CASE STUDY

The University of the Witwatersrand, Johannesburg, was appointed by the Department of Higher Education as their implementing agent to delivery two new universities for government. Use was made of the university's *Construction procurement policy, processes, procedures, methods and delegations.* This university document is almost a carbon copy of the draft National Treasury's *Standard for a Construction Procurement System* which was published in November 2012 for public comment. The professional services contracts were structured around the draft *Standard for an Infrastructure Delivery Management System* which was also released for public comment during November 2012.

The aforementioned two draft Treasury Standards were combined into one document, namely the Standard for Infrastructure Procurement and Delivery Management. The published version of this standard draws upon the experience gained by the New Universities Project Management Team in applying these draft Treasury Standards in practice.

The procurement arrangements for delivering two new universities: July 2012 to December 2014

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Introduction

The South African government took the decision to provide universities in the two provinces which did not have any universities, namely the Mpumalanga and Northern Cape Province. The university for Mpumalanga (University of Mpumalanga), which is expected in the long term to accommodate approximately 15 0000 students, is situated within the Lowveld Agricultural College grounds, overlooking the city of Nelspruit and is close to the new Provincial Parliament (see Figure 1. The university for the Northern Cape (Sol Plaatje University), which is expected to accommodate approximately 5 000 students, is situated in the very heart of the city of Kimberley (see Figure 2).

The development of these two new universities requires that an entire campus be built over time. This involves the provision of bulk services to the university precincts, the provision of services including roads and parking areas within the university's precincts, the construction of residences, administrative offices, places of assembly, teaching spaces, landscaped areas and sports fields. The scope of work for the physical infrastructure required at both the universities at any point in time is driven by the unfolding academic programme, incremental student intakes and funding contraints.

This paper outlines the thinking behind and the approach taken in procuring the goods, services and works required to launch these two new universities and to provide the necessary facilities for the first few student intakes. It also describes the strategy that was adopted, the strategic actions taken, the procurement options that were adopted and the outcomes of the procurement processes leading to the award of a contract up to December 2014.

Wits' appointment as an implementing agent

The Department of Higher Education and Training (DHET) entered into an agreement with the University of the Witwatersrand, Johannesburg (Wits), during November 2011 to project manage and resource the spatial and physical planning and development for two new institutions. Wits appointed the DHET New Universities Project Management Team to do so on its behalf i.e. a core team comprising the Wits Director Campus Planning and Development and contracted resources in the form of a project director, a programme / project manager, a spatial and architectural design specialist and a procurement specialist, all of whom had worked together in delivering Wits' capital programme since 2008. This team was supported by a small team of built environment professionals and administrative staff in the employ of some of the members of the team.

The DHET subsequently extended the agreement with Wits to manage the work required for the launch of the two New Universities and the 2014 start-up for the first intake of student and thereafter to proceed

with the provision of physical infrastructure to accommodate the student intakes for the 2015 and 2016 start-ups.

Budget allocations of R 50.0 m, R 81.3 m, R 117.1 m, R 383.0 m and R 1.32 b where made available in respect of the 2011/2012; 2012/2013, 2013/14, 2014/15, and 2015/16 financial years, respectively.

Work commenced on the infrastructure for these two new universities before the establishment of their respective councils. The interim councils were announced by the president of Republic on South Africa on 25 July 2013. The fully constituted Council of both of the universities were inaugurated during August 2014.The transfer of responsibilities from Wits to these new university councils and from the DHET New Universities Project Management Teams to these councils' own project management team needs to take place no later than the end of March 2016.

