SOCIAL INNOVATION ROUTE: A METHOD TO INNOVATE WITH THE TERRITORIES

The Social Innovation Route is a method that allows tackling problems from the perspective of social innovation. It establishes a cooperation with territories to manage systemic changes that transform adverse situations into sustainable innovations with the potential for consolidation and transfer to other regions.

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INTRODUCTION

This article presents the conceptual approach of the Social Innovation Route (the Route) as an applied method for generating social innovations. It was developed by the Social Innovation Science Park (PCIS). PCIS is a unit of Corporacion Universitaria Minuto de Dios (UNIMINUTO) University that articulates research with territories to solve problems with a focus on sustainable development through social innovation.

The Route is a product of intentional praxis of PCIS with the territories of Colombia. It is taking a social innovation perspective to address challenges that transform adverse situations into innovations that can be consolidated and transferred to other regions. The method gathers PCIS learnings of more than seven years of implementing a social innovation strategy with concrete territories as the result of joint work between researchers and social actors. It consolidates a commitment to social innovation based on tacit and scientific knowledge in which: 1) The process focuses on the needs of territories, seeking their transformation and fostering sustainable development over time. 2) The articulation between formal and tacit knowledge is a systemic process in that proposed solutions respond to the criteria of participation, efficiency, scalability, and sustainability so that they may generate permanent changes over time. 3) The principle that social innovation goes beyond creative or pilot actions, and should facilitate the application, transfer, and appropriation of both knowledge and social technologies. [1]

HOW WE ARRIVED AT THIS METHOD

The PCIS is a specialized platform that operates under the principle of social appropriation of knowledge. It connects actors and resources of the Science Technology and Innovation System (STI) with vulnerable territories to boost the co-creation of solutions to social problems, which the actors realize in projects, ventures, integrative alliances, among others.

During the years of work with the territories, various forms of social innovation management have been explored, reaching from conventional strategies and tools to those less conventional and more communitarian. The knowledge and learning acquired in the interaction between formal knowledge (researchers) and tacit knowledge (territory), has made it possible to visualize the method. Since the projects developed in this framework feature an intentional process of managing knowledge and its appropriation, there are papers, reflection articles, booklets, reports, project results, and others, that form the basis for thinking the Route.

The Route arose from intentional and praxeological reflection that characterizes working in UNIMINUTO. In this sense, praxis becomes a central element in the process of 'seeing', 'judging', 'acting' and 'creative devolution', which generates new ways of understanding social innovation, which constitutes our method of application. It has been conceived and developed as a method to connect territories, researchers, companies and the state with needs and opportunities that have the potential to produce novel solutions that generate high social impact and transform development paradigms based on the active participation of actors that intervene in structuring solutions. The process of consolidating the Route and its components, implied an

exercise of permanent observation in the application of techniques and tools for social innovation ('see'). To make self-reflection and analysis of lived praxis understandable, a discourse of social innovation needs to be defined and formalized ('judge'). Furthermore, the development of practical pilots to validate and consolidate both the discourse and the operability of social innovation in the territory ('act') formalize knowledge in a way that can be appropriate for the actors of social innovation systems ('creative devolution') [2].

INTRODUCTION TO THE METHOD

Understanding the method can be realized by taking the perspective of Bunge [3]: thinking about the social innovation route does not mean just to think of it as a recipe to innovate in the territories. On the contrary, it presents a dynamic structure that allows acting in a structured way in a real-life setting, making use of instruments and techniques appropriate to the problem or need, to create new solutions that are sustainable over time.
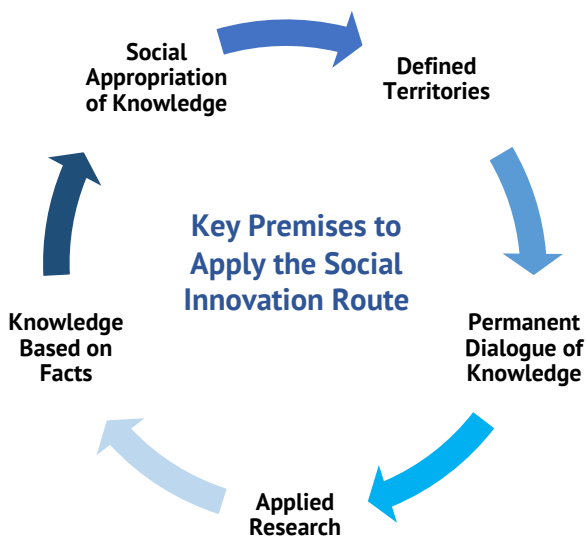
Key premises to apply the Social Innovation Route

