

## JOURNAL

### PROJECT

IGNITION - Innovative financing and delivery of natural climate solutions in Greater Manchester

Greater Manchester, United Kingdom

### TOPIC

Climate adaptation

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EXPERT

# IGNITION Journal 2: get an update about Greater Manchester's project

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IGNITION is mid-way on its journey to develop innovative financing for nature-based solutions. In this 2nd Journal, UIA expert Birgit Georgi sees a substantial progress over the last months with the evidence-base on nature-based solutions having been published and the first part of the Living Lab at the University of Salford established. She points to the positive impact these tangible results have in overcoming or easing several of the implementation challenges. As a tangible demonstrator, the Living Lab helps to create awareness and high interest with different types of stakeholders and the general public; it provides an abundance of information useful for communication and to catch the interest of potential investors. As an integrator, it brings together partners from the different work packages; each can benefit from data and information on the effectivity the nature-based solutions combined in the Lab. Finally, the team has learned important lessons on procuring innovative solutions.

The project did surprisingly well in achieving all these milestones despite substantial impacts by the COVID-19 pandemic, says Birgit Georgi. The pandemic has aggravated certain challenges but has also boosted creativity due to the need to develop new, digital forms of collaboration and communication keeping a lively process and high engagement. In triggering these new opportunities, the crisis has obviously changed the way of communication and collaboration sustainably, which one day, will be combined again with face to face approaches.

## Executive Summary

Extreme weather events are becoming an increasing part of urban life, whether it is rivers bursting their banks, rain creating standing water after only a relatively modest downpour or heat waves.

Like many cities and regions, Greater Manchester is seeing these hazards evolve and intensify as both climate and urban areas change. In addressing these impacts, Greater Manchester feels that significant opportunities lie in substantial retrofit programmes of urban green infrastructure or nature-based solutions (NBS). It is estimated that Greater Manchester requires a 10% uplift in urban green infrastructure in order to adapt to the projected climate change impacts of flooding and overheating and increase its climate resilience by 2038. Implementing and funding delivery at the scale and pace required necessitates the formation of investible packages of projects at an estimated €10m (at a minimum) value in order to persuade businesses and organisations to invest in these NBS

climate change adaptation features.

The 12 partners of the IGNITION project will, therefore, deliver:

- an NBS project identification process setting out a full pipeline of projects for investment and a methodology for replicating this on an ongoing basis;
- the development of a range of innovative business models and financing mechanisms which represent the funding required to deliver the project pipeline;
- increased investor confidence to invest in NBS projects by providing a visible focus in the form of a 'Living Lab' at the University of Salford's campus. The Lab demonstrates the impact of green infrastructure on buildings and the real world returns to the public, urban managers, decision makers and investors; and
- innovative governance, delivery and procurement mechanisms and processes.

While the project overall is progressing well despite some delays due to the COVID-19 pandemic, it faces several implementation challenges due to its innovative character. These issues are related to:

- leadership, communication, and participatory approaches enabling innovation and uptake of solutions,
- public procurement and internal organisational arrangements that differ from business-as-usual settings,
- monitoring and proper upscaling to ensure a long-term impact and project legacy.

The IGNITION project had already addressed some challenges in the project proposal. For example, the development of business models, innovative financing schemes and establishing a Climate Adaptation Service Company are already geared towards upscaling the solutions developed after the project ends.

However, challenges are not static throughout the project; they have changed over time and some have in fact decreased. For example, communication and raising the interest of many stakeholders has been eased due to the implementation of the Living Lab, which now delivers a tangible experience as the basis of communication. Other challenges became more visible, like the urgent need for innovative and concrete business models rather than general information to engage potential investors. A substantial and unexpected impact has been posed by the COVID-19 pandemic, which has added new challenges as well as having aggravated existing ones; e.g., stakeholders that have put time constraints as arguments for low engagement now have an additional argument; or the co-located team, which was an innovative collaboration approach, no longer exists in its original form. COVID-19 has also, however, revealed positive opportunities – virtual communication and collaboration has been boosted and developed much faster than anticipated.

The partnership has dedicated time to discuss the wider challenges around IGNITION and not just its technical tasks. Reflecting on current challenges, as well as on developments over the last months, has raised awareness of certain critical points that often get lost in everyday work. Ideas for potential solutions have been identified where there had previously been gaps.