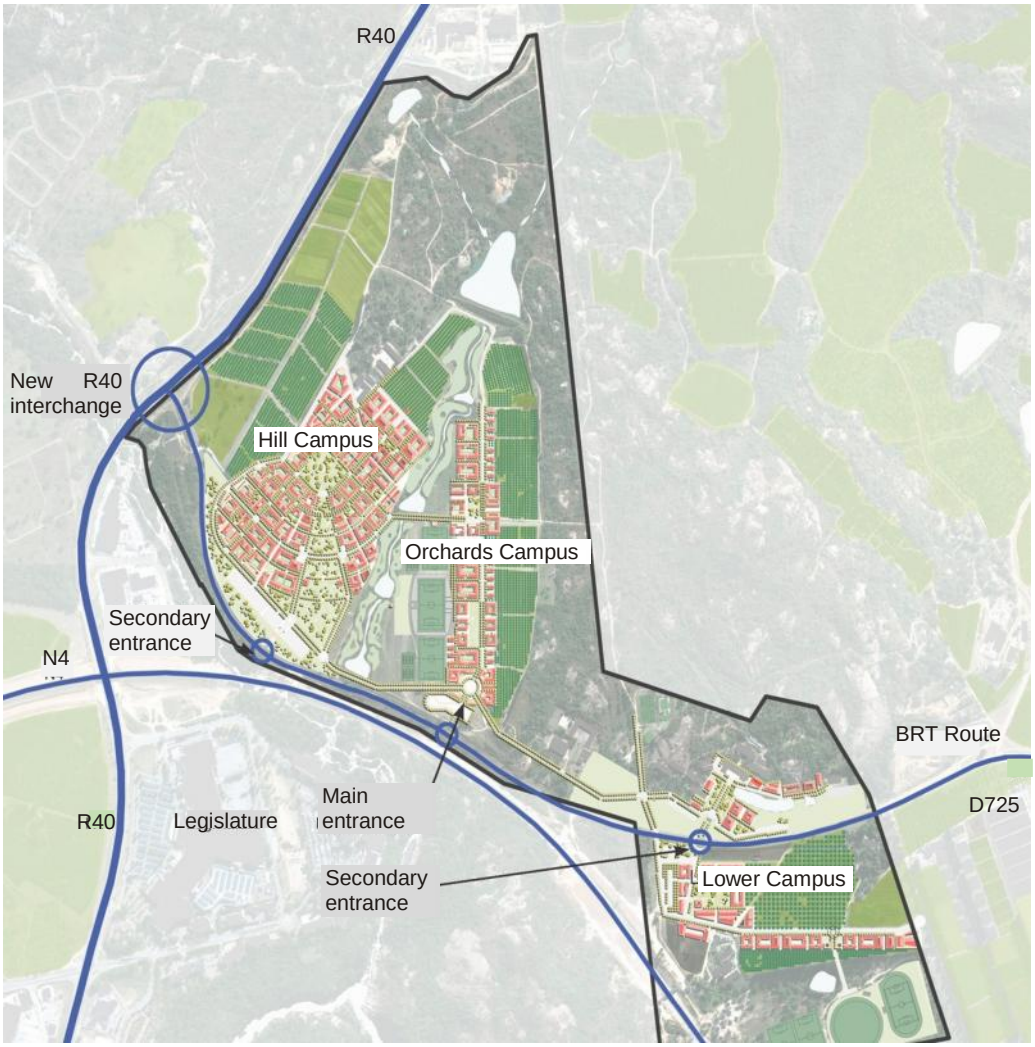

Figure 1: Location of University of Mpumalanga Campus

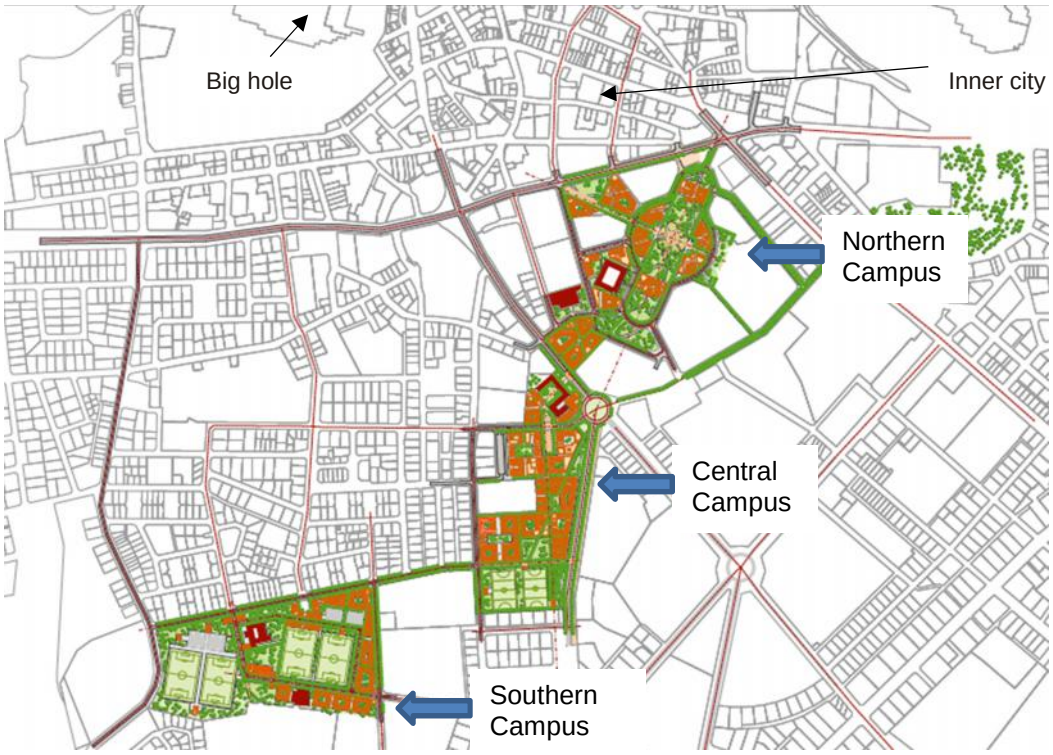

Figure 2: Location of building Sol Plaatje University Campus

Wits' construction procurement system

Wits developed and finalised during December 2013 a construction procurement system for its Campus Planning and Development Division. This system is based on the Standard for a Construction Procurement System (March 2012) published by the Western Cape Provincial Treasury in terms of the Public Finance Management Act (PFMA) and a similar standard issued in November 2012 for public comment as part of the draft PFMA Act National Treasury Regulations. These documents are all based on the constitutional imperatives for a procurement system and the provisions of the CIDB Standard for Uniformity in Construction Procurement and Parts 1 (*Processes, methods and procedures*) and 2 (*Formatting and compilation of procurement documentation*) of ISO 10845 construction procurement standards.

The Wits *Construction Procurement Policy, Processes, Procedures, Methods and Delegations* describes the permissible procurement procedures, establishes under what conditions such procedures may be used and provides a control framework to manage procurement processes. The Director Campus Planning and Development in terms of this policy appoints adhoc documentation review teams and evaluation panels to review the procurement documents and to evaluate submissions, respectively. He also takes decisions on interim processes. A standing university tender committee (governance committee), which deals with all Wits tenders, considers the tender report and recommendations of the evaluation panel and either refers the report back to the evaluation panel or makes a recommendation to award the contract (or not), with or without conditions, to the delegated authority. The relevant delegated authority awards the contract if its monetary value is within his or her delegation.

The Wits policy permits framework agreements to be entered into on an as and when required basis over a 3 year term without any guarantee of any quantum of work. The process for putting in place a framework agreement is no different to any other contract. All orders (call offs) from framework agreements are, however, not dealt with by the tender committee. They are awarded by the delegated authority should they comply with the policy and procedures and its monetary value is within his or her delegation.

Contract managers are empowered to increase the total of the prices excluding contingencies and price adjustment for inflation and the time for completion by not more than 2%. The Director Campus Planning and Development may increase such total of prices and time for completion by up to 10 and 20%, respectively, The delegated authority is empowered to further increase these values should the need arise.

A website was developed to facilitate the issuing of procurement documents and the management of the issuing of clarification and addenda. This website permitted calls for expressions of interest and tender documents to be downloaded by prospective tenderers should they register their contact particulars for a particular procurement. Clarifications and addenda can be issued to all those registered for a particular procurement.

Initial procurements associated with the development of an implementation plan

Wits commenced work on the project during November 2011. The first key deliverables was a Phase1 Implementation Plan comprising an implementation plan for the establishment of the two Universities together with a communication plan enabling promulgation of the seats of the respective Universities by the DHET. Competitive tenders were invited in the press during July 2012 for a range of professional services, following the announcement by the president of the Republic of South Africa on 5 July 2012 that the new universities for the Mpumalanga and Northern Cape provinces will be located in Nelspruit and Kimberley, respectively

Tenders were invited through the national and local press on a term services basis (NEC3 Professional Service Contract (PSC)– Option G: Term contract) with a ceiling price of R 1,0 m (i.e. the threshold for quotations) for services relating to landscape architecture, data base information management systems, social impact assessments, cost consulting, town planning, civil engineering, electrical engineering, environmental impact assessment, geotechnical engineering, land surveying, traffic engineering and heritage assessments. These tenders were awarded in terms of a quotation procedure. A number of contracts with specialists such as those relating to university space norms and building cost analysis, university policy and procedures, change management and communications and property transaction advisor, were negotiated using the negotiated procedure with identified specialists. Contracts were entered into using the NEC3 Professional Service Contract (PSC) under Option E (Time based contract) or Option G (Term contract.)

Wit's construction procurement strategy

Procurement objectives for the project

The primary procurement objectives for the New Universities project are:

1) Deliver the universities within a control budget.

2) Ensure that expenditure is within the amounts allocated in each financial year of the MTEF period and is capable of being accelerated should additional funding become available.

3) Ensure that teaching spaces are capable of being occupied at the start of the required academic year.

4) Provide works that are capable of being readily maintained.

5) Make use of expertise within universities to ensure that the designs of the teaching spaces are aligned with current and future best practice.

6) The quality of facilities is such that maintenance costs are minimised.

The secondary procurement objectives for the New Universities project are to:

1) promote broad based black economic empowerment (B-BBEE);

2) promote and support local (provincial wide) participation throughout the supply chain and local employment through the delivery of the works; and

3) support skills development by increasing the number of people who have part qualifications, national qualifications and professional designations awarded by statutory councils.

Strategic approach to procurement

The experience of the New Universities Project Management Team over the last few years in executing the University of the Witwatersrand's capital works programme is that the aforementioned primary objectives can best be achieved should:

1) The design of the buildings and associated site works be managed by the employer and his agents and the main contractor has limited responsibilities for the design of the permanent works.

2) Discipline specific design specialists be appointed by the employer to provide the required design inputs.

3) Fragmentation in design be addressed by involving the contractor wherever possible in the development and finalisation of the design.

4) A conscious decision be taken to move away from the pre-planned traditional contracting approach ("them-and-us") towards an integrated project team which works together over a number of years, taking learnings from one project to another, and supports the culture shift outlined in Table 1.

5) A flexible construction service be put in place which has the capacity to respond rapidly to changing demands and constraints as the projects unfold.

It was recognised by the DHET New Universities Team at the onset of the project that the living and working conditions created by a superior design for a university makes a positive contribution to a sense of academic identity and collegiality on campus, and that some of this benefit extends to the local community as well. As universities outlive any one generation of teachers and students, an excellent design must be true to its time and place, while leaving options open for the contributions of future generations. A university should stand as a proud embodiment of the highest values that a society can achieve both in the present and in the future.

Table 1: Required culture shift (Watermeyer, 2009)

From	To
Master-servant relationship of adversity	Collaboration towards shared goals
Fragmentation of design and construction	Integration of design and construction
Allow risks to take their course	Active risk management and mitigation
Meetings focused on past - what has been done, who is responsible, claims. etc.	Meetings focused on "How can we finish project within time and budget available?"
Develop the project in response to a stakeholder wish list	Deliver the optimal project within the budget available
"Pay as you go" delivery culture	Discipline of continuous budget control
Constructability and cost model determined by design team and quantity surveyor only	Constructability and cost model developed with contractor's insights
Short-term "*hit-and-run*" relationships focused on one-sided gain	Long-term relationships focused on maximising efficiency and shared value

A decision was taken to conduct a design competition to identify a small group of architects (not more than 5 for each campus) to design these new campuses so that they would not only be responsive to spatial requirements but also result in architectural landmarks symbolic of intellectual aspiration. It should be noted in this regard that the architects for the current main campuses of the University of Cape Town and the University of the Witwatersrand that were established in the 1920s were appointed following a design competition. The architecture of both these campuses have demonstrated the positive effect that carefully considered and appropriate design ideas can have over a number of generations.

The decision to appoint a small group of architects to lead the design of the campus had a major impact upon the procurement strategy that was adopted and the number and nature of consultants that needed to be appointed. These architects needed to be supported by a team of discipline specific consultants and led by a project manager to develop each package as indicated in Figure 3. The creation of two teams supporting each group of architects was also seen to potentially lead to increased local participation by consultants in the development of these two new campuses.

A decision was also taken to enter into framework agreements along the lines of that described by Watermeyer (2013) wherever it made sense to do so. This approach not only fitted in which the team's philosophy of developing long-term relationships focused on maximising efficiency and shared value but also allowed more time to develop the scope of the required services in an incremental manner. It also enables the two new universities to participate in these contracts by issuing orders during and after the transfer of responsibilities from Wits.

