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### **CELEBRATING THE CPSI**PAST, PRESENT AND FUTURE

20 YEARS OF UNEARTHING, REWARDING AND REPLICATING PUBLIC SECTOR INNOVATION

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Centre for Public Service Innovation (CPSI)

As a government we are constitutionally obliged to ensure equal and impartial access to services by all citizens regardless of race, religion or socio-economic status, importantly, not as a privilege but a right.



#### **FOREWORD**

Our Constitution identifies the delivery of services as one of the fundamental rubrics of our democracy. As a government we are constitutionally obliged to ensure equal and impartial access to services by all citizens regardless of race, religion or socio-economic status, importantly, not as a privilege but a right. In doing so, we aim to right the wrongs of the past and create a more prosperous, equitable future.

To that end, when the  $6^{th}$  administration came into office it identified the need for a capable, ethical developmental state. This state should be familiar with the demographics and spatial distribution of the population. It must possess qualities such as agility, responsiveness and relevance in terms of the services it delivers.

A capable developmental state should also enjoy the support of a interventionist, developmental, participatory public administration. Such an administration should lead through partnerships with all sectors of society. It should also possess, as key aspects, human capabilities, institutional capacity, service processes and robust technology platforms.

Vision 2030 of the National Development Plan (NDP) further outlined a need in the public sector for major adjustments both in policy and operations with the intention to achieve performance levels that would further accelerate delivery on our developmental agenda. The NDP also identified an urgent need for the strengthening of inter-governmental relations for integrated, collaborative and seamless service delivery at all levels.

My portfolio of Public Service and Administration is mandated to lead in building an efficient and effective public service, with the capacity to drive a capable developmental state. Our role includes putting in place key elements and qualities as discussed above and by prioritising the creation of an enabling public sector policy environment, to achieve high levels of professionalism. Added to that, and equally critical, is the promotion of innovation, which essentially constitutes the reason for existence (raison d'etre) of the Centre for Public Centre Service Innovation (CPSI).

The CPSI's role in building a capable developmental state is summed up in its strategic mandate to promote and entrench innovation in the public service. Such innovation supports the capacity to accelerate government performance and productivity, particularly in service delivery. This is in accordance with its vision of an effective and efficient solution-focused public sector through innovation.

Twenty years and counting, the CPSI continues on this critical mandate, which was reiterated in the NDPs calls for the adoption and implementation of innovation across state, business and social sectors to specifically target improvements in public service delivery.

To the CPSI, innovation remains a key enabler for holistic transformation of our government. This means that, instead of being narrowed down to projects, processes and systems, innovation should instead permeate the various transformative reforms in the public sector to make it more professional, ethical, effective and efficient in its work.

Innovation has the ability to transform and empower the public service to find new ways of adding value. Innovation can make the public service more open minded and able to embrace new thinking, and new ways of doing things, while also creating new opportunities to discover simpler solutions to our every day challenges.

The CPSI carries out a fundamental government-wide role as an influential thought-leader on innovation and its proven ability to improve government performance. Through its work of creating and nurturing an ideal culture and enabling environment in which innovation is encouraged, rewarded and mainstreamed in the public sector, the CPSI ensures that government institutions fully leverage innovation. Most notably, through the efforts of the CPSI, we have witnessed robust and strategic partnerships between institutions across the three spheres of our government, SMME innovators and lately the youth, which have yielded viable solutions to tackle the triple challenges of poverty, unemployment and inequality.

As the CPSI celebrates its 20<sup>th</sup> anniversary, we look back with pride at the phenomenal impact that it has made in promoting the adoption and practice of innovation in the public sector. We commend the organisation for its role, particularly during the height of the coronavirus pandemic where, in collaboration with various partners, the CPSI brought out hybrid and fit-for-purpose solutions for sustained service delivery and productivity in many government departments.

We look forward to many years where the CPSI will continue to tirelessly champion this important and strategic mandate to infuse the culture and practice of innovation in the public service to improve service delivery. We also look forward to the CPSI leading the way in harnessing 4IR Solutions in the form of frontier technologies, such as Artificial Intelligence, Robotics and Big Data, to ensure a better life for all our citizens.

**Hon TW Nxesi, MP**Minister for the Public Service and Administration (Acting)

As a government we are constitutionally obliged to ensure equal and impartial access to services by all citizens regardless of race, religion or socio-economic status, importantly, not as a privilege but a right.



#### **MESSAGE**

As our country contends with the various challenges associated with meeting the needs of citizens, it has become explicitly clear that through technology we can defy many inhibitions against impartial and equal distribution of quality services to all citizens. Through IT-based big data analytics, we are better positioned to process and understand vital data with high precision and speed, assess the needs of citizens, and distribute services in a well-planned and targeted manner.

However, technology should not be perceived as a silver bullet that can address all of our challenges or effect sufficient change. In South Africa, where our service delivery challenges are felt most poignantly by those in rural communities and informal settlements, tech-free programmes such as queue management and food gardens can make a tremendous difference. In fact, most of our winners at the CPSI annual Awards come from rural villages and small towns where access to information and technology is comparatively limited.

The CPSI understands this dynamic and seeks to unearth and spotlight innovation, wherever it may exist. To research and develop its own solutions, where an answer is not already there. Finally, once these solutions are ready, to encourage and facilitate the dissemination and replication of such solutions in other areas where need arises. Over the past 20 years, the CPSI has demonstrated their commitment to this mandate and their adaptability under rapidly changing circumstances.

The book in your hands represents two decades of driving innovation. It demonstrates the breadth of the CPSI's interventions, from hi-tech solutions in community safety and digital literacy, to low-tech projects in children's healthcare and manufacturing. As well as the value of their programmes, within South Africa's government, among our constituents, and internationally.

The CPSI works in partnership with Geekulcha on various ICT skills development including hosting Public Sector Innovation Hackathons. These, as well as other hackathons and training sessions, continue to showcase the inspiring talent and level of creativity and innovation among South Africa's youth. I hope that many of these youth will pursue a career in the public sector, bringing with them a fearless and passionate spirit of innovation and youthful practicality in their solutions.

In 2020, the world witnessed the outbreak of COVID-19, which resulted in a near total shutdown of normal human activity. For its part, the CPSI responded quickly and effectively to the pandemic. The team demonstrated adaptability in its transition to remote work and displayed their capacity for innovation by moving some processes online. We also recognise some of the critical innovations that occurred during our nation's battle against COVID-19.

I also want to acknowledge that for many in the public sector, particularly our frontline workers, the pandemic took an enormous toll. Health workers and educators continue to grapple with the long-term effects on our health and education systems. What I hope is that our country will learn from these challenges, will find ways to repair the damage caused, and help us to prepare for the future.

I would also like to see more opportunities to engage our youth, civil society and community leaders. These groups most clearly understand the challenges faced by our citizenry and are best poised to deliver innovative solutions. We also need greater collaboration amongst our various government departments and spheres.

