# PSET SCENARIOS 2021–2030

A guide on using scenarios to align
skills supply & demand through
interoperable data platforms

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| **Reos Partners** | **JET Education Services** | **merSETA** |
|---|---|---|
| P.O. Box 2920 | The Education Hub | merSETA House |
| Houghton, Johannesburg, 2041 | 6 Blackwood Avenue, | 95 7th Avenue, |
| ++27 11 788 8089 | Parktown, Johannesburg, 2193 | Cnr Rustenburg Road, |
| johannesburg@reospartners.com | ++27 11 403 6401 | Melville, Johannesburg, 2109 |
| www.reospartners.com/connect-with-us/ | info@jet.org.za | ++ 27 861 637 738 |
| | www.jet.org.za | info@merseta.org.za |
| | | www.merseta.org.za |

# Contents

# Acronyms and abbreviations

| | |
|---|---|
| **AI** | artificial intelligence |
| **APPETD** | Association of Private Providers of Education, Training and Development |
| **CHE** | Council on Higher Education |
| **DHET** | Department of Higher Education and Training |
| **DSI** | Department of Science and Innovation |
| **GDP** | gross domestic product |
| **HRDC** | Human Resource Development Council |
| **ILO** | International Labour Organization |
| **IMF** | International Monetary Fund |
| **LG SETA** | Local Government Sector Education and Training Authority |
| **merSETA** | Manufacturing, Engineering and Related Services Sector Education and Training Authority |
| **NDP** | National Development Plan |
| **NEDLAC** | National Economic Development and Labour Council |
| **NLRD** | National Learners' Records Database |
| **NQF** | National Qualifications Framework |
| **NSA** | National Skills Authority |
| **NSF** | National Skills Fund |
| **NSFAS** | National Students Financial Aid Scheme |
| **PSET** | post-school education and training |
| **PSET CLOUD** | PSET Collaboration and Learning Opportunities for the Utilisation of Data |
| **QCTO** | Quality Council for Trades and Occupations |
| **SAQA** | South African Qualifications Authority |
| **SASSETA** | Safety and Security Sector Education and Training Authority |
| **SETA** | sector education and training authority |
| **SMMEs** | small, medium and micro enterprises |
| **StatsSA** | Statistics South Africa |
| **STEM** | science, technology, engineering and mathematics |
| **TSP** | Transformative Scenario Planning |
| **TVET** | technical and vocational education and training |
| **UMALUSI** | Council for Quality Assurance in General and Further Education and Training |

# Foreword

There are many pathways South Africa could take that will determine whether skills supply will accurately align with skills demand in the future. A team of actors across the South African post-school education and training (PSET) system have created four scenarios about what could happen over the current decade until 2030. As you will see in this Guide, skills planning and provisioning will be shaped by complex interactions between factors found within and beyond the boundaries of the PSET ecosystem.

The factors within the PSET ecosystem are aspects over which stakeholders have a measure of control, such as the degree to which they collaborate in the future. The factors beyond the boundaries of the PSET ecosystem include aspects outside their immediate sphere of influence, such as the future character of political power and the scale at which new technologies are adopted.

Both sets of factors represent uncertainties over which we have limited predictive power. Other uncertainties include the nature and scale of future work opportunities, South Africa's economic trajectory, the character of future educational qualifications, technological developments and the willingness to share data. These uncertainties are deeply interconnected: What happens in relation to one will influence other uncertainties. This complexity can, however, make it difficult to  contemplate the future.

As uncertain as the future is, there are some certainties: It will take a considerable amount of time for the country to recover economically from the devastating effects of Covid-19, inequalities in South Africa will take a long time to erode, technology uptake will increase in the coming years, the mode of teaching and learning will change, the skills people require will need to adapt in response to the changing demands of the job market and we will continue, for the time being, to operate in the context of policy incoherency and legislative barriers.

The four scenarios in section 7 of this Guide outline four possible trajectories in light of these certainties and uncertainties. Each scenario tells a story of a journey across a bridge between now and the future.

In the first scenario, **Bridge over Troubled Water**, South Africa's public sector struggles to respond to severe economic constraints and the situation spirals downwards. In the PSET sector, private providers step into the gap. While many students benefit from the delivery of private education and training, inequality grows overall. In a time of increasingly authoritarian rule and populist politics, the PSET sector becomes more fragmented and trust is eroded.

In the second scenario, **The Suspension Bridge**, the government fails to provide a unifying political vision. Small-scale entrepreneurs step in to drive modest economic growth, which results in a more vibrant and self-organising informal economy that is also uncoordinated. This creates work for more people but the work is not self-sustaining and most South Africans live hand to mouth.

Technology rules in the third scenario, entitled **A Bridge too Far?** The government and technology industrialists become bedfellows in the project of economic growth and the government increasingly gives technocrats free rein to grow the economy. In turn, the technocrats pay higher taxes that help to sustain the social grant system. As the nature of work changes, citizens focus on personal and community development.

In the early years of the fourth scenario, **Bridge the Gap**, South Africa is on the edge of crisis. This precipitates increasing recognition among South Africans that their future is a shared one. Pushed to respond to the displacement of human labour by technology, the government steps in. Over time, there are modest signals of economic growth and increasing synergy between government, business and citizens.

The strategic implications of these scenarios can be explored in response to the specific questions any of us in the PSET sector are asking about the future. In the partnership between JET Education Services (JET) and the Manufacturing, Engineering and Related Services SETA (merSETA), we were asking about the future alignment of skills demand and supply. More than that, we wanted to test our contention that interoperable data platforms will support better alignment of skills demand and supply. You can read more about our interoperability initiative, the PSET CLOUD (Collaboration and Learning Opportunities and Utilisation of Data) project in section 3 of this Guide or by downloading the publication produced by the JET–merSETA partnership: *Unlocking the Power of Data: A review of the state of readiness of the Post-School Education and Training sector in South Africa for enhanced data interoperability*. The international review, *Interoperable Data Ecosystems: An international review to inform a South African innovation* is also available for download.

Whatever questions you are asking about the future, we take pleasure in sharing these scenarios with you and hope that they help you, as they are helping us, to engage with future uncertainties and possibilities in bold, innovative and collaborative ways.

As convenors of this scenario exercise, JET and merSETA wish to express our warm thanks to the scenario team for the enthusiasm and energy they brought to the work of co-creating the four scenarios and considering their strategic implications for data interoperability. This scenario team comprised 37 individuals from 25 organisations in the PSET ecosystem (see Annexure B for the Scenario team).

## JET Education Services

JET Education Services is an independent non-governmental organisation in South Africa that works with government, the private sector, international development agencies and education institutions to improve the quality of education and the relationship between education, skills development and the world of work.

## merSETA

The merSETA is one of 21 sector education and training authorities (SETAs) established to facilitate skills development in terms of the Skills Development Act of 1998 (as amended). The 21 SETAs broadly reflect different sectors of the South African economy. The merSETA encompasses manufacturing, engineering and related services.

## Reos Partners

Reos Partners is an international social enterprise founded in 2007. It helps people move forward together on their most important and intractable issues. Reos Partners guides processes that enable teams of stakeholders – even those who don't understand, agree with or trust one another – to make progress on their toughest challenges. We partner with governments, corporations, foundations, and civil society organisations on challenges such as education, health, food, energy, environment, organisational strategy, justice, security and peace. Reos Partners has offices in Johannesburg, Sao Paulo, Melbourne, Geneva, Cambridge (USA), Montreal and Toronto.

# 01

# THE PURPOSE OF THIS GUIDE

*This Guide has a practical purpose:
To prompt conversations in the PSET
ecosystem about possible futures.*

*These conversations are about what could happen in the period leading up to 2030 and what the implications could be for your team, organisation or sector.*

## Purpose

The four scenarios offer alternative possible trajectories into the future as a provocation, inviting you to expand your ideas about how the current situation might evolve. We hope that doing so will help you discern what you may need to anticipate, avoid and adapt to. In addition, our goal is to offer scenarios that support you where you need to intervene proactively to bend future trajectories in better serving young South Africans searching for meaningful skills, jobs and career paths.

**More specifically, these scenarios are resources that aid strategic thinking about the future use of data and technology across the skills supply and demand value chain.** This Guide aims to stimulate you to consider your own future-fit strategies as early adopters of new technological advances and to be enterprising contributors to interoperable PSET data platforms.

## How these scenarios were developed

The scenarios are the product of several rounds of engagement in the second half of 2020 between 37 individuals working in 25 different organisations in the PSET skills ecosystem. Together they formed a scenario team comprising senior members of statutory bodies, civil society organisations, academic institutions, the civil service, the corporate sector and a highly qualified but unemployed graduate.

All those involved came to the scenario process with diverse concerns about the current situation and a wide range of assumptions about what might happen. Collaboratively, they crafted stories that superseded their individual hopes and fears about the future.

These scenario team members are the Guide's intended 'first users'. It is meant to support you in continuing conversations begun in the scenario workshops in your own organisations and places of influence. These are conversations about the future of skills supply and demand, generally, and about the contribution of interoperable data platforms specifically.

## Scope

We also hope that this Guide finds a wider audience of PSET stakeholders who are concerned about aligning skills supply with demand. The JET and merSETA teams are available to support you as you think through the implications for data sharing and data interoperability.

To serve the practical purpose of this Guide, you will find some background about the PSET CLOUD initiative, the set of uncertainties which the scenario team identified (and which served to inspire their scenarios), an introduction to the scenario methodology and the scenarios themselves.

Each scenario is told first as a story that unfolds until 2030 and then through the eyes of an imaginary young and aspirant South African living through that story.

The final parts of this Guide focus on using these scenarios as a resource to think strategically about the future, starting with the implications – red flags, forks in the road, dilemmas and leverage points – identified by the scenario team when considering the future of data and technology for aligning skills supply with demand.

