

A ROADMAP:

Making cities and human settlements inclusive, safe, resilient and sustainable

Satisfactory housing for all in South Africa is a constitutionally enshrined right. *Dr Cyril Adonis* writes about the development of a ten-year Science, Technology, and Innovation for Sustainable Human Settlements roadmap by the Department of Human Settlements (DHS), the HSRC and other stakeholders.



An aerial view of an informal settlement near East London in the Eastern Cape

The issue of sustainable human settlements is a critical factor in South Africa's drive towards ensuring that the challenges of unemployment, poverty, and inequality are addressed. The South African government's medium-term strategic framework for 2014 – 2019 and the National Development Plan (NDP) regard the provision of sustainable livelihoods as an important priority and highlight the need for human settlements and services to be conducive to small and medium enterprise expansion. The aim is to get more people living closer to their workplaces, better quality public transport and more jobs near dense, urban townships.

A constitutional right

The DHS is tasked with the responsibility of realising South Africans' constitutional right to housing, which requires a concerted effort by all relevant stakeholders, including the science, technology, and innovation sector.

The NDP explicitly acknowledges that advances in technological innovation, the production of new knowledge, research collaboration and the application of knowledge through teaching are vital for a thriving economy.

In addition to this, South Africa is a signatory to the United Nations' 2030 Agenda for Sustainable Development, titled *Transforming Our World*. This agenda consists of 17 sustainable development goals and 169 targets, with goal 11 being about making cities and human settlements inclusive, safe, resilient and sustainable.

The roadmap

The Department of Science and Technology (DST), through its directorate for science, technology, and innovation for sustainable human settlements, has partnered with the Council for Scientific and Industrial Research (CSIR), the Nelson Mandela University (NMU) Research Chair for Human Settlements and the DHS to embark on a process to define and develop a ten-year Science, Technology, and Innovation for Sustainable Human Settlements (STI-4-SHS) roadmap.

An HSRC workshop for experts

The project plan has four work packages, each consisting of a range of activities and deliverables to be completed over a 24-month period. The first was an expert workshop and initiation meeting with road map experts, which was hosted by the HSRC in March 2018. Bringing together relevant stakeholders from different levels of government, science councils, academia, funding agencies and housing agencies, civil society, research organisations and regulatory bodies, the primary objective was to define and develop a ten-year STI-4-SHS roadmap to deliver a coherent, targeted, portfolio of science, technology, and innovation for sustainable human settlement interventions and programmes. The roadmap is meant to serve as a high-level framework for stakeholders and industry partners to plan, reflect, invest, make decisions and prioritise key science, technology, and innovation programmes, projects, strategies and initiatives for the sector.

The waste roadmap example

The delegates drew on lessons from the DST and CSIR's Waste Research and Development and Innovation Roadmap, which aimed at providing strategic direction on the disposal and utilisation of waste. It has led to more effective decision-making, faster insertion of context-appropriate technology, the export of know-how and technology, and it strengthened research, development and innovation capability and capacity.

Need for inclusivity

The workshop highlighted the fact that the STI-4-SHS roadmap document was the beginning of a long process and its development needed to be all-inclusive. Communication with stakeholders was highly important to be clear on why the roadmap was needed and it was emphasised that the roadmap should capture the fact that human settlements are not only about housing, but also the environment. There was consensus that the roadmap should be developed over the following 18 months.

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A row of almost identical affordable houses in Philippi, Cape Town

