

To the Lord Mayor and  
Members of Dublin City Council



Report No. 09/2022  
Report of the Climate Action, Environment  
and Energy Strategic Policy Committee

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## **The Climate Change Action Plan Annual Report 2020/2021**

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The first City Council Climate Change Action Plan (CCAP) 2019-2024 was submitted to the Department in September 2019 as a requirement of the National Adaptation Framework. The plan set out how the Council will improve energy efficiency by 33% by 2020 and reduce greenhouse gas (GHG) emissions in our own buildings and operations by 40% by 2030, (this has subsequently been updated to 51% by 2030) whilst making Dublin a more climate resilient city. This is the second annual report on the City Council's progress towards these targets. The City Council has met and exceeded our 2020 energy target, achieving an improvement in energy efficiency of 49.2% from our 2006 baseline, surpassing our 2020 target of 33%. This was achieved through a range of projects, which will continue to play a role in progress towards our 2030 target of a 51% reduction in GHGs emissions. By the end of 2020, DCC has achieved a 26% reduction in emissions from our operations and service delivery. The City Council is on track to achieve a 40% reduction in GHGs by 2030. Building the resilience of the city and citizens is being achieved through the inclusion of nature based solutions, the promotion of active travel and awareness raising of the climate risks.

The Climate Change, Environment & Energy Strategic Policy Committee that was established in September 2019 agreed a programme of works that would examine the progress of the Climate Actions set out in the Council's Climate Action Plan 2019 – 2024. It was agreed that each meeting of the Committee would deal with a Chapter from the Plan and associated issues. This was underpinned by the formation of the Climate Action Subcommittee which examines in detail the status of the actions and reports to the Strategic Policy Committee.

The annual report was examined by the Subcommittee at its meeting held on the 15<sup>th</sup> of November, 2021 and the Strategic Policy Committee 2nd December 2021.

I would like to take this opportunity to express my gratitude to Councillor Claire Byrne, Chairperson, the Members of the Climate Action Subcommittee and the City Council's Climate Team for their endeavours.

I therefore recommend that the City Council notes the Climate Change Action Plan Annual report 2021 (attached).

**Councillor Michael Pidgeon**

**Chairperson,**

**Climate Action, Environment & Energy Strategic Policy Committee**

**17<sup>th</sup> December 2021**

Dublin City Council  
Annual Progress Report 2020/21  
Climate Change Action Plan 2019-2024

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11-18-2021

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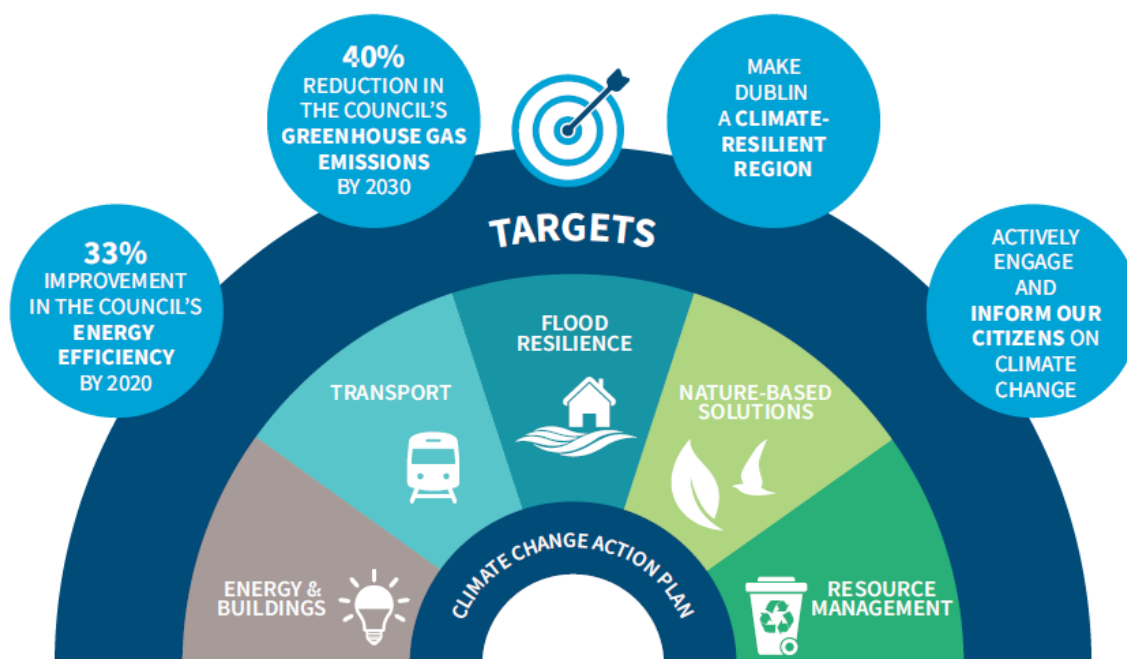
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## 1. Introduction

Dublin City Council's Climate Change Action Plan 2019-2024 was approved on May 13, 2019 in accordance with the National Adaptation Framework – Planning for a Climate Resilient Ireland 2018 (NAF). The Plan was also completed in accordance with the requirements of the Covenant of Mayors (COM) for Climate & Energy to which Dublin City Council (DCC) is a signatory.

The Plan sets out 4 key targets and 219 actions that the Council will undertake in the areas of energy & buildings, transport, flood resilience, nature based solutions and resource management (Figure 1). The Plan has been developed by DCC in conjunction with the City of Dublin Energy Management Agency (Codema) and the Dublin Climate Action Regional Office (CARO). The Plan was subject to public consultation and Strategic Environmental Assessment processes. Annual progress reports are required as part of the National Adaptation Framework (NAF) and Covenant of Mayors (COM) processes. DCC has committed to reviewing and reporting on this Plan annually.

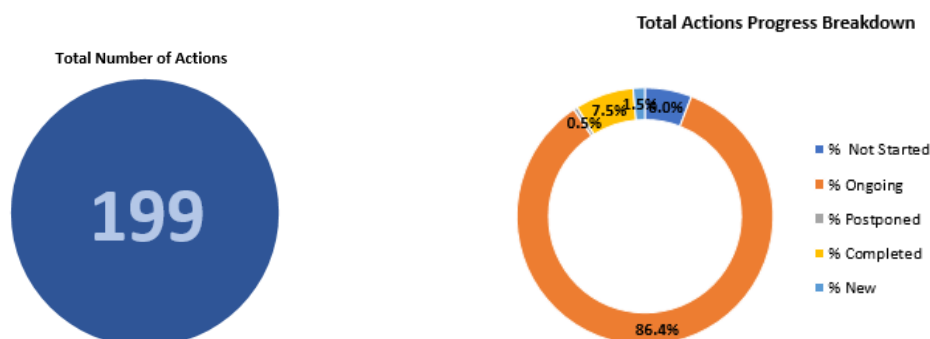


*Figure 1 CCAP Targets and Action Areas*

This second annual report covers the reporting period from 30th September 2020 to 30th September 2021. The report includes a discussion of policy changes within this period.

Through an ongoing process of review and refinement with teams responsible for the implementation of actions across thematic areas, the current number of actions in the CCAP is 199 actions (Figure 2). Of the 199 actions, 86.4% are ongoing, 7.5% have been completed, 6.0% have not been started and 1.5% are new. The high percentage of ongoing actions is due to actions being part of operations and service delivery, and timescales associated with actions. Appendix I provides additional detail on action progress. The overall change in number of actions is a reflection of the CCAP being a living and fluid document, responding to

changes in policies and circumstances as they arise. Over the course of the plan's lifetime, this number will fluctuate.



*Figure 2 Actions and Progress*

### 1.1 Climate Action Team Updates

The DCC Climate Action Team welcomed a new Executive Manager – Liam Bergin in March 2021 and in July 2021 as part of the LGMA Graduate programme two new team members, one of whom is shared with Smart Dublin.

#### Climate Newsletter

In January 2021, the first issue of the Dublin City Council Climate Newsletter was published. The quarterly newsletter will spotlight various Dublin City Council's climate action endeavours and projects being implemented by multiple departments in an easily digestible visual format that will be of interest to staff, communities and public representatives. Amongst the news features in the first 3 quarters were the Eat the Streets! Festival, Modos and the circular economy, active travel initiatives and the Dublin City Development Plan. Issue 4 is due to be released in Quarter 4. The newsletter has been well received and the circulation list will expand to reach a wider audience.

#### Third Level Engagement

Building partnerships with third level institutions in the city has been a key focus in the last year. Through DCU's MSc in Climate Change pilot capstone programme, DCC engaged with four students to work on projects in relation to resource management, fast fashion and textile waste, climate change education and community engagement in relation to illegal dumping in the NEIC. DCC Staff are now considering how to best apply the students' findings.

DCC was also approached by UCD's Diploma in Design Thinking for Sustainability for student projects; two projects were undertaken, one in relation to Modos, and another on public realm consultation processes.

TCD approached DCC in April to pilot a sustainability focused internship programme. Over a six-week period beginning in August, eight students undertook projects with the law department, waste services, environment and transport, libraries and the arts office. Staff who engaged with students were impressed with the students and their capacity to deliver high quality work in a short time frame.

In recognition of the value of the students' work to progressing climate action, DCC intends to further develop partnerships with third level. Currently DCC is in the process of reviewing the

benefits of the Trinity Pilot internship programme and compiling a list of projects for the DCU MSc.

## EU Programmes and Funding

### *European Green Capital Award 2023*

DCC submitted an application for European Green Capital 2023 our application was considered amongst 15 other cities. Unfortunately, we were not a finalist city for 2023. However, the feedback from the application has provided valuable insights for improving our capacity to respond to the climate crisis.

### *H2020 Funding*

DCC attended the Enterprise Ireland match making session to identify potential partners to submit applications for the EU Green Deal funding call. One application resulted from this, separately DCC was approached by private sector and academia. As a result, DCC submitted three applications in relation to the climate action plan:

- Call Area 4.1 DR RUBICON – IES, Lead Partner
  - Project to explore the development of a positive energy neighbourhood in Cherry Orchard
- Call Area 10.3 GREENFLOW – StarLabs, Lead Partner
  - Project focused on citizen engagement in climate action, for DCC the focus was using noise pollution to gain support for active travel and greening measures, building on the concept of quiet zones/dwell zones.
- Call Area 1.3 KAIROS - KPMG/Future Analytics, Lead Partner
  - Project focused on addressing waste management issues in the city and its impact on the environment, namely water courses and water bodies.

All three applications while scoring high were unsuccessful. DCC will consider alternative avenues for funding.

The application for CAMPAIGNers led by NUI Galway was successful and DCC is now a lighthouse city for the project which aims to enable residents of lighthouse cities to make lifestyle changes in support of a low carbon future. It is a three-year project.

In 2021/22 we will be considering further EU funding opportunities and availing of supports provided through the newly established EU Office.

### *IURC*

In May 2021, DCC submitted an application to participate in the EU's International Urban and Regional Cooperation (IURC) programme. The application was successful and DCC is one of three EU cities partnered with cities in South Korea. Participation in IURC is an opportunity for the development of novel ideas and approaches to achieve sustainable development and increase the resilience of the city and citizens to climate change. There is a recognition that broadening our network of cities that we look to for knowledge and ideas will strengthen our own capacity to act. DCC is delighted to be partnered with Seoul, a city that is at the cutting edge of innovation in the green economy, transportation and climate action.

## Events

### *Eat the Streets*

In the fall of 2020, Dublin City Council received funding from Creative Ireland to undertake a project with a creative focus to explore climate action and support behaviour change. Recognising that we all need to eat, the seed of an idea was planted for a food and climate change project. Working with Michelle Darmody and local chefs the seed grew into Eat the Streets!

Eat the Streets! explored Dublin's rich food history by asking people, young and old to join us on a journey to Grow! Cook! Create! And Discover! It culminated in a 10-day festival of online events and activities, designed to educate and encourage participation in food growing, as well as a greater awareness of food waste. Local chefs with a passion for Irish produce taught us how to celebrate Dublin's vegetable roads taking recipes shared by young people and adding their twists and telling stories along the way in a series of Cook Alongs. Growers, farmers, experts and foodies shared their knowledge in a series of After Dinner Chats exploring our past, present and future relationship with food.

The Climate Action Team is currently working on a five-year business plan for Eat the Streets!





*Figure 3 Eat the Streets Festival!*

#### *DCAW21*

The four Dublin local authorities in conjunction with Codema and CARO organised ‘*Dublin Climate Action Week*’ in September 2021. The overall vision of Dublin Climate Action Week 2021 was – ‘to highlight Dublin’s climate action progress to its citizens and demonstrate the leadership role of the four local authorities in conjunction with other partners’.

A steering group chaired by Dun Laoghaire Rathdown County Council worked together to devise a programme of events and promotional material to showcase the shared objectives of the initiative which were to:

- Demonstrate progress on the implementation of the four Dublin local authority Climate Change Action Plans, and a regional approach to climate action;
- Engage with a full range of partners to share knowledge on efforts and innovation across sectors;

- Make climate action a ‘reality’ allowing citizens to see what climate action looks like;
- Promote this initiative so as to fully engage with EU and international cities and our climate peers; and
- Create a legacy so that this initiative can carry forward to subsequent years in a variety of ways.

The website [www.dublinclimateactionweek.ie](http://www.dublinclimateactionweek.ie) was established as a portal for information and booking of events. In total over 75 in-person and on-line events were delivered across the CCAP theme areas of Energy & Buildings, Transport, Flood Resilience, Nature Based Solutions, Resource Management and Citizen Engagement. The website continues to be a repository of information containing recordings of events and links to local authority work in the area of climate action. In addition to the website, the handle #DCAW21 was used in conjunction with regional and local videos and various media to promote and highlight the activities during the week both locally, nationally and internationally.

### CARO/LGMA Training

DCC Staff continue to receive the climate action training, which is a key focus of the CARO work programme for 2021. The climate action training plan has been developed by the CAROs in collaboration with partners such as the Local Authority Environmental Services Training Group (LASTNG), Climate Ireland, the Sustainable Energy Authority of Ireland (SEAI), Met Éireann, the Environmental Protection Agency, the Institute for Public Administration and others. Training has been targeted at all staff levels and focuses on the following six pillar areas;

- Climate Action Leadership – aimed at all elected members & senior staff
- Climate Action Awareness Training – aimed at building capacity across climate action teams
- General Awareness Building – online training for all indoor staff to raise awareness of climate action
- Practical Climate Action – training for all outdoor staff to assist them to deliver practical climate action measures
- Behavioural Change Training – to empower staff to promote positive change both internally and across the community
- Specific and Targeted Training – training arising from specific knowledge gaps or individual policy/role requirements, such as spatial planning and flood risk management.

Despite COVID restrictions, the training programme advanced in interactive online formats and workshops throughout the year across all counties. Four of the six training pillars having commenced with over 6,500 staff completing the Raising Awareness training alone. Championing Leadership training has been completed by 560 senior staff and elected members across 15 local authorities and will be undertaken for Fingal, Dun Laoghaire Rathdown and South Dublin County Councils by the end of the year. Dublin County Council will complete this training in Q1 2022.

### 1.2 Updates to Policy and Legislation

## International:

### *IPCC WGI Report<sup>1</sup>*

The IPCC published the first instalment of the *Sixth Assessment Report (AR6)*, *Working Group I (WGI)* in 2021. The AR6 is comprised of three working groups each with a responsibility for reviewing available research to inform AR6: WGI assessed the *Physical Science Basis* of climate change, WGII will report on *Impacts, Adaptation and Vulnerability* and WGIII will report on *Mitigation of Climate Change*.

AR6 WGI is the successor of AR5, which was released eight years ago, meaning AR6 benefits from almost a decade's worth of research and technological advancements. The aim of AR6 WGI is to assess the current evidence on the physical science of climate change. It answers key questions surrounding how emissions and other pollutants alter the climate; how plants, soils and the ocean store and release carbon; how the climate responds to human influence; and what is expected from any increases in global warming.

One of the key developments since AR5 is the strengthened evidence base linking human-caused warming and increasingly severe weather. It is clear that human activities have caused the planet to warm, resulting in every part of the planet experiencing changes in climate. The report concluded that without reaching net-zero CO<sub>2</sub> as well as strong reductions in other GHG emissions, the climate will continue to warm, breaching the 1.5 and 2°C limits of the Paris Agreement. Moreover, the report highlights the fact that warming will continue until mid-century, even if emissions are reduced deeply and rapidly.

Countries under the Paris Agreement are obligated to submit new or updated *Nationally Determined Contributions (NDC)* every five years, describing their countries' emission reduction and resilience building efforts for coming years. Ireland's contributions of climate action plans are submitted by the EU on behalf of its member states. The EU NDC was submitted in December 2020, committing to a reduction in emissions by at least 55% by 2030 from 1990 levels (see section on *Fit for 55*).

## EU:

### *Fit for 55<sup>2</sup>*

The European Union has set the targets of reducing emissions by 55% by 2030 and of achieving climate neutrality by 2050. In recognition of the challenge a head Fit for 55, aims to bring the European Union's climate and energy legislation in line with the 2030 goal. The Fit for 55 is a package which includes:

- Revision of the EU emissions trading system (EU ETS),
- Revision of the effort sharing regulation on member states' reduction targets in sectors outside the EU ETS
- Revision of the regulation on the inclusion of greenhouse gas emissions and removals from land use, land use change and forestry (LULUCF)
- Revision of the renewable energy directive
- Recast of the energy efficiency directive
- Revision of the directive on the deployment of alternative fuels infrastructure
- Amendment of the regulation setting CO<sub>2</sub> emission standards for cars and vans
- Revision of the energy tax directive
- A carbon border adjustment mechanism

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<sup>1</sup> <https://www.ipcc.ch/report/ar6/wg1/>

<sup>2</sup> [https://ec.europa.eu/commission/presscorner/detail/en/IP\\_21\\_3541](https://ec.europa.eu/commission/presscorner/detail/en/IP_21_3541)

- ReFuelEU Aviation for sustainable aviation fuels
- FuelEU Maritime for a green European maritime space
- a social climate fund

### *EU Adaptation Strategy*

In February 2021, the EU Commission adopted a new EU Adaptation Strategy to climate change. This new strategy was announced in the European Green Deal and builds on the 2018 evaluation of the 2013 EU Adaptation Strategy. The Strategy sets out how the EU can adapt to climate change risks and become climate resilient by 2050. The strategy contains four principal objectives: smarter adaptation, faster adaptation, more systemic adaptation and stepping up international action for climate resilience. Overall, these objectives cover, respectively:

- Increased data gathering that enhances the European platform for adaptation knowledge, Climate-ADAPT
- Quick and comprehensive adaptation, focusing on solutions that reduce climate-related risks, increases climate protection and safeguarding the availability of fresh water.
- Combat climate changes impact on all levels of society and across all sectors with adaptation following 3 cross-cutting priorities:
  - integrating adaptation into macro-fiscal policy,
  - nature-based solutions for adaptation
  - local adaptation action
- Provision of resources, prioritising action, increasing effectiveness, scaling up international finance and stronger global engagement and exchanges on adaptation.

