

Special Issue Call for Papers

Journal: *Triple Helix*

Call for papers — An Emerging Unified Theory of Helix Architectures: The Quintuple Innovation Helix Framework as the Integrative Device for the Evolution of Helices.

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“Democracy and the Environment are Endangered Species” RiConfiguring Today for a Better Tomorrow: Theories, Policies, Practices and Politics for Smart Growth. Interview with Dr. Prof. Elias Carayannis (Koldbye, 2020)

This special issue is one of the joint special issues on the relations between Triple, Quadruple Quintuple Helix innovation models for [Journal of the Knowledge Economy](#), [Journal of Innovation and Entrepreneurship](#) and *Triple Helix* respectively. The joint special issues are for provoking continuing discussions and debates, following the recent special issue: [Triple, Quadruple and Quintuple Helix Models of Innovation](#) published in *Triple Helix*.

The present special issue for *Triple Helix* is placing an emphasis on the integrated design opportunities of Helix architectures, integrating Triple, Quadruple and Quintuple Helix innovation models. It particularly deals with democracy-based and ecology-based implications of the Quadruple and Quintuple Helix innovation systems (Carayannis & Campbell, 2022) as well as helical co-development in innovation ecosystems, which, for example, has been conceptualized by Cai (2022) in his proposal for the neo-Triple Helix (TH) model.

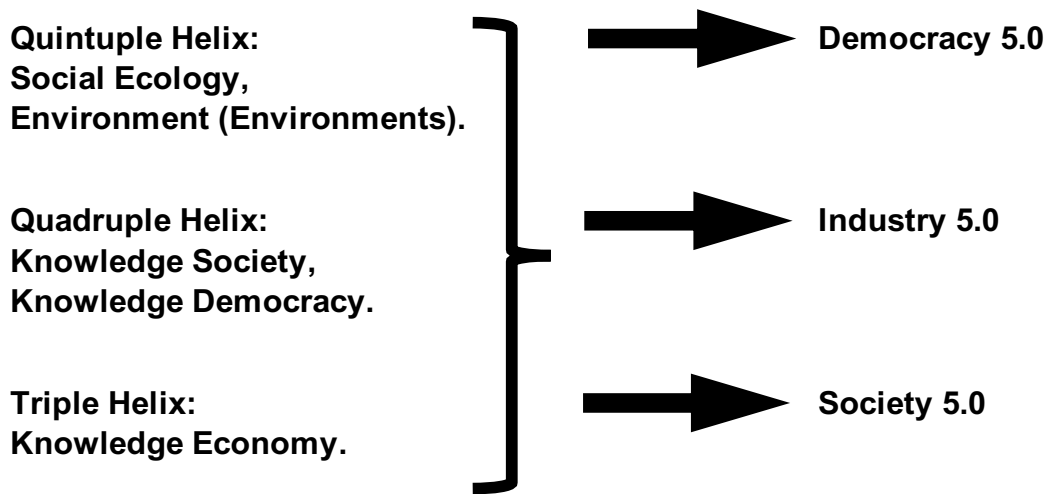
In this context, the Quintuple Innovation Helix Framework (also cited as the Quadruple/Quintuple Innovation Helix or Q2IH) represents perhaps the most comprehensive and in that sense meaningful and valuable construct and modality as it encompasses the five key and core dimensions of modern, sustainable and democratic knowledge economies and societies – that is the environment and the civil society as well as the government, university and industry dimensions.

The Industry 5.0 and Society 5.0 Frameworks are clearly the emerging policy and practice guidelines for the green and digital socio-economic transformation of modern democracies and they align in a rather coherent, comprehensive and consistent manner with the Q2IH Framework, hence this is another important consideration and criterion for selecting and focusing on the Q2IH Framework or in short the Quintuple Innovation Helix Framework as the core of the EUTOHA and related reflections on Q2IH and Industry 5.0 and Society 5.0. (Carayannis & Campbell, 2021).

