

Sub-National Doing Business Reform Toolkit

Dealing with Construction Permits

2020/2021



WORLD BANK GROUP



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1. Context and Background

South Africa is an active participant in the World Bank’s annual *Doing Business* survey, which provides a measure of the “ease of doing business” in 190 countries (measured for the country’s largest business city – Johannesburg in the case of South Africa). The survey draws on a set of objective indicators that focus on the impact of laws, regulations, and their enforcement for domestic firms in 10 key areas, including Registering Property, presenting country results in terms of an absolute ease of doing business score and a comparative country doing business ranking.

South Africa ranked 84th out of 190 economies in *Doing Business 2020*, and 98th on the Dealing with Construction Permit indicator. Of critical concern is that over the past decade South Africa has declined 50 places, sliding from a rank of 32nd in *Doing Business 2009*.

President Ramaphosa has committed South Africa to be a global top performer and among the top 50 global economies by *Doing Business 2023*.

National Treasury is partnering with the Department of Trade, Industry and Competition (DTIC) Invest SA and the Presidency in advancing South Africa’s *Doing Business* reform programme at the national level.

Simultaneously, National Treasury is collaborating the World Bank and the eight (8) metropolitan municipalities to implement the *Sub-National Doing Business (SNDB)* reform programme, following the completion of the 2015 and 2018 SNDB surveys that measure the business regulation environment in (five) *Doing Business* indicators, including Registering Property in the eight (8) metropolitan (metro) municipalities and Msunduzi.

Figure 1 below displays the results of the second 2018 SNDB survey for two (2) aggregate measures: the ease of doing business (previously the distance to frontier or DTF) score and the ease of doing business ranking. The ease of doing business score shows the distance of each economy to the “frontier” or the global best performance. The ease of doing business ranking complements the DTF (or DB) score by providing a comparative assessment of a city’s performance in business regulation relative to the performance of the other 8 South African cities participating in the SNDB survey.

Figure 1 Key results of Doing Business South Africa 2018

Location	Dealing with construction permits		Getting electricity		Registering property		Enforcing contracts	
	Distance to frontier score (0–100)	Ranking (1–9)	Distance to frontier score (0–100)	Ranking (1–9)	Distance to frontier score (0–100)	Ranking (1–9)	Distance to frontier score (0–100)	Ranking (1–9)
Buffalo City (East London)	71.66	6	59.40	5	57.81	6	▲ 51.48	9
Cape Town (Cape Town)	75.48	1	▲ 79.81	1	54.69	7	54.71	7
Ekurhuleni (Germiston)	71.81	4	52.09	6	58.48	4	55.58	5
eThekweni (Durban)	73.65	2	▲ 69.40	2	54.58	8	55.74	4
Johannesburg (Johannesburg)	▲ 68.16	8	▲ 68.77	3	59.68	2	54.10	8
Mangaung (Bloemfontein)	▲ 71.25	7	59.82	4	▲ 59.73	1	59.01	1
Msunduzi (Pietermaritzburg)	▲ 73.17	3	▲ 47.59	8	52.78	9	58.78	2
Nelson Mandela Bay (Port Elizabeth)	▲ 71.70	5	▲ 42.19	9	57.93	5	54.85	6
Tshwane (Pretoria)	▲ 66.25	9	51.24	7	59.39	3	56.14	3

Source: *Doing Business SA 2018*

For *Dealing with Construction Permits*, Cape Town ranks 1st in the country with an Ease of Doing Business Score (previously the DTF) of 75,48 with eThekweni 2nd and Msunduzi 3rd with Ease of Doing Business scores of 73,65 and 73,17, respectively.

The *Doing Business* indicator for *Dealing with Construction Permits* measures the *efficiency* of the construction permitting process, recording all the procedures required for a business in the construction industry to build a warehouse along with the time and cost to complete each procedure.

In addition, *Doing Business* measures the *building quality control index*, evaluating the quality of building regulations, the strength of quality control and safety mechanisms, liability and insurance regimes, and professional certification requirements.

In South Africa, cities and municipalities are responsible for administering the *National Building Regulations and Building Standards Act* (No. 103 of 1977), whereas the National Regulator for Compulsory Specifications (NRCS), an entity of the Department of Trade, Industry and Competition (DTIC) is responsible for advising the Minister of Trade, Industry and Competition about possible amendments to the *National Building Regulations* made in terms of the *National Building Regulations and Building Standards Act*, as well as promoting uniformity in the understanding and implementation of the *National Building Regulations* at the city and municipal level.

