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## Editorial: Social, technological and health innovation: Opportunities and limitations for social policy, health policy, and environmental policy

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# Editorial: Social, technological and health innovation: Opportunities and limitations for social policy, health policy, and environmental policy

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## KEYWORDS

digital health, health innovation, integrated innovation, multisectoral policy, public policy, public health, social innovation, technological innovation

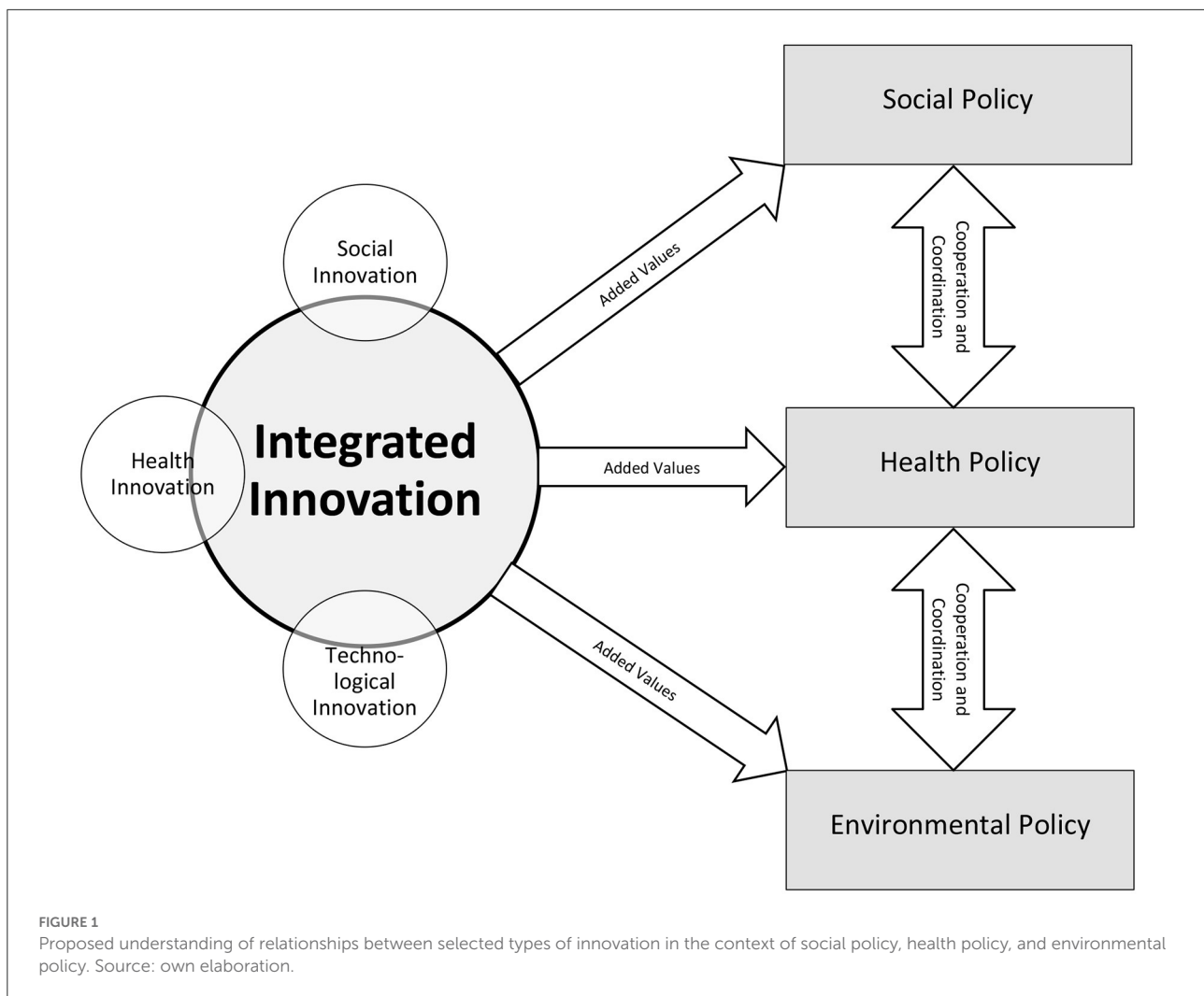
## Editorial on the Research Topic

Social, technological and health innovation: Opportunities and limitations for social policy, health policy, and environmental policy

## Overview

Innovation is progressively needed in responding to global challenges. Moreover, the increasing complexity of challenges implies demand for the usage of multisectoral and policy mix approaches. Wicked problems can be tackled by “integrated innovation” that combines the coordinated implementation of social, technological, and health innovation co-created by entities of the public sector, the private sector, the non-governmental sector, and the informal sector (cf. [Meissner and Kergroach, 2021](#)).

This Research Topic focuses on filling the knowledge gaps about the selected types of innovation. First, regarding social innovation that can be understood as new strategies, concepts, products, services, and organizational forms that allow the satisfaction of human needs ([Murray et al., 2010](#)). Second, a technological innovation that refers to new or remarkably improved products, goods, or services in terms of their technical specifications, components, materials, software, design, or other functional features ([Celi et al., 2015](#)). Third, health innovation that focuses on novel or enhanced health policies, systems, products, technologies, services, and care delivery schemes to improve people’s health ([WHO, 2021](#)). Finally, this Research Topic highlights attempts to develop integrated innovation that can add value to social policy, health policy, and environmental policy by improving efficiency, effectiveness, quality, sustainability, safety, and affordability ([Figure 1](#)).