5.3 Socio-economic considerations

South African legislation recognises that public-sector procurement expenditure needs to enable the state to not only procure what it needs on time at the right quality and for the right price but also to drive national priorities such as localisation and economic transformation. The Preferential Procurement Policy Framework Act (Act 5 of 2000) provides a price preference mechanism to promote broad based black economic empowerment i.e. up to 80 or 90 points for price and up to 20 or 10 points for preference for tenders, depending upon the value of the tender.

The Broad Based Black Economic Empowerment Act (Act 53 of 2003) establishes a legislative framework for the promotion of black economic empowerment. Codes of Good Practice on Black Economic Empowerment issued in terms of the Act measure the overall contribution of entities to broad based black economic empowerment using a score card. Entities are rated in terms of their level of contribution from 1 to 8. Preference points are awarded in accordance with their status as indicated in Table 2.

Table 2: Preference points for Broad-based Black Economic Empowerment contributors

B-BBEE status determined in accordance with the preferencing schedule for Broad-Based Black Economic Empowerment	**% max points for preference**
Form not completed or no-complaint contributor	0
Level 8 contributor	10
Level 7 contributor	20
Level 6 contributor	30
Level 5 contributor	40
Level 4 contributor	50
Level 3 contributor	80
Level 2 or contributor	90
Level 1 contributor	100

Construction works involves the development of a product on a site. As a result, a contractor who contracts to provide the works is in effect a manager of a supply chain comprising a diverse range of

goods and services. At the same time, construction activities generate a significant number of jobs on a construction site, particularly for semiskilled and unskilled workers. Accordingly, the process of delivery is just as important as the delivery of the product itself.

The South African construction industry is facing a severe skills shortage. Construction projects provide work opportunities which enable people engaged on such projects to obtain the necessary work experience to complete part qualifications, occupational qualifications or professional designations.

A number of standard key performance indicators (KPI) in the form of contract participation goals were developed as indicated in Table 3 to support these objectives. Standard specifications were developed to enable them to be implemented through contracts.

5.4 Professional service contracts

The appointment of a large number of discipline specific consultants on a framework agreement basis required documented and co-ordinated scopes of services within a defined project life cycle and a competitive and auditable procedure for the determination after the award of a framework agreement of an appropriate fee for standard architectural, cost consulting and engineering services. Standard documents were developed for a *Procurement and Delivery Management System for Infrastructure Projects*, based on government's Infrastructure Delivery Management System (IDMS) (see Figure 4, Watermeyer et al, 2012), *Standard Scope of Professional Services associated with the Delivery of a Package*, *Framework for the Determination of Professional Fees for Consulting Services* and an *Occupational Health and Safety Specification for Construction Works Contracts.*

Table 3: Key performance indicators and targets

KPI	**DHET New Universities PMT Specification**	**Definition of KPI**
contract local participation goal (CLCG)	Specification for local participation in engineering and construction contracts	The percentage of the Defined Cost excluding amounts for specialist subcontractors included in the amount due following Completion of the whole of the works, which represents: a) the wages, salaries and amounts paid by the Contractor to local people according to the time worked while they are within the Working Areas; b) payments made to local enterprises for Equipment, Plant and Materials; and c) payments to Subcontractors who are local enterprises
broad-based black economic empowerment spend goal (B-BBEE SG)	Specification for B-BBEE spend in engineering and construction contracts	The Contractor's total B-BBEE procurement spend to Provide the Works expressed as a percentage of the Contractor's total procurement spend
contract local direct employment goal (CLDEG)	Specification for direct employment generated in engineering and construction contracts	The percentage of the total number of equivalent person days worked by people employed by the Contractor or a Subcontractor within the Working Area who are local people
contract skills development goal (CSDG)	Specification for developing skills that result in nationally accredited outcomes through infrastructure contracts	The number of hours of skills development opportunities that a contractor contracts to provide in relation to work directly related to the contract or order up to: a) completion in the case of a professional service contract; b) the end of the service period in the case of a service contract; c) practical completion in the case of an engineering and construction works contract; and d) the delivery date for all the work required in terms of a supply contract
NOTE: Terms in capital letters are defined in the NEC3 Engineering and Construction Contract		

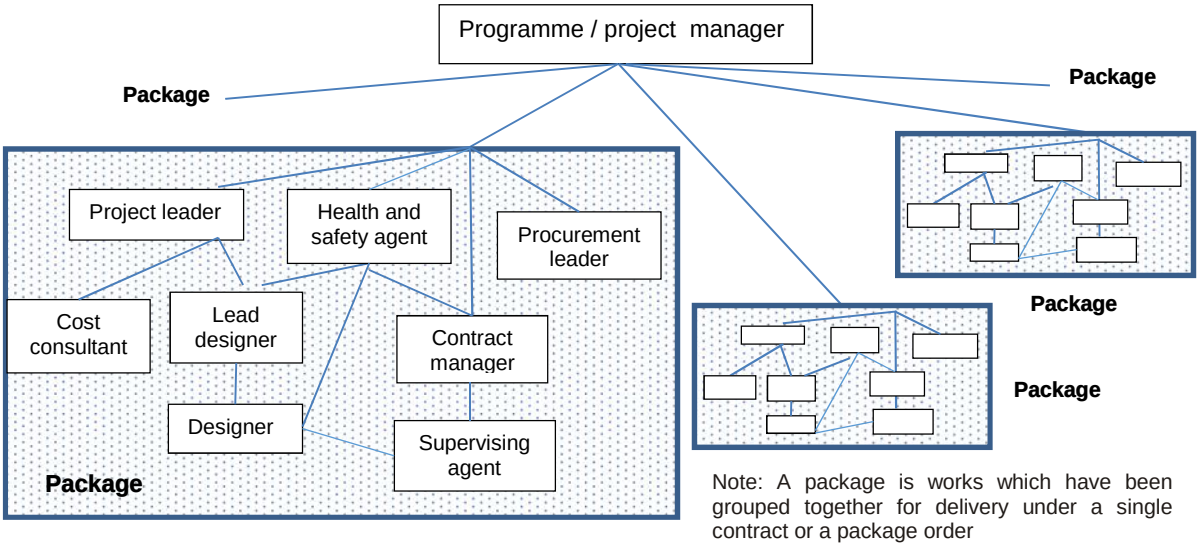

Figure 3: Basic lines of reporting and assigned responsibilities for each functional roles for each package

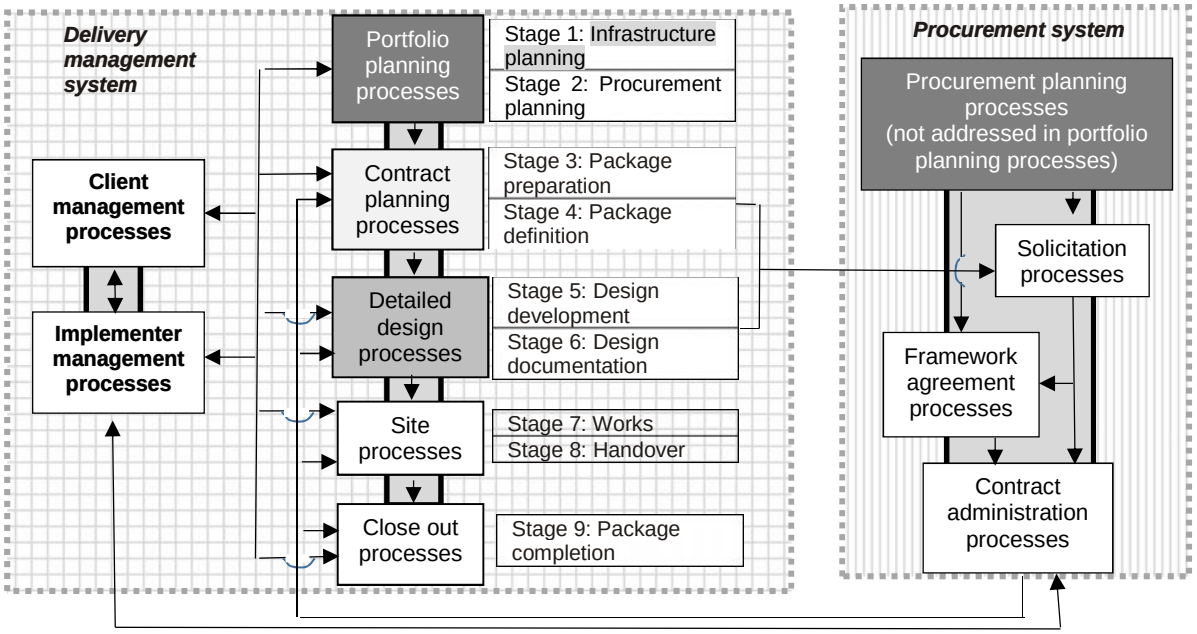

Figure 4: Procurement and delivery management processes

The total professional fee for a construction project can be estimated either on the basis of the staff rates and the estimated number of hours or days to perform the tasks associated with a work plan, or a methodology which is based on a percentage of the construction cost as is commonly the case in South Africa. Fixed (lump sum) fees, based on either of these two methods, can only be established at the outset of a project if the scope of the project, schedule for design approvals, the construction schedule and other variables can be determined with reasonable accuracy. Such information was not available at the outset of a project, or for that matter over the term of the framework agreement.

