TITLE: Building Inclusive Urban Spaces: A Case Study of an Eco-social Grassroots Innovation in Nitra, Slovakia

KEYWORDS: eco-social innovation, grassroots innovation, community-driven innovation, inclusive urban spaces, network analysis

INTRODUCTION

Community involvement is vital in overcoming local issues and local impacts of global challenges (Schachter and Yang, 2012) and organised community initiatives, where citizens mobilise resources for collective projects, are integral (Igalla et al., 2017). This is why, "new public governance" paradigm recognizes communities as co-creators of local development (Voorberg et al., 2015). Grassroots innovations, emerging "from the bottom-up," are crucial in addressing local predicaments and driving social change (Seyfang and Smith, 2007). Grassroots innovations (GIs) are bottom-up, small-scale and evolve as social experiments based on the knowledge, experiences and skills of communities, networks and individuals who lie outside the formal institutions of education and research to solve local problems (Reinsberger et al., 2015). Where the efforts of governments end, the activity of local communities and third sector actors begin, while diverse community-driven grassroots movements often exhibit a greater inclination and readiness to champion responsible and sustainable change.

While the construction of sustainable waste systems or introduction of renewable energy sources can be considered as conventional examples of eco-social innovations proposed by the central strategies and policies of countries (Magnani et al. 2017), community-led grassroots eco-social innovation represents something significantly different. Stamm et al. (2017) define eco-social innovation as "social innovations with a clear and consistent ecological approach that are improving both social and ecological sustainability" They meet both the needs of communities (including marginalised), or individuals in an environmentally responsible way (Gutberlet, 2023).

But, despite a growing literature, gaps persist in understanding the role of community initiatives in actor networking and their impacts on local development including in generating innovation (Yan et al., 2018).

Aim of the paper and object of the case study

Objective of the paper is to map evolutionary patterns of eco-social innovation (ESI) generation through a case study analysis of formation of grassroots initiative Hidepark in Nitra, Slovakia and its effects on wider community and local development. Hidepark space (operated by civic association TRIPTYCH) is one of the most important grassroots initiatives in Nitra that grew over time into the largest open air community and cultural centre in Nitra. Originating in 2010, it was built on a volunteer basis. A group of young people revitalised the site of a former illegal landfill, near a river bank on the outskirts of the city, where it grew into a fullyfledged community and cultural centre on principles of co-creation and co-management. The place is currently used by more than 10 organisations and groups: various non-governmental organisations, non-profit organisations, civic associations, foundations, interest groups active in various fields of culture and art, sport, ecology, education, etc. Hidepark organises and provides space for concerts, theatre plays, literary nights, experimental multi-genre performances, stand up projects, international projects, public debates, but also lectures and workshops focused on ecology, zero waste way of life, cultivation of crops on permaculture principles, alternative education or cycling. Community is active, open to new ideas, and pro-democratically minded. They also piloted one of the first, and largest community gardens in Slovakia.

METHODS AND DATA USED

All data used to derive results presented in the paper were collected as part of co-design and impact assessment methodologies defined in the framework of IN-HABIT project (under grant agreement no 869227). Initial point of departure was an **in-depth interview** conducted with the

project manager of Hidepark in November 2020 as part of a co-design methodology used to engage wider stakeholder groups and citizens in planning innovative solutions combining technological, digital, nature-based, social and cultural innovation to be tested as part of the project within Nitra pilot. Interview focused on mapping the i) evolutionary trajectory of Hidepark community, ii) identifying innovation they had produced, iii) analysing the process of participatory planning within the community, and iv) identification of interactions with the wider local environment.

Based on the initial interview an **online questionnaire** was developed which was administered (December 2020 - February 2021) through internal and public channels of Hidepark community and addressed to their visitors and users of their spaces and facilities. **309 responses** were collected. As means of distribution varied, we cannot calculate the response rate validly. The aim of the questionnaire was to map *basic demographics of users and beneficiaries of Hidepark space* and activities, as well as *general impact on their life*. **Second questionnaire** was developed to map cooperation and network relationships of Hidepark with the institutional landscape of Nitra. We focused on 5 types of collaborative relationships in increasing level of intensity - "informal", "mutual promotion and marketing", "know-how sharing, consultancy, strategic planning", "sharing facilities, equipment and other material assistance", and "collaboration on specific activities, events and projects". Sent to 81 most active non-governmental organisations in the city, out of which, during April-May 2021, **27 filled out a binary adjacency matrix**, where "1" indicates a connection between their organisation and others in the list including Hidepark, while a "0" indicates no connection. Obtained data was then analysed using social network analysis (Ucinet 6).

