Inaugural lecture

**Fostering innovation in the public sector**

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## Introduction

Public administration as a discipline is yet to be demystified, since both its locus and focus are contested, while its theoretical underdevelopment looms large and continues to haunt it. The contestation of locus and focus manifests itself in the paradigmatic evolution of the discipline. The foci of public administration as a discipline have evolved to such an extent since the 1800s that schools and departments of public administration have had several changes of names globally, reflecting the paradigmatic shifts in the discipline. The discipline is variously referred to as 'public administration', 'political science and public administration', 'public management' and 'public governance'. These changes reflect the paradigmatic evolution of the discipline from *The Politics and Administration Dichotomy* (1900–1926), *Principles of Administration* (1927–1937), *Public Administration as Political Science* (1950–1970), *Public Administration as Administrative Science* (1956–1970), *Public Administration as Public Administration* (1970s), *New Public Management* (1990s), to *Public Administration as Governance* (circa 1995) (Henry, 1974). Some scholars have even suggested that e-governance is also a paradigm of the discipline. Given the aforementioned, one is tempted to argue that the discipline has failed to 'spawn a universally-acceptable theory of public administration' (Maserumule, 2013, p. 1). While Western scholars trace the evolution of the discipline back to the Wilsonian Politics and Administration Dichotomy of the 1800s – with Henry arguing that the dichotomy represented the first paradigm of the discipline – an antithesis to this view is emerging. Scholars from the Global South argue that public administration thought predates the Wilsonian dichotomisation of politics and administration. Mazrui (as cited by Basheka, 2012) maintains that in Africa, for example, administrative systems predate colonial administration: reference is made to city states, empire states, conquest states, as well as the Mapungubwe and great Munhumutapa empires, all of which may be considered evidence of sophisticated precolonial administrative thought. Recently, innovation has become a topical issue in the discipline of public administration in the context of the governance paradigm. I argue that innovative public administration could be an emerging paradigm of the discipline, given the epistemological, ontological, and methodological issues by which it is undergirded, and by the significance afforded to innovation in this field, in addition to the overwhelming interest shown by scholars and practitioners of the discipline.

Public sector innovation has become the buzzword in extant literature that concerns the public sector, with both practitioners and scholars becoming increasingly interested in the

subject (De Vries, Bekkers, & Tummers, 2015; Osborne & Brown 2011; Walker, 2014; Hartley, Sørensen & Torfing, 2013; Osborne & Brown, 2011; Sørensen & Torfing, 2011; Bommert, 2010; Newman, Raine, & Skelcher, 2001; Borins, 2008; Hartley, 2005; Damanpour, Walker & Avellaneda, 2009). The goals of public sector innovation include the improvement of effectiveness and efficiency, to solve societal challenges such as poverty, inequality and unemployment, to enhance customer satisfaction through the quality of public services and citizen involvement, as well as private partners (De Vries et al., 2015). The public sector is a vehicle for service delivery, hence there exists a twofold need with regard to service delivery: first, to identify novel approaches to effective and efficient service delivery, and second, to diffuse these approaches to service delivery. Innovation in the public sector is a vital adjunct to quality public services. The Organisation for Economic Co-operation and Development (OECD) maintains that public sector innovation seeks to employ new approaches that entail designing policy and service provision for high performance and for more responsiveness by the public sector. Public sector innovation will leave indelible footprints on the history of public administration. Several scholars and practitioners opine that public sector innovation will enhance the efficiency and effectiveness of the public sector in the provision of public services and hopefully enable the various government departments and entities to come up with intelligent mechanisms to ameliorate the challenges confronting society (Damanpour & Schneider, 2009 – as cited by De Vries et al., 2015).

This emerging interest in public sector innovation has led to a plethora of initiatives that are meant to spearhead innovation in the public sectors of a number of countries. Such initiatives include the Harvard Kennedy School's Innovations in American Government Awards, innovation centres and labs, the Inno Policy Trend Chart Initiative, 'ministerial innovation units', the dispensing of 'white papers on innovation', the fostering of innovation, 'policy labs' and the 'proliferation of training programs' (funded by the European Commission), the Observatory of Public Sector Innovation, launched by the OECD, the European Public Innovation Scoreboard (EPSIS) 1, The Learning Innovation in Public Sector Environments (LIPSE) research project, the European Public Sector Award, the Biennial Public Sector Innovation Conference, initiated in 2015, and the Centre for Public Sector Innovation (CPSI) in South Africa (Emery, Kouadio, Rousseau, Johannsen, Meunier, Valoggia, & Moller, 2015; Sørensen & Torfing, 2012; Borins, 2010). In South Africa, even the National Research Foundation has Innovation 4.0 as the theme for its National Science Festival. In his 2018 State of the Nation Address, the South African president, Cyril Rhamaphosa also announced

the established of the digital revolution commission to tap into the opportunities presented by the fourth industrial revolution.

However, the overwhelming interest in innovation in the public sector by scholars and practitioners has been concentrated mainly in the United States, Europe and Australia. One can argue that Western thought on public sector innovation currently predominates. Therefore, there exists a need for the stimulation of interest in research on innovation in the public sector by both scholars and practitioners in the Global south. Even where such interest is apparent in the Global North, there has been a paucity not only in the diffusion of innovative practices, but also in the innovation that results from 'deliberate, systematic and strategic efforts' (Hofisi & Shava, 2018; European Union, 2013, p. 5). It is on the basis of the aforementioned that this article seeks to stimulate research by scholars and practitioners in the Global South. Moreover, the emergence of the fourth industrial revolution makes it imperative for scholars and practitioners of public administration to have a keen interest in innovation in the public sector. It is argued that the fourth industrial revolution presents bountiful opportunities that will allow innovation to drive the performance of governments across the world (Shava & Hofisi, 2018). In an article titled 'decoding process evaluation frameworks: lessons for the public sector in South Africa', it is argued that the challenges which the public sector must confront, call for the effectiveness of governmental institutions in order to be effective in service provision. Such effectiveness can be enhanced by innovation in the public sector (Hofisi, 2013). This is the premise from which I seek to answer the following questions in this lecture: What is public sector innovation? Why is innovation in the public sector significant? How can innovation in the public sector be fostered? What are the barriers to public sector innovation? What should constitute the research agenda for public sector innovation in the Global South?

**Definitions and characterisations of public sector innovation**

The definition of public sector innovation is difficult to demarcate exactly, since scholars and practitioners define it differently. These definitions encompass those which emphasise the creation and implementation of new ideas, processes, products, services and delivery methods on the one hand (Albury, 2005; Evans, 2014; West & Farr, 1990; the European Commission, 2013; Mulgan & Albury, 2003; Walker, 2006; OECD, 2012), to other, more general definitions which emphasise the change of behaviours and ideas on the other (Mulgan & Albury, 2003; Damanpour & Wischnevsky, 2006; NAO; 2006 – as cited by León,

Simmonds, & Roman, 2013). Moreover, León, Simmonds and Roman (2013, p. 6) describe the way in which public sector innovation occurs, as:

> through four simultaneous shifts in how the public sector creates new societal solutions: a shift from random innovation to a conscious and systematic approach to public sector renewal; a shift from managing human resources to building innovation capacity at all levels of government; a shift from running tasks and projects to orchestrating processes of co-creation, creating new solutions with people, not for them; and finally, a shift from administrating public organisations to courageously leading innovation across and beyond the public sector (p. 6).