Innovations need to be adopted without hesitation and implemented with conviction. While we may celebrate our innovators, what matters more is that their solutions make a difference in the lives of South Africans. The CPSI will continue to play an important role of inculcating the culture and practice of innovation in the public sector.

**Hon Dr Chana Pilane-Majake, MP**Deputy Minister for the Public Service and Administration

Centre for Public Service Innovation (CPSI)

Innovation, and especially replication, does not occur in a vacuum. It requires collaboration, a willingness to try something new, and a strong commitment from all levels of government.

#### **WELCOME**

As we celebrate 20 years of the CPSI, it is timely to reflect on our journey.

I would like to begin by thanking those who provided input into this book. It highlights many wins, within the CPSI and among our partners, and I hope that readers find it inspiring. But what the book cannot capture is the day-to-day dedication of the CPSI team to promoting innovation in the public service. For this, I am also grateful.

I joined the CPSI nearly fifteen years ago and have witnessed its transformation into a fully-fledged government component. Despite our resource constraints, the team continues to deliver across three core functions – Research and Development, Institutional Support and Replication, and support for an Enabling Environment. As part of the next wave, we will also embrace Stakeholder Management as a fourth functional area.

The CPSI over the years has established with various organisations to elevate the practice of innovation in the public sector. We have worked with The Innovation Hub in an experiment of co-creating solutions for the public sector. We have also partnered with the National Intellectual Property Management Office (NIPMO) to explore ways in which public sector innovations can be protected through intellectual property rights. We realise our lack of capacity when it comes to research, as a result we partner with the National Advisory Council on Innovation to ensure that we establish credible baselines of public sector innovation in South Africa. We hope to sustain these partnerships, whilst exploring others.

The CPSI has also fostered strong relationships with international organisations such as the African Union (AU), African Association for Public Administration and Management (AAPAM), Organisation for Economic Co-Operation and Development (OECD), the United Nations (UN) and foreign national governments. These partnerships aid us in disseminating innovation abroad while ensuring that South Africa remains on par with global best practice.

In 2021, the CPSI conducted a feasibility study which provided assurance of the role it plays. The study also confirmed the relevance of our core mandate, despite resource and capacity constraints. We look forward to implementing its recommendations and building our capacity in the coming years. I am also immensely proud of how our team

handled the pandemic. We executed a relatively seamless transition to remote work to protect our staff and their families. I am also pleased that the organisation achieved clean audits throughout this difficult period.

Through this booklet we are celebrating 20 years of the CPSI. Several of our achievements are highlighted in this publication.

As we look ahead, I am encouraged by the opportunities that lay before us.

**Ms Lydia Sebokedi**Acting Executive Director, CPSI



We do not know how the next 20 years will unfold. There will be challenges, of course. But what this book provides is a reassurance of our adaptability and our commitment to improving the public service, while seeking new ways to unearth, disseminate and replicate innovation.

## A NOTE FROM THE EDITOR

The CPSI, Past, Present and Future

The CPSI is more than just an institution, it is a lever for innovation with the power to unearth and replicate solutions from all sectors of government, to improve service delivery. It is therefore fitting that our 20<sup>th</sup> Anniversary Book celebrates not only our unique history and achievements, but also the partners we have made along the way.

I would like to extend my gratitude to those who contributed to this book. We met with CPSI leaders, past and present, who shared their journey, discussed their current work and mused about the coming decade. Our conversation with Ms Geraldine Fraser-Moleketi, the second Minister for the Public Service and Administration and architect of the CPSI, shed light on the institutions founding principles. While her partner in implementation, Ms. Glenda White, the CPSI's original CEO, spoke about the organisations efforts to unlock critical innovation in a difficult service environment.

Current Acting Executive Director, Ms Lydia Sebokedi offered us a bird's eye view of the organisation as it is today and her vision for the future. While Mr Pierre Schoonraad and Mr Lindani Mthethwa spoke about how the CPSI has evolved over the years.

We chatted with winners across two decades of Innovation Awards. We heard from Naumi Sithole, who followed her 2002 Public Sector Innovator of the Year Award in healthcare with more than a decade of engagement with the CPSI. Met with Tiyani Nghonyama, COO and Co-Founder of youth ICT firm Geekulcha, about their Innovation Award and the ongoing delivery of CPSI sponsored hackathons and training sessions. As well as Rea Ngwane, award winner, CEO and serial innovator, about her efforts in sustainable design and her role as an awards adjudicator and Chairperson of the Awards Panel.

Our conversations also featured our partner institutions. Innovation Growth expert, Mr Isaiah Engelbrecht, shared his vast experience with the CPSI in fostering multi-sector partnerships and embedding innovation within Municipal government. While Mr Samson Moukangwe from the Department of Correctional Services highlighted ways in which the CPSI encourages efficiency and supports rehabilitation within the prison system.

We do not know how the next 20 years will unfold. There will be challenges, of course. However, what this book provides is a reassurance of our adaptability and our commitment to improving the public service, while seeking new ways to unearth, disseminate and replicate innovation.

I hope you are as inspired to innovate while reading this book as we were in compiling it.

#### **Mmabatho Mashaba**

Marketing & Communications, CPSI





#### LAUNCHING THE CPSI

The Centre for Public Service Innovation was established in 2001 as a Section 21 Company in the Ministry of Public Service and Administration. Designed to unearth, pilot and replicate innovation in the public sector, the organisations mandate far exceeded its size, but not its ambition.

Former Minister for the Public Service and Administration, Geraldine Fraser-Moleketi, past CEO Glenda White and former Executive Director Thuli Radebe discuss the early days of the CPSI. Long-time CPSI stalwarts,

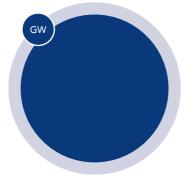




**GERALDINE FRASER-MOLEKETI** 



LINDANI MTHETHWA



GLENDA WHITE



**THULI RADEBE** 



PIERRE SCHOONRAAD

- I was appointed Minister for the Public Service and Administration in 1999. This was at a time when there were attempts, globally, to diminish the public service. But what we knew, and what's been shown to us again by the pandemic, is that the public service is essential.
- At the time, the challenge in South Africa was to extend service delivery to rural and underserviced areas. During the Apartheid regime, there were several administrative departments. The Public Service Act of 1994 combined these with an understanding that the Minister for the Public Service and Administration will ensure that innovation is used to improve service delivery.
- In the beginning we worked mainly on the alignment and integration of disparate administrations into one public service.
- We had to understand what the CPSI model would be and how, as a small organisation, it can enable innovation within this period of complex bureaucracy.
- Our Minister, Geraldine Fraser-Moleketi handled the complexities beautifully. She was able to call in the various ministers to better understand the challenges in their administration and deploy teams to work on addressing these barriers.
- What I saw was the need for an entity that will nurture the development of new ideas. One that could identify the policy changes and adaptations needed given the practical reality of public service at that time.