Partnership:

- Greater Manchester Combined Authority
- Manchester City Council - municipality
- Salford City Council - municipality
- Environment Agency - environmental agency
- Business in the Community - business community representative
- United Utilities – regional water company
- UK Green Building Council - business community representative
- City of Trees - NGO
- Groundwork - NGO
- Royal Horticultural Society - NGO
- The University of Manchester - higher education and research institute
- The University of Salford - higher education and research institute

## 1. State of implementation

Despite facing the challenges brought about by the COVID-19 pandemic, significant progress has been made over the last 12 months on the project, including:

- Completing and launching a comprehensive evidence base of the benefits of nature-based solutions, including translation into a business-facing report and events to engage stakeholders.
- Developing further business models using this evidence base, for potential future phases of the project pipeline.
- Finalising the business model for phase 1 of the project pipeline.
- Progressing the development of a business case for Phase 1 of the project pipeline, including conducting a set of virtual assessments on potential sites and appointing technical and financial consultants to support development of the pipeline.

- Completing a baseline report for the project, setting out the current position for its key elements, such as the existing green infrastructure cover in Greater Manchester and investor confidence in the nature-based solutions it provides.
- Completing installation of the first phase of the Living Lab at the University of Salford and awarding the contract for delivery of the second phase, which is due to begin shortly.
- Continuing a programme of engagement with key stakeholders – including businesses, investors, citizens and national and local government – despite the COVID-19 pandemic's impact on events.

Looking ahead, these tasks have ensured that the following milestones are set to be attained in 2021:

- Completion of the Living Lab at the University of Salford.
- Developing the business case for Phase 1 of the project pipeline.
- Developing outline business models for future phases of the project pipeline.

## 2. Implementation challenges table

While performing its innovative tasks and presenting first results, IGNITION faces seven implementation challenges, which show in different intensities. Table 1 provides an overview; the following chapters describe more detail on the challenges.

### Challenge

### Observation

#### 1. Leadership

Challenge level



Despite political priorities changing due to the COVID-19 pandemic, green issues and IGNITION's focus on climate adaptation are still high on the political agenda in Greater Manchester. Steps have been taken to build awareness of nature-based solutions with citizens and businesses, to replicate awareness of IGNITION at the Mayoral-level. Progress has been made in terms of moving away from a perception that IGNITION is simply a standalone project, towards it being viewed as a new approach to implementing nature-based solutions at scale across the region. Challenges persist in effectively inspiring and engaging the 8 municipalities of the region that are not project partners.

#### 2. Public procurement

Challenge level



The Living Lab and financial advisory support has been tendered, awarded and work is progressing well. The most difficult part of the procurement of innovative tasks has been mastered, and valuable lessons have been learned.


#### 3. Internal organisational arrangements

Challenge level




The COVID-19 pandemic impacted internal collaboration substantially, as face-to-face collaboration was not possible. Digital communication has posed many challenges or exacerbated existing ones, such as differing engagement levels of partners. At the same time it offers opportunities, e.g., spatial distance between partners is no longer a challenge.

#### 4. Participative approach for co-implementation

Challenge level 


IGNITION overcame COVID-19 challenges by embracing digital tools during participatory activities. Accessibility of stakeholders has been both eased and hampered depending on the specific groups, and whether these have been engaged before the pandemic or only afterwards. Co-creation is definitely constrained, though important tasks had been done before the pandemic. The availability of tangible results (Living Lab, NBS Evidence Base) has significantly supported stakeholder engagement.

#### 5. Monitoring and evaluation

Challenge level 


Monitoring is well developed. A challenge is still the link between the results of IGNITION and measuring their contribution to Greater Manchester's climate resilience. However, the project is well on the way to solving this challenge.

#### 6. Communication with target beneficiaries and users

Challenge level 

As with other challenges, the pandemic has hampered communication with the target beneficiaries. However digital communication has offered opportunities to reach them in different, creative ways. Reaching out to potential investors to convince them to invest in nature-based solutions is still a challenge, which needs to be solved with additional business and increased use of the evidence base.

#### 7. Upscaling

Challenge level 

Enabling upscaling is a major objective and integral part of IGNITION and is well covered. For the future, the team needs to keep in mind, that political and legal conditions can change. This may have an impact on developed business models, which therefore need to be robust and adaptable.