## Your role as a facilitator

You do not have to be an expert facilitator to initiate and lead these conversations. We provide a step-by-step guide (see section 2), Talking Points (after each scenario in section 7) and a sample workshop outline (Annexure A) to inspire your conversations. The main requirement is to create uninterrupted time for your colleagues to openly engage with the scenarios, and each other, in a way that enables exploration of their questions about the future of skills supply and demand.

# 02

# USING THESE SCENARIOS AS A CONVERSATION STARTER

*There are several ways in which to use these scenarios to develop more robust and future-fit strategies. We propose the following steps:*

This should be an area over which you collectively have some degree of influence. For example: Our future approach to collaboration or to data sharing. As convenor, it helps if you identify this before the conversation then invite the group to help refine it so that it becomes a shared strategic interest. This will be the lens through which you think about the scenarios' implications.

*NOTE: If your strategic question is about your approach to interoperable data and technology in the future, you can learn more about this by watching the short clip produced by COOi Studios for this purpose.* See: https://www.youtube.com/watch?v=XJEuN5y3GEA

**1. CONVENE A STRATEGIC GROUP**

**2. CLARIFY YOUR AREA OF STRATEGIC INTEREST ABOUT THE FUTURE**

**3. READ THE SCENARIOS TOGETHER**

Gather people from your department, organisation or sector with whom you want to have a strategic conversation about the future (now until 2030).

Ideally, the people you invited will already have had a chance to familiarise themselves with the scenarios. This is an opportunity to read them once more, together, with your area of strategic interest in mind. If there is insufficient time to re-read the full set of scenarios, refer the group instead to the synopsis of the scenarios in section 6 of this Guide.

What would it mean for each of us personally, and for our department / organisation / sector, should the story in this scenario materialise?

The prompt here is: What strategies could we pursue to avoid, adapt to or transform these potential developments? Start to flesh out these strategies, paying particular attention to those that will need collaborative attention beyond the group you convened.

**4. QUESTION EACH SCENARIO IN TURN**

**5. IDENTIFY THE IMPLICATIONS OF THE SCENARIOS AS A WHOLE FOR YOUR STRATEGIC QUESTION**

**6. STEP BACK TO THE PRESENT TIME AND REVIEW THE IMPLICATIONS THROUGH THE LENS OF YOUR STRATEGIC QUESTION**

Look across the full set of scenarios, no longer considering them separately, and identity the following:

a. **Red flags:** *Warning signs and risks worth paying attention to early on so that they do not materialise as surprise disruptors.*

b . **Forks in the road:** *Major decisions to be made, which could lead to very different outcomes.*

c. **Tensions:** *Competing priorities to be balanced, rather than mutually exclusive choices to be made.*

d. **Leverage points for change:** *Opportunities to intervene, towards shaping more desirable outcomes.*

Please see Annexure A for a sample workshop outline of 2.5 hours. The main outcome of this workshop is a series of strategic conversations prompted by these scenarios. Please adapt this so that it best suits your purposes.

# 03

# BACKGROUND ON THE PSET CLOUD INITIATIVE

*There is a wealth of data related to the post-school education and training (PSET) sector and in the labour market. However, this data is not well coordinated across the job skills value chain and it is not always easily accessible or of consistently high quality. This is not only a technological challenge, but also one that shows the need for trust and collaboration across the sector in order to make the best use of such data.*

Since 2018, JET Education Services (JET) and the Manufacturing, Engineering and Related Services Sector Education and Training Authority (merSETA) have been exploring the possibility of an integrated and interoperable digital ecosystem for the PSET sector. This has resulted in an initiative entitled PSET CLOUD (Collaboration and Learning Opportunities and Utilisation of Data).

The intention of PSET CLOUD is to create a data-rich platform that enables users – whether they are learners, government, industry, NGOs or educational institutions – to provide, share and use data for decision-making that promotes a more efficient and responsive post-school education system.

Ultimately, the vision of the PSET CLOUD initiative is a PSET system aligned to the supply and demand needs of the labour market. South African citizens can then make informed labour market decisions, leading to increased employment in line with National Development Plan targets (see Figure 1, PSET CLOUD Theory of Change).

To achieve the goal of a robust digital ecosystem requires addressing several considerable challenges of a technological, political, economic and social nature.

The Covid-19 pandemic is just one example of a collision point of myriad technological, political, economic and social challenges. This creates a high degree of uncertainty about how Covid-19 will impact on the future of education and training (supply) and the nature of the job market (demand).

*In preparation for the scenarios exercise, we asked stakeholders across the PSET ecosystem about their perceptions of the current skills supply and demand situation. All interview respondents were assured of confidentiality so that they could openly express their perspectives, which is a critical precursor to producing scenarios that are responsive to key stakeholders' concerns. Here are some of their concerns:*

Market skills are so poorly matched to what the economy needs because we are not addressing the economic fundamentals. For example, the labour market policy environment disempowers small businesses from creating employment … We need a policy framework that is stable and enabling so that people will invest in skills development.

*Stakeholder A, from Education and Training Institutions sector*

We think too much of skills development as formal training and education. I may be educated to death, but I may still not be able to apply my skills. Connecting knowledge, skills, values and attitudes is important. It's not just academic competencies but the fabrication of a whole human being that makes him or her employable.

*Stakeholder B, from a government department*

Technology is moving so fast and institutions are not changing their curricula fast enough. They are offering training that businesses do not need. Businesses say that they have to retrain people all over again because they do not do what they want them to do. The nature of learning and the nature of work seems to be moving apart.

*Stakeholder C, from civil society*

… the more vocational types of training should be where the majority of students are but the converse is the case in South Africa as the majority aim to go to university.

*Stakeholder D, from a government department*
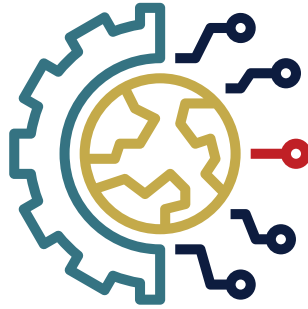
## Challenges

**What are some of the challenges facing the PSET sector now, through the eyes of its own stakeholders? Prior to embarking on the scenario process, interviews with each prospective member of the scenario team revealed a range of perspectives on current challenges. Some of these perspectives are captured in the text boxes in the margins of these pages. As you read these quotes, please note your own reaction. Where do you find yourself agreeing or disagreeing?**

While these are perspectives rather than facts, the fact that people working in the PSET ecosystem have these concerns means that there is merit in expressing and unpacking them. The scenarios exercise did just that. The storylines produced by the team are relevant if they are responsive to the challenges experienced by key stakeholders because they engage with the future uncertainties present in each of these current challenges. (See sidebar of stakeholder quotes.)

**How likely is it that South Africa can tackle these challenges and forge a new digital future?** The merSETA team decided to convene a scenarios exercise that would bring together stakeholders from across the PSET skills value chain to explore such concerns and uncertainties in depth and consider implications for creating an interoperable digital PSET ecosystem.

Data interoperability refers to "the ability of discrete computer systems or software to exchange and make meaningful use of shared data or other resources" (Shiohira and Dale Jones, 2019:22). In the context of the South African PSET sector, these authors assert that the successful establishment of such data platforms "hinges on the ability to solve a number of challenges, including technology and capacity gaps, access to data and data interoperability" (2019:40).

According to the International Labour Organization (ILO), interoperable data "enables the emergence of new sources of information, such as professional networks or job portals. These new sources can help us understand which skills different occupations require, how these requirements are changing and how people can transfer from one occupation to another on the basis of these requirements – a sort of employment GPS" (ILO, 2020: 68).

Ultimately, an interoperable digital ecosystem will enable South African citizens and government agencies to reach more informed and integrated decisions about education and training, skills development and the labour market.

A key constraint is the silo nature of the PSET system. It has historically been disjointed. The Department of Higher Education and Training has housed the different aspects of PSET under one roof but has failed to integrate them to a point where we are talking to each other. Also, relationships between the SETAs are not coordinated. At best they are transactional but not strategic.

*Stakeholder E, from academia*

We do not have coordination and collaboration among stakeholders. There isn't a good relationship between industry and training institutions.

*Stakeholder F, from a Qualifications and Quality Assurance body*

In our various national departments we see the lack of bridging leadership. Bridging leadership could enable the flow of data. But due to the lack of data integration we're trying to solve the same problem in a piecemeal way.

*Stakeholder G, from a Qualifications and Quality Assurance body*

In the absence of standardisation, we do not understand each other's data. For example, the Departments of Higher Education and Training, Trade and Industry, and Home Affairs all have a different understanding of what constitutes skills scarcity.

*Stakeholder H, from civil society*

We focus so much on technology, which is amazing and can do anything, but the human being who drives the technology is constrained by their own thinking and their own insecurities. People are scared that [if they share their data], they will become redundant, lose their jobs or lose control.

*Stakeholder I, from a Qualifications and Quality Assurance body*

People don't see data as an asset but as a thing of strategic advantage – as a way to get ahead.

*Stakeholder J, from a government department*

There is a proliferation of interventions ... We have an enormous amount of organisations working on these problems but all approach it from a slightly different way. There is no kind of central coordinating body. In theory, some of them say that it is the role of DHET and others would say it is SAQA's role.