- One of our first projects was to develop multiple channels for service delivery, including e-government. But there was also the problem of citizens having too little information. In some cases, people did not know they have the right to certain government services. It was about both spreading knowledge and making services more accessible.
- The CPSI had a dream to improve service delivery across all departments. We were trying to disseminate everything from smaller innovations to larger e-government type projects.
- During this time e-government was in the early stages. Mobile phones were only just becoming widespread. So, one of the first things the CPSI looked at was multi-channel access to service delivery using technology.
- The Department of Home Affairs was struggling with many incidents of corruption. Citizens were unaware their IDs were ready and so these documents were getting stolen. People would find out they were married to a stranger, or that their ID was used to access social grants. We worked with Home Affairs to implement an SMS notification system for collection, which greatly reduced these problems.
- We were doing many other things, big and small. For example, we used technology to build e-government within the Post Office. Even today, you can still go to the Post Office to pay for your driver's license.
- Another initiative we started very early on was the Innovation Awards. This has always been my favorite program because it unearths and awards existing innovation as opposed to laying a claim over innovative ideas.

- The Awards Programme allowed us to find the most beautiful service delivery innovations, not only in cities but also in the most rural parts of South Africa. This showed us that people were desperate to solve their problems and would do anything to make a difference.
- But we found that capacity was always a problem. While I was very proud of the incredible work done by a very small, engaged team. We realised if we wanted to really inspire innovation we needed to grow and pivot.
- I joined the CPSI in 2004. At the time we were a group of five people but talk had started about transitioning the organisation to government.
- When I started as CEO, the CPSI was a Section 21 Company with a very small staff whose role was mainly to outsource projects. Minister Geraldine Fraser-Moleketi gave me the freedom and support I needed to take the organisation where I wanted it to go.
- Quite quickly, the CPSI transitioned from outsourcing to focusing on innovation through partnerships, which eventually gave rise to what we called 'Mission Oriented Innovation'. This was a way of tackling complex, interrelated challenges in government.
- The CPSI has undergone tremendous change since I was at the helm. But I am pleased to see that they still use the original logo. Because the idea behind the logo was that people are at the centre of innovation. It cannot be done in the context of public service only.
- What we must always remember is that the public service is not just administrators in head offices. It is alive in sectors across government. It must be alive in our communities. The CPSI will always play an important role in realising this.

Centre for Public Service Innovation (CPSI)



#### OUR FIRST INNOVATION AWARDS

Naumi Sithole, reflects on winning the first Public Sector Innovator of the Year' award for her work in treating asthma in children.

"When I was working in the healthcare sector, my focus was to ensure effective service delivery. This was key to alleviating suffering among patients," she states.

Working with the CPSI, I have discovered their commitment to actionable research with the goal of solving all kinds of problems.

#### Improving asthma control

Naumi's journey with the CPSI started early in her career as a physiotherapist at Natalspruit Hospital in the East Rand. Naumi noticed that many young asthma patients were readmitted, time and time again. She realised that in many cases neither the patients or their parents understood their condition or how to use their medication effectively.

In her drive to empower these patients and their families, Naumi assembled a team of doctors and nurses to give patients practical guidelines on their condition. They created a pamphlet, translated into many languages, and trained patients and parents in the effective use of asthma medication. The team also reached out to the community and visited schools to educate children out of hospital.

The results of the asthma project were overwhelmingly positive and included a significant reduction of readmissions. Since patients were more compliant, and their asthma was better controlled, monthly check-ups could be extended to three monthly check-ups, greatly reducing the burden on the asthma clinic, and resulting in shorter queues. Scheduled appointments were also handled more efficiently, allowing patients to be seen early in the morning so that the children could return to school and parents could go to work

Following the success of this project, recognition came in the form of a Gauteng Health Award by the Department of Health. The funding received was used to buy necessary resources for the asthma clinic and to further improve service delivery. The project was then submitted for the CPSI Awards in 2003 and became the first ever recipient of the Annual Public Sector Innovator of the Year Award.

#### **Sharing pockets of excellence**

"My journey with the CPSI didn't end there," says Naumi. "The CPSI is a vehicle for change - they pick a pocket of excellence and create a platform for information sharing at workshops, which in turn leads to innovation." During one of these CPSI workshops, she learned about an innovation model which advocated for the implementation of small changes to reach a larger goal. At the time she was looking for ways in which to improve service delivery in other areas of the hospital and had identified the problem of extremely long and slow-moving queues at the hospital pharmacy, where patients often complained that they had to wait an entire day to pick up their prescriptions. She employed this model, with the support of the CPSI, to make changes to the way the hospital pharmacy operated, ultimately reducing waiting times to less than two hours, and less than one hour for senior citizens and very ill patients.

#### **Cultivating innovation**

During yet another CPSI Conference, she was struck by a presentation on permaculture gardening. At the time she was employed in an executive role at Helen Joseph Hospital in Johannesburg. This presentation sparked another innovative idea, since the food service unit at the hospital often had trouble with the inconsistent collection of food waste, which had negative implications for health and safety compliance and infection control.

The CPSI is a vehicle for change

– they pick a pocket of excellence
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which in turn leads to innovation.

It is my experience that CPSI initiatives truly enhance the problem-solving skills of staff, inspiring innovation that leads to solutions.

Subsequently Ms Sithole kicked off a project to develop a vegetable garden at the hospital, using food waste to enrich the soil, once again with the support of CPSI. Not only did this innovative project solve the challenge of dealing with food waste, but it served as a source of vegetables when needed. In addition, the garden was used in the rehabilitation of stroke patients – providing a means of exercise and enrichment. Once discharged from hospital, these patients are offered the support of occupational therapists to develop their own vegetable gardens at home.

"It is my experience that CPSI initiatives truly enhance the problem-solving skills of staff, inspiring innovation that leads to solutions," says Ms Sithole.

#### A word of congratulations

"I would like to congratulate the CPSI on their 20<sup>th</sup> anniversary. They are the champions of innovation, which I believe is the way forward in public health, because it has a multiplying effect in terms of saving time and resources".

## UNLOCKING INNOVATION FROM WITHIN

Becoming South Africa's first government component, with reflection from former Minister Geraldine Fraser-Moleketi and former Executive Director of the CPSI, Thuli Radebe.

At the CPSI we executed many programmes, big and small, but always as a way to solve clear and persistent challenges.

Ms Thuli Radebe, Former Executive
Director of the CPSI

#### The transition to a government component

The CPSI was originally conceived as a Section 21 organisation, operating at arms-length from government. According to former Minister Geraldine Fraser-Moleketi, "we did our research globally, looked at what was working and not working, and landed on the Section 21 model." The rationale was that "we needed a unique institutional model that would allow for innovation within a highly regulated government system. A model that would create more flexibility and open channels for innovation."

