

SUMMARY

Dynamic analysis of the impact of instruments supporting arts and culture in cross-border and low-density areas

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PROJECT TEAM

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EXECUTIVE SUMMARY

The project aims to develop a methodology designed to analyse the impact production of public investments in the fields of Arts and Culture (A&C) in cross-border and low-density territories in Portugal. Within a context characterized by persistent territorial asymmetries and limitations in the capacity for monitoring and evaluating cultural policies, the project seeks to strengthen the available empirical evidence and to contribute to more informed and effective public decision-making processes in this domain.

The proposed approach is based on the construction of a dynamic logical model grounded in System Dynamics methodologies and Causal Loop Diagrams (CLD), enabling the overcoming of traditional linear approaches and capturing the complex, relational and non-linear nature of impact production processes. This framework allows not only the identification of cause-effect relationships, but also the understanding of feedback mechanisms, cumulative effects and interdependencies between variables over time. This methodological choice makes it possible to simulate the potential impact of ecosystem components and to identify blocking and driving factors in the impact generation process, with the objective of guiding policy decisions and funding strategies in the fields of Culture and Arts, particularly in the areas of planning, monitoring and evaluation.

1. CONTEXT

Low-density territories continue to exhibit structural weaknesses in access to cultural provision, in the presence of artistic agents and in the intensity of public investment, thus contributing to the persistence of territorial and social inequalities (Garcia et al., 2018). These limitations are reflected not only in cultural participation, but also in broader dynamics of social exclusion, isolation and reduced civic engagement.

Despite the existence of consolidated support programmes, significant limitations remain in the capacity to systematically assess the effectiveness, efficiency and impact of interventions, particularly in more complex territorial contexts. Specifically, there is a lack of analytical models capable of capturing causal relationships and the underlying mechanisms that drive impact production.

In this context, the project proposes an innovative evaluation approach based on the construction of a dynamic logical model that makes it possible to understand not only the outcomes of interventions, but also the processes and mechanisms through which they are generated. In doing so, the project positions Arts and Culture as instruments for social inclusion, participation and territorial cohesion.

2. OBJECTIVES

The project is structured around three main objectives: to develop and implement a specific methodology capable of producing structured and robust information on the A&C dimension of public investments carried out under the POCTEP and PIS frameworks; to build an analytical tool with the capacity to map the ecosystem of implementation of these programmes and to analyse their respective causal dynamics; and to generate applied knowledge that supports more effective, inclusive and territorially responsive public policies for cultural funding.

At the operational level, the project also aims to construct a dynamic logical model based on feedback loops, to identify blocking and driving factors, and to formulate recommendations for the planning, monitoring and evaluation of public policies.

3. METHODOLOGY

The project's methodology is based on the construction, modelling and analysis of a model referred to as a “causal ecosystem”, which seeks to systematise the ways in which operations funded by the POCTEP and by Portugal Inovação Social in the fields of A&C generate causal chains linking outputs to long-term outcomes, understood as impacts. This model takes the form of a middle-range theory, insofar as it seeks to explain recurrent patterns of impact production based on observable mechanisms and causal relationships, without aiming to encompass the totality of social reality (Capucha & Caramelo, 2024).

The construction of this causal ecosystem is grounded in a hybrid model that articulates two complementary approaches. On the one hand, successive causality, which makes it possible to structure the logic of programme intervention by identifying sequential relationships between resources, activities, outputs and impacts. On the other hand, generative causality, which introduces a deeper explanatory dimension by incorporating actors, contexts and mechanisms that produce the observed effects. This articulation allows the project to move beyond a linear view of public intervention and to capture the complexity of the social processes under analysis.

The operationalisation of this approach draws on System Dynamics and the construction of Causal Loop Diagrams (CLD), which enable the representation of the system's conceptual structure through the identification of outcome variables (primary), moderating variables (secondary), and causal links with positive or negative polarity. These diagrams also allow the identification of feedback mechanisms, distinguishing between reinforcing loops and balancing loops, which are essential for understanding the dynamic behaviour of the system (Cai et al., 2019; Drews et al., 2016).

From an empirical perspective, the methodology integrates multiple sources and techniques for data collection and analysis. The selection of the evaluated focused on operations supported by the POCTEP 2021–2027 programme and by the instruments of Portugal Inovação Social, applying substantive criteria (presence of activities in the A&C domain), temporal criteria (operations approved up to the first quarter of 2025), and territorial criteria (interventions in low-density territories). This process resulted in the inclusion of ten

operations, distributed across the North, Centre, Alentejo and Algarve regions, and focused on three main target groups: older adults, children and young people, and people with disabilities or impairments.

The construction of the CLDs is based on a systematic content analysis of the documentation submitted with the project applications, namely development plans, complemented by interviews with beneficiaries. The analysis was conducted using MaxQDA software, allowing for the coding of textual information and the construction of a structured database containing variables and causal relationships.

Once this phase is completed, an expert panel is convened, playing a central role in strengthening the robustness of the model. This panel enables the validation and refinement of the identified causal relationships, as well as the quantification of the polarity and intensity of the links between variables, using validation and quantification instruments applied within participatory modelling processes (Pluchinotta et al., 2024). This constitutes a fundamental step in consolidating the CLD database and in its subsequent modelling within the Vensim environment. Accordingly, the CLDs are converted into stock-and-flow models, making it possible to translate qualitative causal logic into a quantitative structure suitable for simulation. This transition is methodologically central, as it allows for the analysis of the dynamic behaviour of the system over time, the identification of the potential impact of different variables, and the distinction of the main blocking and driving factors that condition the impact production of the funded operations.

4. PRELIMINARY RESULTS

The analysis carried out so far made it possible to construct a first version of the Causal Loop Diagrams (CLD), enabling the identification of consistent patterns in the dynamics of impact production associated with cultural and artistic activities.

Across cases, the results show that participation in cultural and social activities constitutes the central variable of the system, acting as a driving force for causal chains that link individual development, social integration and well-being. This participation triggers a set of interconnected mechanisms that result in increased active social inclusion, which represents the primary impact sought by the funding programmes.

In the case of the older population, these dynamics translate into increases in skills, including digital competencies, improvements in functional capacity and cognitive stimulation, as well as enhanced emotional and social well-being, leading to higher levels of autonomy and the promotion of active ageing. The valorisation of older adults' knowledge and identities emerges as a particularly relevant mechanism, as it fosters active participation, increased self-esteem and community empowerment.

Regarding people with disabilities or impairments, the results indicate positive effects in terms of emotional expression, the development of sensory, cognitive and social skills, and improvements in quality of life and social integration. A reduction in stigma and self-stigma is also highlighted, alongside improvements in mental health and psychological well-being, associated with structured contexts of cultural participation.

For children and young people, participation in cultural activities is associated with the development of personal and social skills, improved interpersonal relationships, and a reduction in situations of isolation and conflict. These effects extend to the school context, contributing to increased motivation, attendance and identification with school, with positive impacts on the stability of educational trajectories and on the reduction of school dropout.

Beyond these group-specific effects, the results highlight the importance of mechanisms related to visibility and social recognition, particularly through public presentations and the valorisation of participants' cultural identities. These processes contribute to the social acceptance of minority groups, the reduction of prejudice and the strengthening of a sense of belonging, playing a relevant role in the promotion of social and community cohesion.

Finally, the intensity and direction of the identified effects are conditioned by a set of moderating variables, among which socioeconomic context, family support and community involvement stand out. These factors influence both participation capacity and the effectiveness of interventions, highlighting the contextual and relational nature of impact production processes.

5. FUNDING

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