## 3. Implementation Challenges

### 3.1 Leadership

The current situation around the COVID-19 pandemic has, of course, had an impact on the IGNITION project and the challenge of leadership. Currently, the Green Agenda and Climate Emergency are not at the top of the political agenda. Nevertheless, the impact has not been as sizable as the IGNITION project team had expected. The Green Agenda is still a priority subject, despite not being the top agenda item. In September, the four-day Greater Manchester Green Summit 2020 was held virtually, in which the project was presented (<https://www.gmgreensummit2020.co.uk/>) alongside sessions featuring local leaders and a roundtable of international Mayors. However, funding announcements highlight that projects concerning nature-based solutions for climate-resilience are not yet supported at the same level as low-carbon projects, with continuous efforts needed to change this. In this regard, the COVID-19 pandemic may also have a positive impact as it has turned people's attention to green areas and parks in the city. Their high value for mental health has become pronounced. This helped to maintain and increase the support of political leaders for the project's objectives.

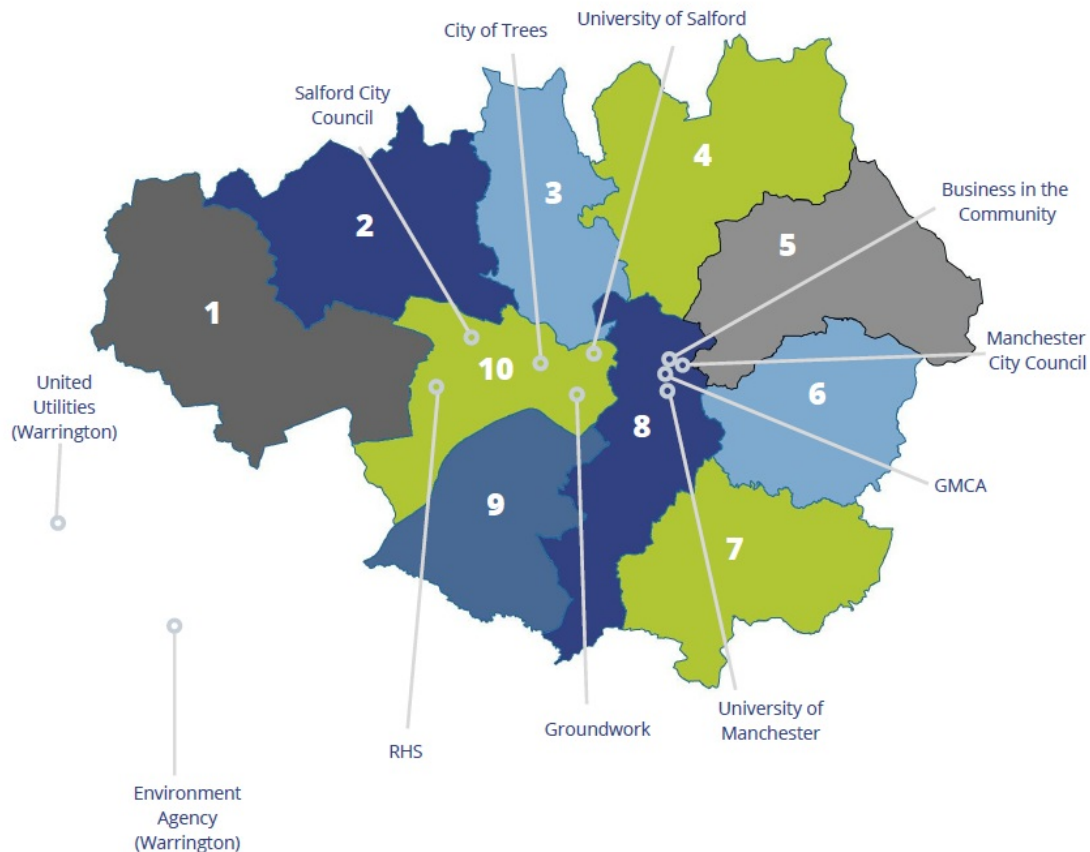


The IGNITION project at the virtual [Green Summit](#)

Concerning the challenges raised in the last Journal, the project also made progress to move from the perception of IGNITION as just a project that will have a fixed duration, towards a new approach to promote large-scale nature-based solutions far beyond the project. In particular with the Living Lab at the University of Salford coming to life recently, politicians and other stakeholders from different sectors and groups will be given tangible information on the innovative solutions and imagination for the future. The Lab will continue to exist over many years, working as a demonstrator and continuing to deliver a multitude of data, information and, in particular, evidence. This helps to maintain and gain more interest and support from leaders and other stakeholders.

The awareness and support from the mayoral level has been translated to citizens and businesses. IGNITION has shown its benefits across different stakeholders and sectors and has, thus, broken down silos between and inside organisations. The Greater Manchester Combined Authority has started to initiate similar innovation projects beyond IGNITION, such as piloting the development of a Local Nature Recovery Strategy which will be a blueprint for other regions.