But by 2007 the effectiveness of the Section 21 model had come under question. Thuli Radebe, former Executive Director of the CPSI, notes that "there were just too many stakeholders, including the Minister, Executive Director, Board and Director General. It was hard to know who the decision-makers were. At the same time, agencies were not working in alignment with one another." Change was needed.

After carefully considering the service delivery landscape, government took a decision to review and revise these structures. The Public Service Act was thus amended, setting out three distinct forms within government: ordinary departments such as the Department of Health and Education, service delivery units in Departments, and government components.

One year later, in 2008, the CPSI became South Africa's 'first government component'. The CPSI now had its own accounting officer, and was allocated its own ring-fenced funding.

#### Change through leadership

In 2007, Thuli Radebe was appointed Executive Director of the CPSI. Her role was not only to shape the newly defined organisation, but as she puts it "I was challenged by Minister Ms Geraldine Fraser-Moleketi to 'surprise her' with a new direction for the CPSI. The Minister gave me the support I needed to transform the organisation and to find new ways of enhancing innovation in the public service."

We needed a unique institutional model that would allow for innovation within a highly regulated government system. A model that would create more flexibility and open channels for innovation.

Former Minister, Ms Geraldine Fraser-Moleketi

The CPSI quickly gained momentum as Ms Radebe set out to build a team with in-house capacity and specialised skills. This team would go on to pursue four distinct programmes, leveraging the culture of excellence already established under the Section 21 model.

#### A programmatic approach to innovation

- 1. The Multi-media Innovation Centre (MMIC): "I had a vision for a physical venue that would excite public servants about the concept of innovation, and provide a space away from their work where they could develop innovation," Radebe says. Launched in 2009, for nearly ten years the MMIC offered a platform to showcase innovation, inspire best practice among the public service, and incubate new ways of doing things.
- 2. The Annual Public Sector Innovation Awards Programme: The awards programme has consistently served to unearth innovation. "We would bring our innovators together, celebrate them, and award them with funding to support their initiative", says Radebe. As a government component under the MPSA, the Programme was not only sustained, but flourished. Eventually, it was complemented by the Public Sector Innovation Conference, which provides an additional platform for networking and dissemination of new ideas on innovation.

- 3. **Demand Driven Innovation:** The CPSI partnered with the public and private sector to identify what Radebe calls, "innovations, both big and small". As a government component, key initiatives included the Batho Pele Gateway Portal, the Public Internet Terminals, in partnership with the Post Office, and general services counters in rural Thusong Centres. The CPSI was also involved in the Track and Trace Programme for the Department of Home Affairs, Dokoza system for medical data, and the Mohwiti Technologies Access Health programme to improve patient referrals between local clinics and district hospitals.
- 4. **Global Innovation:** The CPSI quickly emerged as an organisation committed to innovation not only locally, but internationally. "Early on I saw the CPSI in a regional role, supporting innovation within the African continent and globally", says Fraser-Moleketi. Efforts included inviting foreign governments to visit the MMIC, representation within the OECD and UN, and international partnerships to address shared challenges in the public sector.

Nearly 15 years later, the CPSI continues to unlock innovation from within government. Programmes such as the Annual Innovation Awards, demand-driven interventions and global partnerships have survived two years of COVID-19 and are expected to thrive in the coming years. While plans are under way to reestablish the CPSI's headquarters, creating a space that will rival the MMIC as a platform for innovation.

I was challenged by Minister Geraldine Fraser-Moleketi to 'surprise her' with a new direction for the CPSI. The Minister gave me the support I needed to transform the organisation and to find new ways of enhancing innovation in the public service.





#### PROMOTING AND CELEBRATING INNOVATION

"Success is when your innovation is replicated – even if everyone forgets who was responsible for it at the beginning". Geraldine Fraser-Moleketi

From the beginning, the Annual Public Sector Innovation Awards Programme has promoted and celebrated Public Sector Innovation.

According to Lydia Sebokedi, acting Executive Director of the CPSI, "The awards recognise successful service delivery projects achieved through innovation. These projects require stepping outside your comfort zone to change the status quo, and this is not always easy, especially in the public sector". This is why it is so important to recognise these achievements, to highlight their impact, and to encourage implementation within other provinces, departments and entities.

Interviews with CPSI leaders, past and present, revealed nothing but enthusiasm for this annual programme. In the words of former CEO, Glenda White, "The Awards are my favourite programme within the CPSI, because they are so effective at unearthing innovation."

This sentiment was echoed by another former Director, Ms Thuli Radebe, who championed the Awards Programme as a way to "showcase innovation across all parts of South Africa."

#### Keeping up with changing priorities

The inaugural Annual Public Sector Innovation Awards Ceremony was held in 2002. Over the years the categories have ranged from six to the current three.

In all the awards categories, the CPSI seeks out innovations that tackle the root cause of service delivery challenges. These may be solutions that are new or adapted.

The current categories are as follows:

- Replication and Adaptation of an Innovative Solution - This category focuses on the enhancement of existing solutions. The category seeks to showcase the importance of replication and scaling of innovation in other contexts and environment. Previous entries that can demonstrate enhancements are welcome to enter.
- Citizen-focused Innovations Harnessing non-ICT Solutions - This category celebrates the innovative use of citizen focussed non-ICT solutions to improve the efficiency and effectiveness of service delivery at the coalface. The emphasis is on the citizens and what has been done to make their experience of government pleasant, hassle free, effective and efficient.
- Innovations Harnessing Technology (ICT and other frontier technologies) - This category includes the use of technology in a new way, including emerging technologies such as Blockchain, Robotics, Artificial Intelligence and Innovative use of Big Data to significantly improve service delivery.

#### **Special Ministerial Innovation Award**

In addition, the Minister recognises institutions and/or individuals that are contributing to improving service delivery but do not fall within the stringent criteria. Some of these are social innovations with potential for further refinement and scaling.

#### **Public Sector Innovation Trailblazers**

Furthermore, the programme recognises public officials who are developing in-house systems and solutions, or using ICTs to improve internal efficiency or service delivery. The emphasis of this category is on the building of internal skills, professionalisation and cost-savings.

The Awards are my favourite programme within the CPSI, because they are so effective at unearthing innovation.

Ms Glenda White



## AN INTERVIEW WITH MR BONOLO MONYE – ONE OF THE CPSI'S INNOVATION TRAILBLAZERS The CPSI Awards now features Innovation

The CPSI Awards now features Innovation Trailblazers, celebrating those who develop in-house capacity to solve problems or strive to empower others to innovate. One of these trailblazers is Mr Bonolo Monye from the North West Provincial Treasury. Below we are proud to feature a short interview between Mr Monye and Ms Mmabatho Mashaba from the CPSI.