It is strongly felt that it is appropriate and even critical, given current events in Europe that starkly highlight the conflict and struggle between democracies and autocracies, that we enable, facilitate and even accelerate the further development of an “EMERGING UNIFIED THEORY OF HELICAL ARCHITECTURES (EUTOHA)” (Carayannis & Campbell, 2022) to bring clarity, coherence and consistency to the process of leveraging the helical architectures to advance and enhance the design of solutions for the digital transformation of modern knowledge economies and societies towards more democratic and sustainable (green) ones.

All in all, the Q2IH concept represents an eco-systemic approach that encompasses, extends and completes the TH and in that sense the Neo-TH approach (Cai, 2022). The Q2IH Framework allows us to operationalize the socio-economic transformation of industry and society towards the novel Industry 5.0 and Society 5.0 Frameworks that aim to incorporate a more balanced human-centric and techno-centric design thinking approach (see Figure 1 for a visualization).

Figure 1: The Multi-Level Helical Structure of the Quintuple Helix Framework.



Source: Carayannis and Campbell (2022, p. 70).

We welcome papers contributing to the following questions, albeit not in a strict (exclusive) sense:

- To which extent does the global competition between democracies and autocracies also represent a competition between different models of (Helical) innovation?
- Are democracy and the ecology “endangered species”, and what does this imply for the further prospects of innovation and further innovation development?
- Is a sustainable evolution of innovation dependent on a promotion of democracy and ecology?
- What types of innovation do Industry 5.0 and Society 5.0 require (in advance of contemporary forms of Industry 4.0 and Society 4.0)?
- How can a win-win situation be established between Industry 5.0 (Society 5.0), ecology, and the advancement of Helical innovation models?
- How is innovation connected with the rise of new and radically new technologies?
- Can we speak of an inter-disciplinary or trans-disciplinary eco-system-based relationship of Triple Helix, Quadruple Helix and Quintuple Helix innovation systems?
- What are possible future scenarios of the further evolution of Helical innovation models?

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere. The timeline of the special issue is as follows.

- **Feb 28, 2023:** Expression of interest, abstract (around 500-1000 words) submission by email to the guest editors (of the three journals) for consideration in the joint special issues.
- **March 30, 2023:** Guest editors provide recommendations for further paper development.
- **June 30, 2023:** Submission of the final article manuscript. The final submission will be managed through the standard submission systems for external review of the journal. The finally accepted paper will be first published online.
- The second half of 2023: Publication of the special issue.

References (Further Readings)

- Cai, Y. (2022). Neo-Triple Helix Model of Innovation Ecosystems: Integrating Triple, Quadruple and Quintuple Helix Models. *Triple Helix*, 9(1), 76-106. <https://doi.org/https://doi.org/10.1163/21971927-bja10029>
- Carayannis, E. G., & Campbell, D. F. J. (2021). Democracy of Climate and Climate for Democracy: the Evolution of Quadruple and Quintuple Helix Innovation Systems. *Journal of the Knowledge Economy*. <https://doi.org/10.1007/s13132-021-00778-x>
- Carayannis, E. G., & Campbell, D. F. J. (2022). Towards an Emerging Unified Theory of Helix Architectures (EUTOHA): Focus on the Quintuple Innovation Helix Framework as the Integrative Device. *Triple Helix*, 65-75. <https://doi.org/10.1163/21971927-bja10028>
- Koldbye, C. (2020). *Democracy and the Environment are Endangered Species. RiConfiguring Today for a Better Tomorrow: Theories, Policies, Practices and Politics for Smart Growth. Interview with Dr. Prof. Elias Carayannis by Charlotte Koldbye. Brussels: Research Reconfiguring and Innovation Constellations.* http://riconfigure.eu/wp-content/uploads/2020/01/Interview-with-Elias-Carayannis_2020_Final.pdf