NET ZERO CITIES

EU MISSION PLATFORM | CLIMATE NEUTRAL AND SMART CITIES

Climate City Contract

2030 Climate Neutrality Investment Plan

2030 Climate Neutrality Investment Plan of the City of Dublin

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Dublin City Council

V2.1

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Document history			
Date	**Version**	**Author**	**Changes**
January 2023	V1	BwB	/
June 2023	V2	BwB	The template was amended to include a front-page note "The IP template is to be followed closely, and cities should fill in every section to the level of detail that they have, remaining mindful of the CCC Checklist and guidance documents. If it is not possible to complete a section, please state why it cannot be filled out".
November 2023	V2.1	BwB	The template has been amended based on the experiences of Window 1 and Window 2 cities, with input from City Advisors, consortium partners, the European Commission and the EIB. Headline changes to the document include the introduction of tables 1, 7, 8 and 15 to provide more granular detail on the city's climate action history and prospective investments. Table guidelines have been provided for all tables to provide clarity on what data is required, and a task goal for each task identifies the key outcomes of each task within the IP.

The IP template is to be followed closely, and cities should fill in every section to the level of detail that they have, remaining mindful of the CCC Checklist and guidance documents. If it is not possible to complete a section, please state why it cannot be filled out as opposed to leaving the section blank.

Given sections of the Investment Plan require insight into municipal budgets and the forecasted costs of climate actions, it is recommended to share this resource with the municipal Finance or Treasury teams as soon as possible to begin work on the document (particularly A1, A2, B1, B2 and B3).

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Glossary of Terms

Acronym	Description
AP	Action Plan
IP	Investment Plan

KPI	Key Performance Indicator
MEL	Monitoring Evaluation & Learning
MRV	Monitoring Reporting Verification
WP	Work Package

1 Part A – Current State of Climate Investment

Part A "Current State of Climate Investment" is the **structural element** of the climate neutrality investment plan, putting the basis for the development of the plan through a detailed-oriented evaluation and assessment of the city's existing financial policies and funding/financing activities.

1.1 Module IP-A1: Existing Climate Action Funding and Financing

This section represents the initial step of the 2030 Climate City Investment Plan and will require an evaluation and assessment of previous and existing funding and financing for climate activities by field of action. The purpose of this task is to assess the city's history of climate actions to date – including past failures and successes – to establish the baseline for climate actions in the future. These past actions should be broken down to the project level where possible and grouped as per the fields of action identified in the Action Plan. A full breakdown of historic climate initiatives and their financing is recommended, including historic budget data for the past 3-5 years.

Task Goals: *This task will help the city to collate all historical climate actions and initiatives – assessing previous successes and any issues that arose. By establishing a baseline for climate action the city can then track their future development and the implementation of their Climate Action and Investment Plans.*

Model IP-A1
Guiding questions: • Have you already engaged in climate budgeting and – if so – what is the city's historical track record with climate actions and projects? • Do you have sufficient data on each field of action and is data collection carried out internally within the finance department? • Has the city engaged in any PPPs or has there been any significant private sector engagement in recent years, and what is the current status of these projects ? If not, why not – is this a political or regulatory hurdle ?

A-1.1: Textual element
Dublin City Council (DCC) has started on embedding climate budgeting with Climate Neutral Dublin 2030. This is demonstrated in the table below, which illustrates the shift from viewing climate action as the responsibility of a team in the Environment and Transportation Department to a whole of organisation responsibility. Table 1 below shows the amount under item 'E15 Climate Change and Flooding – Dublin City Climate Action' each year, with a hyperlink to relevant annual budgets provided. For 2020, 2021, 2022 and 2023 the 'Outturn' figure from the following year was used, while the estimated budgeted amount was used in 2024. An additional climate action budget exercise was undertaken as part of the 2024 budget process whereby climate action related budget items, beyond the abovementioned 'E15' item, were collated and this indicated that a far greater proportion of the DCC budget was contributing to the stated climate action objectives within the DCC CAP 2024-29, namely impacting emissions and/or climate resilience. This additional exercise is now being incorporated into the budget process undertaken by the DCC Finance Department. Furthermore, this exercise was undertaken for the DCC Capital Programme 2024-26 was reviewed to identify "Climate Action Projects in line with DCC Climate Action Plan 2024-29" and found that over 97% of capital expenditure is climate related. Within the Capital Programme a breakdown of

the income sources against each of these capital projects is provided (e.g. Loans, Grants, Levies, DCC Funding), with the majority grant funded as detailed further on.