A fee based on a percentage of the cost of construction, which reduces as the cost of construction increases, allows a price to be established in the absence of the detailed information required to prepare a comprehensive estimate of the hours involved in a project to arrive at a fixed fee. Such a fee needs to take into account a number of variables such as the level of effort required in providing the service, the consultant's profit and overheads and the consultant risks and unrecoverable expenses.

The fee percentage applicable to a project can be calculated in terms of the following formula:

Fee percentage applicable to a project = BPF x F_{LE} x F_{PO} x F_{CON}

where:

- BPF is the basic percentage fee derived from a curve, tabulation or a mathematical expression of a curve e,g, those published by South African statutory councils as guideline fees;
- F_{LE} is an adjustment factor that reflects the level of effort that is required which is made up by applying standard adjustments for different demands upon the required services and project specific factors that are finalized with the employer when the full scope of work is understood;
- F_{PO} is an adjustment factor which takes into account the difference between the consultant's overheads and profit structure and the standardised value for overheads and profit upon which the basic fee percentage curve is based e.g. the tendered professional and technical staff rate expressed in cents / R 100 or part thereof of total cost of employment / 16; and
- F_{CON} is an adjustment factor made by the consultant to reflect factors such as risk, productivity, efficiency, locality, local knowledge, particular methods or systems for delivering services, level of expenses that are not recoverable etc.

The *Framework for the Determination of Professional Fees for Consulting Services* provides a methodology based on the above formula for the determination of fees on a percentage of construction cost for architectural services, cost consulting services for building works and engineering services. Tenderers can be invited to tender the cents per R100 or part thereof of the total cost of employment, which enables the hourly staff rate to be calculated, and the adjustment factor (F_{CON}). The adjustment factor for the consultant's overheads can be calculated and the final fee can be established when the precise scope of work is known after the award of a contract, based on the level of effort that is required, commercial risk and efficiency considerations.

The NEC3 Professional Service Contract (PSC) has a Main Option for a term contract (Option G) which makes provision for the issuing of task orders. These standard provisions for task orders enable "call offs" to be made. It is possible to issue a task order for one or more stages in the delivery cycle (see Figure 4). This can be done either on a time charge basis or on a lump sum basis whereby the lump sum is based on the forecasted times required for the services multiplied by the staff rates. A Z clause (additional clause) can be included in the contract to permit the lump sum to be established on the basis of a percentage of the cost of construction derived from the aforementioned framework.

Competitive tenders were invited for consulting services. Tenderers had to tender in all cases, their maximum hourly rate and the cents per R100 or part thereof of the total cost of employment, and where the framework for the determination of a percentage fee applied, their adjustment factor (F_{CON}). Tenderers were required to include the cost of travel and accommodation associated with providing the service in Kimberley or Nelspruit, as relevant, in their tendered parameters. The tendered parameters were reduced to a common basis in terms of a tender assessment schedule which weighted and combined each parameter and was included in the procurement documents issued to tenderers.

Design competition for architectural services

A two stage design competition was developed to extract innovative designs, ideas and practices and to identify talented designers to participate in the development of the new universities. The competition in addition sought to discover talent and skill which, but for a competition, would remain unknown and to promote the project through publicity and exhibitions. The announcement of the winners and the exhibiting of the entries of the finalists was linked to the launch of the new universities. An honorarium of R40 000 was offered to all participants in the second stage who submitted submissions of a quality acceptable to the jury.

This design competition, which was endorsed by the South African Institute of Architects, was linked to the qualified procurement procedure to enable framework agreements to be entered into with up to 5 architectural practices. Admission to the design competition was initiated through an expression of interest. Those respondents who expressed interest, were registered as a professional architect in

terms of the Architectural Profession Act of 2000 and completed an Architectural Competition Application Form were admitted to the two stage design competition.

The design competition was conducted strictly in accordance with the provisions of a set of Standard Conditions for a Design Competition prepared for the competition, based on international practices. These conditions bound the competition administrator, participants, the jury, the promoter and technical consultants to conduct themselves in a particular manner. They also established what a participant was required to do in order to make a compliant submission as well as the actions and functions of the competition administrator, the jury and the promoter. These conditions were designed to ensure that the identity of any particular participant during the process was not known to the jury until after competition winners were announced. The competitions administrator was only made aware of the identity of participants at the conclusion of each stage.

Participants in the first stage were provided with a brief which included a Spatial Development Framework and were required to provide a brief outline of their understanding of the five issues listed in Table 4, using sketches, diagrams, images and text, and their proposed methodology and approach in not more than 10 A4 pages. The jury was tasked to select no more than 10 participants to progress to the next stage.

Table 4: Outline of responses required in the first stage of the design competition

Issue	Northern Cape (Kimberley)	Mpumalanga (Nelspruit)
1	Entries need to demonstrate how the university buildings can relate to the public spaces and improve the civic character of the university, without compromising the integrity or functionality of the university buildings.	Entries need to demonstrate and explain how their design approaches embodies a strong link between the university and its environment and also create a distinctive sense of place.
2	The design proposal need to demonstrate how a variety of university functions and city spaces, with public and private interfaces, can be assembled and designed in an integrated manner.	Participants need to present an outline explaining how the new university can express a place-relevant uniqueness in an architecture that pushes the discourse around local identity beyond its current levels.
3	Participants need to demonstrate an awareness of, and possible architectural solutions to, the environmental constraints and challenges found in Kimberley, taking into account the various functions required of the University's buildings and explaining how these can be aligned with environmental conservation.	Participants need to demonstrate:) how architecture can enhance the quality of the shared spaces on campus and;) whether or not the proposed perimeter building form is the appropriate architectural typology
4	Entries need to outline how improved value and quality can be achieved by a carefully considered approach to construction methods, the selection and availability of materials, and the quality of workmanship with specific reference to the financial and time constraints and the heavy demands on residential accommodation.	Participant need to demonstrate through sketches how they would develop an iconic and memorable series of buildings for the new university, which also represents its high ideals.
5	The outline design proposal need to describe a way in which a newly-founded University in post-apartheid South Africa can express its uniqueness in spatial terms, and how the architecture can exhibit a sense of place, of being distinctly African, and of belonging to the South Africa of here and now.	Participants need to demonstrate an awareness of, and possible architectural solutions to, the environmental constraints and challenges found in Nelspruit, taking into account the various functions required of the University's buildings and explaining how these can be aligned with environmental conservation and building efficiency.

Participants in the second stage were required to submit ideas based on a full brief, including detailed precinct plans. The focus during this stage was on the design of buildings and the detailed elaboration of a portion of the campus. Participants were required to outline by way of drawings (plans, sections, elevations and perspectives) and a monotone block model their approach and understanding to a university building in the context of the prescribed Development Framework for the University. Participants during this stage were required to provide up to 6 single sided A1 posters in a prescribed format and 4 large scale and high resolution electronic images which would form part of the announcement

of winners. The jury was tasked to rank the submission and to decide whether or not to award an honorarium.

Those participants who were admitted to the second stage of the competition were invited to associate with architectural practices and to submit tender offers. Tenders were evaluated on the basis of their financial offer, preference and quality. The score for quality was based solely on the ranking of the competition jury. The financial offer was adjusted for a preferences using the 90:10 preference points system in accordance with the provisions of the Preferential Procurement Policy Framework Act with all the points for preference being allocated to B-BBEE. Points for quality (maximum 100) were combined with the preference points system as other objective criteria in terms of the Preferential Procurement Policy Framework Act. A weighting of financial offer adjusted for a preference to quality of 0.3:0.7 was selected to ensure that the architectural practices with the highest ranked participants would be awarded a contract provided that they tendered reasonable financial parameters and obtained some points for preference. Tenderers who failed to be ranked and awarded a prize by the jury were eliminated from contention. Framework agreements were concluded with the highest ranking tenderers based on the NEC3 PSC Option G.

Tables 5 and 6 provide a summary of the procurement process and the outcomes of such processes. By way of comparison, the South African Council for the Architectural Profession's recommended time based rates (effective from 1 January 2012), exclusive of VAT, are R 2 400 per hour for specialists and R 1 875 per hour for a partner or equity holder with more than 10 years of experience and 16,5 to 22,5 cents, depending upon the level of responsibility they carry. The SACAP recommended fees exclude travelling costs.

