

ENABLING PUBLIC SECTOR UPTAKE OF EMERGING WATER AND SANITATION INNOVATIONS (TECHNOLOGY AND PROCESS SOLUTIONS)

INTRODUCTION

Water resource management and water and sanitation services provision is constitutionally a government / public sector function. Public sector institutions are therefore major drivers of the South African water sector and the various innovations that are deployed to support the provision of more efficient and effective delivery of water and sanitation services. However, these institutions have often faced challenges in procuring these innovations for implementation at scale. This study presents the findings and recommendations from research commissioned by the Water Research Commission (WRC) to explore the challenges with the procurement of water sector innovations and the mechanisms that could be used to enhance their uptake.

The study was initiated in November 2022 and is in the process of being finalized with the final Reference Group meeting being convened in August 2023. The research was underpinned by focused and systematically structured engagements with a range of stakeholders.

METHODS

The diagram below provides an overview of the methodology employed to achieve the objectives of the study.

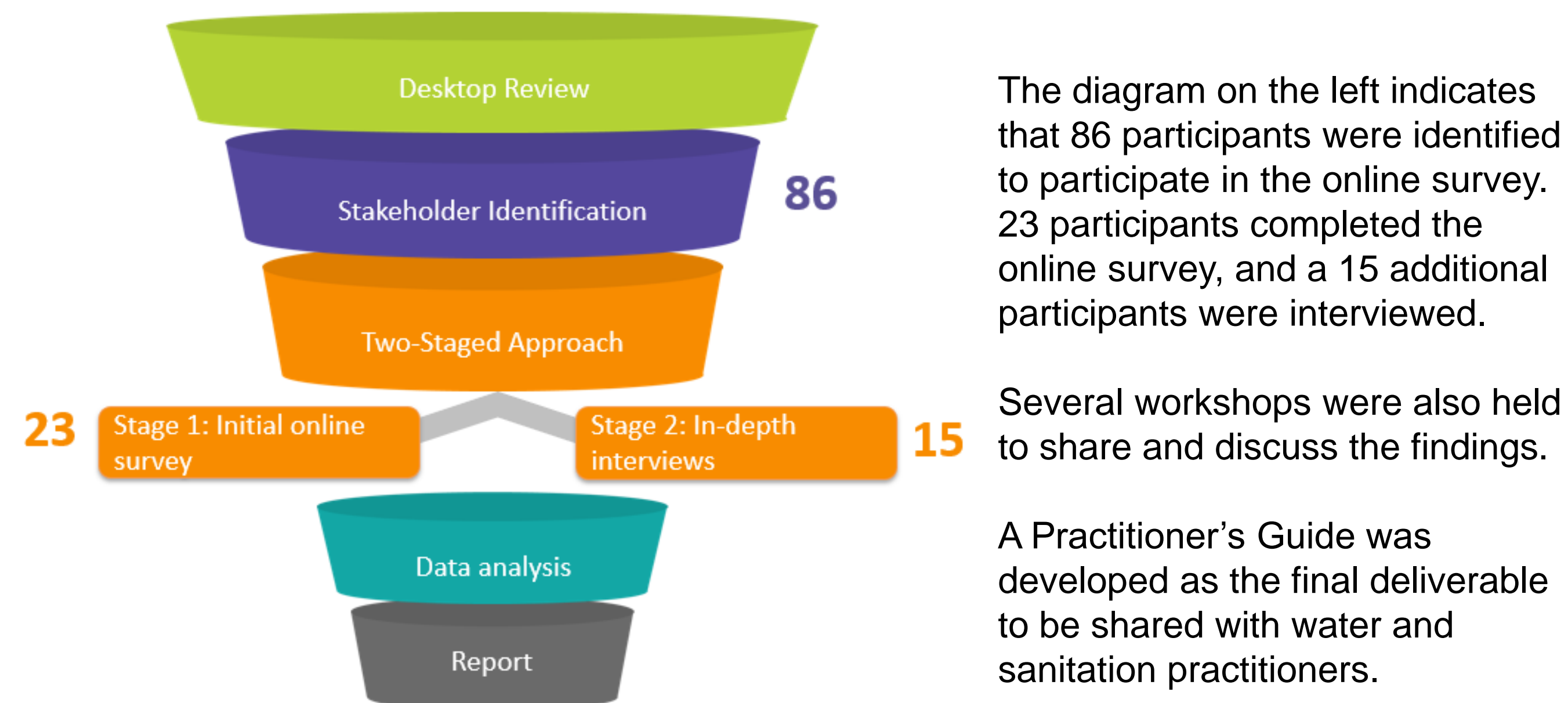


Figure 1: Study methodology

The diagram on the left indicates that 86 participants were identified to participate in the online survey. 23 participants completed the online survey, and a 15 additional participants were interviewed. Several workshops were also held to share and discuss the findings. A Practitioner's Guide was developed as the final deliverable to be shared with water and sanitation practitioners.

DISCUSSION

The public procurement framework was found to be enabling and allows for the procurement of innovation. However, the procurement of innovations is not incentivised. There are common misconceptions of the public procurement framework. These are presented in the table below.

Table 1: Common misconceptions of public procurement

Item	Comment
Competitive bidding means open tender	Section 4.7.8 of the Accounting Officers Guide specifies that single and sole source approaches are part of the competitive bidding process. Limited bidding should be justified by a thorough analysis of the market and the reasons for limited competition understood.
Municipal contracts are limited to a maximum of three years.	Section 33 of the MFMA outlines the process to be used for a contract that is longer than three years. Section 28 of the PFMA requires a multi-year budget to be tabled annually.
Process is long and onerous	The planning process for the procurement of innovations is important to confirm the value proposition and business case, as well as manage risks appropriately.
Bids must be readvertised if less than three quotations are received.	There is no reason to readvertise a bid if the competitive bidding process was complied with and tenderers were provided sufficient time (minimum of 21 days for RFP) to prepare a response. The reasons must be documented by the municipality and records maintained for audit purposes.
Current conventional processes are cost effective	Value-for-money assessments should be based solely on capital costs, but should account for the full life cycle costs, potential savings that may accrue, as well as other strategic benefits.

RESULTS

The public procurement framework in South Africa is underpinned by the five key pillars that are enshrined in Section 217 of the Constitution. These pillars are:

- Open and effective competition
- Value-for-money
- Ethics and fair dealings
- Accountability and reporting
- Equity



The key elements of the Supply Chain Management are presented in the diagram below.

