



Expanding evidence synthesis capability through coproduction

DPME approach and methodology

DPME RESEARCH AND KNOWLEDGE MANAGEMENT UNIT

18 February 2022



planning, monitoring
& evaluation

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INTRODUCTION

The Department of Planning, Monitoring and Evaluation (DPME) produced an ‘Evidence Plan and Strategy’¹ (2021/22) in March 2021. The strategic direction for producing the Evidence Plan and Strategy is to mobilize stakeholders

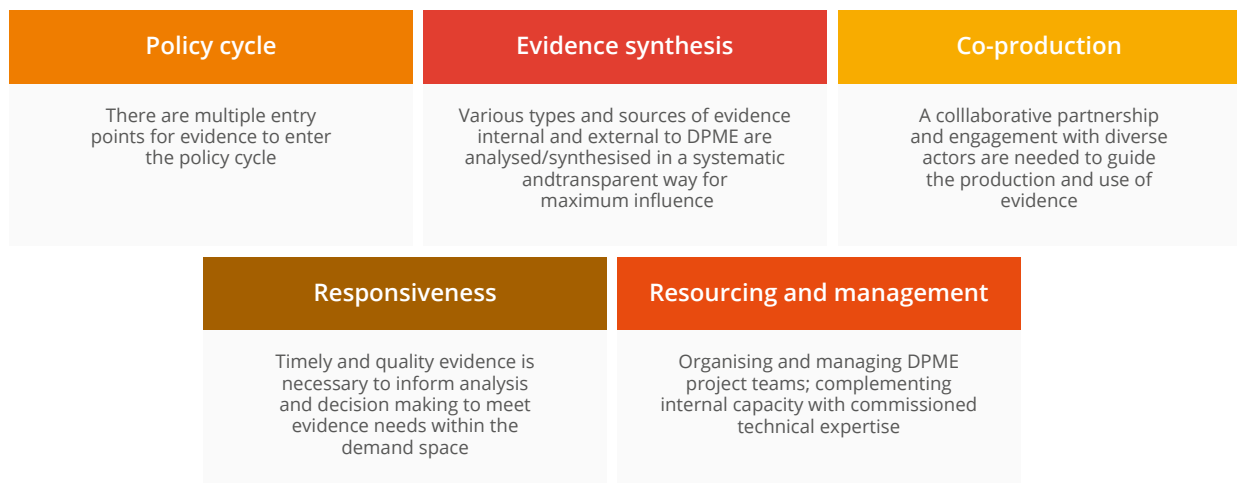
and harness resources towards the implementation of the NDP which serves as a guide for the country’s developmental trajectory. The Evidence Plan states that:

*“... the South African government and DPME in particular, is convinced **why** evidence is important, so there is a need to move beyond this. When increasing number of public officials are sourcing, accessing and engaging with evidence, the focus is shifting towards **how** this demand can be met and sustained. There is a need to address **what** evidence is needed, **where** to source it from, understand **who** is producing the evidence and **how to synthesise, analyse and use this evidence**” in a routine, systematic and transparent manner through effective institutionalization of evidence use in the public sector.*

The new Evidence Plan and Strategy presents a milestone in current efforts towards ‘Evidence Informed Decision Making’² (EIDM) and a point of departure for deepening the collective contributions made to date. An integrated approach to the production, management and translation of evidence facilitates the use of evidence through a systems approach in ensuring that DPME is responsive and has the absorptive

capacity for quality evidence across the seven high level priority areas of government. The plan positions DPME as both a generator and user of evidence. More importantly, it foregrounds the advisory role played by DPME when informing the Executive Authority. Implementing the plan is based on the following five dimensions (figure 1):

Figure 1: Five dimensions of the DPME Evidence Plan (2021/22)



¹ DPME Evidence Plan (2021/22) is the first document that defines and integrates a broadened understanding of evidence sources and types to inform policy and decision making. The current thinking has led the integration of evidence types towards collective ‘evidence thinking’.