#### Ms Mashaba: How did you end up as a developer in the public service?

Mr Monye: After graduating in 2004 with BCom (Information Systems and Accounting), I was offered an opportunity to be part of the internship programme within the public sector in my home town, at the time, the programme lasted only six months. My responsibility was the Walker System. Even though I was not doing any programming, I was in a team that does a lot of development.

During my 5<sup>th</sup> month as an intern, I was recruited by one of the big four auditing firms in Gauteng, which is where I started exploring analytical programming. With that skill and experience, I was recruited by a number of other private firms, including banks to work within their Management Information Systems (MIS) teams.

During the years 2005 to 2008, the public sector had a huge challenge relating to ghost employees, this was even worse in the Department of Education. With my analytical skill and experience I wanted to go back to my home town and assist with writing programmes to identify ghost workers.

Only in July 2015, I got an opportunity to join the North West Provincial Treasury in my home town. Even though I was not doing what I always wanted to do, I was able to assist with financial analysis (Provincial Budget and Expenditure). I noticed our analysts took longer to analyse and report the numbers for each department, I wanted to do something that would turn all that around.

From private sector, I had my own analytical software, which I used to analyse data, then I created visual displays and shared with all other analysts to add them in their reports. Every time I would want to find a way of improving financial analysis.



#### Ms Mashaba: What kinds of systems have you developed since you started working in the public sector?

Mr Monye: I have developed budget and expenditure analysis models, staff complement reports and a 3-Day payment report that gives statistics on turnaround payment times. We use all of these systems in our Department to improve our efficiency and functioning, and deliver on our service delivery mandate.

We have also developed drones for improved service delivery. These drones allow us to better monitor, in real time, the extent of service delivery and to pinpoint challenges for more rapid deployment. This initiative has caught the attention of other groups, including the SAPS, who see an opportunity for drones in their own work.

Ms Mashaba: We regard developers as innovators because they use creative ways to solve government challenges. We also acknowledge that being innovative, particularly in the public sector is challenging. What motivates you and how did you overcome all the challenges associated with being an innovator in the public sector?

Mr Monye: In the public sector, we need to account to each and every person out there, it is not just about giving information, it is about giving credible information. We need to constantly track what is happening on the ground, there are new questions all the time.

With all that, we do not have time to compile information from scratch all the time, if we do, we may start to cut corners and not give credible information. We need to have a system that we feed with raw and current data and let the system generate information for us.

I want to be able to answer as many questions as possible and within a short space of time. I want to answer questions that are not yet asked. I want to help

colleagues get the best out of each situation. I want to improve the quality of our reporting.

#### Ms Mashaba: Similarly, how would you motivate other public servants who are developers to be innovative against all odds?

Mr Monye: We are living in the world full of possibilities, we cannot be stuck because a lot of people are resistant to change, we may not make the difference now, however, with time the little that we sow will become a big tree that birds will build their nests on. It requires patience.

### Ms Mashaba: What are key issues that bother developers in the public sector, what hinders you from unleashing the ideas in your work environment or public service generally?

Mr Monye: Lack of proper ICT is a major concern. We are not provided with right tools for the job. A developers' computer should not be the same as that of a secretary. A simple thing like uninterruptible power supply (UPS), a good random access memory (RAM), to name but a few. The public sector is spending a lot of money on software licenses that are of no use, developers should be the ones advising on what software to buy. On a lighter note, a developer needs a coffee machine close by, we cannot be away from the desk for a long time.

#### Ms Mashaba: What do you think about the location of software developers within departments, should they be located in IT units or be closely linked with service delivery units?

Ms Monye: I believe they need to be linked with service delivery units, this will help expose the developer to the real challenges and will assist during user testing. It is easy to develop a solution that you relate to, if I sit far from the unit, I will soon start to assume I know what the challenge is, eventually I will develop a solution that will never be used, that is discouraging.



#### Q & A WITH **REA NGWANE:** INNOVATOR, **CEO AND AWARDS ADJUDICATOR**

Rea Ngwane, CEO of sustainable fashion brand Atyre, is a CPSI Special Ministerial Award Winner and former Chairperson of the Adjudication Panel.

#### Q: How long have you been involved with the

A: I was introduced to the CPSI through the Awards Programme in 2014, when myself and a friend won the Special Ministerial Award for a school bag project. Lydia Sebokedi then proposed I become part of the Adjudication Panel. I later progressed to become the Chairperson of the Panel. The year 2021 was my final year serving in this role.

#### Q: Tell us about your solar school bag project?

A: This was initially a university project. A friend of mine, Thato Kgatlhanye, who I attended advertising school with, was assigned to create an environmentally friendly product. Plastic pollution was prevalent, so she decided to transform plastic bags into school backpacks. Thato approached me and told me about her idea and together we decided to add more features to the school bag, including a solar light. This way the bag would simultaneously function as a backpack and a safe light source for rural children walking to school in the dark, or studying in a home with no electricity. Our main aim for the school bag project was to have a social impact by supporting education in rural communities.

#### Q: Why are the CPSI Awards important?

**A:** The Awards help government unearth innovation so that the public sector can serve the community efficiently and avoid service delivery disputes. They also help government keep up with innovation nationally and globally. And I hope that they will inspire government to further enable innovation in all sectors, such that business and public servants can compete on

#### Q: What makes a great innovation?

**A:** There is no right answer to this question because as Awards Adjudicators we all have a different perspective on what innovation is. However, one thing we all look for are ground-breaking and unconventional innovations that are aimed at serving the public. We also consider whether an innovation is scalable and can be introduced in each province, while also contributing to the different sectors of government.



Our aim for the the school bag project was to have a social impact by supporting education in rural communities.

#### Q: What are you working on now?

A: In 2015, I was approached by an institution that works with the Department of Environmental Affairs to assist them in establishing a storage and preprocessing plant for recycled tyres in the North West Province. The mandate was to store and process the recycled tyres according to waste regulations. However, after the tyres were processed, we noticed that the tyre tubes were still preserved and that they resembled leather. Using my design background, I thought of an innovative way to recycle the tyre tube, creating a stylish pouch. Essentially that's how my company Atyre was founded. Shortly thereafter, a contractor in the mining industry approached me about creating bags for them from tyre tubes as the canvas bags they were using were tearing. That's how we diversified our product offering and entered the mining industry.

Q: You were recently selected as one of News24's 100 Young Mandela's of the Future Honouree and listed on Forbes Africa's 30 Under 30. Do you have a message for other youth innovators who might want to follow in your footsteps?

**A:** Just start! Never wait for validation from anyone to try something new, or to start your own business. In this day and age anyone can turn just about anything into a profitable business, so don't doubt your ideas and compare them to someone else's. That inspired idea was placed in your head for a reason!

When evaluating innovations for the Awards, one thing we all look for are ground-breaking and unconventional ideas that are aimed at serving the public.





