

**CREATIVITY INCLUDING TECHNOLOGY IN BOOSTING  
SOCIAL INNOVATION IN A SMALL POST-SOCIALIST  
INDUSTRIAL TOWN: FIENI (ROMANIA)**

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**Andreea-Loreta Cercleux<sup>1</sup>**

**Florentina-Cristina Merciu<sup>1</sup>**

**Elena Bogan<sup>2</sup>**

**Cosmina-Andreea Manea<sup>3</sup>**

<sup>1</sup> Interdisciplinary Center of Advanced Research on Territorial Dynamics and  
Faculty of Geography, University of Bucharest, **Romania**

<sup>2</sup> Faculty of Geography, University of Bucharest, **Romania**

<sup>3</sup> Doctoral School “Simion Mehedinți”, Faculty of Geography, University of  
Bucharest, **Romania**

**ABSTRACT**

Under the intensification of the urbanization process since the 1950s, many Romanian settlements were declared towns and industry started to play a central role in their development. In the transition period to market economy, the restructuring process in small Romanian towns in the 1990s and 2000s, like in many towns and cities from Central and Eastern Europe, faced various socio-economic challenges. The paper focuses on analysing how a small urban community from the Southern part of Romania, Fieni, with two emblematic industries in communist times (the cement and light bulbs industries), perceives the importance of creativity including technology in implementing social innovation projects, tailored to respond to the deindustrialization consequences that impacted the town's evolution after 1990. The methods relied on identifying possible urban projects, oriented to the social innovation sector, using the advantages that creative industries can provide, within a workshop organised with the local actors from Fieni. Bringing together population, representatives of administration and different economic activities, the results section analyses the projects adapted to meet the local needs, taking into account the priorities and endogenous factors, without forgetting the past of this community.

**Keywords:** regeneration, social innovation, creative industries, small industrial town, Fieni, Romania

**INTRODUCTION**

Early deindustrialization characterised in the last decennia mostly the developed cities, but nowadays it is very common among towns and cities with different degrees of development, various factors being at its origins. The changes in the way goods result from rapid technical innovation can alter the relationship between economic growth – development – manufacturing [1]. Depending on different degrees and contexts of deindustrialization, the regeneration process takes different forms. Innovation in regeneration is more than needed. For example, in the Economic Development Strategy for the industrial restructuring of Manchester, from the late 2000, digital inclusion, digital industries and digital innovation are proposed [2]. These pillars refer to: building

digital/creative enterprises, promoting digital inclusion among the population, increasing transformation of public services through innovative uses of digital technologies and encouraging inclusive sustainability.

The reality to which cities are confronted is more complex than the general theory which says that, when a city has more innovation and entrepreneurship, it can overcome the downward spiral of demographic and economic decline by enhancing endogenous growth [3].

As Joseph Schumpeter stated in the first part of the XXth century, technical innovations have led to the economic growth of cities over time. Today, they lead to a stability of cities and of their relations with the surrounding spaces. In comparison to old times, the socio-economic stability of cities can be better guaranteed and sustained in theory due to a much faster “rhythm” of innovation and development over time of the institutional framework of the social economy. Of course, big cities are bigger winners in this course than small towns, which have reduced capacities to respond quickly to challenges of all kinds and in which social innovations have not reached a maturity that would allow a multiplication or adaptation of solutions to each problem type in order to avoid socio-economic dysfunctions.

The general interpretation of social innovations says that these are new ideas (products, services, models) that simultaneously meet social needs and create new relationships or social collaborations, thus being solutions to insoluble problems [4]. Social innovations have always participated in finding solutions that seemed unsolvable without a concerted involvement [5].

The development of social innovation concept shows an approach linked to social and solidarity economics, while also to sustainable development. The social economy refers to the development of goods and services production activities aiming achieving collective interest, social cohesion and sustainable development [6].

The actors involved are, in general, from the private sector: associations, non-governmental organizations, foundations, mutual societies etc. Lately, the state contribution is increasingly concrete in proposing programs or directly initiating actions, alone or in partnership with the private sector.