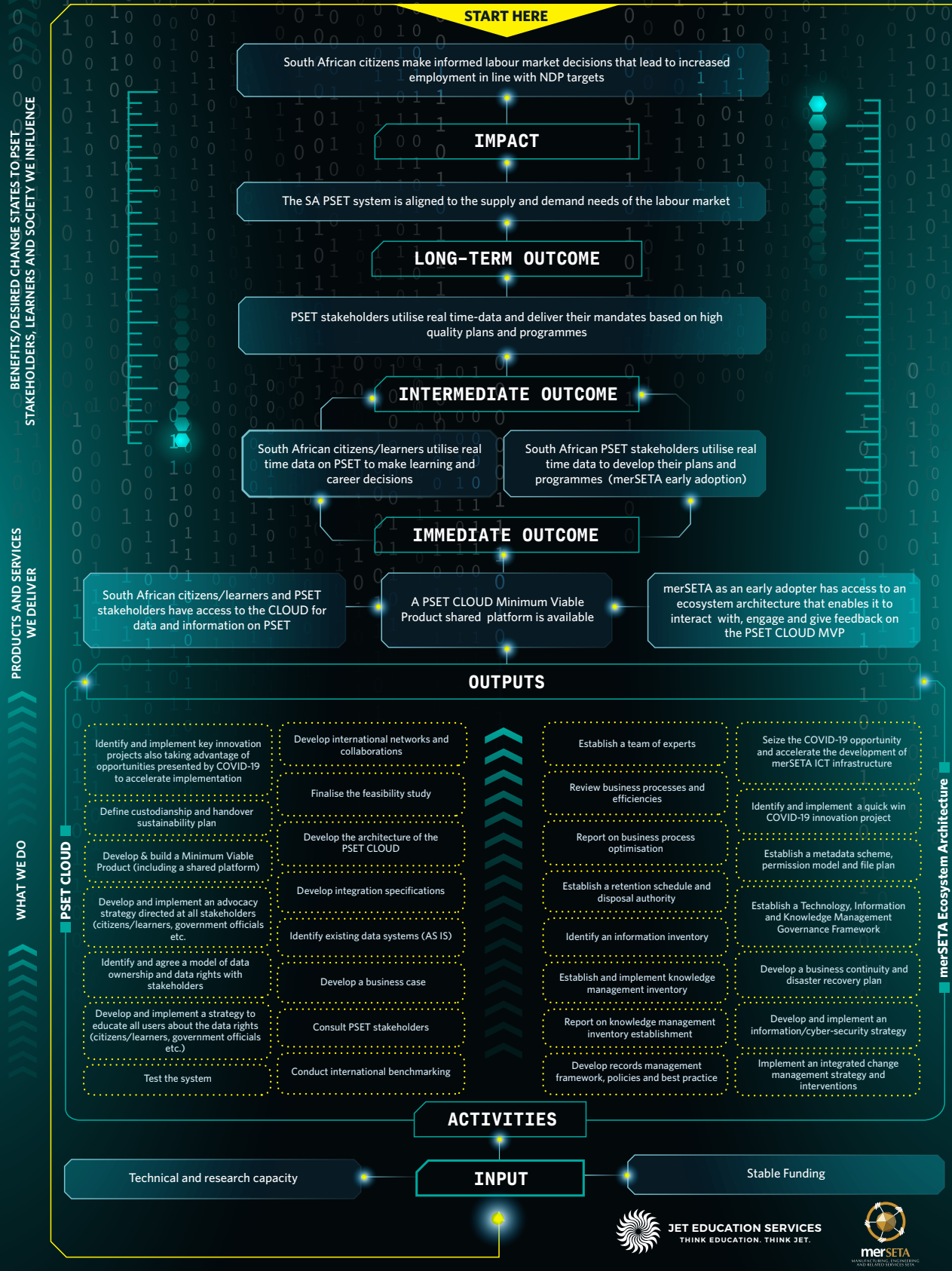*Stakeholder K, from a Qualifications and Quality Assurance body*

The scenario team is a catalyst in the process to drive the system to change.

*Scenario team member*

# PSET CLOUD Theory of Change

## THEORY OF CHANGE

**Post School Education and Training Collaboration and Learning Opportunities and Utilisation of Data (PSET CLOUD Project)**

START HERE

**BENEFITS/DESIRED CHANGE STATES TO PSET STAKEHOLDERS, LEARNERS AND SOCIETY WE INFLUENCE**

South African citizens make informed labour market decisions that lead to increased employment in line with NDP targets

### IMPACT

The SA PSET system is aligned to the supply and demand needs of the labour market

### LONG-TERM OUTCOME

PSET stakeholders utilise real time-data and deliver their mandates based on high quality plans and programmes

### INTERMEDIATE OUTCOME

South African citizens/learners utilise real time data on PSET to make learning and career decisions

South African PSET stakeholders utilise real time data to develop their plans and programmes (merSETA early adoption)

### IMMEDIATE OUTCOME

**PRODUCTS AND SERVICES WE DELIVER**

South African citizens/learners and PSET stakeholders have access to the CLOUD for data and information on PSET

A PSET CLOUD Minimum Viable Product shared platform is available

merSETA as an early adopter has access to an ecosystem architecture that enables it to interact with, engage and give feedback on the PSET CLOUD MVP

### OUTPUTS

**WHAT WE DO**

**PSET CLOUD**

Identify and implement key innovation projects also taking advantage of opportunities presented by COVID-19 to accelerate implementation

Define custodianship and handover sustainability plan

Develop & build a Minimum Viable Product (including a shared platform)

Develop and implement an advocacy strategy directed at all stakeholders (citizens/learners, government officials etc.

Identify and agree a model of data ownership and data rights with stakeholders

Develop and implement a strategy to educate all users about the data rights (citizens/learners, government officials etc.)

Test the system

Develop international networks and collaborations

Finalise the feasibility study

Develop the architecture of the PSET CLOUD

Develop integration specifications

Identify existing data systems (AS IS)

Develop a business case

Consult PSET stakeholders

Conduct international benchmarking

Establish a team of experts

Review business processes and efficiencies

Report on business process optimisation

Establish a retention schedule and disposal authority

Identify an information inventory

Establish and implement knowledge management inventory

Report on knowledge management inventory establishment

Develop records management framework, policies and best practice

**merSETA Ecosystem Architecture**

Seize the COVID-19 opportunity and accelerate the development of merSETA ICT infrastructure

Identify and implement a quick win COVID-19 innovation project

Establish a metadata scheme, permission model and file plan

Establish a Technology, Information and Knowledge Management Governance Framework

Develop a business continuity and disaster recovery plan

Develop and implement an information/cyber-security strategy

Implement an integrated change management strategy and interventions

### ACTIVITIES

### INPUT

Technical and research capacity

Stable Funding

JET EDUCATION SERVICES
THINK EDUCATION. THINK JET.

merSETA
MANUFACTURING, ENGINEERING AND RELATED SERVICES SETA

# 04

# SCENARIO
# METHODOLOGY

*The JET-merSETA team engaged Reos Partners to design and facilitate an exercise of co-creating scenarios with stakeholders. This exercise started by interviewing key stakeholders about their prevailing perceptions about the current situation in PSET and their uncertainties about the future. This was a process to foster inclusivity, partnerships and consultation. Its purpose was building greater transparency, trust and credibility within the PSET ecosystem and the PSET CLOUD initiative.*

Participatory scenario methodologies are increasingly popular as a way of ensuring that those closest to the issues are involved in thinking about their future (e.g. Oteros-Rozas et al., 2015). Reos Partners has designed a participatory scenarios methodology called Transformative Scenario Planning or TSP (Freeth and Drimie, 2016; Kahane, 2012).

Transformative scenarios are distinct from more mainstream scenarios in two specific ways. Firstly, they are co-created by a multi-stakeholder group that works collectively to produce scenarios none of them could have created individually. Secondly, they offer a way of thinking about the future that is not only focused on understanding and adapting to possible change but also on proactively shaping the future in desired directions.

TSP scenarios are not expert predictions, nor are they based on a statistical modelling exercise. Instead, the strength of these scenarios lies in the fact that they represent the informed imagination of people deeply embedded in the PSET sector and surrounding ecosystem, including NGOs and private sector employers. (See Annexure B for more information on the scenario team.) Their task was to co-create scenarios that would be relevant to current concerns but challenge predominant assumptions about what the future might hold and which their multiple audiences would be able to find both plausible and clear.

# 05
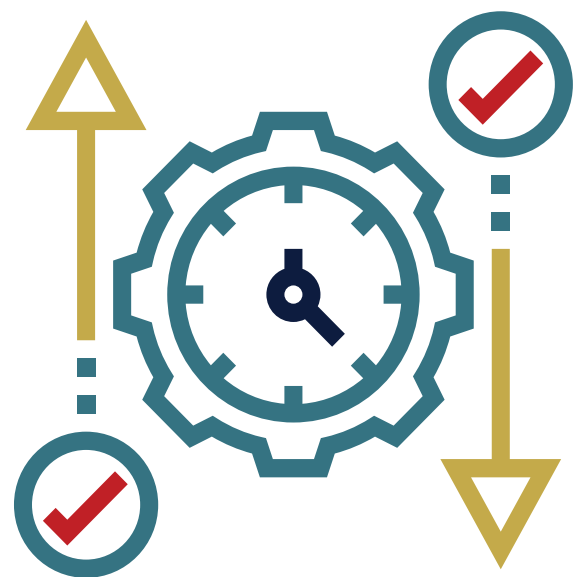
# KEY UNCERTAINTIES

*Given that scenarios are a way of responding to uncertainty, we asked stakeholders in the PSET sector what they felt most uncertain about when thinking about the future. This produced seven key uncertainties listed below.*

**1.** **The character of political power.** The key question asked by stakeholders was: What impact will the future of political power have on the PSET sector over the next ten years? A stakeholder characterised this uncertainty as: *"Who will be in power? I think there will be changes, but my uncertainty is mostly about how shifts in political power will be managed. … Leadership is a driving force of change. If we don't have the right people in the top places, nothing will change at the bottom. It filters down."*

**2.** **The role of technology.** Stakeholders wanted to know how the PSET ecosystem would use technology in the future to move the sector forward. There is hope that the PSET sector can harness technology to closely track and respond to trends in the labour market. At the same time there is concern that technology will displace jobs – as expressed by a stakeholder: *"Technology is absorbing positions. Covid-19 is a prime example of how we can do more with less, proving that no job is secure."*

**3.** **The scale of work.** Building on the previous uncertainty, stakeholders were curious about what the labour market might look like in the next ten years. If unemployment figures continue to rise, what would that mean for youth morale? For example: *"Youth unemployment is my greatest concern. I see the devastating social impact that it has on society, on communities and individuals not having a meaningful life, whether it's financially rewarded or not."*

On the other hand, stakeholders questioned how the character of the labour market might transform so that young people might seize the initiative to create jobs rather than expect to be offered a job.

