

# Open Innovation and Quadruple Helix approach in the future of business cooperation with higher education

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## INTRODUCTION

- **Open Innovation** is the concept of co-creation and collaboration



*“the use of purposive inflows and outflows of knowledge to accelerate internal innovation, and expand the markets for external use of innovation, respectively» (H.W.Chesbrough, 2010)*

- **Quadruple Helix** perspective originates from the collaboration amongst public, private, academia and societal actors within the innovation
- Quadruple Helix perceives “a multi-layered, multi-modal, multi-nodal and multi-lateral system” (Carayannis et.al., 2018) cooperation between various stakeholders
- The case study of national universities and business collaboration initiatives based on Open Innovation and Quadruple Helix approach is the practical implication suggested by this research.

## RESULTS

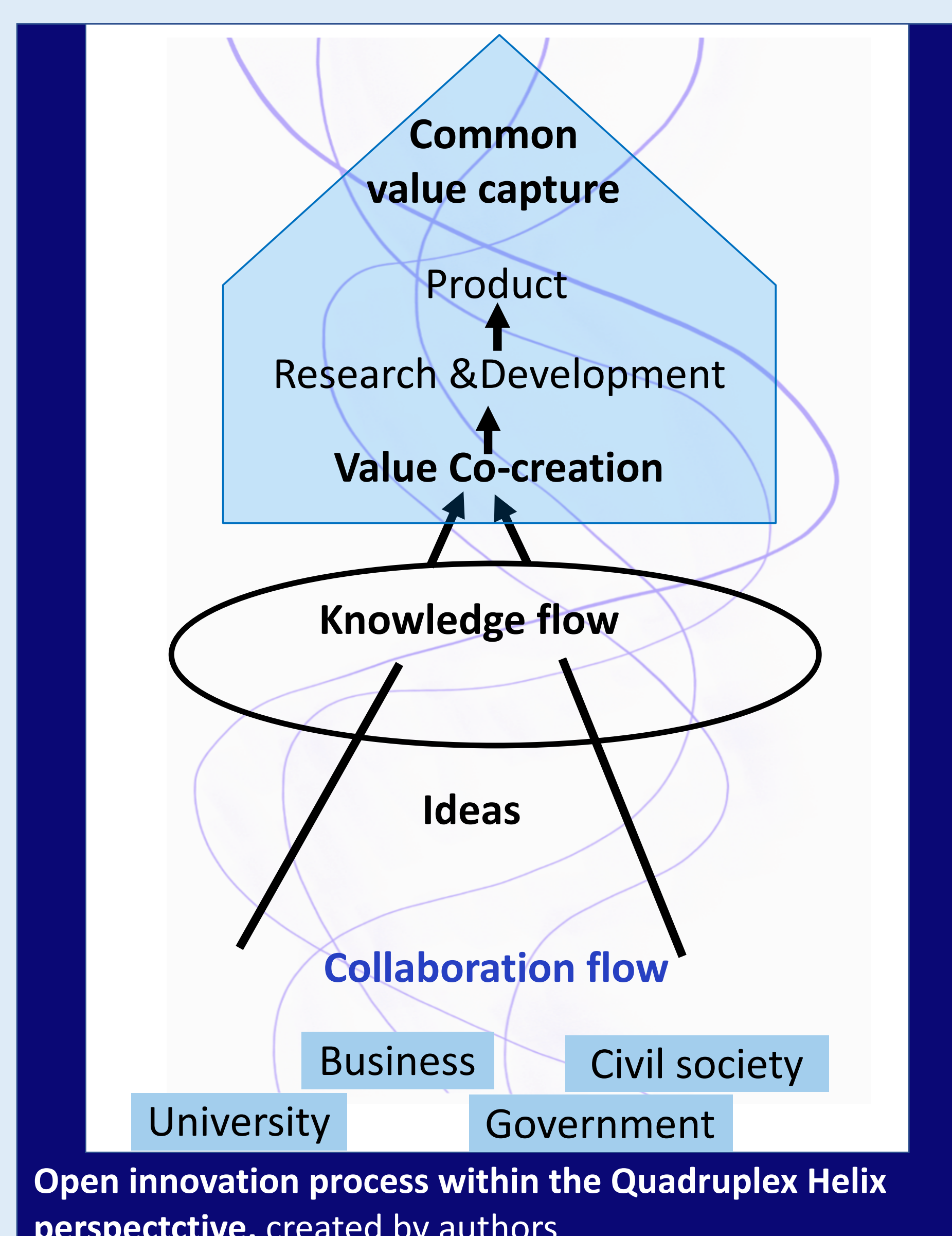
- Business, rarely recognize the value behind key words “Open Innovation” and “Quadruple Helix”
- Open Innovation approach as the co-creation and collaboration of various actors
  - is present in Latvia national innovation ecosystem “de facto”
  - Whereas multiple stakeholder approach “de jure” is missing
- Most recognized forms of cooperation are:
  - Business & business
  - Business & universities
  - Business & government
- Quadruple Helix cooperation framework
  - is rather theoretically recognized & promoted
  - lacks the legal and operational practices
- Particularly nascent entrepreneurs are open to the cooperation in various networks and value co-creation
- Currently, clusters are recognized as most common forms for cooperation across the boundaries of individual organizations

## METHODOLOGY

- Research focus:
  - Open Innovation and National Innovation Ecosystem
  - Cooperation within Quadruple Helix approach
- Research Aim
  - to introduce professionals and entrepreneurs with recent, mostly on-line, business and higher education cooperation initiatives case studies revealing Open Innovation approach in pandemic and post-pandemic times to promote the values of co-creation and collaboration based on Quadruple Helix approach
- Research methods:
  - Expert interviews (in total 15 field experts interviewed representing public, private, university and NGO sectors)
  - Literature review
  - Analyses of the national innovation policy documents (National and Regional Smart Specialisation Strategies, Latvia 2030, National Development Plan 2021-2027, other)
  - The case studies of recent national universities and business collaboration initiatives (e.g., Student Innovation Grants, Green technology Cluster, Cleantech Cluster, Latvian Start-up Association “Starin”, etc.)

## CONCLUSION, CONTRIBUTION AND NOVELTY

- Universities are strategic partners serving the business in the co-creation and innovation process
- In Latvia, the ecosystem of start-ups may act as the driver for the open innovation within the Quadruple Helix (QH) perspective
- The QH requires at least few engaged stakeholders willing to lead or advocate the multi-layered value co-creation process, and these actors can change depending on the value perception in the co-creation process
- Clusters shall form the future base for the management model of QH cooperation framework



## References

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- Carayannis, E. G., Goletsis, Y., & Grigoroudis, E. (2018). Composite innovation metrics: MCDA and the Quadruple Innovation Helix framework. *Technological Forecasting and Social Change*, 131, 4-17

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