

The Green Building Handbook South Africa Volume 9: Materials and Technologies

CHAPTER: The science, technology and innovation/sustainability nexus

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ABSTRACT:

Human settlements historically conjure up contradictory images (think Charles Dickens's *A Tale of Two Cities*): one is that of the dynamic, cosmopolitan centre of business, culture and entertainment with lively, diverse and socially inclusive neighbourhoods, home to many millions of people. The other image is more ominous: dilapidation, degradation, crime, dangerous streets, poverty, pollution, and social exclusion, again 'home' for many millions. Both images are partial reflections of South Africa's human settlements: "coming to terms with our cities [and settlements] in all their complexity is a key challenge for the development of effective public policy" aimed at advancing sustainable human settlements (Policy Research Initiative 2002:1). Increasingly calls are made for science to be integrated into policy development under the banner of 'science for policy' or 'evidence-based policy' (EBP) although it is argued that the importance of understanding and using science for public policy-making has long been recognised (as in the Rothschild Report of 1971) and that relevant policies should take into account both scientific knowledge and the needs of science (Head 2009:17). Sutherland, Bellingan, Bellingham, Blackstock, Bloomfield, et al (2012) argue that EBP has become the norm in many fields and that many governments engage scientists at a senior level. Advocates of EBP suggest that EBP was first suggested in the UK in the 1999 White Paper on Modernising Government where it states "This Government expects more of policy makers. More new ideas, more willingness to question inherited ways of doing things, better use of evidence and research in policy making and better focus on policies that will deliver long term goals". The ESRC also notes that there is a renewed focus in commissioning research that assists not only in understanding a problem but offers some guidance to make it better (ESRC 2001:4; Head 2009:16). More recently members of the Scientific Advisory Board of the UN Secretary-General stressed that "science is the key to a sustainable future" and

that the “interface between science and policy must be improved in order to develop and implement these solutions effectively” (UNESCO 2015).