This means that cities and municipalities are the main government institutions responsible for performance on the efficiency component of the *Doing Business Dealing with Construction Permits* indicator, while at the national government level, the NRCS through the Minister of Trade, Industry and Competition is responsible for performance on the building quality control index of the *Doing Business Dealing with Construction Permits* indicator.

The SNDB reform agenda for the *Dealing with Construction Permits* indicator focuses initially on optimising manual processes and interdepartmental collaboration in the city/ municipal end-to-end building plan application process (the local term for construction permitting), where possible using one-stop-shops to improve coordination and increase efficiency.

Once manual processes are optimised and interdepartmental collaboration streamlined, physical one-stop-shops may be automated, using technology and digitisation to enable even faster, simpler and more convenient online or web-based building plan application services.

At the national level, the *Doing Business Dealing with Construction Permits* reform agenda focuses on the legislative and regulatory reform of the *National Building Regulations and Building Standards Act* (No. 103 of 1977) and the associated *National Building Regulations* and related building rules or codes, the South African National Standards (SANS) 10400 that enable South Africa's improved performance on the building quality control index.

In this regard, national government is responsible for introducing and enforcing clear and coherent building regulations and rules, while city and municipal governments are responsible for implementing these building regulations and rules in end-to-end building application processes.

Building regulations, supported by international and local standards or building codes are fundamental to successful building projects around the world. Building permit and inspection systems which function well can also strengthen property rights and contribute to inclusive economic development. Non-compliance can have very serious social and economic

consequences, including collapsed buildings and possible fatalities. If the rules are over-complex, or the process requires getting permits from many several different agencies, the opportunities for rent-seeking and corruption are multiplied. Simplifying building rules and streamlining building application processes therefore have a positive impact on economic development.

South Africa's *National Building Regulations* were last amended by the Minister of Trade, Industry and Competition in 2008 (Government Notice 574 in Government Gazette 31084, 30 May 2008), and are supported by the *South African National Standards (SANS) 10400*, the Code of Practice for the Application of the *National Building Regulations*.

The SANS 10400 is developed and maintained by the South African Bureau of Standards (SABS), a public entity of the Department of Trade, Industry and Competition (DTIC) that is mandated in terms of the Standards Act (No. 8 of 2008) to develop, promote and maintain South African National Standards (SANS).

SANS 10400 comprises a set of standardised building codes that are deemed to satisfy the technical aspects of the *National Building Regulations*, and are reviewed regularly to ensure that they remain valid and up to date. There are 21 parts that currently comprise SANS 10400, from Part A to Part XA, and are available as stand-alone units or a full set for sale from the SABS.

National government through the Minister of Trade, Industry and Competition is therefore responsible for any proposed amendments to the *National Building Regulations*, while the SABS is responsible for revisions to the national building codes, the SANS 10400, as well as continual engagement with city and municipal governments, the architectural fraternity and broader academia to promote consistent application of the SANS 10400 requirements.

City and municipal governments are then responsible for purchasing a legal subscription of the latest version of SANS 10400 from SABS, and ensuring all building development management officials responsible for implementing the *National Building Regulations* are appropriately trained on the latest version of the SANS 10400. This will improve assessment efficiencies and decision rates of building plan submissions, and promote effective building inspections and issuance of occupancy certificates.

This means that the SNDB and national *Doing Business Dealing with Construction Permits* reform agendas require close alignment due to their intergovernmental dependence.

3. Key SNDB City Reforms for Dealing with Construction Permits

3.1. Review and Optimise/ Re-engineer Building Plan Application Process

The first set of reforms involves business process optimisation or re-engineering. This stage is critical prior to automation, as technology enables a rethink of the entire structure and way of doing business.

Optimising or re-engineering the building plan application process starts with a comprehensive review of the ‘as-is’ or current end-to-end process. The aim is to eliminate wastage, duplication and unnecessary delays and identify areas for improvement based on the current process.

The next step is to develop a ‘to-be’ building plan application process by researching and considering local and international best practice; identifying any change in legislation and aligning business rules; reviewing previous performance or evidence-based results; reviewing implementation of a pre-application service; and promoting an overall customer-centric process.