**4.** **The nature of collaboration.** Stakeholders voiced uncertainty about the degree of future collaboration across the skills value chain. Would the potential for meaningful engagement co-operation and strategy co-ordination be more fully realised in the next ten years? The ethos of collaboration was regarded an important factor in relation to the next uncertainty: Practices of data sharing across the PSET ecosystem.

**5.** **The nature of data sharing.** How will data sharing inform adaptation in PSET to a rapidly changing environment? One stakeholder simply stated the dilemma as: *"If we don't get the information we need, or get in in time, we won't do what we need to do."*

**6.** **The character of education and qualifications.** There was considerable uncertainty among stakeholders about what the future of education and training would look like. What kinds of qualifications would graduate cohorts leave PSET with?

**7.** **Economic growth.** What trajectory will the economy take in the period leading up to 2030 and what impact will that have on aligning skills demand and supply? One stakeholder saw a silver lining in the economic disruptions created by the Covid-19 pandemic, emphasising that these opportunities had to be seized fast before they evaporated. He used this example: *"Covid-19 has provided an opportunity for local manufacturing, so how do we empower our retailers to respond to that?"*

# Key uncertainties identified through interviews with stakeholders

**1**

**The character of political power.**
What impact will the future of political power have on the PSET sector over the next ten years?

**2**

**The role of technology.**
How will PSET use technology to move the sector forward?

**3**

**The scale of work.**
What will the labour market look like in the next ten years?

**4**

**The nature of collaboration.**
Stakeholders voiced uncertainty about the degree of future collaboration across the skills value chain.

**5**

**The nature of data sharing.**
How will data sharing inform adaptation in PSET to a rapidly changing environment?

**6**

**The character of education and qualifications.**
What will education and training of the future look like?

**7**

**Economic growth and trajectory.**
What trajectory will the economy take in the next ten years?

# 06

## SYNOPSIS OF THE FOUR SCENARIOS

*The scenario team explored different ways in which the seven key uncertainties might play out over the coming years. These trajectories formed the backbone of each of the four scenarios and served to differentiate the scenarios from one another.*

The table summarises these differentiators and provides a synopsis of each scenario. For instance, the character of political power in Scenario 1 manifests in a once-democratic government turning authoritarian in the face of growing dissatisfaction. This in turn erodes trust and diminishes the potential for collaboration. In Scenario 3, the government turns to technocrats to shore up a faltering economy. While this means that technology increasingly displaces jobs, the social security system is boosted and the character of education and training starts to shift towards supporting more meaningful and sustainable forms of human endeavour.
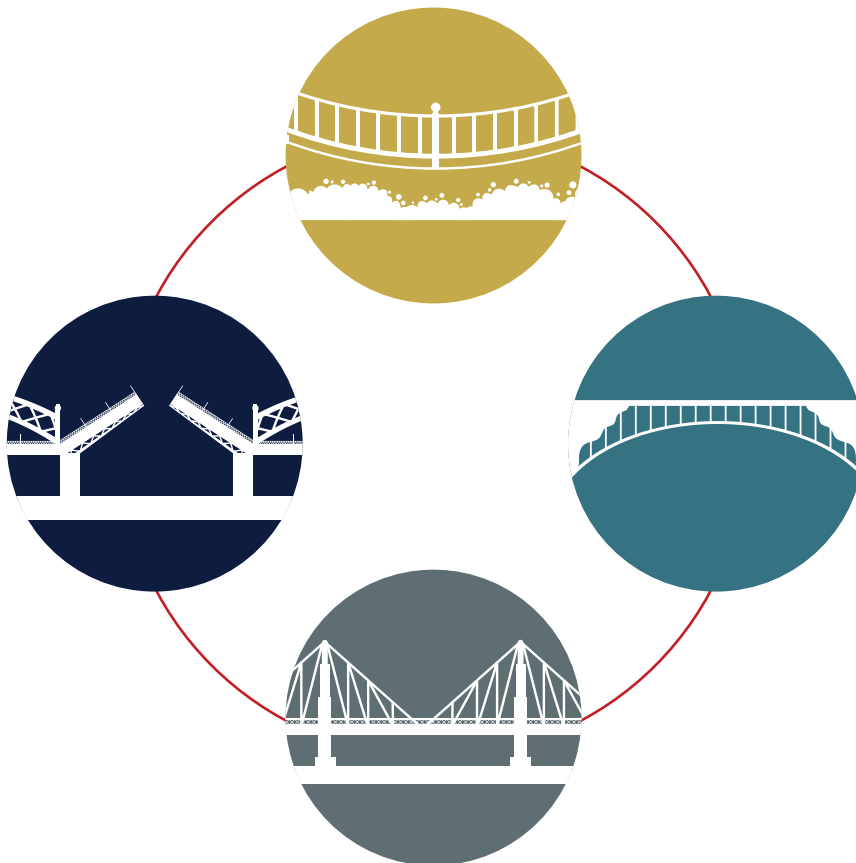
# Comparison of the four scenarios in relation to the key uncertainties they address

| | **SCENARIO 1**<br>**Bridge over Troubled Water** | **SCENARIO 2**<br>**The Suspension Bridge** | **SCENARIO 3**<br>**A Bridge too Far?** | **SCENARIO 4**<br>**Bridge the Gap** |
|---|---|---|---|---|
| **1.**<br>**The character of political power** | The government turns authoritarian to quell growing dissatisfaction. | Government is too weak to implement or effect anti-corruption measures. | Power tech industrialists dominate the partnership with the government. | Government shows signs of being responsible in response to youth agitation. |
| **2.**<br>**The role of technology** | Lack of access to technology widens socio-economic inequalities. | Technology fosters competition among companies and is used to create jobs. | Technology largely supplants human beings. | Technology is embraced in a human-centric way that supports employment. |
| **3.**<br>**The scale of work** | Very few formal jobs. Most people are self-employed but cannot employ others. | SMMEs are a major source of employment. | High unemployment with a social grant system that supports the unemployed. | More people are meaningfully employed amidst the adoption of technology. |
| **4.**<br>**The nature of collaboration** | Lack of willingness to collaborate because of a lack of trust. | Competition drives individualistic and uncooperative attitudes. | Strong collaboration between government and technocrats to address a faltering economy. | Collaboration between government and all stakeholders encourages consultation for relevant legislative changes. |
| **5.**<br>**The nature of data sharing** | Data quality is poor, and there are significant gaps in data sharing. | Increasing commercialisation of PSET data means that only data that cannot be sold is shared freely. | Technocrats control data and use it for their gain and economic growth. | A central data access point is instituted and accessible by decision-makers, learners and employers. |
| **6.**<br>**The character of education and qualifications** | Private providers of education gain while public educational institutions are in shambles. | Formal qualifications become less relevant. Industries take over greater responsibility for training. | The focus of the education and training system is on creating responsible citizens and sustainable communities. | Technical and vocational education is strengthened to train people for the workforce, with an emphasis on continuous learning. |
| **7.**<br>**Economic growth and trajectory** | In the context of economic decline, the 'gig economy' emerges. | SMMEs drive steady and slow economic growth through entrepreneurial activities and innovations. | Technology drives economic growth. | The government uses its power to control the economy, which sees a steady growth in GDP. |

**Key uncertainties**

# 07

# FOUR SCENARIOS AND FOUR INDIVIDUAL STORIES

## Scenario 1

## Bridge over Troubled Water

*In this scenario, South Africa's public sector struggles to respond to current constraints and the situation spirals downwards. There is a strong privatisation trend, including in the PSET sector, with private providers stepping into the gap. Inequality grows. In a time of increasingly authoritarian rule and populist politics, the PSET sector becomes more fragmented and trust is eroded.*

It is early 2021 and the post-Covid economic recovery plan has failed. Funds in the stimulus package have been looted, misappropriated or mismanaged. There is a growing sense of mistrust in the public sector. State-owned enterprises are on the brink of collapse. The economy contracts and the unemployment rate continues to rise.

As a signal of widespread mistrust, organisations in most sectors increasingly work in silos, protecting their data and protecting themselves from corrupt practices.

This reduces the potential for collaboration and increases miscommunication between the government and the communities it is supposed to serve. There is patchy information about problems facing citizens and a lack of innovation when it comes to identifying solutions.

The political landscape is divided and political parties are highly adversarial. South Africa is extremely polarised along lines of class, race, age, gender

and nationality. The high crime rate and frequent protests increase disruption to productivity and service delivery.

In 2024, the economic crisis deepens, characterised by loss of employment, income disparity, declining investment and economic decline. Many South African companies have closed down while multinational companies use other African countries as the base of their expansion on the continent. The government is forced to appeal to the International Monetary Fund (IMF) for further emergency loans.

The ruling government is widely perceived as incapable of guiding economic growth and stamping out corruption. Votes of no confidence are frequent in Parliament. The 2024 general elections are marred by irregularities and are deeply contested. This further heightens the level of animosity between political parties and among their supporters.

In this context, technology is increasingly seen as a catchall solution. The corporate sector

exploits gaps in legislation by reducing production and operation costs through automation.