Public sector innovation may be mistaken for the mere adoption of information and communication technologies (ITCs) by public sector organisations in service provision, but the typology of innovation presented on page 5 shows that innovation is not limited to ICTs only. The reference to innovation made by the National Development Plan of South Africa entails space science and technology, hydrogen and energy, biotechnology and health innovation, innovation planning and instruments, and radio astronomy advances. These are the focus areas of the National Department of Science and Technology (NDP, 2011), and innovation in the public sector is excluded. The European Commission (2013) defines innovation as 'the process of generating new ideas and implementing them to create value for society, covering new or improved processes (internal focus) and services (external focus)'. According to Evans (2014), innovation entails the creation and implementation of 'new processes, products, services and methods of delivery', which results in the improvement of life for citizens. The OECD (2017) observes that 'innovation in government is about finding new ways to impact the lives of citizens, and new approaches to activating them as partners to shape the future together. It involves overcoming old structures and modes of thinking and embracing new technologies and ideas.' The Oslo Manual defines innovation as the implementation of a new product/service/process/marketing method/organisational method in the practice of business or service provision (OECD, 2005).

Drawing from these abovementioned definitions, I define innovation in the public sector as the creation, fostering and diffusion of new ideas, processes, structures, systems and approaches meant to improve the functioning of products and services provided by public sector organisations through cost efficient and citizen-centred mechanisms.

Moore (2005) identifies two models for understanding public sector innovation processes. The first model is concerned with what constitutes breakthrough innovations that are capable of making a considerable impact, as well as the processes that enable these innovations. The second model is concerned with the structures and cultures that characterise innovative, continuously learning organisations.

In addition to these models, a review of the literature further identifies different types of innovation that may be employed by public sector organisations. The European Union (2013), Hartley (2005), and Halvorsen, Hauknes, Miles and Røste (2005) identify the following types of innovation (which can be considered a typology of innovation):

**1. Product innovation** entails the use of new products for the provision of services, for example, using information communication technologies to promote citizen participation in governance affairs.

**2**. **Service innovation** entails new ways of providing services to end users by public sector organisations.

**3. Process innovation** involves redesigning organisational processes, for example, re-engineering business processes.

**4. Position innovation** is concerned with the identification of new contexts or users.

**5. Strategic innovation** considers the value of setting a new goal or purpose for the public sector organisation.

**6. Governance innovation** redefines the way in which citizens and institutions are engaged, in order to entrench democracy.

**7. Rhetorical innovation**, according to Hartley (2005, p. 28), establishes 'new language and new concepts, for example, congestion charging in major cities'.

**8. System interaction innovations** improves the interaction methods among organisations and knowledge centres.

**9. Systematic innovation,** according to Drucker (2007, p. 31), concerns the 'purposeful and organised search for changes and the systematic analysis of the opportunities that such changes might offer for economic or social innovation'.

**Why innovation in the public sector?**

A systematic literature review of almost 200 sources indicated that innovation in the public sector (to a greater extent in developed economies) derives its significance from its outcomes. According to De Vries et al. (2015), the outcomes of innovation in the public sector include improved effectiveness and efficiency, novel solutions to societal challenges such as poverty, inequality and unemployment, increased customer satisfaction with the quality of public services, greater citizen involvement as well as private partners. Therefore, innovation increases value for communities, and can improve the functionality of public sector organisations (Moore, 2005; Moussa, McMurray, & Muenjohn; 2018). The World Government Summit (2018, p. 2) observes that 'the current global political and economic setting is complex and fast-changing, with society transforming in ways that challenge existing views about the world and how it is governed'. Yet, despite overwhelming evidence of the significance of innovation in the Global North, the public sector still faces manifold social, economic, environmental, political and technological challenges globally, and especially in the Global South. Fourie and Poggenpoel (2017) note that although various reforms have been undertaken to address such challenges since the Second World War, progress has  remained slow in the face of the fast-changing global context.  A number of studies have been undertaken to investigate the challenges which confront the public sector, but the studies focussed mainly on  the effects of these challenges, instead of their causes (Moe & Päivärinta, 2013; Jarrar & Schiuma 2007; Modell, 2005; Montiel, 2011; Watson, Bonham, Willging, & Hough, 2011; as cited  by Fourie & Poggenpoel, 2017).

In the South African context, the Minister for Public Service and Administration, is mandated, in terms of the Public Service Act of 1994 (as amended) to be responsible for establishing norms and standards relating to transformation, reform, innovation and any other matter, to improve the effectiveness and efficiency of the public service and its service delivery to the public. Despite such a legislative mandate the 2014-15 report of the Auditor General in South Africa observed the following challenges in the State departments and entities. Firstly, although there has been an improvement in supply chain management, it remains responsible for the biggest amount of irregular expenditure: R25, 7 billion. Secondly, leadership failure when dealing with transgressions in supply chain management, non-compliance, poor audit outcomes, irregular, unauthorised, as well as fruitless and wasteful expenditure in local government, is worrisome. Supply chain management is one area where innovation presents an opportunity to address the challenges faced by many public sector

organisations in the South African context. Thirdly, there has been a deterioration in the financial wellbeing of all audited state departments and entities, and the report observed that leadership, audit action plans, daily and monthly reconciliations must improve. Fruitless and wasteful expenditure by an increasing number of municipalities amounted to more than R1 billion in 2014–15, with municipalities in Mpumalanga, the Eastern Cape, the North-West Province, the Free State and the Northern Cape being the major culprits. This indicates a concerning trend, as unauthorised expenditure had also increased threefold, to R15, 32 billion, since the 2010–11 financial year. The continued weakening financial viability of municipalities, in addition to the fact that the same municipalities who reported unauthorised, irregular, fruitless and wasteful expenditure did not investigate these transgressions in accordance with the Municipal Finance Management Act (MFMA), presents a notable cause for concern. This failure in financial management was observed in the preparation and monitoring of budget processes. Moreover, the financial wellbeing of a staggering 92% of the municipalities either required intervention, or was a cause for concern. This constitutes a 10% increase from the 2012-2013 financial year, when about 82% of municipalities were in the abovementioned financial situation, and about 26% faced uncertainty regarding their functionality. This creates a strong impression that local government is in a state of dysfunctionality. This dysfunctionality is reflected by the exorbitant amounts of money spent on consultants. These consultation fees amounted to R3 372 000 000 in the 2014–2015 financial year, with R892 million spent on financial reporting, and R615 million spent on the preparation of information related to performance management. At the national level, the Auditor General further reported that 70% of SOEs did not receive clean audits; and that during the previous financial year, only 5% of all municipalities received clean audits.

In addition to irregular expenditure, recent statistics regarding the performance of government departments in other areas in South Africa paint a grim picture. In 2013, 80% of national and provincial government departments failed to comply with requirements for service provision (Department of Performance Monitoring and Evaluation, 2013). According to the Department of Performance Monitoring and Evaluation in the office of the Presidency of the Republic of South Africa, as cited by Hofisi & Pooe (2018), the overall performance of government departments has been disappointing. In the case of information technology governance, 83% of government departments were not fully compliant, confirming the reports of the Auditor General, which emphasised loopholes in IT governance. In monitoring and evaluation, 86 % of government departments neither evaluated their programmes nor

used evaluation outcomes to inform strategic plans. In addition to that, 57% of departments were non-compliant with the Department of Public Service and Administration (DPSA) guidelines for the retention of staff, organisational design and implementation. In addition, 52% of departments failed to comply with the guidelines for human capital development established by the Public Service Commission. Where supply chain management processes are concerned, 55% of the departments failed to comply with the Auditor General's stipulated requirements for effective and efficient demand management, acquisition management and disposal management.