The following key reforms identified for the ‘to-be’ building plan application process aim to reduce the numbers of procedures and optimising turnaround times in the end-to-end process.

3.1.1. Implement a One-Stop-Shop to streamline the manual building plan application process

Implementing a city/ municipal One Stop Shop enables the city or municipality to streamline a manual building plan application process prior to system automation.

An architect or developer submits a Site Development Plan (SDP) application (if this is required in the municipal building plan application process) or the building plan application directly to the municipal One Stop Shop without any pre-approvals or stamps from municipal owned entities or departments (notably, water, roads, and electricity).

The One Stop Shop must have Officials that can conduct a pre-scrutiny of the plans before it is accepted. The pre-scrutiny must be done against a checklist so that the completeness of a submission is validated. The plans must be rejected if there is non-compliance to the checklist. The main purpose of this is to ensure that quality submissions are being made to the Municipality.

The Municipality or City One Stop Shop then circulates the SDP application or building plan application internally to the municipal owned entities or departments for their comments and inputs as and when appropriate depending on the type of development.

The One Stop Shop improves the customer experience as the architect or developer now only interacts with the city or municipal Land Use and Building Management/ Development team once-off in a single procedure to submit an SDP or a building application plan.

Successful implementation of a One Stop Shop however requires that the appropriate resources from ‘commenting’ municipal owned entities or departments are released to be present at the One Stop Shop at specific times to assess plans.

The streamlined One Stop Shop process should also be widely communicated to private sector architects and developers through workshops and other means of formal communication.

3.1.2. Develop Standard Operating Procedures (SOPs) to reduce turnaround times

Approved formal Standard Operating Procedures (SOPs) that target specific turnaround times for Site Development Plans (SDPs) (if this is a requirement in the municipal building plan application process), plans examinations, and building inspections are an important tool to reduce turnaround times and improve management and service delivery accountability in the building plan application process.

For instance, the City of Johannesburg has recently approved Standard Operating Procedures that require SDPs to be approved within 28 days; building plans to be approved or refused within 30 days, irrespective of the size of the buildings; commercial building SDPs to be approved within 15 days; commercial building plans to be approved or refused within 5 to 10 days; and occupancy certificates to be issued within 4 days.

Capacity building and training of City of Johannesburg staff, as well as clear Standard Operating Procedures and related checklists, supported by continuous monitoring and reporting have ensured that the targeted turnaround times are being achieved.

The City of Cape Town and eThekweni Metropolitan Municipality have similarly reviewed their Standard Operating Procedures to enhance efficiencies in the building plan application process.

3.1.3. Removal of outdated procedures/ combining of procedures

Optimising or re-engineering the building plan application process requires that each procedure is examined against current legislation and domestic as well as international best practice approach. Certain procedures may be outdated and merely continued to be implemented as a result of practice, whereas other procedures may be combined to streamline procedures and reduce turnaround times in an overall customer centric approach to optimising the building application plan process.

For instance, the City of Johannesburg has updated its Standard Operating Procedures for Building Inspections to reflect that the open trench and setting out inspection is not required to be completed by the City of Johannesburg building inspector, where appropriate professionals such as the ‘engineer in charge’ or land surveyor are already onsite (this is typically the case in a commercial property scenario).

The private sector building professionals on site will therefore provide a Certificate of Compliance (COC) as part of the final inspection.

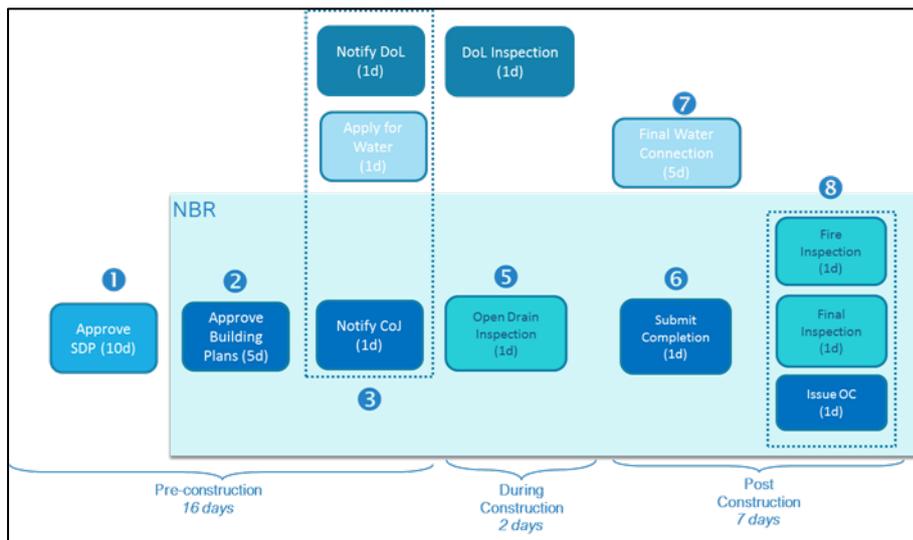
The rationale for this reform is that the municipal building inspector will not be able to conduct an appropriately robust inspection as the commercial property incorporates a rational design, rather than a ‘deem to satisfy’ design as per the SANS 10400 standard. In lay terms, the typical commercial property would have a steel structure and would require an engineer to calculate the relevant dimensions and weight, prior to recommending an appropriate trench inspection.

