer & Phillips 2020:79).

At least two caveats should be added to the current consensus that an increased focus on public infrastructure procurement can and should be effected in order to pull South African out of its pre- and post-pandemic blues. While this study explores institutional and public policy avenues through which the principle of value-for-money may be assured in public infrastructure procurement, there are factors that may interfere with that result. First, it has long been recognised in the field that cost underestimation in megaprojects cannot be explained simply as error and may best be explained as strategic misrepresentation (deception), optimism bias (delusion) and escalating commitment (Denicol et al. 2020; Fombad 2015:1209). Second, the value-for-money principle is only one of a number of relevant governance principles, which could additionally include consensus participation, transparency, accountability, risk transfer, political will, sustainability and corporate governance (Fombad 2015:1204).

### **Distinctiveness of infrastructure procurement**

Throughout this research study, we demonstrate that the subject matter of public infrastructure is indeed distinctive as a policy domain of the public procurement system from the policy domain of goods and services for consumption with which it is often conflated. Purchasing is commonly a back-office or administrative function, whereas procurement is a front-office or strategic function which needs to be linked to the department or directorate responsible for delivering projects and services. The handling of procurement by a specific purchasing resource or department under a finance department rather than being frequently a central competency within portfolio, programme and project management in complex projects leads to unforeseen issues developing which inevitably lead to time, cost and quality overruns (Watermeyer 2022; Watermeyer & Phillips 2020).

Arguments have long been made for the worth of distinguishing carefully between the public procurement of goods and services on the one hand, and the procurement of construction works and infrastructure on the other (Anthony 2018:chap. 2). The International Organisation for Standardisation (ISO) 10845-1 (2020) identifies the distinguishing features between the procurement of infrastructure and that for general goods and services for consumption. The procurement of general goods and services for consumption involves the direct acquisition of goods or services which are standard, well-defined and readily scoped and specified. Such procurement is routine in nature and driven by the development of a specification which then forms part of the requisition for the required goods or services. An immediate choice can be made in terms of the cost of what is offered. In contrast, the procurement of infrastructure is strategic in nature as there are many more

risks to manage due to unforeseen events during the delivery of the project. In addition, infrastructure requirements are often established from a perspective of desired performance, rather than a well-defined specification. A range of different combinations of goods and services with distinctive characteristics such as initial cost, reliability, life-cycle costs, and operating costs may satisfy the performance requirements. Furthermore, the final contract price is commonly the sum of the initial contract price, price adjustment for inflation and the cost of risk events for which the client is at risk. As a result, there can be a significant difference between the starting value of a contract and the final value (out-turn cost). Budgetary provisions (contingencies) are required to fund this difference.

Infrastructure projects need to be planned, specified, procured and delivered. Once decisions are made on what the project needs to deliver, who will deliver it and how it will be funded and governed, the remaining decisions centre on how it will be managed through to completion. Such management takes place within a project-specific environment which continually involves the management of risk events, which may be foreseen or unforeseen, having the potential to negatively impact on project outcomes during the protracted delivery process. Furthermore, the procurement of infrastructure involves the programming and coordination of a network of suppliers of goods and services bound together through contracts which are required to collectively deliver or alter infrastructure on a site. Such a network can include different companies specialising in design, manufacture, supply, assembly or construction (ISO 10845-1 2020; ISO 22058 2022; Watermeyer 2018, 2022; Watermeyer & Phillips 2020).

Other important project variables include what is delivered, the client's value proposition for projects (the promise of measurable benefits), stakeholder influences, resources employed, constraints, processes and procurement practices that are pursued in infrastructure delivery. Furthermore, a central issue that needs to be dealt with is the financial liability related to the uncertainty of information when decisions are made, as risk taking is necessary when delivering projects. Accordingly, client procurement and delivery management practices (the client buying functions) are central to the performance of the infrastructure supply chain and have a direct impact on the realisation of the client's value proposition for the project (Watermeyer 2018, 2022).