The calculations of the cost of CNAP Action CCC1 and CCC3 have taken a whole life carbon approach. We have chosen to apply the costs per sqm rather than apply a technology/intervention based methodology. The rationale for this is that we in our own buildings and social housing are taking a whole life carbon approach, considering the embodied carbon and operational carbon. Further we recognise the construction also produces waste that has emission profile.

Lastly, by presenting the costs we are identifying the costs of action in the absence of collaboration and partnerships that may yield cost efficiencies and reductions, that have knock on benefits for emissions reductions and co benefits.

Context Local Government Finance

Finance of local authorities in Ireland is set out in the Local Government Act 2001. There are key aspects of the act that are relevant to the development of the investment plan, and necessary to summarize.

Each local authority is to produce with its elected members a revenue budget annual, as per Sections 102 and 103 of the Local Government Act 2001 specify the financial procedures governing:

- the preparation of the budget
- the Budget Meeting

The Council Revenue Budget is funded from the following sources:

- Commercial rates
- Local Property Tax
- Government grants
- Irish Water
- Pension contributions
- Income from goods and services

A service division classifies income and expenditure in the annual budget. The budget is drafted by the Chief Executive in consultation with the Corporate Policy Group. However, a local authority is not bound to accept the budget prepared by the Chief Executive and may adopt a budget with or without amendment. In the adopted budget, the Annual Rate on Valuation is determined to finance the deficiency in the funds of the authority, i.e. the part of the authority's expenditure not met by State grants and miscellaneous receipts.

Critical sources of funding for operations are commercial rates and local property taxes. However, increase of these are not favoured, even though they are necessary to ensure the continuing delivery of services.

A second element of financing is our Capital Programme Budget, as per Section 135 of the Local Government Act the Chief Executive is required to prepare and submit to the elected council a report indicating the proposed capital projects for the following 3 years. The proposed Programme must have regard to the availability of financial resources.

The Capital Programme is funded from the following sources;

- Government Grants
- Development Levies
- Loan Borrowings
- Internal Resources

Related to this is our capacity to borrow. While the Capital Programme can be funded by loans, we must receive sanction from the relevant Minister or Ministers. This is detailed in section 1.3.

Assessing Spend on Climate Action

For the Capital Programme Budget 2024-2026, following an exercise undertaken on the previous Capital Programme budget 2023-2025, there are two notable changes.

The first is that the Climate Change and Decarbonisation projects are noted as priority projects. The second is that inclusion of a green flag system to mark which projects are climate related. This has resulted in an acknowledgment that between 2024 and 2026 the Neutral Dublin 2030 our Local Authority Climate Action Plan is €4,147,802,909 (97.5%) of the Capital Programme Budget.

This is a critical step towards understanding how our work is essential to decarbonisation and adaptation.

The methodology for determining which project was climate related were guided by several questions:

1. Is there a direct climate impact either mitigation or adaptation?
2. What is the emissions impact over the whole life of the project? Is there a reduction? Or an increase?
3. Is the project avoiding emissions elsewhere?
4. Does the project contribute to climate adaptation?
5. Is it improving health and well-being? (Do no harm principle and just transition)

To gain a better understanding of the price of carbon, we have included within Climate Neutral Dublin 2030 a detailed table of actions that includes collection of data on emissions so that we can better understand the impacts of actions and the costs of carbon. We are at the beginning stages of this, however our steering group will be key to ensuring that budget holders report on spend and emissions.

Further as mentioned in the action plan, but reiterated here, the primary challenge to realising climate neutrality is silos. We began to build bridges between our silos through the implementation of our first climate action plan. Now we need to make sure that we use the bridges every day, and build new ones to create as many opportunities as possible for connections to be made that allow us to exchange knowledge, ideas and to build skills and capacity. Critically this will also allow us to create more resilient systems across the city.

Through implementing our first plan we began exploring ways to encourage interdisciplinary collaboration and the use of systems thinking. We began applying health lens to our work.

This is in line with the holistic approach called on for by the Fiscal Advisory Council in their 2023 report “What Climate Change Means For Ireland’s Public Finances”. In the report they discuss long term growth as linked to land, labour, capital and productive all of which are under threat from

climate change and have compounding and cascading impacts on each other. Notably it is clear that health underpins the need for action.

Figure 1 How to think of long-run growth impacts of climate change (Source: Fiscal Advisory Council)

Triaging Our First Climate Action Plan

The Climate Action Team has since October 2021 been meeting regularly with the Dublin Public Health team, on foot of Dublin Climate Action Week 2021. The meetings have been considering how health can be used as a narrative for climate action. An outcome of these meetings has been the development of two tools – Climate Triage & First Aid Framework and a Climate Readiness Toolkit.