² EIDM is the current and preferred understanding of an evidence agenda to inform policy. It succeeds the previous approach of “Evidence-Based Policy Making” (EBPM) due to the understanding that decisions are not based on academic evidence alone. Other factors like M&E, experience, judgement, costs, trade-offs and spill-over effects are taken into consideration in a policy context.

The policy cycle remains the main organizing frame which informs the other components and upon which the Socio-Economic Impact Assessment System³ (SEIAS) is dependent. This

document puts focus on evidence synthesis and co-production, in order to deepen its application and practice as well as to expand the capability built in DPME.

1. BACKGROUND

The DPME Evidence Plan breaks from the past where data, research and evaluation evidence types, were generated in siloed structures and processes as a contribution to the policy cycle

and evidence agenda. Core principles guide the work of the evidence branch and are briefly listed below:

SIX PRINCIPLES FOR EVIDENCE GENERATION AND USE IN DPME

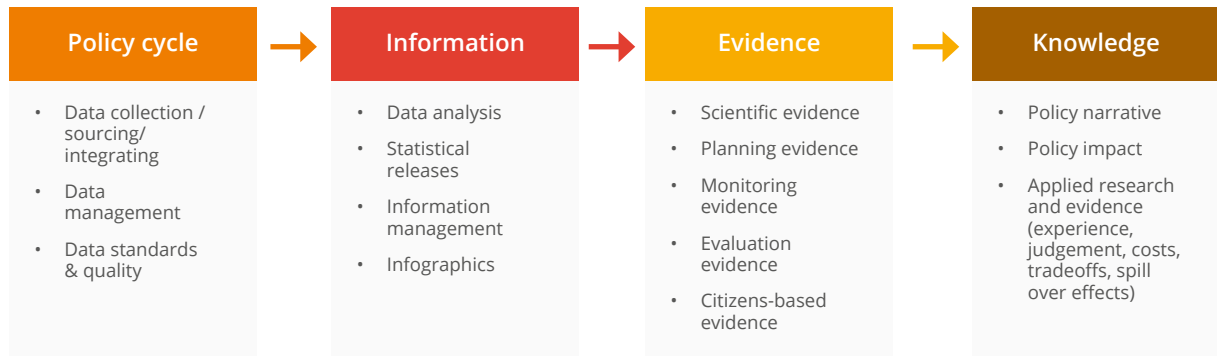
- 1 **Focus on developmental priorities** of government to ensure relevance of the evidence agenda.
- 2 **Build state capacity** of policy makers, senior officials and technical staff to effectively design, administer and review public policies using evidence to defend decisions made.
- 3 **Contribute to the knowledge economy** through DPME's location at the centre of government by generating planning, monitoring and evaluative evidence.
- 4 **Uphold transparency, ethics and professionalism** by documenting and managing the evidence trail used to inform decision making.
- 5 Fulfil advisory role in policy making through effective **knowledge translation, sharing and learning for a sustained agenda.**
- 6 **Maintain knowledge infrastructure for the public good** where the public sector has a responsibility to curate and make accessible investment made in public sector knowledge resources.

³ Refer to the "SEIAS Evidence Management" guide for further information. Accessed https://www.dpme.gov.za/publications/research/STRATEGIES%20RESEARCH%20GUIDES%20AND%20METHODOLOGIES/2021_DPME_SEIAS%20Evidence%20Management%20Guide.pdf

A more integrated approach to the generation of an evidence agenda requires the transformation of data and information into relevant knowledge. The DPME evidence plan further

engages with this value chain through the processes necessary for this transformation to be operationalized. Figure 2 outlines these processes:

Figure 2: Transformation of data, information and evidence into knowledge



2. RATIONALE FOR EVIDENCE SYNTHESIS

There are various approaches to synthesizing relevant sources of evidence for policy, although ensuring rigor, transparency and validity across sectors and policy areas is often a challenge. International trends show that presidential offices and advisors to political principals are increasingly using “evidence synthesis” to inform policy

debates and reviews⁴. The best definition of evidence synthesis, as adopted by the Research and Knowledge Management (RKM) unit is provided below, which focuses on transparent and systematic methods in how evidence is sourced and used:

“the review of what is known from existing research using systematic and explicit methods in order to clarify the evidence base” (Gough et al, 2020⁵).