As a final aspect of their distinctive nature, infrastructure projects are furthermore characterised by multiple contracts which need to be procured and managed in such a way that the anticipated benefits are progressively realised. There are accordingly several interfaces and interdependencies between contracts as works (products) that are developed or maintained on a site. A supply chain needs to be contracted and mobilised. Demand is managed through service life plans, based on an assessment of current performance against desired levels of service or functionality and strategic infrastructure plans. Demand also needs to be proactively managed through the delivery process to prevent scope



creep. Value for money in this context is the optimal use of resources, or the effective, efficient, and economic use of resources to achieve intended project outcomes (Watermeyer 2018:24, 25, 73, and 74).

## The New Universities Project as an exemplary South African megaproject

In this section the R2b NUP is outlined and classified as a megaproject, while the structural and project-specific institutions and factors that contributed to the success of the NUP are further explored. While most megaprojects in South Africa are either over estimated cost or subject to long delays or (most often) both over budget and late, the NUP showed the opposite – successful delivery of public infrastructure on time and on budget.

Megaprojects are subject to definitional debates (Parrock 2015), but may be understood as large public sector infrastructure projects usually taking at least five years to complete (Watermeyer & Phillips 2020:46). One list (Watermeyer & Phillips 2020) identified the following as South African megaprojects: the Gauteng Freeway Improvement Project, the Gautrain Rapid Rail Link System, the Ingula Pumped Storage Scheme, the King Shaka International Airport, the New Multi-Product Pipeline, the Kusile coal power plants, the Medupi coal power plant, the NUP, and the Renewable Energy Independent Power Producers Procurement Programme (REIPPPP).

The government's Annual Budget Reviews contain an annexure listing major infrastructure projects at various stages of consideration but not yet approved for funding. Table D2 of the 2020 Annual Budget contains 31 such public infrastructure projects, with cost estimates ranging from R500 million to R112 billion (Gautrain Rapid Rail potential extension) (National Treasury 2020). These projects vary among the stages of prefeasibility, feasibility, feasibility completed, procurement, and implementation. On 24 July 2020, Minister De Lille gazetted a list with 18 new Strategic Integrated Projects (SIPs) (Presidential Infrastructure Coordinating Commission 2020). These were numbered 19–36 and carried on from an earlier list of 18 SIPs. Six of these July 2020 SIPs had subprojects identified (a total of 50 sub-projects).

Undoubtedly, the best-documented public infrastructure project in South Africa is the NUP, a subproject of SIP 14 (NUPMT 2018a). Around 2010, the Department of Higher Education and Training (DHET) developed a project to establish two new universities in the Mpumalanga and the Northern Cape Provinces. The project was planned to be fully developed over a period of 15 years, consisting of different phases. Significantly, the DHET decided in 2011 to use Wits University as an implementing agent. A Memorandum of Agreement (MOA) was signed between Wits and DHET, establishing the NUPMT. Wits and DHET together formed

the client team. The task of NUPMT was to direct academic and institutional preparation, including the setting of a vision, and, for the first phase of the two universities, to plan (decide on what needs to be done, how it is to be resourced and achieved and in what time frames, and set a budget), specify (define the functional and other requirements for the project clearly and precisely), procure (obtain internal and external project resources to execute project activities) and oversee delivery (observe and define the execution of the project to realise the client's value proposition associated with a business case). There were different supply teams contracted to provide the works for each university. The project governance was carried out through a Project Steering Committee (PSC) and a Technical Integration Committee (TIC); and each new university had a Project Management team, Design teams, Support Services teams and Supply teams procured and overseen by the NUMPT (Laryea & Watermeyer 2020; Watermeyer 2022). The new universities took over the plan, specify, procure and oversee delivery functions of the NUPMT around 2016 and 2017.

