



Subject:	Horizon 2020 'UPSURGE' project update
Date:	9 <sup>th</sup> March 2023
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<b>Restricted Reports</b>	
Is this report restricted?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
If Yes, when will the report become unrestricted?	
After Committee Decision	<input type="checkbox"/>
After Council Decision	<input type="checkbox"/>
Some time in the future	<input type="checkbox"/>
Never	<input type="checkbox"/>

<b>Call-in</b>	
Is the decision eligible for Call-in?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

<b>1.0</b>	<b>Purpose of Report or Summary of main Issues</b>
1.1	The purpose of the report is to update Members of the Committee, following the successful award of funding for the Horizon 2020 EU 'UPSURGE' project, which Members of People & Communities Committee initially approved at their August 2020 Committee meeting.
<b>2.0</b>	<b>Recommendations</b>
2.1	The Committee is asked to note the update on the UPSURGE project.  I. Note the update on the development of the UPSURGE main demonstrator site at Lower Botanic Gardens is given, as well as an overview of the work completed to date to include a codesign process which has resulted in an early concept plan for the site which is now at detailed design stages for the first phase.  II. Note that the first phase i.e. the research gardens to be used by QUB and associated paths and infrastructure will be going on site in late March 2023. At the same time a series of community engagement initiatives will take place including a

	survey, storyboards on site and a collaborative workshop that will shape the final design for the community gardens.
<b>3.0</b>	<b>Main report</b>
3.1	<p><b>Background</b></p> <p>Members are reminded that the ‘UPSURGE Project’ focuses on testing nature-based solutions, to environmental issues in partnership with four other EU cities, with the aim of sharing learning and good practice.</p>
3.2	<p>Following approval by Members of P&amp;C Committee, in August 2020, the project utilises the Lower Botanical Gardens site, close to Queens University Physical Education Centre (PEC). The aim of the project is to develop a demonstrator site to test different nature-based solutions and support learning on how adaptive practices and management of green spaces in the city can support pollution alleviation, citizen health and climate resilience. Residents of Belfast will benefit from environmental and scientific testing and learning, where soil enhancement, food production and testing can be undertaken, with the outcome being to increase learning and resilience across the city. The project will help deliver on the Belfast Resilience Strategy which aims to transition the city to an inclusive, net-zero emissions, climate resilient economy in a generation.</p>
3.3	<p>The UPSURGE project was co-designed by the Council in conjunction with QUB staff. The proposed works are shown in the concept drawing at Appendix 1. Members are asked to note that the works are focused towards the top end of the site near the PEC and allows the potential for other developments on the site in the future subject to budget being secured. Members are asked to note that works will commence this month.</p>
3.4	<p><b>KPIs for the project</b></p> <p>One of the key aims of the project is to monitor and test nature based solutions being applied to the site. The KPIs for the project include social-economic diversity, gender, soil contamination, urban heat island effect, ecosystem connectivity, mobility, air quality and health. Given the opportunity to build evidence and learning. The project team and partners see opportunities to apply learning and knowledge sharing across the city and for informing more climate resilient practice across Belfast.</p>
3.5	<p><b>QUB research plots</b></p> <p>The QUB research plots will begin ‘in-ground planting’ of a number of vegetable types, as well as other plant categories, to measure the transmission of contaminants to potential food and plant matter over the initial period of the project and a QUB Research Fellow will manage the development and ongoing monitoring of this element. Information will then be disseminated within the overall EU project and be shared with local relevant partners, to enhance further development of urban agriculture.</p>
3.6	<p><b>Deployment of environmental sensors</b></p> <p>As part of the overall environmental learning from the site, sensor-based technologies will be installed (with the procurement process underway) to measure certain particulate levels over the life of the project, with the overall objective to measure impact of the initiative on these localised particulates. Other mobile and personal sensors are also being considered. Measurement of the following environmental impactors will be an ongoing part over the life of the project and hopefully beyond (subject to future funding):</p>

Impactors to be measured:

Temperature

Humidity

Pressure

Ozone

Nitric Dioxide

Sulphur Dioxide (SO<sub>2</sub>)

Particle Matter – Dust

Noise Level

The information gathered by the sensors will be regularly sent for analysis to our European partners and disseminated as part of the overall learnings of the project. To complement this, and hopefully coordinate longer term Belfast monitoring, the project delivery team will explore how best to integrate longer term monitoring for the benefit of the city.