The updated City of Johannesburg Standard Operating Procedures for Building Inspections have been approved and formally communicated to both internal and external stakeholders.

There is also room to combine certain procedures by examining their rationale and engaging with various stakeholders as to whether they may be combined or integrated into a single procedure.

By way of example, the City of Johannesburg is engaging with key stakeholders to understand whether it is possible in the pre-construction phase to combine notification of commencement of building work to the Department of Labour, notification of commencement of building work to the City of Johannesburg: Building Development Management and application to Johannesburg Water for a water and sewerage connection into a single integrated procedure.

Figure 2 Streamlining the City of Johannesburg building plan application process



Similarly, the City of Johannesburg is investigating combining the during construction inspection by the Department of Labour to ensure compliance with Construction Regulations (2014) (that the safety file is visible and that the construction site is adequate for workers) with the open drain inspection City of Johannesburg Building Inspectorate to test the sewerage system connection point and drains prior closing of the work site. If possible, this would reduce during construction inspections into a single integrated inspection.

Initial discussions are also underway to combine the post construction fire inspection, final inspection and issuance of occupancy certificate into a single integrated procedure.

3.1.4. Introducing a risk-based approach to building inspections

City/ municipal building development management teams should also introducing a risk-based approach to building inspections as is currently being considered by the national *Doing Business Dealing with Construction Permits* Technical Working Group and the City of Johannesburg.

The rationale for this reform is based on the understanding that municipal building inspectors are mainly trained on the applicable parts of the *National Building Regulations* and SANS10400, which address the ‘deem to satisfy’ approach that is predominantly used for residential property rather than commercial property design.

This means that city/municipal building inspectorates are predominantly equipped to oversee residential construction (+95% for the City of Johannesburg), rather than commercial

construction which is based on rational design approaches. Private sector building professionals, such as architects and engineers are required to complete tertiary university studies, post graduate courses and obtain credible work experience before they are registered as professionals at any of the six Councils for the Built Environment Professions – Architecture, Landscape Architects, Engineering, Property Valuation, Project and Construction Management, and Quantity Surveying.

The national *Doing Business Dealing with Construction Permits* Technical Working Group has developed a risk-based framework for building inspections that will be included in the SANS10400 national building code. The approach is founded on guiding principles rather than a rules-based approach.

The first guiding principle differentiates building works between commercial and residential construction, where commercial construction is broadly meant to be non-residential and excludes minor building works. This distinction will be formally communicated to internal and external stakeholders.

The second guiding principle is for all stakeholders to collaborate within existing structures to create workable solutions that can be practiced rather than law-based. This collaborative approach requires formal communication to all stakeholders as well as buy-in from the relevant professional bodies, councils and the private sector.

The third guiding principle is to differentiate between professional accountability for rationale design compared to the deemed to satisfy approach. The SANS10400 building codes address the ‘deem to satisfy’ approach. The rational design is different to the ‘deem to satisfy’ approach, and therefore accountability for compliance may not be assessed in terms of the SANS10400 building codes but should be left to the building professional.

This requires that SABS update Part A of SANS10400 as part of the Administrative Guidelines with the risk framework. Building professionals will thereafter be required to issue a Certificate of Compliance in terms of their rational design approach, and the municipal building inspector will not be required to conduct the mandatory inspections for the Open Trench/Setting Out and the Open Drain for higher risk-based rational design projects. The Final Inspection will always remain as it is the Municipality’s responsibility to ensure that the requisite Certificates of Compliance are available, and that the design matches what has been built.