The main idea behind the Research Topic “Social, Technological and Health Innovation: Opportunities and Limitations for Social Policy, Health Policy, and Environmental Policy” comes from previous studies of co-editors on the roles of innovation in selected public policies (Klimczuk and Klimczuk-Kochańska, 2019; Klimczuk and Tomczyk, 2020; Felix and Klimczuk, 2021). Four new goals underpinned work on this Research Topic: (1) to identify and share the best current practices and innovations related to social, environmental, and health policies; (2) to debate relevant governance modes, management tools as well as evaluation and impact assessment techniques; (3) to discuss dilemmas in the fields of management, financing, designing, implementing, testing, and maintaining the sustainability of innovative models of delivering social, health and care services; and (4) to recognize and analyze social, technological and health innovation that has emerged or has been scaled-up to respond to crises such as a COVID-19 pandemic.

The presented collection includes 14 articles prepared in total by 100 authors. It also contains five types of articles covering: eight original research articles (Beno; Maresova et al.; Qi and Wang; Sluijs et al.; Enste and Kucharski; Wang et al.; Ma and Gao; Zhang et al.), two perspective articles (El Akoum and El Achi; Ozair and Singh), one conceptual analysis article (Franke et al.), one review article (De Luca et al.), and two opinion articles (Giovanetti et al.; Maravilla and Tan). The papers comprising this set are organized according to three themes.

## Theme I: Socioeconomic challenges in the development of social, technological and health innovation

De Luca et al. analyze the regional innovation ecosystem in Campania, Italy, which focuses on ideas of healthy aging, the “silver economy,” digitalization, usage of local assets, and

a life-course approach. In the next paper, [Ozair and Singh](#) show advances in creating an inclusive and ethically resilient framework for healthcare innovation in India. The subsequent studies focused on China continue the discussion. [Qi and Wang](#) provide an example of a targeted rehabilitation assistance system for children with disabilities in which the participants' behaviors exist in a dynamic interaction with the regulatory, normative, and cognitive contexts that generate inclusion and exclusion errors underlying the inaccurate policy implementation. The team of [Zhang et al.](#) investigated trends in long-term care insurance funds and factors crucial for establishing a sustainable long-term care insurance financing mechanism in China. The final paper by [Wang et al.](#) concentrates on the statistical estimation of catastrophic health expenditure based on data from China's National Health Service Survey. The study recommends developing targeted and multidimensional policies to support identified types of households and vulnerable groups.

## Theme II: Innovation in the context of regulatory frameworks of social policy, health policy, and environmental policy

[El Akoum and El Achi](#) explore how healthcare innovations can reduce the costs and time associated with responses to the COVID-19 pandemic. The paper analyzes applications received in innovation competitions organized by the World Innovation Summit for Health. In the subsequent study, [Maresova et al.](#) investigate how medical device developers respond to regulatory framework requirements in the European Union. On the other hand, [Enste and Kucharski](#) present social, legal, and economic challenges implied by the introduction of intelligent wound plaster and the team of [Franke et al.](#) discuss diverse effects of assistive robots usage in long-term care facilities. Finally, [Maravilla and Tan](#) argue the need for mental health economics and policies that influence not only the quality of life but also the levels of production and consumption.

## Theme III: The implementation of social, technological and health innovation: Selected examples

[Giovanetti et al.](#), in their article, describe how the Genomic and Epidemiological Surveillance of Arboviruses in Brazil was combined with the dissemination of best practices of emerging movements such as the Open Science and the Responsible Research and Innovation. In the next paper, [Ma and Gao](#) provide evidence that there is a need to stimulate social capital that may differently influence self-rated health in distinct types of communities in China.

Also, [Sluijs et al.](#) focus on targeted intervention. Their study investigates the reduction of type 2 diabetes based on a cost-benefit analysis of various lifestyle programs through dynamic simulations. The last study of this collection, by [Beno](#), analyses how potential financial benefits for e-workers differ in various countries and whether these can increase e-workers' earnings.

## Conclusion

The results of the analyzes presented in this Research Topic allow the formulation of three collective lessons derived from these studies. These are: (1) integrated innovation combining social, technological and health innovation needs a high level of cooperation and coordination between various entities and especially well-organized knowledge transfers between research and practice; (2) governance, public management, and organizational management of integrated innovation need an in-depth understanding of multilevel, multistakeholder, and multisectoral approaches; and (3) policy mix related to integrated innovation should cover, among others, investment in research and development, support services and improvement of innovation competencies of policy actors, and the creation of new markets.

Moreover, the articles included in this collection suggest four directions for further research. These are: (1) features of emerging economic systems based on integrated innovation such as the silver economy, longevity economy, social economy, circular economy, green economy, and sharing economy; (2) functions of co-design, co-creation, and co-production schemes in the development of integrated innovation in the areas of social policy, environmental policy, and health policy; (3) disruptions and challenges for integrated public policies and programs on social, environmental, and health issues related to delivering services going beyond digital innovation; and (4) opportunities, criticism, and ethical controversies related to examples of integrated innovation such as digital social innovation, e-health, plant-based innovation, food innovation, artificial intelligence-based solutions, social and service robotics, smart environments, gerontechnology, and welfare technology.

## Author contributions

AK outlined and drafted the editorial. MK-K and JF contributed by reviewing and revising the manuscript of editorial and leading editorial work on all manuscripts included in this Research Topic. All authors of the papers listed have made a substantial, direct, and intellectual contribution to the work as well as approved their papers for publication.

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## Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships

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