The Social Innovation Route is a system of components that articulate formal knowledge with tacit knowledge, making use of techniques and structured tools to identify, understand, analyze and co-create solutions, consolidating them in social technologies and transferring them to other contexts. The application develops under five premises: **1)** The process takes place in specific territories. **2)** The process responds to

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a permanent dialogue between the researcher and the actors of the territory. **3)** The process makes use of techniques and tools of applied research to solve the challenges raised by social contexts. **4)** The process generates and uses knowledge based on real events. **5)** The social appropriation of knowledge is a transversal axis to the whole process.

Under these conditions, the Route fits within what is known as factual or empirical science that is applied in real contexts where facts and processes have different interpretations that respond to the lens used to see reality. In this context, the researcher has a view from his position of formal knowledge, while the territory and its actors have a perspective influenced by experiences from praxis; these two perspectives as part of an intentional process enable the generation of social innovations. In other words, the Route as a method mainly focusses its attention to the needs, problems and opportunities of and with the territories to change deliberately; territories and researchers jointly establish a scientific body that analyzes, proposes and implements solutions as a mechanism to solve structural problems and transform the state of science.

CHARACTERISTICS OF THE METHOD

During the process of consolidating the Route, the research team has identified four specific aspects of knowledge, which form the basis of the method:

1. *Observe the facts to transform them*. During the process of innovation, the design team places needs, problems and opportunities in the center of the observation process. This approach allows the team to establish real relationships between these elements also referred to as facts, and to understand, analyze and find new ways of interpretation and application. "Not the facts by themselves but their theoretical elaboration and a comparison of the consequences of the theories with the observation data are the main sources of discovery" [3]. The facts go through a conceptual understanding of them to define categories and their interrelations of analysis; knowing the facts and the associated factors also allows to consolidate relevant data, generate inferences, access findings and project solutions.

2. *Establish analytical relationships*. "Science is much more than organized common sense, [...] it constitutes a rebellion against vagueness and superficiality" [3]. Translated to the Route, this sentence means that researchers and territories confront situations in a systemic way, to explain the facts integrally and to decompose their elements. From an objective perspective, it requires both the practical understanding of the problems and needs and the theoretical and technological understanding that may exist. The greater the depth of these different types of understanding, the greater the scope of the proposed innovation.
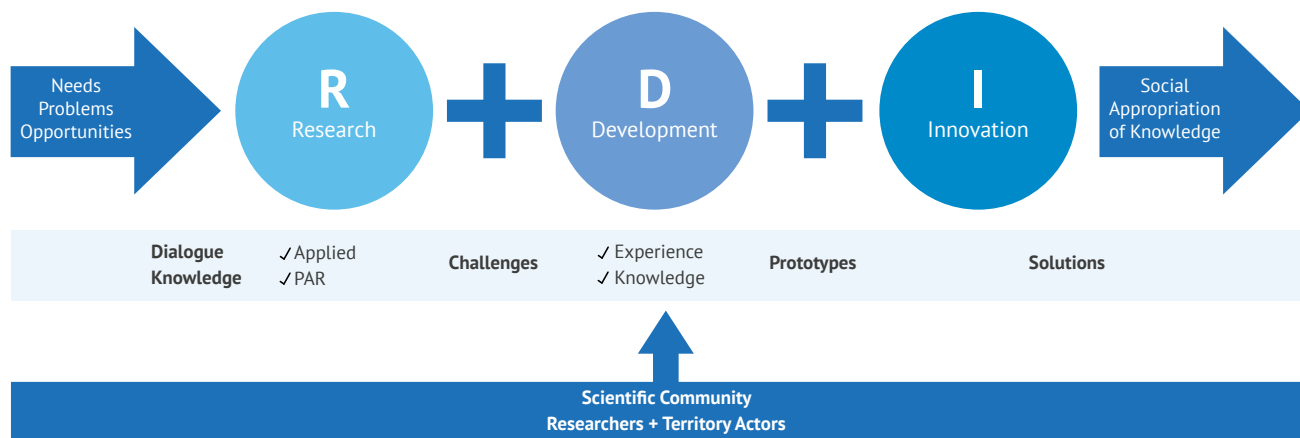
Research, Development and Innovation in the Social Innovation Route of Parque Científico de Innovación Social