This crisis in service delivery by local government (emphasised by numerous service delivery protests) should serve as a wakeup call for local government to seriously consider reinventing itself. During 2014, South Africa witnessed a record 218 service delivery protests, 80% of which were violent. During 2014, Gauteng witnessed more protests than any other province had from 2007–2014 (Powell, undated). The principal issues that ignited the protests entailed a lack of municipal service provision, and poor governance of municipalities, in the form of maladministration, mismanagement of municipal finances and unethical conduct. These grim statistics indicate the poor performance of South African local government, and consequently emphasises the need for innovation in local government, in order to improve its functioning (a key site for service delivery). The South African Department of Cooperative Governance and Traditional Affairs (2009) identified the following challenges for local government:

- poor communication and accountability relationships with communities;
- problems with the political administrative interface;
- corruption and fraud;
- poor financial management (for example, negative audit opinions);
- (violent) service delivery protests;
- weak civil society formations;
- intra- and inter-political party issues  that have a negative effect on governance and service delivery; and
- insufficient municipal capacity due to a lack of scarce skills,  which results in huge challenges for service delivery,  as well as backlogs (in, for example, housing, water and sanitation).

This background of numerous, often violent service delivery protests in South Africa over the past decade highlights the importance of innovation in the public sector, in order to ensure efficient, effective service delivery. Despite the fact that service delivery is one of the major priorities of the government, it is apparent that the serious challenges to public service in South Africa require a thorough search for novel approaches that can address these challenges. It cannot be denied that public service is a vehicle for the execution of government policy, but its ability to execute government policy remains questionable.

Despite the challenges bedevilling the public sector, particularly in South Africa, extant literature demonstrates the significance of public sector innovation in improving the functionality of the public sector. Consequently, I argue that when South Africa's repeated failures in service delivery is taken into consideration, it appears that innovation is the missing link in public service in the Global South (where the poor service performance in the public sector is also widespread) and particularly in South Africa. Innovation is a necessary ingredient for the effective provision of sustainable service provision in the public sector. The OECD (undated) maintains that 'public sector innovation creates more effective, open and inclusive public services by relying on new approaches across the entire policy cycle, working with new partners, technologies and organizational approaches to better design, implement and evaluate public services'. The OECD further observes that innovation leads to cost reduction and the improvement of efficiency and effectiveness in productivity in the public sector. According to PricewaterhouseCoopers (undated), public sector innovation has the additional benefits of swift delivery of services, customer-centric service delivery, intelligent mechanisms for high responsiveness, cost efficient and value driven service provision, integrated service delivery mechanisms, and personalised service for improved customer experience. Public sector innovation further encompasses decision-making technologies and governance models that are tailor-made for effective service delivery.

Public sector innovation is critical in ensuring citizen-centric governance. In this regard, PricewaterhouseCoopers identifies the following key ingredients that should be the targets of innovation, and will build the capacity for the delivery of public services:

- **Strategy** entails citizen-centred policy formulation and implementation, as well long-term planning.
- **Leadership,** which is effective when senior management is involved, and political leadership is appreciative and supportive.

- **Organisational and process design** is concerned with the creation of strong and vested institutions that can ensure 'customer-centricity' and 'connected government'.
- **Technology** is instrumental for ensuring transformation, but it must be considered a means, and not an end in and of itself.
- **People and culture** entails inculcating a culture of citizen-centricity and building internal capacity, focussing on talent management, capacity building should be responsive to dynamic customer needs, and incentivising customer-centric initiatives.

The need for finding novel approaches to improve the quality of services offered in the public sector is demonstrated by the contribution of public services to the GDP globally. In economically developed countries, 20–30% of the GDP is contributed by the public sector (Eurostat, 2012; Tõnurist, Kattel, & Lember; 2017). . In Europe, about 40–50% of the GPD is accounted for by public services, in the United States of America it is about 32%, 26% in Japan, 16% in China  and 17% in India. According to Thenint (2015) this contribution is, without a doubt, significantly higher in the Global South, where public sector organisations face challenges such as poor performance and financial management, bad governance and implementation of integrated development plans, and so on.  These challenges can be overcome by innovation in the public sector (Hofisi & Pooe, 2018, Hofisi, 2012). I argue that the lack of innovation may suck the oxygen out of the public sector and render it moribund. I further argue that the extent to which the public sector organisations may be successful in responding to citizen demands and improve the quality of public services, will depend on the degree to which the sector will be innovative in their design, product offering, service provision, process orientation, strategy, leadership and policy. The success of the private sector is in most cases predicated on innovation in these areas. The enormity and the complexity of the public sector, as well as its significance in improving the wellbeing of the general  public, places an onus on this sector to continuously redefine its vision and mission and re-engineer its business processes in its quest for efficiency and effectiveness. In this way, innovation in the public sector can improve the quality of the services that it offers.

As a complement to the argument above, Moore (2005) argues that innovations in the public sector lead to improvement in public value in public sector organisations in at least three different ways. The first concerns the generation of more effective methods for performance of their essential functions. This innovation, therefore, results in an increase in productivity or better service provision. The second ways concerns exploiting the performance advantages gained by abandoning their one-size-fits-all approach in favour of one that encourages

adaptation and customisation of their basic operational procedures, which will allow them to meet the demands of varied circumstances and clients. Essentially, these two innovations achieve a higher degree of customisation in the operations of the agency. The third way innovation improves public value concerns the exploration of new potential for the capabilities of their organisations by the introduction of new products and services. These products and services are useful not only for dealing with the different facets of their existing missions, but also for meeting other needs which may not be within the confines of their existing mission. He refers to this type of innovation as strategic innovation, since it can reposition public sector organisations in their environments by changing the functions that they perform and the services that they can provide.

The OECD also identifies the following reasons why innovation is important for the public sector:

**1. Increasing citizen and user demand for greater transparency and accountability** – the concept of active citizenry explains the increasing demand for greater transparency and accountability.

**2. Citizens' rights and responsibilities** – citizens are increasingly becoming aware of their rights and responsibilities: they refuse to be passive recipients of services, but active citizens who want to hold public sector officials accountable for their actions. Save South Africa, Organisation for Undoing Tax Abuse, and Corruption Watch are examples in the South African context

**3. Increasing competition among global economies** – global financial crises,  as well as other challenges that the public sector faces, have prompted the worlds governments to think outside of the box when dealing with the challenges that their economies face, as nation states strive for a competitive advantage. This competitive advantage is provided by innovation.

**4. Pressure to deliver under budgetary constraints** – the pressure to provide quality services despite the dwindling financial resources globally, is a major push factor for innovation in the public sector.

**5. Shifting demographic profiles and growing expectations from customers** – as customers increasingly become aware of their rights, it follows that their expectations for service quality will increase. Equally, changing demographic profiles place pressure on public sector organisations to be more responsive to emerging needs.

**6. Social politicking and sensitive media** – globally, social activism has been on the rise as citizens shun docility and embrace activism. This gives rise to a proliferation of social movements and diverse innovation in social accountability. Moreover, the media is increasingly taking on an activist role as the pressure for accountability and transparency increases, in turn prompting public sector organisations to be more creative in their search for novel approaches to address citizen demands.

