

Emergent Innovation: sustainable innovation as learning from the future as it emerges. On uncertainty and creating opportunities by exploring potentials and adjacent possibles

Most approaches in innovation are extrapolating past experiences into the future or they use "wild" out-of-the-box-thinking methods for generating new knowledge or perspectives. However, how can we create something radically new and at the same time something that has been “waited for”, although nobody has explicitly known or seen it; i.e., something that—despite its perhaps radical newness—appears just in the right time at the right place (“kairos”) and organically fits in the existing environment (be it a market, an organization, a culture, or society). The challenge is to create something that is both radically new and fits into existing patterns of perception and thought. It is a kind of "innovation from within", an innovation that—despite its novelty—respects what is already there and makes use of its potentials for creating something new in a sustainable and thriving manner. We refer to this alternative approach to innovation as *Emergent Innovation*. Both its theoretical foundations and a concrete well-proven innovation process will be introduced.

Besides other approaches from the fields of innovation, cognitive science, and epistemology, this approach is based on S.Kauffman’s concept of adjacent possibles (Kauffman, 2014) and C.O.Scharmer’s Theory U (Scharmer, 2007). Whenever we are dealing with the challenge of sustainable radical innovation, we are confronted with a kind of uncertainty, in which the future is not only unknown, but also unknowable. In such a perspective both search- and solution-spaces are unknown, and even “worse”, they change permanently as they are continuously co-created in a process of interaction between environmental structures/dynamics, potentials, and cognitive system(s) (and their evolving needs). Comparing this situation with evolutionary dynamics, “...we do not know what all the possibilities are for such preadaptation, so we do not know the unprestatable and ever changing phase space of evolution. Not only do we not know what “will” happen, we do not even know what “can” happen.” (Longo, Montevil, & Kauffman, 2012, p. 1384) For such a tricky situation, it is necessary

to create niches or spaces for potentials (in Kauffman's (2014) terms "adjacent possibles") in which innovations may emerge.

It will be shown that a new kind of "cognition and epistemology of potentiality" is needed in order to accomplish such processes as "learning from the future" and "listening to the future as it emerges". It involves a whole new set of cognitive abilities, attitudes and epistemological virtues, such as radical openness, deep observation, skills of deep understanding, reframing, identifying and cultivating potentials, etc.

The second part of this talk presents the Emergent Innovation approach that applies these theoretical concepts in a concrete process design. It is a socio-epistemological innovation technology bringing forth profoundly new knowledge and innovations having the qualities explicated above. In this context the concept of enabling plays a crucial role. The practical concepts, the implications as well as the learnings will be discussed.