The ‘to-be’ building application process should be shared and reviewed with both internal and external stakeholders to ensure their buy-in and ownership prior to piloting and implementation. This was a key step for City of Johannesburg as well as eThekweni Metropolitan Municipality.

Text Box: Implementing partial automation of building plan application process as part of Covid-19 risk management strategy

While automating the building plan application process is typically recommended only once the process has been automated, Cities/ Municipalities are considering ways to ensure online submission of plans as part of their Covid-19 risk management strategies. For instance, Cities/Municipalities may wish to consider enabling architects or developers to submit applications and plans both online and physically. Pre-scrutiny or plan examination can then be done using the online submission, whilst the physically submitted plan sits untouched for the length of time that is recommended by the World Health Organisation (WHO). If the application is approved, the physical plan can then be stamped and notification sent to the architect or developer to collect.

3.2. Testing and piloting of Optimised New Building Application Plan Process

Thereafter the optimised ‘new’ building plan application process should be tested and piloted, where necessary, engaging organisational change management services. The piloting phase may also be used to identify gaps in current standard operating procedures (SOPs), as well as roles and responsibilities of international stakeholders involved in the end-to-end building application process, associated department agreements and reporting. It is also important to identify any outcome of the piloting process that has an impact for any other transversal information technology (IT) or other system, procedures or processes.

Prior to full implementation, it is important that stakeholders develop an agreed change management plan aimed at improving team collaboration and creating a common purpose and understanding of the need to implement the optimised ‘new’ building plan application process.

3.3. Review and Engage with Internal Stakeholders on Roles and Responsibilities

The building application plan end-to-end process sees a level of interdependency between key stakeholders within the City/Municipality.

In this respect, it is important to improve collaboration between all departments and branches/units/teams, reviewing all the contributing components involved in the end-to-end building application process. Key departments are likely to include fire, transport, water, solid waste management, electricity, environment, health, pollution, to name a few.

A formal inter-department agreement on roles and responsibilities is important to eliminate duplication and delays, as well as improve accountability for performance throughout the optimised ‘new’ building plan application process.

The programme must be championed by the highest level possible with regular reporting and steering committee meetings.

3.4. Engage External Stakeholders through regular, formalised communication

Implementing changes to the building plan application process also requires significant communication to external stakeholders, that is the architects and developers who are the ‘customers’ of the City/ Municipality in the building application process.

Communication should be done in a planned and coordinated way by means of a formalised communication plan.

The external stakeholder communications and engagement plan should include:

- Quarterly engagements with architects and developers to provide feedback of their customer experience on the building plan application process into continuous system improvement;
- Bi-annual customer satisfaction surveys, analysis of results and feedback into a continuous building plan application process improvement plan.

3.5. Ensuring Compliance through Continuous Professional Development

Successful change management requires a clear strategy and staff training. Investing in people through continuous professional development for City/Municipal as well as private sector

building professionals is key to ongoing performance improvement in city/municipal building plan application processes.

In this regard, city/ municipal reforms should include:

- Structured training for all city/ municipal building development professionals on the latest version of SANS 10400;
- Ensuring where relevant affiliation to professional bodies and associated continuous professional development for city/municipal building development professionals;
- Partnering/ pairing for on-the-job knowledge transfer or mentoring that may be combined with formalised training based on identified skill gaps; and
- Allocating clear roles and responsibilities to empower building development staff and address any identified bottlenecks in the building plan application process.

City/Municipal building development management teams should consider engaging with architect and draughtsman professional bodies to improve the university curriculum and continuous professional development requirements as a way of improving the quality of submission over the medium term.

3.6. Monitoring, Reporting and Evaluation for Continuous Improvement

Once the optimised ‘new’ building plan application system has been successfully implemented, the City/ Municipality’s focus should shift to monitoring and evaluating performance to enable continuous system improvements and performance optimisation.

The target should be to *approve SDPs within 28 days; approve or refuse building plans within 30 days*, irrespective of the size of the buildings; *approve commercial SDPs within 15 days; approve or refuse commercial building plans within 5 to 10 days*, and *issue occupancy certificates in 4 days*. These targets are proposed within an optimised building plan application process and appropriately resourced.