The implementation of this project differed from the usual arrangement in public infrastructure in South Africa. As described by Laryea (2019) (following Laryea & Watermeyer 2017):

[...] Infrastructure projects in the South African public sector are typically delivered using an implementer such as a National or Provincial Department of Public Works or a state-owned enterprise. Where such delegation or assignment is made, the 'sponsor' and the 'implementer', although being different organs of state, collectively function as the 'client'. Typically, the 'implementer' assumes responsibility for programme management, procurement, payment of contractors and professional service providers, overseeing the administration of contracts and the provision of technical advice and inputs. (p. 2067)

In the NUP's implementation, an important distinction was made between the client/sponsor and the client's implementer team (Laryea 2019). The NUPMT exercised an extraordinary degree of discretion. They could be described as having 'single point accountability'. Perhaps as importantly, the NUPMT was insulated from direct political interference, both through the top management layer of Wits University and through the client, the DHET. Three further contextual factors also, arguably, contributed to the success of this project. Firstly, the NUPMT was able to draw on their experience of at least five years of management capital projects in the higher education sector. Secondly, while governed by a tender committee and a governance scheme in Wits, the NUPMT was able to focus on this single project. Thirdly, the management team had a continuity of personnel and adhered to united professional ethics during the project and further on, this ethics were aligned with the organisation in which it was operating. (NUPMT 2018)

Value for money was an important concept in implementing the new universities project. The World Bank suggests that value for money is the 'effective, efficient, and economic use

of resources' ('The World Bank Procurement Regulations for IPF Borrowers' 2020). In line with practice of the National Audit Office in the UK (National Audit Office n.d.), the South African National Treasury (National Treasury 2015) defines value for money as 'the optimal use of resources to achieve intended outcomes'. Accordingly, value for money in an infrastructure context is regarded as the most desirable possible outcome from the use of resources (finances, people, equipment, plant, materials, etc.) that can be drawn upon, given implied or expressed restrictions or constraints, such as risks and costs (Watermeyer 2018). Value for money is considered to be achieved when the gap between what is planned and what is delivered is narrow.

The understanding of the value-for-money concept in the implementation of this megaproject (and its difference from the concept of quality) may be seen through the example of the building cost norm. In 1996 DHET established a procedure for the setting of a cost norm for buildings in the higher education sector (Department of Education [South Africa] 2009). This norm provides a basis for cost estimation, including feasibility planning, and can be used to establish an order of magnitude cost estimate for a building during the initial planning for a project, to set an early design cost estimate, for cost control during the design phase of a project and to establish if value for money has been achieved in the delivery of a building project. A building which is delivered within these cost norms is deemed to represent value for money. Quality is thus an indirect rather than a direct factor; as the DHET's document notes, the norm 'provide[s] a broad framework within which institutions, with proper planning, have ample room to creatively erect suitable, quality buildings'.

The cost norm is not based on the gross area of the building. It is based on the assignable square meters (ASM), that is, floor area available for assignment to an occupant or for specific use, without deductions for columns and projections. This basis encourages the minimisation of the amount of space in a building that is essential to the operation of the building but not assigned directly to people or programmes; that is, the non-assignable area which includes circulation areas such as corridors, staircases, stairwells and lobby areas, building service areas (e.g. water heating rooms and Hub/ICT [information and technology] room) and mechanical areas (e.g. lift shafts). This encourages the minimising of non-assignable areas as such areas do not contribute to the building cost norm.

The feasibility report submitted to National Treasury in September 2012 to secure the necessary funding was based on the ASMs required to support the assumed university activities which were scheduled to commence during February 2014. The financial modelling was based on the number of full-time students that were to be enrolled, the ASMs required to support learning and the cost norm associated with the year in which facilities would be completed and allowances for land improvements, bulk

services, furniture, fittings and equipment, et Cetera. The medium-term expenditure framework (MTEF) allocation confirmed by National Treasury (including both Capital and Operational) amounted to R300m, R659m and R1 166 314 for the 2013/2014, and 2015/2016 financial years.

Estimating costs is one thing. Delivering construction work and infrastructure within cost estimates and a narrow margin of error is quite another. Buildings were refurbished, repurposed and ready to receive the first start-up intake of students at the start of the 2014 academic year – 127 students at the Sol Plaatje University (SPU) in Kimberley and 169 at the University of Mpumalanga (UMP) in Nelspruit. The second intake in February 2015 increased the total number of student enrolments to 337 at SPU and 828 at UMP. The third intake of 2016 planned to significantly increase the student population to 700 students at SPU and 1255 students at UMP. This increase in student population required new teaching and residence facilities to accommodate the increased enrolments at a cost of approximately R925m.