3. *Act with clarity and precision.* The process of social innovation cannot be left to inaccuracy, as it is part of an organized method. Thus, problems and needs have to be translated into real and clear challenges to be effectively addressed in a permanent Research, Development and Innovation (R+D+I) exercise, where the territory appropriates knowledge and generates solutions that can be transferred to other territories.

4. *Seek to consolidate innovations in social technologies.* Since the innovation process is open and participatory between territories and researchers, its purpose is to structure social technologies that are socially appropriate to generate an impact on local and global development. Social technologies are the result of the Research and Development (R&D) process immersed in the social innovation context, which consolidates a systematic exercise of producing knowledge-action and a verification of results. [4]

THE ROUTE

The application of the Route is carried out through seven stages that interact systemically and in an articulated way to give meaning and life to the conception of the method. It is here in the direct implementation, where each of the exposed aspects becomes visible [5].

Enlist. This stage focuses on defining the problem and determining how much time and resources are needed to find a solution. This involves getting together with the people involved and agree on the fundamental, connecting information, data and figures that allow an initial understanding of the problem, need or opportunity which shall lead to an innovation.

Understand. This involves a step of structuring the complexity of a problematic situation. It starts from understanding the higher number of variables and connections identified in conjunction with the actors involved, through the dialogue
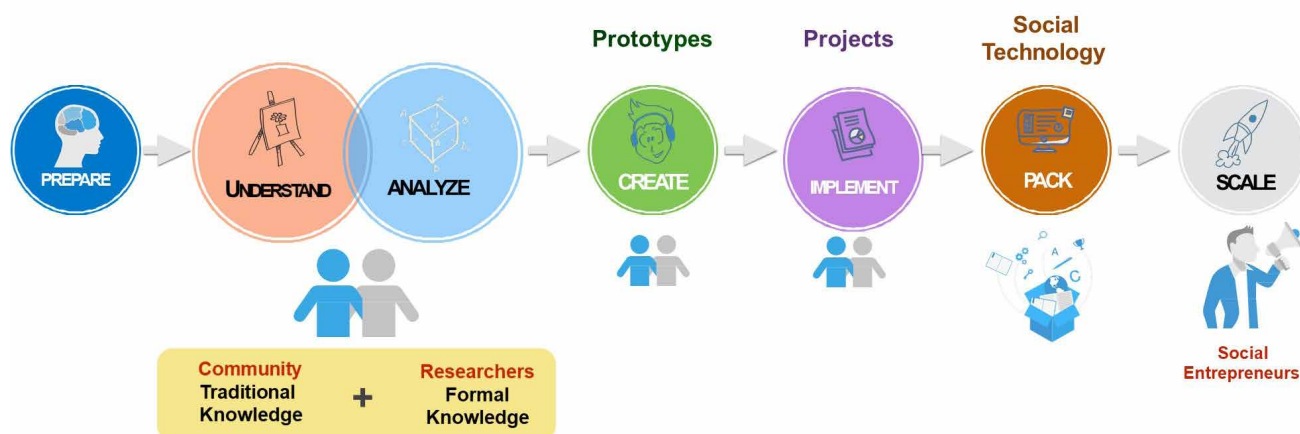
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of knowledge. It is required to organize the traditional or empirical knowledge of the problem and the solutions that are considered desirable. For this to be possible, it is essential to develop this stage based on the paradigm of Participatory Action Research [6], regarding communities not as objects of study, but on the contrary as active subjects of the process.

