The Urban Lab of Europe!

CASE STUDY

REPORT

Skills for a green future

PROJECT

IGNITION - Innovative financinG aNd dellvery of naTural clImate sOlutioNs in Greater Manchester

Greater Manchester, United Kingdom

TOPIC

Climate adaptation

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Greater Manchester

See on UIA website

1. Short project description

Weather extremities in the Greater Manchester Combined Authority (GMCA population, 2.8 million) region are cause of rising concern, with increasing risks of flooding and heatwave calamities for both the people and businesses of GMCA. To remediate this, the IGNITION project serves as an important catalyst for the region's pursuit of a green and low carbon future. To achieve this, the project leverages funding and delivery mechanisms

for a widespread retrofitting of urban green infrastructure.

This is critical for the region, for which it is estimated that a 10% uplift in urban green infrastructure is required by 2038 to adapt to the forecasted impact of climate change and to negate its adverse effects on housing, transport, the city region's economy, and its citizens. Urban green infrastructure is believed to supersede the more conventional engineering methods, and, combined with nature-based solutions (NBS) such as rain gardens, street trees, green roofs and other green spaces), will help improve the region's sustainability due to their ability to cope with climate change in a natural way.

To help secure the required green investments, the project has developed innovative business models and financing mechanisms. An important accelerator in this regard was found to be local community awareness and engagement, which can further incentivize investors through an increased demand for a green city. To strengthen this, a permanent innovation centre has been built where nature-based solutions are tested, monitored and demonstrated to the public and potential investors.

The project consortium comprises municipal authorities, NGO's, universities as well as business representatives. This multi-disciplinary nature allows for unique but complementary contributions on municipal planning, climate change, scientific research and business interests respectively.

With the project nearing its completion, it has realized valuable and tangible results, among which the Living Lab innovation centre at the University of Salford, rigorously tested business models and funding streams, as well as various stakeholder support tools.

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2. Greater Manchester and Just Transitions

What are the implications for Greater Manchester?

The implications of climate change for GMCA are severe. The number of heat stress incidents has doubled since the 1950's. Furthermore, it has been estimated that 50,000 properties face a 1 in 100 probability of flooding each year, and that 500,000 properties are currently at risk. In 2015, the region incurred €13 million in repair costs for damaged infrastructures due to the flooding caused by Storm Eva on Boxing Day. This was one of the most widespread flooding ever seen in Manchester, impacting its citizens, businesses, local infrastructure and the environment.

To prevent a further manifestation of climate change catastrophes, GMCA has decided to bring forward its ambition to become carbon neutral by twelve years to 2038, way ahead of the 2050 Paris Agreement target. As such, it has positioned itself at the forefront of climate change combatants in the Race to Zero.

These ambitious goals are reflected in the urban policies of GMCA as well as the broader policy context. Manchester's 2020-2025 Climate Change Framework, for instance, includes several zero carbon objectives, which are addressed by two key-components: engaging and inspiring local businesses and citizens, and realizing an adequate supporting infrastructure. Both topics are also central to the EU Urban Agenda and the UK's Green Finance Strategy. The IGNITION project contributes significantly to both components. The city's approach embeds its approach to skills within its overall climate change policy, as we note in Roadmap Point 2.

What barriers does Greater Manchester face in the transition to Green Jobs, Skills and Businesses?

A major barrier is the lack of appropriate investments of businesses towards nature-based solution projects, in part due to relatively high investment thresholds (ranging from 10 to 50M EUR). Another related barrier is citizen engagement, which is a major catalyst for investors and decision-makers. Realizing more urban green spaces is supported by 95% of the citizens, revealed by the IGNITION citizen engagement survey. However, despite this encouraging figure, there are also significant knowledge gaps. A mere 37% and 57% of citizens acknowledge the positive effects of urban green spaces on the reduction of heatwaves and urban flooding. These figures hamper targeted investments in these areas.

A specific barrier pertaining to supporting the green sector is that it is problematic to identify and reach out to businesses which may not consider themselves as part of the green technologies and services industry. This can mostly be attributed to persistent traditional views on green economy jobs and related occupations, calling for a new paradigm with updated definitions, classifications and perceptions. In the words of Joseph Crolla, Skills Intelligence Lead at GMCA:

"*Many people still see the "green economy jobs" as traditional environmentally linked jobs, such as ecologists, land managers or marine biologists. This needs to shift as many jobs with the highest net-zero benefit will also include scaffolders (to install solar panels), door or window Installers (to reduce heat loss), and electrical engineers (to upgrade networks).*"

Addressing this also means building the awareness and capacity of local authority staff in relation to these issues. Manchester is adoptin a proactive approach to this, linked to Roadmap point 5 in our main report.