To demonstrate the significance of innovation in the public sector, De Vries et al. (2015), maintain that frequently, innovation in the public sector has been linked with public sector reform movements,  such as the New Public Management (NPM) (Pollitt & Bouckaert; 2011), electronic government (Bekkers & Homburg; 2005), the shift from government to governance (Rhodes; 1996) and, most recently, the rolling back of government in a 'Big Society' (Lowndes & Pratchett; 2012). Albury (2005, p. 51) reinforces the significance of innovation in the public sector, as 'innovation is not an optional luxury for public services and the public sector: it is core and needs to be institutionalised as a deep value'.

According to PricewaterhouseCoopers, innovation is characterised by the following concepts:

- Speed: innovation increases the speed at which services or products will be delivered to the citizens/customers.
- Engagement or customer-centricity: this enables public sector organisations to put the customer/citizen first in the conceptualisation and design of services and products meant for them. These products and services means nothing for customers and citizens if they do not play an active role in the development of these products or services.
- Responsiveness or the use of 'intelligent mechanisms': innovation enables public sector organisations to design intelligent mechanisms, which in turn enables them to be efficient and effective in responding to customer/citizen needs.
- Value: innovation in the public sector improves public value.
- Integration: innovation facilitates the coordination and assimilation of service delivery mechanisms.
- Choice: public sector innovation also results in a variety of choices for service provision.
- Experience: customer/citizen experience is enhanced by the personalisation of services (a result of intelligent mechanisms derived from innovation). The European Union also provides and outline of values that can be derived from innovation in the public sector, which further cements the significance of public sector innovation. These values are:

- Outcomes: the achievement of better individual and societal outcomes, including health, education, employment creation, safety and security, and sustainable development.

- Services: this value entails the creation of more 'meaningful, attractive and useful personalised, tailor-made services'.

- Productivity: this aims to improve efficiency and effectiveness in the management of public sector organisations.

- Democracy: public sector innovation enhances the attainment of democratic accountability, transparency and equality (EU, 2013).

The figure below shows some of the innovations in the public sector which are making a difference.

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**DESIGNING WITH USERS -** France is working directly with service users to ensure that their pubic services reflect users' needs and experiences. Representative groups of citizens and businesses are invited to systematically work with government through online engagement, in focus groups, surveys, and collaborative workshops. The goal is to identify how the administration can be simplified for service users, resulting in concrete changes which have been implemented as part of an administrative simplification programme.

**RESPONDING TO USER BEHAVIOURS -** The United Kingdom has taken a new approach to policy making by applying behavioural insights across various areas of government. By understanding better how people respond to different contexts and incentives, a more nuanced understanding of human behaviour has been developed that can help to design more effective interventions. Documented savings so far will be around £300m by 2015, and current trials will take savings into the billions of pounds. The focus so far has been on reducing fraud and error, and improving outcomes in health, energy use, and social mobility.

**CONSOLIDATING OPERATIONS -** The Dutch Government has reduced its costs for human resources by 50%, saving €50m each year through its shared service centre for the whole of government. The shared service centre provides a range of human resource services centrally such as payroll, administrative services and management information, resulting in high quality information management, harmonised processes, more transparent, more efficient and higher quality HR services.

**E-RESIDENCY**- The Republic of Estonia is the first country to offer e-Residency— a transnational digital identity available to everyone in the world interested in managing a location-independent business. E-Residency enables secure and convenient digital services that facilitate credibility and trust online. As of 2016, E-Residency makes it possible to:
- Digitally sign documents and contracts
- Verify the authenticity of signed documents
- Encrypt and transmit documents securely
- Establish an Estonian company online and administer it from anywhere in the world
- Conduct e-banking and remote money transfers
- Declare Estonian taxes online
- Take advantage of a marketplace of services specifically for e-residents

E-residents receive a smart IDcard (eID) which enables secure digital authentication and the digital signing of documents. These are legally equal to handwritten signatures and face-to-face identification in Estonia, the EU and between partners upon agreement anywhere in the world. The programme provides a gateway to another country's digital infrastructure and regulatory framework, in this case Estonia's, allowing people to become active players in the global economy by conducting business regarding of their place of residence or nationality. Estonia has been a pioneer in the provision of digital public services to its own citizens. E-Residency uses the Estonian infrastructure system that took more than 20 years to mature and reach its current state. However, to be implemented, the programme still required amendments to legislation and the ability to find consensus inside the government. Thus, to replicate this there needs to be strong national e-ID,

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right legal framework and willingness to change in place!

**FIGHTING CORRUPTION-** Support to Anti-Corruption Efforts in Kosovo (SAEK), through an innovative and holistic approach towards anti-corruption, aims to strengthen institutional transparency, accountability and integrity, with a particular focus on empowering citizens and access to information. It is organised around strengthening the capacities of the Kosovo Anti-Corruption Agency (KAA), strengthening the voice and capacity of citizens to demand greater accountability from public officials and service providers by using innovative ICT, web2.0 and social media technologies, and increasing the ability of the judiciary to fight corruption within and outside the judicial system.
Enhance public trust, enhance transparency, Improve access, Improve effectiveness, Improve social equity, Increase citizen engagement

- The project's objective is to strengthen institutional transparency, accountability and integrity, with a particular focus on empowering citizens and access to information.
- At the local policy level, it will promote such communication tools to widen the outreach capacities of the Pristina municipality, make them more responsive to citizen needs and increase their dialogue
- At the grassroots level, this project will support the use of web platforms to strengthen the voice and participation of young people in local decision-making and governance monitoring, contributing as such to more transparency and accountability.
- This innovative and ground-breaking civil society approach to tackle corruption, allows virtually everyone in Kosovo to become a 'publisher' and freely report even minor corruption cases.
- It gives citizens the opportunity to voice concerns, share observations online and make these visible to the public, using multiple communication channels, such as social media, SMS and the web.
- By visualizing and mapping reported corruption cases on the internet, the platform allows citizens to publicly speak out and make their unfiltered voices heard.
- It also raises the awareness amongst citizens on the level and form of corruption occurring in Kosovo.
- Ideally, this will allow responsible stakeholders to take collective and appropriate counter measures.

**VULA MOBILE APP** An estimated 80 percent of all blindness is preventable or curable and in the majority of cases blindness can be
prevented or cured through simple, effective and inexpensive procedures like cataract operations. The main cause of blindness is not a lack of treatment options, but rather a lack of access to decent health care. The Vula Mobile Application makes it easier for health-care workers in rural areas to carry out eye tests and connect with specialists and make referrals.

With the mobile app, rural health-care workers can look up eye conditions, capture patient information and carry out eye tests using a smartphone. The app's chat function also allows the health-care workers making referrals to send photographs and chat directly with an experienced medical specialist. Vula mobile is named after the 'Vula Amehlo' Eye clinic in Swaziland which inspired its creation in 2011. This concept was developed and tested in the Eastern Cape at Uitenhage District Hospital.

The Vula mobile health app literally puts an ophthalmologist's knowledge and expertise into a non-specialist health worker's pocket. Vula is small in terms of data use, below 6Mb which means it is quick to download. It can be used offline and then referrals made when reception is obtained. The file size of the images can be decreased if reception is poor. The eye message system requires very little data transfer: much less than an SMS and similar to Whatsapp. The cost of using an 'eye message' is minimal.