Analyze. To carry out an orderly process of interpretation of reality, it is essential to articulate traditional knowledge (from communities) and formal knowledge (from researchers). These activities achieve a deep and systemic understanding of the situation analyzed, including a macro mission based on the trends, and a micro vision based on the narratives of people; here it is essential to know about other possible solutions to the problem, potentially integrating them in the proposed solution.

Create. This stage corresponds to the ideation and co-creation process of the new solution, making use of the resources available to the community in order to arrive at prototypes that constitute a tangible, possible novel and viable solution; at this point, metrics are also established to validate the hypotheses that the design team is constructing for their proposal.

Implement. In this phase, the proposed solution is applied, which requires the planning, management, and monitoring of results, in projects where solution pilots are carried out. In this phase, the use of metrics is critically important, as well as the documentation of results and acquired learnings.

Package. This stage requires ordering all the knowledge generated and appropriate to make it visible. In a next step, it is transferred into what is called 'social technologies'. This is done to formalize the action model into instruments, methods, and mechanisms for the application of the solution, preferably technologies and artifacts that facilitate an adaption of the solution in other contexts.

Scale. The last stage pretends that the solution is established and collectively appropriate in the territory, and also can be transferred and adapted in other contexts or lead to the deployment of organizational models, action guidelines, and development policies.
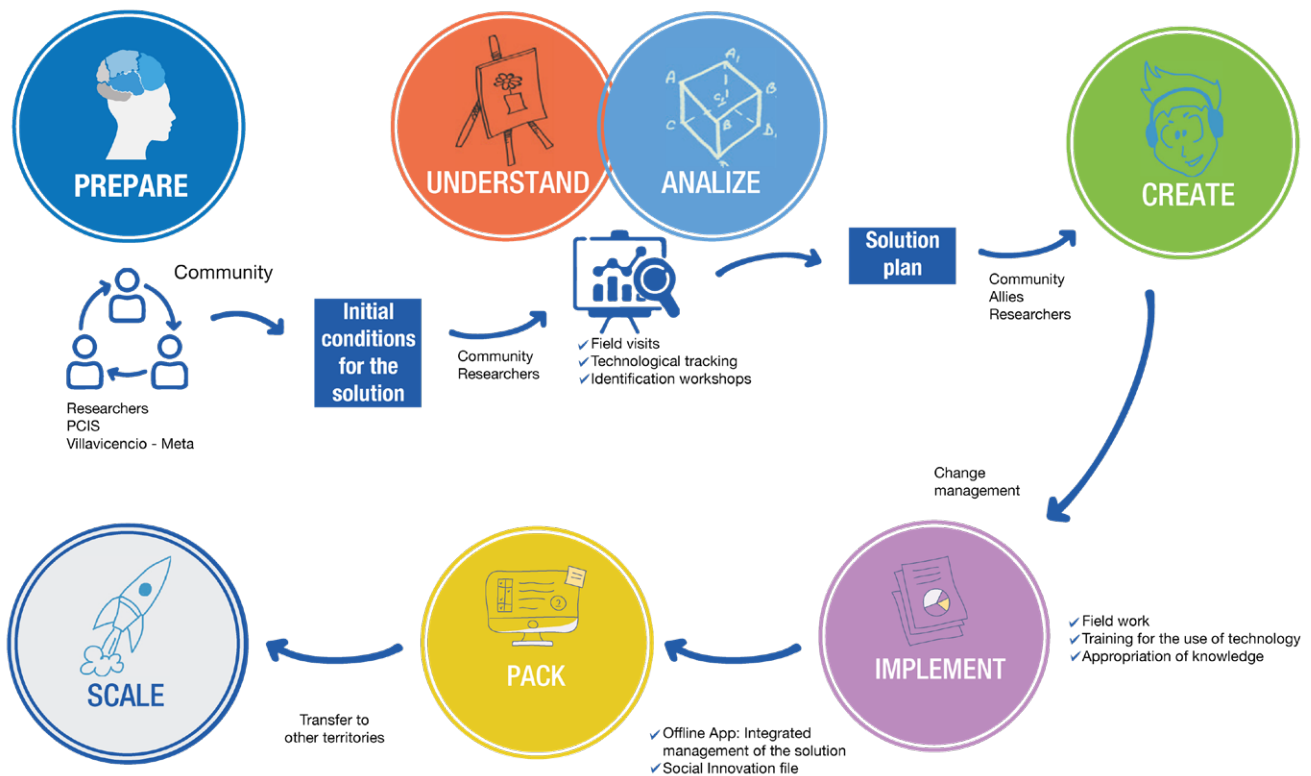
Application of the Route in Mapiripan by Social Innovation Science Park team