Development over the last months has also been positive at a project level, although challenges still exist – for example project leadership not being able to engage all partners at the same high-level to make them aware of the overall objectives of IGNITION. Work packages have tended to focus on their own specific tasks, missing out on being aware of their contribution to the project's objectives and potential synergies arising from other tasks. There is room for improvement to get all partners more proactively involved, though the team's behind the Living Lab and the recently published evidence base on the climate benefits of nature-based solutions have worked hard to identify synergies between project activities. It is clear that having visible, tangible tools such as these helps to highlight the overall objectives of the project and how the different elements of the project can support one another.



### Borough key

- |            |              |
|------------|--------------|
| 1 Wigan    | 6 Tameside   |
| 2 Bolton   | 7 Stockport  |
| 3 Bury     | 8 Manchester |
| 4 Rochdale | 9 Trafford   |
| 5 Oldham   | 10 Salford   |

IGNITION partners and 10 municipalities in Greater Manchester region

Another challenge exists in engaging the 10 municipalities in the Greater Manchester region, where nature-based solutions need to be implemented or upgraded. Two municipalities – Manchester and Salford are project partners, but the other eight municipalities need to be inspired and engaged too to achieve the regional target of a 10% uplift of green infrastructure across the city region. They have different starting points and knowledge than the two partner municipalities. Again here, the Living Lab should help the project lead in the future by using it as a showcase, making the benefits highly visible for these stakeholders. Reaching out to them is, however, currently complicated by the COVID-19 pandemic.

## 3.2 Public procurement

Over recent months, the IGNITION project has completed several procurement processes. In particular, those focusing on innovative tasks, like the Living Lab at the University of Salford, and on the development of Funding Stream 1, have been challenging as the standard procedures do not fit well to the innovative character of the project. Innovation involves a certain extent of uncertainty as the solutions are novel and require flexibility and creativity, which is not foreseen in standard procurement procedures.

### Procurement of the Living Lab

A core element of the IGNITION innovation project is the Living Lab at the campus of the University of Salford. Here, a combination of different nature-based solutions (NBS) as an integrated innovative system to support climate resilience is being built and tested. The highly innovative and experimental character has, however, made it difficult to develop the technical description for the 'call for tender'. How does one do this without prescribing a specific solution and as a result kill creativity and innovation? How can the space for experimentation and innovative ideas be ensured while following procurement processes? To overcome this challenge, the IGNITION



team decided to take a step-by-step approach, using experience and learnings to gradually procure the full-scale Lab. Thereby, exchanging views on the IGNITION project and experience with potential contractors in advance of the tender has helped to shape it.



Raingarden at the University of Salford

The first tender covered the rain garden only. This small-scale project meant the team could develop and test its procurement approach. Instead of a detailed description of the tasks, the technical 'call for tender' document described a framework only outlining the general design and functions of the desired solution. Innovative ideas were explicitly requested. During these discussions, other stakeholders were frequently consulted and have given helpful input, including - quite importantly - the estate managers of the University, who need to maintain the installations of the Lab in the long-term. Through this joint effort of partners with different expertise, the raingarden has been finally procured and appropriate tender submissions have been received.

The evaluation of the submissions showed, however, that the tender scoring weighting for innovation was too limited. The team decided, therefore, to ask the bidders to explain the innovative aspects of their tender in more detail before they made the award and asked the selected contractor for more details on the innovation aspects and for different design scenarios in the kick-off meeting. The rain garden was officially launched on 28 October 2020.

The weak points identified and the experience gained in the small-scale tender have helped to shape the full-scale tender for the complete Living Lab. The tender worked much more effectively and in the desired direction, as greater emphasis was given to innovative aspects in the tender scoring. Well-developed tender submissions were received, the contract has been awarded, and installation has commenced in October 2020.

The lessons learned are that conventional procedures do not work effectively within an innovation project. Instead of prescribing solutions, the technical tender document needs to outline the solution(s) and describe the desired qualities and functions. Innovative solutions always include unknown ground. Starting small and in a stepwise approach facilitates learning, by allowing low-risk failures to be made and easily corrected. Due to many new aspects compared to typical conventional solutions, much more time is needed for preparing the tender and for the procurement process of innovative solutions. This includes time for gaining additional knowledge and dealing with uncertainties, but also to convince affected stakeholders that are hesitant to go along with innovative solutions.

