Using innovation as a tool for inverting emigration trends in Dropull.

How digital manufacturing could leap the technological gap and strengthen the connection between the community and its territory.

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Understanding a complex territory

Dropull municipality is one of the "newest" municipalities created as a result of the territorial reform that reorganized Albania passing from 384 administrative units and municipalities to 61 new municipalities. Located in the south-eastern part of Albania, this municipality is part of Gjirokastra region. It is neighbored to the east by the national border with Greece. The historically good cross-border relationship with Greece has always been reinforced by the presence of Greek minority living in this municipality. In Albania 2-3% of the population is composed by minorities, and in the case of Dropull municipality this population represents a very significant part of the total population of 7,128. (Census: Instat 2011).

Dropull is an important gateway in connection with Greece, the main infrastructure route connecting the capital with Greece goes through the municipality, connecting all 41 villages to each other and the economic areas in-between. However, the lack of complementary secondary and tertiary infrastructure and the structure and nature of the economic sectors has increased the abandonment and decay of some urban areas. More than 479 buildings in this municipality are abandoned and in a ruined state. Some of them represent neighborhoods, urban space quality, infrastructure and environmental conditions as well.

These phenomena are a result of insufficient public investments and low economic conditions that increased the

need for inner and outer migration. As a result, people abandoned their homes and the low number of residents made it very difficult for the municipality to provide efficient public services. As result of these trends Dropull municipality is currently suffering the lack of experience in managing the new and larger territory, institutional capacities, coordinated services, and detailed and representative data for the new territory.

According to the census and recent statistics, the municipality's population is dominated by a relatively young population. Keeping these statistics in mind the main sectors of employment are dominated, by industries and service - 72%, by agriculture - 22 %, and public administration - 6%. There are no official unemployment data for Dropull municipality, but the region statistics indicate a 16% of unemployment rate

However, this situation is slowly starting to change, as a result of the economic downturn in Greece, many people are looking for opportunities to move back into their old houses. These attempts are bringing back small initiatives and new innovative businesses.

Some of the institutional focus is recently placed into increasing social cohesion, and in identifying new potentials and investing in virtuous indicatives.

POLIS University has drafted the General Local Plan for the newly formed municipality of Dropull. This plan provides

a deep analysis of the territory and environment of the municipality. The analysis covers socio-cultural conditions and economic factors that have served as an important database for recognizing resources to be involved in local actions. Parts of the consulting groups engaged in drafting the general local plan can facilitate contacts with the community and with key-actors of the already built network.

Supported by the new General Local Plan that was recently approved, some of the priority objectives include small intervention to deal with abandoned spaces and neglected urban areas. A priority was placed on the preservation and renovation of cultural and historical assets, the stimulation of renovation of historic houses applying long-term solutions. Special focus is placed on community participation and growth.

On these principles, the case of Dropull was used as a proving ground for developing part of a research proposal called COMMON. The consortium developing the proposal was led by the University of Bologna and composed by institutions representing European areas risked by depopulation. One of the aims was to use ICT tools as instrument for reversing the abandonment trend.

POLIS University developed in this framework a concept for the Municipality of Dropull in line with the general strategic vision considering Dropull as a polycentric development of settlements along the main highway connecting Albania to

Greece. In this perspective, Dropull is expected to slowly grow into a rural development pole between Gjirokastra and the loannina regional centers on the one hand, and the southern Albanian and lonian coasts on the other. This territory should build upon a strong historical and cultural identity, a model of coexistence between different nationalities, an important gateway to the cross-border area and a bridge between Albania and Greece.

Dropull has the potential to become a center focused on the development of tourism, agriculture, livestock, and processing industry that puts in use domestic products to create a complete production cycle and tracking. A region that welcomes and provides space for research and the establishment of tourism-based and biological products start-ups, thus becoming a cross-border "pole" that uses steadily the potentials for a consolidated economy and favorable a atmosphere for returning population and attracting investment. In this perspective, the role of new technologies will provide a proper environment for the emergence of a new creative community. The crises of the existing situation are considered to provide a prolific ground for people/place based innovative blueprints.

