

## Call for Paper

# Open Innovation and Sustainability in the Digital Age: Opportunities and Challenges

*Francesco Cappa, Stefano Franco, Riccardo Maiolini, Mats Magnusson, Antonio Messeni Petruzzelli*

In recent years, Open Innovation (OI) has gained significant attention as a driver for innovation and growth in organizations. OI refers to the practice of involving external partners in the innovation process, such as other companies, universities, crowds external to organizational boundaries (e.g. crowdsourcing, citizen science, crowdfunding and user innovation) to exchange knowledge flows (Bogers et al. 2017, 2018, Cappa 2022, Cappa et al. 2019, Chesbrough et al. 2018, Messeni Petruzzelli et al. 2022, Radziwon et al. 2022). In the digital age, OI has emerged as a crucial driver of sustainable innovation for organizations. By involving external partners in the innovation process, OI can lead to increased performance and growth (Cappa et al. 2019, Franco et al. 2021, Rauter et al. 2019). However, the complex and uncertain nature of innovation decisions highlights the need for effective decision-making processes (Kennedy et al. 2017). Additionally, a firm's digitalization can further enhance its innovation and sustainability efforts by enabling the adoption of more sustainable business models (Lopes et al. 2017) and staying up-to-date with the latest technological trends.

Despite the importance of OI, sustainability, and digitalization for firms, few studies have explored the relationship among these elements and their joint consideration (Cillo et al. 2019), while in the majority of the cases the two phenomena have been explored independently (Beck et al. 2021, Franzò et al. 2022, Heimstädt and Reischauer 2019, Rangus et al. 2016, Slavec Gomez and Rangus 2019, Smith 2016, West and Bogers 2017). Therefore, this call for paper (CfP) aims to bring together insights from these areas to shed light on *how OI in the digital age can drive sustainable development*. This approach has been found to increase the performance of organizations by leveraging external knowledge sources (Du et al. 2016). However, there is a growing recognition that OI can also contribute to addressing Grand Challenges, such as environmental and social sustainability. While OI can be a driver for sustainability, scholars need to better understand how OI can be sustainable itself. As highlighted by Kimpimäki et al. (2022), despite the recent emergence of concepts that try to connect openness to sustainability, such as 'sustainable open innovation' (Bogers et al. 2020), 'open sustainable innovation' (Collecchio et al. 2023) and 'open social innovation' (Chesbrough and Di Minin 2014), a broader and more general understanding of this area of research has been overlooked so far.

OI in the digital age can drive sustainable innovation and bring numerous benefits to the organizations (McGahan et al. 2020, Urbinati et al. 2023). OI practices can influence more sustainable business models and innovation processes, enabling firms to compete and stay up-to-date with the latest trends in technological innovations (Obradović et al. 2021). OI should be seen as imperative to achieve sustainable development and success in today's digital environment. As highlighted in this CFP, effective decision-making processes and the board's characteristics, such as diversity, independence, tenure, and size, are crucial for implementing OI practices and achieving sustainable innovation. Therefore, by leveraging OI in the digital age, organizations can address Grand Challenges and contribute to the greater good of society, while also ensuring their long-term success and competitiveness. Consequently, this topic is of great interest for managers of private and public organizations, as well as for policymakers.

With this CFP we encourage submissions of interdisciplinary scholarly contributions from a wide variety of viewpoints, fields of study, and communities. These contributions should investigate both theoretical and empirical papers, and their topics or areas of interest should include but are not limited to the following suggested research questions:

- How can OI practices be leveraged to address Grand Challenges in sustainable development, and what are the potential benefits and drawbacks of doing so?
- How can organizations effectively manage OI to pursue Sustainable Development Goals (SDGs)?
- What are the key challenges that organizations face when implementing OI practices for sustainable development in the digital age, and how can these challenges be overcome?
- How can organizations effectively manage OI to improve their strategies aimed at increasing sustainable performance?
- What are the privacy concerns associated with OI practices for sustainable development, and how can these concerns be addressed?
- How can OI be managed to develop strategies for enhancing sustainability?
- What are the practical applications of OI as a tool to improve company stakeholder engagement?
- How managers of public organizations and policymakers can leverage OI for achieving sustainable innovations, e.g. for the development of smart cities?
- Do crowd involvement for OI, i.e. crowdsourcing, citizen science, crowdfunding and user innovation, can help achieving sustainable development for all the stakeholders?