#### **CHAMPIONING** INNOVATION IN **CHALLENGING CIRCUMSTANCES**

The CPSI has a long history of championing innovation within the Department of Correctional Services. We reflect on this success with input from Sam Moukangwe, Director with the DCS.

#### Institutionalising innovation

When representatives from the Department of Correctional Services first attended the Annual Public Sector Innovation Conference they were interested to find out what other government departments were doing. What they did not anticipate, is that this simple act of engagement would spark a continuous drive to institutionalise innovation within the Department, through collaboration led by the late Dumisani Mphalala.

The DCS quickly became a regular feature at the Public Sector Innovation Conference and Awards, presenting papers, receiving accolades, and building the Department's reputation through stalwart appearances in their official uniforms. "This was critical to our success", says Sam Moukangwe, "We understood that innovation most often happens on the shop floor."

11 We understood that innovation most often happens on the shop floor. These events also inspired the Department to host their own Innovation Conference in 2018, attended by over 200 delegates from all levels of the organisation. "The CPSI proudly assisted with facilitating the conference and guiding the institutionalisation of the innovations discovered", says Moukangwe. The event was successful in spreading ideas throughout the Department and forging networks for collaboration.

#### Award winning solutions

Over the years, the DCS has launched a number of innovations, from queue management systems that reduce visitor waiting times, to engagement initiatives that improve community relations. While every innovation has made a difference within the Department, several of these projects have also been recognised at the Public Sector Innovation

In 2008, the Goodwood Correctional Centre in Cape Town partnered with the South African Police Service and the Lions Club to manufacture sleeping bags out of recycled plastic and newspapers for the City's homeless. What set this project apart is that "the youth offenders themselves manufactured the bags, building their skills while also helping the most vulnerable members of the community", says Moukangwe.

The Sleeping Bag project won the Innovative Partnership in Service Category in 2008. According to Mashamba Takani, former Head of the Goodwood Centre, "the project is not only continuing, but has been exported to other centres in Leeuwkop and Johannesburg".

In 2012 the DCS was again recognised for their Basic Radio project, taking second place in the Innovative Service Delivery Institutions Category. This project, 12 years in the making, provided the DCS with a way to "better communicate internally, to engage with offenders, and to reach beyond into our communities", says Moukangwe.

Basic Radio is one of many interventions launched by the DCS to make a positive impact on the lives of offenders. The station offers educational programmes in the form of health, gender, HIV and AIDS, as well as delivering regular news bulletins to keep offenders informed. Moukangwe emphasises "Offenders are key in delivering the radio programme, serving as producers, DJs and announcers, and at the same time gaining skills that can help them find work once released".

In 2021 two officials from the DCS in Kroonstad won third place in the Innovations Harnessing Technology Category. Their innovation, which automated reporting templates and data entry, helped the DCS receive an unqualified audit opinion on the Audit Performance Objective (APO) for the first time in the history of the Department. The innovation was eventually rolled out across the DCS, nationally.

In 2013, the Department also received a Special Ministerial Award for institutionalising innovation. The Department continues to work with the CPSI to build, strengthen and document their own innovation strategy in the DCS.

The value of the CPSI lies not only in working with them directly, but in their ability to bring and manage other stakeholders within the public sector innovation space.

# Q & A WITH ISAIAH ENGELBRECHT: HEAD OF INNOVATION AT THE CITY OF TSHWANE

Isaiah Engelbrecht, Municipal Leader and Innovation Growth Expert, discusses the City's longstanding partnership with the CPSI.

#### Q: What does it mean to be an 'Innovation Activist'?

**A:** I have been involved in innovation activism for more than 20 years. I practice innovation in everything I am involved in whether it is in the church, university, or government. I have done a lot of work in the context of training and coaching and am constantly engaged in the execution of innovation.

#### Q: Can you tell us about your long history with the CPSI?

A: Ten years ago, I was contracted by the CPSI to offer training on innovation to government employees. My role in training government officials later formed part of the Innovation Awards ceremony. That was my first exposure to the CPSI, but it is a relationship that has grown from strength to strength. I now work as Head of Innovation at the City of Tshwane and have engaged the CPSI to provide training with the goal of building an innovation culture within the Municipality.

I also work with the CPSI as a member of the National Advisory Council on Innovation (NACI). Our goal is to mainstream innovation in South African government, for the purpose of improved service delivery.

#### Q: How has the CPSI assisted with capacity building in your organisation?

A: It is challenging to get innovation going in local government. So, to kick-start innovation we have appointed what we call 'Innovation Patriots'. These are people nominated within the organisation to assist the innovation team in bringing about change in the City of Tshwane. In 2021, the CPSI assisted the City with a workshop on 'design thinking', which is a key building block of innovation. After the workshop, our participants universally commended the session for how it gave them a deeper understanding of the concept. The 'Innovation Patriots' also utilised the skills and knowledge gained from the workshop to provide solutions to the challenges experienced in the Municipality.

#### Q: You won an award with the CPSI for the City of Tshwane Innovation Challenge. What did this award mean for your efforts in innovation?

**A:** The Challenge identified three universities in the City of Tshwane. At the core of the programme was an effort to mobilise students at these universities to come up with innovative solutions to solve service delivery inefficiencies in the City. Twelve new businesses were created by students through the programme. When it ended, winners were selected according to the solutions implemented across key areas of the challenge.



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The programme also participated and partnered with The Blue Ocean Awards in France. The role of the program was to unearth, as the CPSI would say, new solutions that were in the minds of students and bring The programme also participated and partnered with The Blue Ocean Awards in France. The role of the program was to unearth, as the CPSI would say, new solutions that were in the minds of students and bring these solutions to life. We also came up with a multi-helix innovation model where government, private sector and academia were involved in forming a solution to service delivery challenges. The City is now in the process of piloting these solutions across various departments.

The Public Sector Innovation Awards Programme is important in that it helped recognise the innovation created, inspiring students to continue down this path. Further, it assisted in giving the project more awareness and traction in government, opening doors for disseminating this model to other municipalities and departments.

#### Q: How do you see this role changing as the CPSI moves into its 3rd decade?

A: When I first entered the 'Innovation Ecosystem' in South Africa it was difficult because we had to convince a lot of leaders about the importance of innovation. Currently, all or most leaders recognise the importance of innovation but the question they grapple with is how they will benefit from implementing innovation in organisations. That is a significant shift.

It means that the CPSI needs to go beyond identifying and showcasing innovation and focus increasingly on finding ways to scale solutions. This is something the CPSI and all of public sector have struggled with in the past. How you incentivise replication is critical, and is something I think the CPSI needs to look closely at.

Q: You are currently working on a Programme with the Department of Science and Innovation, called the Municipality Innovation Maturity Index (MIMI). Can you tell me about this program and what role you see for the CPSI?