#### **Procurement for technical advice on Funding Stream 1 projects**

The Environment Agency (EA), leading on Funding Stream 1, uses established technical procurement frameworks to procure for different projects. This was also the case for the procurement of technical advice within the implementation project under Funding Stream 1. The advantages of using these frameworks are the creation of robust and organised procedures and, in particular, time savings compared to open tendering procedures. There are a limited number of companies allocated to the technical procurement framework for construction and design in the North West of England. From there, the EA had chosen the consultancy Jacobs, that is known to provide excellent technical engineering advice. However, as the framework was not explicitly designed for innovative projects, there was not a perfect match between the Funding Stream 1 tasks and Jacobs, which lacked experience in some areas of the task, such as SuDS design (Sustainable urban Drainage Systems) and innovative financing models. Delivering unusual tasks is also risky for the contractor. The calculation of their costs involves some uncertainty as they had never done the tasks before, which led to a delay until the agreed cost was settled. Once agreed, the framework procedure worked well as the flexibility in the framework allowed for necessary adjustments to be easily made and quickly as, for example, needed by the lockdown situation.

The sub-task of innovative financing was another story. This task could have been sub-contracted out; however, Jacobs resisted doing this because of their lack of expertise in this area. Even if delivered by a sub-contractor, Jacobs would have been held responsible for the final result which they were reluctant to agree to. The EA therefore removed the sub-task from the Jacobs contract and used open tendering for the innovative financing advice instead. An EA staff member with experience on investment and financing was found and engaged and

provided valuable support to the IGNITION team when developing the technical tender specification. However, the procedure lasted almost five months as the EA had to follow the national procurement rules, which are highly stringent and usually apply for much bigger projects. While the EA received 23 expressions of interest it eventually received only one submission, which fortunately was appropriate. One of the reasons for the declining interest to submit an offer was the imbalance between the contractual requirements, with significant effort needed to develop the tender submission compared to the budget of just £80,000. As a result, there have not been any gains in time for tendering the innovative financing task. The efforts compared to the available budget have been extremely high for the Environment Agency, as well as the contractors.

The additional lessons learned in this case are that innovation does not fit into the existing public procurement frameworks, although these frameworks are convenient once the task-specific contracts are agreed, and the projects are in implementation. Therefore, a new procurement framework focussing on green and innovative projects would be helpful, but that is a decision to be made at national level. Interestingly, despite the complicated procedure, Jacobs was interested in working on the tasks, at least in parts, as this would increase their competence and knowledge on innovative projects.

More information can be found in the [web article “Experience and learned lessons from procuring innovative solutions – IGNITION’s Living Lab”](#)

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### 3.3 Internal organisational arrangements

Completion of phase 1 of the Living Lab has also supported collaboration between and inside partner organisations, as its tangible results and integrated nature-based solutions inspire working towards a common goal. The Lab shows possible solutions in a real setting and delivers lots of information and data, relevant for all partners’ work. This supported the integration of the different work packages.

The COVID-19 pandemic has created or exacerbated challenges but has also had positive impacts. While it became difficult to meet physically or visit places, the situation has helped to overcome the challenges of project partners’ offices being far apart. Distance is no longer a real barrier. Meeting each other virtually appears easier to organise and find the time for. More and more online tools for virtual interaction have become available and improve working together remotely.

The number of meetings had to be adjusted, however. More (formal) meetings have shown to be necessary because the informal exchange of spontaneous meetings between staff is currently not possible. However, at the beginning of the pandemic, the number of meetings had been too high. This had been exhausting and too time-consuming, which left little time to spend on project tasks. Despite getting used to the situation, spontaneous exchange, brainstorming and planning are going less smoothly online.

On the positive side, decision-making has shown to be faster online. Moreover, the attendance of partners and other stakeholders in board and project meetings has been high; although, the engagement in the meeting seems to be lower. As more digital skills are gained and innovative tools are developed and used, it will become easier to enable interaction between meeting participants. This experience, caused by the pandemic, will be highly relevant afterwards, when physical meetings will be possible again. A combination of physical and virtual meetings seems promising.

The COVID-19 pandemic has had a major impact on the co-located team – where staff from different partner organisations worked together physically at the premises of GMCA for some days per week (see also <https://www.uia-initiative.eu/en/news/how-ignition-found-innovative-approach-collaborate-its-diverse-team>). This approach eased collaboration and achieved important efficiency gains. As the approach is not possible under the current situation, the team has lost these advantages. Digital communication is simply not the same, as it does not support the spontaneous informal exchange to the same level, which is a key feature of the co-located team. Still, as the co-located team had been established and worked effectively, the bonds have been retained. Involved staff still feel as a team; a team, which others have since joined.