Table 5: Summary of procurement process for the provision of architectural services

Milestone	Sol Plaatje University	University of Mpumalanga
Expressions of interest		
Documents available from	6 May 2013	27 May 2013
Number respondents who expressed interest	179	147
Closing date for submissions	27 May 2013	
First stage of design competition		
Documents available from	30 May 2013	24 June 2013
Number downloaded documents	153	111
Closing date for submissions	11 July 2013	1 August 2013
Number of submissions received	59	47
Jury composition	7 members. 4 architects (3 from South African and one from Botswana) plus a representative of the University Interim Council, Sol Plaatje / Mbombela Municipality and DHET)	
Number admitted to the next stage	9	7
Second stage of design competition		
Documents available from	19 July 2013	8 August 2013
Closing date for submissions	10 September 2103	11 October 2013
Number of submissions received	9	7
Number of submissions ranked	6	4
Announcement of the competition "winners"	18 September 2013	30 October 2013
Tenders		
Documents available from	19 July 2013	26 August 2013
Closing date for tenders	10 September 2013	11 October 2013
Tenders received	9	7
Responsive tenders	6	4
Evaluation panel report finalised	17 September 2013	29 October 2013
Announcement of recommended tenderers	18 September 2013	30 October 2013

Table 6: Procurement outcomes for architectural services

	Sol Plaatje University	University of Mpumalanga
Maximum hourly rate excluding VAT but including travel costs		
Maximum	R 1 750	R 2 300
Minimum	R 1 050	R 1 100
Average	R 1 410	R 1 531
Cents per hour / R100 of total annual cost of employment excluding VAT but including travel costs		
Maximum	19 cents	17,5 cents
Minimum	13 cents	12 cents
Average	15,6 cents	14,9 cents
Effective adjustment factor to SACAP December 2011 fee scale*		
Maximum	1.13	1,14
Minimum	0,7	0,68
Average	0,93	0,92
Socio-economic		
Average B-BBEE score (max = 10)	5.4	4.8

***** The effective adjustment factor = tendered F_{CON} x tendered cents per hour per R100 of total cost of employment / 16

7 Procuring the services of the remainder of the professional team

The DHET Project Management Team had the necessary capabilities and capacity with the exception of interior design and space planning services to scope and oversee the work associated with the 2014 start-up of the universities which required the refurbishment, extension or alteration of existing buildings. Open tenders were called for during September 2013 for interior design and space planning services with all the preference points allocated to B-BBEE. Tenders were evaluated on the basis of financial offer, preference and quality. The financial offer was adjusted for a preferences using the 90:10 preference points system with all the points for preference being allocated to B-BBEE. Points for quality (maximum 100) were combined with the preference points system as other objective criteria, with tenderers scoring less than 60 points being eliminated from further consideration. A weighting of financial offer adjusted for a preference to quality of 0.7:0.3 was used. Contracts based on the NEC3 PSC (Option G: Term contact) were entered into with the successful tenderers for a three year term.

Short term appointments were made to provide one of the architects in each of the universities with certain engineering inputs to fast tracking certain buildings for tender purposes and to assist the DHET Project Management Team with the financial administration of the management contractors. These appointment were made in terms of the Wits Policy which permits contracts for professional services having a value not exceeding R250 000 including VAT to be entered into using the negotiated procedure with a suitably qualified consultant on a time and cost basis. Contracts based on the NEC3 PSC (Option E: time based contract) were entered into.

Tenders were invited to secure the services of the remainder of the professional team required to design buildings and to support construction activities using the open procedure with all the preference points allocated to B-BBEE. Stringent eligibility criteria were set for each procurement which were typically designed to ensure that appointed consultants provide independent advice, are not unincorporated joint venture, are registered companies, have in their full time employ a suitably qualified person who will either provide the service or who will direct the services (i.e. a key person), are able to produce annual financial statements, have contactable references for the provision of similar services, have in place a minimum level of professional indemnity cover and have a turnover in excess of a threshold. (Unincorporated joint ventures were excluded as one is not sure as to who is being evaluated in the tender process, who will provide the service, whether or not the “marriage” will remain intact over the term of the contract, how the liabilities are to be finally apportioned within the joint venture, who will be responsible for rectifying defects and how professional indemnity insurance cover will be dealt with after the term of the contract. Sole proprietors were excluded due to risks relating to accessibility of outputs and work in progress in the event of death during the term of the contract.)

Tenders were evaluated on the basis of their financial offer, preference and quality as previously described. A weighting of financial offer adjusted for a preference to quality of 0.6:0.4 was applied to all

tenders save for those relating to project management, strategic environmental, health and safety and environmental compliance services where a weighting of 0.5:0.5 was applied. Two standard quality criteria was evaluated in all tenders, namely the experience of the principal consultant (key person) in terms of professional profile and experience in relation to the required service and the value added by the tenderer (i.e. the answer to the question as to why the employer will derive better value for money by contracting with the tenderer rather than with any other tenderer). An approach paper was also evaluated in the tenders for wet services and the project management, cost consulting and fire, civil and mechanical engineering services. An interview with the four highest scoring tenderers took place in the tenders for project management services whereby the evaluation panel had the opportunity to moderate the quality score for the approach paper and the value added by the tenderer following an oral presentation by the key person.

Tenders were invited for professional services for both Universities in a national newspaper and in local newspapers and on the New University website during 2014 (see Table 7). No tenders were received for land surveying services at the Sol Plaatje University and fire engineering services at the University of Mpumalanga. No responsive tenders were received for the health and safety services at both universities and for land surveying services at the University of Mpumalanga. The lack of responsive tenders received for health and safety services was perceived to be related to the lack of registered persons complying with the Construction Regulations 2014 issued in terms of the Occupational Health and Safety Act of 1993. The health and safety tenders were accordingly re-advertised with the assistance of the South African Council for Project and Construction Managers. The other tenders were not re-advertised as the aforementioned negotiation procedure for services having a value of less than R 250 000 and quotation procedure for tenders under R 1,0 m were used to satisfy requirements.

Compulsory clarification meetings were held for the project management, cost consulting and civil, electrical, mechanical and structural engineering services and wet services. A technical evaluation panel comprising at least three suitably qualified built environment professionals performed the technical evaluations. A tender evaluation panel with representatives from the interim university councils and other stakeholders finalised the tender evaluation report. The tender reports were submitted to the scheduled monthly meeting of Wits' tender committee for their consideration and recommendations.

Statistics relating to the tenders advertised between March and August 2014 are provided in Table 7. A number of tenderers were not scored either due to their failure to score above the quality threshold score of 60 or to tender the specified financial parameters. The average number of calendar days between the closing of tenders and the tender committee meeting recommending the award of the contracts excluding the tenders for project management services was 34 days.

The average tendered parameters of the successful tenderers in the different disciplines is indicated in Table 8. The fees recommended by the South African Council for the Quantity Surveying Profession (SACQSP – effective 1 January 2013), Engineering Council of South Africa (ECSA – effective 1 January 2014), South African Council for Landscape Architects (SACLAP – effective 1 January 2013) and the South African Council for the Project and Construction Management Professions (SACPCMP – effective 1 January 2012), all of which exclude travel costs, are shown in brackets in Table 8. All the tendered financial parameters are significantly lower than that recommended by the statutory councils before reduction are made for travelling expenses so that they can be compared on a comparative basis. These consistently lower rates are not unexpected as Consulting Engineers South Africa's Biannual Economic and Capacity Survey July to December 2013, which is published on their website, states that "The average discount being offered to clients increased marginally from 24,0 percent to 24,5 percent in the current survey. Discounting has gradually increased in line with the tougher tendering conditions experienced by firms. Discounted rates are benchmarked against the ECSA Guideline fee scales."

None of the appointed consultants who provided project management, landscape architectural, environmental, health and safety or specialist engineering services were based in Kimberley or Nelspruit. 50% of the cost consultant and 70% of the electrical, mechanical, civil and structural engineering consultants appointed for the Sol Plaatje University were either based in Kimberley or had a branch office in Kimberley. 50% of the cost consultant and 63 % of the electrical, mechanical, civil and structural engineering consultants appointed for the University of Mpumalanga were either based in Nelspruit or had a branch office in Nelspruit.