As technology displaces formal jobs, the 'gig economy' sprouts rapidly – enabling businesses to rapidly scale up or down and meet the growing demand for digital skills such as cloud computing, machine learning, big data and cyber security. This produces more entrepreneurial activity but does not show signs of growing the economy nor of creating lasting work opportunities. Entrepreneurs work for themselves and live from gig to gig.

Although there are job opportunities for graduates with high-end technology skills, public providers of education and training are largely failing to provide these skills. The educational budget has been massively slashed and is not on par with the rest of the world.

In this environment, private providers of education and training are in a strong position. They are better equipped to meet training needs and they align their qualifications with the demands

of the labour market. The result is that industries increasingly prefer to hire graduates from private institutions. However, these graduates are expensive hires. The opportunity gap increases, as does inequality, with young black school-leavers remaining disproportionately excluded.

Top academics and other professionals have abandoned public institutions to work in private institutions or have gone overseas. Meanwhile, young people are also emigrating to find greener pastures. There is a significant shortage of critical and sector priority skills in the country to service South African industry and the public and non-governmental sectors. Incentives are put in place to attract foreigners with these skills.

The hollowing out of public institutions and universities impacts negatively on research capacity. The government and other actors do not have access to quality data for effective planning. Data sharing is inhibited as data integrity, accuracy and quality are questionable.

By 2030, global financial institutions have lost confidence in the government's capacity to repay its debts and loan options dry up. Hyperinflation exacerbates the economic crisis. Citizens are frustrated by extremely high levels of inequality as the socio-economic divide worsens. The state adopts increasingly authoritarian measures to quell the growing dissatisfaction.

In the context of being more dependent on imported skills, the government publicly blames foreigners for the state of affairs. There is a rise of populist leaders who create more polarisation and mistrust in the country. People do not show any willingness to collaborate. South Africa is on the brink of a civil war. The situation is fragile and the government is losing control. There is a mass emigration exodus by families that can afford to leave South Africa.

## Talking points

We have provided a series of talking points to prompt reflection on the strategic implications of each scenario. Please add further prompts specific to the context and interests of the team you are working with. Reflection can also happen individually. However, we have found that it is more effective in groups because individual reflections can be shared and discussed. This leads to new insights in the group and is a productive entry point to strategic conversations about what can be done in relation to an uncertain future in PSET so that uncertainty does not create paralysis.

**Should this scenario materialise:**

- What would it mean for you personally?

- What would it mean for the PSET sector?

- What events or series of events would your team / organisation / sector do well to anticipate and adapt in time?

- What opportunities do you see for proactively intervening in changing the course of events in a desirable direction?

- What consequences would increasing privatisation of the PSET sector have for your organisation?

- What would growing socio-economic inequality imply for your organisation?

## Individual story

**Name: Thabo**
**Age: 22**
**Home language: Zulu**
**Location: Thembisa**

Yoh, our government has failed us. You know, there was a time we used to look at our African brothers and sisters with sad eyes because they came to our country to run away from the political and economic situations in their home countries. It's not like that anymore – now it is South Africans who move to other parts of Africa to seek better lives. My four brothers are part of this group of leavers.

Unlike my brothers, I decided to stay. I still have hope for this country but that hope tears away day by day. My cousin and I applied for a small business grant from the government to support our car wash business. It has been two years now and I haven't heard anything from them.

I'm tired of filling out applications. Five years ago I didn't succeed in getting employment at a call centre, even with my accounting degree. This thing of applying – it has never worked for me.

That's why I set up my first car wash on my street corner. The plan then was to use the money I made from the business to buy internet data so that I can access information that could help me get a job. Every business in the Joburg CBD has my CV but nothing worked out for me. I, therefore, decided to focus on my car wash business.

In 2027, I partnered with my cousin and expanded our operations into other locations. We now have four car wash stands and I have been receiving at least ten requests for work every week from young people who want to join the business. I can't employ them. That's why we had filled out that application for the small business grant.

I keep telling myself that I will not waste my time with these applications but then I catch myself filling out another one. I'm just going on and on now! Never mind me, here is your cigarette!

# Scenario 2

# The Suspension Bridge

*In this scenario, the government fails to provide political vision. Small-scale entrepreneurs step in to drive modest economic growth. While this results in a more vibrant and self-organising informal economy, it is also an uncoordinated one. This creates work for more people but the work is largely insecure. Growing competitiveness drives individualistic and self-interested attitudes.*

It is 2021 and the government is struggling to address the corruption that has spilled across the nation, despite the revelations of the Zondo Commission. There is no compelling political vision, nor is there a clear plan to revive the economy after the devastating effects of the Covid-19 pandemic. The country is in a recession and many of the formal jobs lost during the pandemic lockdown seem irretrievable.

Fragmentation and mistrust are widespread within government institutions and bodies as well as various sectors of the economy. Policy development and implementation is incoherent. This fragmentation leads to increased competition, which stifles collaboration.

People are increasingly fixated on their own needs, profits or institutional mandates with little regard for society. While pockets of society attempt to salvage the situation with isolated initiatives, the result is more silos and increasing intervention duplication.

In ensuing years, there is a noticeable growth in small, micro and medium enterprises (SMMEs) as people take matters into their own hands,

realising that they cannot wait for the government to save the situation.

These enterprises are mostly informal, each employing just a handful of people. They spring up in an uncoordinated and haphazard way and it becomes difficult for statisticians to provide a composite picture of the employment landscape. However, these initiatives instil a sense of purpose and hustle among citizens – especially young South Africans who are claiming more control over their destiny rather than waiting for someone to offer them a job.

By the end of 2025, most work opportunities are in the informal sector. Many established businesses have downsized their workforces – showing a trend towards shrinking and folding. The sluggish economy leads to lower tax revenues to fund public sector activities like education and training. There is heightened unemployment in the formal sector.

Post-school education is increasingly out of step with the needs of key industries. The SETAs cannot stay accurately informed about the needs of the informal sector of SMMEs and consequently do not develop the right

qualifications to be rolled out in TVET colleges. However, those who excel in this economy are those who can learn, unlearn and relearn for various jobs. Enrolment in informal education and training institutions dips significantly.

Companies increasingly embrace automation to save costs and are rewarded by growing profit margins. SMMEs also embrace technology at an individual level and are used to support more job opportunities and initiatives. However, this is not done in a coordinated or collaborative way.

Access to technology widens the gap between the haves and the have-nots. There is limited investment either by the government or by the private sector in technological innovations. South Africa is a major consumer of technology as opposed to a leader in the technological field.

Big companies gain from preferential tax regimes. This reduction in the government's tax collection leads to smaller budgets for services and social welfare. The underfunding of sectors like education and healthcare yields dire consequences.

While more people have jobs by 2029, most breadwinners struggle to support their families because their jobs are insecure or seasonal. Good labour practices are compromised due to the desperation of people to find work. To reduce their cost base and liability, companies routinely offer short-term contracts or hire independent contractors as opposed to full-time employees.

The employment situation creates instability in the economy. Simmering dissatisfaction takes hold of the public arena – there are frequent violent protests due to low socio-economic situations and the crime rate spikes. This is because people's frustrations and expectations about having decent jobs are not met and their needs are not sustained.

People work many jobs to have a sustainable income. This limits the time they have to build healthy families or engage in community initiatives. There is little sense of community or social cohesion as most people are preoccupied with individual interests and survival.

In this context, data has commercial and strategic advantages. People are unwilling to share the data they have. This orientation decreases the visibility of who is doing what in the system and increases competition. While competition speeds up life, it seems as if everyone is chasing their tails in a society unable to eradicate systemic poverty and inequality.

## Talking points

We have provided a series of talking points to prompt reflection on the strategic implications of each scenario. Please add further prompts specific to the context and interests of the team you are working with. Reflection can also happen individually. However, we have found that it is more effective in groups because individual reflections can be shared and discussed. This leads to new insights in the group and is a productive entry point to strategic conversations about what can be done in relation to an uncertain future in PSET so that uncertainty does not create paralysis.

**Should this scenario materialise:**

- What would it mean for you personally?
- What would it mean for the PSET sector?
- What events or series of events would your team / organisation / sector do well to anticipate and adapt in time?
- What opportunities do you see for proactively intervening in changing the course of events in a desirable direction?
- In an increasingly competitive environment, how would your organisation fare?
- What impact would unregulated growth of SMMEs have on your work?

## Individual story

**Name: Mbali**

**Age: 16 in 2020**

**Home language: Zulu (but multilingual)**

**Location: Phefeni in Soweto**

Blommetjie was my best friend and biggest cheerleader. I have not seen her for almost ten years now. People used to take photos of us when we were little: One black child, one white. Different but inseparable. We were bursting with life and possibilities and we were ready to conquer the world.

When we were 16 years old, we both had dreams of becoming lawyers. However, this dream was quickly halted when both my parents lost their jobs and I could not complete Grade 10. My application for a bursary to complete high school was rejected, which left me feeling hopeless and uncertain about my future. I felt like an outcast in my own country. My family did not have time to help me as everyone was busy working multiple jobs to make ends meet.

In 2025, I applied for a NSFAS bursary to study Office Administration at a TVET college. I got the bursary, which assisted me to complete the qualification. I later found a job at a local manufacturer as an office assistant. I have been doing this job for the last five years.

But look at me – I am still stuck in this place and not much has changed for me. I am a mother of three now and cannot begin to imagine what my life would have been if I did not secure child support grants for them.

I hear that Blommetjie is a partner at a big law firm based in Cape Town. I have written many emails to her but I haven't gotten a single response. There must be something wrong with her server.

# Scenario 3

# A Bridge too Far?

*In this scenario, the government and technocrats become strange bedfellows in the project of economic growth and the government increasingly gives tech industrialists free reign to grow the economy. The technocrats, in turn, pay higher taxes that fund the social grant system. In the absence of meaningful work, citizens focus on personal and community development.*

It is early 2021 and South Africa's economy has contracted due to the Covid-19 pandemic. Many firms and industries are closing and large numbers of people have lost their jobs. Government efforts to stimulate the economy are proving futile.