Based on the findings of the initial interview, visitor survey and social network analysis (which were conducted as part of co-design activities and baseline data collection for the IN-HABIT project), key avenues of potential impacts were further defined and data collection and impact

evaluation methodology was proposed. This proposal was validated in the second phase, when a **focus group** was conducted with the project manager, president of the association operating Hidepark, one of the volunteers and one of the activity coordinators. Further specifications were introduced to the methodological approach and final interview outline and data collection methods were designed. Final set of **23 interviews** were conducted (November 2023-January 2024) as part of an on-going impact assessment for the IN-HABIT project with three different groups of stakeholders: i) regular visitors and/or volunteers, ii) permanent members of Hidepark community directly involved in co-management of the space, or specific activities, iii) organisations and initiatives developed by at/or by Hidepark community (quasi spin-outs and spin-offs). The aim was to investigate the i) process of bottom-up co-creation of eco-social innovations, ii) its impact on people involved indirectly, directly and its iii) spill-overs outside of the bounds of the community to a wider institutional landscape.

RESULTS - PARTIAL DRAFT

The evolution of Hidepark from informal meeting place to institutionalised grassroots cultural and community centre

The observed evolutionary patterns in the formation of Hidepark, a cultural-community centre, align with common features of community-led organisations in the civic sector, yet they remain distinctly shaped by local and community-specific factors. Hidepark was established on a strong bonding social capital, by a group of friends facing unmet needs, emblematic of urban youth: (1) absence of cultural and creative opportunities in the city, (2) limited contact with nature and green spaces, and (3) lack of space for self-realisation, joint learning, or relaxation through cooperative experimentation. "Seed capital" consisted of human capital, knowledge and skills rather than financial and tangible assets. Initial activities attracted new members and the community grew.

With the accumulation of additional knowledge, skills, know-how, and also a growing pool of social capital, the active local community expanded its scope of action.

Between 2014-2018, Hidepark evolved from an innovative ad hoc public space for spending time in nature, to a significantly more diversified institution. Initial coordinators of Hidepark's activities built a vision of a centre of independent culture, dedicated to professional cultural production (concerts, theatre, educational activities, etc.), which also operates one of the most significant leisure zones in the city for spending free time with sports, relaxation and socialising. As activities undergo professionalisation through continuous innovation, some community members' divergent interests led to the establishment of three separate civic associations operating within Hidepark's premises. These associations not only coexist but actively engage with the Hidepark community. This evolutionary process has seen Hidepark transform from an informal citizen group into a robust eco-social innovation entity, spawning three spin-offs dedicated to (1) urban agriculture and environmental education, (2) sustainable mobility, and (3) community education, that operate at and beyond Hidepark space and community. This makes Hidepark, along with its spin-offs, a source of various social and eco-social innovations, collectively representing an innovation hub.

While Hidepark and its spin-offs can be considered innovation per se, they can be decomposed into several communities generating social and eco-social innovations (Figure 1.).

Hidepark's sports and leisure public space is managed by an administrator and shaped through collaborative efforts from all Hidepark communities. However, distinct communities are dedicated to managing the (1) cultural arena and cultural production, (2) community garden, and (3) bicycle self-repair workshop. Through collective efforts, these three non-profit organisations, pool human, financial resources, and knowledge to mutually advance their respective objectives

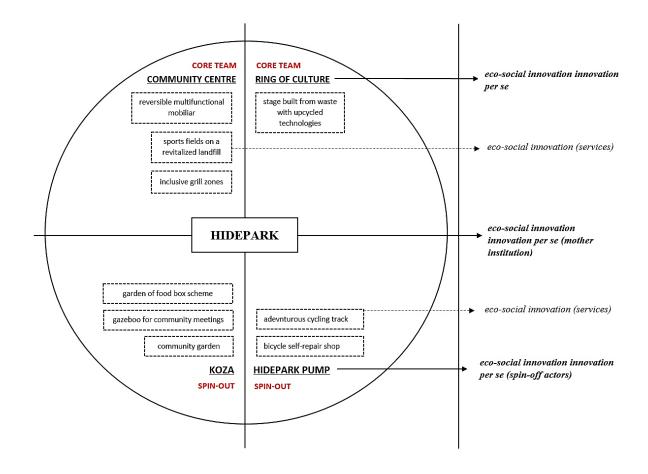


Figure 1. Decomposition of Hidepark as an institutional unit to 4 main areas of action and subcommunities generating and governing main eco-social innovation (draft) Source: own elaboration

The spatially-bound eco-social solutions of the Hidepark can be broken down into individual activities aligned with various objectives, each co-designed and co-deployed by external experts, activity coordinators, skilled volunteers, or supporters. The co-creation aspect in Hidepark's innovation process manifests in several ways: (1) collaboration with external actors and joint intervention implementation, (2) pooling of resources, or (3) community collaboration in physically building solutions. Community-driven intervention, such as community garden landscaping, constructing a stage or garden workshop with place for socialising, building of mobiliary, are planned and organised by activity coordinators. Work groups then execute these plans, utilising storage spaces, materials, tools, and machinery provided by Hidepark.