### *National:*

#### *Climate Action and Low Carbon Development (Amendment) Act 2021*

In March 2021, the Government published the new Climate Action and Low Carbon Development (Amendment) Bill 2021, which was enacted in July 2021. The Act creates a legally binding framework that was introduced to ensure Ireland achieved national, EU and international climate goals and obligations. The bill creates a statutory basis for a national climate objective to "pursue and achieve a transition to a climate resilient, biodiversity-rich, environmentally-sustainable and climate-neutral economy". Changes in the bill include:

- Economy-wide five-year carbon budgets, with sectoral targets on a 15-year basis, starting in 2021
- Climate Action Plan actions for each sector to be updated annually
- A Long-Term Climate Action Strategy will be prepared every 5 years
- Government ministers responsible to an Oireachtas Committee each year to account for their performance towards sectoral targets
- A strengthened role for the Climate Change Advisory Committee
- Local Authorities are to prepare climate change action plans that include both adaptation and mitigation, to be updated every 5 years. In addition, local authority development plans must align with their climate change action plans
- All public bodies are obligated to perform in a manner consistent with national climate plans and strategies

- Commits the State to achieve a reduction in GHG emissions of 51% (relative to 2018 levels) by 2030 and reach carbon-neutrality by 2050, guided by 5-year carbon budgets produced by the CCAC.

### *State of the Environment<sup>3</sup>*

The Environmental Protection Agency (EPA) is required by statute to assess the state of Ireland's natural environment. These reports are released in four-year intervals, encompassing an integrated assessment that is used to inform the public, policymakers and key economic sectors in order to protect the environment. The current report, released in late 2020, is the seventh report to be published in this series. It provides information on the quality of Ireland's environment as well as the environmental challenges the country faces both nationally and globally.

The findings of the report published in 2020 revealed that the overall quality of Ireland's environment is not what it should be, and requires accelerated implementation of solutions across all sectors of society. The integrated assessment highlighted the need for urgent approaches to address climate change and biodiversity decline, as well as water pollution, recycling rates, air quality, and radiological risks. While the report outlines numerous challenges ahead, and the need for accelerated, cross-societal action there is also mention of advances made since the first state of the environment report was published in 1996. For example, there have been successes in industrial regulations and emissions, waste management and wastewater discharges.

Overall, the key message of the report is to highlight the intrinsic ties between our environment and human health. The assessment calls for revaluations in managing land uses and practises in order to protect the environment - especially in terms of uses and practises that threaten both the environment and human health, noting this decade as a pivotal moment in time to act.

### *Status of Ireland's Climate 2020<sup>4</sup>*

The *Status of Ireland's Climate* report was first published in 2013; this document is the second status report, which provides an updated analysis of past and present climate observations. The assessment is a collaboration between organisations both public and private, Irish and international. The assessment is based on almost 50 internationally defined essential climate variables. It also reports on Ireland's climate-observing infrastructure, importantly, where there are gaps, and areas that need to be enhanced. The observations stated in the report enhance our understanding of Ireland's changing climate and informs the assessment of actions required to reduce carbon emissions and adapt to climate change. Reports of this nature and calibre are required to observe climate change and identify and develop the necessary climate actions. The key findings of the report include:

- Ireland's climate is warmer and wetter in recent decades, with CO<sub>2</sub>, methane and nitrous oxide the main drivers behind the climate's changes having increased since 2012, a trend that is being experienced globally.

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<sup>3</sup> <https://www.epa.ie/our-services/monitoring--assessment/assessment/irelands-environment/state-of-environment-report/>

<sup>4</sup> [https://www.epa.ie/publications/research/climate-change/Research\\_Report\\_386.pdf](https://www.epa.ie/publications/research/climate-change/Research_Report_386.pdf)



- Sea level, acidity and temperature have increased, causing changes in Ireland's ocean ecosystems
- Artificial surfaces and forests in Ireland have increased since 1990, while wetland areas have decreased, in terms of land area sizes.

#### *National Development Plan Review*

The National Planning Framework (NPF) and the National Development Plan (NDP) combine to form Project Ireland 2040. The aim of Project Ireland 2040 is supporting a growing population with new jobs, new homes, heightened cultural and social amenities, enhanced regional connectivity and improved environmental sustainability. The current NDP is on a 2018-2027 cycle with an investment of €116b. However, the Government has committed to reviewing the NDP with an approved budget of €165b, extending the NDP to 2030. The public consultation on the *Review to Renew* ran from November 2020 to April 2021. The final review of the NDP is expected to be released in 2021 Q4. The reason behind the review is the need to take climate-associated risks into consideration, taking an integrated approach in the NDP, that will reduce climate impacts and make Ireland climate resilient.

#### *Draft Development Plan Guidelines<sup>5</sup>*

Local Authority development plans are the principal planning strategy document that outlines and guides the local authority's development over a six-year period. A development plan covers the physical, economic, social and environmental needs of the community while supporting development, enhancing assets and protecting the environment. They are crucial in connecting national and regional policy priorities with local approaches to policy development. The last Development Plan Guidelines were published in 2007. Currently, the Department of Housing, Local Government and Heritage have released the Draft Development Plan Guidelines for public consultation from August 2021 to October 2021; the submissions from this public consultation will inform the finalised Guidelines. In terms of climate action, the Guidelines draw attention to the role of the development plan in “land-use aspects of climate action (and the local authority’s own climate action plan) and how the planning system can be utilised to effect positive change and action,” specifically:

- Compact Growth and Sustainable Mobility
- Importance of Sustainable Transport Measures
- Energy Related Objectives
- The role of Nature-based Solutions
- Flooding and Water Management in Mitigating and Adapting to Climate Change

The Climate Action Team liaised with the Development Plan Team to assist in their response to the consultation.

#### *Framework for Ireland’s Offshore Electricity Transmission System*

The *Framework for Ireland's Offshore Electricity Transmission System* will facilitate Ireland's offshore wind energy to help the country meet its GHG emission targets. The policy was released by the Department of the Environment, Climate and Communications and approved by Government in April, after a public consultation in the summer of 2020. It will provide clarity for the *Commission for Regulation of Utilities* (CRU), EirGrid, ESB Networks, local communities, the renewable energy industry, and NGOs in advance of the three phases of offshore-wind *Renewable Energy Support Scheme* (RESS) auctions. These auctions will

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<sup>5</sup> <https://www.gov.ie/en/consultation/ef157-public-consultation-on-the-draft-development-plan-guidelines-for-planning-authorities/>

enable Ireland to meet the 5GW objective by the end of this decade. This new offshore transmission system policy includes:

- A phased transition from the current decentralised offshore transmission system model to a centralised model over the course of this decade. This will take place in line with the 3 scheduled offshore RESS auctions.
- The transmission system assets will be planned, developed, owned and operated by EirGrid

Local:

### *Corporate Strategy*

Dublin City Council Corporate Plan 2020 – 2024 sets out the local authority's strategic framework for action for a 5-year period. Developed during 2019 through engagement and consultation with Elected Members, staff, members of the public and the Public Participation Network (PPN), a key goal of the Corporate Plan is to work towards achieving a green, low carbon city.

Plan acknowledges that taking action to adapt to and mitigate the environmental, economic and social impacts of climate change must be a key priority for the City Council and that critical to success in this regard will be making climate action a priority and adopting a whole-of-organisation approach to dealing with it.

Further, acknowledging that the 17 UN Sustainable Development Goals (SDGs) provide a framework for achieving a whole of organisation approach to sustainable development we have undertaken a mapping exercise to identify areas where we are meeting the SDGs and areas we need to progress. This work is ongoing, and will be valuable improving quality of life in the city for all.

### *City Development Plan 2022-2028*

The most recent Dublin City Development Plan is employed from 2016-2022. DCC is currently reviewing this development plan and preparing a new City Development Plan that will operate up to 2028. The Dublin City Development Plan (2022–2028) will set out an integrated, coherent spatial framework to ensure our city is developed in an inclusive way, which improves the quality of life for its citizens, and ensures that it is an attractive place to live, work and visit. The plan will guide future growth and development, and provides the overall strategy to achieve proper planning and sustainable development, through a range of policies and objectives.

The pre-draft consultation ended in February 2021, with 752 submissions. The Chief Executive's response to these submissions have been prepared and submitted to the City Council for the Elected Members consideration. After this stage, the draft development plan will be prepared and submitted to the members for their considerations in November 2021.

Of importance for the City Development Plan, is the Climate Action and Low Carbon Development (Amendment) Act 2021, which included an amendment of Section 10(2) (n) of the Planning and Development Act 2000 whereby, to reduce anthropogenic greenhouse gas emissions as well as addressing adaptation requirements, Development Plans will need to take account of Local Authority Climate Action Plans. The integration of climate action has been a priority for DCC from the beginning of the process. Councillors, particularly members of Climate Action, Environment and Energy Strategic Policy Committee (SPC) have been active in ensuring that climate mitigation and adaptation measures are embedded in the forthcoming development plan given the critical role of land-use planning. The Climate Action

Team will continue to engage with the Development Plan Team to ensure that the city's future is climate resilient.

#### *Local Economic and Community Plan*

Dublin City Council produced the first Local Economic and Community Plan (LECP) 2016 to 2021 in line with the guidelines and provisions of the Local Government Reform Act 2014, which provides a stronger and clearer role for local government in economic development and community development. This is a key element in achieving the vision set out in **Putting People First: Action Programme for Effective Local Government**: that “*local government will be the main vehicle of governance and public service at local level, leading economic, social and community development*”. For the first time, the legislation required the integration of local economic and community objectives and other relevant cross-sectoral plans and the establishment of new structures such as the Local Community Development Committees (LCDCs) and Public Participation Networks (PPNs). The first LECP was successful in facilitating the collaboration between partner agencies, business and the community and voluntary sector and in delivering on a wide range of actions.

We are now awaiting the circulation of new guidelines that will set out the process to develop the next LECP for Dublin city which will provide the opportunity to reflect on the experiences of all stakeholders in the intervening period. The processes to support the development of a new LECP described in these guidelines should be fully informed by the learning and experiences of all relevant stakeholders through both internal and public consultation to ensure a robust LECP for the next 6-year period.

The purpose of the LECP, as provided for in the Local Government Reform Act 2014, is to set out, for a six-year period, the objectives and actions needed to promote and support the economic development and the local and community development of the relevant local authority area, both by itself directly and in partnership with other economic and community development stakeholders.

The LECP process should be considered within the context of a 2-part process involving

- a) the development of an overall LECP framework detailing the High Level Goals and Sustainable Community and Economic Objectives as well as consideration of outcomes and high level indicators for the 6 year LECP period.
- b) Annual Implementation plans to detail the required inputs, actions and resources required for that period as well as relevant specific key performance indicators to facilitate evaluation.

Issues and challenges identified in the consultation include but are not limited to the following:

- Need to allow for flexibility and agility
- Social Inclusion
- Wellbeing
- Climate Change
- Collaboration
- Emerging Needs
- Social Infrastructure
- Redefining disadvantage



### *Biodiversity Action Plan<sup>6</sup>*

Dublin City Council is preparing a new Biodiversity Action Plan for the next five years. The Arts, Culture, Leisure and Recreation Strategic Policy Committee received a report on the Draft Plan and agreed for a public consultation to take place. A four-week consultation was carried out from 19<sup>th</sup> May 2021 to 16<sup>th</sup> June 2021. The input from the public consultation will be reviewed and the revised plan will be brought to the Strategic Policy Committee for final agreement. Following the final agreement, Dublin City Council will adopt the Biodiversity Action Plan as policy later this year.

The progress of the Biodiversity Action Plan will be reviewed annually and will be reported to the Strategic Policy Committee. The Biodiversity Action Plan will also inform policies and objectives of Dublin City Council's Development Plan.

The Biodiversity Action Plan has set objectives under six themes, which include:

- Maintaining Nature in the City
- Restoring Nature in the City
- Building for Biodiversity
- Dublin as a Green Capital City
- Understanding Biodiversity in the City
- Partnering for Biodiversity

### *Heritage Plan*

The first Dublin City Heritage Plan was for the cycle of 2002-2006, with a new Dublin City Heritage Plan expected to be prepared throughout 2020-2021, Dublin City Strategic Heritage Plan 2022 – 2026. The aim of the heritage plan is to "foster a sense of understanding, involvement, belonging, ownership and enjoyment in the city's heritage". In terms of climate action, the crossover with heritage lies in environmental heritage. Current works in this area include an urban tree survey, bat conservation, hedgerow conservation and natural heritage surveys.

### *1.3 Covenant of Mayors*

The Lord Mayor has signed the revised Covenant of Mayors (CoM). Under the renewed ambitions CoM signatories, will commit to reaching climate neutrality by 2050, increasing our emission reduction targets, implementing adaptation to climate change measures and alleviating energy poverty through a just transition. Further, we commit to engaging our citizens, businesses and local stakeholders in the transition, thus contributing to the European Climate Pact.

## **2. Actions Update**

### *2.1 Mitigation*

DCC continues to make significant progress towards our mitigation targets. We have met and exceeded our 2020 target, achieving an improvement in energy efficiency of 49.2% from our 2006 baseline, surpassing our 2020 target of 33%. This was achieved through a range of projects, which will continue to play a role in progress towards our 2030 target of a 51% reduction in emissions. By the end of 2020, DCC has achieved a 26% reduction in emissions

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<sup>6</sup> <https://consultation.dublincity.ie/parks/draft-dublin-city-biodiversity-action-plan/>  
[https://consultation.dublincity.ie/parks/draft-dublin-city-biodiversity-action-plan/supporting\\_documents/DCCDraftBiodiversityActionPlan\\_20212025\\_issued19.05.21.pdf](https://consultation.dublincity.ie/parks/draft-dublin-city-biodiversity-action-plan/supporting_documents/DCCDraftBiodiversityActionPlan_20212025_issued19.05.21.pdf)

to 28,341 tCO<sub>2</sub>e (49% Electricity, 35% Thermal and 15% Transport) from our operations and service delivery.

While this is very positive, a large proportion of the reduction is attributable to the increasing percentage of renewables on the national grid. An ongoing challenge is the thermal element which has only recorded a marginal reduction in the same period. DCC has identified the gap to target and has a list of projects for our building stock that will enable progress towards our 2030 and 2050 targets.

The 2030 CO<sub>2</sub>e target of 51% from the baseline year of 2018 aligns with the Amended Act, however, it has yet to be determined if this is a city-wide target which would expand the scope of mitigation actions beyond reducing emissions from our operations and service delivery. The Amended Act requires that local authorities to produce climate action plans. The scope of the plans is being debated, and it is yet to be determined if the mitigation actions will need to be expanded to cover the entire city, similar to adaptation actions.

## 2.2 Adaptation

Making Dublin resilient to climate change is a target of CCAP, this calls for adapting the city and residents for a future where we live with the impacts of climate change, such as flooding, extreme temperatures, and extreme weather events, that are locked in and are prepared for the unknown impacts.

Actions in adaptation can be categorised as:

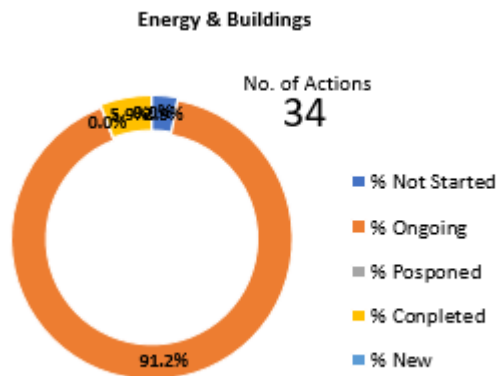
- Soft measures that are focused on behavior change and awareness raising, and policy and planning. A good example of this in Ireland is the information provided by the Office of Public Works on being winter ready and preparing and protecting your home for a storm, flood event.
- Green/blue infrastructure measures are another category; these are measures that use nature to build resilience to climate change. Examples of this would be green roofs, and green walls, and sustainable urban drainage, which many cities around the world are implementing. These measures have multiple benefits in that they cool the city in the summer, and provide flood alleviation.
- Gray infrastructure would be physical measures such as walls and attenuation tanks.

Uncertainty adds to the challenge of implementing actions that contribute to the city's resilience. Despite this DCC has made progress in the implementation of actions that contribute to our overall resilience, particularly in the use of nature-based solutions to respond to flood risk in the city.

The long-term challenge is ensuring that the adaptation actions we implement are just. The forth-coming city development plan will be vital to making the city and residents resilient to climate change. The decisions we make about land-use and land-use change will determine our adaptive capacity. The location of housing, employment determines our vulnerability and exposure to climate risk.

A climate resilient city is a city where all citizens have access to their basic needs in 15 minutes, and planning plays a key role in this.

## 2.3. Energy & Buildings – Actions



*Figure 4 Energy & Buildings*

DCC has achieved significant progress on actions under the thematic area of Energy and Buildings. As stated, the CCAP actions are focused on DCC's use of energy in owned, operated and managed buildings. Preliminary data from the SEAI Monitoring and Reporting (M&R) process, which has been completed for 2020, indicates that DCC have reached and exceeded our 2020 energy efficiency target of 33%. Currently, we have reached 49.2% energy efficiency. Under the Amended Act, we will need to achieve a 51% reduction in GHG emissions by 2030, and neutrality by 2050

Achieving this target will be supported by ongoing projects including district heating, retrofitting, and energy efficiency upgrades.

#### *Dublin Waste to Energy & Dublin District Heating Scheme*

Over 1500 tons of waste arrive each day at the Dublin Waste to Energy Facility to be incinerated to produce electricity to power 100,000 homes. Plans are ongoing to harness the waste heat from the Facility for the Dublin District Heating Scheme. It is anticipated that 50,000 homes and businesses can be heated from a low carbon heat source. Supplying heat through district heating will alleviate demand on the grid for electricity to heat homes, insuring the availability of electricity for other uses. DCC recognises that district heating enables resilience of critical infrastructure to climate change, and will continue to identify opportunities to implement district heating projects that benefit communities.

Further, the Dublin Waste to Energy Community Gain Projects Grant Scheme provides financial assistance for the development of environmental, community, educational, recreational, and local heritage projects and works, which will be of benefit to the communities in the Irishtown, Ringsend and Sandymount catchment area. Since the Community Gain Projects Grant Scheme was established in 2016, Dublin Waste to Energy Limited has contributed circa €11m to over 100 projects.

In 2020 the Community Gain Projects Grant Scheme funded a project proposed by the Irish Nautical Trust's to modify a boat into the Liffey River Sweeper. The Sweeper is removing waste from the River Liffey and the Grand Canal, preventing it from entering Dublin Bay and causing further environmental damage.

### *Social Housing*

COVID has had an impact on the progress of Phase II of the programme, as the health and safety of tenants and contractors is DCC's top priority. Works were not undertaken in Q1 and Q2, but have commenced in Q3. The target for retrofits is 200 units a year over the next three years, however, this may decrease. Beyond COVID, consideration will need to be given to emerging targets as set by the Department of Housing, Planning and Local Government and Department of Energy Climate and Communications.

The Energy Efficiency Fabric Upgrade Programme is designed to reduce unnecessary energy consumption, greenhouse gas emissions and demands for non-renewable resources in Dublin City Councils housing stock.

It also provides tenants with healthier living conditions and offers significant money savings in heating costs.