Among global uncertainties, technology fuels a wave of economic growth. However, increasing technological adoption entails huge job losses as algorithms, robots and intelligent workflows take over increasingly complex work from humans.

A small group of multinational tech companies use their power and money to shape a new economic order. The government faces a difficult choice: Allow powerful tech industrialists to dominate the economy with their vision for a trans-humanist future or legislate human work at the cost of the only visible economic growth available.

The government is under pressure to supply social grants for millions of unemployed citizens. Government, therefore, supports the rapid economic transformation proposed by the technocrats. This happens through the recognition that collaboration must

be strengthened across government, industry and civil society to accomplish as much as possible with limited resources.

The skills value chain reflects a similar level of desperation for convergence (more so as next-generation pandemic disruptions continue to ripple through the education system), exposing outdated technologies, methodologies and paradigms.

Social, economic and environmental pressures, along with limited resources, are forcing role players in the PSET sector to seek better synergies wherever possible to get what they need from the system. However, it is still not clear what kinds of jobs the PSET system should be preparing youth for, how the government can finance the system in its current state nor how technocrats can provide new and innovative approaches to learning.

By 2025, collaboration between the government and the technocrats is visibly strengthened. These tech industrialists invest in data frameworks and infrastructure to monitor, signal and predict labour market demand and supply.

Companies that invested significantly in automation reap major profits by removing the cost of labour from their operations. They survive public backlash for a while but their customer base is eroded by the growth of joblessness. To secure government support and have a customer base, they surrender a portion of their profits as taxes to the government to prop up social grants for the unemployed.

The focus on technology has short-term benefits for South Africa. Few areas of traditional work remain untouched by the changes rippling through the labour market. It is not clear if the government can keep funding the social grant system to prevent rioting and revolution or if the technocrats will keep on paying higher and higher taxes for the privilege of economic freedom.

Unable to develop education and training for new and emerging skills needs, the PSET sector is under pressure to offer support to out-of-work youths and adults who are retrenched. There is a shift from primarily servicing the needs of industry to preparing responsible citizens for an uncertain and unpredictable future.

The formal PSET sector is squeezed into an education and training focus to support unemployed people to establish farming and agro-processing communities, co-operatives and social enterprises relating to land use and food security. Civic and social competencies are also important in the emerging PSET system.

By 2029, the political landscape has achieved some degree of stability, with technocrats, government and citizens collaborating to avoid conflict.

In 2030, the first signs of a challenge to the technocrats' power emerge. Groups of unemployed citizens living on social grants with time on their hands start to develop open-source data solutions that seem better than their commercial alternatives. They develop new peer-to-peer protocols and networks with a highly decentralised emphasis that promise to put data back in the hands of the individual.

As formal work opportunities decrease, people no longer feel the need to live in cities or in close proximity to factories and malls. More people are now living in rural areas where there is less pollution, clean water and the opportunity to grow their own food among fellow citizens who share similar values.

New communities have emerged with innovative forms of energy generation, biodiversity and ecosystems. Most young people live fulfilling lives in sustainable communities. There is a shift away from identity being defined by employment, to identity being expressed through personal and community fulfilment.

# Talking points

We have provided a series of talking points to prompt reflection on the strategic implications of each scenario. Please add further prompts specific to the context and interests of the team you are working with. Reflection can also happen individually. However, we have found that it is more effective in groups because individual reflections can be shared and discussed. This leads to new insights in the group and is a productive entry point to strategic conversations about what can be done in relation to an uncertain future in PSET so that uncertainty does not create paralysis.

**Should this scenario materialise:**

- What would it mean for you personally?
- What would it mean for the PSET sector?
- What events or series of events would your team / organisation / sector do well to anticipate and adapt in time?
- What opportunities do you see for proactively intervening in changing the course of events in a desirable direction?
- How would increasing automation impact on your work?
- As an organisation, how would you position yourselves in relation to the partnership between government and tech industrialists?

# Individual story

**Name: Sikhona**

**Age in 2020: 15**

**Home language: Xhosa**

**Location: Idutywa, Eastern Cape**

Ha! I am looking back in my journal to ten years ago, when I was deciding which subjects to take for my last three years of schooling and fantasising about the smart city boys in Egoli. I remember the struggle I had trying to figure out what subjects I should choose for Grade 10–12. I had spoken to my teacher, who advised me to become a teacher but that's not what I wanted. I didn't want to be a teacher and end up in East London. No, I wanted to be in Egoli, the City of Gold.

Thank goodness I chose Maths and Science as my subjects. Our school was one of the first to have satellite internet that brought us the best overseas teachers and tutors to help us with our exams. However, the government didn't pay for it – the Mzansi 4IR Coalition (M4C) did. The government gave them too much power with their fancy technology and robots. And when the US government broke up Google and Facebook, some African investors took over the regional pieces. M4C was one of the technology giants that emerged.

I feel confused about those people who took away our jobs and replaced us with machines. New Horizons is one of the many community initiatives that the President has built with their taxes. They also paid for my studies because I was in a STEM field. They wanted me to take the AI pathway but I hate AI – it creeps me out! So, they dropped me from the bursary programme but not before I had my NQF Bioscience Skills Award. That is why I am back here in Idutywa: To run New Horizons.

Something good is going to come from our villages. Something they will never figure out while they are so busy trying to hold onto their power. With so much time on our hands, we are now building eco villages, pumping our own water and growing most of our food. Isn't that amazing? We have a magic power that they don't even value – one another – and it's a bio power that we haven't even begun to understand fully.

# Scenario 4

# Bridge the Gap

*In this scenario, South Africa is on the edge of social and economic crisis. This precipitates increasing recognition of an interdependent future among citizens. Pushed to respond to the palpable threat that technology will displace human labour, the government steps in. Over time, there are modest signals of economic growth and increasing synergy between government, business and citizens.*

It is the start of 2021, and unemployment levels have spiked due to Covid-19. This includes a lot of middle-income jobs. The pandemic has exposed cracks in South African society and institutions, bringing attention to the deep fragmentation in society, within and across the government, industry and educational institutions. Frustration, hopelessness and anger levels run high. The government is perceived to be unable to provide the leadership the country needs and South Africa is approaching a tipping point.

At the same time, the confluence of Covid-19 and the global Black Lives Matter movement is invigorating political consciousness among the youth.

In the 2021 local elections, no political party gains a clear majority. While coalition governments become the new normal in South African municipalities, they remain faction-riddled. The government cannot agree on a roadmap to economic recovery. Inequality and poverty worsen. The youth take a stand to demand greater accountability from the government. Corrupt officials are

named and shamed in increasingly creative demonstrations of citizen outrage.

By 2024, the government can no longer ignore the demands and agitation of the youth. Government, labour and business start meeting regularly towards implementing a coordinated strategy to rescue the economy. This collaborative action has positive knock-on effects by focusing minds on the wider issues of accountability, sustainability, peace and unity.

In the PSET system, policy changes encourage the sharing of data across government, business and education through a Central Access Point. The data is made publicly accessible. It is easy to understand and provides practical solutions that address ordinary citizens' needs. Parties that contribute to the Central Access Point find it valuable and have an advantage over those who do not share.

The PSET system creates skill sets and pathways into entrepreneurship. The ordinary citizens are at the centre of coordinated action to ensure that they benefit in meaningful ways from

understanding qualification articulation pathways and then landing a job.

As businesses increasingly embrace technology, there is widespread concern about technology displacing people's jobs. Government and industry work to adapt education to the demands of new technologies and the changing economic landscape.

There is a requirement for a tech-savvy workspace that leads to a focus on skills rather than on qualifications. Continuous, workplace-based and organisational learning are now crucial to keep up to date with new technologies and complex environments.

There is active encouragement and support to entrepreneurs and more graduates are finding jobs in small companies that employ fewer than ten people. There is a wide range of jobs with clear pathways of progression from low-level jobs to high-level positions.

There are small signs of a reduction in inequality. However, white communities remain more affluent while many black and rural South Africans are unable

to benefit from the unfolding opportunities that are created. They simply do not have access to technology, the skills or have given up on seeking work.

Economic growth appears to be on a slow upward trajectory and there is an emergence of alternative, more human-centred opportunities driven by the Fifth Industrial Revolution. The forms and types of low- and intermediate-level jobs are rapidly evolving – old ones being replaced by new ones. Entrepreneurs experience lower barriers to entry into the market.

By 2030, the urbanisation rate has accelerated. There is a scale-up of adoption of green housing due to concerns about future sustainability. There is advanced infrastructure for the real-time sharing of data between the various government bodies, employer learning centres and non-governmental organisations. In the PSET system, the available data is easy to access and understand in order to guide learner choices on learning and career paths.

However, not enough has been done, beyond regulation, to build genuine trust among people. South Africa's apartheid legacy remains an obstacle. Although economic inequalities have decreased with more work for people, South Africa's legacy challenges persist. Many people continue to live in fragile conditions. For them, the struggle continues.

## Talking points

We have provided a series of talking points to prompt reflection on the strategic implications of each scenario. Please add further prompts specific to the context and interests of the team you are working with. Reflection can also happen individually. However, we have found that it is more effective in groups because individual reflections can be shared and discussed. This leads to new insights in the group and is a productive entry point to strategic conversations about what can be done in relation to an uncertain future in PSET so that uncertainty does not create paralysis.

**Should this scenario materialise:**

- What would it mean for you personally?
- What would it mean for the PSET sector?
- What events or series of events would your team / organisation / sector do well to anticipate and adapt in time?
- What opportunities do you see for proactively intervening in changing the course of events in a desirable direction?
- Do you believe that a crisis is necessary to precipitate positive change?