A: MIMI is a data and decision-making tool for measuring municipalities' ability to promote innovation. The aim is to improve service delivery, across the board. MIMI provides a platform where officials can learn and implement solutions. I think that the CPSI should consider creating a category in their awards for this program. It would expand the MIMI's offering into local government where municipalities can compete around innovation maturity.



## FEASIBILITY STUDY SPOTLIGHTING THE VALUE OF THE CPSI

Insights from the 2021 Feasibility Study, which reflects on the organisation and its optimal form within government.

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The Feasibility Study successfully advocated for the CPSI as an important entity within government's service delivery framework.



The Feasibility Study built on earlier work by the World Bank, which looked at our organisation compared to other institutions globally. What it did was not only reiterate what we already knew – that the CPSI plays an important role in addressing key service delivery challenges – but also gave us a better understanding of what we should advocate for within the Department.

In 2021, the CPSI commissioned a feasibility study to explore the organisation's role, functions and corporate form. According to Lydia Sebokedi, Acting Executive Director of the CPSI, "the Feasibility Study conducted by the University of the Witwatersrand (WITS) successfully advocated for the CPSI as an important entity within government's service delivery framework".

"The Feasibility Study built on earlier work by the World Bank, which looked at our organisation compared to other institutions globally. What it did was not only reiterate what we already knew – that the CPSI plays an important role in addressing key service delivery challenges – but also gave us a better understanding of what we should advocate for within the Department", says Sebokedi.

#### Repositioning the CPSI

The Feasibility Study considered several options for how best to reposition the organisation. This assessment drew on internal documents, international benchmarking and best practice. It also considered the core challenges around service delivery and public sector innovation.

The recommendations of the study have been submitted to the Executive Authority for review.





#### **DRIVING** INNOVATION THROUGH R&D

A conversation with Pierre Schoonraad, Head of Research and Development at the CPSI, on the move towards R&D, institutional support and replication.

In 2012, the National Planning Commission set out ambitious targets for South Africa. Eradicating poverty, reducing inequality and professionalising the public service. These targets, which are to be realised less than a decade from now, seem ever more impossible as the country is met with new challenges, from slow growth to the COVID-19 pandemic.

An interview with Pierre Schoonraad, Head of R&D at the CPSI, illustrates the lasting importance of the National Development Plan and the role of the CPSI. "We realise that Vision 2030 is not going to happen on its own. Not without massive innovation. There are so many opportunities out there, we just need to have the skills and capacity to grab them", says Pierre Schoonraad.

Pierre has spent 15 years at the CPSI and witnessed its transition from a Section 21 company to a partnership-based model. This shift meant moving from a small, dedicated team, towards a broader focus on 'mission-oriented innovation', recognising that complex challenges require not just interventions but the policies and practices to support innovation. Eventually, the CPSI complimented this approach with an emphasis on R&D, "as a critical tool for facilitating the development of new tools and approaches", says Schoonraad.

As Schoonraad recalls "In 2007, when Thuli Radebe came in as Executive Director, we sat down and looked at our priorities. It was agreed that R&D would be a core element going forward. This is when I transitioned to the CPSI". In the ensuing years, the CPSI's R&D focus has created a number of programmes. "If no existing solution can be found, we will start a programme and develop something to fill the gap".

Over the years, the R&D Unit has tested and piloted several solutions to improve public sector services. This includes an SMS notification system with the Department of Home Affairs, interventions to improve maternal health, and the development of a sustainable inland maritime safety system. "Through these projects we try and find ways of solving core problems, using existing technology. While we understand that, as a small organisation, we cannot alone drive service delivery improvements, we do believe that all service delivery challenges can be overcome. We are here to support those who are ready to deliver new ideas."

Across all programmes undertaken in 15 years of R&D, one in particular stands out for Pierre. In 2008 the CPSI was approached by the South African Police Service to help tackle crime in Diepsloot, a sprawling informal settlement west of Johannesburg. Burglaries, domestic violence and vigilante justice were on the rise and the police had a hard time accessing informal settlements due to a lack of proper street addresses.

After extensive collaboration and testing, the Memeza Project was born. This community alarm system offered a community-based solution for crime prevention. The pilot project, implemented in 2015, demonstrated tremendous benefits for the community. Over four months, from April to August 2015, Diepsloot witnessed a 60% reduction in crime in pilot areas, in part due to a seven-minute SAPS response time. After implementation of Memeza, National Crime Statistics showed that Diepsloot was the only township in Gauteng with a 9% decrease in the murder rate and 26% reduction in sexual violence offences.



#### Looking ahead

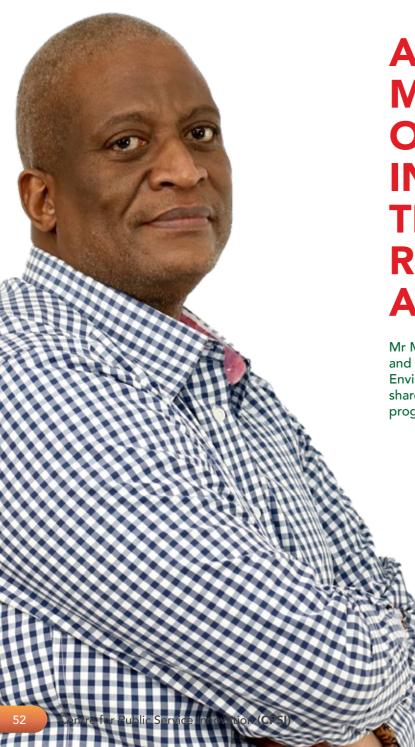
As the CPSI grapples with new challenges in the public sector, the role of R&D will only become more critical. "There are opportunities in each sector", says Pierre, "what we need to understand is how technology will shape the way we understand service delivery".

There is no shortage of innovative ideas, says Schoonraad "Because the Public Sector Innovation Awards Programme has matured, we are sitting on this repository of innovation, but these projects are not always scaled within the public sector. We realise the need for additional capacity to replicate these innovations. And, while our team has grown over the years, we are still very small".

"What I would love to see, and I think what has already started, is citizens stepping in and becoming part of the solution. The CPSI is only scratching the surface of what can be accomplished" says Pierre.

We do believe that all service delivery challenges can be overcome. We are here to support those who are ready to deliver new ideas.





# ADVANCING MISSIONORIENTED INNOVATION THROUGH REPLICATION AND UPSCALING

Mr Mthethwa, Head of Institutional Support and Replication (and Acting Head of Enabling Environment and Stakeholder Management) shared his vision on how these two critical programmes should unfold in the future.

When the CPSI first introduced this special awards category, we never envisaged that it will grow from strength to strength. The CPSI wanted to elevate public servants that are developing in-house solutions, thus saving government money.

According to Mr Mthethwa, the CPSI's Replication Programme will remain a core programme that is used to ensure the uptake of innovation in the public sector. As a country we will not win the war against poor service delivery if we do not leverage on tried and tested solutions. Said Lindani; "It is my wish that we move from replicating solutions in one or two sites to scaling at provincial and national levels to ensure higher impact". Increased capacity in this workstream will ensure that the CPSI supports more and more departments and municipalities in their innovation journeys.