Reporting should also track the main reason for refusal or referrals, with particular reference to specific SANS10400 codes so that there may be improved awareness and understanding by private sector architects and developers as to mandatory requirements for quality building plan applications.

Continuous process improvement may necessitate system re-engineering and/or changes to current functionality and validations in more mature systems to improve system efficiency across the end-to-end building plan application process

3.7. Develop Business Case for Digitisation

The next step is to develop a business case for digitisation of the building plan application process. The business case should draw on process optimisation or re-engineering recommendations and consider the integration of related electronic systems in forming the platform for an online building plan submission process.

The business case should consider the ‘as-is’ status of systems across the end-to-end building application process, as well as the integration of relative systems, and recommend scenarios for semi or full digitisation scenarios as well as their related budgetary requirements.

The business case should include a robust budget for system development and implementation, as well as a schedule of identified risks as associated risk mitigation plan.

The final business case should be presented for approval to the relevant City/Municipal authority.

3.8. Digitise the Building Plan Application Process

Digitisation of the building application plan process starts off with the procurement and appointment of a solution developer/ service provider. The system developer/ service provider then formulates the technical specifications, develops/ configures the electronic system, and tests the system. It is important that the City/ Municipality ensure user acceptance testing of the new system before it is officially implemented.

The system development includes developing relevant application controls and adherence to the information technology general controls from an audit perspective, as well as procuring and implementing advanced digital signatures for authentication and authorisation.

Good technology practices internally include leveraging other related government systems, such as Geographic Information Systems (GIS), Land Information Systems (LIS) to name a few in the automation of the building plan application process. This will also ensure that the Property Value Chain is interfaced and maintains the integrity of the information of a land plot.

Cities/Municipalities should also consider technological sustainability using inexpensive scalable hosting modalities, such as cloud; open source technologies that reduce or eliminate software licence costs; easily customisable systems such as fees, workflows, and the format of output documents, to name a few.

System design and development should aim for automated efficiencies. For instance, it is important that information is obtained ‘only once’ from applicants, with reduced typing through user of drop down lists and checklists to minimise input errors. The system design should also take account of concurrent approvals, as well as automated validations, reconciliations and quality assurances, and where possible risk profiling measures.

Launching the new system in phases can help to reduce risks as any errors or system faults may be addressed before scaling up implementation. The new system may be piloted on a selected geographical region before implementation is scaled up in a phased approach. Phased implementation may also consider operationalising certain workflows before others, and undertaking systems integration in a later phase.

When considering a phased implementation approach, it is important to also think about whether the applications being processed manually will have to be captured into the system at some point, as this will require appropriate resource planning.

Automating the City/Municipal building plan system brings additional process efficiencies and productivity improvement to the overall end-to-end process. Mobile and other technologies may be leveraged to improve productivity, for instance equipping building inspectors with electronic tablets to conduct inspections, and equipping plans examiners with additional larger screens to view building plans. Similarly email and electronic text messaging may be used for notification. Real-time monitoring through a performance dashboard that displays performance statistics and workflow communication may increase transparency to both management and external stakeholders prompting greater accountability.

By example, the City of Cape Town is developing a web based application tracking facility that would use the current available application data to enable any person to track the progress of an application.

Documentation checklists and costs for the building application process, as well as relevant laws, regulations, land use management schemes and useful links and municipal contact details should be made available online to improve the quality of private sector building plan application submissions.

As with any system change, communicating the reform and providing adequate support to architects and developers that are the end-users of the system are essential. The City/ Municipality may also consider implementing financial incentives to end-users (such as lower fees for online applications) to encourage increased use of the automated system versus manual application; catering to clients who cannot go online on their own through front desks with online terminals to assist walk-in customers; or may make use of the online building plan application system mandatory, as in the recent decision by the City of Cape Town in respect of online use of their Development Application Management System (DAMS).

3.9. Change Management and Training

Ensuring a robust change management approach is a critical component of any process optimisation/ automation initiative. As City/ Municipality officials are ultimately the main implementing agents of the new building plan application system, they need own and be empowered to implement the new system.

A robust change management plan therefore should ensure that City/Municipal officials are represented in the building plan application process optimisation and redesign phase, as well as in any discussions on the options for automation.

City/ municipal officials should also undergo in-depth training on the new optimised building plan application processes and automated system before these are launched, and should be supported with on-going training and mentoring after the launch period as well.