3.7

### **Bee monitoring**

Additional testing will also be undertaken to measure pollen contaminants and biodiversity, utilising the installation of a number of beehives in secure locations on the site. A European analysis, managed by 'Beeodiversity', will be carried out, with local beekeepers being trained to monitor and gather samples from the hives. It would be hoped that a social enterprise element may be developed from this, as well as other growing elements of the site

3.8

### **Development of the community growing aspects of the site**

The project will also include opportunities for communities living and working in the vicinity to benefit from the development of a number of community gardens on the site. Some initial engagement with existing stakeholders has taken place to co-design the community garden elements of the site and other stakeholders, such as QUB volunteers, local schools and community organisations are being engaged with to ring-fence garden space to support their engagement. This will complement the overall success of the project and further enhance learning, as well as community engagement, community cohesion/diversity opportunities.

3.9

### **Continuing engagement**

As the research gardens are developing on site, the codesign process will continue with various engagement activities taking place to inform the detailed site design for the wider site. A presentation of the project will be brought to the South Area Working Group in February/March. Following agreement of the detailed site design, council officers will initiate the physical development of the site in partnership with relevant stakeholders and local communities.

3.10

### **Governance and delivery arrangements**

The UPSURGE project presents an innovative opportunity to develop an underused area of land within Belfast City Council's ownership, through a partnership with QUB, EU partners, and local community organisations. A project team has been established which includes Belfast City Council's Climate Team, Innovation Unit, City and Neighbourhood Services, Physical Programmes, City Regeneration, and Planning in addition to QUB representatives. Physical programmes unit is leading on the delivery of the capital works programme. The project will act as a hub, with the potential to support rewilding, enhanced local food production, stimulation of local circular economy, and will develop community

<p>3.11</p> <p>3.12</p>	<p>education programmes in relation to climate, digital innovation, and community resilience. Note that Members will also get an opportunity to feed in to the project at a presentation which will be given to the South Area Working Group in March.</p> <p><b>Knowledge sharing and learning across satellite sites</b></p> <p>The delivery of the project will also work with partners across the city to engage with a number of satellite sites, which will benefit local neighbourhoods and create a citywide network of learning and education. The development of satellite sites will also benefit the overall wellbeing of residents across Belfast. Updates on the identified sites will be brought back to Committee as they are agreed.</p> <p>The satellite sites have not yet been defined for the project, and whilst do not have an allocation of capital funding, will provide opportunities for learning and knowledge sharing programmes on nature-based solutions across the city.</p> <p><b>Budget</b></p> <p>The current budget, awarded through EU funding is categorised below:</p> <ul style="list-style-type: none"> <li>• Project costs of €115,800, which include € 22,000 for the development of satellite sites across the city.</li> <li>• Infrastructure costs of € 346,800, which includes monies for the physical development of the site and € 16,800 for the delivery of educational and training workshops related to the site.</li> <li>• € 122,500 for staff costs towards the project.</li> </ul> <p>Total funding awarded by the EU is € 660,375.</p>
<p><b>4.0</b></p>	<p><b>Financial &amp; Resource Implications</b></p>
	<p>There are no Financial &amp; Resource Implications.</p>
<p><b>5.0</b></p>	<p><b>Equality or Good Relations Implications/Rural Needs Implications</b></p> <p>There are no direct equality and good relations implications.</p>
<p><b>6.0</b></p>	<p><b>Appendices</b></p>
<p>6.1</p>	<p>Initial conceptual design attached.</p>