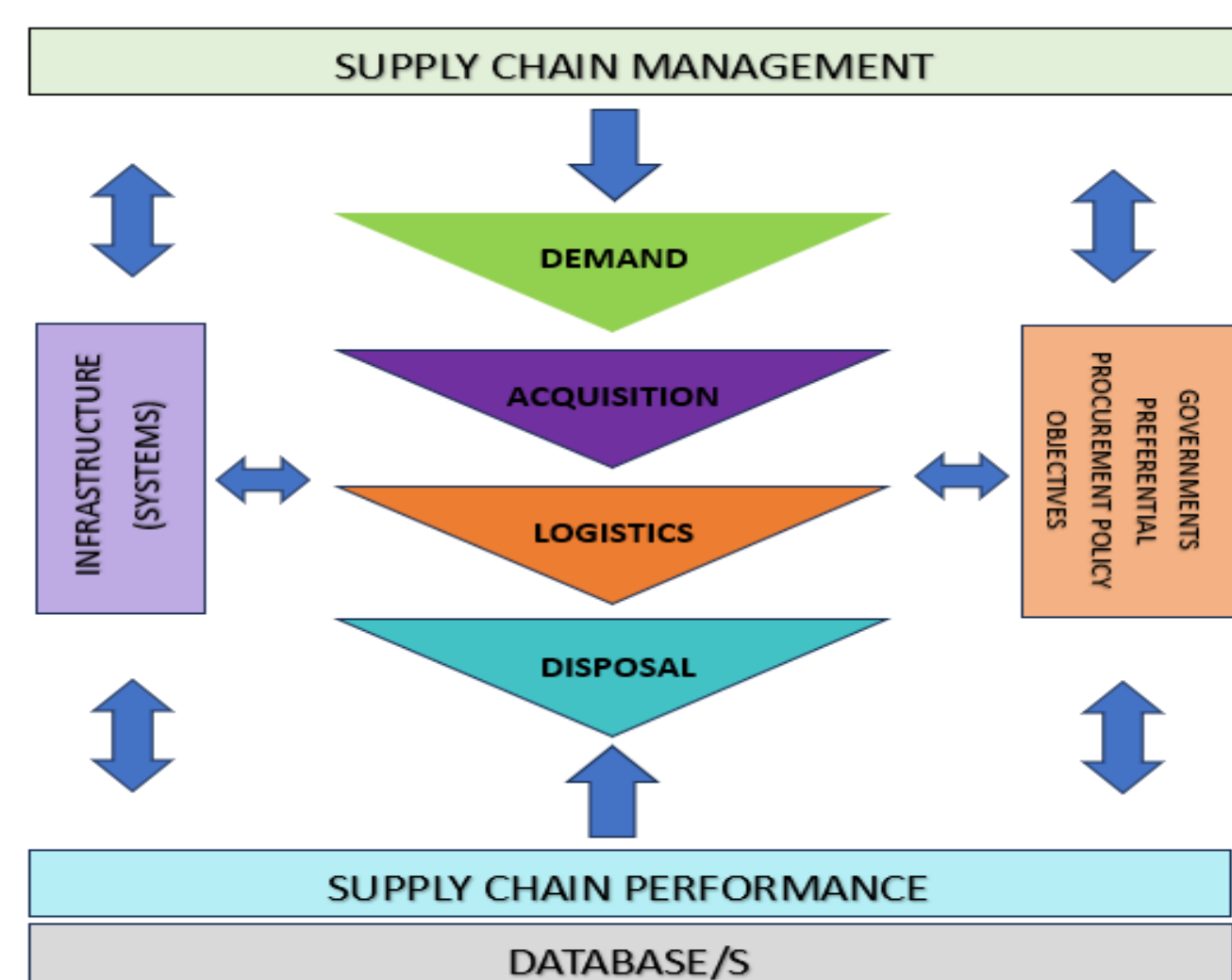


Figure 2: Supply Chain Management Source: National Treasury (2004)¹

Most of the focus within the sector appears to be on the acquisition phase which is where the market engagement component is.

However, there appears to be little focus on demand which the planning and research into development of the appropriate procurement strategy.