Table 7: Tenders received for professional services (March to August 2014)

Service	Tenders			Averages of scored tenderers					Highest quality	Dates (Closing of Tender/ Tender committee)	No of awards
	Received	Responsive	Scored	Max hourly (Rand)	Salaried staff (Cents)	Effective adjustment factor*	B-BBEE (score)	Quality score			
Sol Plaatje University											
Electrical engineering	17	12	9	1183	13.2	0.89	7.8	78.0	88.3	11-03 /20-03	2
Civil engineering	19	14	14	1134	13.4	0,88	6.9	75.0	84.3	11-03/ 20-03	1
Fire engineering	2	2	2	1050	13.8	na	9.0	72.2	78.3	11-03 /20-03	1
Mechanical engineering	13	8	7	1265	14.4	0,91	8.7	71.2	80.2	11-03 /20-03	2
Structural engineering	18	16	16	1165	13.9	0.88	7.8	77.3	90	11-03 /20-03	2
Wet services	5	3	1	1050	12.5	0,7	9.0	77	77	27-03 /17-04	1
Project management	13	6	4	1663	12.3	na	7.8	75.6	92.5	27-03 /27-06	2
Cost consulting	14	9	7	1079	14.9	0.82	7.6	73.8	89.5	27-03 /17-04	2
Geotechnical	4	3	2	2284	16.5	na	6,5	72.9	83.3	08-04 /15-05	1
Traffic engineering.	8	3	3	1183	13,6	na	8.3	79.7	86.0	08-04 /15-05	1
Acoustic engineering	2	1	1	1940	18.0	na	8	91.7	91.7	08-04 /15-05	1
Landscape architectural	11	5	3	946	10,8	0,68	5,5	79.8	88.5	08-04 /15-05	1
Strategic environmental	5	2	2	1225	15,8	na	7.0	92.5	100	28-05 /27-06	1
Health and safety	9	2	2	925	14.5	na	7.0	71.7	72,5	20-08 /08-10	1
Environmental compliance	11	3	3	823	12.3	na	7.7	84.6	88.1	20-08 /08-10	1
University of Mpumalanga											
Electrical engineering	16	13	10	1223	13.5	0.93	7.3	77.8	89.2	18-03 /17-03	2
Civil engineering	16	13	12	1098	13.6	0.74	7.4	75.1	91.8	18-04 /17-04	2
Mechanical engineering	12	9	8	1287	14.4	0.94	7.8	72.9	84.8	18-03 /17-04	2
Structural engineering	20	18	18	1200	14.1	1.1	7.6	72.6	88.3	18-03 /17-04	2
Wet services	4	2	1	900	16.5	3.0	0	68.5	68.5	02-04 /17-04	1
Project management	15	9	7	1562	13.6	na	7.2	71.9	92.5	02-04 /27-06	1
Cost consulting	15	10	6	1032	13.8	0.89	8.5	78.4	88.5	02-04 /17-04	2
Geotechnical	8	5	4	1014	14.0	na	4.5	81.7	86.7	08-04 /12-06	1
Traffic engineering	6	4	3	867	13.3	na	7.0	79.5	81.7	08-04 /12-06	1
Acoustic engineering	2	1	1	1940	18.0	na	8	91.7	91.7	08-04 /12-06	1
Landscape architectural	10	3	3	1033	11.3	0,77	9	83.1	88.8	08-04 /12-06	1
Strategic environmental	4	2	2	1225	15,8	na	7.0	93.7	99.4	28-05/ 27-06	1
Health and safety	14	1	1	1100	15.0	na	9	72.0	72.0	20-08 /08-10	1
Environmental compliance	14	5	5	873	13.5	na	8.0	80.3	88	20-08 / 8-10	1

***** The effective adjustment factor = Tendered F_{CON} x tendered cents per hour per R100 of total cost of employment / 16

Table 8: Average parameters tendered by the successful tenderers

Average tendered parameters	Cost consulting	Engineering (electrical, mechanical, civil and structural)	Landscape architecture	Project managers
Maximum hourly rate excluding VAT but including travel costs	R 933 (SACQSP = R 1669 if public sector 2014 director salary applied)	R 921 (ECSA = R1958 if 2014 public sector director salary applied)	R 895 (SACLAP = R 1140 – 2013 rate)	R 1291 (SACPCMP = R 1469 – R 1780 if 2014 public sector director salary applied)
Cents per hour / R100 of total annual cost of employment excluding VAT but including travel costs	12.3 (SACQSP = 16.5 – 17.5)	12.3 (ECSA = 16,5 to 17.5)	11 (SACLAP = 12.5 to 17,5)	11.8 (SACPCMP = 14.7 – 16.5)
Effective adjustment to guideline fee scales published by a statutory body	0.72 x basic SAQSP 2013 fee	0.73 x basic average ECSA 2014 fee	0.69 x basic SACLAP 2013 fee	na
Average preference score	8.8	8.8	8.0	6.5

Figure 5 indicates the relationship between relative quality (quality score divided by average quality score for tenderers who scored above 60 points) and the combined points for financial offer and preference for the successful tenderers for selected disciplines. The average relative quality for all contracts awarded was 1.04 (4% higher than the average quality offered), while the average points for financial offer and preference was 96.3 (96% of the maximum possible score). The evaluation of quality in tenders as an objective criterion did not have a major impact on the overall tender outcomes. If price and preference were the sole determinants of ranking, the average relative quality would have reduced by three percent, 3 of the 21 tenderers would not have been appointed and the ranking of tenderers would have changed in 30% of the cases where two contracts were awarded for the same service. Nevertheless, the inclusion of quality as part of the tender points system did have a significant impact on the tender outcomes in the three service areas where the quality evaluation influenced the tender outcome.

Framework agreements were concluded with the highest ranked tenderers based on the NEC3 PSC Option G over a three year term, except in the case of the cost consulting and project management services were it was considered a commercial risk and possibly a conflict of interest for the same company to be providing services to both universities. Contract skills development goal (see Table 3) were linked to all task order issued during the term of the contract having a value and duration in excess of R2,0 million and 12 months, respectively.

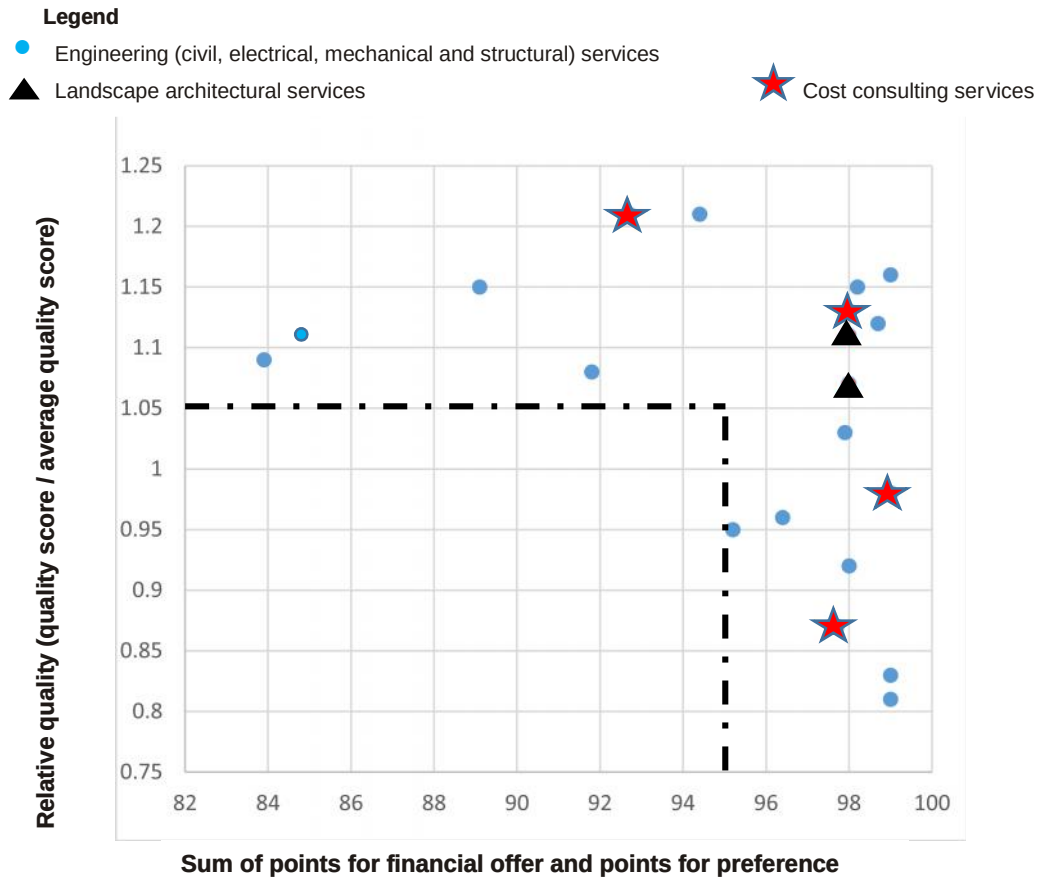

Figure 5: Relative quality versus combined points for financial offer and preference for successful tenderers

8 Procuring construction services

Construction services were required to prepare a paved area for the September 2013 launch of the Sol Plaatje University. Open tenders were called for during July 2013 for a framework contract having a three year term for the construction and upgrading of infrastructure including roads, paved areas, pedestrian crossings, parking areas, landscaping and electrical installations within the new university campus. Eligibility criteria in addition to the CIDB contractor grading criteria (grade 6CE and higher) were set (previous experience during last three years, ability to generate financial statements and minimum turnover during the previous financial year). Quality (experience and value add) was evaluated with a weighting of financial offer adjusted for a preference for B-BBEE to quality of 0.8:0.2. A contract was entered into with a Kimberley based contractor having a CIDB contractor grading designation of 6, based on the NEC3 Engineering and Construction Short Contract which contained a price list of the typical activities which were likely to be encountered in package orders issued during the term of the contract.

