The Ecological System of Innovation: A New Architectural Framework for a Functional Evidence-Based Platform for Science and Innovation Policy

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Abstract

Models on innovation, for the most part, do not include a comprehensive and end-to-end view. Most innovation policy attention seems to be focused on the capacity to innovate and on input factors such as R&D investment, scientific institutions, human resources and capital. Such inputs frequently serve as proxies for innovativeness and are correlated with intermediate outputs such as patent counts and outcomes such as GDP per capita. While this kind of analysis is generally indicative of innovative behaviour, it is less useful in terms of discriminating causality and what drives successful strategy or public policy interventions. This situation has led to the developing of new frameworks for the innovation system led by National Science and Technology Policy Centres across the globe. These new models of innovation are variously referred to as the National Innovation Ecosystem. There is, however, a fundamental question that needs to be answered: what elements should an innovation policy include, and how should such policies be implemented? This paper attempts to answer this question.

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