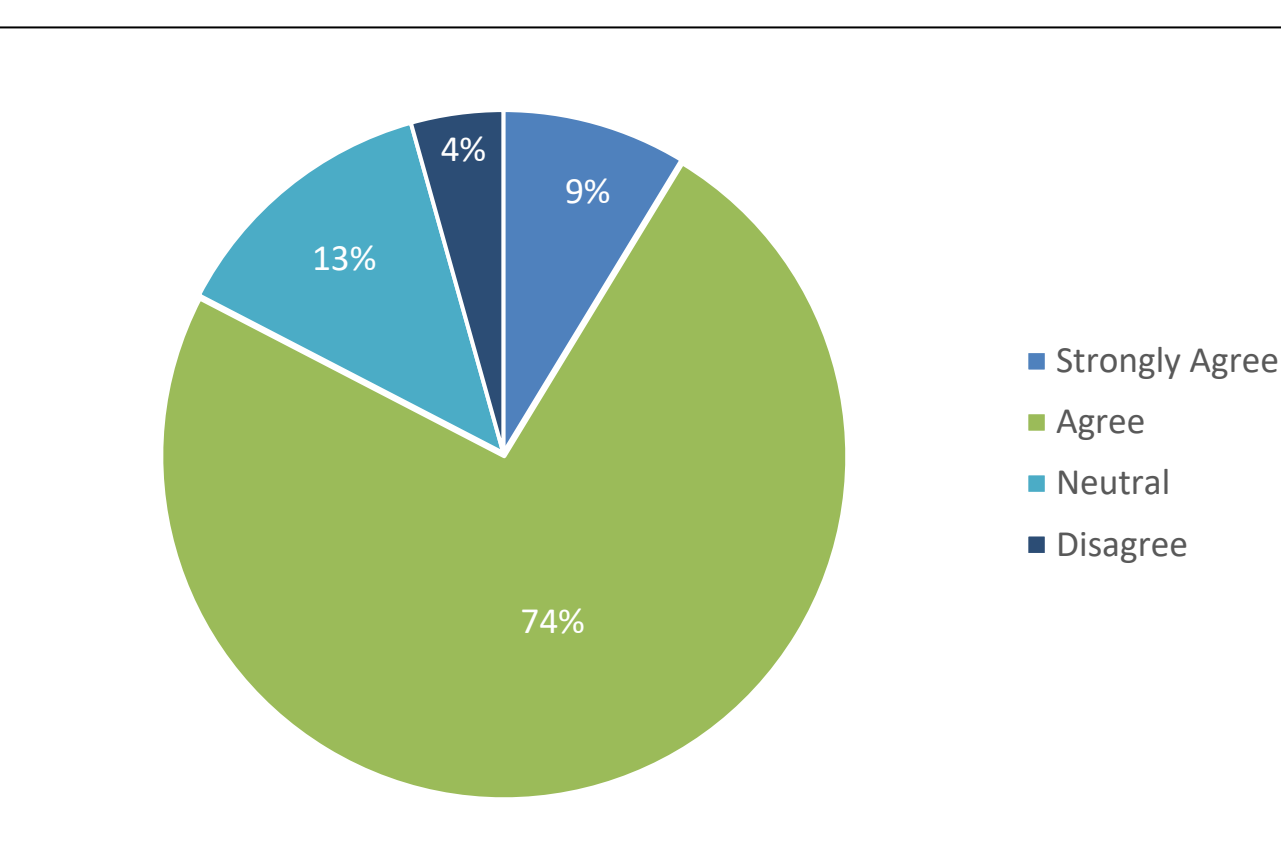


Figure 3: Online survey response for the proposed definition

Innovation is defined as "the process of translating new knowledge into new products, processes, and services, as well as the dissemination of this knowledge, enabling inclusive sustainable as presented in the diagram below.

The results of the online survey indicate that there was strong agreement with the proposed definition