APPLICATION OF THE ROUTE IN MAPIRIPAN, COLOMBIA

The following is an example of how the route has been applied together with a rural community. This example is a 'Subject of Collective Repair (SRC)' in the Colombian Law. The name of the initiative in focus of the application translates to: 'Inspection, the Cooperative'. It is located at the municipality of Mapiripan, Department of Meta, in Colombia.

In this case, the preparation phase implied to establish a dialog with Colciencias (Administrative Department of Science, Technology and Innovation) and community leaders to understand the problem. The problem was identified and an alliance with Colombia Siemens Foundation and Poligrow Foundation was established with whom the initial conditions to provide a solution to the challenge were jointly defined.

To understand the problem a technological tracking was done. Furthermore, field visits to identify the factors influencing the problem and workshops for analyzing the problems together with leaders, allies and researchers were made. Based on the obtained results, four committees that jointly analyzed, managed and defined the solution plan were established.

The creation of the solution was the result of five proposals defined in the solution plan: 1) community resilience implied a natural corridor of reforestation and care of native species that are connected to the life stories of settlers in the respective area, 2) water purification, 3) care, recovery and maintenance of water sources, 4) incorporation of approved technologies in other solutions, 5) the technical and scientific support of allies and researchers.

During the implementation, researchers and allies had a fieldwork phase together with stakeholders from the territory to implement the solution, transfer and appropriate the knowledge. This allowed to create conditions where the solution could be managed by different actors of the territory: children, young people, and adults.

The final packaging of the achieved solution was carried out as an offline app by which each member of the community was able to manage the solution. Furthermore, a Social Innovation file is also being prepared in which the process is presented.

CLOSING REMARKS

The Route is a method that offers guidance to manage social innovation rather than finished and infallible recipes to magically create innovations. It has been designed based on experiences in the development of projects with the territories, articulating scientific knowledge with tacit knowledge. The Route recognizes collective capacities and traditional knowledge as sources of new knowledge as a basis for defining problems and to find appropriate solutions to each context. The method comprises the social appropriation of knowledge as an intentional process in which knowledge arises and is transformed from the territories, hence from collective knowledge, accompanied

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by formal knowledge. This combination is generating learnings and new practices that produce social innovations. The Route is committed to 'community liaison' as a strategy to boost the participation of territories in the management of social innovation, empowering communities to identify and implement solutions to their problems or needs. Furthermore, it offers researchers and managers of social innovation a space for interaction to generate and apply knowledge adaptable to the needs of the territories. Hence, researchers approach the territories to listen, understand, analyze, co-create and implement joint solutions [1]. The Social Innovation Route is an orderly tool to manage social innovation that brings about disruptive changes for local and regional development.

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