Phase Two of the programme involves the following upgrades:

- External Wall Insulation
- 300mm Attic/Cavity Insulation
- Roof and Wall Ventilation
- Hot Water Cylinder
- Windows and Doors where required
- Heat pumps



*Figure 5 Housing Before Upgrade*



*Figure 6 Housing After Upgrade*

#### *Energy Performance Contracting and Energy Efficiency Upgrades*

**EPCII** is Dublin City Council's second Energy Performance Contract mitigating risk through a performance guarantee across 7 large Council Leisure and Community Sports Centres. The contract entered service phase in 2020 and measured and verified results for Q1 2021 showed a reduction in carbon emissions of 280 tonnes, representing a 55% decrease when compared to the 2016 baseline. The Energy Services Company (ESCo) used a suite of measures to achieve these savings including new CHP, LED upgrade, controls, new pumps, new BMS, PV panels and more. Savings are anticipated to increase as the ESCo becomes more familiar with the buildings' systems and continues to adjust performance as incentivised through the contract.

**The O'Brien Institute** (in progress, energy and lighting upgrade) is the training centre for Dublin Fire Brigade. It is an old building of historic significance and a key piece of infrastructure in the training of firefighters to serve the City. Energy efficiency works on the building were guided by the historical fabric of the building, which would not permit deep retrofit. Efficient low temperature hot water (LTHW) and domestic hot water (DHW) gas boilers, and modern flues were installed along with pumps, building management system (BMS) and control panels to replace the oil fired boiler. Radiator circuit modifications together with Thermostatic Radiator Values (TRV) and an LED lighting upgrade completed the project. The contractor was procured under a performance guarantee schedule, with a boiler seasonal efficiency of 85% or more with an incentivised payment mechanism.

**The Recco building** (is a building that is owned by DCC but is leased out to a youth project). An Energy Performance Guarantee for a full lighting retrofit together with PV panels were considered a sufficient upgrade at this stage as the building is only 15 years old. The contractor is incentivised to deliver at least a 65% reduction in electrical load on the relevant circuits through the form of contract with guarantees performance.



### *Dublin Region Energy Master Plan*

Codema is developing the Dublin Regional Energy Master Plan through the SEAI Research, Development and Demonstration (RD&D) programme. The aim of this project is to evaluate and outline the cost-optimal, spatially possible and technically feasible low-carbon scenarios for Dublin to meet its 2030 and 2050 CO<sub>2</sub> reduction targets from the perspective of society, energy consumers and the energy sector. This project looks at the three main energy sectors (heat, electricity and transport) and the synergies between them to deliver more cost-effective low-carbon pathways for the region. It will look at current and future policy impacts and shortfalls to targets needed to make Dublin net carbon neutral by 2050. This is the first master plan of its kind in Ireland to look at the County and small area level and to assess which solutions will work best within local constraints. The finished plan will aid planners and other decision makers in all energy related plans in the future.

### *Sustainable Energy Communities (SEC)*

Codema are the coordinators for the SEAI Sustainable Energy Communities (SEC) Programme for the Dublin and Mid East region. The seven counties (4 Dublin LAs, Kildare, Wicklow and Meath) are each provided with a mentor to help advise the SECs and move them along their progress from learning about energy and climate change, to conducting an energy master plan and registry of opportunities to finally undertaking projects. The aim is to upskill and educate but also to reduce energy consumption through behavioural change, energy efficiency, renewable and smart solutions. The seven local authorities are acting as lead applicants on behalf of the SECs for their energy master plans providing finance to activate grants and procurement expertise for hiring consultants. Work has been carried out to improve and streamline the energy master plan process, to make it more accessible for SECs, by reducing risk and highlighting Stakeholders throughout the energy master plan. The tender will last for four years and has already proved very popular with twenty-seven new SECs signing up this year, and a current total of one hundred and forty SECs.

*Table 1 Energy & Buildings Funding*

<b>Currently funded</b>	<b>Department/ Agency</b>	<b>Area</b>
-EU H2020 'Delivery of Renewable and Energy Efficiency projects across Dublin (DeliveREE)	Codema	E&B
- EU H2020 'Tomorrow' Project - creating a low-carbon transition roadmap for Dublin with citizens at the centre	Codema	E&B
- EU H2020 'Decarb City Pipes' Project - creating a roadmap to decarbonise the heating sector in Dublin with local working group (incl. DCCAE)	Codema	E&B
- SEAI RD&D 'Dublin Region Energy Masterplan' project - creating a scientific evidence-base for Dublin to identify possible zero-carbon pathways	Codema	E&B

- EU Era-Net 'REDAP' Project - creating an online 'digital twin' of the Dublin energy demand	Codema	E&B
- Climate Action Funding secured for DCC District Heating project	Codema	E&B
Smart Docklands Innovation District – Deployment of multiple smart city projects and demonstrators (flooding, environment, energy and connectivity) across docklands working across industry, academia and engaging local residents/communities. Partnership with Science Foundation Ireland (SFI), Enable and CONNECT research centres based in TCD (€500,000 over 2 years with co-funding from SFI)	Smart Dublin	All

## 2.4 Transport – Actions

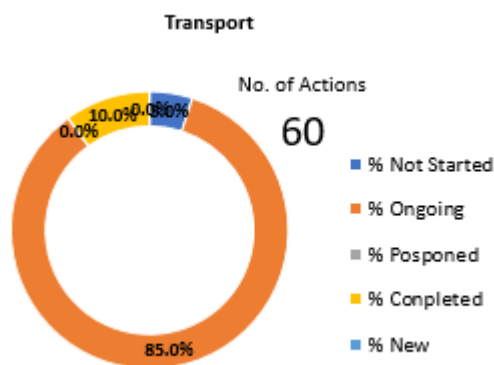


Figure 7 Transport Progress

COVID continues to shape the City's capacity to respond to emissions from transport. As the city is re-opening enabling people and goods to move in out of the city continues to be a priority. The COVID Mobility team has been pivotal in this and is further supported by the Office of City Recovery established in April 2021 to re-animate the city as the country re-opened.

### Active Travel

Encouraging residents to shift to active travel has been supported by making the pedestrian trials in summer 2020 permanent in 2021. Additional trials were undertaken in summer 2021 and are now currently under review. Further, cycling infrastructure projects continue to be implemented on a trial basis; simultaneously work is ongoing to assess their future feasibility.

In 2021, the dublinbikes scheme received two improvements. The first was the re-launch of the NOW TV dublinbikes app with improved functionality, users of the app are now able to sign up and start cycling, check availability of bikes at stations, report issues with bikes,

release a bike from a station, rate the bikes, and access their journey statistics. The second was the addition of 800 e-bikes to the dublinbike fleet.

We are also opening two new cycling parking facilities on the North side of the city, bringing the total to three covered cycle parking facilities in the city.

### *Public Realm*

Providing people with a high-quality public realm continues to be a priority. Work is ongoing on key public realm projects that will not only contribute to the city's efforts to promote active travel, but increase the city's resilience to climate change by including sustainable urban drainage, green infrastructure and blue infrastructure.

As the city emerges from COVID the Office of City Recovery emphasized the immediate need and implementation of improvements to public realm and has identified areas: South Anne Street, Duke Street, Suffolk Street, Lemon Street, South William Street, Castlemarket, Talbot Street, Talbot Lane and North Earl, providing further support for the Heart of Dublin Public Realm Plan and actions in the Climate Change Action Plan.

The city is in the process of developing the 2022 to 2028 City Development Plan; the experience of the COVID pandemic has driven home the importance of ensuring that Dublin is a 15-minute city, where all citizens have access to their basic needs. Sustainable growth, low carbon development, and climate resilience will be critical in this plan.

### *DCC Fleet and Staff Travel*

DCC has implemented a strategy to convert vehicles in the fleet to EVs. Currently there are 43 EVs. Conversion of the fleet is not without challenges, in particular the capacity distribution network in depots to support EV charging infrastructure.

As staff return to the office, recognising the importance of leading by example, DCC continues to support staff in choosing active modes of transport to and from work, and to meetings. To date there are 120 staff who have signed up for the Smart Mobility Hub (SMH) in the Civic Offices which provides staff with push bikes, e-bikes and electric vehicles to use to attend meetings. Phase II of the project has started and six new locations have commenced operating with 27 new vehicles (bikes, e-bikes and EVs).



## ► How does it work?



1x Renault Fluence in DCC

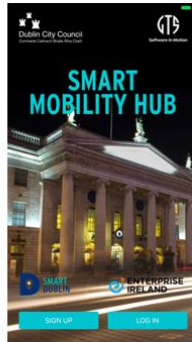


3x Bleeper bikes in DCC

[www.SmartDublin.ie](http://www.SmartDublin.ie)



@SmartDublin



1x booking app for all test sites



10x Nissan Leafs between test sites



40x Bleeper ebikes (with smart locks) between test sites



Figure 8 Smart Mobility Hub

### Smart Dublin: Transport Projects

#### Dublin Cycling Buddy

Dublin Cycling Buddy officially launched in May 2021 and is a cycling community smartphone app developed to help Dublin City Council use cyclists' shared data to identify city-cycling routes for development and upgrade. The Dublin Cycling Buddy app was developed by Umotional, a Prague-based company. The 'ride data' and the comments logged by users provide a continuous stream of data that provide information to improve cycling routes across Dublin city.

#### WeCount – Citizen Science for Traffic and Air Pollution Monitoring

The WeCount project is a citizen engagement project led by UCD Spatial Dynamics Lab, which aims to measure road traffic and air pollution. Road traffic has an impact on public health and the liveability of communities due to the creation of air pollution, noise, and risks associated with unsafe driving.

WeCount is a European project which empowers citizens by providing them with low cost sensors to monitor traffic in front of their homes. There are six cities involved in the project as case studies: Dublin; Cardiff; Barcelona; Madrid; Leuven and Ljubljana.

UCD is also engaging schools, specifically, in Dublin 8, through the WeCount project. Primary and secondary schools will be provided with one traffic sensor and one air quality sensor per school. The aim of this project will be to use the collected data for educational activities within the schools that will promote active travel with the pupils and students. The data will also provide evidence for sustainable mobility policies such as speed limits around schools and the school zone initiative etc.

### SENATOR Urban Freight Logistics Project

The SENATOR Urban Freight Logistics Project is an EU project that enables shared, integrated and more sustainable urban freight logistics.

The SENATOR project aspires to decrease CO2 emissions by 10% from the sector. The goal is to improve the liveability of cities by addressing traffic congestion due to commercial vehicles, inefficient use of loading bays and an inefficient urban logistics system.

Dublin city is one of two pilot cities chosen in the project. The other city is Zaragoza in Spain. The pilot cities will aid in the building of a common logistics framework under European legislation that can be replicated in other locations. The trial of the SENATOR Urban Freight Logistics Project will take place in retail and commercial districts in Dublin city centre where space is limited for deliveries and commercial vehicles.

The Irish partners include Dublin City Council, An Post and University College Dublin. The international partners include Correas, University of Deusto, Zaragoza City Council, Software AG, MDS Transmodal, RINA-Consulting S.P.A, Zabala Innovation Consulting and DOTGIS.

### Last Mile Delivery

The Last Mile Delivery project was launched in late 2018 and is co-funded by Dublin City Council, in partnership with Belfast City Council, and Enterprise Ireland as part of the Small Business Innovation Research Programme. This project is a pre-commercial procurement challenge, which sought to identify tech solutions that can improve urban deliveries, reduce congestion, improve air quality, reduce noise pollution and increase road safety.

Phase 1 saw funding secured for six companies to develop their solutions, these companies included Fernhay-UPS, GridSmarterCities, Masterlink Logistics, Passel, ParkUnload and WeDispatch. Solutions including consolidation hubs were provided to make deliveries using vehicles, which included e-vehicles, e-bikes and cargo bikes as well as the digitisation of kerbside bookings. Newer forms of low emission deliveries in the inner city were addressed with new prototypes of pedal powered and walked delivery vehicles.

*Table 2 Transport Project Funding*

Currently funded	Department/ Agency	Area
Smart Workplace Mobility Hub - Small business innovation challenge (SBIR) - E-cars, e-bikes, app and booking system for workplaces – multiple pilot projects, phase 2 includes scale up project with Sixt, Nissan, UCD, GTS & Bleeperbike. €200k (Co-funded with EI)	Smart Dublin	Transport
Last Mile Delivery - Small business innovation challenge (SBIR)– piloting multiple projects on digital kerbside, sustainable last mile deliveries. Phase 2 underway. €220k (co funded with EI)	Smart Dublin	Transport

Mobility as a service (MaaS) - work programme in partnership with the NTA – €50k funding from DEPR through Smart Dublin	Smart Dublin	Transport
Smart Docklands Innovation District – Deployment of multiple smart city projects and demonstrators (flooding, environment, energy and connectivity) across docklands working across industry, academia and engaging local residents/communities. Partnership with Science Foundation Ireland (SFI), Enable and CONNECT research centres based in TCD (€500,000 over 2 years with co-funding from SFI)	Smart Dublin	All

## 2.5 Flood Resilience – Actions

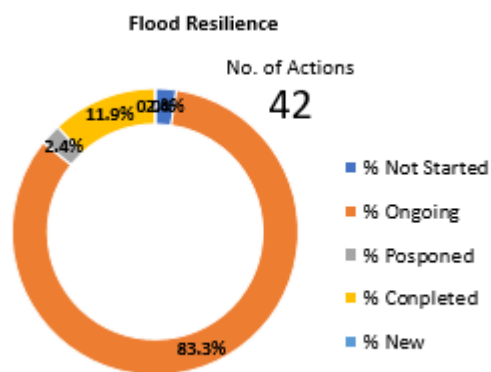


Figure 9 Flood Resilience Progress

### Drainage Planning & Sustainable Urban Drainage Systems

It has become increasingly apparent that, because of climate change, rainfall patterns in Dublin have changed from the previous low intensity long duration type rain to shorter and far more intensive rainfall events. In recognition of this DCC is progressing a number of nature-based water retention measures using a sustainable urban design approach at different locations across the City. These will have the dual effect of reducing the rate of surface water runoff into sewers, thus reducing the risk of downstream and local flooding, as well as improving the water quality.

The Water Framework Division/Drainage Planning team has continued to liaise with their colleagues in Environment and Transportation, in the Parks Department and in the City Architect's Office to facilitate the implementation of this approach in particular public realm projects that are at design and construction stages. As a result, a SuDS Working Group is now established with multi-disciplinary representation from Drainage, WFD, Roads, Climate Change, Parks, City Architects and Planning. A consultant is assisting the Working Group in the development of SuDS Guidance Document to cover best practice in this area. A new Green Blue Roofs Policy will also be prepared as well as a surface water management plan, all with the view to building the city's resilience to flood risk.

### *Flood Risk Management & Awareness*

Coastal flood risk has increased dramatically in the City over the last 20 years with an estimated 30mm+ increase in average sea level in Dublin Bay. This also leads to increased wave heights during some storm conditions. All of these factors are being included in proposed flood alleviation measures for the City.

In accordance with the OPW approach to flood risk management, DCC is actively working with communities to promote flood awareness and preparedness. The OPW provides information via two websites: [floodinfo.ie](http://floodinfo.ie) and [flooding.ie](http://flooding.ie). The website [floodinfo.ie](http://floodinfo.ie) provides information on flood risk both fluvial and coastal, based on three scenarios: low probability, medium probability and high probability. Citizens can find localised flood maps of Dublin and photos of past flood events to understand the extent to which areas were flooded. In addition to this, users can view a map of the flood plans that have been developed. The second website, [flooding.ie](http://flooding.ie), is focused on protection. Information provided on the website serves to inform people how to protect themselves, and their property before, during and after a flood event.

### *Protection of Water Bodies*

DCC is working to integrate a number of projects to ensure that the opportunities to meet DCC's Water Framework Directive (WFD) obligation of achieving "good" status for all our water bodies by 2027 are maximised. Current examples are:

- Consultants have been appointed by DCC to deal with flood risk across the DCC and SDCC sections of the River Camac and this is being integrated into a desire to "de-culvert" what is now seen as an over engineered river where possible so that it can, over time, be restored to a more natural state, as far as reasonably possible. The project will also involve identifying and remedying urban pollution sources, where possible. This is also being done in conjunction with an existing Greenway proposal and in tandem with Urban Regeneration and Development Fund (URDF) funded projects in the area.
- The River Santry where DCC is preparing a brief to engage consultants as part of a URDF funded project to restore the river to a more natural state, and investigate and remedy sources of pollution. Again, this work is being designed in conjunction with a proposed Santry River Restoration and Greenway Project. This project is in collaboration with Parks, Landscape Services & Biodiversity, as well as the Sustainable Transport and Projects Section of the Roads and Traffic Division. Fingal County Council and Inland Fisheries Ireland are supportive of this scheme. Funding is mainly from the Urban Regeneration and Development Fund and, in the case of the greenway, the NTA.





*Figure 10 Wad River Flood Storage*

### **OPERANDUM**

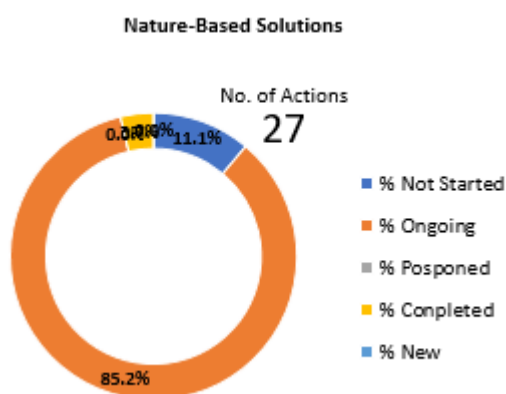
Flooding is a major hydro-meteorological event which Dublin faces and can cause poor water quality, damage to buildings and increases in traffic congestion. OPEN-air laborAtoires for Nature based solUtions to Manage environment risks (OPERANDUM) is a project, which develops nature-based solutions to reduce the impact of hydro-meteorological occurrences in areas that are at risk. This four-year project launched in July 2018 with 26 international partners and has received funding from the European Union's Horizon 2020 research and innovation programme. The partners of this project are Dublin City Council and University College Dublin. Note, due to COVID the project has been extended to December 2022 and a final intervention is being planned.

*Table 3 Flood Resilience Project Funding*

<b>Currently funded</b>	<b>Department/ Agency</b>	<b>Area</b>
OPERANDUM EU H2020 - Flood Mitigation and Nature Based Solutions (overall project €14,000,000, 26 partners, including University College Dublin) (€123k for DCC) Partnership with University College Dublin (Ongoing – 2 years left) OPERANDUM will deliver tools and methods for the demonstration and market uptake of Nature-Based Solutions to reduce	Smart Dublin	Flood Resilience and NBS

hydro-meteorological risks. <a href="https://www.operandum-project.eu/">https://www.operandum-project.eu/</a>		
Gully Monitoring - Small Business Innovation Challenge (SBIR) – piloting delivery of low cost gully monitoring sensors to help mitigate flood risk. Phase 2b deployment underway. €260k (co funded through EI)	Smart Dublin	Flood Resilience

## 2.6 Nature Based Solutions – Actions



*Figure 11 Nature Based Solutions Progress*

Bringing nature into the city is critical to mitigating and to adapting the city to climate change. It is not without challenges, especially in a city that is built up. Recognising the value of nature as a solution to the problem of climate change DCC is actively working to implement nature-based solutions across the city.

