



XIX International Triple Helix Conference – 2021

TITLE: ORCHESTRATION OF ACTORS IN THE INNOVATION ECOSYSTEM TO FACE COVID-19 CRISIS.

TYPE: (a) original research

TRACK: Triple Helix and Government Innovation in a time of pandemics

PURPOSE:

The discovery of the coronavirus (SARS-CoV-2) and the spread of COVID-19 have led many governments to take drastic measures. The lockdown of large parts of society and economic life has come as an exogenous shock to many economic actors. SARS-CoV-2 triggered a twofold crisis in health systems worldwide, and the infection control measures have caused an economic crisis by bringing a vast amount of economic activity to an abrupt halt. The COVID-19 pandemic has developed globally, and the necessary countermeasures which have been put in place have hurt economies suddenly (Kuckertz et al., 2020); this research will address the impact of the current economic downturn on the innovation ecosystem. Innovation ecosystems in cities have been recognized as critical forces behind regional development (Audretsch & Belitski, 2016). The cities express themselves as they articulate public administrations, public and private, social and civic associations, academic and professional sectors as well as social media (Castells & Borja, 1996). The articulation of innovation in the cities is an emerging theme in the management literature (Leminen, Nyström & Westerlund, 2019; Gupta, Panagiotopoulos & Bowen, 2020). In this sense, the dynamic of ecosystems can bring light to the differences in the impact of the COVID-19 crisis and cities' articulation. This context presents the following questions: how does COVID-19 influence actors' orchestration and innovative activities in the innovation ecosystem? This paper analyzes the orchestration strategies of innovation ecosystems at the city level and the impact of COVID-19 in the orchestration of actors and innovative activities.

DESIGN/METHODOLOGY/APPROACH:

We conducted exploratory and descriptive research with a single case study in-depth. This approach is appropriate because we expect to understand of multi-sided contextual influences in the



orchestration process and the impact of COVID-19 crisis on the ecosystem. We chose the case of Porto Alegre, Brazil. The case selection criterion was the history of social engagement and innovation movements at the city level since the 1990s. The city intends to become an innovation ecosystem worldwide in 2025. However, the city faced a strong impact on the health system (NYTimes, 2021). The methodological plan includes two phases in the first semester of 2021. The first one used secondary data, videos, documents, and reports about it. In March 2021, the second phase covered ten in-depth interviews with key actors using the snowball technique. All interviews were recorded and transcribed.

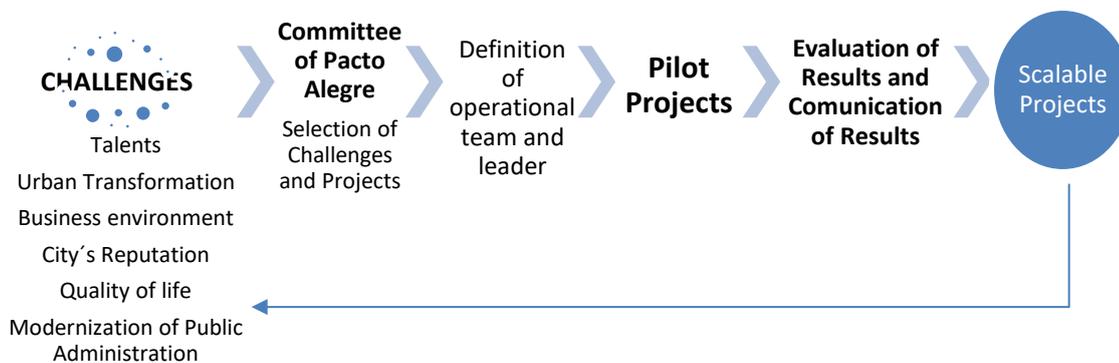
FINDINGS:

The city of Porto Alegre is the capital of Rio Grande do Sul, Brazil's southernmost state. Its population is estimated at 1.48 million people and is known by traits like diversity and multiculturalism (Prefeitura de Porto Alegre, 2019). Porto Alegre's Gross Domestic Product (GDP) worth R\$ 73.5 billion, the seventh-largest in Brazil, corresponding to a GDP per capita of approximately R\$ 49.5 thousand per year (IBGE, 2019). Brazil's democracy has frequently been described as unconsolidated, its citizens as apathetic and uninterested in politics. However, Porto Alegre has a history of social engagement. The city hosted the World Social Forum and Participatory Budgeting (Orçamento Participativo), allowing thousands of ordinary citizens to participate in local governance, making binding decisions on urban policy daily (Baiocchi, 2005).