DPME has developed and applied evidence synthesis methodology across the MTSF priority areas since 2016, with success in meeting evidence needs from the Planning, Sector Monitoring and Public Service Monitoring Branches in a timely, rigorous and transparent manner. Several strategic outputs have been completed using a combination of in-house capacity and outsourcing of specific technical skills, where this was needed. Findings of these reports have informed high level discussion and

debates and have been used within DPME as well as by other government departments. For this reason, the need to expand capability for evidence synthesis within DPME and its usage in various policy domains across government, has been prioritized for the 2021/22 financial year. There is also a view towards strengthening and sustaining this capability over the medium term, i.e. during the current administration (until 2024).

⁴ Donnelly et al, (2018) Four principles to make evidence synthesis more useful for policy. Nature editorial. Accessed: <https://www.nature.com/articles/d41586-018-05414-4>

⁵ Gough, D., Davies, P., Jamtvedt, G., Langlois, E., Littell, J., Lotfi, T., Masset, E., Merlin, T., Pullin, A.S., Ritskes-Hoitinga, M., Rottingen, J.-A., Sena, E., Stewart, R., Tovey, D., White, H., Yost, J., Lund, H., Grimshaw, J. (2020) Evidence Synthesis International (ESI): Position Statement. Systematic Reviews 9, 155 Accessed: <https://doi.org/10.1186/s13643-020-01415-5>

Qualitative, quantitative or mixed methods are used for single study projects and address specific research questions. Policy research requires a synthesis approach that identifies, accesses, analyses and summarises various bodies of evidence to inform a policy and its related interventions. It requires an assessment of all the components of the policy cycle from diagnosis, policy options, planning, strategizing, costing, implementing and evaluating the policy. The key message here is the danger of using a single study, single type of evidence, or single source of knowledge to inform policy development.

If DPME is the custodian of long-term planning, implementation and monitoring of the Medium- Term Strategic Framework (MTSF) and evaluation of key policy and programmatic interventions by Government through the National Evaluation Plan (NEP) and other sources of evidence, then the following must be considered:

- To fulfil this mandate and achieve impact, **'policy-relevant research' methodology** is needed that guides a transparent and standardized approach.

- This, by definition, must take into account the **various types and sources of evidence** to inform the policy cycle in addition to scientific and academic evidence.
- DPME depends on evaluative evidence generated in order to understand **what public interventions work, for whom, when, under what conditions and why**, taking into consideration the costs, trade-offs and spill-over effects.
- Evaluative evidence, in turn, **depends on effective and integrated monitoring systems**. DPME generates an important source of evidence from sector monitoring teams (per national priority) to inform the implementation of the MTSF and is well institutionalized through the system of Government and related reporting structures.
- Finally, citizens-based monitoring is the critical evidence source that completes the **science policy-citizen** nexus to ensure that DPME follows an "evidence-informed decision making" approach in all seven priority areas of Government to achieve societal impact.

