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An Interdisciplinary Journal on Humans in ICT Environments

Volume 6 (2), November 2010, 269–271

ISSN: 1795-6889

## **BOOK REVIEW**

Hautamäki, A. (2010). Sustainable Innovation: A New Age of Innovation and Finland's Innovation Policy [Sitra Reports 87]. Helsinki, Finland: Sitra and Edita Prima, Ltd. 144 pages.

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Innovation requires the provision of new capabilities to available resources in order to generate value. For many years, the value generated by innovative activities has been chrematistic, based mainly on the economic incentive for companies producing innovations and/or exploiting them in the markets. However, various driving forces are changing this biased view of the power in the outcomes of innovation.

Permanent change is part of the nature of innovation. But also is knowledge, evolving continuously through research, experimentation, and mastery in order to develop new solutions. Innovators, both individually and collectively, must become and remain fully aware of the actual forces and trends that are shaping the world in the new age of innovation, and use the cumulative base of knowledge and available technologies to anticipate the best possible solutions for today's and tomorrow's global challenges. This forms the basis of the book *Sustainable Innovation*.

The author has included in the book various elements regarding the power of the innovation process to solve many of the problems for present-day research—development—innovation systems and also addressed future challenges beginning to surface on a global level. The book is not about a new innovation model (although it presents the sustainable innovation model), nor is it another book on innovation policy (although it contains very interesting tips and recommendations for leaders and decision makers). Furthermore, the book is not about the basis for the knowledge-based economy (although it reviews the most important implications of innovation with economy). Rather, the book provides a very well founded reflection as a call to action. In a very smart approach, the author shifts from the concept of sustainable development towards sustainable innovation, where innovative activities are based on ethically, socially, economically, and environmentally sustainable principles.

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URN: NBN:fi:jyu-201011173095

Sustainable innovation is "the interactive process in which different forms of capital (industrial or physical, human, natural, social) are used in a balanced way to promote long-term human development and the good of people, in Finland and throughout the world" (p. 22). The equation of innovation–productivity–growth no longer works nowadays. It has been replaced by the new formula of innovation-reproduction-wellbeing, by which the economic systems (markets), natural systems (resources) and social systems (citizens and institutions) will find a balanced point to address the "wicked" problems (democracy, poverty, energy, water, forest, etc.).

With Finland being one of the most innovative countries in the world, and having proven the strengths of the links between education, technology and innovation with economy and welfare, some could be puzzled about the need to reformulate the models that have helped develop "the world's best country" according to the *Newsweek Magazine* international study in summer of 2010. As William Pollard (1996, p. 114) said, "Learning and innovation go hand in hand. The arrogance of success is to think that what you did yesterday, will be sufficient for tomorrow." The book also analyzes the Finnish knowledge and innovation systems, providing insightful information about the strategies for success, but focuses also on its weaknesses, providing points for improvement that will prevent the Finnish system from becoming "arrogant" and eventually dying from it own success. Professor Hautamäki moves back and forward in his analysis from a global landscape to the local innovation ecosystems, carefully distilling the most interesting arguments of updated innovation currents and cases worldwide as a learning source for the new concept of sustainable innovation.

Education, creativity, decentralization, networking, and leadership (all of them addressed in the book) are the main characteristics of the modern innovation pathways that are already changing the business activities, regional and national economies, and, hopefully in the near future, the life of more and more citizens of the new world we are starting to live in.

Of these characteristics, I would say that education is one of the most important. Education empowers people through knowledge, so that people can turn their own creative potential into real innovations to improve their living conditions, environment, and quality of life. A central role in the book is given to universities for creating the basis for the innovation activity and even as the core for innovation economy. Quality teaching and research developed in universities may of course exert a direct effect on the economy, although universities in most countries should undergo a deep transformation to facilitate innovation and avoid becoming stuck in their rigid (and in many cases old-fashioned) structures and ways of working. In this transformation, the third mission of the universities must be given the importance it deserves, leveraging the social responsibility of universities as a fundamental piece of knowledge-based modern societies. This vision is valid as well for elementary and secondary education systems, which play a very important role in transmitting the new values, concepts, and resources that will permit a broad base of active participation by citizens in the new society.

Sustainable innovation is based upon five principles: sustainable development; participative, continuous and global innovation; and innovative management. These five factors constitute a strong base to reinforce the performance of innovators and open the eyes of other stakeholders who can contribute to helping sustainable innovative practices achieve their true potential. This perspective is highlighted by two quotes drawn from the conclusions of the book: "The innovation activity of nations and companies must be directed towards

solving the most dramatic and threatening issues facing humankind" (p. 129) and "Sustainable innovation starts with positive thinking, a belief that creativity and innovation can overcome the pending challenges linked with environment and society" (p. 130).

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