## Individual story

**Name: Mpho**
**Age in 2020: 16**
**Home language: Sepedi**
**Location: Limpopo**

My life changed in 2025 when I could, for the first time, access all information on PSET and pathways into the labour market via a central information portal. The data was easy to understand and provided practical solutions to my questions. It was in that year that the qualification pathways became flexible and attractive to businesses that were incentivised to allow staff to train. (This was training that fitted into the business cycle with minimal disruption to operations.)

One cannot begin to fathom the frustration I felt in 2020 when I left Grade 9 without completing my NQF Level 1. I was looking for work but could not find a job because I apparently didn't have the appropriate qualifications. It was difficult to find information about PSET and what I found was confusing.

It is interesting how things can change when people work together. I am telling you, the Tzaneen All Stars FC is a story that will inspire you to have the difficult conversation about the future of your club by working together. Imagine what you will achieve when you do this. This will not only benefit you, but your children's generation and the one after.

Look at me. I have now obtained a higher education qualification and have moved into management level because people I didn't even know, many years ago, decided to work together to rebuild our country. My son wants to be a farmer when he grows up and I know that whether he finds work in the formal or the informal sector, he will do very well for himself. Our country is getting better and you people must do your part to move it forward.

# 08

## STRATEGIC IMPLICATIONS:
## Red flags, forks in the road, dilemmas and leverage points

*Having completed the scenarios, a wider group of stakeholders joined the scenario team members to consider their strategic implications.*

Treating the full set of four scenarios as a composite picture of what could happen, they identified:

**Leverage points for change:**
*Opportunities to intervene, towards shaping more desirable outcomes.*

**Tensions:**
*Competing priorities to be balanced, rather than mutually exclusive choices to be made.*

**Forks in the road:**
*Major decisions to be made, which could lead to very different outcomes.*

**Red flags:**
*Warning signs and risks worth paying attention to early on so that they do not materialise as surprise disruptors.*

As an example of the kinds of strategic implications that might emerge from your reading of the scenarios, the red flags, forks in the road, tensions and leverage points the PSET team identified are recorded in the following diagrams.

The strategic implications are presented in three themes, namely: governance; collaboration and social cohesion; and data and technology. The specific question they address is: What are the implications of these scenarios for using data and technology to align skills supply and demand?

The diagram below presents the four strategic implications of governance. Here, we looked at the possible impediments to a successful PSET sector. Some of the ideas captured below include but are not limited to: The dysfunction of the education system, the platform needed to hold government accountable, the bureaucracy in the current system, the faults in policy that will necessitate a change as well as the necessity for a strong constitution. We outlined various leverage points, tensions, forks in the road and red flags of governance.

# Governance

- E-government is necessary as it allows citizens to monitor, track and hold government accountable
- Lobby for policy change is needed
- There needs to be a strong constitution
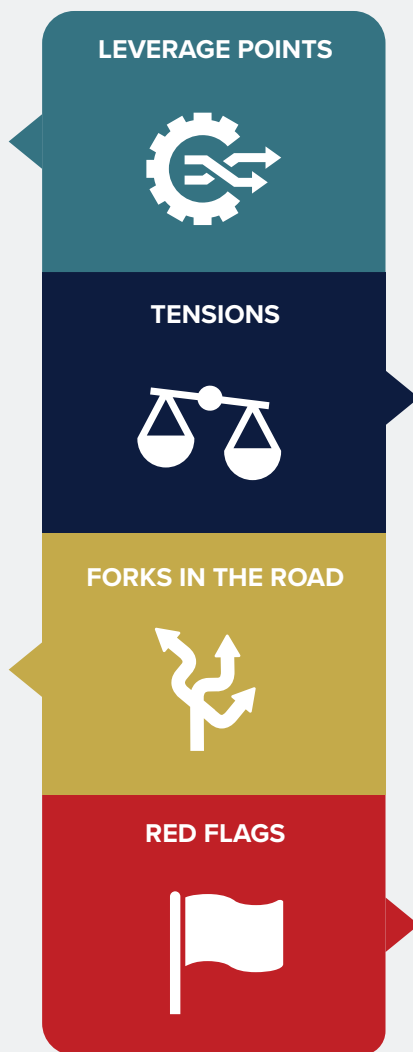- There needs to be a clear division of duties between the private sector and government
- In education, what are the advanced placement programmes?
- Legislation and policy

**LEVERAGE POINTS**

**TENSIONS**

- Government role: Driver of innovation and protection of rights
- Political power: There needs to be a balance between employers, government and its people
- Bureaucracy versus innovation

- The dilemma between authoritarian government or rule of law government
- We don't give employers the freedom to automate the economy
- Elected government versus anarchy

**FORKS IN THE ROAD**

- The current system is overly bureaucratic
- Authoritarian government: Structures and the role of policy
- There needs to be a centralised approach that informs a command and control system
- Interdependent government coalition by necessity, e.g. parties depend on each other ather than holding their own views

**RED FLAGS**

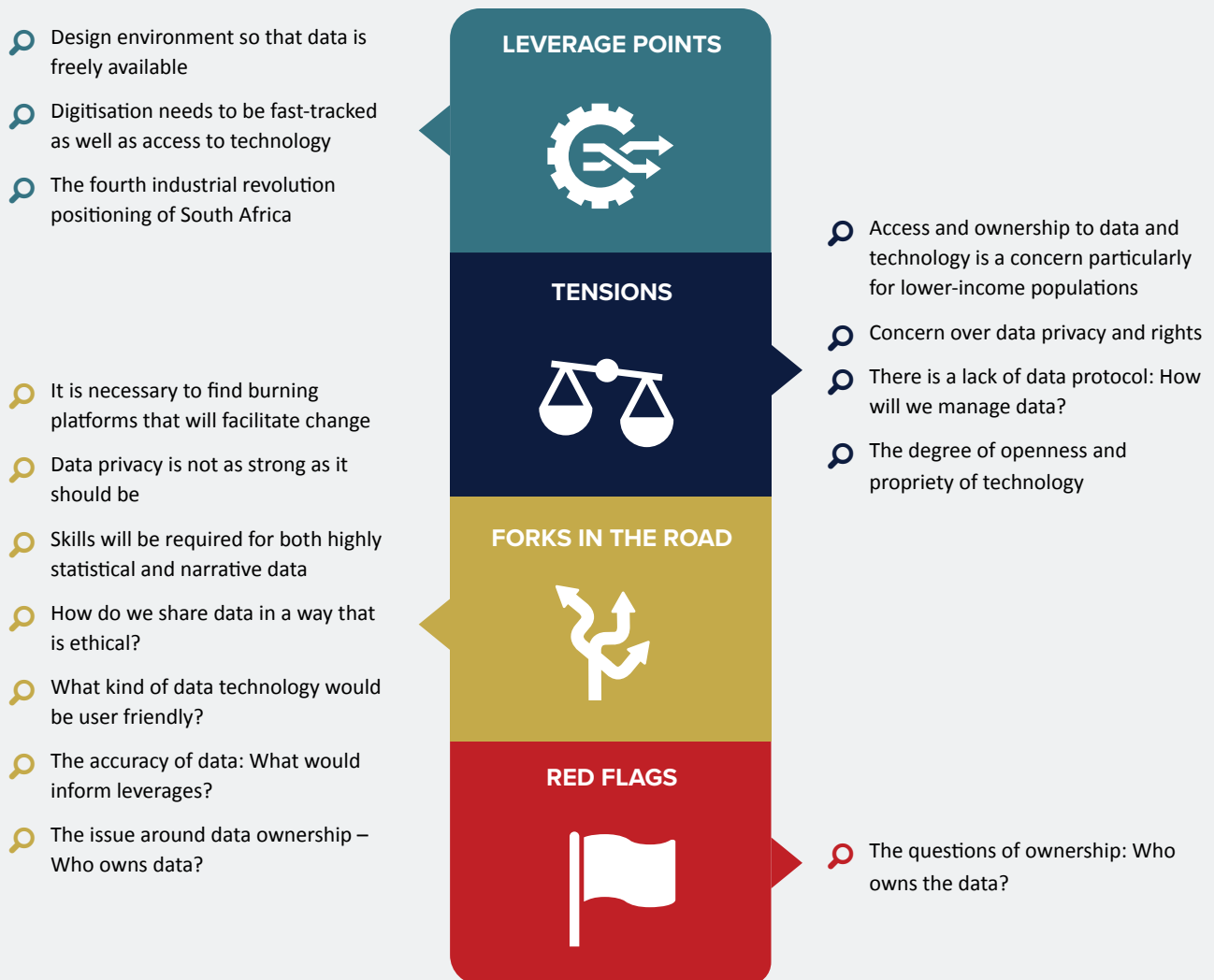- We have a dysfunctional education system

The theme captured in the diagram below indicates the degree to which there is collaboration and social cohesion. Some of the ideas the participants came up with is that while collaboration is necessary, a major tension is conflict. They were interested in the collaboration dynamic in the political, business and civil society space. For example, what does collaboration look like between employers, people and government?

# Collaboration and social cohesion

Social partnership are needed, e.g. NEDLAC, HRDC, StatsSA, NSA

Political power: What is the balance between people, government and employers?