Lindani excitedly referred to the envisaged future of the Public Sector Innovation Trailblazer Initiative – key part of the Public Sector Innovation Awards Programme. "When the CPSI first introduced this special awards category, we never envisaged that it will grow from strength to strength. The CPSI wanted to elevate public servants that are developing in-house solutions thus saving government money", further expanded Lindani.

"One such public servant is Mr Ntando Luyabo from the Companies and Intellectual Property Commision (CIPC). Ntando developed the BIZPORTAL - a portal for company registration. As the CPSI we are proud of this innovation – this is proof that public servants can be innovative", continued Mr Mthethwa. He further indicated that the CPSI will continue to encourage departments and municipalities to hire system developers to develop solutions at a much lower cost.

In closing, Lindani also highlighted the importance of reviving the Multi-media Innovation Centre (MMIC). He further said the MMIC will provide a platform for public servants to experience innovation first hand while offering them an opportunity to interact with innovation. This, he said, is part of the CPSI's mandate to inculcate the culture and practice of innovation by demystifying innovation to ordinary public servants.

It is my wish that we move from replicating solutions in one or two sites to scaling at provincial and national levels to ensure higher impact.



## HACKING THE FUTURE WITH THE YOUTH

In partnership with the CPSI, technology company Geekulcha is building a culture of innovation among South Africa's youth.

Geekulcha, a youth ICT development company, empowers young innovators to improve service delivery in the public sector, one hackathon at a time. The company's youth development programmes were recognised through the Public Sector Innovation Awards Programme.

Geekulcha is an ICT network of approximately 19 000 techies across Africa. The company was founded to expose young talent to the industry by enabling innovation and creativity that ultimately drives impact. In partnership with the CPSI, Geekulcha frequently hosts public sector innovation hackathons, tech excitation, tech enlightenment and other technology-focused youth development programmes to cultivate an environment where young and upcoming developers are encouraged to come up with solutions that would address shortcomings in the public sector. As part of the process, developers are guided and given insight into the sector to ensure that the solutions being developed are fit for the end users.

The CPSI plays a critical role in guiding local innovators and identifying possibilities in the public sector.

Tiyani Nghonyama, COO and Co-founder of Geekulcha.

The CPSI values Geekulcha in terms of the uptake of social innovations in the public sector. "The CPSI plays a critical role in guiding local innovators and identifying possibilities in the public sector," notes Tiyani Nghonyama, COO and Co-founder of Geekulcha.

Some of the solutions recognised through the 2022 Public Sector Innovation Hackathon, aptly called #PSIHack22 are:

- Hack-A-Ton, an all-women squad from the University of Johannesburg, delivered an agricultural solution, Agr-Ecco, linking farmers to key sectors, markets and inputs.
- Array Technologies developed a fire detection system aimed at protecting informal communities.
- WEZA developed a crime prevention app.

#### Where it all began

Geekulcha's involvement with the public sector started in 2015 when South Africa joined the Open Development Partnership "Our goal was to drive local innovation and foster the open government partnership, in particular to activate open data," says Nghonyama.

In 2018, the Minister for the Public Service and Administration called for a National Public Service Hackathon and the CPSI was approached to be the custodian of the event. This marked the start of an impact-driven partnership that today continues to challenge young innovators to become solution providers who would improve service delivery and efficiency in the public sector.

Even though these hackathons take place in a generally informal ecosystem, formal continuation is pursued afterwards to ensure that the solutions are adopted and implemented.

#### Award-winning idea: Best Healthcare App

One of the start-ups borne out of these joint collaborations is an App called "Guardian Health", which connects community health care workers with those who require medical attention. This App was developed by Tsitsi Marote and Tino Manhema at a hackathon at the start of 2020, just before the COVID-19 pandemic hit South Africa and has since won the 2021 MTN Business App of the Year Award for the best healthcare solution.

Currently up and running, the digital platform allows patients to book both tele-health and in-person appointments, either at clinics or at home, access their own health records and lab results and ultimately be in more control of their health journey. For community health care workers, the system optimises their daily routes according to the appointments for each day, allows them to enter patient details and includes a progress tracker functionality. At a clinic level, the App enables better resource planning and efficiency, and allows referrals to district hospitals.

#### **Driving digital literacy**

"Importantly, for public sector innovation to be successful in all communities, especially in terms of technological advancements, we must ensure that citizens know how to use digital platforms and are able to participate and access government services. We need to equip digital citizens," highlights Nghonyama.

With this goal in mind, Geekulcha led a digital literacy project in collaboration with the CPSI and the United Kingdom's Foreign Commonwealth and Development Office (FCDO), which saw 623 people living in marginalised communities across all nine provinces receive training and acquire basic digital literacy skills that would allow them to participate in the social, economic, and civic sectors.

#### Are we ready for the fourth industrial revolution?

"In setting out on the course to achieve the fourth industrial revolution in South Africa, we first and foremost need to ensure that the basics are taken care of," emphasised Nghonyama.

"This includes ensuring that the public servants who are on the digital frontlines possess adequate digital skills for them to lead the way. And secondly, we need to achieve a state of digitally connected citizens. To do this, we must understand people in their environments, and be cognisant of the process and the tools that are necessary to take them with us on this digital journey."

As part of preparing the future workforce for this revolution, and possibly have them lead the way, a Youth ICT and Business Vacation work programme is offered at the 4IR Expo, which prepares high school learners for the work environment that awaits them. The programme is structured so that the learners receive some working experience, at the same time learning how to build tech solutions and create their own start-ups.

"I believe the fourth industrial revolution is about amplified intelligence, connected intelligence and utilising data. But before we get excited about these possibilities, we must ensure that even the most marginalised communities are well looked after, and that we have champions who will drive digital literacy in our communities. Together with the CPSI, we are always considering these dynamic dimensions and we look forward to many more collaborations in the future", says Nghonyama.

We must understand people in their environments, and be cognisant of the process and the tools that are necessary to take them with us on this digital journey.

#### **CONCLUSION**

As we reflect on the CPSI's journey, including its successes, many challenges still lie ahead. As the CPSI we look forward to tackling some of these issues in collaboration with our public sector partners. Funding remains one of the biggest challenges faced by this small national government component, and it is our wish that over the MTEF, once the country's economic outlook improves that the CPSI will be allocated more resources to expand on its mandate.

Funding and procurement of innovation needs to be addressed urgently as it impacts on, amongst other things, the life cycle of innovations.

The current dedicated team is looking forward to ramping up its programmes to ensure greater impact. To do this, stakeholder management becomes critical as innovation thrives in partnerships.

We look forward to the next 20 years!

#### **ACKNOWLEDGEMENTS**

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