3. EVIDENCE SYNTHESIS METHODOLOGY

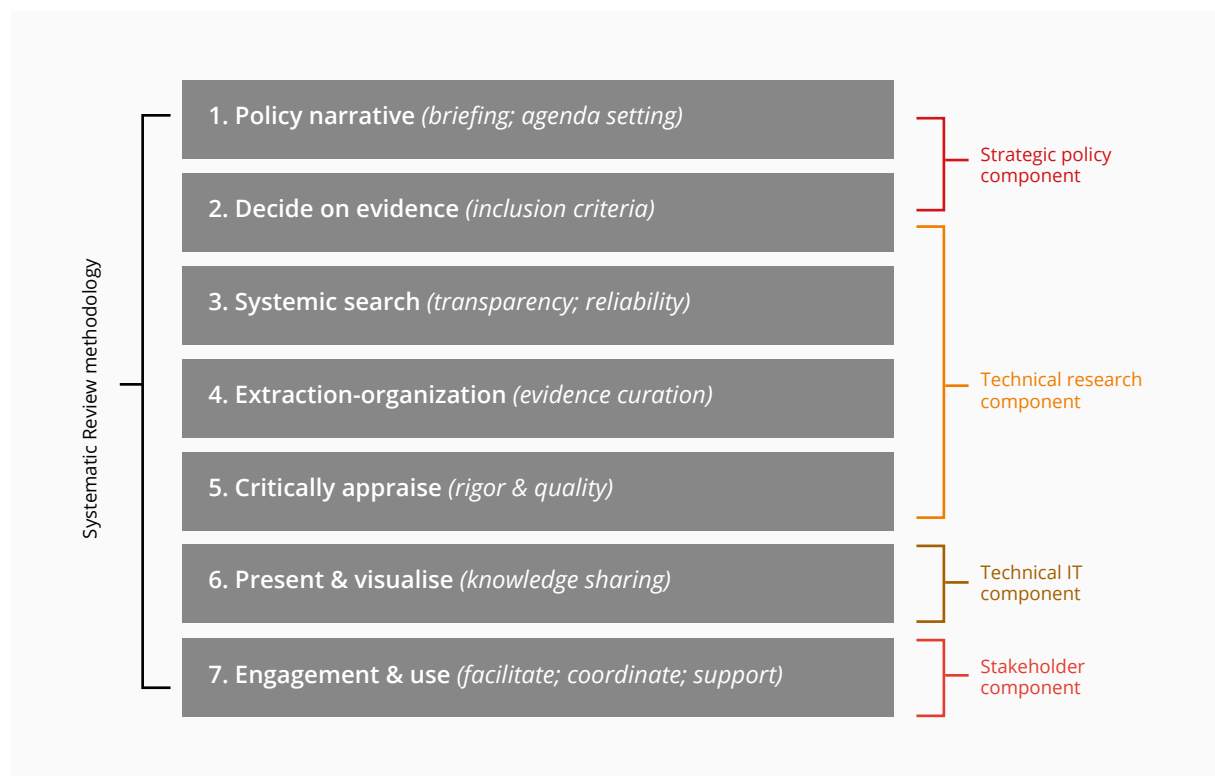
The evidence synthesis methodology used in the DPME policy environment is adapted from Systematic Reviews (SR), which adhere to strict evidence standards and scientific methods. With regard to the work of DPME, the process of 'synthesising' involves preparing evidence through sourcing, organizing and analysing various bodies of evidence, as identified in the policy cycle and program theory. This leads to the generation of new knowledge. Imple-

mentation of the NDP, via the MTSF (2019-2024), requires that various evidence bases be developed for each priority area. An 'evidence base' is understood to be a set of relevant evidence outputs that are further organized and presented (i.e curated) in an easily accessible format (e.g. the matrix frame in Evidence Maps; a searchable database or shared libraries which facilitate analysis).

In this way evidence synthesis, through systematic review methodology, has been adopted in DPME and increasingly by wider government to operationalize policy research⁶. Policy coherence, coordination and impact is more effectively and efficiently managed, if various evidence bases are made available for

analysis and synthesis in a timely and integrated manner. The following seven-step method (Figure 3) has been developed and used across high-level policy areas. The outputs produced from the synthesis methodology are a rich source of credible and relevant evidence bases to inform every stage of policy development.