Innovation in the transition to capitalism has emerged in a different framework influenced by the past, being confronted with some limitations related to the difficulties of facing competition on the free market. The social and cultural innovation plays an ambiguous role in post-socialist transition countries of Central and Eastern Europe [7]. Innovation in countries transitioning to capitalism emerged in a different and influenced by the past framework and it was confronted with some limits. In general, the most evident were the values inherited by innovation-averse traditional values of socialism that generated low innovation capacity and inertia [8, 9], so countries had to make efforts in adapting to the technical innovation and the entrepreneurial spirit, specific to capitalism [10].

In Romania, the initiatives to boost social innovations are becoming visible after the accession of Romania to the European Union in 2007 in several directions: e.g. social services for vulnerable people, integrated community centres, tourism and alternative electric sources. But the phenomenon is not identical at all urban levels. Big cities find institutional and financial support easier than small communities, which are confronting with more barriers in implementing social innovation projects: “lack of a developed culture of innovation, in general, in Romania; no great openness for new models and practices in the field of social services; a poor developed ICT in many small towns;

financial issues, expressed by few local funds, including external sources, for standing up a social entrepreneurship; deficit of skilled workers” [11].

The aim of the paper is to identify if social innovations in a small post-socialist town from Romania can be developed based on creativity and using technology. The research questions are: What kind of social innovation can be applied depending on local human, financial, material and logistical resources? To what extent can the industrial past participate in this process? What can be the feedback of this category of social innovation in the community?

Fieni, the case study of this research (Fig. 1), falls into the category of shrinking small towns from the Southern part of Romania. With a total population in the second part of 2020 of 7,351 inhabitants, the town has lost in the last 5 years approximately 5% of its population. In reality, the population is continuously decreasing since 1995, because of the deindustrialization process. Losing the main economic activity that guaranteed urban development, the industry, Fieni became gradually synonymous to strong outmigration (and so it gained a deficit of qualified workforce), low birth rate and demographic aging (17.3% for >65 years old in total population in 2020 in comparison to only 8% in 1992). These negative changes impact especially the age group of 18-55 years [11].

The economic progress of Fieni has occurred since the early years of the XXth century with the opening of the cement factory (the largest producer of cement in Romania in 1940) and of the light bulbs factory in the 1930s (the largest plant of this type in the country at that time). In the communist era, the production of the two industries diversified and became internationally renowned. In the capitalist times, the privatization process from the second part of the 1990s was not successful for either of the enterprises: while the cement plant continued to represent the main option for the local workforce, for the light bulbs industry the private investment meant layoffs and, in the end, closure. The town is relying today on two industrial specialisations: cement and lime production. Fieni has the oldest functioning cement factory in Romania.



Figure 1. Localisation of Fieni

## **METHODS**

The research methods used for this study relied on organising a workshop with the local actors from Fieni (population, representatives of administration and different economic activities), with the purpose of identifying future possible social innovations adapted to their urgent problems, deficiencies or needs, while using technology and creativity.

The present research is a continuation of a previous study [11] in which other workshops were also organised with the local actors. The workshops focused on the history of social innovation at local level and the identification of general practical social innovations taking into account the local experiences and dysfunctions. In order for the participants to feel at ease, ice breakers were used. As it happened in previous workshops, the participants were divided in several working groups. The facilitator of the workshop was in charge that all the voices were heard, joined the discussions when some concepts seemed to be less known by the participants and supported with examples of best practices from other parts of Romania or from abroad, which can be adapted to Fieni.

The structure of the workshop was centred on the idea of using creativity and technology in future social innovations projects foreseen in an intergenerational activities' framework, in three main directions aimed at: providing diversified services for the young population, supplying support for the elderly and using local culture as a tool for the town promotion and tourism.

## **RESULTS**

The goal of the workshop was the identification of future probable social innovations in relation to technology use and creative industries. The idea of this research was born after the community identified previously possible social innovations relying on their assets and connected them to local issues requiring urgent solutions. The general social innovations proposed in the previous consultations were related to development of agriculture and entrepreneurship: livestock breeding in individual households and harvesting through the local breeders' / producers' association and a digital information platform for entrepreneurs; a museum of the town; the re-organisation of the owners' associations in the residential areas [11]. Among the general directions outlined, the importance of technology and creativity was more obvious in two projects: a digital information platform for entrepreneurs in agriculture and projecting a museum of Fieni. Starting from these two ideas and free discussions between the organisers and participants at the workshop, other resulted draft ideas were analysed.