Guiding NBS actions are the Biodiversity Plan, Tree Strategy, Public Open Space and Parks Strategy, and Invasive Species Plan. These plans have been informed by, and respond to, National and EU policy directions. Similar to Flood Resilience Actions, NBS Actions will have to respond to the sectoral adaptation plans. Fortunately, collaboration across departments and applying an interdisciplinary approach, the multiple benefits of using NBS are being prioritised. This can be seen in the formation of cross-departmental working group on sustainable urban drainage (SuDS) which will produce guidelines that will inform how SuDS solutions are implemented.

### *Updating Plans*

In 2021 the Biodiversity Action Plan, Invasive Alien Species Action Plan and the Tree Strategy are in the process of being updated. The Biodiversity Action Plan is set to be published in Q4 2021, details are provided above. As we develop our Tree Strategy, a priority is a need to understand how changing climate is impacting trees to inform our tree management plans.

We are planting more ‘exotic’ species that should have a greater ability to adapt to warmer/drier conditions. We need to analyse climate change impacts on the City's trees to inform management to ensure that the trees stay healthy and are able to provide their multiple benefits and contribute to the city's climate resilience. Of benefit to this is our ongoing project with UCD – Curio Tree Mapping

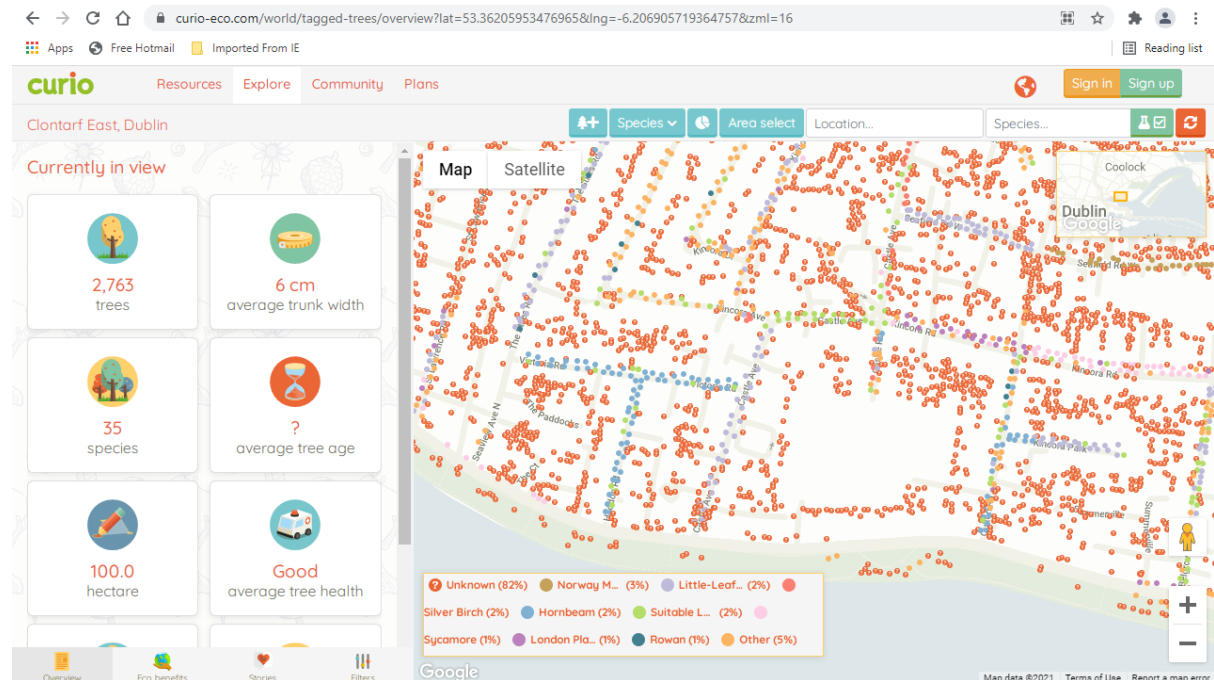


Figure 12 Curio Tree Map

### Parks & Pollinators

DCC Parks has continuously been implementing changes to parks and open spaces to support biodiversity, in particular pollinators. In the last few years, DCC Parks has been working on using more pollinator friendly plants, specifically wild flowers. The grounds of the Civic Offices are illustrative of this, as is the refurbishment of St. Audoen's Park and greening interventions in areas of the city that are lacking, such as park lets in Stoneybatter.



Figure 13 Wildflower planting in Civic Offices

### Greening Strategies

Prior to COVID, research was undertaken that informed the Greening Strategies for the Liberties, Stoneybatter, the North East Inner City, and the Grafton Street Quarter (Heart of Dublin Public Realm). These are areas where there are significant deficits of green space, for example in the Liberties there is 0.7m<sup>2</sup> per person. The recommended amount is 20 to 25 m<sup>2</sup>. As such increasing the amount of green space in these areas is essential. Works are ongoing in these areas and have been well accepted by the public.

## 2.7 Resource Management – Actions

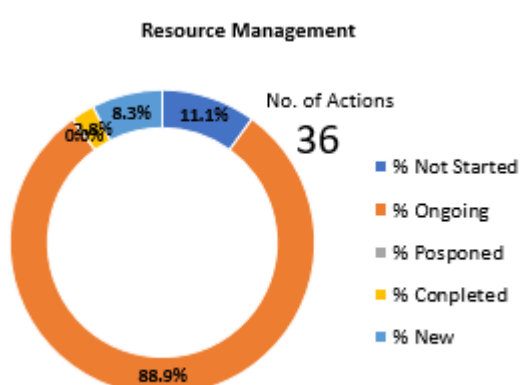


Figure 14 Resource Management Progress

### Segregated Waste

The Circle City Project commenced in October 2020. During phase one, 60 Circle city bins were placed in the city centre. Phase 2 will see a doubling of “recycling on the go” bins in the city centre, coming on stream October 2021. It is estimated that 250,000 bottles/cans will be saved from landfill over the next 12 months. Waste management services is waiting for verification of the number of bottles and cans that will avoid landfill.





*Figure 15 Circle City Bin*

### **MODOS**

Due to COVID MODOS has moved to an online format for 2020. The first series of online modules were delivered in September and October with 37 small and medium sized businesses participating. It is also being expanded nationally.

In 2021 included a MODOS webinar series, Pathways to a Circular Economy and a MODOS Mentoring and Innovation Award Programme for SMEs. Further, the MODOS training has been delivered in Cork between February and March 2021 as the result of a collaboration with Cork Chamber of Commerce. MODOS will be delivered as well in the Dublin 8 area between April and May 2021 as a result of a collaboration with DCC South Central Area Office and The Digital Hub.

### **Dublin Community Clean Up**

After a two-year hiatus due to COVID, Dublin Community Clean Up 2021, was held in September. There were 90 groups within DCC area taking part.

## 2.8 Engagement

### Businesses

Recognising that businesses will need to transition their practices to align with a low carbon future, and that they have a valuable role to play in the transition to a low carbon future, DCC has been developing programmes to engage and support businesses. Beyond Modos, in March 2021 Green for Micro programme was launched. It is a new initiative from the Local Enterprise Offices that aims to help prepare small businesses for the low carbon, more resource efficient economy of the future. It is a free programme, available to companies with up to ten employees

The Dublin region is also home to the Responsible Innovation Summit in its fifth year in 2021 and has seen the launch of the Profit with Purpose magazine showcasing examples of how businesses are leading change at home and abroad.

### Community

In Dublin City Libraries, we have an extensive range of titles in stock covering topics such as climate change, the environment, sustainability, etc. available to borrow across our branch network. This includes a dedicated *Climate, Energy and Sustainability (CES)* collection in Kevin Street Library containing more than 300 titles.

Our collection also includes more than 100 Home Energy Saving Kits (HESK) available for loan in our branches. The HESK contains a number of energy saving tools to help individuals conduct their own home energy audit and to find ways to reduce their energy consumption. Each kit contains the following items:

- Fridge Freezer Thermometer;
- Thermal Leak Detector;
- Temperature & humidity meter;
- Plug-in Energy Monitor;
- Radiator Key;
- An information manual.

We also have a number of online reference resources containing accurate, reliable and up-to-date information on climate change and related topics, e.g. World Book Online, Encyclopaedia Britannica, Oxford Research Encyclopaedias, Oxford Very Short Introductions, and more.

DCC's Community Recreation and Economic Services launched *Books and Browsables* in St Patrick's Park, which has a number of new crafts by young people who honed their skills during the lockdown and are now looking to develop their enterprise.

DCC's Arts Office is leading a Creative Ireland project "Creative Climate Action Crumlin". It is a year-long programme of events and community action that enables Artists, Residents and Climate Change Scientists to exchange knowledge, ideas, and develop projects that build the capacity to achieve the behaviour change needed to respond to the climate crisis.

The project is a collaboration between Dublin City Council, Crumlin Community Clean Up, Dublin Metropolitan Region CARO, Codema and Artists Aoife Raleigh and Dr. Niamh Shaw; involving Dublin South Central Area Office, artists living in Crumlin, local community groups and local environmental activists. A repertoire of climate action projects will be curated for the community to consider, to reject, to deconstruct, to refine, to rebuild, to implement and to

repeat this process building a framework for local climate action that can be scaled across the City and nationally.

This method will provide DCC and the community with an in-depth understanding of the barriers to current climate actions and reveal opportunities previously not considered. By collaborating with a community with a breadth and depth of knowledge, diversity, education, race, gender, and employment the potential for achieving lasting behaviour change is high.

#### *Staff Engagement Activities:*

DCC staff have been actively engaging with public through a range of activities. The table below provides an example of the breadth of events.

*Table 4 Staff Public Engagement (69 events)*

Date	Event	Organiser	Your Name	Role (i.e. Presenter, Panellist, moderator)
06/10/20	Climate Change Action Plan - DCC Staff Workshop	DCC	Sabrina Dekker	Organiser
06/10/20	Climate Change Action Plan - DCC Staff Workshop	DCC	Antonia Martin and Deirdre Kelly	Presenter
10/10/20	Future Talks Comhairle AGM	Comhairle Na nÓg	Sabrina Dekker	Presenter
10/10/20	Comhairle na nÓg cycling event	Comhairle Na nÓg	Deirdre Kelly	Presenter
13/10/20	Dublin 7 bike bus route testing with parents interested in setting up a bike bus.	Dublin 7 Bike Bus	Deirdre Kelly	DCC representative
21/10/20	Climate Change Action Plan - DCC Staff Workshop	DCC	Deirdre Kelly	Presenter
26/11/20	RESET Summit	DCC LEO	Sabrina Dekker	Presenter
28/11/20	Sustainable Days	DCC Events	Sabrina Dekker	Moderator
29/11/20	Online film screening of Motherload and panel discussion event as part of Sustainable Days programme. Panel speakers include Liz Canning (film director), Ellen Cullen (Dublin Cycling Campaign), Donna Cooney (Dublin Cycling Mayor and City Councillor), Joan O'Connell (Monthly Cycles) and Joanna Donnelly (RTE Weather)	DCC	Deirdre Kelly	Organiser

<b>14/12/20</b>	Presentation to Eurocities - Dublin Pedestrian Trials	Eurocities	Antonia Martin	Presenter
<b>15/12/20</b>	Presentation of bikes to winners of the school survey on the Grangegorman filtered permeability trial	DCC	Deirdre Kelly and Damien Hughes	DCC representative
<b>19/01/21</b>	Model Cities Anywhere	MIT	Sabrina Dekker	Presenter
<b>28/01/21</b>	30kph workshop for Councillors	DCC	Rosanna Carmargo	Organiser
<b>28/01/21</b>	30kph workshop for Councillors	DCC	Antonia Martin	Presenter
<b>17/02/21</b>	Presentation to Bank of America team on Covid Mobility Programme and active travel	Bank of America	Deirdre Kelly	Presenter
<b>03/03/21</b>	Workshop on Biodiversity with Rediscovery Centre	Dublin City Libraries	Paula Brennan	Moderator
<b>05/03/21</b>	How To Care for Our Environment with Envirokids	Dublin City Libraries	Paula Brennan	Moderator
<b>08/03/21</b>	ESB Networks - Towards a Low Carbon Future	ESB Networks	Cormac Healy	Presenter
<b>10/03/21</b>	The implementation of the Climate Action Plan for Ireland: case study initiatives A panel discussion hosted by the CIWEM Republic of Ireland	CIWEM	Sabrina Dekker	Presenter
<b>10/03/21</b>	TUDublin - Green Week	TUDublin	Sabrina Dekker	Presenter
<b>15/03/21</b>	DCU Hackathon	DCU Business	Sabrina Dekker	Mentor
<b>18/03/21</b>	Climate Change Action Plan - DCC Comhairle	DECC	Sabrina Dekker	Moderator
<b>30/03/21</b>	EMRA YouthCore	EMRA	Sabrina Dekker	Presenter
<b>13/04/21</b>	Future Earth Ireland - DCU	DCU	Sabrina Dekker	Panellist
<b>13/04/21</b>	Trinity Tangent, PG Cert in Climate Entrepreneurship	Trinity Tangent	Sabrina Dekker	Presenter
<b>15/04/21</b>	NESC Roundtable	NESC	Sabrina Dekker	Panellist
<b>23/04/21</b>	Upcycling Interior Design with Rediscover Centre	Dublin City Libraries	Paula Brennan	Moderator
<b>28/04/21</b>	Bicycle Maintenance with Rediscovery Centre	Dublin City Libraries	Paula Brennan	Moderator
<b>29/04/21</b>	Ireland Climate Summit	Environment Ireland	Sabrina Dekker	Presenter
<b>30/04/21</b>	Fashion Upcycling with Rediscovery Centre	Dublin City Libraries	Paula Brennan	Moderator

<b>04/05/21</b>	Furniture Upcycling with Rediscovery Centre	Dublin Libraries	City	Paula Brennan	Moderator
<b>13/05/21</b>	"Get Growing in Small Spaces" a talk by Ciara Travers from National Botanic Gardens	Dublin Libraries	City	Paula Brennan	Moderator
<b>14/05/21</b>	Presentation on Grangegorman Filtered Permeability Scheme to TU Dublin students	TU Dublin		Deirdre Kelly	Presenter
<b>18/05/21</b>	Canada-EU exchange webinar: Supporting local action	BPIE		Sabrina Dekker	Presenter
<b>20/05/21</b>	Webinar for Open Data Active Travel Challenge - presentations from challenge participants	Smart Dublin			
<b>27/05/21</b>	"What is the Carbon Cost of your Lunch?"	DCL & VITA & Irish Aid		Paula Brennan	Moderator
<b>27/05/21</b>	Food Growing Talk for Adults given by Patrick Hunt, Biodiversity Specialist	Dublin Libraries	City	Paula Brennan	Moderator
<b>28/05/21</b>	Food Growing Talk for Children given by Patrick Hunt, Biodiversity Specialist	Dublin Libraries	City	Paula Brennan	Moderator
<b>03/06/21</b>	Public Sector Energy Conference	SEAI		Cormac Healy	Presenter
<b>03/06/21</b>	Public Sector Energy Conference	SEAI		Liam Bergin	Presenter, Moderator
<b>10/06/21</b>	Creative Fashion with Upcycling Rediscovery	Dublin Libraries	City	Paula Brennan	Moderator
<b>11/06/21</b>	Meeting with Dublin 12 Bike Bus on potential for improvements on their cycle route	DCC		Deirdre Kelly	Organiser
<b>11/06/21</b>	Eat the Streets Festival	DCC		Sabrina Dekker	Organiser
<b>15/06/21</b>	Cycle Right Training	Cycling Ireland		Deirdre Kelly	Organiser
<b>18/06/21</b>	Chu & Chats	LM		Sabrina Dekker	Panellist
<b>22/06/21</b>	Meeting with Dublin 12 Bike Bus on potential for improvements on their cycle route	DCC		Deirdre Kelly	Organiser
<b>24/06/21</b>	Furniture Upcycling with Rediscovery Centre	Dublin Libraries	City	Paula Brennan	Moderator
<b>24/06/21</b>	"Climate Change: Biodiversity in Gardens a talk by Stephen from The Organic Centre	Dublin Libraries	City	Paula Brennan	Moderator

<b>29/06/21</b>	Cycle Right Training	Cycling Ireland	Deirdre Kelly	Organiser
<b>02/07/21</b>	IDEA FEST - Concern Summer School	Concern Ireland	Sabrina Dekker & Cliona Kelliher	Mentor
<b>06/07/21</b>	Challenges and Opportunities in managing Environmental risks	IPB	Sabrina Dekker	Presenter
<b>13/07/21</b>	Workshop on Bees with Rediscovery Centre	Dublin City Libraries	Paula Brennan	Moderator
<b>16/07/21</b>	Presentation on Covid Mobility Programme and active travel to ESB staff	ESB	Deirdre Kelly	Presenter
<b>22/07/21</b>	Plastic Free Picnics with Rozanne Stevens	Dublin City Libraries	Paula Brennan	Moderator
<b>04/08/21</b>	"Where in the World?" with Dublin Zoo	Dublin City Libraries	Paula Brennan	Moderator
<b>05/08/21</b>	"Where in the World?" with Dublin Zoo	Dublin City Libraries	Paula Brennan	Moderator
<b>10/08/21</b>	"Who Lives Here?" with Dublin Zoo	Dublin City Libraries	Paula Brennan	Moderator
<b>12/08/21</b>	"Who Lives Here?" with Dublin Zoo	Dublin City Libraries	Paula Brennan	Moderator
<b>25/08/21</b>	Meeting with Garda Síochána and local resident re: cycling on footpath	AGS	Deirdre Kelly & Antonia Martin	DCC representative
<b>12/09/21</b>	Pedalpalooza - cycling for all event in Fairview Park. Flagship Bike Week event.	DCC	Deirdre Kelly & Antonia Martin	Organiser
<b>13/09/21</b>	DCAW Events	DLR/DCC/FCC/S DCC	Sabrina Dekker	Organiser
<b>14/09/21</b>	DCAW21 - Safe Routes to School Webinar	CARO	Antonia Martin	Presenter
<b>14/09/21</b>	Bike Clinic and pedal-powered smoothies - free bike check-ups and smoothies for Cycle to Work Day along Grand Canal as part of Bike Week events.	DCC	Deirdre Kelly	Organiser
<b>15/09/21</b>	DCAW21 - Women for Climate Webinar	CARO	Patricia Reidy	Presenter
<b>16/09/21</b>	Smart Mobility Hub: Launch of Phase 2 Panel Event	Smart Dublin	Yvonne Pearse Jamie Cudden	YP - Project Lead, Smart Mobility Hub JC - Smart City Programme Manager, DCC
<b>16/09/21</b>	DCAW21 - Just Transition for Transport	CARO	Brendan O'Brien	Presenter



<b>17/09/21</b>	DCAW21 - Women for Climate Webinar	CARO	Antonia Martin	Presenter
<b>21/09/21</b>	European Mobility Week and Make Way Day webinar: Make Way Everyday - overcoming everyday obstacles to accessible streets. Panellists from National Disability Authority, Disability Federation of Ireland and Voice of Vision Impairment.	DCC	Deirdre Kelly	Organiser
<b>28/09/21</b>	Thekla Talk Event - 28th September	PER	Sabrina Dekker	Presenter

### 3. Conclusions and Future Implementation

This second report on DCC's progress on the actions set out in the *Climate Change Action Plan 2019-2024* shows that significant progress has been made, however, more needs to be done. The challenge ahead will be facilitating not only collaboration across departments to achieve an interdisciplinary approach to climate action but with stakeholders outside of DCC.