Co-located team at the beginning of 2020

Switching almost all communication and collaboration to an online mode is further challenged by lacking or malfunctioning infrastructure. Internet connections from home often do not work well, and the software and tools being used are mostly new for moderators as well as participants. There is ongoing learning on how to find appropriate tools for brainstorming, interactive exchange and collaboration for different types of groups and meetings. Engaging participants if one cannot see them, e.g., when using a whiteboard, often challenges the facilitation of meetings.

Fortunately, for collaboration between partners as well as with other departments and stakeholders, the COVID-19 pandemic hit in the middle of the project and not at the beginning. Staff from different organisations had the chance to get to know each other in person and establish relationships and collaboration procedures. This setting helps enormously in carrying on working digitally.

As described earlier, to a certain extent the level of awareness of project-wide progress and results still differs between partners. The internal communication team has introduced different measures to cope with that challenge, such as a regular internal bulletin on the latest developments in the project. All project meetings now start with a short update on developments within their particular work packages. These measures have improved the common understanding but have not completely solved the problem yet. The different partner organisations have developed different cultures, and individuals have different ways of taking in information. Even the partner organisations within IGNITION's communication work package all have their own agendas and the whole picture of IGNITION sometimes gets lost. Possible solutions need to be further explored, developed or adjusted.

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### 3.4 Participative approach for co-implementation

COVID-19 has also challenged the participatory approach as physical meeting of partners and stakeholders has not been possible, but the team has found ways around this with virtual meetings and tools. A series of webinars has taken place, which enabled the participation of people that would not have joined in a normal event due to their distant location or time constraints. Nevertheless, organising good levels of participation is challenging.

External stakeholders and organisations seem to have shifted their focus and priorities to deal primarily with COVID-19. Therefore, finding the right contacts and accessing them has become difficult. However, whilst this was a challenge before the pandemic, it has been exacerbated. As before, the problem relates mostly to time constraints of staff working with external stakeholders, which prioritises the daily tasks over the additional and innovative activities of IGNITION. Still, there seems to be a gap in disseminating the benefits and gains of IGNITION to encourage more interest and engagement, which also links to the challenges of leadership and communication.

A challenge from the beginning of the project has been the wide variety of stakeholders – other administrative departments, investors, service providers, users, etc. that need to be involved. They all have different needs, interests and agendas and need to be approached and involved in a targeted way. The mapping of stakeholders and of interdependencies has helped to sort this; to give one example, the project has created a group of critical friends where representatives from the different stakeholder groups participate instead of all the stakeholders. In round table talks, they exchange on the different perspectives, opportunities and challenges of IGNITION, which helps the project team to understand the different groups and design participation respectively.

A challenge of developing an effective participatory approach and gaining the interest of stakeholders consists in solutions only being on paper. With the completion of the Living Lab at the University of Salford that situation has changed. Finally, there is 'something' to show and talk about. The solutions are real and tangible, and visitors can go there, or they can take a virtual tour. A huge amount of data and information will start to be gathered, which will serve the different interests of all types of stakeholders. Also, the evidence base on the effectiveness of nature-based solutions is published on the Greater Manchester Combined Authority website [<https://www.greatermanchester-ca.gov.uk/what-we-do/environment/natural-environment/ignition/>] providing further food for thought, which is further summarised in a business-facing report [<https://www.ukgbc.org/wp-content/uploads/2020/08/Nature-based-solutions-to-the-climate-emergency.pdf>]. These resources have increased interest in the project and fuelled discussions and participation.

Online collaboration has proven to be an opportunity for the collaboration between the project team and contractors constructing the Living Lab. With the innovative character of the solutions being implemented and the two contracts on the Living Lab instead of the originally planned one contract, the team needs to communicate intensively and coordinate outputs efficiently. Most of that work is done much easier and faster online as less time for meetings and travel is needed.

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### 3.5 Monitoring and evaluation

Monitoring is a well-developed aspect of the IGNITION project. Critical points and challenges identified earlier have been taken up and partially solved as the project has progressed. An important factor, and probably key challenge, is the baseline indicator measuring the progress on the targetted 10% uplift of green areas in Greater Manchester by 2038, in order to improve climate resilience. Here, the monitoring is based on mapping and would - up until now - have only counted different types of green areas. Now, the mapping also includes tree canopy coverage. Even if these are established in areas of grey infrastructure, they still have a significant effect on climate resilience. This has led to an important improvement of the indicator.



