

## CASE STUDY

### REPORT

Democratic Transitions  
for All

### PROJECT

SPIRE - Smart Post-  
Industrial Regenerative  
Ecosystem

📍 Baia Mare, Romania

### TOPIC

Sustainable use of land  
and nature based  
solutions

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# SPIRE, Baia Mare, Romania

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## 1. What has the project been about?

### The project's context

SPIRE is an innovative project which sought to address the challenge of recovering contaminated land in the city using nature-based solutions (NBS) and promoting increased engagement in environmental issues and circular processes related to this.

The project team has described how they and others “consider Baia Mare as the pollution capital of Europe”, due to intensive industrial mining activities, which have resulted in the heavy metal contamination of over 600 hectares of land in and around the city. Most of this is contaminated at five times the acceptable values, which poses a significant ongoing risk to both the community and the environment if not addressed.

### The project's context

The project sought to kick-start the long-term redevelopment and reclamation of contaminated land in Baia Mare, using co-development of new adaptive and productive landscapes, integrated into a circular ecosystem to enable cascading value chains for materials and energy production.

Specifically, the primary objective was to plant sufficient quantities of specific plant species in contaminated areas, i.e., plant species that can remove or break down harmful chemicals from the ground when their roots take in water and nutrients from the contaminated soil.

The secondary aspects of the project have been to use plants in a circular way, based on green principles e.g., for energy generation, and engaging communities to actively participate in the redevelopment and planting of these areas of the city.

A core objective was to involve residents, and the city has a general aim to give its citizens, step-by-step, more power to take decisions. However, the objective was based on addressing the observation that people can be very passive in this regard in Baia Mare and typically don't stay involved in initiatives for very long, so this was a core challenge for the project to address.

In addition to the planting schemes, the project also set up a new hub and maker space in the city and also established the 'iLEU', a local digital currency/token, which has been used to reward civic environmental behaviour, involvement, and eco-entrepreneurship. iLEU were given for a wide variety of reasons, from participation in green initiatives to choosing green transport options. For example, people earned 1.5 iLEU for walking to school or 1 iLEU for biking.

The longer-term aim was about transforming the local population into a local community.

### Links to Just Transitions

The biodiversity and environmental regeneration aspects of the project clearly aligned with Just Transitions, and in engaging people directly in the process, the project brought more people closer to these topics and got them involved in making a positive impact on their local environment. Looking ahead, it provides a base on which to build further initiatives.

The co-creation and co-decision aspects of the maker hub development also took steps towards greater involvement of the community in decision-making. Whilst this was still very small scale and limited to a very narrow area, defined by the city not rather than by citizens themselves, it did lay a foundation for further expansion and moving decisions closer to citizens in the longer term.

## 2. What solutions for Democratic Transitions have been

# found?

## Fostering active participation

One key activity in SPIRE is its 'Plantathons'. In plantations, people are invited to get involved in intensive planting activities in the areas being reclaimed and decontaminated. Leading up to the plantathons there were also consultation and co-design sessions, to enable residents to help shape the design proposals for the areas to be planted.

The plantathon events saw people come together to plant various trees and bushes together, under the guidance of the relevant specialists. Participants were helped to understand the process behind the decontamination and also received iLEU for their involvement. This involvement in the re-naturalisation process in their local areas created an increased sense of ownership and/or belonging and participants often returned to participate in subsequent plantathons.

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## Creating participation through other motivations

A specific example of boosting engagement was involving school groups in the plantathons. At the first plantathon, groups of high school students were involved through their school and received iLEU for their participation in the planting activities. The projects' concepts were explained to them by the project team. Some of the students then came to the SPIRE Hub a few weeks later to see what was there, and because they were working on a design project at school. They didn't know anything about the maker technologies there and the team explained it all to them and showed them what was possible. They were thus able to use their iLEU from the plantathon to create the prototype for their school project using the SPIRE Hub facilities.

When the second plantathon came around, the same group of students came back, this time on their own, not with a school group. They said their school project had been amazing as a result of what they were able to create at the Hub and wanted to participate again so they could earn more iLEU and go back to use the maker space again.

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## Legal & Regulatory Issues

However, there were legal and procedural difficulties with the iLEU concept. The national procedural and legal frameworks meant that not only was implementation slow, and took too long for people to see results, but the areas of application/impact they had expected were more limited. It had been anticipated that the currency could be used for a wide range of things, including buying local goods and services and to contribute to reducing their local taxation bill. However, the iLEU did not work as anticipated. The legal blockages meant people could not use the iLEU rewards as they had expected at the start and this led them losing trust in the city and in the project.

People drifted away because they interpreted the slow progress as failure or disinterest in making things happen. The project identified that their residents expect quicker responses and don't understand the legislative procedures etc. nor see the value in them.

iLEU was started as a community tool and the project wanted to expand this with a business use - and there are many examples across EU of such a use, which SPIRE was drawing upon. But there is a more complex ecosystem required to get more people using it as much at an adequate scale. There were challenges getting it to work from a community standpoint (the technical aspect was no problem). Baia Mare wanted people to be able to make iLEU their own and to get something out of it for their quality of life, but this was been difficult to achieve in practice.