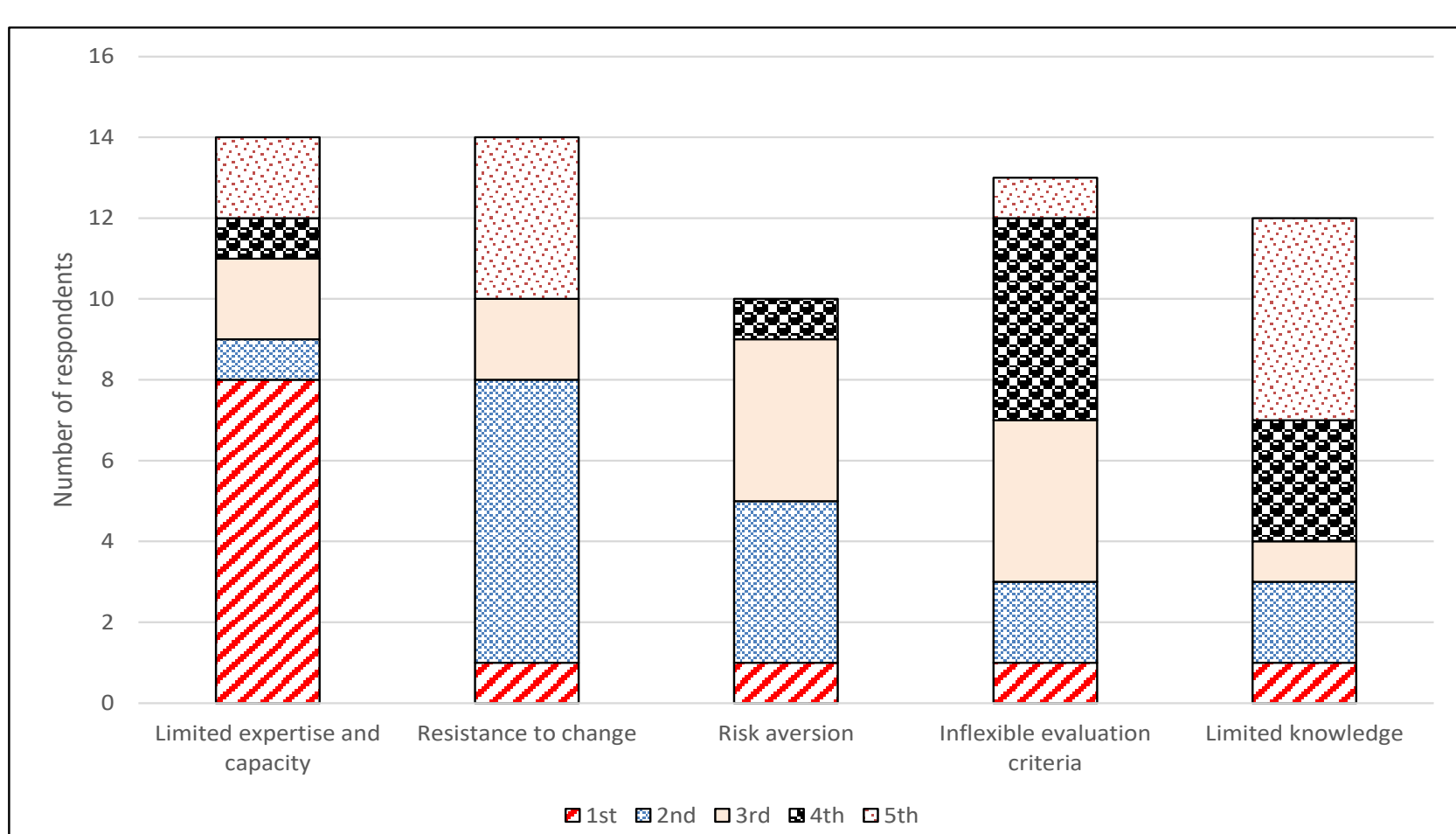


Figure 4: Top five barriers from the online survey

The selected barriers indicate that the issue is more a lack of expertise and knowledge in the application of the procurement framework.

Organisational culture and an aversion to risk also inhibit the uptake of water and sanitation innovations.