The construction plan envisaged that the delivery management oversight for the buildings associated with the third intake of student would be undertaken by staff at the new universities. It became evident during the latter half of 2014 that the universities lacked the management expertise and the human resources to do so. The NUPMT were accordingly required to step in and oversee the delivery of the construction of these new facilities. The new facilities for the 2016 intake were built over a 14 month period, enabling academic activities to commence at the start of the academic year within the cost norms (SPU and UMP approximately 5% and 3.5% below the norm respectively) with very small differences between the estimated cost at the start of construction and the final cost – the SPU and UMP starting control budget of R726 024 282 and R331 821 515, respectively, whereas the final account was R695 763 114 and R320 468 987, respectively. This was despite 70% of the works not capable of being priced when construction commenced and the extremely short construction period of 14 months which straddled two December industry holiday periods (Laryea & Watermeyer 2020). In the physical construction of the universities, local content was promoted, particularly targeting those previously excluded from working on projects due to the apartheid system, while 545 construction staff and workers were given approximately 40 000 h of structured workplace learning. One of the buildings even received a commendation at the World Architectural Festival.

From the point of view of public procurement of infrastructure in South Africa, two aspects were of particular note about the implementation of the NUP project. Firstly, the time taken between the political decision to develop a new university and the receiving of the first intake of students was extremely short – just 28 months. Secondly the necessary academic facilities and residences were delivered at the start of an academic year in a cost-efficient and effective manner, and they were delivered within the constraints of public sector

procurement legislation whilst supporting the development of the surrounding community:

[O]ver 143 procurements were undertaken, resulting in 219 appointments [14–10]. Of the R1.62 billion total expenditure, R1.46 billion (90.4%) was procured through public tenders issued by the NUPMT, and all tenders were adjudicated by the Wits Tender Committee. Tenders were generally awarded to the highest points for price, preference and quality. Tenders for professional services were most often awarded at rates lower than those recommended by the relevant professional bodies. (Laryea, Watermeyer & Govender 2020; NUPMT 2018:276)

Significantly (and as discussed further in the following section), Wits's procurement policy was almost a carbon copy of the draft National Treasury Standard for a Construction Procurement System and was structured around the draft Standard for an Infrastructure Delivery Management System which was also released for public comment during November 2012. These two draft Treasury Standards were subsequently combined into one document, namely the Standard for Infrastructure Procurement and Delivery Management (SIPDM) and issued by National Treasury in 2015. This National Treasury document drew upon the experience gained by the NUPMT in applying the draft standards (NUPMT). Extensive use was made by the NUPMT of the Construction Industry Development Board (CIDB's) Standard for Uniformity in Construction (2011) which informed and was aligned with the provisions of the ISO 10845 series of international standards for construction procurement (Watermeyer & Phillips 2020).

## Critical analysis of the public infrastructure regulatory regime

In our preceding sections, we have contextualised the need for and the delivery of public infrastructure in South Africa, as well as presented a case study of a recent successful megaproject. In this section, we argue that an effective implementation strategy for megaprojects in South Africa can be promoted by changing the existing soft law environment. This argument aligns with the key finding of the 2019 study conducted by the Human Science Research Council (HSRC) that there are differences in the understanding and interpretation of infrastructure regulation, policy and practice which undermine the effective and efficient procurement of public infrastructure (Hawkins & Pienaar 2020).

It is in this zone of interpretation and implementation that the South African soft law of public infrastructure delivery poses a significant regulatory obstacle. The National Treasury SIPDM and the CIDB Standard for Uniformity in Construction Procurement supported a differentiation in the approach to the procurement and the management of the supply chain from that of general goods and services. Following a change in senior leadership in National Treasury, this policy position was however reversed to support one institutional supply chain management (SCM) system as opposed to two SCM systems. This eroded the recognition of the distinctive nature

of public infrastructure procurement significantly. Accordingly, SIPDM was replaced with Framework for Infrastructure Delivery and Procurement Management (FIDPM). The CIDB also introduced a Standard for Uniformity in Engineering and Construction Contracts.