Spatial data on tree canopy cover (green shading) for the Clifford and Hulme districts

Nevertheless, further challenges exist with this indicator when trying to link it concretely to the overarching target of increasing climate resilience. Mapping green areas and trees does not show the functionality or effectiveness of these areas. This differs depending on the type of green infrastructure (GI) – whether it is composed of trees, shrubs, meadows or just lawn. Assessing an uplift in resilience and not just a green area – even if measuring a change of GI from lawn to trees – goes beyond the capacity of IGNITION and can only be done in a wider monitoring and assessment approach. Such an approach could be built on a greenspace factor concept combined with experience and data gathered in real-life examples, such as the recently established GrowGreen green infrastructure park in West Gorton, Manchester as part of the HORIZON 2020 project, or, later, with the IGNITION project's Living Lab at the University of Salford. Although, the 10% uplift target appears too simplistic in this regard, there is confidence that the GI projects initiated by the IGNITION project will increase the resilience of the region because of the nature of the projects generally supporting climate resilience.

In addition to the amount and type of green infrastructure established, its spatial distribution across Greater Manchester will matter. In general, one could expect that an uplift of green infrastructure in an area, where there is little greenery, will be more effective for climate resilience than in areas, where there is already a high amount of greenery. Crossing that spatial distribution with socio-economic data and maps can further support the assessment of vulnerability to climate change and the impact of GI improvements on this. The monitoring scheme under development by IGNITION should, therefore, enable such query function and analysis. As this could also be relevant for sectors beyond climate resilience, like air quality, noise, and health and well-being. Such functions could be of even higher interest for building investors and other stakeholders.

To enable such queries, IGNITION plans to establish certain use-cases for different potential users. This can better illustrate the usefulness and potential of the system, instead of having generic guidance only. To produce targeted information, IGNITION needs to collaborate with potential users and has already started to do so.

Another challenge for monitoring the impacts of IGNITION is to measure the impact of GI projects initiated by IGNITION and its business models / funding streams, versus GI projects implemented by other initiatives and means. In addition to mapping, this would require a technical database. This idea could be taken up by the planned Climate Adaptation Services Company (CASCo) and developed in the further course of the project.

Such GI implementations need to be linked to the target of a 10% increase compared to the baseline, otherwise new GI might be created but could also disappear at other places due to urban development. The final monitoring of the 10% uplift therefore needs to consider changes in both directions in a more automated way to monitor the net-gain.

Monitoring is not only designed to measure progress on target achievements but should enable learning. Currently, this happens sporadically. The question is therefore, how a more systematic learning approach can be established. The team will explore options to systematically capture the experience on the lessons learned and ways to make better use of this experience inside and beyond the project, e.g. in a specific report. This could include a story-telling approach and link to communication work under WP3.

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### 3.6 Communication with target beneficiaries and users

The topic of IGNITION concerns many different stakeholders. At the beginning of the project, the team broke down the audience and identified many different groups such as investors, service providers, administration, citizens etc. The challenge is that they all have different perspectives, knowledge, and interests. The communication team has, meanwhile, learned about the interests of each group and where to pick them up. They have developed specific and targeted communication for each group. However, the team noted that, now, there is a risk of working in silos instead of benefitting from synergies. While it makes sense to create target group-specific pieces of communication, there is also information that is relevant for all. In the end, all are citizens; hence, citizens-oriented communication material can be equally relevant for other groups, with some small adjustments. It is time to look across the different groups in search of synergies and a holistic approach to communication.





Figure 7: [Virtual tour through the rain garden of the Living Lab](#)

The COVID-19 pandemic has had a massive impact on communication activities. Going virtual has been a way through this but has posed additional challenges to communication. The Living Lab is IGNITION's central piece for communication. As a demonstration site, it provides tangible experience and will deliver various real-time data and information, from which information can be gathered. While the Living Lab was implemented, its launch was primarily virtual as showing stakeholders around the site in-person is currently difficult due to social distancing requirements. On the positive side, virtual communication, like the inauguration video, virtual tours, webinars and web conferences, as IGNITION has also done for other parts of the project like the evidence base for nature-based solutions, enabled the participation of faraway stakeholders, i.e. as far as Australia.