The Climate Action and Low Carbon Development (Amendment) Act 2021, a welcomed development in moving Ireland to a low carbon future provides DCC with legislative basis for taking action on climate. DCC will be required to prepare climate change action plans that include both adaptation and mitigation to be updated every 5 years. While our current plan covers both mitigation and adaptation, it is likely that this plan will need to be revised. This may provide an opportunity to strengthen our capacity to respond in that we will be re-assessing the climate risks facing the city.

As our current approach is interdisciplinary, we have an understanding of the challenges in implementation. Further, our plan is a living document that responds to emerging science and changes in policy. The primary concern with developing a new plan is that it becomes a barrier to ongoing implementation. Efforts will be made to ensure that this is not the case.

Over the next year, we are considering how the actions we implement will support a just transition, identifying data gaps and how data can inform action, a shift to a circular economy and progressing a food strategy for the city.

#### 3.1 Just Transition

Fundamental to the city's response to climate change is the collaboration of stakeholders on actions to address vulnerabilities created by climate change. The aim should be a just transition to a low carbon climate resilient future. This is dependent on people working in concert to respond to the vulnerabilities created by climate change and actively contributing to the development and implementation of policy.

The demand for the transition to be just is supported by the Amended Act, however, the focus remains on jobs. As a signatory to the revised Covenant of Mayors, we as a city recognise that a just transition is more than employment, it is about equity.

COVID highlighted inequities and vulnerabilities that exist in Dublin that need to be addressed permanently – access, affordability and opportunity. As a city council we have demonstrated in our capacity to respond and provide citizens with services during lockdown. The challenge going forward is embedding equity as a principle in every action we take to transition Dublin to a low carbon climate resilient future. How do we measure a Just Transition?

We are working on the development a series of indicators to assess our progress in responding to the inequities. The following is a proposed list of indicators:

- Economic inequality/Cost of Living: Who bears the cost? The cost of living in the city will undoubtedly rise, how is this impacting residents?
  - Carbon Gini Index (Carbon Equity)
  - OECD Better Life Index
- Spatial measures of access: How well connected are neighbourhoods to transport options? Employment and education opportunities? Amenities? Air quality in the city? Noise pollution?
  - POBAL
  - Dublin City Air and Noise
  - Mapping
- Health: How is population health changing? Disease incidence? Nutritional equity?
  - Gallup Health
  - Well being index
  - QoL Index
- Inclusivity: How is the experience of all residents of the city accounted for in policy? Do all residents have an opportunity to be involved?
  - Your City, Your Voice
- Volunteering rates: Needs have been met, people have time
  - Gross National Happiness Index

### 3.2 Data

Data is essential to monitoring progress towards our climate action targets and for informing the actions, we take to respond to the climate crisis. The availability, reliability, and robustness of data related and relevant to climate mitigation and adaptation actions is an ongoing challenge. We will be collaborating with relevant stakeholders to build capacity in data collection and analysis, to improve our monitoring of GHG emissions and climate risks, and to understand the impacts of our actions on our resilience to climate change.

This is not unique to Dublin City, and is a challenge for Ireland as a whole. Further, it is an international challenge.

At the EU level, one response to address the data deficit is the Open Data and Re Use of Public Sector Information (PSI) Directive. The aim of the Directive is to strengthen the EU's data-economy via increasing the amount of publicly held and publicly funded data for re-use. The Directive introduces an obligation for public bodies to publish their available data unless access to that data is restricted.

As a public body, DCC is obligated to follow the Directive, and this is beneficial to our capacity to take action on climate change.

The Open Data Team, which sits within DCC's Smart City Team are working to make data open, free and available for the public and academia. The Open Data team are currently in



the process of identifying existing data sets within DCC's work streams. At present, the following categories for data have been identified:

- Arts Culture and Heritage
- Environment and Energy
- Planning and Land Use
- Government and Participation
- Recreation and Amenities
- Population and Communities
- Public Health and Safety
- Economy and Innovation
- Transport and Infrastructure

The Open Data Team are currently finalising their work on open data with the transportation department, and will begin to work on environmental data.

To support the building of data sets to inform decision-making, DCC's Smart Dublin team is undertaking projects to increase the data available to us to inform actions we take to make the city, these include:

#### *Air View Dublin*

Air View Dublin is an initiative that was rolled out in May 2021 and will see Google's Street View car measure air quality across the city of Dublin. This initiative was rolled out in collaboration with Dublin City Council as part of its Smart Dublin programme and Google. Air View Dublin will see Google's first electric Street View car measuring air quality for the duration of one year.

Google's electric Street View car, the Jaguar I-PACE, has been equipped with Aclima's specialised mobile air sensing platform that can measure and analyse pollutants, which at high levels are harmful to the climate and human health. These pollutants include:

- nitrogen dioxide (NO<sub>2</sub>)
- nitrous oxide (N<sub>2</sub>O)
- carbon dioxide (CO<sub>2</sub>)
- carbon monoxide (CO)
- fine particulate matter (PM<sub>2.5</sub>)
- ozone (O<sub>3</sub>)

The measurement of air quality through this project will produce street-by-street air pollution maps, developed by Aclima's platform, which analyses and quality assures pollution measurements

#### *DPD Air Quality Monitoring*

DPD Ireland has partnered with air quality monitoring company Pollutrack and is working with Dublin City Council and the Environmental Protection Agency on a project, which uses smart sensors on buildings and delivery vans to track Dublin's air quality in real time. The laser sensors will capture PM<sub>2.5</sub> levels every 12 seconds via GSM to a database, which has been developed by Pollutrack. From this, the data produces air quality maps and hotspot areas, which record higher than average PM<sub>2.5</sub> levels.

DPD Ireland will install air quality sensors on 22 buildings and 102 vehicles in Dublin. Dublin City Council has supported the installation of sensors at sites which include libraries, a bring centre and a fire station. The analysis of these sensor datasets will be carried out by DCU researchers at the Insight SFI Research Centre for Data Analytics, which can then be used

for decision-making for stakeholders. Other recipients of the data will be Smart Dublin, Asthma Society of Ireland, and Irish Doctors for the Environment, Children's Health Ireland and University College Cork.

### 3.3 Circular City

Cities play an essential role in the development of a circular economy; they act as enablers of potential measures by which they can influence both consumers and businesses. Moreover, overall

governance, enabling businesses, public procurement, consumption and resource management are

all themes with a bearing on the development of circular economy concepts within cities. Dublin as a European capital city is uniquely positioned to address complex problems through practical experimentation and innovation. The transition to a circular economy requires multi-level governance and new visions of what the city of the future could look like. Therefore, involvement at a local level is crucial for the transformation from a traditional linear approach to a circular strategy

Dublin City Council has been working with key stakeholders to plan and deliver on a range of initiatives that support a more circular approach within our Capital city, and to build further support for the development of Dublin as a Circular city. Some of the key initiatives are as follows:

#### *MODOS*

MODOS, an innovative circular economy training programme for micro, small and medium size enterprises was piloted in 2019 and expanded to a national programme in 2020, to help businesses across Ireland build sustainability into their post-COVID recovery. MODOS is designed to equip small and micro enterprises to apply circular economy principles in their business, helping them reduce waste and carbon emissions while creating opportunities to save money, increase resilience and boost competitive advantage.

Moving to a circular economy, where materials are continuously re-used and recycled, is essential if Ireland is to meet its greenhouse gas (GHG) emission reduction targets under the national Climate Action Plan. According to research by the Ellen McArthur Foundation – a leading authority on the circular economy – around 45% of GHG emissions reductions will come from applying a circular approach to how we make and use products and produce food (with the other 55% coming from switching to renewable energy sources).

As well as helping the environment, going circular could have huge social and economic benefits. In Europe alone it could save 450 million tonnes of carbon by 2030, create 580,000 jobs and save €600 billion for EU businesses, equivalent to 8% of their annual turnover. With the European Union policy and regulations for a low-carbon economy and the Irish government Green Procurement standards, Irish businesses need to understand and apply circular economy principles. Doing so will help to future proof their business and enable them to build back better.

#### *Responsible Innovation Summit*

Cities are important spaces in the transition to the circular economy, providing complex challenges and innovative solutions as well as a myriad of opportunities to create economic, social and environmental benefits. As part of the programme for the Responsible Innovation Summit 2021, the Lord Mayor moderated a panel that examined the opportunities for Dublin

to become a Circular City, examining what we could learn from other cities who are engaged in circular city initiatives.

Cities offer high levels of resources, talent and collaborative potential and are already leading in terms of circular innovations areas such as manufacturing, textiles, food, construction and transport. Circular city initiatives, such as Circular Glasgow and Circular Prague, see city business networks leading the way to expedite regional and national transition towards circularity. The panel brought together national and international experts to discuss the value of a Circular Dublin to business and citizens.

### *Circular City Accelerator – Climate KIC*

Dublin City is one of four city partners participating in the Climate KIC – Circular City Accelerator that commenced in 2021. We are working with the European Accelerator Manager with Tangent, Trinity College's Innovation and Entrepreneurship Centre. Tangent is the lead partner on the Circular Cities ClimAccelerator, a pan-European programme funded by EIT Climate KIC, supporting 15 start-up companies each attempting to scale their circular economy propositions. This Accelerator engages closely with senior management in local authorities in Dublin City Council, Berlin Senat, Copenhagen City Council and the Municipality of Athens. Trinity College is collaborating with Denmark's Technical University (DTU) and Luvent Consulting in Berlin.

There are plans to build on the work already developed and to implement a series of new initiatives under the Dublin Region Enterprise Plan 2024 designed to place businesses as leaders in the transition to a low carbon economy.

### *3.4 Food Strategy*

Following from Eat the Streets! interest has increased in exploring the benefits of a food strategy for the city and how it might contribute to climate action. A food strategy is a method of identifying actions that can enhance food systems (note: A food system is the full cycle of how food is grown, produced, processed, distributed, consumed and disposed of.) and may also be used to contextualize concerns of municipalities; for example, they can address public health and social issues arising from food deserts.

A food strategy that works to develop and support sustainable food systems through urban food growing, food waste management and/or redistribution can support a city's progress towards climate resilience, improve water management, improve air quality, and restore essential ecosystems and biodiversity. Acknowledging these benefits, creating a food strategy is an opportunity for DCC to address multiple issues due to the multifaceted nature of urban food systems.

In order to do this, Dublin City Council is currently undertaking research to identify food wastelands, urban food growing methods and best practices from around the world. By identifying areas experiencing food poverty, we can tailor actions to improve access to affordable and nutritional food while building the communities resilience to climate change risk and vulnerabilities. Further, we are identifying key stakeholders in government, private sector and academia to support this process, and thematic topics for citizen engagement. The overall objective is to create and facilitate a food strategy that applies a systems approach to address multiple issues, namely food security, public health, nutritional equity, climate action, biodiversity and social cohesion and contributes to our long term targets.

## Appendices

	No	Action	Ext. Stakeholders	Department	Progress	New	Timeline	Comments	Climate Progress	Team	Indicators
Energy & Buildings	E1	Create Energy Master Plan for the Dublin Region		Codema	Completed		In the next 5 Years	The Dublin Region Energy Masterplan analysis has now been completed and sets a spatially led, cost-optimal pathway for Dublin towards our 2030 and 2050 targets in the areas of heat, electricity and transport. As part of this project online maps and tools have also been produced and are available on Codema's GitHub webpage.			Website with e-Map
	E2	Requirement for all new developments to be district heating-enabled in Poolbeg West, North		Environment and Transport/ Planning and Property	Ongoing		10 Years Plus	Poolbeg West SDZ – Ongoing/Planning 'Docklands' SDZ – 46 Built / 28 Under Construction.	Ongoing		# of buildings DH-enabled

		Lotts and Grand Canal SDZs		Development						
	E3	Prepare Dublin City Sustainable Energy and Climate Action Plan		Codema	Ongoing		In the next 5 Years	In October 2019, Codema submitted the Dublin LAs' SECAPs to CoM on behalf of the LAs and were initially accepted, but because these plans do not address mitigation across the wider county area (outside the LAs' direct remit/control), pre-contacting messages concerning the mitigation pillar and the feedback reports were sent to the 4 local authorities informing the DLAs that the SECAPs were deemed not to meet the new CoM SECAP requirements to address county-wide mitigation targets and this will		SECAP complete

								need to be addressed in future SECAPs		
	E4	Evidence-based climate change chapter in City Development Plan 2022-2028		Planning and Property Development	Ongoing		In the next 5 Years	Climate Action Team is liaising with Planners to develop climate change chapter and embed climate action through out plan	Ongoing	Chapter with policies and development management standards
	E5	Develop ISO 50001 compliant energy management system		Environment and Transport	Ongoing		In the next 5 Years	Ongoing, - Working towards	Ongoing, - Working towards	System developed and ISO 50001 compliant
	E6	Annual Monitoring & Reporting to SEAI		Codema	Ongoing		10 Years Plus	All energy consumption data and energy performance metrics have been reported to SEAI for the 2020 reporting cycle.	Annual Updates sent	DCC's energy use monitored and reported



	E7	Publish Energy Review annually		Codema	Ongoing		10 Years Plus	2020 Energy Review currently in progress.		Review published, # of recommendations implemented
	E8	Display Energy Certificates for public buildings		Codema	Ongoing		10 Years Plus	All DEC's for relevant buildings have been updated for 2021 and published.	All DEC's for relevant buildings have been updated for 2021 and published.	Compliant with legislation
	E9	Dublin District Heating System		Environment and Transport	Ongoing		In the next 5 Years	Preliminary design is currently being carried out on the district heating network, and some site investigation is being planned to inform this design. Detailed Design is being carried out for the 'Irish Glass Bottle' and 'Fabrizia' sites within the Poolbeg West Strategic Development Zone, to help ensure these sites are district heating ready.	Ongoing	# of buildings connected;

								DDHS Project Team liaising with the Developers Design Team for the PWSDZ area. Project currently being called Pembroke at D4.		
E10	Identify sites for trialling renewable energy projects, including solar PV		Planning and Property Development	Ongoing		In the next 5 Years	Ongoing - DELIVEREE	Ongoing - DELIVEREE	Properties identified, projects planned	
E11	Energy efficiency works in 30 Council owned and operated buildings		Housing Dept.	Ongoing		10 Years Plus	Ongoing	Ongoing	# of buildings upgraded; energy savings as per bills (Energy Elephant)	
E12	Dublin Fire Brigade energy efficiency works		Dublin Fire Brigade	Ongoing		In the next 5 Years	Ongoing - Obrien institute anticipated completion Q4 2021	Ongoing - Obrien institute anticipated completion Q4 2021	# of buildings upgraded	
E13	Continue the Fabric Upgrade Programme of housing stock	Department Housing, Local Governm	Housing Dept.	Ongoing		10 Years Plus	Due to COVID works were postponed. Work has just commenced again in Q3.	No Update for Q. 2. Work has just commenced.	Completion of 200 retrofits per annum, to B2 level or better; Energy	

			ent, and Heritage							savings achieved
	E1 4	Develop and implement Public Lighting Master Plan		Environment and Transport	Ongoing		5-10 Years	The project is on track to commence works in Q1 2021 with LED replacement. The formal procurement negotiations are nearing completion. The project will achieve 50% energy reduction as a result. The framework will be live for 8 years so work will continue in due course. 8,000 no. LED retrofits will be done in first contract. Progress will be slower hereafter. New lights are going in and there will be a computer managed system.	The project is on track to commence works in Q1 2021 with LED replacement. The formal procurement negotiations are nearing completion. The project will achieve 50% energy reduction as a result. The framework will be live for 8 years so work will continue in due course. 8,000 no. LED retrofits will be done in first contract. Progress will be slower hereafter. New lights are going in and there will be a computer managed system.	% public lighting converted to LEDs
	E1 5	Landlord lighting upgrades in 15		Housing Dept.	Ongoing		5-10 Years	Ongoing		# of lights retrofitted

		complexes across the City								
E1 6	Facilitate EPC project in 7 leisure centres/dry sports centres across Dublin City		Culture, Recreation and Economic Services	Ongoing		In the next 5 Years	Works phase now completed, services phase ongoing constant M&V of results	Works phase now completed, services phase ongoing constant M&V of results	EPC project delivered; annual CO2 savings	
E1 7	Install PV panels on Council buildings in Dominick Street, North King Street, Cornamona Court		City Architects	Ongoing		In the next 5 Years	Projects still under construction. 27.36kW being installed at Dominick Street. 15 kW have been installed at North King Street.	Ongoing	KwHs of PVs installed	
E1 8	New nZEB Super Depots		Transformation Unit	Not Started		In the next 5 Years			Completion of depots, # of depots merged into super depots	
E1 9	Develop proposal to use Docklands SDZ to test smart public lighting infrastructure		Smart Dublin				Feasibility assessed as per last year's update, identified an alternative project using public lighting infrastructure for IoT	Feasibility assessed, identified an alternative project using public lighting infrastructure to IoT	Proposal developed	

	E2 0	Expand and develop Small Business Innovation & Research (SBIR) programme		Smart Dublin	Ongoing		10 Years Plus	This is ongoing	This is ongoing	Energy and climate change challenges identified for yearly SBIR challenge
	E2 1	Work with CARO on research and project proposals for grant funding		CARO/Codema	Ongoing		10 Years Plus	In 2020 funding was secured for the H2020 deliverEE project to help with the project development aspects to deliver over €20m worth of energy efficiency and renewable energy projects across all four DLAs. CARO and Codema continue to work together to identify other research opportunities. DCC: Three Applications were on unsuccessful, revising one application for next round of H2020 Funding; IURC Application		# of research projects initiated

								successful building partnership with Seoul, South Korea.		
	E2 2	Develop an understanding of deep geothermal resources in Dublin through the GEOURBAN Project		Environment and Transport	Ongoing		In the next 5 Years	<p>Work Package 2 Completed. Currently processing the Geophysical data from survey works to prepare a 3D model of the subsurface strata of the project area within Dublin City.</p> <p>New location being surveyed between DCC boundary with Dún Laoghaire–Rathdown County Council.</p>	Ongoing	Report complete
	E2 3	Continued staff energy awareness in Council buildings		Environment and Transport	Ongoing		10 Years Plus	Project plan in place for Carbon Footprint	ongoing	# of building owners tracking energy use through energy elephant