Another barrier, related to the forecasting of new skills, is the current mismatch between demand and supply of skills within the green economy (both in terms of quantity and skill level). A 2021 CITB report ("Building Skills for Net Zero") called for immediate action on retrofitting skills in order to meet the decarbonization objective. Facilities and resources need to be in place to build the specialized skills required for the large-scale improving of existing properties.

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3. How does the UIA intervention promote Just Transitions ?

To establish the evidence of the environmental benefits of nature-based solutions, IGNITION invests significantly in awareness raising and education. As part of this strategy, in the summer of 2021 the Living Lab at the University of Salford was launched. This is a permanent facility which was built to research and demonstrate several NBS products and designs to the public, decision makers and investors. As a testament to its' impact, immediately after its launch it sparked a property owner of a shopping center in the region to incorporate a green roof into its building. Another initiative driving community engagement and awareness was the eco-street competition, in which local citizens invented and demonstrated relatively simple but scalable nature-based interventions.

Subsequently, by developing innovative business models and financing mechanisms, businesses are stimulated to incorporate green engineering in their business models. Several financing models were explored, tested, and improved along the course of the project. One scalable insight that has emerged includes the importance of monetizing the different benefits of nature-based solutions. To accommodate this, a site-specific tool has been developed to calculate the costs and benefits related to installing a green roof. A second notable insight is the principle of co-investments. Considering the fact that the initial investments involved with a NBS are greater than for a grey solution, the cost-effectiveness for a single beneficiary is typically too low. When considering the benefits for other beneficiaries, however, a co-investment approach can turn this around. IGNITION is working towards realizing a significant pipeline of projects based on this principle, to ultimately provide confidence to private investors. The results of these projects are showcased in its online evidence base.

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4. Keys to success

Upon further analysis of the Greater Manchester case study, three distinct features become apparent:

a. A tangible and evidence-based approach

Despite COVID-19 seizing the political agenda for a large portion of the project, IGNITION has managed to garner the attention of political leaders and the community at large. Insofar as the pandemic has had a positive impact on the world, (re-)appreciation of nature is certainly one of them.

With people increasingly turning to green areas and parks, their societal value has become more apparent. Through the project's emphasis on tangible and evidence-based outcomes of nature-based solutions, of which the Living Lab and online evidence base are the core elements, it has managed to increase awareness, engagement and support levels among politicians, citizens and businesses.

b. Letting the numbers speak for themselves

The long-term impact of an urban innovation project largely depends on the extent to which the community at large is willing to embrace, and invest in its merits. As such, convincing critical stakeholder groups of the added value of a project is of critical importance. In the case of IGNITION, private investors are such a key stakeholder. They are greatly underrepresented in the UK's natural environment market.

Through a focus on building a pipeline of projects in which environmental outcomes are coupled with transparent revenue streams and returns on investments, the project is building a strong case for private investors to reap financial benefits whilst contributing to the common good.

c. Incorporating innovation in procurement procedures

A major challenge for many urban innovation projects is aligning innovative practices with specific procurement procedures. Adhering to typical procurement processes without compromising the innovative nature of a project is a complex, and seemingly contradictory, endeavor. IGNITION overcame this challenge by adopting a gradual approach: the Living Lab for instance was broken down into several small-scale tenders in which there was a focus on general design and solution principles, rather than a detailed specification. Innovative aspects were explicitly included in the tender requirements and evaluation, resulting in well-developed submissions and a successful realization of the innovation lab.

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5. Upscaling and replication potential

The IGNITION project is setup with securing its post-project legacy ingrained in its activities and strategy. Ultimately, the long-term impact is dependent on the community at large incorporating its generated lessons and insights into daily life. The strong focus on building an evidence-based case for nature-based solutions is made publicly transparent and available through its Living Lab and online evidence base. As such, it has realized a strong foundation for knowledge sharing, awareness and engagement building, and securing financial investments in the foreseeable future.

In addition to the features described above, another replicable regional feature is its direct outreach to employers engaging involved in the provision of nature-based solutions through the GC Business Growth Hub. On the one hand, these direct contacts allow for developing and supporting businesses in new and emerging green sectors, while also feeding into skills intelligence. The latter ensures that information on employer demand is kept up-to-date, allowing for targeted skill interventions.

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