Using technology turned out to be useful for a more informed and involved community. Some proposals were made: 1) a big digital screen in front of the City Hall to display various information about news regarding the town's activity, local programs and projects, including messages targeted to encourage the participation of the population in actions aimed at developing the community; 2) a website where all social problems identified in the town can be reported, so that people who have the possibility to intervene can bring their support; 3) publishing the local newspaper in social media.

The big digital screen can contribute to increasing the degree of transparency from the part of local authorities towards the population, which can lead to progress in the degree of trust of the inhabitants towards them, but also to a closer communication within the community. Communication can go as far as supporting and helping people in difficult situations, thanks to a web platform where urgent needs of support can be reported, including the notification of time registration and the exact location of the corresponding

issues. While the local newspaper does not reach every inhabitant, although it is distributed free of charge, its electronic format uploaded on City Hall Facebook account (with almost 7% of locals following it and almost 70% of population accessing posted info) could increase the awareness of different stages of projects (in progress, accomplished or which will be taken into account) and, in the same time, of different disfunctions of the town, for which solutions are needed.

Creativity in social innovations can not only be found in different IT solutions, but it can also contribute in different cultural and tourism plans: 1) Museum of Fieni; 2) Museum of light bulbs in Fieni; 3) introduction of new events; 4) culture & creativity in different edifices.

The idea of opening a museum of the town is not new, efforts in organizing it being registered in the past. Today, there is no museum of the town, but a small industrial museum of the cement history inside the cement plant, which can be visited only on demand (by groups from the local or nearby schools or high schools, in general).

The future museum of Fieni is projected to focus on the local history and traditional crafts, with a future exhibition of pictures of old houses with specific architecture, folk costumes, household items. The museum could be hosted by the old school in Fieni, opened in 1912 with the efforts of the cement investors, today a non-functional building, but registered on the list of historical monuments (Fig. 2). If there are insufficient exhibition' pieces purchased by the town or coming from donations, the walls could be covered with pictures of local riches. Moreover, volunteering could help in the promotion of this museum, thus transforming it more into an eco-museum, a space jointly exploited by the local population and which passes to the future generations knowledge, behavior, customs and work techniques [12]. In addition to the few jobs generated, the opening of a museum in town could generate new jobs and investments in Fieni by increasing the town's visibility [11].

The Museum of light bulbs would bring a plus value for the town's tourism by developing a new niche, namely industrial tourism as alternative tourism and as an extension to the tourism from Prahova Valley. This new cultural function of the former industrial buildings (Fig. 3) could materialize through interactive activities and the production of winter globes (a former economic activity that could be revived).

Some new events could be introduced next to the existing ones: e.g. Festival of Lights, with images projected on the walls of the light bulbs factory, based on themes related to industry; Halloween; Pumpkin Festival (or others in relation to local agriculture) etc.

Beside these, other ideas would fit in this creative and cultural framework: a truck / bus from the communist period, with stories about the past (e.g. "Fieni - a transit and in transition town"); culture in railway stations, which can be transformed into bookstores (this kind of cultural activity exists in the Baltic states) or restaurants, a wide-spread type of functional reconversion.

Last but not least, the rehabilitation of the functional water tower (Fig. 4) with the participation of the cement factory, including representations with identity elements or transmission of various messages (including town's promotion and advertising), was taken into discussion. This is an international approach because refurbishment or/and reusing water towers is not only a form of conserving, but also of capitalizing. In Romania, few water towers have already been reconverted, in general giving birth to: cultural activities; tourism; both cultural activities and tourism; other services [13].