Construction services were required to refurbish, extend or alter existing buildings on both campuses ahead of the 2014 start up. Open tenders were called for during July 2013 for a framework contract having a three year term, based on the NEC3 ECC (Option F: Management contractor). In terms of this type of contracts, the contractors are paid their expenses (market related prices or competitively tendered amounts) plus their tendered fee to cover items such as profit, company overheads, finance changes, insurances, performance bonds, management costs etc (Watermeyer, 2012)

Eligibility criteria in addition to the CIDB contractor grading criteria (grade 6 GB or higher) were set (previous experience during last three years, ability to generate financial statements and minimum turnover during the previous financial year). Quality (experience of tenderer and key person and value add) were evaluated with a weighting of financial offer adjusted for a preference to quality of 0.75:0.25. Statistics relating to the management contract tenders are provided in Table 9. Contracts were entered

into with a Kimberley based CIDB grade 7 contractor for the Sol Plaatje University and a Nelspruit based CIDB grade 8 contractor for the University of Mpumalanga.

Table 9: Tenders received for a management contract (September 2013)

Service	Tenders			Averages of scored tenderers				Highest quality	Dates (Closing of Tender/ Tender committee)	No of awards
	Received	Responsive	Scored	Direct Fee %	Subcontract Fee %	B-BBEE (score)	Quality score			
Sol Plaatje University	6	1	1	12	8	10	92.3	92.3	03-09-13 / 24 -10-13	1
University of Mpumalanga	11	3	2	16.25	13.8	6.3	84.5	85.7	26-09-13 / 24-10-13	1

Tenders were invited for the construction of buildings within the university precincts of both universities during 2014 in terms of a restricted competitive negotiations procedure for a framework contract having a three year term, based on the NEC3 ECC (Option C: Target Contract). In terms of this type of contract, a target price, based on activity schedules, is agreed between the employer and the contractor to control productivity. The initial target price is adjusted for compensation events (e.g. scope changes and events which are at the employer's risk), throughout the contract to arrive at a final 'cost' to keep the target equitable. The contractor is paid his costs (people, materials, plant, equipment, site overheads, subcontractor etc) at open market of competitively tendered rates plus their tendered fee percentage to cover items such as profit, company overheads, finance changes, insurances and performance bonds on a monthly basis as the work proceeds. The difference between the 'final cost' and the amount paid to the contractor when the work is completed is shared between the employer and contractor in agreed proportions (Watermeyer, 2009, 2012 and 2015).

The restricted competitive negotiations procedure was conducted in three stages (see Table 10). During the first stage a call for an expressions of interest was issued to prequalify tenderers to enter into competitive negotiations and to limit the number of participants in the competitive negotiations process to a manageable number. Respondents were screened in terms of eligibility criteria relating to their CIDB contractor grading designations (grade 7GB or higher), company status, tax status, ability to provide financial statements, experience in providing multi-story concrete frame buildings and turnover during the previous financial year. Thereafter they were scored in terms of the quality of their B-BBEE status, experience in undertaking work of a similar nature, proposals for promoting local content, job creation and skills development, health and safety plans, quality management policies and systems to track costs.

Table 10: Tenders received for target contract (June to August 2014)

Service	Tenders		Averages of scored tenderers				Highest quality	Dates (2014) (Closing of Tender/ Evaluation panel or Tender committee)	No of awards
	Received	Responsive	Scored	Financial offer	B-BBEE (score)	Quality score			
Sol Plaatje University									
Expression of interest	15	10	7	na	8.6	78.6	90.8	11-06 / 17-06	-
First round	7 invited 4 received	4	4	89.0	6.7	76.3	91.3	09-07 / 18-07	-
Final round	4 invited	4	4	88.1	8.8	78.7	85.4	13-08 / 27-08	3
University of Mpumalanga									
Expression of interest	12	10	7	na	7.3	81.2	92.2	11-06 / 17-06	-
First round	7 invited 6 received	6	4	81.6	4.5	85.5	92.5	09-07/ 18-07	-
Final round	4 invited	4	4	83.1	6.6	86.8	94.3	13-08 / 27-08	2

Tenderers who were invited to submit tenders in the first round of the competitive negotiation procedure were required to submit for evaluation pricing parameters used to pay the contractor his costs as defined in the contract uplifted by a fee for the term of the contract and a target price based on a bill of quantities for the first package order (see Table 11). A non-compulsory clarification meeting took place whereby tenderers were provided with a comprehensive interactive briefing on the proposed contractual arrangements. The tendered pricing parameters were combined with the target price in a tender assessment schedule provided in the tender documents in order to compare financial offers on a comparative basis. Quality (approach papers to delivering the package and promoting local content, job creation and skills development through the package and the experience of the project director, contract manager and cost controller) was evaluated with a weighting of financial offer adjusted for a preference to quality of 0.7:0.3.

Tenderers who were admitted to the final round of the competitive negotiation process were provided with the documentation associated with the first package order complete with construction drawings and were invited to attend a round of competitive negotiations with representatives of the client and the project team including designers to afford them an opportunity to fine tune their submission. They were thereafter requested to make their final submissions and to submit for evaluation improvements in their pricing parameters (see Table 11), preferences and quality scores a target price based on an activity schedule for the first package order and a programme for the works. Quality was evaluated with a weighting of financial offer adjusted for a preference to quality of 0.8:0.2.

Three contracts were entered into with non-Kimberley based contractors for construction at the Sol Plaatje University having CIDB contractor grading designations of 7, 8 and 9, respectively. Two contracts were entered into with contractors for the construction of buildings at the University of Mpumalanga having a CIDB contractor grading designation of 8 and 9 respectively, one of which is based in Nelspruit. All of these contracts made provision for the setting of all the KPIs described in Table 3 in a package order and low performance damages should these KPIs not be achieved.

Each of the three distinctly different types of framework contracts facilitate the early involvement of contractors as the contractor is appointed before the design has been completed. The opportunity to address fragmentation in design therefore exists as well as to obtain contractor insights into value engineering before the package order is finalised in accordance with the provisions of the framework contract. The target contract option facilitates “fast track” construction a contractor can be provided with a description for the whole of the works which he is ultimately to provide and price, programme the whole of the works and to only price a portion of the works where the production information is complete. An assumption can then be made as to what allowance should be made for the balance of the works for which production information is not yet available with contractor insights. These assumptions can be revisited as and when new production information is available and adjustments to the target, the date for Completion and Key Dates can be made through the compensation event mechanisms provided in the framework contract. The design team is then required to complete the outstanding production information with contractor inputs so that it is preferably within the agreed target price. Where the initial target price is exceeded by more than 10% for whatever reasons other than price adjustment for inflation, the delegated authority is required to authorise the increase in expenditure (see Figure 6)

Table 11: Average tendered parameters for target contract at different stages in the procurement process

Tendered parameter	Average values for University of Mpumalanga			Average values for Sol Plaatje University		
	At start of stage 2	At end of stage 2	Successful tenderers	At start of stage 2	At end of stage 2	Successful tenderers
Tendered total of the Prices	R48 307 483 (3% below cost consultant estimate)	R 49 125 514	R 47 286 658	R 86 294 668 (4% above cost consultant estimate)	86 011 996	R 85 517 054
Percentage for Working Area overheads	10.1%	6.03%	6.6%	9.5%	5.9%	5.7%
Percentage for people overheads	10.6%	6.88%	5.3%	17.5%	7.4%	5.7%
Percentage for adjustment for Equipment in the published lists	-4.1%	-1.63%	1.8%	0%	2.5%	3.3%
Subcontracted fee	8.1%	7.13%	6.0%	8.5%	7.5%	7.0%
Direct fee percentage	7.9%	7.13%	6.0%	7.25%	7.5%	7.0%
Project director	R 1 699 870	R 1447 370	R 1 392 500	1 933 620	1 580 370	1 607 160
Contract manager	R 1 046 443	R 1 046 443	R 919 000	1 045 194	1 269 443	1 292 591
Cost controller	R 790 900	R 790 900	R 900 925	819 651	753 588	1 045 534