**Figure 1: Snapshot of innovation in the public sector in the OECD. Source: OECD (undated) and CPSI (2015)**

A study by Shava and Hofisi (2018) on innovative social accountability mechanisms in South Africa shows that citizen engagement using innovative mechanisms such as scorecards, citizen charters, public commissions and forums, may be instrumental in holding public officials accountable for service delivery. These social accountability mechanisms creates a space that facilitates citizen engagement with government officials, which will most likely improve the quality of services for citizens. Another study by Magagula and Hofisi (2018)

aimed to investigate the extent to which HIV/AIDS treatment and care practices are innovative in Swaziland. The findings of this study indicated that the Department of Health in Swaziland has attempted to improve healthcare in the country by introducing a number of new initiatives, although there remain significant teething challenges. These initiatives include the algorithm policy for infant and young children testing; extensive anti-retroviral therapy (ART) and paediatric ART, the HIV /AIDS registry for monitoring the CD4 count of patients, widespread prevention of mother-to-child transmission, and voluntary medical male circumcision. However, a major challenge that has haunted Swaziland's health system is that, unlike countries with developed economies, the health system lacks an explicit policy meant for fostering innovation, and its diffusion. The study therefore recommended the formulation of a policy by the department that will clearly guide the conceptualisation, implementation, monitoring and assessment, and diffusion of innovative practices proposed for the treatment and care of HIV/AIDS patients.

A study on innovative performance management in Botswana by Bester and Hofisi (2018) found that the Government of Botswana is still using an outdated system of performance management. This system presents numerous challenges, namely: ineffective dissemination of information on performance management, the absence of incentives for employee motivation, the fact that employees perceive the performance management system negatively, poor support for innovation by senior management officials, a lack of capacity building for effective management of performance, weak capacity for implementation of the performance management system, and a dearth of monitoring and evaluation skills. It was observed that these findings may actually provide insights into an innovative implementation of performance management in the public sector in Botswana. These innovative initiatives may involve digitalising performance management by using information communication technologies for real time performance management,  the Clarification of performance management policy objectives, the creation of performance management champions, building managerial capacity for effective performance management, the effective and efficient implementation of performance management, inculcating a culture of transparency and accountability as well as responsibility in the management of performance, and improving communication lines between management and employees, since communication is the lifeblood of effective performance management.

In a study by Maramura and Hofisi (2018) on innovation in portable water supply management, it was found that prepaid water metering provides several benefits that

conventional water metering does not (Hope, Tim, Money, Rouse, Money & Thomas;2011). Some of the merits observed for prepaid water metering entail faster and more efficient meter reading, detection of theft and leaks, a greater accuracy in billing, facilitating the flexibility of tariff structures, an increase in reading frequency resulting in an improvement in the collection of debts, and enabling the remote monitoring of resource use. Most importantly, some scholars hope that the benefits provided by prepaid water metering have the potential to enhance the financial muscles and improve the quality of service provision of portable water utilities in developing economies that struggle with lack of effectiveness and efficiency in water revenue collection and infrastructure planning and management.

## Fostering innovation in public sector

Given the significance of innovation in the public sector demonstrated by the interest shown by both scholars and practitioners, it is imperative to highlight how innovation in the public sector maybe fostered effectively. Mulgan (2014) argues that the creation of public value by public sector organisations through the institutionalisation and planning for public sector innovation, should not be considered successful  before the following factors  have been considered: the scanning and cultivation of the environment from which new thinking may come, the effective recruitment of experienced innovators, the deliberate design and testing of new ideas, the provision of markets for solutions,  a focus on outcomes instead of inputs, as well as the creation of innovation spaces for the evolution of radical ideas. Additionally, the OECD, as cited by Borins (2018), identifies four categories of factors that are critical for fostering innovation. They are as follows:

1. **Human resources policies**

Some of the key drivers of public sector innovation, include human resources policies meant for awarding and recognising innovation, promotion of networks for learning and collaboration, increasing mobility across intra- and intergovernmental sectors, capacity building programmes geared towards innovation, promoting diversity as well as spaces for innovation to thrive and creating innovation funds for supporting innovative practices, which allows flexibility in budget allocation. The promotion of communities of practice is fundamental in generating and sharing innovation knowledge and practices.

2. **Encouraging the free flow of information and data**

The free flow of information and data facilitates innovation and allows feedback from stakeholders on innovation endeavours, while crowdsourcing and open data presents unlimited opportunities for citizen engagement in efforts to drive innovation in the public sector.

## 3. Organisational structures

The creation of new organisational structures dedicated to generating and sharing new ideas, has proven to be useful in driving public sector innovation. One such structure is an innovation lab, which is currently widely used for promoting innovation. This structure will be discussed in more detail later.

## 4. Development of rules and procedures

The public sector is said to be overregulated and that this stifles innovation. However, rules and procedures that support, rather than hinder, innovation frameworks allow the assessment and mitigation of innovation risks by public sector employees, are a significant means of promoting innovation by public servants.

Furthermore, Borins (2000) identifies a number of factors that drive public sector innovation. Firstly, **political processes and systems** produce initiatives derived from their mandate, or political principals place pressure on public sector organisations to think in innovative ways. Secondly, **a change of organisational leadership** results in a new vision and mission for the organisation, which can urge employees to be creative and think outside of the box when solving problems. Thirdly, **crises** spur public sector organisations to rethink their business processes and approaches. Fourthly, **an array of internal factors**, which may include failure to respond to a dynamic environment, failure to satisfy citizen demands and aspirations, incapacity to satisfy demand for certain programs and projects, lack of resources, and poor policy coordination. The final factor is the **existing opportunities** created by technological advancement. In addition to these factors, Moore (2005) suggests four processes for fostering innovation. The first process focusses on how influential and important ideas are produced, that is to say, public sector organisations have to consider the crucial factors in the production of complex and crucial ideas. The second process concerns establishing the factors that explain why these important ideas are accepted, and explain their diffusion within a given industry. The third process entails determining the conditions that are created by public sector managers and leaders who allow continuous innovation within these organisations. The

fourth process entails distinguishing between failed experiments and successful innovation at an organisational level.

In fostering public sector innovation, it is important to understand its design principles: criteria for assessing a given innovation and the diffusion of a given innovation (EU, 2013). The design principles for a member state may include the following: co-designing and co-creating with other stakeholders such as member states, labour, business and citizens, the adoption of novel and shared service delivery models involving the public, private and non-governmental actors, employing inventive, disruptive technology such as cloud computing, mobility, social media and big data, and the promotion and adoption of an entrepreneurial and experiential spirit (EU, 2013). Moore (2005) emphasises the importance of criteria for assessing the utility of a given innovation. This assessment entails the prediction of anticipated outcomes, the extent to which a given innovation represents a break from orthodox practice, the effect of the innovation should be significantly sizeable, the innovation should be reliable and valid in a variety of milieus, the endeavour should be characterised by simplicity, financial sustainability and cost efficiency. Equally important for fostering innovation is the diffusion of a given innovation. For this diffusion to be effective, several factors should be considered, namely the political will for funding and supporting the extensive adoption of an innovation, its competitiveness, the extent to which it is compatible with prevailing values and practices, its potential to produce tangible results as well as its user-friendliness, and simplicity (Moore, 2010; Robinson, 2009). It can be argued that the three factors highlighted above are critical in successfully fostering innovation in the Global South. However, one may emphasise the importance of the differential diagnostics approach in employing these three factors, since their success in the Global North may not guarantee their success in the Global South (Sachs, 2008).