Strong SAQA and QCTO and NQF

**LEVERAGE POINTS**

**TENSIONS**

There is a lack of social cohesion

Conflict and crime

**FORKS IN THE ROAD**

There is little collaboration

**RED FLAGS**

Collaboration with business is weak

The role of influence of unions

There is no active citizenship – people are told what to do

Leadership and management culture

The role of the citizen is managed

The last theme discussed was the strategic implications of data and technology. The ideas here spanned from access and ownership, data privacy, accuracy and usability. The availability of data as a fork in the road provided the most concerns. The key questions asked were: What kind of data would be user friendly? How do we determine who owns the data and what platforms can be used? The strategic implications of data and technology are captured below.
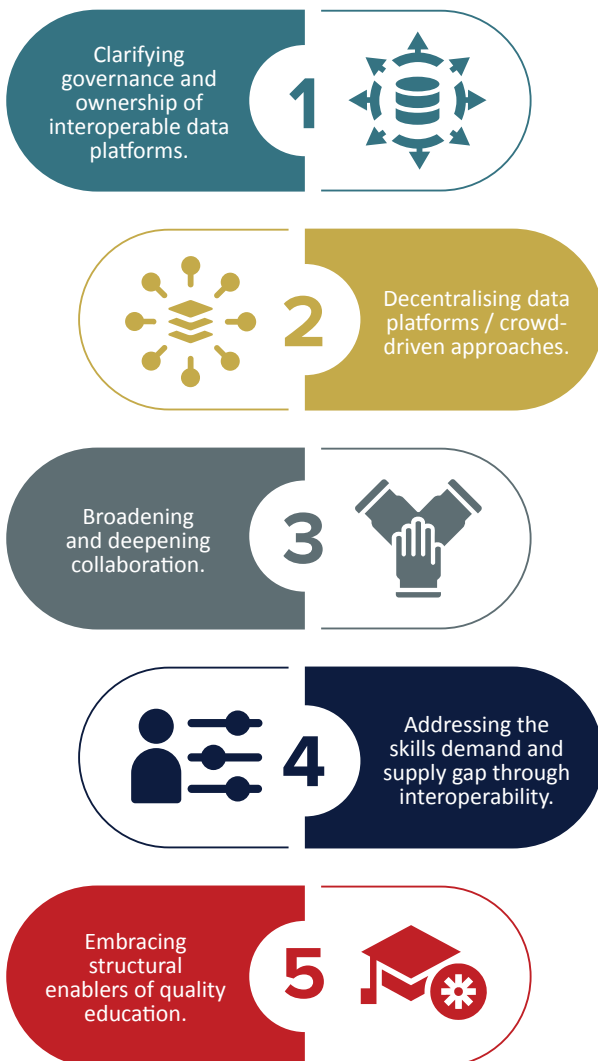
# Data and technology

**LEVERAGE POINTS**

- Design environment so that data is freely available
- Digitisation needs to be fast-tracked as well as access to technology
- The fourth industrial revolution positioning of South Africa

**TENSIONS**

- Access and ownership to data and technology is a concern particularly for lower-income populations
- Concern over data privacy and rights
- There is a lack of data protocol: How will we manage data?
- The degree of openness and propriety of technology

- It is necessary to find burning platforms that will facilitate change
- Data privacy is not as strong as it should be
- Skills will be required for both highly statistical and narrative data
- How do we share data in a way that is ethical?
- What kind of data technology would be user friendly?
- The accuracy of data: What would inform leverages?
- The issue around data ownership – Who owns data?

**FORKS IN THE ROAD**

**RED FLAGS**

- The questions of ownership: Who owns the data?

# 09

# WHAT NEXT FOR THE PSET CLOUD?

*Message from Rooksana Rajab, Programme Manager of the PSET CLOUD initiative*

## What's next for the PSET CLOUD initiative?  The work is just beginning!

The scenarios work with Reos Partners has enabled the JET-merSETA partnership, alongside the scenario team, to identify several collective strategic priorities to address into the future:

**1** Clarifying governance and ownership of interoperable data platforms.

**2** Decentralising data platforms / crowd-driven approaches.

**3** Broadening and deepening collaboration.

**4** Addressing the skills demand and supply gap through interoperability.

**5** Embracing structural enablers of quality education.

With COOi Studios, we have also identified the need for us to complete a 'user journey process map' towards developing a prototype.

As we enter into the next phase of the PSET CLOUD programme, the focus will shift from planning, research, feasibility, stakeholder engagement and scenario planning to designing and developing a Minimum Viable Product with the merSETA as one of the early adopters, and we hope to share a tangible result within the next 18 months. At the same time, we will be embarking on an evaluation process of the PSET CLOUD initiative and the appointed service provider may be in touch with you as one of our key stakeholders to consider your views further. This will ensure that, as we work towards the vision set out, our deliverables are transparent, timeous and of the best quality.

Our advocacy campaign promises to keep all stakeholders in the loop as we begin to realise our vision. The team are currently exploring the most appropriate institutional form and governance structure for such an innovative initiative. In order to keep all stakeholders abreast as we move into Phase 3 of the PSET CLOUD programme, we will be launching our website soon. This will allow us to communicate with you and take our partners along on the journey with us.

## So watch this space!

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# Annexure A: Sample workshop outline

This workshop outline can be adapted for either online or in-person workshops. Total workshop time: 2.5 hours

| Time | Session | Purpose | Materials |
|---|---|---|---|
| 5' | **Buffer time** | To wait until all participants have joined. | |
| 5' | **Getting started: Clarify purpose and proposed area of strategic interest** | *Workshop purpose*: <br><br> To consider together the implications of the scenarios for our future strategies. <br><br> e.g. To consider our approach to interoperable data platforms in the future. <br><br> e.g. To consider our approach to collaboration in the PSET ecosystem in the future. <br><br> e.g. To consider our approach to data sharing in the future. | Flipchart or virtual whiteboard with area of strategic interest. |
| 10' | **Check in: Refine this strategic interest with the group** | To ensure that there is shared ownership of the purpose and outcomes of the session. | |
| 5' | **JET and merSETA's vision: Introducing the big picture** | To inspire and provide a reference point for engaging. | Soundclip from JET <br><br> https://soundcloud.com/psetcloud/pset-cloud-interview-with-james-keevy-and-sebolelo-nomvete |
| 20' | **Visiting each scenario: Four possibilities of what COULD be** | To ensure that all participants are familiar with all four scenarios. | Four scenarios in section 7 of this Guide. <br><br> Synopsis of scenarios in section 6 of this Guide. |
| 30' | **Strategic implications** | To identify red flags, forks in the road, dilemmas and leverage points arising from the full scenario set. <br><br> This relates to the area of strategic interest identified at the start of this exercise. | Virtual whiteboard or flipchart. <br><br> Definitions of this terminology in section 8 of this Guide. <br><br> Examples of strategic implications in section 8 of this Guide. |
| 10' | **Data interoperability: minimum viable product** | To learn more about interoperable data platform prototypes. | Video from COOi Studios <br><br> https://www.youtube.com/watch?v=XJEuN5y3GEA |
| 35' | **Starting the strategic conversation** | To start engaging on the question: What does this mean for our future strategies? <br><br> Optional: Break into smaller groups if there are multiple conversations to be had in parallel. | |
| 10' | **Setting strategic priorities** | To start sorting the strategic priorities emerging from these conversations. What are the low-hanging fruit, enablers or obstacles to change? | Virtual whiteboard or flipchart to capture the outcomes: Low-hanging fruit, enablers or obstacles to change. |
| 15' | **Strategic priority roadmap** | To set a timeline to pursue these strategic priorities. | |
| 5' | **Close** | To thank everyone for their participation and map out next steps. | |

# Annexure B: Scenario team

The following people contributed to producing the scenarios. Core members of the scenario team are denoted with *.
Others contributed specific input before or after the scenario building process.

**Adeline Singh**
INSETA. Student Sponsorship Programme
Executive Manager

**Alvin Phiri**
COOi Studios. Associate Director

**Bangani Ngeleza**
JET Associate (M&E Specialist on the
PSET CLOUD programme)

**Barbara Dale-Jones**
JET Associate (Innovation Advisor on the
PSET CLOUD programme)

**Boitumelo Manci**
JET. Admin Support

**Cariena Oelofsen***
SAQA. Director: National Learners'
Records Database

**Carla Periera**
JET Associate (Project Manager for the
merSETA ecosystem)

**Celia Booyse***
UMALUSI. Senior Manager:
Statistical Information and Research

**Coral Abrahamse**
Paladin Consulting

**Cynthia Reynders***
APPETD. Chief Executive Officer

**Fabrice Tshinangi**
COOi Studios

**Gerda Magnus**
Department of Higher Education and Training.
Chief Director of Curriculum Innovation

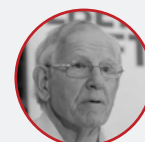**Giles Gillet***
New Leaders Foundation.
Chief Executive Officer

**Gomolemo Fritz***
Graduate

**Imraan Patel**
Department of Science and Innovation.
DSI Deputy Director-General for
Socio-economic Innovation Partnerships

**Johann Maree**
UCT. Emeritus Professor

**Josie Singaram***
LGSETA. SSP Manager

**Kelly Shiohira**
JET Specialist Manager

**Kirtida Bhana\***
Plastics South Africa.
Training Executive

**Marco MacFarlane\***
QCTO. Director:
Research and Analysis

**Matungoe Chidi**
Mzabalazo Associates

**Melissa Erra**
National Skills Fund

**Mike Stuart\***
Wits University.
SETA liaison: Development
and Fundraising

**More Manda\***
merSETA. Head Office,
Strategy and Research

**Mpho Kotane**
merSETA. Consultant

**Neil Rademan\***
Sumitomo Rubber SA. Group manager:
Organisation Development

**Ntokozo Bhengu\***
CHE. Researcher: Monitoring
and Evaluation

**Patrick Monamo**
merSETA. Consultant

**Paul Laughton**
merSETA. Knowledge Manager

**Rooksana Rajab\***
JET Associate.
PSET CLOUD Programme Manager

**Seble Worku\***
StatsSA. Director:
Education Statistics

**Simphiwe Ntuli\***
JET. Technical Research Officer

**Tefo Monotoe**
SASSETA. Quality Manager

**Tom Mkhwanazi**
Wholesale & Retail SETA.
CEO

**Trudi van Wyk**
DHET. Chief Director:
Social Inclusion and Equality