**Figure 2.** Old school (Cercleux, 2019)



**Figure 3.** Light bulbs plant (Cercleux, 2019)



**Figure 4.** Water tower of the cement plant (Cercleux, 2019)

## DISCUSSION

Social innovations relying on technology and creativity may certainly bring benefits to Fieni. An important actor and support for the implementation of these ideas is represented by the population [14]. Therefore, good cooperation at its level and in relation to other territorial actors is the key element in the success of the proposed projects. Furthermore, this means a good functioning of the principles that shaped the basis of the social or solidarity economics: social cohesion and sustainable development. Circular economics, defined as an economic system aiming at eliminating waste by reusing, sharing, repairing, remanufacturing and recycling (products becoming resources again), plays an important role in this process.

In Fieni, the concerns about providing social services tailored to all age groups are becoming more visible in the last years. There is a functional retirement center that the community also thinks of as a day center for the elderly, where craft activities could take place (but with free access for every member of the community with skills in certain activities or just willing to bring help). It could be supported financially, in part, by selling the products made by retired population and volunteers.

Initiatives for the elderly could be doubled by ideas for the younger generation as well. An initiatives' center for young people with activities related to local entrepreneurship, including environmental protection (with the support of the Edelweiss NGO) is welcome. The active participation of those two population categories in doing things in and for the community could generate efficient intergenerational activities, an important pilon in boosting creative social innovations. The local meetings for debating various initiatives could be hosted in the Cultural Center from Fieni, with free entry for any volunteer from the community, where new collaborations in developing projects could be established.

Intergenerational mutual help activities are part of social innovations category, successfully implemented in developed societies. In the case of Fieni, with a declining young population and an elderly population accustomed to feeling part of the community (as it happened during communism, when almost each member of the community was part of an artistic, sports or other type of group, team or club), further types of activities from intergenerational cooperation are opportune: e.g. the Walking club - in which young people could voluntarily participate in the drawing of routes to project adapted activities in nature and sports for the elderly. On the other hand, the older generation could involve voluntary in activities in a Children's Club.

If in some traditionally capitalist countries intergenerational solidarity has gained experience, in the case of Fieni good collaboration and mutual support among generations are needed in the context of shrinkage and loss of identity values and of feeling of belonging to the place, in the context of the socio-economic transformations occurring after 1990. As a consequence of these mutations, the owners' associations in the residential areas were gradually dissolved, following the departure of the population abroad for working.

The implementation and the expectations of activities coming from both types, creativity and technology, sometimes meet together in the same project: creativity with technology. When they start producing positive effects in the territory, they can lead to further encouraging effects in the local policies, strategies and projects (Fig. 5 A and B). As with other new activities, those social innovations using technology and creativity will need investments, ideas for transforming them into projects and different kinds of support: logistic, technical, raw materials and human resources. As for the impact on the community, in both cases it is reflected in ensuring social cohesion and a more sustainable economic climate, in which, as a result of an efficient communication between stakeholders, new activities in the creative sphere (and not only) can be born from the implementation of social innovations.

These new tools for boosting investment and a larger participation from territorial actors can generate new activities to support the local economy and the regeneration process. Obviously, from a social point of view (population, as an important member in planning actions), as well as economically speaking (functional reconversion), there are opportunities and risks that can support or limit certain interventions: e.g. limits in the functional reconversion of some buildings, from administrative, architectural or conservation perspective. However, the greatest risk could be represented by the reluctance for new or weak intergenerational communication.