Figure 3: Evidence Synthesis approach and methodology



3.1. Policy narrative – The policy narrative represents the strategic policy/thematic area (outcomes of a policy intervention) and sets the policy framework through a collaborative approach between experts in government, academia, and non-governmental or other social actors. In so doing, the framework sets the evidence agenda in identifying what knowledge exists, defines the scope of relevant and available evidence, and makes the gaps in the knowledge base explicit. The policy

narrative is not a narrow research question, as these are posed afterwards, when the evidence base is generated and mapping (via evidence maps) is developed.

3.2. Decide on evidence – various sources and types of evidence are needed to inform a policy outcome as discussed earlier, which are linked to the policy cycle as well as the process. This requires consensus by relevant stakeholders on the criteria for inclusion, based on the specific need or policy area.

⁶ The National Policy Development Framework (NPDF) launched in 2021 by the Policy and Research Services in the Presidency, refers to evidence synthesis as a necessary skill for public officials to develop.

- 3.3. **Systematic search** – a search strategy is developed to generate a comprehensive body of evidence from formal sources (scientific), government sources (administrative, monitoring and performance data) as well as grey literature (evidence not published on scientific and searchable platforms) which demonstrate appropriate research methodologies in the generation of empirical evidence. This strategy is systematic, transparent and reliable.
- 3.4. **Data extraction** – this is a customised data extraction tool for every map, which addresses relevant evidence needs and segments of the knowledge base for which information is needed. The tool guides the extraction of relevant information across various primary and secondary research outputs. Without this step, effective synthesis and integration of the evidence base is not possible.
- 3.5. **Critical appraisal** – not all evidence and research findings are of equal quality and rigor. Critical appraisal of the evidence included in the evidence base, distinguishes high quality evidence with low risk of bias from questionable evidence with potentially high risk of bias or of low quality.
- 3.6. **Presentation and visualization** – since evidence synthesis approaches include a large body of work, the presentation and visualization thereof, require high level organization to make sense of a body of evidence and to provide for easy referencing. This enables quick access, identifies gaps, facilitates effective use of the evidence and ensures trustworthiness. Various knowledge products are generated at this stage for communication, discussion and engagement – one of which is 'Evidence Maps' which is also generated by DPME (discussed in the next section).
- 3.7. **Engagement and use** – Stakeholders (core and extended) are engaged at all levels via targeted forums and platforms of engagement to discuss, debate and use the evidence which has been synthesised.

4. CO-PRODUCTION – THEORETICAL CONSTRUCTS

The DPME Evidence Plan foregrounds collaborative partnerships as a strategic intervention in the evidence value chain. There is increased recognition of the co-dependence between those who produce evidence (predominantly academia) and those who are expected to use the evidence (policy makers and practitioners) over the years. However, little guidance is available on how government or public officials must engage with the wider

research community. Traditional forms of research, involving commissioning of research by Government in its entirety, were not seen to derive impact and public value, nor did it demonstrate efficient use of public funds for various reasons and challenges impacting on knowledge production in the public sector. The concept of co-production is thus deliberately pursued, adopted and guides DPME in all research projects undertaken.

Co-production, synonymously referred to as co-creation or co-design, inherently requires public officials to reconsider how knowledge resources are generated and secured for Government and how to establish long term collaborative partnerships with researchers, experts, academics and citizens via the evidence ecosystem. This includes, but not limited to,

in-house research or commissioned research and other technical assistance via contractual agreements. The approach was borne out of the findings from diagnostic studies on research in the public sector⁷ which illuminated the following challenges for government on the whole (Figure 4):

Figure 4: Challenges for the public sector regarding research and knowledge generation



These challenges across Government presented a bleak picture for the public sector, especially in the light of recent reforms in the professionalization of the public service by the National School of Government⁸ (NSG). As a turnaround strategy, there was a need to reconceptualize as well as introduce more meaningful ways of engaging with the wider

research system by Government. As a Center of Government (COG) function and in providing leadership, the RKM unit introduced the following core components of embedded coproduction strategies by design. These strategies for coproduction are illustrated as a summary in Figure 5.