León, Simmonds and Roman (2012) posit five factors and preconditions critical for driving public sector innovation:

## 1.  Culture, strategy and human capital

Senior management and heads of agencies play a pivotal role influencing the strategic directions of public sector organisations by allocating adequate resources, and focussing on medium and long-term innovation issues.

## 2.  Leadership and innovation champions

Champions of innovation can be instrumental in the facilitation of innovation within and across public sector organisations.

## 3. Understanding the environment

Public sector organisations must develop strategies for resource allocation in order to achieve their objectives. The allocation of resources should occur on the basis of the conception of their endogenous and exogenous environments, which includes understanding the perceptions of stakeholders and citizens.

## 4. Organisational capabilities and innovative capacity

This factor entails organisational capability building for supporting innovation in the public sector, and training, equipment, information technology systems, and opportunity costs are all equally critical.

## 5. Good governance

Citizen participation in holding government accountable for respecting citizen rights is fundamental in driving public sector innovation. This requires a stable, non-violent political environment, effectiveness of government political stability and the absence of violence, government effectiveness and excellence in service provision, craft competency and craft literacy, quality regulation and open market principles, preventing corruption, and respecting the rule of law.

A study by León, Simmonds and Roman (2012) on public sector innovation in the European Union identifies the success factors and lesson learnt in the fostering of public sector innovation in different sectors of application (as shown in figure 2 below). The sectors in which the study was conducted are as follows: e-government, administrative simplification, public procurement, health and e-health, social participation and governance, and education.

| Sector of application | Success factors | Lessons learned |
|---|---|---|
| E-government | • Support from high-levels of management<br>• Ensuring the online services are performed in conditions of high data and transactions security<br>• Training civil servants and providing incentives to foster their commitment for simplification measures<br>• The 'friendliness' of the only systems towards the users (citizens and business) is an important determinant of success | • Acknowledging the digital divide, particularly for citizens with lower digital literacy<br>• Ensuring that there is demand for the new services introduced<br>• Local institutions usually take longer to adhere to online systems<br>• Careful planning is needed for implementing large IT platforms<br>• The IT systems need to be user-friendly<br>• The technical infrastructures need to be robust |
| Administrative simplification | • Continuous communication between all public agents involved, notably through internal communication actions<br>• Strong leadership from high-levels of hierarchy, and direct involvement in promoting the initiatives<br>• Peer pressure from contributors and users (citizens and businesses) | • A more targeted approach to reducing administrative burdens and more coordination between different administrative units could ensure a more efficient implementation of PSIs |
| Public procurement | • Wide agreement across government on the urgent need to transfer public procurement to an electronic environment<br>• Knowledge transfer from other countries or similar initiatives, EU policies and regulations regarding e-procurement<br>• Using a gradual step-by-step implementation process<br>• Commitment of all stakeholders involved<br>• Engagement of users and producers in the planning and design phases of PSI projects | • More emphasis should be given to the user-friendliness of procurement systems<br>• Innovations might require further needs to re-adapt legal frameworks<br>• The digital divide and digital illiteracy should be acknowledged<br>• Training and standardisation are also needed<br>• Resistance and prejudice of various stakeholders needs to be taken into account |
| Health and e-health | • Finding the right balance between regional/local and national interests and priorities | • Cooperation from all relevant stakeholders needs to be established from the beginning<br>• A flexible demand management process must be put in place<br>• E-health initiatives need to account for the technical divide in order not to discriminate towards people that is not computer illiterate or does not have access to technology |
| Social participation and governance | • Leader support from high-levels of government | • A citizen perspective/viewpoint should be used<br>• Provide strong local, collective and focus leadership is key |
| Education | • Use of a partnership approach involving all relevant constituents in the design and implementation of PSI<br>• Keeping projects on-time and budget | • Utilising efficiently expertise from both the public and private sectors |

**Figure 2: success factors and lessons learnt in the European Union. Source: León, Simmonds & Roman (2012)**

From this table, it is clear that senior managerial support for e-government, constant communication across public sector organisations in order to simplify administration issues, consensus on employing electronic procurement across the public sector, striking a balance

between regional and international priorities, and interests in e-health are critical ingredients for the fostering of public sector innovation in the different sectors of application. In addition to this, Albury (2005, p. 53) observes that the generation of possibilities, the incubating and prototyping of promising ideas, replication and scaling up, analysis and learning may constitute a framework for fostering innovation.

A number of initiatives have been undertaken in the Global North, and they provide key lessons for fostering innovation in the Global South. The OECD, for example, has an observatory that is responsible for the collection of thousands of innovations that demonstrate novel approaches to the design of services and how such services are delivered across developed countries. This observatory is responsible for the collection, measurement, monitoring and evaluation of innovations from different countries and sectors. The observatory then launches an operational online platform for provision of access to a database of such innovations. I argue that a key lesson to be learnt here is the development of an observatory for public sector innovation in the Global South, and South Africa in particular. Such an observatory will document public sector innovations in the design of structures, systems, processes, services and the provision of these services in different sectors for possible sharing, replication and upscaling in other sectors. The observatory can make a significant contribution to the diffusion of promising innovations.

Another important initiative in the fostering of public sector innovation is the establishment of an innovation policy lab. Innovation labs are gaining popularity across the public sector in the Global North (Tõnurist, Kattel & Lember; 2017). Policy labs represent an innovation in their own right, and concern the functioning of the public sector with regard to the design of public services and the organisation of the sector in the promotion of innovation through the creation of an environment of experimentation for the development of policy alternatives with the citizens (OECD, undated). These labs provide opportunities for sharing thoughts and collaborating in the development of policy solutions for citizens coming from different competencies and backgrounds. . Several countries in the Global North are already using policy labs to foster innovation. For example, Australia's Centrelink is an innovation lab responsible for testing 'new products and ideas in a live environment with end users'. Further examples include the Helsinki Design Lab, which has 'studios' that create space for content experts and leading strategic designers for seeking policy solutions to the challenges that the government of Finland faces. The Danish government uses Mindlab, which does work cutting across ministries, collaborating with citizens and the private sector for the development of

remedies to societal challenges (OECD, undated). In my opinion, the summits called for by the President of the Republic of South Africa can be perfected to become innovation labs where citizens, government departments and the private sector meet to co-design policy for implementation and participatory monitoring and evaluation. Innovation spaces cannot be afterthoughts or singular engagements, but should be institutionalised for continuous citizen and expert engagements.

## Measuring public sector innovation

Valid measurement of public sector innovation is *sine qua non* for craft competency and craft literacy. Concerning the measurement of public sector innovation, Thenint (2010) observes that the following features are important: firstly, the environment for innovation to thrive, which entails a strategy for innovation, specified guidelines and specific objectives and a system for monitoring and evaluation. Secondly, the inputs: financial resources and expenditure, including dedicated budgets for innovation as well as spending for research and development, the involvement of qualified staff in innovation processes; organisational and leadership support for innovative efforts, as well as the adoption of innovation. This support may involve experimentation and incentives for staff. The next input involves procuring and commissioning incentives for innovative results, which, in turn, entail evidence of innovation proposal funding, procurement focussed on outcomes, acquiring innovation infrastructure such as information communication technologies and engaging external service providers. Thirdly, outputs, which entail numbers of products, services, creative processes procedures and models of delivery, patents, copyrights, inventions, specified publications, awards, and initiatives for knowledge sharing such as workshops, platforms, networks. The last feature is outcomes, which could be evaluations of the achievement of intended innovation outcomes. The measurement of public sector innovation in the fostering innovation and the ideas highlighted above are critical in driving effective innovation in the public sector.