As has been pointed out in published open-access research dating the historical analysis back a decade, these recently issued soft law standards – the FIDPM and the Local Government FIDPM (LGFIDPM) (respectively the Public Finance Management Act [PFMA] Presidential Infrastructure Coordinating Commission [PICC] and Municipal Finance Management Act [MFMA] versions) – have by no means reduced pre-existing confusion around government procurement policies but have instead added to such confusion (Klaaren & Watermeyer 2020). This research disentangles the separate concepts of functionality, quality, and value-for-money at hard law, soft law, and institutional levels over three distinct periods of the public procurement regime from 2011 to the present. In this prior research, as well as the current paper, we employ an analytic difference between hard law (constitutional, statutory and court-made law) and soft law (standards, guidance, and instruction notes).

The FIDPM is poorly drafted and misaligned with critical built-environment processes and practices. It is furthermore difficult to interpret and impractical to implement. The recent changes brought about in the CIDB prescripts have undermined the integrity of the standard that evolved since 2004 and are difficult to interpret and implement. For example, the FIDPM makes reference to 'applicable CIDB Standards for Uniformity' and 'CIDB prescripts'. The Construction Industry Regulations define construction procurement as 'procurement in the construction industry, including the invitation, award and management of contracts'. The most recent version of the CIDB Standard for Uniformity in Construction Procurement (2015 edition) deals with professional service, term service, supply and engineering and construction contracts. The CIDB Standard for Uniformity in Engineering and Construction Contract, issued in 2019, has a narrow scope and only deals with engineering and construction contracts. There is accordingly an overlap between these documents and consequent confusion as to what is applicable (Klaaren & Watermeyer 2020; Watermeyer & Phillips 2020).

The recovery from COVID is likely to be very slow under the current public procurement regime due to the current incoherent and conflicting regulatory instruments and confusing plethora of guidelines and circulars which have been issued to clarify various aspects of the SCM Regulations, instructions and guidelines and the Preferential Procurement Regulations. There is an urgent need to address this unfortunate state of affairs before the finalisation and eventual implementation of the Procurement Bill.

The Procurement Bill which was published in February 2020 for public comment envisages a single and uniform regime,



a common framework and a soft law approach to the regulation of infrastructure procurement and delivery in the form of standards which permits flexibility and provides an opportunity for the use of familiar concepts, rules and terminology. There are, however, several shortcomings in the Procurement Bill which, if not addressed, will inevitably undermine the effective implementation of what is intended for infrastructure procurement and delivery management. Firstly, the 2020 Bill perpetuates aspects of the prevailing procurement and SCM practices which are designed primarily for general goods and services for consumption and also distributes the requirements for infrastructure over numerous sections of the bill rather than consolidating them in one chapter. Secondly, although the Bill purports to be a framework, it contains detail which introduces requirements which are likely to work against requirements for flexibility and differentiation in more complex procurements. Such provisions are better located in regulations, or in the soft law layer of the procurement government regime. Thirdly, although the Bill seeks to create a single regulatory framework for public procurement to eliminate fragmented procurement prescripts, it proposes no amendment to the CIDB Act. It is not clear if this is an omission or in recognition of the fact that the CIDB has no mandate to regulate procurement except when this is granted to the CIDB by National Treasury. This issue needs to be clarified going forward. Fourthly, the definition for infrastructure is inadequate. The definition is not sufficiently broad to cover engineering works including process plants. It also omits ICT networks and the dismantling or demolition of construction works. It also needs to be expanded to cover furniture, fittings and equipment necessary to enable a new or refurbished facility to be delivered as a fully functional entity. The definition also does not expressly cover professional built-environment services. The end of this hard law process is unlikely on current trajectory before the end of 2023 on a best case scenario.