⁷ Three seminal reports informing these diagnostics were:

- Paine Cronin, G. & Sadan, M., 2015, 'Use of evidence in policy making in South Africa: An exploratory study of attitudes of senior government officials', African Evaluation Journal 3(1)
- DPME, 2015, 'Diagnostic study of research in DPME'. DPME research report. Presidency, Pretoria.
- PSPPD, 2017, 'Diagnostic of research in Government'. EU funded research program, Presidency

⁸ The National School of Government (NSG) put out a discussion document for wider consultation titled "A National Implementation Framework towards the Professionalization of the Public Service" on 8 December 2020. Accessed: https://www.gov.za/sites/default/files/gcis_document/202012/44031gon1392.pdf

Figure 5: DPME co-production strategies by design



4.1. **Matchmaking between public and private partnerships** – here the core skills sets are matched between government, academia, and other experts in the related field, for mutual respect in bringing together three systems of knowledge generation:

- National System of Innovation (NSI)
- System of Government policy making and implementation
- Locally generated and indigenous knowledge systems

4.2. **Embedded engagement** – involves deliberative processes that are designed and implemented with new rules of engagement between various stakeholders. This is essentially institutionalized through normative guides and project management capability where

government officials and academia work together at every stage of the product generation.



4.3. **Managing mandates** – Within the institutional context, senior officials and policy makers in DPME as one of the COG departments, have to engage with a range of stakeholders including government and non-government actors. In convening and managing stakeholders, DPME officials are often required to facilitate the involvement of many line function departments and thus depend on effective facilitation skills in managing multiple mandates.

4.4. **Supporting policy advisors and champions** – DPME experts play the critical role of advisors and policy champions to the Executive Authority. The evidence branch has been established to support these advisors and champions in their evidence needs.

4.5. **Attention on good governance** – Stakeholder engagement and management require that all role players are represented through effective governance structures in the policy

development and review process. Much focus is on effectiveness and efficiency of policy interventions, with an increasing need to ensure inclusivity of actors in public policy. This means that evidence from a diverse group of actors must be consulted and used.

4.6. **Public value and efficiency in publicly funded research/evaluations** – In addition to building collaborative relationships and networks, a focus on procurement of knowledge services need attention, especially where government is a funder of research. Public procurement processes were thus reviewed in DPME where new approaches to the development of concepts, proposals and Terms of References (ToRs) were pursued. This led to reviewing the extent to which outsourcing is required. Reducing costs, avoiding duplication of research outputs and ensuring the evidence generated is actually used will contribute towards efficiency in using public funds to generate evidence.



5. PROOF OF CONCEPT FOR EVIDENCE SYNTHESIS AND CO-PRODUCTION IN DPME

Evidence synthesis was introduced and implemented in DPME since 2016, using an embedded coproduction approach, i.e. it is aimed at becoming integral to the way in which research and other evidence is generated and used in DPME. This was piloted across high level policy areas, while responding to demand and documenting the process throughout the project life cycle. There are 4 domains in the

process of evidence synthesis as applied in the DPME environment (Figure 6). These are inter-dependent, and capacity is thus spread across these domains, with each contributing to the other towards a systems approach when considering the full value chain. These domains are the enablers within the institutional context when operationalizing evidence synthesis.

Figure 6: Four domains to facilitate evidence synthesis in a policy context



5.1. Co-production in practice

Co-production involves a new way of thinking and doing for researchers in Government, as motivated in this document. The case is made for its importance in creating an enabling environment for DPME (and other government officials) to facilitate evidence informed decision making. For DPME, this involves matching DPME sector experts with external experts to co-produce evidence and knowledge that will inform public policy. Effective governance structures (advisory-/steering committees; reference groups and other stakeholder engagements) are instituted through competent project management capacity. Public-private partnerships are established and value for money of publicly funded research is overseen in the outsourcing of research and evaluation

(professional services). Concept notes, proposals and terms of references, are evidence informed, where knowledge needs and evidence gaps are communicated as baselines, avoiding duplication and re-circulating evidence that already exists. It must be emphasised that the coproduction strategy is differentiated from participatory research methods.