## Barriers to innovation

Innovation cannot be fostered effectively without identifying the barriers that hinder public sector innovation, as highlighted by both scholars and practitioners. Innovation is unlikely to thrive in a traditional, bureaucratic public organisation. These organisations are typically characterised by bureaucratic inertia, rigidity, overregulation, administrative tasks, and a mechanistic view of organisations, hierarchy, unity of command and the 'one best way'

formula. The European Union (2013) identifies four categories of barriers that may weaken public sector innovation. First, weak enabling factors or unfavourable framework conditions; for innovation to thrive, certain conditions have to prevail, a range of enabling factors are necessary. Second, a lack of innovation leadership at all levels. Public sector organisations cannot be innovative without innovation champions at the highest level of these organisations. Third, limited knowledge and application of innovation processes and methods. The need for capacity building can never be overemphasised, and the same can be said for the re-engineering of business processes and methods. Fourth, insufficiently precise, or insufficiently systematic, use of measurement and data. As I have argued earlier, for innovation to thrive, there must be clarity of criteria for measuring such innovations. Poor knowledge of distinctive innovation methods can hinder effective public sector innovation. Arunde, Casal and Hollanders (2015) conducted an analysis of data for 3273 European public sector agencies, and identified three distinct innovation methods, namely the bottom-up approach, knowledge scanning, and the policy-dependent method. Bottom-up agencies are more likely to be in high income countries than policy-dependent agencies. A higher share of bottom-up and knowledge scanning agencies introduce novel innovations. Bottom-up and knowledge scanning agencies out-perform policy-dependent agencies on innovation outcomes. Other barriers to innovation in the public sector include a lack of models for investment in innovation by organisations in the public sector; an absence of budgets and processes dedicated to innovation, an absence of innovation teams, and an absence of the necessary skills for innovation, an absence of incentives and rewards for innovation, provincialism, which prevents the diffusion of innovation, as well as poor risk management methods experimenting for innovation (Mulgan, 2014).

**Towards sustainable innovation**

In order to foster innovation, it is necessary to understand how innovation can be sustained over time. The need for continuous capacity building and political commitment to innovation cannot be emphasised enough. With regard to sustainable innovation, PricewaterhouseCoopers (undated) makes some succinct observations. Firstly, the reaping of best practices from both the public and private sectors could be instrumental in sustaining innovations. Secondly, the introduction of benchmarking programmes will enable the identification of novel practices that have already been tried and tested, and that can be adapted to suit the needs of the public sector. Thirdly, the development of new approaches,

and the realisation of benefits from such approaches, should constitute the basis for measurement of their success, by identifying clear objectives and the delivery of anticipated benefits. Fourthly, continuous citizen evaluation, objective and autonomous feedback will enable organisations in the public sector to involve their stakeholders in the development of approaches that will ensure continuous improvement. I argue that the sustainable provision of quality services will be determined by the extent to which innovation can be sustained in the public sector.

## Conclusion

Innovation presents opportunities for the public sector in South Africa to reinvent itself by identifying novel approaches to effective service delivery. This lecture draws its significance from its major aim, namely, fostering innovation in the public sector, as well as stimulating research on public sector innovation in the Global South, where there is a paucity in research on public sector innovations. Hopefully, this will lead to the diffusion of innovation through the identification of case studies, as well as their replication and scaling up in the context of the Global South. This is significant, because the public service is a vehicle for service delivery, and therefore novel approaches to effective and efficient service delivery, and the diffusion of these approaches, should be identified. As I have argued earlier, a lack of innovation may suck the oxygen out of the public sector and render it moribund. I argue that the extent to which the public sector will be successful in responding to citizen demands and improve the quality of public services, will depend on the degree to which public sector organisations will be innovative in their design, product offering, service provision, process orientation, strategy, leadership and policy. Lessons from the success of the private sector in most cases demonstrate that such success is predicated on innovation. The enormity and complexity of the public sector and its significant role in the improvement of the wellbeing of citizens, require that this sector should continuously redefine its vision and mission and re-engineer its business processes in its quest for efficiency and effectiveness in the provision of quality public services. Therefore, the need for fostering innovation in the public sector can never be overemphasised.

## Suggestions for further research

I have argued that current thinking about public sector innovation is dominated by Western scholars. Innovation typologies, methods, approaches and models have been highlighted in

this lecture, and it is important to note that there should be studies in the Global South, which focusses on these factors. Moreover, public sector innovation currently suffers from theoretical underdevelopment and there thus exists a need for the theorisation of innovation in the public sector. This theorisation should have a global scale and impact; and should not be limited to the Global South. A comprehensive review of existing literature shows that more cross-national comparative studies need to be conducted, especially studies that compare public sector innovations in the Global North and the Global South. A considerable portion of the literature indicate that qualitative studies are currently dominant and therefore there is need for quantitative studies on public sector innovation globally.

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**References**

Arundel, Casal, & Hollanders. 2015. How European public sector agencies innovate: The use of bottom-up, policy-dependent and knowledge-scanning innovation methods. *Research Policy*, 44 (7).

Basheka, 2012. The paradigms of public administration re-examined: a reflection. *Journal of Public Administration,* 47(1).

Bommert, B. 2010. Collaborative innovation in the public sector. *International Public Management Review*, 11(1).

Borins, S. (ed.). 2008 Innovations in Government. Washington, D.C: Brookings Institution Press.

Borins, S. 2000. The Persistence of Innovation in Government: A Guide for Innovative

Public Servants. https://www.innovations.harvard.edu/sites/default/files/3252703.pdf date of access 10/03/2018.

Borins, S. 2018. Public sector innovation in a context of radical populism, *Public Management Review*, DOI: 10.1080/14719037.2018.1441430.

Damanpour, F., Walker, R. M., & Avellaneda, C. N. 2009. Combinative effects of innovation types and organizational performance: A longitudinal study of service organizations. *Journal of Management Studies*, 46(4).

Damanpour, F. & Wischnevsky, D. J. 2006. Research on innovation in organizations: Distinguishing innovation-generating from innovation adopting organizations. *Journal of Engineering and Technology Management,* 1(23)**.**

Demircioglu, M.A. & Audretsch, D. B. 2017 Conditions for Innovation in Public Sector Organisations. *Research Policy,* 46 (9).

De Vries, H.A., Bekkers, V.J.J.M., Tummers, L.G. (2014). Innovation in the Public Sector: A Systematic Review and Future Research Agenda. Speyer: EGPA conference.

Drucker, F. P. 1997. Innovation and Entrepreneurship. New York: Harper and Row.

Emery, Y., Kouadio, A. B., Rousseau, A., Johannsen, L., Meunier, B., Valoggia, P., Moller, S. 2015. Trends & challenges towards innovative public services, paper presented at 65th

Meeting of the Directors General responsible for Public Administration in the EU Member States accessed from http://www.eupan.eu/files/repository/2015 date of access 2018/02/22.