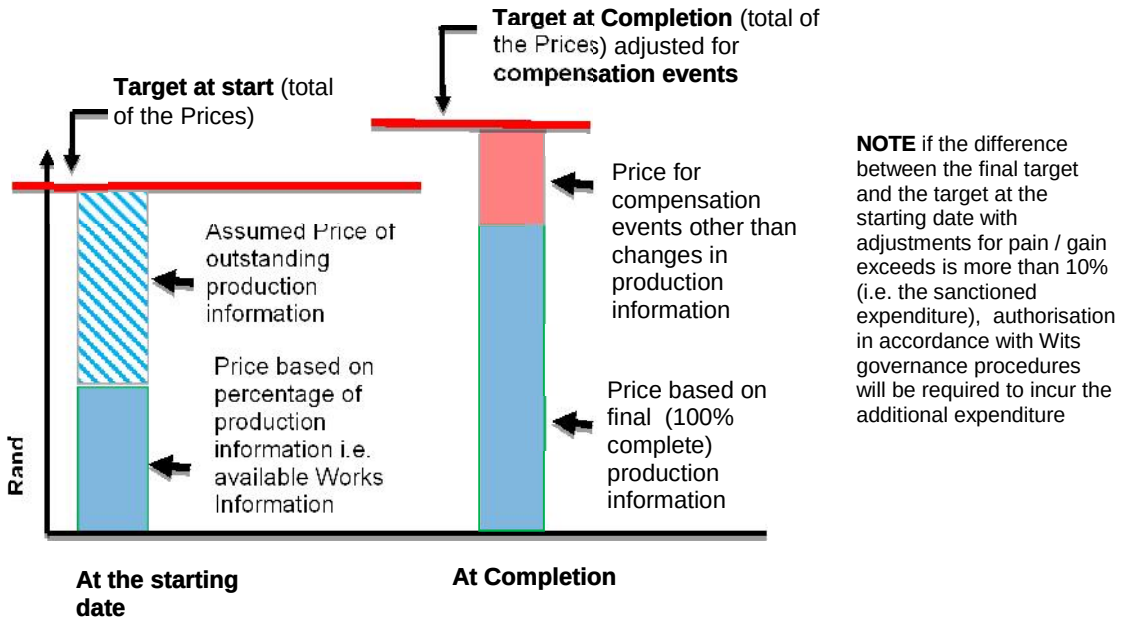

Figure 6: Setting and adjusting incremental targets to "fast track" construction (after Watermeyer, 2015)

Procuring the IT network and the core IT infrastructure

Both universities required IT network and core IT infrastructure. Tenders for the supply of goods comprising the IT network and core IT infrastructure and services relating to their deployment planning, installation, configuration and maintenance were invited through the national and local press during December 2013 with a compulsory clarification meeting in January 2014. Use was made of the competitive negotiations procedure (see Table 12). Stringent eligibility criteria tenderers were set. Such criteria related to the minimum requirements for competencies for locally based key staff, contactable

references for similar services, compliance with at least 80% of the items or components listed in the technical requirements compliance list, requirements for a national footprint and an ability to supply goods and equipment from strategic industry leaders.

Tenderers were in the first round required to submit lump sums broken down in a specified manner, identify items purchased in a foreign currency and to price such items using the relevant exchange rate at an applicable date and to tender a percentage for overheads and profit which will be applied in the assessment of compensation events and the provision of post commissioning support over a three year term. The tendered pricing parameters were combined with the target price in a tender assessment schedule provided in the tender documents in order to compare financial offers on a comparative basis. Quality (key staff, previous experience, value add, approach paper and proposed programme) was evaluated with a weighting of financial offer adjusted for a preference for B-BBEE to quality of 0.7:0.3.

Tenderers who were admitted to the final round of the competitive negations process were afforded an opportunity to clarify the acceptability of their non-compliant offerings and to fine tune their proposals with the client and his technical experts. Tenders were thereafter requested to tender their best and final offer. Their tenders were evaluated in the same manner as the first round, except that the weightings for quality were different with a zero weighting for previous experience and value add.

The averaged tendered parameters for the two stages of the competitive negotiations process is as set out in Table 12. A NEC3 Supply Contract was entered into with the successful tenderers, which happened to be the same company, for each of the universities.

Table 12: Average tendered parameters for IT network and the core IT infrastructure

Service	**Tenders**		**Averages of scored tenderers**				**Highest quality**	**Tendered total of Prices (Rand)**	**Percentage overheads and profit**	**Dates (2013/14)** (Closing of Tender/ Evaluation panel or Tender committee)
	Received	Responsive	Scored	Financial offer	B-BBEE (score)	Quality score				
Sol Plaatje University										
First round	5	3	3	62.5	6	78.3	90	R48.21 m	14	03/12 / 11/12
Final round	3	3	2	87.6	9	81.1	82.9	R 25.32m	14	30-01 / 15-05
University of Mpumalanga										
First round	6	2	2	59.3	9	77.5	90.0	R49.52 m	14	03/12 / 11/12
Final round	2 invited	2	2	86.8	9	81.3	82.9	R24.12 m	14	30-01 / 15-05

Procuring furniture

Tenders were invited during September 2014 through the local press for the supply and installation of teaching, office furniture and residential furniture and the provision of chairs ahead of the 2015 academic year at both of the Universities. Local content requirements as required by the Preferential Procurement Regulations were included in the tenders. Tenders were evaluated on the basis of their financial offer adjusted for a preference linked to B-BBEE. The tender evaluation process included the evaluation of samples of products offered and, where appropriate, a visit to the tenderers manufacturing premises. Four contracts, based on the NEC3 Supply Short Contract, were entered into with the successful tenderers for each of the universities.

Conclusions

The Wits procurement process, which is fully aligned with public sector requirements, resulted in the creation of a competent construction service capacity to fast track the design and deliver of the physical infrastructure for the two universities in a co-ordinated and integrated manner in line with the DHET New Universities Project Management Team's primary and secondary procurement objectives, at open market rates for a three to four year period. The procurement process resulted in most contracts being awarded to tenderers who were B-BBEE level 3 or higher contributors.

None of the appointed consultants who provided architectural, project management, landscape architectural, environmental, health and safety or specialist engineering services were based in Kimberley or Nelspruit. 50% of the cost consultant and between 63 and 70% of the electrical, mechanical, civil and structural engineering consultants that were appointed were either locally based or had a local branch office. All of the management contractors were local contractors while the Sol Plaatje University civil engineering contractor and one of the two University of Mpumalanga contractors were local contractors.

The contracts that were entered into were sufficiently flexible to allow a hand over from Wits to the new universities to occur during the term of the contract.

The efficiency and efficacy of the procurement process can be attributed to the following:

1) there being in place a comprehensive construction procurement policy, processes, procedures, methods and delegations being in place and a website which enabled documents to be issued to tenderers and to distribute clarifications and addenda;

2) the range of standard procurement options provided for in the ISO10845 standards for construction procurement and the NEC3 family of documents;

3) the quality and clarity of the tender documents, particular with respect to what tenderers were required to submit and how their tenders were to be evaluated, and the completeness and comprehensiveness of the tender evaluation reports which demonstrated how the stated evaluation criterial was applied; and

4) the tender committee's understanding of its governance function.

References

Watermeyer, R.B. (2009), Getting to grips with the NEC3 ECC target contract with activity schedule. *Civil Engineering.* January / February.

Watermeyer, RB (2010). Perspectives expressed at the Wits Project Management Symposium (August 2009). *Civil Engineering*. January/ February.

Watermeyer, R, Nevin, G. and Langenhoven, K (2012). The supply chain management system for the delivery and maintenance of infrastructure by organs of state, *Civil Engineering.* July

Watermeyer, R.B. (2012) A framework for developing construction procurement strategy. Proceedings of the Institution of Civil Engineers, Management, Procurement and Law. Volume 165, Issue 4, pp. 223–237 (15)

Watermeyer, R.B. (2013) Unpacking framework agreements for the delivery and maintenance of infrastructure. *Civil Engineering.* January / February.

Watermeyer, R.B. (2015). NEC3 ECC target contract option - principles and innovative applications. *Civil Engineering.* January / February