**The National System of Innovation Concept:**

**an Ontological Review and Critique**

**Significance of the work**

The construct ‘national system of innovation’ is used to characterize a country’s collective efforts towards fostering technological innovation. Since appearing in the 1996 White Paper on Science and Technology, the term has been widely used in South African policy discourses. The study makes a contribution towards an increased understanding of the meaning and implications of the term.

**Author**

Sibusiso T Manzini

**Affiliation:**

Council for Scientific and Industrial Research (CSIR), Pretoria, South Africa

**Telephone**

Office: 012 841 3257

Cell: 082 387 9017

**e-mail:**

sibusisomanzini@yahoo.com

**Postal address:**

PO Box 2752, Pretoria, 0001

**The National System of Innovation Concept:**

**an Ontological Review and Critique**

**Abstract**

The 1996 White Paper on Science and Technology introduced the notion of a national system of innovation (NSI) into South Africa’s formal public policy discourse. The White Paper, as the cornerstone of government’s policy on science and technology, defined the NSI in such a way as to clarify its intended role in the country’s social and economic programme. Across the world, the NSI approach towards understanding how technological innovation operates within national economic systems is relatively new. There is therefore a need to sharpen our understanding of this conceptual framework. The purpose of this paper is to contribute to the understanding of the NSI phenomenon by undertaking an ontological exploration of the NSI concept. This is done, firstly, by analyzing the definitions that are found in scholarly works; and secondly, by interrogating the component terms of the construct, in order to reconstruct the full import of the composite term. The preponderant themes that emerge from this analysis underline the importance of fostering quality network within the NSI. Furthermore, the NSI ontology helps to explain the important role of science and technology in economic development.

**Acknowledgements**

The author would like to thank the CSIR for supporting the research project of which this study is a component. The author also acknowledges the technical input made by Professor Roy Marcus of the Da Vinci Institute of Technology Management and Dr Sibongile Gumbi, CEO of Smart Innovation.

Lastly, a list containing the number of pages of the manuscript and the number of tables, figures and/or other supplementary material should accompany the submission.

No of pages of manuscript – 21

Tables – 0

Figures – 0