

Identifying innovative housing technologies for Kleinmond

The CSIR is participating in a Department of Science and Technology (DST) project aimed at developing and implementing innovative technologies that would contribute to the sustainable development of a subsidised housing project in Kleinmond in the Western Cape. The approach followed by the CSIR could serve as a model for further science and technology (S&T) interventions in the roll-out of subsidised housing.



Kleinmond in the Western Cape

The construction of 611 houses in Kleinmond was approved in 2006 as a special project of the Western Cape Ministry of Housing. The construction of these 40 m², one-bedroomed houses was scheduled for completion during 2007/08. Only 24% of the adults living in the informal settlement are employed, and social problems are rife, including high rates of TB and HIV/Aids. No skills training facilities exist in Kleinmond, and apart from privately owned taxis, no public transport is available between the village and the two nearest towns (Hermanus and Gordon's Bay).

The Overstrand Municipality approached the DST for grant funding to identify and implement innovative technologies aimed at improving the sustainability of the project while reducing capital and operating costs. On the basis of this request, the DST invited the CSIR to assist in the identification, development, implementation, monitoring and evaluation of innovative technologies, with the ultimate aim of developing an S&T model that could be used in similar applications.

A [paper](#) by the CSIR's Llewellyn van Wyk and Kenny Kistan describes the S&T-contextual approach followed by the CSIR to identify opportunities for technological interventions. These include municipal services, township layout and construction technology. The innovative technologies suggested for each of these opportunities range from re-designing roads, sustainable urban drainage systems and energy generation and saving, to the use of a concrete-framed structure instead of a masonry plinth, and prefabrication of construction components.

The paper concludes with a description of the anticipated way forward.