The Infrastructure Development Act of 2014 provides an opportunity to address these issues through hard and, significantly for the purposes of immediate corrective action, soft regulatory instruments. This Act establishes a Council for the Presidential Infrastructure Co-ordinating Commission comprising the President, the Deputy President, Ministers designated by the President, the Premiers of the Provinces and the Executive Mayors of metropolitan councils, as well as the chairperson of the South African Local Government Association. This Council is tasked with, amongst other things, the identification of any legislation and other regulatory measures that impede or may impede infrastructure development and may advise the executive authority of the relevant sphere of government. Along the lines of this research study, a research group could be tasked by this Council with analysing the text of the FIDPM, CIDB prescripts and Standards for Uniformity, Treasury Instructions and circulars etc. and with identifying and explaining why certain provisions impede the effective implementation of infrastructure procurement and delivery

management practices.<sup>1</sup> Such an initiative could propose solutions preferably within the confines of existing legislation and have their proposals presented to the PICC who can then deal with the issues in terms of their founding legislation.

There are positive signs that a solution along the above or similar lines is increasingly aligned with current executive direction. The recently published NIP 2050 (Department of Public Works and Infrastructure 2022) signals a shift in infrastructure procurement and delivery management policy. This plan is, amongst other things, premised on there being significant capacity development within infrastructure procurement and delivery management, an enabling regulatory and institutional framework, a strategic approach to infrastructure, systems of accountability and a robust asset management system. This plan in recognising the need to strengthen institutions for delivery has identified a number of conditions to be met to achieve the NIP 2050 vision including the following:

The regulatory framework must enable network infrastructure procurement and delivery. The regulation of SCM for infrastructure must enable integrated projects with built-environment professionals playing a significant role. Supply chain management for infrastructure must be handled as a strategic function, not simply a financial one. The procurement of infrastructure must be differentiated from that of other goods and services.

A strategic approach must be taken to infrastructure procurement. The focus must be on value for money and prioritised over lowest cost. This must include robust cost-benefit analysis. Infrastructure Procurement and Delivery Management will be de-linked from centralised purchasing and led by a chief procurement officer and/or high-level office specifically mandated and capacitated with built-environment professionals to procure and deliver infrastructure.

Infrastructure delivery must be managed as an 'enterprise' and not an ad hoc collection of projects. Systems of accountability will become aligned with effective infrastructure delivery.

## Conclusion

In a context characterised by the effects of the pandemic and a need for economic recovery, as well as pre-existing development challenges, South Africa needs to urgently rethink its regulatory environment for procurement in order to enable management practices that can respond to changing circumstances. As we have explored in detail in the above discussion, South Africa is currently faced with two major challenges in moving forward. Firstly, the current plethora of laws dealing with public procurement which evolved since 1994 have led to uncertainty as to which law is applicable, and inconsistency in the interpretations resulting in an inflexible system which hampers

1.The Standard for Infrastructure Procurement and Delivery Management (SIPDM) was crafted as soft legislation which did not conflict with the PFMA and MFMA and their associated supply chain management regulations. The conflicts have occurred in instructions, circulars and guidelines that were issued following the issuing of the SIPDM. (Watermeyer & Phillips 2020:56–74)

development and service delivery and exposes the state to corruption. Secondly, the fiscus has not been able to fund infrastructure at the levels proposed in the NDP (10% of GDP) and significantly less funds are available to fund infrastructure in the wake of COVID-19 which has had a devastating impact on the economy. The demand for infrastructure remains. Accordingly, infrastructure needs to be delivered more efficiently.

Our argument that a specific layer of our procurement governance regime – soft law – requires immediate attention is in line with developments elsewhere. Other jurisdictions are also looking at their procurement regimes postpandemic. In particular, the UK currently has the opportunity to reimagine public procurement law after its withdrawal from the European Union (EU). A prominent procurement law and policy academic, Prof Arrowsmith, has recently suggested that the UK's new hard-law regime should shift from ensuring open markets as is the current EU requirement to eight key objectives, namely: value for money, integrity, accountability, equal treatment, fair treatment of suppliers, effective implementation of industrial, social and environmental objectives, opening markets, and an efficient procurement process. Arrowsmith then argues that reform should be based on seven principles: an open contracting approach which involves making information publicly available and usable through an electronic system; a single and uniform regime for the Westminster jurisdiction; significant legislative simplification involving a shift from hard to soft law; use of familiar concepts, rules and terminology where appropriate; a rebalancing of interests (away from open market objectives towards value for money, sustainability and reduced procedural costs) and a related shift in regulatory strategy to increase flexibility; a more effective and balanced approach to enforcement; and a common framework across UK jurisdictions (Arrowsmith 2020).