**Paper submission deadline: 1 July 2024 (full paper)**

## References

- Beck S, LaFlamme M, Bergenholtz C, Bogers M, Brasseur TM, Conradsen ML, Crowston K, et al. (2021) Examining Open Innovation in Science (OIS): what Open Innovation can and cannot offer the science of science. *Innovation: Organization and Management*.
- Bogers M, Chesbrough H, Moedas C (2018) Open innovation: Research, practices, and policies. *California Management Review*.
- Bogers M, Chesbrough H, Strand R (2020) Sustainable open innovation to address a grand challenge : Lessons from Carlsberg and the Green Fiber Bottle. *British Food Journal* 122(5):1505–1517.
- Bogers M, Zobel AK, Afuah A, Almirall E, Brunswicker S, Dahlander L, Frederiksen L, et al. (2017) The open innovation research landscape: established perspectives and emerging themes across different levels of analysis. *Industry and Innovation* 24(1):8–40.
- Cappa F (2022) Big data from customers and non-customers through crowdsourcing, citizen science and crowdfunding. *Journal of Knowledge Management* 26(11):308–323.
- Cappa F, Oriani R, Pinelli M, De Massis A (2019) When does crowdsourcing benefit firm stock market performance? *Research Policy* 48(9).
- Chesbrough H, Lettl C, Ritter T (2018) Value Creation and Value Capture in Open Innovation. *Journal of Product Innovation Management* 35(6):930–938.
- Chesbrough HW, Di Minin A (2014) Open Social Innovation. *New Frontiers in Open Innovation*. 301–315.
- Cillo V, Petruzzelli AM, Ardito L, Giudice M Del (2019) Understanding sustainable innovation: A systematic literature review. *Corporate Social Responsibility and Environmental Management* 26(5):1012–1025.
- Collecchio F, Cappa F, Peruffo E, Oriani R (2023) When do M&As with Fintech Firms Benefit Traditional Banks? *British Journal of Management* 0:1–21.
- Du S, Yalcinkaya G, Bstieler L (2016) Sustainability, Social Media Driven Open Innovation, and New Product Development Performance\*. *Journal of Product Innovation Management* 33:55–71.
- Franco S, Presenza A, Petruzzelli AM (2021) Boosting innovative business ideas through hackathons. The “Hack for Travel” case study. *European Journal of Innovation Management* 25(6):413–431.
- Franzò S, Landoni P, Colombo G, Verganti R (2022) The role of publicly funded collaborative projects in implementing open innovation. *Innovation: Organization and Management*.
- Heimstädt M, Reischauer G (2019) Framing innovation practices in interstitial issue fields: open innovation in the NYC administration. *Innovation: Organization and Management* 21(1):128–150.
- Kennedy S, Whiteman G, van den Ende J (2017) Radical Innovation for Sustainability: The Power of Strategy and Open Innovation. *Long Range Planning* 50(6):712–725.
- Kimpimäki JP, Malacina I, Lähdeaho O (2022) Open and sustainable: An emerging frontier in innovation management? *Technological Forecasting and Social Change* 174(November 2020).
- Lopes CM, Scavarda A, Hofmeister LF, Thomé AMT, Vaccaro GLR (2017) An analysis of the interplay between organizational sustainability, knowledge management, and open innovation. *Journal of Cleaner Production* 142(1):476–488.
- McGahan AM, Bogers MLAM, Chesbrough H, Holgersson M (2020) Tackling Societal Challenges with Open Innovation. *California Management Review* 63(2):49–61.

- Messeni Petruzzelli A, Murgia G, Parmentola A (2022) How can open innovation support SMEs in the adoption of I4. 0 technologies? An empirical analysis. *R&D Management* 52(2):615–632.
- Obradović T, Vlačić B, Dabić M (2021) Open innovation in the manufacturing industry: A review and research agenda. *Technovation*.
- Radziwon A, Bogers MLAM, Chesbrough H, Minssen T (2022) Ecosystem effectuation: creating new value through open innovation during a pandemic. *R and D Management*. 376–390.
- Rangus K, Drnovšek M, Di Minin A (2016) Proclivity for open innovation: Construct development and empirical validation. *Innovation: Management, Policy and Practice* 18(2):191–211.
- Rauter R, Globocnik D, Perl-Vorbach E, Baumgartner RJ (2019) Open innovation and its effects on economic and sustainability innovation performance. *Journal of Innovation and Knowledge* 4(4):226–233.
- Slavec Gomezel A, Rangus K (2019) Open innovation: it starts with the leader's openness. *Innovation: Organization and Management* 21(4):533–551.
- Smith A (2016) Alternative technology niches and sustainable development. *Innovation: Management, Policy and Practice* 18(4):468–484.
- Urbinati A, Shams Esfandabadi Z, Messeni Petruzzelli A (2023) Assessing the interplay between Open Innovation and Sustainability-Oriented Innovation: A systematic literature review and a research agenda. *Business Ethics, the Environment & Sustainability* In press:1–18.
- West J, Bogers M (2017) Open innovation : current status and research opportunities. *Innovation* 19(1):43–50.