



# stepSA - building the capability and evidence base to support high impact and transformative investment decisions

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## **stepSA - building the capability and evidence base to support high impact and transformative investment decisions**

StepSA plays key role as collaborative initiative aimed at building the capability and evidence base to support high impact and transformative investment decisions in SA's cities, towns and settlements. Innovative R&D enables profiling growth and development dynamics; and simulating the spatial outcomes of growth and public investment in cities and towns.

The stepSA project has over the last 3-4 years seen a tremendous shift in moving from an original science and capability based investment (IPDM) to a multi-agent collaborative initiative, where ongoing research and development is increasingly supplemented through projects aimed at building onto critical outputs and application of capabilities to support context and problem specific findings.

The CSIR and HSRC now act as the 'institutional home' of the stepSA collaborative initiative. Together with DST the research councils support science, technology innovation and the building of national capability to profile and simulate spatial implications of growth and investment in SA's cities and towns. The outputs of stepSA have largely been focused on informing public investment decisions to address growth, transformation and sustainability of SA's cities and towns.

Innovative technologies, development indexes and planning and simulation tools developed through stepSA enables:

- (1) Identifying and tracking spatial implications of city and town growth trends, population movement and economic trends;
- (2) Profiling of cities and settlements to understand specific investment requirements and opportunities;
- (3) Exploring the most likely impact of housing and transport investments on spatial transformation and sustainability in cities.



Capability to understand and consider the spatial implication of growth and development in cities and towns for municipal, regional and well as sector planning is supported through collaboration, development of papers, policy notes and briefs, HCD, knowledge dissemination, seminars and talks.

### **Development Challenges and Priorities**

As indicated in the National Development Plan, South African cities, towns and rural regions are characterised by a wide range of developmental challenges and require differentiated policy and investment interventions in order for government to address apartheid spatial legacies, reach its vision, key priorities and targets. Government however is faced by the reality of limited resources, pressures to increase delivery over the short term, and a need for societal transformation and sustainability over the medium to long term. Effective, co-ordinated and spatially targeted interventions and investments is thus required between spheres, sectors and agencies. Such coordinated investment requires context specific (spatially explicit) future orientated plans, policies and investment frameworks. This has however, remained a challenge, in spite of major strides with the NDP, innovative sector policies, a strong intergovernmental planning framework, clear targets (DPME) and budget requirements (NT), as well as increased data availability and spatial data co-ordination (StatsSA & SPLUMA, DRDLR).

### **Major strides made (value):**

Outcomes from research and tools developed in stepSA have been geared to support government's capability to more effectively plan and assess the most likely implications of investment for specific places in terms of demand, economic pressures, financial viability and possible risks.

Due to outputs and capabilities generated through stepSA, the capability is being generated to simulate the spatial implications of growth in cities, and evaluate the possible spatial outcome and effectiveness of investment in housing and transport infrastructure.

Understanding of the spatial implication of growth trends and population movement, and profiling of the growth dynamics in settlements and towns clearly enables much more targeted and co-ordinated infrastructure investment, as was clearly evident in the profiling of rural regions and settlements undertaken for DRDLR in order to co-ordinate and target multi-department spend in the priority rural districts.

The need for support in gaining an enhanced understanding on inter-dependencies between places and aspects influencing choices of households and markets have been expressed by many cities, sectors and in many policy discussions, and been effectively used to inform i.e. DPME's initiative in support of distressed mining towns, the development of the Urban Development Framework (DCOG), and Chapter 8 (Human Settlements) of the National Development Plan (NPC).

Given the fast changing dynamics and major investment required to start developing the capability to simulate urban and regional growth implications for land, infrastructure and services, the biggest breakthrough is probably the ability that has now been created in 4 metro's to constructively engage on spatial and investment implications of future growth scenarios.

Increased co-investment from cities on the modelling foundation that was created through stepSA, i.e. City of Tshwane, Nelson Mandela Bay and Gauteng Province in the last 3 years, highlights the value and need to evaluate alternative options for multi-billion rand infrastructure and service delivery projects, not only on cost or design options, but on the way in which that support cities and government's ability to reach its targets and vision.



As evident from the current viability study on the wider application of the urban simulation capability in support of spatial planning and urban management (funded by the DRDLR), spatial outcomes are not merely critical for effective government investment and limited resources but is actually of critical importance for household futures (especially the poor and youth) and long term sustainability.

### **Focussing on the current phase**

The stepSA initiative, spearheaded by CSIR and HSRC (with DST support) has started generating traction in its role to support spatial and temporal evidence generation across scales and sectors, supporting a range of key role players. The levels of collaboration on case specific application and R&D with cities and departments, as well as involvement in carving out future R&D needs by key role players such as NT, SACN and SPLUMA is established (through stepSA engagements) and shows the value and sustainability of this collaborative initiative between science and practice that is not bound to a specific mandate or institutional home.

Moving forward, it is clearly evident that there is a need to further enhance the capability to simulate future growth implications in more cities, and in rural areas, as well as to ensure R&D to support a wider range of governance and investment decisions and decrease resource intensity. The value of ongoing R&D to support robust spatial and temporal indicators and data sets, especially to support tracking of spatial transformation has been identified as crucial to inform investment decisions. In the same vein the need to understand and effectively plan for fast changing dynamics and urban-rural/urban-urban inter-relationships and movements have also been identified as a critical need – i.e. to support the investment decisions of government in uplifting distressed mining towns in the Platinum Belt.

stepSA will also continuously endeavour to expand collaboration to include other government departments and institutions involved in planning research such as universities, and contribute towards ongoing capability development in the field.