The South African Constitution, of course, requires that our procurement system be fair, equitable, transparent, competitive and cost effective, and embraces a procurement policy providing for categories of preference in the allocation of contracts and the protection or advancement of persons, or categories of persons, disadvantaged by unfair discrimination. The procurement system also needs to promote the principles governing public administration embedded in the Constitution relating to the efficient, effective and economic use of resources in an accountable and development orientated manner, as well as administrative action that is lawful, procedurally fair and reasonable. These Constitutional imperatives resonate closely with key objectives identified in jurisdictions elsewhere.

Without discounting the role of legislative statutes including the current drafting process towards comprehensive public procurement legislation, this research study has focused on soft law, on such crucial implementation standards, rather than on the more usual materials of legal analysis such as Acts of Parliament. As detailed, we have demonstrated how a megaproject such as the NUP may be both allowed and

assisted to be delivered on time and on budget by appropriate soft-law governance instruments within the current less-than-ideal hard law environment. This demonstration is both interesting in its own right and significant for South Africa's current economic objectives. We have also demonstrated that there is a good argument to be made about genuine flaws in current public infrastructure legislation and guidelines. The implication of linking these two findings is that the successful implementation of South Africa's current roster of megaprojects is best served by changing the soft law of public infrastructure delivery. To focus on soft law is both a more straightforward and a speedier process than hard law reform. While there are limitations in our research method – one case study cannot be generalised automatically – we would nonetheless argue that with appropriate soft law reform South Africa can quickly improve significantly its implementation of megaprojects, including vitally needed public infrastructure.

Our case study in the successful delivery of the NUP is a contribution to the literature on megaprojects, as well as the broader interdisciplinary literature concerned with the politics of regulating public infrastructure delivery. In this respect, we re-emphasise that our argument in this research study has turned on two key distinctions. The first is the difference between procurement of goods and services and the procurement of infrastructure. The second key distinction is the difference between hard (constitutional, statutory and court-made) law and soft law (standards, guidance, and instruction notes). In this research on the delivery of public infrastructure in South Africa, we have found there is a lack of understanding and appreciation of the first distinction in the existing procurement regime and that there is confusion and conflict within the existing governing soft law instruments.

There are lessons to be learned for future processes as well. The need to standardise procurement processes, methods and procedures for the procurement and delivery management of infrastructure needs to be done in a generic and flexible manner which supports and does not frustrate infrastructure delivery. This will enable those engaged in a range of infrastructure delivery activities to perform their duties, within the confines of their organisation's procurement policy, in a uniform and generic manner, enabling procurement documents to be readily compiled in a uniform and generic manner. It also enables curricula to be developed to capacitate those engaged in a range of infrastructure delivery activities and the public sector to readily develop an internal procurement skills base, which is not lost when members of staff move between different departments or levels of government or public entities.

## Acknowledgements

We acknowledge the able research assistance of Nino Rodda.

## Competing interests

R.W. was employed by the New Universities Project.



## Authors' contributions

Both authors contributed to the writing and research of this article.

## Ethical considerations

This article followed all ethical standards for research without direct contact with human or animal subjects.

## Funding information

This research note is adapted from a working paper researched and written as part of the Rethinking Economic Policy Post-COVID19 project in the Faculty of Commerce, Law and Management at the University of the Witwatersrand. The funding assistance of the National Institute for the Humanities and Social Sciences is gratefully acknowledged.

## Data availability

Data sharing is not applicable to this article as no new data were created or analysed in this study.

## Disclaimer

The views and opinions expressed in this article are those of the authors and do not necessarily reflect the official policy or position of any affiliated agency of the authors.

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