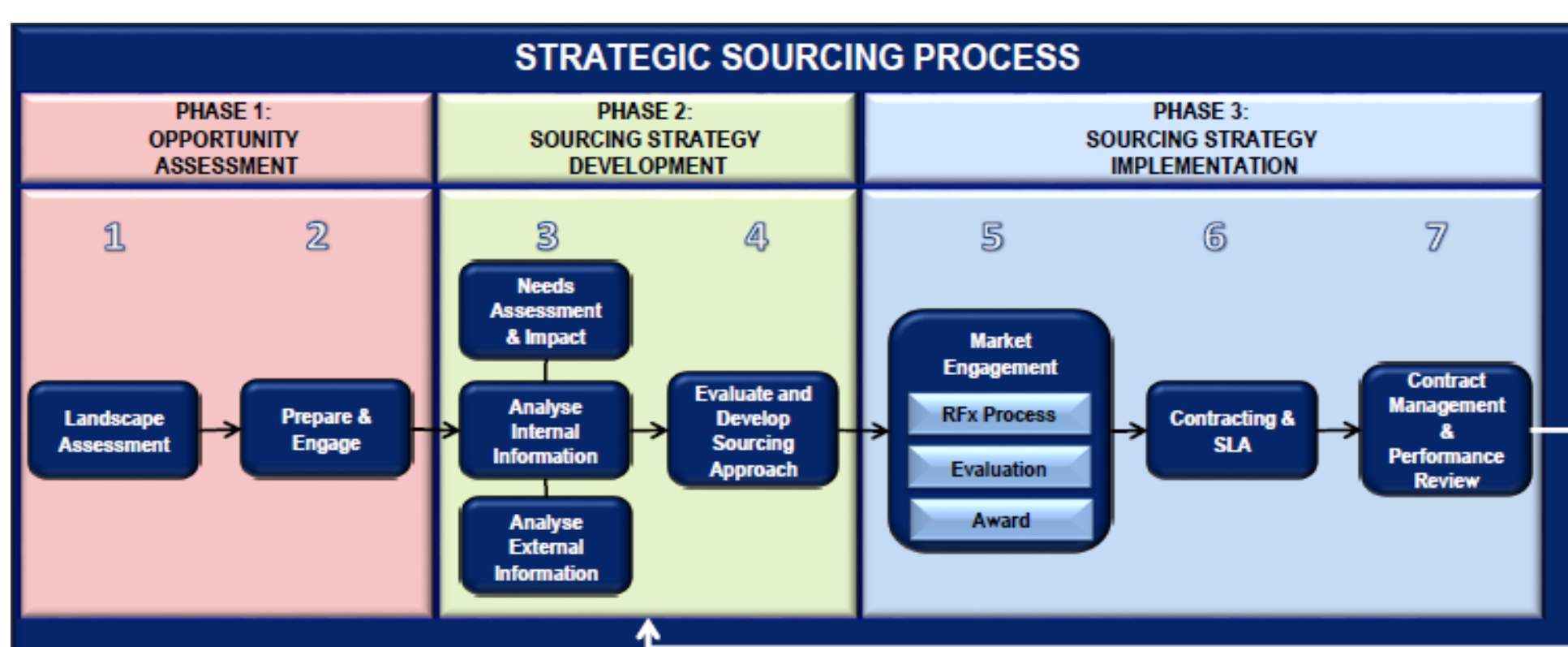


Figure 4: Strategic Sourcing Process Source: National Treasury (2016)²

The Strategic Sourcing Process developed by National Treasury is a collaborative structured approach that could be used which could be used to procure innovations in the water sector.

The methodology and tools to complete the process are available online.

The multi-stage bidding process could be used to procure innovations that are required to be demonstrated prior to implemented on a much larger scale.

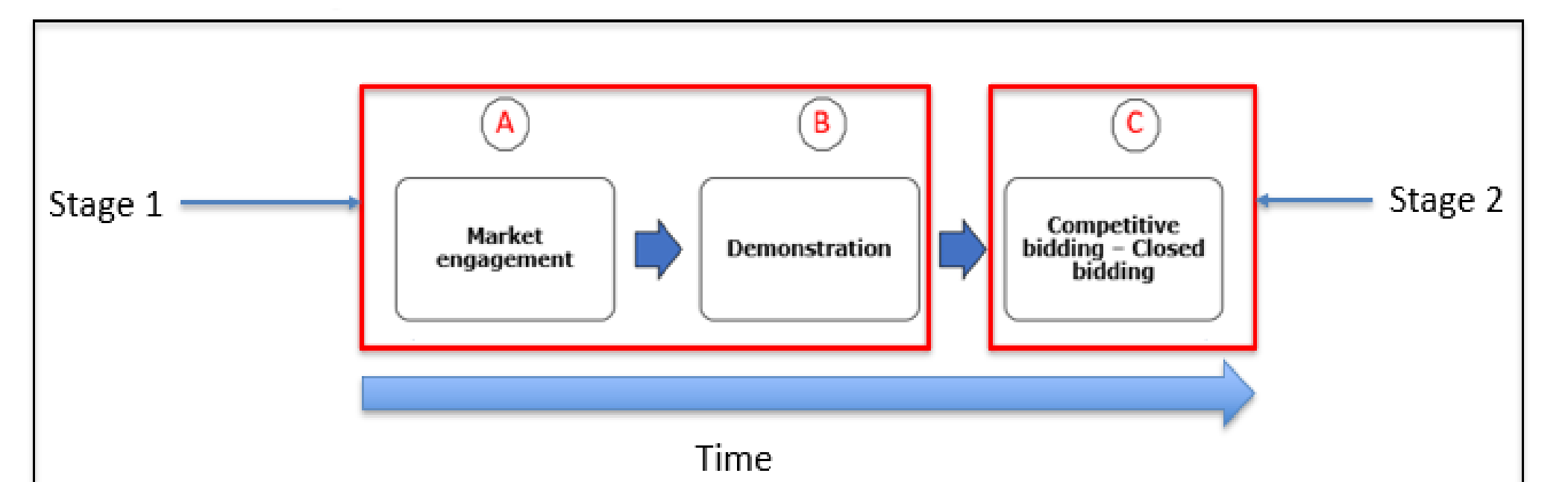


Figure 5: Multi-stage bidding

CONCLUSIONS

- The public procurement framework allows for the procurement of innovations but this is not incentivised.
- The Strategic Sourcing Procurement could be used for the procurement of innovations.
- The multi-stage bidding process could be used for a particular cluster of innovations.
- Water and Sanitation Practitioners require further training and development on the use of the procurement framework and how this can be used for the procurement of innovations. The Practitioners Guide developed as an outcome of the research could be used to assist in this regard.
- Water Services Authorities and Water Boards should consider developing and implementing innovation policies.

References: [1] National Treasury. (2004). *Supply Chain Management - A guide for accounting officers /authorities*. [2]OPCO - NT. (2016). *Strategic Procurement Framework*.

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