The emerging creative individual and enterprises will use the makers' culture for the development of the branches of agriculture and livestock, the support of business development and processing industries, which currently constitute an

important sector of the Municipality of Dropull. Although the development of different business units currently utilizes the Municipality of Dropull for their physical placement, without a significant impact on the employment of the local population or investments to improve the conditions of the territory, the establishment of a cooperation strategy between the Municipality of Dropull and innovative/ creative business units would create a greater positive impact in the territory of the Municipality. In this cooperation, the Municipality can provide the physical location of their placement using some of the most interesting abandoned space in the territory, while innovative/creative business units provide safe and appealing employment for the local population and provide for an investment plan for the local infrastructure and the environment in which they operate. In this way, not only will a full economic cycle be created, but the real benefits of this cycle will not be transferred to the larger economical centers of the region, but become tangible and useful for the local communities leveraging site-specific values.

The strategic program aims to empower the local economy and support the creation of a *making culture*. It proposes the creation of a specific network of areas innovation, education, exploration and development. This network of areas under the name of "Innovation Network" will provide a space for specialized and informal education (schools, vocational courses and craftsmanship knowledge transmission), research, testing establishment of enterprises, all of which will aim to integrate the local population and promote local products and cultural landscape. Located near the cross-border area, this network of areas will aim to turn the Drinos Valley into a bridge between Gjirokastra and Ioannina centers and the economic zones around them, serving as a common space of research and development for a commonly shared and sustainable development.

Peculiarities of the case of Dropull

The territory of Dropull undergoes a specific abandonment pattern characterized by an abandonment of remote areas of the the territory because of a lack of services, poor infrastructure, insufficient formal and informal education opportunities, and a reduction of job prospects. Two groups are considered the most affected: 15-25-year-old group, which is mostly affected by poor education and job opportunities; and the working age Greek

minority living in Dropull which finds Greek job market more attractive. Considering these facts, the strategy tries to involve these population groups in co-detecting and co-exploiting latent common values.

The local values are deeply related to the specific cultural and social specificities of the territory which offers very important economic and environmental assets. In this sense, thematic tourism can be considered the driving sector for an integrated and sustainable development. The General Local Plan document being approved by the municipality defines that a properly balanced tourism can act as an activator for all the strategic economic sectors of the region. In this perspective the environmental and socio-cultural potentials are to be explored.

It is important to emphasize the fact that the proposed "Innovation Network" will work as a cluster of enterprises that interact and complement each other creating a shared and diffused hub. In order for sustainable tourism to be a communal event, some of the main activities of the "Innovation Network" diffused hub should also comprise trainings and sharing of expertise and know-how in the fields of agro-tourism, hospitality, food and medicinal plants processing, traditional and innovative manufacturing.

The important presence of technological tools will also support the creation of a common shared on-line platform of e-governance which will facilitate the active participation of a large part of the local community which has emigrated but is interested in returning to Dropull. The e-governance technology will additionally facilitate the governance and presence of the local authorities in remote areas of the region, providing further services and incentives to local communities in reversing the abandonment trend.

The actions planned to be implemented, aiming to reverse the abandonment trend and support the creation of specific network of areas of innovation, education, exploration and development is supposed to act as a network of economic entities and spaces lorganized in a polycentric logic. Following the provisions of the General Local Plan of the Municipality, five existing urban centers are defined as new nodes of the polycentric development. Abandoned public and private buildings like schools, warehouses and similar typologies in Dervican, Sofratike, Poliçan, Vrisera and Jorgucat will be reused and reconverted







Fig. 1 / Dropull municipality Process of General Local Plan, (2018).

into spaces of exploration, education, sharing, innovation and creation.

This network of areas under the name of "Innovation Network" will comprise two more areas, the natural protected area of Sotira as part of the national 100+ Villages program and the industrial area near Kakavija proposed in the General Local Plan.

The system-oriented approach toward sustainable tourism would promote and valorize the environmental potentials, the cultural landscapes and the local community's social values. Environmental and cultural tourism would promote local food production and processing, encouraging innovative approaches. The latter would also require vocational and life-long education. The physical spaces for the activities to happen are located in five urban centers and will reactivate abandoned public buildings and spaces.

The "Innovation Network" will work as a diffused hub and will create a cluster of ateliers and spaces of creation. The pop-up ateliers will find the newest and unforeseeable ways of reusing the abandoned structures. A multitude of uses will mix, alternate and follow incrementally. The interventions will need to avoid mono-functionality since the coexistence of functions and activities allows the flexibility of the start-up to adapt during the first stages of its development.

The very strong sense of community of the people of Dropull will enhance this ecosystem based on shared values and will be incentivized to naturally develop into formal partnerships and chains of value. So, the innovative creation model will lead to innovative organization models in association with the local government, which will explore new and innovative ways of governance. New technologies will facilitate this process. As architecture represents in space the spirit of its time, these innovative instruments, as historically proven, will create spatial innovation. The clustering and spatial proximity of the workshops and ateliers will enhance co-creation and sustainable growth.