Since the 1990s, Porto Alegre has been experiencing four important project cycles with high society's engagement to transform the city into a world-class innovation ecosystem (Pacto Alegre, 2019): Porto Alegre Technopole (PAT), CITE Movement (Citizens, Innovation, Technology, and Entrepreneurship), Municipality Office of Innovation (InovaPOA) and Alliance for Innovation. In 2018 the three most prominent universities, UFRGS, PUCRS, and Unisinos, the first one public and the other two private, receiving the Porto Alegre City Hall support, created the Alliance for Innovation. This Alliance had the purpose of fostering the innovation ecosystem of Porto Alegre. Among the Alliance for Innovation projects, the main one is the Pacto Alegre, which seeks to engage the quadruple helix actors, i.e., academia, civil society, companies, and government. The purpose of Pacto Alegre is joint efforts for a more innovative city, with more knowledge generation, social cohesion, attractiveness for investors, better infrastructure, opportunities, friendly for entrepreneurs, culturally richer, cleaner and, especially, with a better quality of life for its citizens, then turning into a world-class innovation ecosystem (Pacto Alegre, 2019). In November 2018, the Alliance for

Innovation, together with the Porto Alegre City Hall and entities representing the capital, held a formal signing ceremony for the Pact for Innovation, called Pacto Alegre (Pacto Alegre, 2019). The purpose of creating the Pacto Alegre refers to the enhancement of high-impact actions aimed at the development of the city. Figure 1 presents the mechanism of governance of Pacto Alegre, based on challenges and projects. At the end of the first year, Pacto Alegre presented the partial results of 24 projects of six challenges.

Figure 1 – Mechanism of governance of Pacto Alegre



The COVID pandemic presented a rupture in the development of this Program. We identified **two different moments** of the impact of the city's COVID crisis based on our data. At the first year, we observed a strong engagement of actors in the projects related to COVID challenges. We highlight some initiatives to exemplify this engagement: Brothers in Arms Movement, Surpass (Supera) – a Platform of support for SMEs, S.O.S. SMEs, Consortium to Production of Face Shield Masks and Respirators, among others. The previous mobilization of Pacto Alegre foster new projects to fight against the COVID: "The main gain was to have this articulated network, (...) to know who can make this connection" (Manager of a Science Park). The Alliance for Innovation, led by the city's main universities, played a **symbolic role** in motivating and mobilize other actors in the ecosystem. The orchestration of actors seems fundamental to keep the engagement in an innovation ecosystem's projects (Valkokari et al., 2017), especially in long periods of crisis. The existence of an **innovation community** in Porto Alegre since the 1990s (Baiocchi, 2005) facilitates collaborative projects to face the COVID pandemic.

Meantime, in the second year, this movement has been loosened strength. According to Pacto



Alegre's coordinator, "the agenda has become more oriented to face the crisis today. Survival has become a priority, rather than thinking about the future". In March 2021, Porto Alegre faced the worst moment in the COVID crisis. The critical issue of this situation is **the lack of coordination and a collective strategy**. Each level of public government (federal, regional, and municipality) has a different perspective on fighting against the pandemic of COVID. The city's current major, who campaigned in 2020 on a promise to lift all pandemic restrictions in the city, said a lockdown would cause people to starve (NYTimes, 2021). The majority of our informants stressed the importance of a **formalized governance structure** to coordinate actors' initiatives during the crisis.

ORIGINALITY/VALUE:

This paper contributes to a better understanding of the orchestration strategies of innovation ecosystems at the city level, exploring the impact of COVID-19 in the orchestration of triple helix actors. Our research addresses the impact of the current pandemic situation and triple helix actors' coordination at the city level.

PRACTICAL/SOCIAL IMPLICATIONS:

Our results indicate that, after a strong engagement of actors in the first year of pandemic, this movement has been loosened strength. In order to maintain the engagement of actors, the critical issues are the lack of coordination among the different level of Government (municipality, regional and federal) and a collective strategy of triple helix to fight against the pandemic of COVID.

DIRECTIONS FOR FURTHER RESEARCH/LIMITATIONS:

This paper presents one case-study in Brazil. However, further research could conduct a cross-country study to compare the orchestration of triple helix actors in different institutional context. The articulation of different levels of government is another key issue in facing COVID-19 crisis.

KEYWORDS (3-5): Covid-19, orchestration, triple helix, innovation ecosystem.

REFERENCES

Baiocchi, G. (2005) *Militants and Citizens: The Politics of Participatory Democracy in Porto Alegre*, Stanford, CA, Stanford University Press.

Castells, Manuel; Borja, Jordi. (1996). *As cidades como atores políticos. Novos estudos CEBRAP*, v.



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45, n. 2, p. 152-166.

Gupta, Anushri; Panagiotopoulos, Panos; Bowen, Frances. (2020). An orchestration approach to smart city data ecosystems. *Technological Forecasting and Social Change*, v. 153, p. 119929.

IBGE – Brazilian Institute of Geography and Economics (2019). Cidades: Porto Alegre. Available on <https://cidades.ibge.gov.br/brasil/rs/portoalegre/panorama> . Search in November 2nd 2019.

Kuckertz et al (2020) Startups in times of crisis – A rapid response to the COVID-19 pandemic. *Journal of Business Venturing Insights*, 13, June.

Leminen, Seppo; Nyström, Anna-Greta; Westerlund, Mika. (2019). Change processes in open innovation networks–Exploring living labs. *Industrial Marketing Management*.

NYTimes. A Collapse Foretold: How Brazil's Covid-19 Outbreak Overwhelmed Hospitals. Available on <https://www.nytimes.com/2021/03/27/world/americas/virus-brazil-bolsonaro.html>. Search in March 27th 2021.

Pacto Alegre - Porto Alegre (2019) Available on <https://pactoalegre.poa.br/> . Search in November 2nd 2019.

Valkokari, K.; Seppänen, M.; Mäntylä, M.; Jylhä-Ollila, S. (2017) Orchestrating innovation ecosystems: A qualitative analysis of ecosystem positioning strategies. *Technology Innovation Management Review*, v. 7, n. 3.