	E2 4	Engage with students about energy and buildings through CPD Programme/Engineers Week		Environment and Transport	Ongoing		10 Years Plus	Will continue as COVID restrictions ease	Will continue as COVID restrictions ease	# of students participating in events and activities
	E2 5	Provide citizens with energy awareness material in public buildings		Smart Dublin				Reviewed this action and it is to be merged with E27		# of materials available in public buildings
	E2 6	Provide City Council tenants with energy awareness materials at home, particularly at the time of taking up new tenancy		Housing Dept.	Ongoing		In the next 5 Years	Ongoing - existing tenant manual provided to residents with information	Ongoing	% tenants receiving information
	E2 7	Monitor and develop the Home Energy Savings Kits in DCC's public libraries		Codema	Ongoing		10 Years Plus	In 2020, Codema developed an additional 42 Home Energy Saving Kits for Dublin City Council's Public Libraries, due to ongoing public demand and success of the	109 kits	# of kits borrowed

								scheme within the library network. 109 kits that are now available across Dublin City Councils' 21 library branches. Although the libraries were closed for a significant proportion of the Covid19 pandemic, Codema continued to provide energy saving resources, social media content and training for the library staff.		
	E2 8	Develop research and funding opportunities for renewable and efficiency projects		Codema						Research and funding management group established
	E2 9	Undertake programme of flat complex regenerations		City Architects	Ongoing		10 Years Plus	Estate Renewal Programme in development. Pilot project to test energy efficient retrofit in Protected Structure to	Ongoing	Complete 200 regenerated flats to nZEB standard each year from 2022; kWhs

								completing October 2021.		saved, CO2 Saved
	E3 0	The Dublin City Council Energy Review (2019 and going forward), will include a glide path illustrating the energy efficiency and GHG emission targets for the City Council up to and including 2030		Codema	Ongoing		In the next 5 Years	In 2021, the SEAI published a new Gap-to-Target tool, which allows for the generation of glide paths for both the 2030 Energy Efficiency and GHG emissions targets. This tool has been utilised to develop initial glide paths for DCC using the best available data, and these will be updated and included in all future Energy Reviews.		Glide path included
	E3 1	Appendix II: Total Emissions in Dublin City of the CCAP will also be updated every two years in accordance with EU Covenant of Mayors for		Codema	Ongoing		In the next 5 Years	The total emissions of Dublin City have been calculated as a part of the Dublin Region Energy Masterplan analysis. As part of this project online maps and tools have also been produced and are available on		Baseline updated

		Climate & Energy protocol						Codema's GitHub webpage.		
	E3 2	The City Architects Division of Dublin City Council is committed to participating with the Irish Green Building Council and other European organisations in BUILD UPON 2*	Irish Green Building Council	City Architects	Completed		In the next 5 Years	Completed	Completed	Complete participation in accordance with project Work Packages.
	E3 3	The City Architects Division of Dublin City Council is committed to participating with the RIAI, in particular the Sustainability Task Force, in seeking new and innovative approaches to climate action in	RIAI	City Architects	Ongoing		In the next 5 Years	Representative of CA participating in RIAI STF. Key current projects: <ul style="list-style-type: none"> <li>• Preparation of RIAI Climate Challenge 2030 Document</li> <li>• Input to RIAI response to Housing for All policy</li> <li>• Publication: RIAI Guide: Sustainable Design Pathways</li> </ul>	On going	% of possible meetings with task force attended

		the built environment								
	E3 4	Identify sites for trialling renewable energy projects, including solar PV and geothermal technologies		Environment and Transport						# of site identified
	E3 5	The City Council will undertake a research study to investigate the Lifecycle Assessment of traditional and new construction methods for residential projects in Dublin, with a view to formulating initial recommendations by end 2019		City Architects	Ongoing		In the next 5 Years	LCA of Dominick Street West completed in 2021. St Bricin's study of mass timber construction, started 2021, is a follow-up	LCA of Dominick Street West completed in 2021. St Bricin's study of mass timber construction, started 2021, is a follow-up	Publish research report

	E3 6	In all building projects, new build or retrofit, Swift Bricks or other nesting sites for swifts will be provided where practicable. The presence of swift breeding sites will be identified to ensure that known breeding sites are not lost as a result of construction work		City Architects	Ongoing		In the next 5 Years	Swift bricks included in St. Teresa's Gardens housing project, completed Q1 2021.	Ongoing	# of sites provided
	E3 7	Develop maintenance and condition survey programmes for Council-owned historic and ancient monuments that are informed by climate change impacts		City Architects	Ongoing		In the next 5 Years	Ongoing, aligning with the Built Heritage Sectoral Adaptation we are assessing and monitoring the impacts of climate change on historic and ancient monuments and ensuring resilience to climate change.		# of surveys completed



	E3 8	Conduct research and seek to develop City Council-based case studies on appropriate and sensitive retrofitting/energy upgrading of traditional buildings to inform works both to Council-owned properties and to guide private owners		City Architects	Ongoing		In the next 5 Years	"Built to Last" digital publication which is being edited at present and provides guidance on the retrofitting and upgrading of traditional buildings. Conservation grants, fund works to upgrade thermal performance of traditional sash windows and rainwater systems.		# of case studies developed
Transport	T1	Develop strategy to convert fleet to low emission vehicles		Environment and Transport	Completed		In the next 5 Years			Strategy produced
	T2	Pilot more electric vehicles within Council fleet		Environment and Transport	Ongoing		10 Years Plus	In quarter 1, we took delivery of two EV Side Loaders for Waste Management Services. Dublin City Council now	In quarter 1, we took delivery of two EV Side Loaders for Waste Management Services. Dublin City Council now	Report on pilot and plan for scaling up

								has 43 electric vehicles in its fleet.	has 43 electric vehicles in its fleet.	
	T3	Conduct detailed study of staff modal split		Environment and Transport	Ongoing		10 Years Plus	Will continue as COVID restrictions ease and staff return to work	ongoing	Yearly survey
	T4	Promote Cycle-to-Work Scheme to DCC staff		Environment and Transport	Ongoing		10 Years Plus	Ongoing	Ongoing	# of staff availing of scheme
	T5	Implement Smart Mobility Hub in Civic Offices		Smart Dublin	Ongoing		10 Years Plus	Smart Mobility Hub Phase 2 ready to go in 6 DCC sites (27 vehicles combination of bikes and cars) - Re-launch of phase 2 in line with return to work - SMH promotional public panel event with over 90 attendees / participants for Climate Action Week - Soft launch start of October with multi-channel internal Comms. Staff statistics for Phase 2	Smart Mobility Hub Phase 2 ready to go in 6 DCC sites (27 vehicles combination of bikes and cars) - Re-launch of phase 2 in line with return to work - SMH promotional public panel event with over 90 attendees / participants for Climate Action Week - Soft launch start of October with multi-channel internal Comms. Staff statistics for Phase 2	# of staff using hub

								will be available at the end of Q4.	will be available at the end of Q4.	
	T6	Carbon offset programme for staff flights	Vita Ireland	Environment and Transport	Ongoing		10 Years Plus	Ongoing - No flights due to COVID	Ongoing	Tonnes of CO2 offset
	T7	Occupational driver training for fleet staff		Fleet Management Services	Ongoing		In the next 5 Years	Training has been suspended during Covid, however, the majority of drivers have been trained (756).	Training has been suspended during Covid, however, the majority of drivers have been trained (756).	# of staff trained
	T8	Assess potential for using an e-mobile for real time air quality monitoring in the City Centre		Smart Dublin	Ongoing		In the next 5 Years	<p>Google Airview car has been driving in DCC area since May10.</p> <p>- As of 30th September, approx. 11.8 million records of air quality data has been collected and is being assessed.</p> <p>- Preliminary data analysis in progress; Initial draft of</p>	<p>Google Airview car has been driving in DCC area since May10.</p> <p>- As of 30th September, approx. 11.8 million records of air quality data has been collected and is being assessed.</p> <p>- Preliminary data analysis in progress; Initial draft of</p>	Assessment report complete

								analysis results and reports to be available by the end of Q4.	analysis results and reports to be available by the end of Q4.	
	T9	Implement the measures outlined in the Dublin City Centre Transport Study 2016		Environment and Transport	Ongoing		In the next 5 Years	Covid Mobility Programme implementation taking priority to combat mobility challenges arising from pandemic	Covid Mobility Programme implementation taking priority to combat mobility challenges arising from pandemic	# of measures implemented
	T10	Implement traffic calming programme		Environment and Transport	Ongoing		In the next 5 Years	COVID Mobility - as above	Ongoing	# of traffic calming measures
	T11	Expand 30 km/h speed limit zones to all residential areas of the City		Environment and Transport	Ongoing		In the next 5 Years	Ongoing Consultation - is being reviewed	Ongoing	# of residential areas with 30 km/h speed limit
	T12	D30 public awareness campaign of speed limits in City		Environment and Transport	Ongoing		In the next 5 Years	Campaign ongoing	Ongoing	# of citizens engaged
	T13	Regular maintenance of		Environment and Transport	Ongoing		10 Years Plus	Road Maintenance Services repaired/ made safe 737	Road Maintenance Services repaired/ made safe 737	# of repairs carried out on

		regional and local roads						defects/ hazards on the road network during July and August 2021.	defects/ hazards on the road network during July and August 2021.	the road network
	T1 4	Rolling out last mile delivery eco hubs in the City Centre area		Environment and Transport	Ongoing		In the next 5 Years	UPS currently have 2 Eco-hubs in operation. UPS estimate that 5 diesel delivery vans were removed from city streets due to the Eco-hub operations.	ongoing 2 hubs to date	# of last mile delivery eco hubs established
	T1 5	Develop 'last mile' delivery solutions, as part of SBIR challenge		Environment and Transport	Ongoing		In the next 5 Years	Three SBIR trials were enacted: 1. Eco-hubs with pedal assist/ e-walker delivery units (UPS/ Fernhay); 2. Smart Loading Bays E-vehicle charging (Park unload); 3. Mini-consolidation hub with new route optimisation software.	ongoing 3 trials to date	# of solutions trialled

	T1 6	Phase I Pedestrian Zones (2016- 2022): - Liffey Street - Mary Street - Talbot Street - Castle Street/Cork Hill - Barnardo's Square - Temple Bar Public Realm		Environment and Transport	Ongoing		In the next 5 Years	Liffey Street: Detailed design complete and construction tender documents being reviewed for issue Q4 2021.. Temple Bar Square Refurbishment, Water main rehabilitation on Crowne Alley complete. Stakeholder engagement ongoing. The Main Works (e.g. repaving, public lighting, green infrastructure etc.) will go to construction Tender Q4 2021 with works commence in 2022 Castle Street/Cork Hill: the project has been suspended pending review. With CPSO. Mary Street: Integrated Design Team appointed,	Ongoing	Schemes completed
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								preliminary design options being developed. Internal consultation continuing. External consultation to resume following lifting of restrictions.		
	T1 7	Phase II Pedestrian Zones (2023- 2028): - Dame Street West - Lord Edward Street - Parnell Street - O'Connell Bridge - D'Olier Street - Lombard Street - Westland Row - Nassau Street - Aungier Street/ Valentine District - Merrion Square - Pearse Street - North Lotts - North Quays		Environment and Transport	Not Started		5-10 Years	Phase II is for the next Development Plan – 2022 to 2028.	Not started	Schemes completed

	T1 8	Phase III Pedestrian Zones (2029 and beyond): - South Quays - Tara Street - Parkgate Street		Environment and Transport	Not Started		10 Years Plus	Not started	Not started	Schemes completed
	T1 9	To investigate the introduction of traffic-free areas on sections of: - Drury Street - South William Street - Exchequer Court - Dame Court - Dame Lane retaining access for car parks and deliveries		Environment and Transport	Ongoing		10 Years Plus	Covid Mobility Programme implementation taking priority to combat mobility challenges arising from pandemic	Covid Mobility Programme implementation taking priority to combat mobility challenges arising from pandemic	Schemes completed
	T2 0	World Car Free Day (Annual)		Environment and Transport	Ongoing		10 Years Plus	Promotion of event through social media channels	Annual event	Promotion of EU event
	T2 1	European Mobility Week	NTA	Environment and Transport	Ongoing		10 Years Plus	Delivery of city wide cycle tours, bike maintenance.	Annual event	Promotion of events

	T2 2	DCC to liaise with NTA on BusConnects programme	NTA, Dublin Bus	Environment and Transport	Ongoing		10 Years Plus	Ongoing	Ongoing	# of meetings
	T2 3	2 EV charging point trials in the Docklands		Environment and Transport	Completed		In the next 5 Years	The EV charging infrastructure on Sir John Rogerson's Quay (4 EV charging points) has been transferred to ESB E-cars to run, manage and maintain. It is their intention to upgrade these to rapid chargers. This action is complete.	Completed	2 charging points installed
	T2 4	Assessment of Council public car parks for trickle and rapid charge EV points		Environment and Transport	Completed		In the next 5 Years	Potential Council car parks for EV chargers/mobility hubs have been identified and are being reviewed as part of the Regional EV strategy.	Completed	Assessment complete
	T2 5	Organise Pedestrian Days in areas with high footfall		Environment and Transport	Ongoing		In the next 5 Years	Pedestrianisation of a number of streets on permanent and pilot basis; City Recovery Plan has	Ongoing; City Recovery Plan	# of pedestrian days held

								identified areas for priority.		
	T2 6	Set up partnership and create a communications engagement and promotion platform		Environment and Transport	Ongoing		In the next 5 Years	Establishment of an advisory board with both internal and external members to set out framework for communication, promotion and engagement.	Ongoing	# of communities / areas involved
	T2 7	Develop cycle action plan: 471 km of possible network	NTA	Environment and Transport	Ongoing		In the next 5 Years	32 corridors have been identified for funding under the NTA funding framework for the next five years	Ongoing	Plan completed
	T2 8	Dodder Greenway (Pedestrian and Cycle Improvement) - 7.5 km section	NTA	Environment and Transport	Ongoing		In the next 5 Years	The NTA commenced a review of the options selection report	Ongoing	Planning application approved
	T2 9	2.7 km Clontarf-to-City Centre Cycle Scheme	NTA	Environment and Transport	Ongoing		In the next 5 Years	Assessment of tenders for construction of the scheme was completed during the quarter.	Ongoing	Drawings of route completed Scheme Complete

	T3 0	Liffey Cycle Route (6.8 km)	NTA	Environment and Transport	Ongoing		5-10 Years	Preliminary corridor assessments to inform the preparation of the design brief for a multi-disciplinary design team was completed during the quarter.	Ongoing	Review of route completed Scheme Complete
	T3 1	Fitzwilliam Cycle Route - 1 km route with upgrades for junctions	NTA	Environment and Transport	Ongoing		5-10 Years	No progress during the quarter	Ongoing	Consultant appointed Scheme Complete
	T3 2	Sandyford-to-City Centre Cycle Scheme - proposal and options for 9 km route	NTA	Environment and Transport	Ongoing		5-10 Years	No progress during the quarter	Ongoing	Report completed
	T3 3	Royal Canal Phase 3 - 7.5 km two-way cycle track with pedestrian route	NTA	Environment and Transport	Ongoing		5-10 Years	Assessment of tenders for construction of the scheme was completed during the quarter.	Ongoing	Tender issued Scheme Complete
	T3 4	Grand Canal Premium Cycle Route - 4.4 km addition to route	NTA	Environment and Transport						Feasibility study completed

		linking Portobello to Blackhorse								Scheme Complete
	T3 5	Pedestrian and cycle bridges: - Pedestrian and cycle bridges for Blood Stoney - Pedestrian and cycle bridges for the Point -Dodder PT Bridge	NTA	Environment and Transport	Ongoing		10 Years Plus	Point Pedestrian and Cycling Bridge and Tom Clark Bridge Widening Works; The contract for a design consultant for this scheme has been awarded and the design work has commenced. Blood Stoney Bridge: Received An Bord Pleanala decision on 21st Sept 2020 not to approve the amendment to the SDZ to relocate the bridge to Blood Stoney Road. Awaiting a NTA report on the future plans for the DART Underground project. Project team will liaise with Planning Dept. to decide how to proceed. Dodder	Ongoing	Planning permission submitted

								Bridge: The planning application for this project will now be lodged as part of the NTA BusConnects project. Preliminary design is complete and the draft EIAR is being amalgamated into that of BusConnects. Land acquisitions and Land Owner agreements are still being progressed by DCC.		
	T3 6	Cycle Training Programmes for 6th Class students / Pedal Power Labs*	Schools	Environment and Transport	Ongoing		10 Years Plus	COVID Impacted	COVID Impacted	# of students participating
	T3 7	Feasibility of emissions-linked parking charges in City Centre		Environment and Transport	Not Started		In the next 5 Years			# of parking spaces
	T3 8	Increase number of public bike parking facilities*		Environment and Transport	Ongoing		10 Years Plus	Ongoing	Ongoing	# of parking spaces added

	T3 9	Expand Stationless Bike scheme and add ebikes*		Environment and Transport	Ongoing		In the next 5 Years	The ongoing roll out of additional bike parking continues which will facilitate the expansion of stationless bike operations. A target has been set for the installation of 819 stands at 168 locations during 2021. Bleeper's membership increased by 125% in 2020 and stood at over 76,000 at the end of 2020. Users of Bleeper bikes cycled almost 867,000 km in 2020 burning 145 Million calories. In their first 6 months of operations Moby's members cycled the equivalent of 4 times around the earth. Stationless bike hire operations saved the equivalent of almost 200 Tonnes in Carbon emissions	Ongoing	# of bikes available
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								in 2020. Research is progressing regarding integration/interoperability options with other mobility/transport services.		
	T4 0	Expand Dublin Bikes scheme		Environment and Transport	Ongoing		In the next 5 Years	No stations have been added	No stations have been added	# of Dublin bikes # of locations
	T4 1	Implement policy to increase modal shift to cycling		Environment and Transport	Ongoing		In the next 5 Years	Ongoing	Ongoing	
	T4 2	DCC to host Velo City 2019		Environment and Transport	Completed		In the next 5 Years			Event hosted
	T4 3	Install pilot Electric Vehicle charging station at John Rogerson's Quay		Environment and Transport	Completed		In the next 5 Years	EV charging infrastructure on Sir John Rogerson's Quay (4 EV charging points) has been transferred to ESB E-cars to run, manage and maintain . It is their intention to upgrade	EV charging infrastructure on Sir John Rogerson's Quay (4 EV charging points) has been transferred to ESB E-cars to run, manage and maintain . It is their intention to upgrade	EV charge point installed

								these to rapid chargers.	these to rapid chargers.	
	T4 4	Assessment of Rediscovery Centre car park in Ballymun for trickle or rapid electric vehicle charging station		Environme nt and Transport	Ongo in g		In the next 5 Years	Potential Council car parks for EV chargers/mobility hubs have been identified and are being reviewed as part of the Regional EV strategy.	Potential Council car parks for EV chargers/mobility hubs have been identified and are being reviewed as part of the Regional EV strategy.	EV charge point installed
	T4 5	Samuel Beckett Bridge segregated cycle lane		Environme nt and Transport						Segregated lane complete
	T4 6	DCC aspires to be a Future Cycling City*		Environme nt and Transport	Ongo in g		10 Years Plus	The Handshake Project is comprised of 3 Cycling Cities (Amsterdam, Copenhagen and Munich) and 10 future cycling cities of which Dublin is one. Amsterdam are our Mentor for this project. We have had 4 meetings with them this year but also engage with other cities through a	Ongoing, the number of collaborations is 4.	# of collaborations

								project portal. A member of the Handshake team, Sustainable Mobility Office with ICLEI is on our Advisory Group for the development of Dublin City Council Walking & Cycling Action Plan.		
	T4 7	DCC will continue to seek new and expand on existing partnerships to encourage sustainable travel and safer travel behaviours		Environment and Transport	Ongoing		10 Years Plus	Dublin City Council has established a partnership for a Promotions Group with TCD Healthy Trinity, Green Schools, NTA Active Travel, and TU Dublin. This group will meet every three to four months. The total number of partnerships is now 28	Ongoing - The total number of partnerships is now 28	# of partnerships
	T4 8	DCC will engage with local communities to develop a vision for the future of their		Environment and Transport	Ongoing		10 Years Plus	ongoing- Public engagement on hold due to COVID, organisation of webinars for DCAW. Funding received	ongoing- Public engagement on hold due to COVID, organisation of webinars for DCAW. Funding received	# of engagements

		neighbourhoods with a strong focus on local living, sustainable mobility and quality of life						through Creative Climate Action call to support Crumlin with the Arts Office in engaging in climate action through the arts. Have started quarterly Climate Newsletter	through Creative Climate Action call to support Crumlin with the Arts Office in engaging in climate action through the arts.	
	T4 9	Sustainable transport hubs – various locations 2	NTA, TII, Dublin Bus, Transdev, Irish Rail	Environment and Transport	Ongoing		5-10 Years	Ongoing	Ongoing	# of hubs