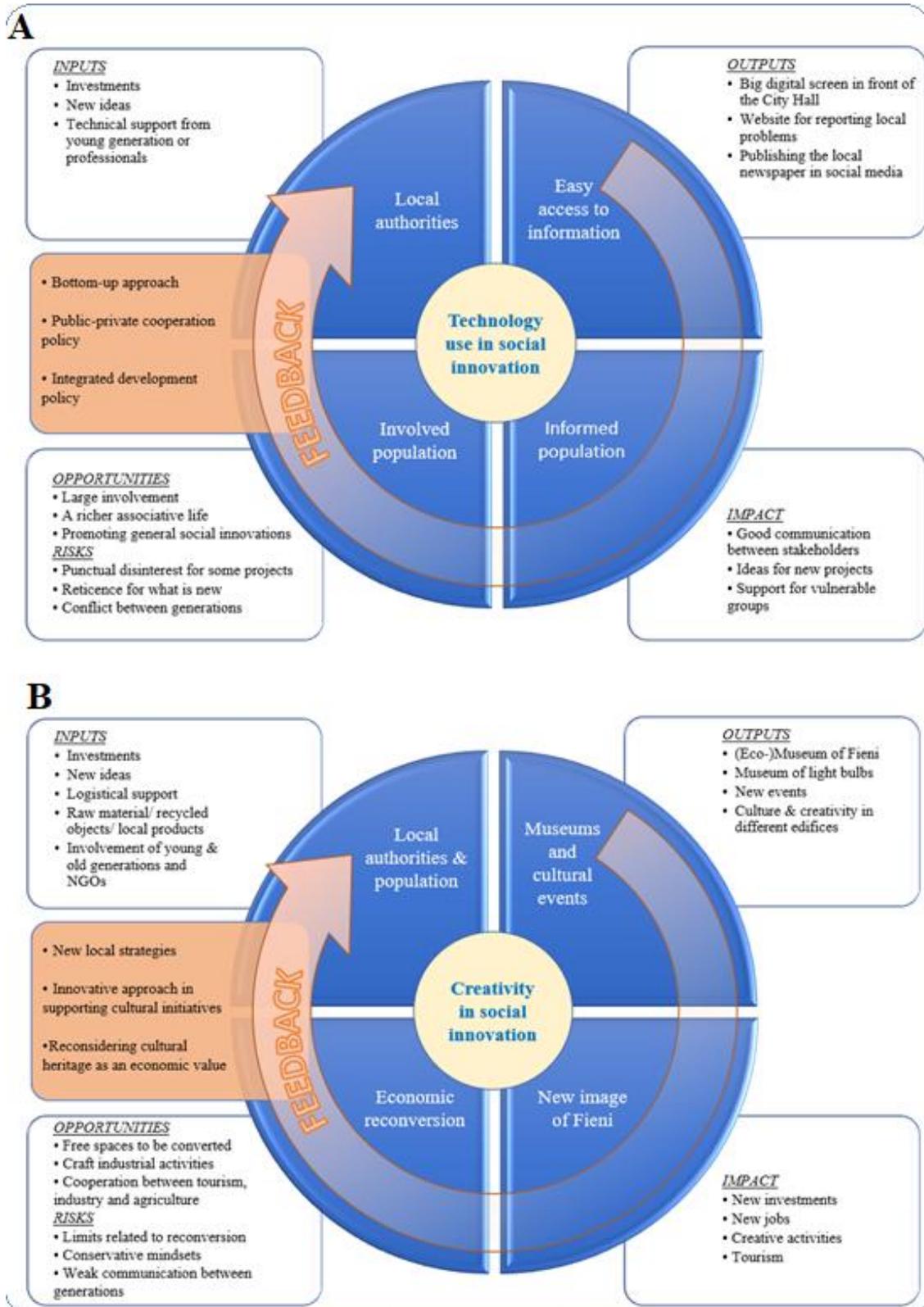


Figure 5. The implementation process of social innovations relying on technology (A) and creativity (B)

## CONCLUSIONS

The social innovations developed so far in Fieni have in general responded to urgent community problems, being related to providing services to a declining population and impacted by the disappearance of an important industrial branch.

The findings of the study show that the ideas of future projects for social innovations relying on creativity including technology can bring important socio-economic contributions not only in the immediate term, but they can also have an impact on medium and long-term territorial planning policies.

Beside the local risks in developing social innovations for a certain economic sustainability, such as depopulation phenomenon, demographic aging, lack of openness or reticence for new ideas of projects with which the community is not accustomed and the low access of the population to ICT, financial issues remain important and may be exacerbated by an economic crisis in the next period.

The limit of the study is represented by low presence of young people at the workshop, which made quite difficult the identification of the young generation's needs that weigh in their decision to remain in the community and participate in its revival.

For the future analyses, it is interesting to consider if, in the reality of implementation of some of the above ideas, the large consultation and cooperation in decision making in Fieni, taking into account the lessons learned, can conduct to more social innovations using technology and creativity.

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