5.2. Research infrastructure for sourcing and validating evidence

Evidence synthesis that produces useful, integrated knowledge products for policy, depends on credible but diverse evidence sources. When public officials do not have access to searchable databases beyond Google and other search engines, this undermines quality, rigor and the very essence of co-production efforts. For this reason, the DPME RKM unit has secured access to scientific search facilities (Web of Science; EBSCO); legal resources (JUTA); Policy Commons (SABINET) and a reference manager (EndNote) through an open tender system to build organizational and institutional capacity for evidence management. This has proven to be value for money over the past and current MTSF since DPME officials have been supported to validate data and information in their various analytical and reporting needs, thereby reducing bias and increasing legitimacy of evidence.

5.3. Evidence Mapping

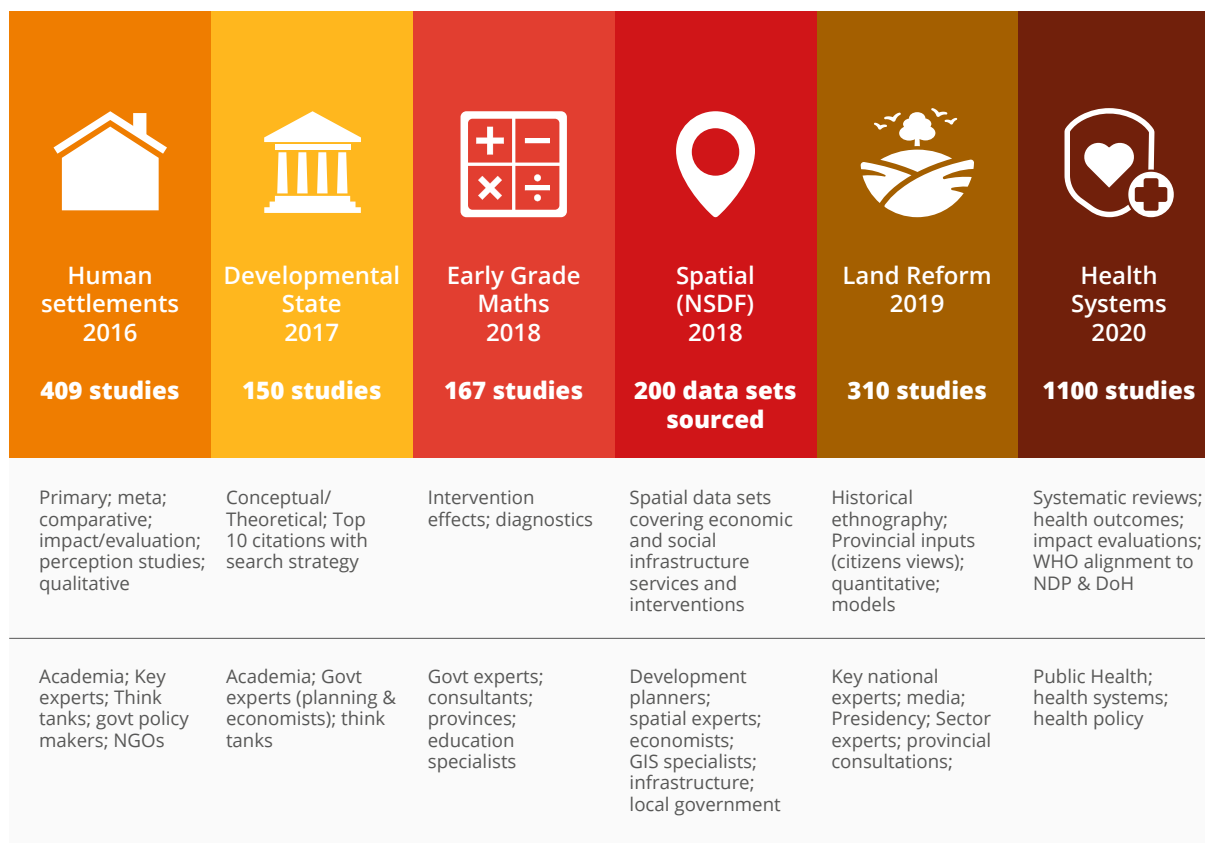
The DPME RKM unit financed and built an in-house “Policy relevant Evidence Mapping” platform in 2016⁹. The generation of Evidence Maps (EM) adopts systematic review and synthesis methodology as illustrated in Figure 3, using an overall co-production approach to guide the process. To date, there are five complete EMs built. An evidence base of spatial datasets was included as an experimental exercise in focussing on data only. Each of the evidence maps is a tool which scope the evidence base of the policy focus. These have collectively generated close to 3000 evidence pieces (research and evaluation evidence) including over 200 data sets (refer to Figure 7). The EMs are used as in-house knowledge management tools that enable officials