	T5 0	Support the development of bus routes including the Bus Connects programme	Dublin Bus, NTA	Environment and Transport	Ongoing		10 Years Plus	<p>To support the planned Bus Connects continuous bus corridors; multiple cross departmental meetings have been held for communication and information sharing/retrieving within DCC. This project is ongoing.</p> <p>Five new routes make up the H-spine (H1, H2, H3, H9, 6). The H-spine connects the city centre with Howth, Malahide, and Clongriffin via the Howth Road. The spine was introduced in June 2021. Multiple priority measures existed on the Howth Road prior to the H-spine commencing service which gave</p>	Ongoing	# of routes frequency of services
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								<p>priority to buses at all major intersections which are controlled by SCATS. Existing Dublin public transport interface module (DPTIM) virtual detectors which were installed previous to the spine rollout were converted to the new routes. Additionally, numerous new detectors have been installed to assist the new routes. Currently, twenty-two virtual detectors assist buses on the Howth Road and surrounding side streets. In order to facilitate route 6, four new bus stops were installed along Watermill Road and parking restrictions were introduced.</p>		
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								<p>The C-spine is due to begin service in November 2021. Arrangements for the installation of bus stops at 25 locations are progressing for the C-spine. Currently, approximately ten DPTIM virtual detectors provide priority along the route of the C-spine. When the C-spine becomes live, these detectors will be converted over to the relevant new routes. This will also provide an opportunity to review these existing detectors, and install new detectors. Tara Street had been identified as a delay point on the C spine. A bus lane has been installed on Tara Street to give priority</p>		
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								to buses on approach to the South Quays.		
	T5 1	Carry out Canal Cordon Count		Environment and Transport	Ongoing		10 Years Plus	Ongoing	Ongoing	Results from count Annual Report Complete
	T5 2	Implement policy to increase modal shift to public transport	NTA, Dublin Bus	Environment and Transport	Ongoing		10 Years Plus	Ongoing	Ongoing	# of additional bus lanes provided, # of cordon count results



										Number of passengers as a % of modal share
	T5 3	Implement policy to give bus priority on core bus network		Environment and Transport	Ongoing		In the next 5 Years	<p>There are currently 800 virtual detectors installed on the Dublin public transport interface module (DPTIM). DCC and Dublin Bus staff meet fortnightly where delays to the network are flagged. This approach allows DCC staff to install detectors where they will have maximum benefit to bus passengers.</p> <p>The DPTIM system is currently being expanded to receive live bus data from GoAhead. This work will be complete in Q4 2021. This will allow the team to provide priority measures to GoAhead services</p>	Ongoing	# of bus priority junction interventions

								in the same manner that Dublin Bus receives. Regular meetings with Go Ahead staff will then commence.		
	T5 4	Develop a strategy to promote car sharing		Environment and Transport	Ongoing		In the next 5 Years	Study undertaken	Ongoing	Strategy document developed
	T5 5	The Council will undertake an assessment of the number of existing and potential future electric vehicle charge points in its jurisdiction and expand the availability		Environment and Transport	Ongoing		In the next 5 Years	The Regional EV Strategy: In order to inform the four local authorities of the type and number of chargers required, the four Dublin Local Authorities, together with SMART Dublin and CARO, have commissioned a strategic study. This will allow us examine how the four Councils can best facilitate the provision of electric vehicle-charging infrastructure across	Ongoing	# of charging points

								the Dublin region and the scale of investment required. It has been agreed that this strategy will be published shortly for public consultation to help inform the approach taken by the Dublin Local Authorities in this fast moving area.		
	T5 6	Replace diesel hand sweepers/power washers with electric models		Waste Services	Ongoing		In the next 5 Years	WMS have increased to quantity of electric power washers in our depots. 88% of our power washers are now electric vs 40% in 2020. The hand vacs are provided on a 3 year contract entered into in 2019 so cannot be replaced until that expires, some trialling of electric units have taken place and investigation of	Ongoing	% reduction

								suitable alternative is ongoing.		
	T5 7	Dublin City Council to promote Mobility-as-a-Service (MaaS) initiatives in the City to increase active travel options		Environment and Transport	Ongoing		10 Years Plus	The Micro Mobility Unit was set up Autumn 2021 to promote and increase active travel options for businesses, citizens and visitors to our city. There are currently three bicycle sharing schemes and three car sharing schemes operable in the city. An e-cargo bike project for businesses is underway and further projects are in planning. Smart Dublin: 1. We recently finalised a MaaS for Ireland report. 2. In their upcoming Sustainable Mobility policy, the Department of	Ongoing	MaaS platform created Number of Initiatives in place Number of service providers participating in improving mobility options

								<p>Transport will identify the need for a national MaaS governance framework.</p> <p>3. For the councils in Dublin and nationally, the impact of such a MaaS governance framework is that each Council:</p> <ul style="list-style-type: none"> <li>• should collaborate/instruct their regulated operators to as to data sharing arrangements. For example, any upcoming scooter license arrangements need to have a data dimension.</li> <li>• look at ways to unlock the public realm to plan for the overall increase in shared mobility services</li> </ul> <p>4. We plan to do a public launch of our</p>		
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								report to coincide with the Department of Transport's Sustainable Mobility policy launch (due in November).		
	T5 8	Create a baseline of sustainable urban mobility for Dublin in line with EC indicators		Environment and Transport	Completed		In the next 5 Years	Complete	Will review Action and next steps in 2022	Baseline complete
	T5 9	East Coast trail (10.8km in DCC area)		Environment and Transport	Ongoing		In the next 5 Years	Detailed design of interim scheme from Alfie Byrne Road to Church Road completed		Trail complete

	T6 0	INTERREG Building an Ecosystem to Generate Opportunities in Open Data (BE GOOD) project to promote the safe wellbeing of the City and improvements in public transport services		Environment and Transport	Ongoing		In the next 5 Years	<p>The original EU BE-GOOD project closed on 30th of June 2020 this was a four year project with 10 transnational partners from European organisations. Dublin City Council's participation in this project delivered two innovative services, the first was the HGV Permit Checker System which was released for use to the citizens of Dublin in July 2019 and the second Rate My Service which was deployed to a focus group made up of DCC and NTA staff.</p> <p>The BE-GOOD project is partly funded (60%) by a European Territorial Cooperation</p>	Ongoing	Quantitative & Qualitative information from the citizen on their experience with public transportation and on adherence to the HGV management strategy.
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								<p>programme with the ambition to make the North-West Europe area a key economic player and an attractive place to work, live, with high levels of innovation, sustainability and cohesion, this programme is called Interreg NWE. In the framework of its capitalisation strategy the NWE Interreg programme published a call for capitalisation in October 2019, aiming to maximize the impact of project results achieved up to now. The BE-GOOD project partners collectively responded to this call, and just before the Covid19 situation reached a crisis point in Europe Dublin City</p>		
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								<p>Council received some good news that the call for capitalisation application was approved. Essentially what this means is that BE-GOOD will be extended through a Capitalisation Work Package for a period of 18 months commencing October 2020.</p> <p>The objective of the BE-GOOD Capitalisation Work Package is to build on and perpetuate delivered BE-GOOD innovative solutions, demonstrating their impact in new contexts, targeted sectors, new or wider geographical areas and engaging new Target Groups. Illustrating successful</p>		
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								<p> replicability or extension of BE-GOOD results and maturing the BE-GOOD Ecosystem. The capacity to generate business opportunities from public open-data will be further demonstrated and support organisational digital change based on BE-GOOD. Dublin City Council have decide to capitalise on the Rate My Service system with a focus on citizen engagement and intelligent transport systems. A new solution called Rate My Signals has been developed and will be deployed to citizens before the end of the year. </p>		
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	T6 1	DCC is working in partnership with the EPA on expanding and enhancing ambient air quality monitoring in Dublin in accordance with the National Ambient Air Monitoring Programme	EPA	Environment and Transport	Ongoing		In the next 5 Years	Dublin City Council in conjunction with TU Dublin established an air quality monitoring station on the Grangegorman campus in 2021 . Two further monitoring stations will be established in Donnybrook and Cabra by end 2021	Dublin City Council in conjunction with TU Dublin established an air quality monitoring station on the Grangegorman campus in 2021 . Two further monitoring stations will be established in Donnybrook and Cabra by end 2021	
	T6 2	DCC is exploring the feasibility of carrying out an air quality status study in Dublin Port	Dublin Port Authority	Environment and Transport	Ongoing		In the next 5 Years	The EPA have funded a research project on air quality in Dublin Port, commencing Q 3 2021 . The project consortium is headed by University College Cork. Dublin City Council is represented on the Technical Steering Committee for the project.	The EPA have funded a research project on air quality in Dublin Port, commencing Q 3 2021 . The project consortium is headed by University College Cork. Dublin City Council is represented on the Technical Steering Committee for the project.	

<b>Flood Resilience</b>	F1	Implement flood risk management guidelines		Environment and Transport	Ongoing		10 Years Plus	Ongoing	Ongoing	# of DCC projects following guidelines;
	F1 A	Monitor implementation of flood risk management guidelines in planning applications		Drainage Planning & Development Control	Ongoing		5-10 Years	Ongoing	Ongoing	
	F2	Coordinate Emergency Response Plans	OPW	Environment and Transport	Ongoing		10 Years Plus	Ongoing	Ongoing	Review planning applications and provide recommendations; % of planning application
	F3	Implement flood awareness campaign with the OPW	OPW	Environment and Transport	Ongoing		10 Years Plus	Ongoing	Ongoing	Plans completed
	F4	Monitoring of flood forecasting and warning system		Environment and Transport	Ongoing		10 Years Plus	Network expanded	Network expanded	Campaign implemented

	F5	Produce a new Design Guide for SuDS and green infrastructure		Culture, Recreation and Economic Services; Environment and Transport	Ongoing		10 Years Plus	Incorporating into new draft development plan	Incorporating into new draft development plan	System maintained
	F6	Implement Sustainable urban Drainage Guidelines in Council buildings where feasible		Environment and Transport	Ongoing		In the next 5 Years	All DCC projects being scrutinised for possible SuDS.	All DCC projects being scrutinised for possible SuDS.	Guide developed
	F7	Build demonstration sites to show options for SuDS		Environment and Transport	Ongoing		In the next 5 Years	Under construction. Other site identified	Under construction. Other site identified	% of projects recommended to implement SuDS measures
	F8	Establish a Dublin Bay Sentinel Group, led by DCC and including other key stakeholders, to monitor tide levels and other marine related		Multi-departmental	Ongoing		In the next 5 Years	Group consultation	Group consultation	# of demonstration sites developed

		flood risk issues in Dublin Bay								
	F9	Develop and implement Coastal Zone Management plan for Dublin Bay, aligned with the four DLA Climate Change Action Plans for Dublin and other local authority plans and strategies		Culture, Recreation and Economic Services; Environment and Transport	Ongoing		In the next 5 Years	Flood projects being developed in conjunction with Parks	Flood projects being developed in conjunction with Parks	Group established, medium and long term action plan developed
	F10	Implement the Dublin Bay Biosphere work programme	Faite Ireland, Dublin Port Authority, NPWS	Culture, Recreation and Economic Services	Ongoing		10 Years Plus	Ongoing	Ongoing	Plan developed and progressing implementation
	F11	Trial hemp baskets for flood protection		Culture, Recreation and Economic Services; Environment and Transport	Ongoing		In the next 5 Years	Designed to induce sand dune to break up waves.	Designed to induce sand dune to break up waves.	Work programme developed and implemented

	F1 2	Identify areas for integrated constructed wetlands		Culture, Recreation and Economic Services	Ongoing		10 Years Plus	Areas identified in Tolka Valley (Q1), Finglas Luas Line (Q2) and UCD (Q3).	Area identified in UCD,	Trials implemented, report on findings
	F1 3	Expansion of rainfall sensors and weather stations, as part of the Connect Flooding Demonstrator programme		Environment and Transport	Ongoing		In the next 5 Years	System expanded.	System expanded.	Areas identified and report published
	F1 4	Phase 2 of Gully Monitoring SBIR Challenge		Environment and Transport	Ongoing		In the next 5 Years	System tested.	System tested.	# of sensors installed, # of weather stations added
	F1 5	Develop a climate change impact GIS risk map with scenarios for the Dublin Region	Climate Ireland	CARO	Not Started		In the next 5 Years	Not Started	Not Started	# of solutions developed and implemented
	F1 6	Develop template to capture impacts, response and costs (including consideration of		Environment and Transport	Ongoing		10 Years Plus	Ongoing	Ongoing	GIS map developed

		ecosystem services/ natural capital costs) for all major climate events								
	F17	Establish a Working Group to deal with the issue of pluvial flood risk		Environment and Transport	Ongoing		10 Years Plus	Working group monitor pluvial building flooding events.	Working group monitor pluvial building flooding events.	Template developed and issued
	F18	Update DLA urban drainage and flooding policies promoting natural flood measures as a priority to inform new development plan		Environment and Transport	Ongoing		In the next 5 Years	Ongoing, incorporating into draft development plan.	Ongoing, incorporating into draft development plan.	Working group established
	F19	Risk workshops to assess the likely impacts on Council services		Environment and Transport	Ongoing		In the next 5 Years	Ongoing	Ongoing	Policies updated
	F20	South Campshires Flood Defence	OPW	Environment and Transport; Culture, Recreation	Completed		10 Years Plus			Risks identified



				and Economic Services						
	F2 1	Sir John Rogerson's Quay flood alleviation scheme	OPW	Environme nt and Transport; Culture, Recreation and Economic Services	Ongo in g		In the next 5 Years	Part of Docklands Public Realm Project	Part of Docklands Public Realm Project	Project completed
	F2 2	North Campshires flood alleviation scheme	OPW	Environme nt and Transport; Culture, Recreation and Economic Services	Ongo in g		5-10 Years	Part of Docklands Public Realm Project	Part of Docklands Public Realm Project	Project completed
	F2 3	Clanmoyle flood alleviation scheme	OPW	Environme nt and Transport; Culture, Recreation and Economic Services	Comple ted		10 Years Plus			Project completed

	F2 4	Wad flood alleviation scheme	OPW	Environme nt and Transport; Culture, Recreation and Economic Services	Ongo in g		In the next 5 Years	Preliminary Design	Preliminary Design	Project completed
	F2 5	Poddle flood alleviation scheme	OPW	Environme nt and Transport; Culture, Recreation and Economic Services	Ongo in g		In the next 5 Years	Awaiting An Bord Pleanala decision	Awaiting An Bord Pleanala decision	Project completed
	F2 6	Camac flood alleviation scheme	OPW	Environme nt and Transport; Culture, Recreation and Economic Services	Ongo in g		In the next 5 Years	Environmental Surveys were completed in Q1. Topographical and drainage surveys were done in Q2 and now in Q3 Computer model is being constructed.	Computer model being constructed.	Project completed
	F2 7	Dollymount flood alleviation scheme	OPW	Environme nt and Transport; Culture, Recreation and	Comple ted		10 Years Plus			Project completed

				Economic Services						
	F2 8	Clontarf Promenade flood alleviation scheme	OPW	Environment and Transport; Culture, Recreation and Economic Services	Ongoing		In the next 5 Years	Environmental Surveys were completed in Q1. Topographical and drainage surveys were done in Q2 and now in Q3 Sea wall geotechnical surveys underway.	Sea wall geotechnical surveys underway.	Project completed
	F2 9	Sandymount Promenade flood alleviation scheme	OPW	Environment and Transport; Culture, Recreation and Economic Services	Ongoing		10 Years Plus	Wave modelling underway.	Wave modelling underway.	Project completed
	F3 0	Sandymount Phase 2 flood alleviation scheme	OPW	Environment and Transport; Culture, Recreation and Economic Services	Ongoing		In the next 5 Years	Contract documents finalised.	Contract documents finalised.	Project completed

	F3 1	Chapelizod flood alleviation scheme	OPW	Environment and Transport; Culture, Recreation and Economic Services	Postponed		In the next 5 Years	Awaiting new staff member as project manager.	Awaiting new staff member as project manager.	Project completed
	F3 2	Island Bridge flood alleviation scheme	OPW	Environment and Transport; Culture, Recreation and Economic Services	Completed		In the next 5 Years			Project completed
	F3 3	Santry River Regeneration Project	OPW	Environment and Transport; Culture, Recreation and Economic Services	Ongoing		5-10 Years	Contract approved to planning stage by DCC Board	Contract approved to planning stage by DCC Board	Project completed
	F3 4	River Dodder flood defence works in the fluvial section upstream of Ballsbridge	OPW	Environment and Transport; Culture, Recreation and	Ongoing		10 Years Plus	Construction at RDS wall and Beech Hill Road	Construction at RDS wall and Beech Hill Road	Project completed

				Economic Services						
	F3 5	Study impacts and benefits of increased buffer distances to watercourses		Environment and Transport; Culture, Recreation and Economic Services	Ongoing		In the next 5 Years	Some river corridors proposed in draft development plan 10-25m wide	Some river corridors proposed in draft development plan 10-25m wide	Project ongoing
	F3 6	Promote and encourage community involvement in the retrofit of SuDS in existing developments		Culture, Recreation and Economic Services; Environment and Transport	Ongoing		In the next 5 Years	Environmental & Topo surveys underway.	Environmental & Topo surveys underway.	Study completed
	F3 7	Survey possibly by drone / satellites of paved areas of the City		Environment and Transport	Ongoing		10 Years Plus	Ongoing	Ongoing	# of communities involved
	F3 8	Environmental surveys of all City rivers and estuaries as baseline surveys		Environment and Transport	Ongoing		In the next 5 Years	Ongoing with parks and flood surveys	Ongoing with parks and flood surveys	Survey Completed

	F39	Increase funding for gully cleaning in the city		Environment and Transport	Completed		10 Years Plus	Increased cleaning frequency maintained	Increased cleaning frequency maintained	Survey Completed
	F40	The Council will work with the Local Authority Waters Programme in its support of communities and stakeholders in the delivery of local water quality projects and initiatives		Environment and Transport	Ongoing		10 Years Plus	Close liaison and common projects with LAWPRO	Close liaison and common projects with LAWPRO	Budget increased
	F41	Communication and awareness campaigns on flood risk management and natural flood management measures		Environment and Transport	Ongoing		In the next 5 Years	Ongoing on various projects and DCC websites	Ongoing on various projects and DCC websites	Project Completed
Nature-Based Solutions	N1	Establish regional working group on nature-based solutions		Culture, Recreation and Economic Services; Environment	Ongoing		10 Years Plus	DCC working group has been established	DCC working group has been established	Working group established

				nt and Transport						
	N2	Agree joint action plans to protect native habitats and species across all 4 DLA		Culture, Recreation and Economic Services						Action plans agreed
	N3	Establish a cross- departmental Trees and SuDS Working Group to promote and pilot water sensitive urban design incorporating urban tree planting		Culture, Recreation and Economic Services; Environme nt and Transport	Ongoin g		10 Years Plus	DCC working group has been established	DCC working group has been established	Working group established; Workshops held
	N4	Workshop on trees and SuDS		Culture, Recreation and Economic Services; Environme nt and Transport						