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## A 'narrow' offer isn't enough

The offer of makerspace time and support in the Hub is valuable for some people (as it was for local students). But the relevance of 'prototyping ideas' is limited for most. The promise of tax reductions or cheaper products/services from local business is however far more appealing for the average person. In this sense, the iLEU concept has more potential than it was able to realise during the project lifetime but this required changes to national legislation to realise its potential wider benefits.

The project team also tried to ensure that the same individuals continued to be involved through the core phases of the work, on the basis that if participants keep changing, the chance of building the necessary trust is low. They also tried to ensure that they made the results of any engagement visible as easily as possible, whether through a dissemination campaign, banners explaining the resulting design solutions, or sharing what people gained from the discussions.

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## Pandemic impacts

As with many UIA cities, the projects being developed are focussed in or around more deprived neighbourhoods, and SPIRE is no exception. In Baia Mare, there is low engagement in government from the community and those in the target neighbourhoods are particularly hard to reach. SPIRE also found that during the pandemic, this problem was even more pronounced as there was low familiarity with online and digital communications and lower levels of access to digital devices. The pandemic therefore made engagement particularly challenging for the project both for these reasons but also because the

main activities were focussed on physical participation with others in person in a physical space.

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## Students shaping design and development decisions

In designing the SPIRE Hub, the project brought in increasing levels of community decision-making into the process. The first phase of the build was quite defined, as meeting spaces and a maker space. But the expansion into the upper floor was opened up to the wider public to get involved in taking on parts of the design process. In particular, the city didn't know what was possible or what people might want to see.

The team held a workshop on this with two groups of students from the high school, a college of arts, and a technical college. This included architecture students who worked on the design plan for the second floor, including defining the functions, room design, furniture, etc. A second team created a plan for an art piece, thinking about representing how the space might be used, as a piece of wall art to be created in the space. This ended up as a message about the journey of the SPIRE projects and of the city. This was supported by an interesting participation method, based on a process of mediating community values through art, using art and graphic recording to reflect back the discussions and ideas in a different way. This is more than just graphic recording but uses the recordings as a basis to spark dialogue, seek reactions of participants to those interpretations, spot missing things, and as a tool for reflection on or re-shaping input.

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## Building on emerging trust

The team sought to organise further participation to explore some of the later design aspects for the technology that could be installed in the SPIRE Hub, building on the trust already formed. Whilst not deep community participation in city decision-making, this did demonstrate steps towards involving members of the community in decisions about specific projects relevant to them and included elements of co-development that could be replicated and built upon in other areas.

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## Small steps to changing behaviours

One small and simple example of behaviour change was the city's recycling effort for Christmas Trees. The city asked people to donate their used trees at seven specific sites around the city and people received iLEU in return for doing this. The first time this was done, 75 trees were donated. The city recycled these to use in other ecological processes, as compost/mulching in parks or green areas. The city then publicised this the following week, showing people what had been done with the donated trees. The second time the scheme was run, over 400 trees were donated. Anecdotal evidence suggests this was in part due to the short timeframe between donating and seeing the benefit; people could clearly see and understand what was being done and that their contribution had had an impact.

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## Procedural restrictions

What would be useful is a way for these community initiatives is to get things done in a more 'fast-track' way and the project team acknowledged that the quick wins were lacking on the ground. Many positive things were achieved, but they were too slow to be realised and this caused frustration amongst local people. Ultimately, SPIRE wanted to empower people more and give communities the resources to implement changes without the process demanded by a public body. This is partly what the iLEU idea was about but it could not be fully realised.

This is related to the dilemma whereby organisations are able to access funds, but individuals are not. Empowering individuals therefore faces a limiting condition because they can never have direct control over resources without first forming a formal organisation. Whilst this might be legitimate from a governance perspective, it does present a barrier to a more holistic form of wider involvement and inclusivity.

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## Trust and ownership

The project also encountered issues of trust in the city, with residents distrusting the city administration. At the same time, the engagement that had already occurred was noted to have been accomplished in the way that people would expect, with the city delivering the new ideas and/or new projects. Sometimes people would get on board and play some part in forming a plan, but then they would expect the city to implement it.

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# 3. What can cities learn from the OASIS governance?

## Keys to success

- City residents can be persuaded to participate with rewards - this does not represent intrinsic interest in participation, but the ulterior motive can still be beneficial in terms of changing behaviours or fostering involvement.
- Understanding regulatory frameworks as early as possible is key in order to avoid promising things that can't be delivered due to legal

constraints.

- To go into a community and change the structures and mentalities, you need to aim high by proposing something different and stimulating the imagination of a group; only by inspiring people can you start to take them in a new direction (quote from project team).
  - These seeds of innovation are also to be planted with the expectation of nurturing them with new insights, using trial & error; with flexibility ideas can grow stronger and higher than the original plans and indicators predicted (quote from team).
  - Trust is key to participation. People need to see follow-through, and in a suitable time frame for their expectations, not the city's.
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## 4. Upscaling and replication potential

The processes and trust from the work on decontaminating land and the SPIRE hub can be harnessed to scale up and roll out this approach across the city. iLEU has potential across a much wider range of services if the regulatory framework can be modified to enable it. Baia Mare has taken small but necessary steps, and these would be easily replicable in other cities.

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