to source evidence in a timely, systematic and transparent manner. Each mapping experience has grown from strength to strength in its approach, design, relevance and use. The figure also gives a summary of the evidence types and the stakeholders involved, which has ensured engagement with an inclusive grouping of networks over the years. Adequate storage, maintenance and enhancement of this platform is currently needed as demand for these maps are growing.



⁹ Refer to the DPME guide on “Policy relevant Evidence Maps” – A Departmental guidance note, accessible: https://www.dpme.gov.za/publications/research/EVIDENCE%20MAPS/2016_Evidence%20Mapping_Policy%20Relevant%20Evidence%20Maps,%20Departmental%20Guidance%20Note.pdf

Figure 7: DPME Evidence Maps built to date



5.4. Responsive knowledge brokering service

The ultimate step in the evidence synthesis process, involves the actual generation of synthesis knowledge products and delivery of a responsive knowledge brokering service. This depends on the effective functioning of the other three domains. Without the availability of various evidence bases built through EMs, which in turn depend on research infrastructure and collaborative partnerships, it is not possible to respond in a timely manner to demand. This is demonstrated through the capability of the DPME RKM unit to produce evidence synthesis products (strategic assignments; rapid reviews; rapid synthesis; policy briefs; discussion documents; evidence summaries; case studies and technical documents) in short

turnaround times with engaged clients throughout the process. Some of the key evidence synthesis products include the rapid review on “Stability of the Political-administrative interface” and “Trust in Government” which are available on the DPME website¹⁰. Outsourcing of technical assistance from external experts is more focussed, succinct and useful, serving as inputs into the broader policy review process. Convening of key experts, both within Government and from academia serves to engage on the substantive matter of the policy focus and stimulate deeper dialogue towards effective problem solving. This is a departure from the way in which research has been traditionally produced by Government, and disrupts a compliancy driven culture.

¹⁰ The following links to the website are provided for the two reports mentioned, which used the evidence synthesis methodology: https://www.dpme.gov.za/publications/research/STRATEGIC%20RESEARCH%20ASSIGNMENTS/2019_DPME_Synthesis%20Report_Stability%20at%20the%20Political-Administrative%20Interface.pdf https://www.dpme.gov.za/publications/research/Documents/Trust%20in%20Government_Final_15%2007%202021_v2.pdf

6. FUTURE DIRECTION

This working paper provides a documentation of the evidence synthesis capability developed in DPME over the past five years. Current management and leadership have expressed the will to expand this capability within DPME and across the South African

government, where this knowledge and skills will be shared and instilled as a collective public sector approach in the implementation of the National Development Plan.