Visitors, beneficiaries and impact on their quality of life, health and well-being

Figure 2 reveals a gender-balanced visitor profile of Hidepark cultural and community centre; however, this does not extend to other demographic variables. Predominantly, younger individuals are drawn to Hidepark's spaces and facilities, and the majority of them possess a university-level education. The diversity of visitor origins offers early insights into the space's inclusivity, with just over half of the respondents originating from Nitra. A notable proportion of visitors come from other regions within Slovakia and other countries. The spatial distribution of respondents across the neighbourhoods of Nitra city indicates that Hidepark serves as a communal space for residents of both the city centre and the outlying districts.

GENDER		A	AGE	
Men	53.57	19 – 25		27.60
Women	46.43	26 – 36		48.05
EDUCATION		37 – 47		18.83
Elementary	3.90	48 – 57		2.60
Secondary without graduation	2.92	58 – 64		1.95
Secondary with graduation	35.06	65+		0.65
Higher education	58.12	Did not answ	ver	0.32
RESIDENT ST		TATUS		
I live/was born in Nitra		5	7.14	
I moved to Nitra from another city in Slovakia		24	4.68	
I moved to Nitra from another country		3	3.25	
I work in Nitra and commute regularly		3.90		
I study in Nitra and commregularly	ute	4	1.22	
I visit Nitra irregularly		5.84		
Did not answer		C).97	

Figure 2. Respondents sample composition and distribution Source: own elaboration based on questionnaire survey

Figure 3 illustrates that the cultural offerings of Hidepark are the primary draw for the majority of visitors, followed closely by community activities and the use of amenities such as playgrounds

and public grills. A relatively smaller subset of visitors engage with the space by renting plots in the community garden or volunteering for its upkeep. Around half of the respondents visit Hidepark at least monthly, with 18% attending at least once a week.

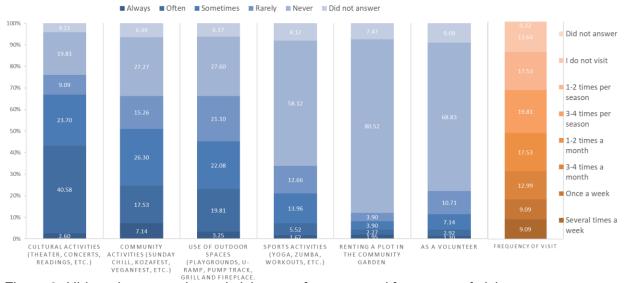


Figure 3. Hidepark community and visitors preferences and frequency of visits Source: own elaboration based on questionnaire survey

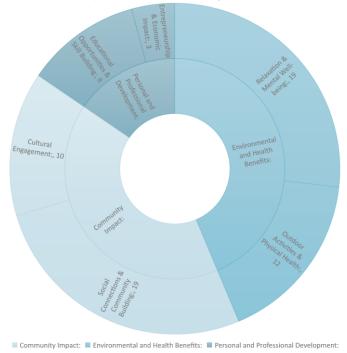


Figure 4. Categorisation of effects/impact on visitors (draft) Source: own elaboration based on questionnaire survey

Out of 309 respondents, 144 chose not to answer an open-ended question regarding the influence of Hidepark on their lives. Of these, 15% never visit Hidepark. Thirty respondents reported either no effect or a neutral impact on their lives; about half of these indicated they never visit the centre. Eight respondents reported negative impacts, all of whom specified they do not frequent Hidepark. Among the 127 respondents who reported positive effects, 71 provided detailed accounts of Hidepark's impact on their lives and well-being, whereas the others gave very brief or single-word responses. These detailed responses were coded and further categorised into various effects and impact categories (Figure 4).

While examining Hidepark's cultural centre's influence on local residents, data from the survey reveal that the facility significantly fosters community ties and personal development. Nearly 27% of respondents highlighted the importance of social connections and community building, a testament to Hidepark's role as a communal hub. It's a space where bonds are formed and strengthened, with one participant who regards Hidepark as akin to a "second family," underscoring its essential role in enriching lives and fostering a sense of belonging. Cultural engagement, though slightly less impactful at approximately 14% (even though the centre was initially established explicitly for this purpose), still plays a crucial role. Hidepark is not just a place but a cultural phenomenon that broadens horizons and invites diverse experiences, as reflected in a respondent's pride in having such a venue in their city — a unique open-air space that serves as a haven for cultural expression:

"It's cultural enrichment; no other space in this city offers me as many diverse activities."