	N5	Produce regional river basin management guidelines. Use Santry River as demonstration		Environment and Transport						Guidelines produced
	N6	Facilitate an annual workshop for information exchange between biodiversity experts		Culture, Recreation and Economic Services	Ongoing		10 Years Plus	Workshop held virtually.	annual	Workshop organised
	N7	Collect data to inform the preparation of a list of habitats and species in Dublin City vulnerable to climate change. Devise measures for reducing risks to these habitats and species locally and implement and		Culture, Recreation and Economic Services						



		evaluate their effectiveness								
	N8	Develop Green Infrastructure Strategy for region		Culture, Recreation and Economic Services	Ongoing		10 Years Plus	To be completed after SUDS Strategy as agreed and in line with Greenways strategy	Included in forthcoming draft development plan	
	N9	Implement Public Open Space and Parks Strategy		Culture, Recreation and Economic Services	Ongoing		10 Years Plus		Included in forthcoming draft development plan	Strategy completed
	N10	Map access to green space in City to identify areas of need		Culture, Recreation and Economic Services	Completed		In the next 5 Years	This has informed greening strategies for NEIC, Liberties and Stoneybatter	This has informed greening strategies for NEIC, Liberties and Stoneybatter	Strategy completed
	N11	Continued support of the greenways concept for: Dublin Bay, Dodder, Santry, Liffey, Tolka and Camac		Culture, Recreation and Economic Services; Environment and Transport	Ongoing		10 Years Plus	Ongoing	ongoing	Spaces mapped, areas identified
	N12	Assess the feasibility of green walls		Culture, Recreation and	Ongoing		10 Years Plus	Potential site has been identified, assessing costs of implementation	Potential site has been identified, assessing costs of implementation	Sites identified

				Economic Services						
	N1 3	Implement Dublin City Tree Strategy		Culture, Recreation and Economic Services	Ongoing		10 Years Plus	Ongoing	ongoing	Report complete
	N1 4	Continue to map and collect data on trees in Dublin City		Culture, Recreation and Economic Services						
	N1 5	Promote and expand Native Tree Trails programme		Culture, Recreation and Economic Services	Ongoing		10 Years Plus	In 2022 will be considering how to further develop programme to engage public on tree management	ongoing	Data mapped and collected
	N1 6	Produce guidance on species of public trees for urban planting in accordance with Action 3.1 of the Dublin City Tree Strategy		Culture, Recreation and Economic Services	Ongoing		10 Years Plus		ongoing	# of tree trails

	N1 7	Tree-planting activities with schools including annual National Tree Week and National Tree Day		Culture, Recreation and Economic Services	Ongoing		10 Years Plus	COVID impacted will continue as city re opens	COVID impacted will continue as city re opens	Guide produced
	N1 8	Investigate the use of the DAFM NeighbourWood Planting scheme for use in suitable urban area as part of the DCC Tree Strategy		Culture, Recreation and Economic Services						
	N1 9	Analyse climate change impacts on City's trees to inform management		Culture, Recreation and Economic Services	Not Started			Will commence in 2022	Will commence in 2022	Report complete
	N2 0	Implement Dublin City Council Invasive Alien Species Action Plan		Culture, Recreation and Economic Services	Ongoing		10 Years Plus	Baseline surveys undertaken along Dodder and Santry - WFD Office	Ongoing	

	N2 1	Promote international World Wetlands Day		Culture, Recreation and Economic Services	Ongoing		10 Years Plus	Social media video produced and circulated	Ongoing, annually	Event organised
	N2 2	Provide data to RAMSAR Committee for Ireland on wetlands in Dublin City		Culture, Recreation and Economic Services						Data submitted
	N2 3	Prepare and publish Flora of Bull Island		Culture, Recreation and Economic Services	Ongoing		10 Years Plus	ongoing	ongoing	Book published
	N2 4	Conduct a common cord-grass management study and monitoring for North Bull Island SPA		Culture, Recreation and Economic Services	Not Started		In the next 5 Years			Study conducted
	N2 5	Prepare a GIS-based ecological sensitivity map of Dublin Bay Biosphere								Map complete

	N2 6	Participate in the INTERREG-funded Acclimatize research project		Water Pollution Control/ Culture, Recreation and Economic Services	Ongoing		In the next 5 Years	<p>DCC are considered collaborators on the Acclimatize Project, which is due to finish in 2023. A final report will be published and provided to DCC at this time.</p> <p>By taking part in the project it is envisaged that DCC would ascertain the following;</p> <ul style="list-style-type: none"> <li>• An improved understanding of factors effecting water quality within the catchment influencing Dublin Bay</li> <li>• Detailed research into particular pressures impacting designated bathing water</li> <li>• Management planning for bathing water, thereby adding to their</li> </ul>	Ongoing	Project complete
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								amenity value • A greater understanding of the likely effects of climate change and inform the decision making process with regard to the designation and management of bathing waters. This will have positive implications for the City in terms of adding to the perception of Dublin as a clean urban environment		
	N2 7	Conduct light-bellied Brent goose roost survey		Culture, Recreation and Economic Services	Ongoing		10 Years Plus		Ongoing	Survey complete
	N2 8	Implement the North Bull Island Management Plan		Culture, Recreation and Economic Services	Ongoing		10 Years Plus	Oversight forum has been established with civil society groups	Oversight forum has been established with civil society groups	Plan implemented

	N29	Pilot projects for green roofs on civic buildings		City Architects	Ongoing		10 Years Plus	Ongoing	Ongoing	# of pilots
	N30	Develop demonstration sites to showcase nature-based solutions with existing land uses		Culture, Recreation and Economic Services						# of sites developed # existing green roofs
	N31	Implement the North East Inner City and Liberties Greening Strategy		Culture, Recreation and Economic Services	Ongoing		10 Years Plus		Ongoing - Trialling SUDS	Strategy implemented
	N32	Develop urban woodland strategy as part of the DCC Tree Strategy		Culture, Recreation and Economic Services						Strategy developed
	N33	Incorporate tree and shrub planting in all new Council housing developments		Housing Dept.	Ongoing		10 Years Plus			# of trees per new dwelling, # of shrubs per new dwelling

	N3 4	Assess feasibility of additional green space for local food production, including community gardens and urban orchards		Planning Dept.	Ongoing		In the next 5 Years	Consideration is being given to this in Development Plan, and exploration of a food strategy is being considered following from Eat the Streets	Consideration is being given to this in Development Plan, and exploration of a food strategy is being considered following from Eat the Streets	Feasibility report
	N3 5	Produce A Guide to Sustainable Living in Dublin City	HSE	Environment and Transport	Ongoing		In the next 5 Years	Commenced in Q4, liaising with HSE	ongoing	Guide produced and available in libraries
	N3 6	Identify sites suitable for community gardens for local food production		Waste Mgt/Planning						# of sites identified
	N3 7	Assessment of causes and impacts of Ectocarpus brown algal growth in Dublin Bay		Culture, Recreation and Economic Services	Ongoing		In the next 5 Years	ongoing	ongoing	Assessment complete and actions developed Develop Sustainable Programme of Mgt
	N3 8	Prepare a preliminary list of species and		Culture, Recreation and						List prepared



		habitats vulnerable to climate change for informing environmental impact assessments		Economic Services						
	N39	Prepare an analysis of soil sealing in Dublin City to determine levels of permeability		Culture, Recreation and Economic Services	Not Started		In the next 5 Years			Analysis done
	N40	Engage with business community to develop sustainable business initiatives for Dublin Bay UNESCO Biosphere Business Strategy	Failte Ireland, Dublin Port Authority	Culture, Recreation and Economic Services						
	N41	DCC will continue as a partner in the Pollinator Plan for the duration of the Climate		Culture, Recreation and Economic Services						Annual report on bee population

		Change Action Plan and will monitor results over time								
Resource Management	R1	Monitor and enforce waste regulation		WERLA and Waste Regulation	Ongoing		10 Years Plus		ongoing	Environmental Performance Assessment from EPA
	R2	Assess waste in Council buildings and plan actions		Waste Management Services	Ongoing		10 Years Plus		NEED RESOURCE: Executive Environmental Scientific Officer	Assessments completed annually
	R3	Run staff recycling awareness campaign		Waste Management Services	Ongoing		10 Years Plus		NEED RESOURCE: Executive Environmental Scientific Officer	Campaigns implemented
	R4	Identify areas in need of civic amenity sites and waste transfer stations		EMWR	Ongoing		10 Years Plus		Mapping of on street recycling facilities complete. QR system in development	# of areas identify and feasibility assessed
	R5	Apply for LAPN (Local Authority Prevention Network) grants		Waste Management Services	Ongoing		10 Years Plus			# of projects implemented

	R6	Create Stop Food Waste campaign for businesses and schools		Waste Management Services/ EMWR	Ongoing		10 Years Plus	In Q1 Eat the Streets has been launched in March 2021 included a focus on stopping food waste; a proposal put to the regional office for a schools composting pilot which would be run by the four Dublin LA's, the EMWR have agreed to provide some funding but will have no input on the day to day running of the pilot	NEED RESOURCE: Executive Environmental Scientific Officer	Campaign developed and implemented
	R7	Promote Reuse Month annually		Waste Management Services/ EMWR	Ongoing		10 Years Plus		COVID Impacted, TBD if event will be held in 2021	# of promotional activities
	R8	Promote programmes to advise businesses on reducing waste e.g. EcoMerit		Local Enterprise Office/ EMWR						# of businesses participating

	R9	Promote recycling and the circular economy to householders through a range of workshops, talks and programmes		Waste Management Services/ EMWR	Ongoing		10 Years Plus	Housing Recycling Project suspended due to ongoing Covid restrictions. When programme resumes, workshops will be delivered virtually.	Waste Recycling Project suspended due to ongoing Covid restrictions. When programme resumes, workshops will be delivered virtually.	# of workshops and attendees
	R10	Continue to work with the Rediscovery Centre to promote sustainability		Waste Management Services	Ongoing		10 Years Plus		NEED RESOURCE: Executive Environmental Scientific Officer	# of collaborations
	R11A	Research and implement sustainable procurement guidelines		Waste Management Services	Ongoing		In the next 5 Years		NEED RESOURCE: Executive Environmental Scientific Officer	Research complete, findings implemented
	R11B	Identify opportunities of introducing circular economy principles in depots		Finance, Waste Management, EMWR, Works Departments	Ongoing	New			NEED RESOURCE: Executive Environmental Scientific Officer	Opportunities identified and principles implemented where practicable

	R1 2	Run anti-dumping and antilitter campaigns		Waste Management Services	Ongoing		10 Years Plus	Part of National Leave No Trace campaign, 6 x Anti Dumping initiatives approved for funding and are in process	Part of National Leave No Trace campaign, 6 x Anti Dumping initiatives approved for funding and are in process	# of campaigns
	R1 3	Support and promote litter clean up days and initiatives		Waste Management Services	Ongoing		10 Years Plus	"Dublin Community Clean up" going ahead September 2021, week long event, with 4 Dublin LA's 80 groups as of 12/9/21	"Dublin Community Clean up" going ahead September 2021, week long event, with 4 Dublin LA's 80 groups as of 12/9/21	# of days
	R1 4	Solar Compactor Bins provided in City		Waste Management Services	Ongoing		In the next 5 Years	30 smart solar compactor bins where procured and installed in first half of 2021; 15 Additional solar bins beginning deployed in Docklands for the purpose of Circlecity "recycling on the go"	30 smart solar compactor bins where procured and installed in first half of 2021; 15 Additional solar bins beginning deployed in Docklands for the purpose of Circlecity "recycling on the go"	# of smart bins added, reduction in waste collections
	R1 5	Mapping and tagging of City bins		Waste Management Services	Ongoing		10 Years Plus		All bins tagged and mapped on GIS with QR codes fully operational	# of bins tagged and mapped

	R1 6	Identify areas in need of recycling infrastructure		Waste Management Services	Ongoing					Areas of need identified
	R1 7	Develop pilot projects for recycling		Waste Management Services	Ongoing		10 Years Plus	Shared Bin Pilot with Beta team on track for Q4 dependant on Covid restrictions, Bag Bin Pilot innovation trial to commence Q4 to support and improve presentation of waste in bagged areas	Shared Bin Pilot with Beta team on track for Q4 dependant on Covid restrictions, Bag Bin Pilot innovation trial to commence Q4 to support and improve presentation of waste in bagged areas	Pilots developed
	R1 8	Engage with relevant stakeholders and deliver an energy efficiency, circular economy and sustainability training programme targeting micro and small enterprises		EMWR	Ongoing		In the next 5 Years	2021 included a MODOS webinar series, Pathways to a Circular Economy and a MODOS Mentoring and Innovation Award Programme for SMEs. Further the MODOS training has been delivered in Cork between February and March 2021 as the result of a collaboration with Cork Chamber of	Ongoing	SME sign up and roll out training programme

								Commerce. MODOS will be delivered as well in the Dublin8 area between April and May 2021 as a result of a collaboration with DCC South Central Area Office and The Digital Hub.		
	R19	Investigate introducing a leaf composting programme across the City		Waste Management Services	Ongoing		In the next 5 Years		Bring Centre leaf composting demonstration area in progress	Composting programme introduced, # tonnage of leaves diverted to composting
	R20A	Support and promote Tidy Towns / City Neighbourhoods initiatives		Waste Management Services, Area Departments	Ongoing		10 Years Plus	The City Neighbourhoods Competition will only be organised at Area level this year in accordance with Government Health Guidelines.	The City Neighbourhoods Competition will only be organised at Area level this year in accordance with Government Health Guidelines.	# of participants yearly
	R20B	Support and promote Green Schools and Annual Conference		Waste Management Services, Area	Ongoing	New	10 Years Plus	Programmes such as Picker Pals, Relove Fashion Competition and Composting for Schools have just	Programmes such as Picker Pals, Relove Fashion Competition and Composting for Schools have just	# of Schools participating

				Departmen ts				been launched in schools. Green Schools Annual conference will take place on November 18th. Again this year it will be delivered in an online format. All DCC schools will receive an invitation to attend. For further information about Green Schools, please contact greenschools@dublincity.ie	been launched in schools. Green Schools Annual conference will take place on November 18th. Again this year it will be delivered in an online format. All DCC schools will receive an invitation to attend. For further information about Green Schools, please contact greenschools@dublincity.ie	
	R2 0 C	Support and promote Community Environment Action Fund (CEAF) Initiatives		Waste Manageme nt Services, Area Departmen ts	Ongo in g	Ne w	10 Years Plus	The Dept. of Environment, Climate and Communications have extended the deadline for the 2019/20 scheme until the 31st Dec 2021 in order to allow more projects to complete. The new scheme is expected to be announced in early 2022.	The Dept. of Environment, Climate and Communications have extended the deadline for the 2019/20 scheme until the 31st Dec 2021 in order to allow more projects to complete. The new scheme is expected to be announced in early 2022.	#of projects supported



	R2 1	Develop sustainability guidelines and terms and conditions for any events supported, facilitated or organised by DCC		Waste Management Services	Ongoing		In the next 5 Years		Due to COVID No events have been held	Guidance produced, # of events with sustainability terms and conditions
	R2 2	Review terms and conditions for all events approved by DCC to incorporate possible sustainability conditions		Waste Management Services	Completed		In the next 5 Years		Completed	Guidance produced on terms and conditions
	R2 3	Any events supported, facilitated or organised by DCC will not permit balloon or Chinese lantern releases		Waste Management Services	Ongoing		10 Years Plus		Ongoing	included in the guidelines
	R2 4	DCC to consult with the events industry on alternatives to		Waste Management Services	Ongoing		In the next 5 Years		No events due to COVID	Consultation undertaken and

		noncompostable single use food and beverage containers at DCC events								submissions received
	R2 5	DCC to select an appropriate event as a pilot to trial alternatives to non-compostable single use food and beverage containers		Waste Management Services	Ongoing		In the next 5 Years		No events due to COVID	Event selected and trial undertaken
	R2 6	Phase out the use of single use plastic cups from all DCC canteens and replace with the use of ceramic cups and personal reusable cups		Waste Management Services	Ongoing		In the next 5 Years		NEED RESOURCE: Executive Environmental Scientific Officer	No single use plastic cups in use in all Dublin City Council canteens
	R2 7	Identify pilot locations for water access points		Water Framework Directive	Ongoing		In the next 5 Years		Potential sites identified, on hold due to COVID	Sites identified

	R28	Host and select sites for the Composting Demonstration using Master Composter EPA Stop Food Waste Programme or similar programme to assist sustainable gardening and management of landscaping waste		Waste Management Services	Ongoing		10 Years Plus		NEED RESOURCE: Executive Environmental Scientific Officer	# of sites
	R29	Continue to investigate best practice in street recycling facilities		Waste Management Services						Report produced
	R30	Explore collaboration with stakeholders such as Refill.ie to reduce single use items		Waste Management Services	Ongoing		In the next 5 Years		NEED RESOURCE: Executive Environmental Scientific Officer	Feasibility assessed

	R3 1	Implement water conservation campaign in civic buildings		Facilities Management	Ongoing		In the next 5 Years	As staff return to work this will be commenced again.	On hold due to COVID	% reduction in water consumed
	R3 2	Develop and implement an education programme to tackle climate issues related to the water sector		Water Framework Directive	Not Started		In the next 5 Years			education programme established
	R3 3	Investigate the introduction of green street cleaning; use biodegradable cleaning agents		Waste Management Services	Not Started		In the next 5 Years			% of cleaning agents replaced
	R3 4	Develop sustainable construction waste policy		Housing/ City Architects	Ongoing		In the next 5 Years	it has been decided to take this opportunity to engage with internal staff of DCC beyond city architects and involve all decision makers across multiple and diverse departments to increase learning and understanding of circular economy in the organisation.	it has been decided to take this opportunity to engage with internal staff of DCC beyond city architects and involve all decision makers across multiple and diverse departments to increase learning and understanding of circular economy in the organisation.	Policy developed and implemented

								Economic Development and the Regional Waste Management Planning Office intend to run a series of circular economy webinars for internal staff including but not limiting the focus to the construction sector (i.e. also including procurement; community engagement; housing; etc.).	Economic Development and the Regional Waste Management Planning Office intend to run a series of circular economy webinars for internal staff including but not limiting the focus to the construction sector (i.e. also including procurement; community engagement; housing; etc.).	
	R3 5	Trial of low flush toilets in Council headquarters and social housing		Facilities Management	Not Started		In the next 5 Years			Trial completed
	R3 6	Research feasibility of rainwater harvesting in Council buildings and social housing		Facilities Management	Not Started		In the next 5 Years			Feasibility study completed

	R3 7	The Economic Development and Enterprise Office will carry out further research to engage with stakeholders to promote and develop business supports to encourage reduction of emissions and other climate driven actions, and to develop targets that could be measured on progress being achieved	-	Local Enterprise Office	-	-	-	-	-	-
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