Video Resources on the Living Lab:

[Launch event](#)

[Promotional Video – Living Lab and Phase 1 construction](#)

[Pre-recorded tour – Rain garden](#)

[Time lapse of Rain Garden construction](#)

Using virtual communication means partially losing contact with the audience, in particular informal exchanges. People are much harder to engage as eye contact is missing. This is particularly relevant when participants are unknown to the project team. One would need to inform people about the project to get them engaged, but how can people be encouraged to read pieces of information just to get started? The answer lies in finding what could interest people in nature-based solutions. Often that will not be climate resilience but other aspects, like well-being, nature or attractive places. Obtaining their interest on these issues can bring them to climate resilience. Whilst the challenge already existed under normal conditions, the restrictions and solely virtual communication have intensified it further.

This situation has, however, pushed the use and development of innovative communication tools, even if the learning process has not always been easy and is still ongoing. For example, for the launch of the Living Lab, new technology needed to be purchased and there was limited understanding of what was required – however now the project is in a position to share best-practice with others in terms of which technologies to use. Regarding virtual events, it has shown that in the future, there needs to be more effort put into meeting documents and materials. Until now, the focus was more on the organisation of the meeting itself, but material supports the communication at and after the meeting. Virtual communication will remain relevant after the crisis. A mixture of physical and virtual tools and pieces of information will be necessary to keep local and distant audiences engaged.

The current situation has also changed the agenda of many stakeholders who focus on COVID-19, rather than climate adaptation as a priority. This poses a challenge for communication as well as an opportunity. The overarching topic of IGNITION is resilience as it is with handling the pandemic. The communication team needs to identify new ways to promote IGNITION, for example as part of the Green Recovery, and use the increased appreciation of green spaces as a selling point.

A specific target group for the project are potential investors in nature-based solutions. The investor survey on their perception and interest conducted as part of the monitoring task has revealed the starting points for effective communication. However, most important to approach investors is to present them with concrete business cases to make the innovative approaches tangible; presenting more general or theoretic information would be not effective. These business cases are, however, not yet there or just preliminary. The team will need to find ways around this to start communication, like using the recently published evidence base more effectively.

Finally, there are challenges to face as there is currently a high number of activities on nature-based solutions going on in the UK and Europe. It is hard to maintain an awareness of other project's experiences and knowledge while distributing the IGNITION project's own results and lessons learned. Difficulties arise also with each partner's central communication department. They are not always geared to IGNITION and there is a constant effort to get the project into the usual communication channels of the partner's organisations. The team is constantly reminding and testing different approaches and channels to overcome that situation.

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### 3.7 Upscaling

Enabling upscaling is an explicit part of IGNITION, which focusses on innovative financing streams and business models for implementing nature-based solutions. A specific body – Climate Adaptation Service Company (CASCo) - will be established to take up the business models and support their application for large-scale nature-based solutions beyond IGNITION, in order to achieve the 10% uplift of green infrastructure in Greater Manchester. The setting up of a CASCo is, however, delayed as part of the work of Funding Stream 1. In hindsight, it was timed too optimistically in the original project plan and needs to be adjusted.

The funding streams and business models that are still to be developed are partly dependent on regulatory and political conditions, which can change over time. For example, the model of Funding Stream 1 depends on the current model of water charging. If the water company changes these, the business model may no longer function or be less effective. For further business models, IGNITION needs to take this factor into account and find solutions to develop robust and flexible business models as well as ways to influence policymakers. The latter is, however, out of the direct control of the IGNITION project but can be taken up under the leadership challenge.

Results in other work packages of IGNITION are also relevant for replication and upscaling, such as the evidence base on the effects and benefits of nature-based solutions. Therefore, for each report and result produced, the team includes a specific chapter on discussing how the results can be replicated, transferred, upscaled.

In this regard, IGNITION has organised a web-conference with national stakeholders to share the evidence base resource and has plans to share learning with European stakeholders as well, e.g. other UIA projects and / or HORIZON 2020 projects on nature-based solutions. However this has been delayed due to COVID-19. IGNITION will need to find ways to directly target relevant projects and organisations when invitations to the event are shared, to ensure a high-quality event.

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## Conclusions

Overall, the project has made substantial progress and coped relatively well with the challenges. This is despite the unforeseen and substantial impacts due to the COVID-19 pandemic, which has posed new challenges and aggravated existing ones, though it has also created opportunities. A central element of the project over the last month has been the Living Lab, of which the first part was recently completed. This output is a positive driver to overcome certain communication challenges as it delivers a highly visible, tangible experience which fosters and streamlines collaboration towards IGNITION's objectives. Looking back, experience shows also that in the development of the project proposal, many assumptions have been made due to the innovative character of the project, but circumstances can develop differently requiring a constant adaptation of processes to finally achieve the intended results. It is therefore of uppermost importance to monitor the development of implementation challenges further and adjust the project's approach over time.

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