"Yes! I'm proud that we have Hidepark in our city! It's a place I would take a foreigner to; it's the only place where I can culturally entertain myself."

"Excellent cooperation...Inspirational people..., to whom I want to entrust my daughter to an exceptional Hidepark kindergarten and continuity around it has a big significance for my life. I wish I could get more involved in what's happening."

The centre also contributes to environmental and health benefits, with outdoor activities and physical health being highlighted by nearly 17% of participants. Here, Hidepark is seen as an important public green space, a point of contact with nature and a catalyst for physical activity. Parallel to the active lifestyle is the aspect of relaxation and mental well-being, equally valued at around 27%. This speaks to the dual role of Hidepark, where it serves both as a source of activity and an inclusive, accessible public and urban green space:

"Since I live in a housing estate, when visiting Hidepark, I at least have a bit of a sense of nature, freedom..."

"A space for relaxation from the city's hustle, a place with an educational character.

Hidepark taught me to discard prejudices and smile more."

"Definitely, you meet very nice people at Hidepark, you feel a certain peace and satisfaction there. It's a place of well-being and relaxation. I'm always very happy when we go there and I hope my children will continue this tradition."

Personal and professional development is another dimension touched by Hidepark, with educational opportunities and skill-building accounting for over 11% responses of the respondents. It's a place that transcends recreation, offering learning experiences and personal growth, as one user notes the invaluable knowledge and new perspectives gained there:

"I can't quite describe it, but it gives me a lot of new information, broadens my horizons, and it's a great opportunity for cultural entertainment."

"Of course, I can't really imagine where else in Nitra I could find better cultural entertainment and moreover, at Hidepark, you gain various new experiences and knowledge. Plus it's possible to meet very inspiring people here."

Lastly, and unexpectedly, entrepreneurship and economic impact, though the least cited at just over 4%, indicate that Hidepark is more than a cultural centre; it can also serve as a springboard for economic activity and a place where professional aspirations can take root, as seen by those respondents who credit it with influencing their career trajectories:

"...thanks to Hidepark I found my favourite job. When I am at Hidepark, ...I'm just myself there and can do anything I need, feel like doing, and always have support from others."

"...Thanks to Hidepark, I can sell my products, meet customers, meet new people.

I am very grateful for this opportunity."

Embeddedness in local institutional landscape and impact on community networks

The network analysis of Hidepark's interactions with Nitra's institutional framework (referenced in Figure 5) showcases a robust integration within local community networks. Hidepark's central role is evident through its provision of spaces, facilities, and equipment to various city initiatives. It acts as one of the central hubs, facilitating the exchange of expertise, offering consultancy, and engaging in mutual promotion, predominantly with non-governmental organizations. The centre is marked by a web of informal ties with a diverse group of stakeholders, alongside a dense network of formal collaborations on joint activities and projects. These partnerships are primarily with entities active on the city's cultural scene, volunteering, humanitarian efforts, drug prevention, community education, sustainable mobility, and the inclusion of foreign residents.

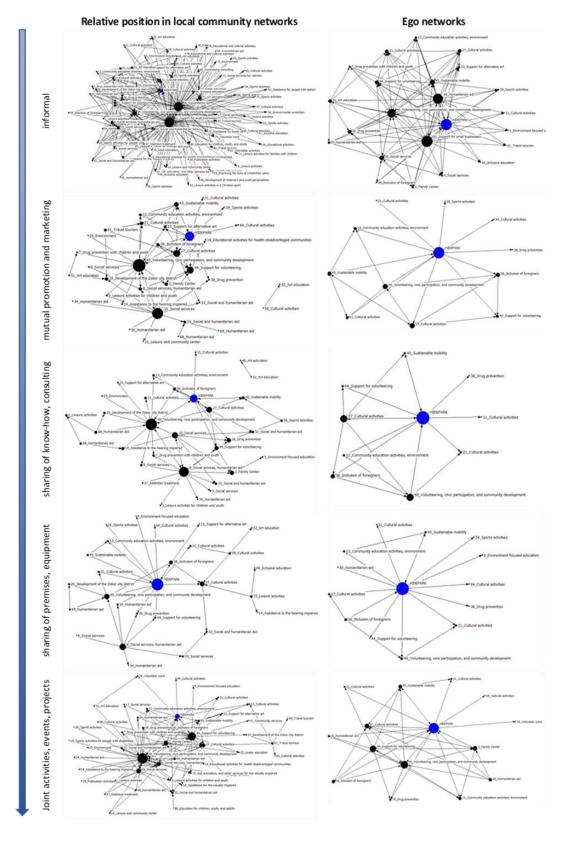


Figure 5. Position of Hidepark in local institutional landscape (in increasing order of intensity of collaboration) – draft, Source: own elaboration based on questionnaire survey

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