European Commission. 2013. Powering European Public Sector Innovation: Towards a New Architecture, Report of the Expert Group on Public Sector Innovation. Accessed online from https://ec.europa.eu/research/innovation-union/pdf/psi_eg.pdf date of access  01/08/2015.

Evans, M. 2014. Innovation in Local Government: Defining the Challenge, Making the Change.  Accessed online. http://www.lgnsw.org.au/files/imce-uploads date of access 14/08/215.

De Vries, H; Bekkers, V & Tummers, L. 2015. Innovation in the public sector: a systematic review and future research agenda accessed from http://onlinelibrary.wiley.com/doi/10.1111/padm.12209/full   date of access: 03/02/2018**.**

Fourie, D & Poggenpoel, W. 2017. Public sector inefficiencies: Are we addressing the root causes? South African Journal of Accounting Research, 31:3, 169-180, DOI:10.1080/10291954.2016.1160197.

Hartley, J. 2005. Innovation in Governance and Public Services: Past and Present, Public Money and Management, 25, (1).

Hartley, J., Sørensen, E., & Torfing, J. 2013. Collaborative innovation: A viable alternative to market competition and organizational entrepreneurship. *Public Administration Review*, 73(6).

Henry, N. 1963. Paradigms of Public Administration. Public Administration Review, 35(4).

Hofisi, C & Shava, E. Undated. Towards the Fourth Industrial Revolution: Decoding public sector innovation for public service delivery in South Africa. Article submitted to the journal of public administration.

Hofisi, C. 2012. Criticising participatory Integrated Developing Planning in South Africa. Journal of African and Asian Local Government Studies, 1(3).

Hofisi, C & Mago, S. 2012. Varied impacts of compensation on employee performance in the public sector:  A case of the Premier Medical Aid Society of Zimbabwe. African Journal of Public Affairs, 5(2).

Hofisi, C. 2014. Making Participation Real in Integrated Development Planning. *Journal of Public Administration*, 49(4).

Hofisi, C. 2013. Decoding process evaluation frameworks: Lessons for the public sector in South Africa. *African Journal of Public Affairs*, 6(4).

Hofisi, C & Maramura, T. (undated). Mandelafying the public service in South Africa: Towards a new theory, article submitted to the journal of public administration.

Hofisi, C & Pooe, T. 2018. New Public Management Issues in South Africa in Lukamba M.T. & Basheka, B.C. (Eds). New Public Management in Africa Emerging Issues and Lessons. Taylor & Francis: New York.

León , L.R., Simmonds, P. & Roman, L.2012. Trends and Challenges in Public Sector Innovation in Europe. Thematic Report 2012 under Specific Contract for the Integration of INNO Policy TrendChart with ERAWATCH (2011-2012) https://ec.europa.eu/docsroom/documents  date of access: 02/22/2018.

Maserumule, M.H.2013. Deconstructing and reconstructing the discourse on the theory of public administration. *Journal of Public Administration,* 48(3).

Moore, M.H. 2005. Break-Through Innovations and Continuous Improvement: Two Different Models of Innovative Processes in the Public Sector, Public Money and Management, 25(1).

Moussa, M., McMurray, A., Muenjohn, N. 2018. A Conceptual Framework of the Factors Influencing Innovation in Public Sector Organizations. *The Journal of developing areas,* 52(3).

Mulgan, G. 2014. Innovation in the public sector how can public organisations better create, improve and adapt?  https://www.nesta.org.uk   date of access: 02/222018.

Mulgan, G. & Albury, D. 2003. Innovation in the Public Sector. Strategy Unit, Cabinet Office UK, London.

Newman, J., Raine, J. and Skelcher, C. 2001. Transforming local government: Innovation and modernization. *Public Money and Management*, 21(2).

OECD, 2017. Government at a Glance. https://www.oecd.org/gov/government-at-a-glance-2017 date of access: 15/03/2018.

OECD. Oslo manual for the measurement of scientific and technological activities proposed guidelines for collecting and interpreting technological innovation data. https://www.oecd.org/sti/inno/2367580.pdf date of access: 07/04/2018.

Organisation for Economic Cooperation and Development. Undated. Sharing Innovative approached in the public Sector. OECD observatory of Public Sector Innovation. Accessed online from www.oecd.org/governance/OPSI-Flyer.pdf data of access: 01/08/2015.

Osborne, S. P., & Brown, L. 2011. Innovation, public policy and public services delivery in the UK. The word that would be king? *Public Administration*, 89(4).

Perry K.A. 2010. Innovation in the 'Public Sector' – putting it into perspective. ICE-Project Working Paper, 2010:01. Department of Communication, Business and Information Technologies: Roskilde University/Center for Communication, Media and Information Technologies: Aalborg University.

Powell, D.M., O'Donovan. M., De Visser. J. Undated. Civic protests barometer 2007-2014-Cape Town: MLGI. Accessed from http://mlgi.org.za/talking-good-governance/ date of access: 26/07/2015.

PricewaterhouseCoopers. Undated. The road ahead for public service delivery: Delivering on the customer promise. Accessed from https://www.pwc.com/gx/en/psrc/pdf/ date of access: 26/07/2015.

RSA. Auditor General. 2014. Auditor-General of South Africa Report.  2015. AGSA (Pretoria). www.agsa.co.za. Date of access: 23/05/2017.

RSA. Department of Cooperative Governance and Traditional Affairs. 2009. State of Local Government in South Africa, Working Document. Republic of South Africa. http://www.cogta.gov.za date of access: 03/09/2015.

RSA. Department of Performance Monitoring and Evaluation. 2012. Management Performance Assessment Tool report. Presidency of the Republic of South Africa.

Sachs, J. 2008. Commonwealth economics of a crowded planet New York: Penguin press

Shava, E and Hofisi, C. 2017. Challenges and Opportunities for Public Administration in the Fourth Industrial Revolution. *African Journal of Public Affairs,* 9(9).

Sørensen, E., & Torfing, J. 2011. Enhancing collaborative innovation in the public sector. *Administration & Society*, 43(8).

Sørensen, E. & Torfing, J. 2012. Introduction: Collaborative Innovation in the Public Sector. The Innovation Journal: *The Public Sector Innovation Journal*, 17(1).

Thenint. H. 2010. Innovation in the public sector. www.grips-public.mediactive.fr date of access: 16/03/2018.

The World Government Summit. 2017. Embracing Innovation in Government Global Trends. https://edge.worldgovernmentsummit.org date of access 24/03/2018.

The World Government Summit. 2018. Embracing Innovation in Government Global Trends. https://edge.worldgovernmentsummit.org date of access 0n 24/03/2018.

The Presidency. 2018. State of the Nation address.  http://www.thepresidency.gov.za date of access: 15/03/2018.

Tõnurist, P.,Kattel, R., & Lember, V.2017. Innovation labs in the public sector: what they are and what they do? Public Management Review, DOI: 10.1080/14719037.2017.1287939.

Wlaker, R.M. 2006. Innovation type and diffusion: an empirical analysis of local government. https://doi.org/10.1111/j.1467-9299.2006.00004.x date of access: 03/03/2018.

Walker, R. M. 2014. Internal and external antecedents of process innovation: A review and extension. *Public Management Revie*w, 16(1).

West, M. A., & Farr, J. L. (1990). Innovation at work. In M. A. West, & J. L. Farr (Eds.), Innovation and creativity at work: Psychological and organizational strategies (pp. 3-13). Chichester: Wiley.