The majority of the abandoned sites to be reactivated by the "Innovation Network" turning into a diffused hub are located inside or near the urban settlements. Thus, they are able to interact with the nearby spaces and activities contributing in creating an operative chain of urban

upgrades. The transformation prototypes to be tested need to share the following principles:

Mix Use: Dealing directly or indirectly with sustainable tourism development the pop-up ateliers will be organized following the mixed-use principles. A number of main activities will share space and time in the abandoned structures. So, every atelier and workshop will foresee some spaces for working and making, some spaces for lecturing, debating, sharing, exchanging and retail, spaces for different forms of temporary living, opportunities to create or rebuild natural elements of the surrounding site and new infrastructures for the community.

Adaptability for unpredictability: The simultaneous presence of a number of activities will allow the diversification of the economic activities and will allow future adaptability. These two characteristics will show to be very important for start-ups and new businesses due to the high risk these activities face during the first five years of activities. The highly unpredictable economic situation is a characteristic of Albania so the proposed approach is based on an incremental, adaptable and open-ended mentality.

Co-creation and sharing: The "Innovation Network" will importantly rely on the existing sense of community of the inhabitants of Dropull. The ateliers will allow the sharing of ideas and methods under a common maker mentality. Due to the relatively small population, some expertise will not be simultaneously present in all the ateliers. Models of time bank and examples of shared economy will be experimented in order to facilitate the flow of know-how and the sharing of expertise in conditions when it will not always be possible to hire highly specialized figures in the embryonic enterprises.

Emergence of novelty: the most difficult but at the same time exciting principle to be experimented with in the pop-up ateliers will be the emergence of novelty. This idea is based on the fact that complex systems of interacting individuals are able to show group behaviors that are impossible to be achieved by the same number of individuals not interacting among themselves. If the needed quantity and quality of exchange and interaction will be incentivized to develop among the different actors, the "Innovation Network" will be able to coevolve into new models







Fig. 2 / Dropull municipality Process of General Local Plan, 2018. Source / General Local Plan of Dropull Municipality



Fig. 3 / Network Thinking.

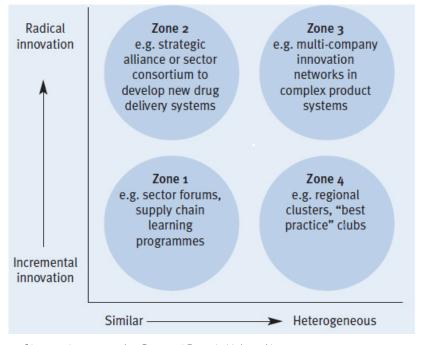


Fig. 4 / Types of innovation networks. Source / Beatriz Helena Neto

of creative community where novelty and innovation will emerge spontaneously.

Conclusions

The prior actions focused on education and governance innovation constitute an indispensable basis to be able to develop new policies. Although the need for contextually informed and place-based policies is unanimously accepted, in countries like Albania where the capacities are scarce and the inclination toward the

"global north" models is strong, more often than not the adopted policies are imported from the developed countries. Therefore, a genuine place-based approach accounts for as a novelty. The recently approved territorial development plan is a starting point to this regard. Additionally, the deliberate focus of the project on the place makers rather than the land policies and instruments constitutes a welcomed departure from the existing policies.

The ambition to overcome the local scale



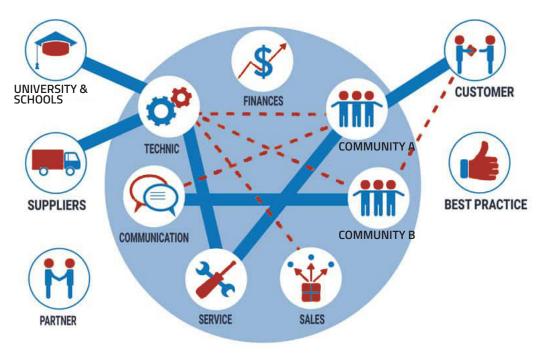


Fig. 3 / Innovation Network. Source / https://innolytics-innovation.com/innovation-network/

is faced with a multitude of challenges (some of them explained above). The current size and capacities of the local actors are such that being competitive beyond the local scale is highly unlikely. Therefore, the organization into a network of place makers, which on the other hand can also become part of a value chains with the neighboring territories in Greece, becomes a significant instrument to place Dropull into a cross-border and interregional setting.