The Climate Triage Framework emerged from separate discussions around the EU Mission and how to monitor Dublin City's climate vitals beyond CO_2e. Climate Neutrality by 2030 or 2050 as per the National Objective is not a finite end point, but a state of existence that needs to be maintained by continuous monitoring, to understand what is working, what is not, and what needs to change.

Further, in an emergency situation, individuals within teams have roles that are interdependent, and dependent on actions of others. Climate action is not dissimilar, and the concept of triage for climate action is not new. The Climate Triage Framework is intended to show the interdependencies and relationships between actions and climate risks, while serving as a means for identifying gaps and opportunities for further collaboration. Further, in the context of the Mission as a means for identifying needs for resources and partnerships to respond to climate change.

Climate Triage & First Aid

An emergency with potential mass casualties requires triage to prioritise action and monitor response. Climate change impacts and actions are compared to health responses,with statements like the "Planet is sick". If the planet is sick and the illness is climate change, then like any illness or disease, a treatment plan is required.

This process can be applied at the city scale and at action level. It is meant to be used in conjunction with the Climate Readiness Toolkit.

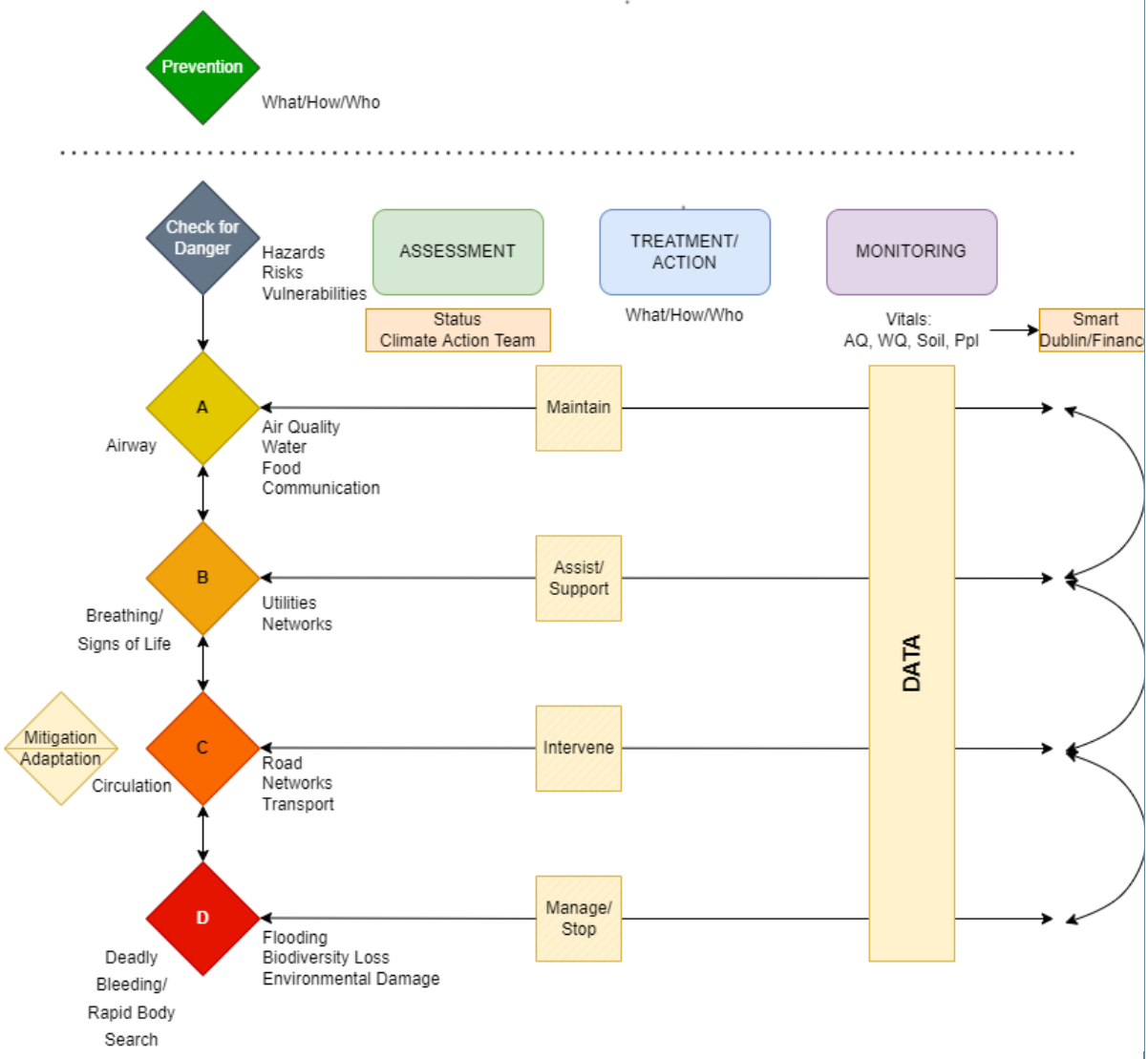

Figure 2 ***Climate Triage Tool***

Climate Action Vitals

Climate mitigation action focus primarily on CO_2e, it is not the only measure of climate action success. Other critical vitals that provide important indicators of success are:

- Weather patterns (rainfall, temperature) and events (frequency and intensity)
- Air Quality

- Water Quality
- Soil Health
- Biodiversity (Flora and Fauna)
- Noise Levels
- Population Health and Well-being
- Social Cohesion
- Economic indicators
- Traffic volumes

Critically, each of these vitals should not be considered in isolation. Their 'health'/ status should contribute to the monitoring, assessment and analysis of an action, project, or programmes' contribution to climate objectives. (The Climate Readiness Toolkit in the Appendix 8 our new climate action plan Climate Neutral Dublin 2030, is intended to be used to support detailed monitoring and analysis of an action from inception to implementation and beyond).

In relation to finance the vitals should enable us to develop a deep understanding of the need for action, and the costs of inaction to society if inaction is prolonged. To understand how this might be achieved, we are embarking on a project with the Centre for Public Impacts to understand the system architecture for finance. The objectives of this project will be to:

- Enable the deployment of capital into a systemic climate investment plan for Dublin City (and County)
- Amplify the impact of climate investments through co-benefits and combining of interventions across different systems and value changes, within in an investment portfolio
- Create a blueprint for democratising the management and deployment of urban climate finance by focusing on people and communities in the design of the process.
- Build capacity of Dublin City Council (and other local governments) to design and build strategic investable portfolios.

Further work with Terrain AI to monitor and model emissions against other data sets namely air quality, traffic volumes will support this deepened understanding of the impacts of policies and better direct finance, giving confidence to citizens, government and investors.

Experience with Public Private Partnerships

A notable Public Private Partnership was entered into for the development of the Dublin Waste-to-Energy (DWtE) facility in Poolbeg. A further PPP is being progressed for the integration district heating system which utilises this DWtE facility and this is a key action for decarbonising heat in that area of the city.

We are using PPP for the development of social housing projects. However, the process is managed by the Department of Housing Local Government and Heritage. It is an availability-based model requires that the private sector company who designs, buildings, finances and maintains the homes, ensures that the homes are available for tenancy. The tenants are identified by the local authority, who then pays the private sector company for a period of 25 years to maintain and upkeep, after which ownership transfers fully to the state/local authority. The first homes were completed in 2020, as such the model is still in its infancy. However, concerns are emerging over the standards of the builds and the rising costs.

At a smaller scale our Smart Cities programme implemented Small Business innovation Research grants to address urban challenges facing the Dublin Region. Smart Dublin, in partnership with Enterprise Ireland provided €800k in funding to small companies to find low cost, innovative solutions to encourage engagement of the 'unheard voices' in decision-making; to address identification and communication of bathing water quality; to test shared and sustainable workplace

mobility options for staff; to facilitate connections over an IoT radio frequency mesh network; and to optimise last mile delivery in urban centres. While the programme was successful, the challenges that emerged are reflective of the current challenges facing climate action finance. Companies encountered barriers in legislation and regulation that ultimately hindered their efforts to scale, as they did not possess the capacity to engage in the policy environment to affect changes necessary.

*Table 1 Guidelines: Please provide municipal budget data for the past five years from baseline (the most recent budgetary year) – **this should be the approved budget for the current year and the real expenditure for the previous four years**. If the city has a split operating/current expenditure and capital expenditure identified in their budget, please include both. As a minimum, please include city budget data, but consider also adding the budget for municipally-owned companies and clearly distinguishing where this is the case via an extra row.*

Table 1 Historical Municipal Budget and Budget for Climate Actions

Budget Data	2020	2021	2022	2023	2024
Municipal Revenue Budget (€)	*1,028,303,783*	*1,079,572,415*	*1,130,047,247*	*1,241,448,909*	*1,341,763,219*
Municipal Budget for Climate Actions & Projects (€)	*768,727*	*1,060,770*	*1,105,268*	*1,217,757,245*	*1,321,889,287*
% of Municipal Budget for Climate Actions & Projects (%)	*0.08%*	*0.1%*	*0.1%*	*98.1%*	*98.5%*

Table 2 Guidelines: Please provide historical budget data for all climate actions and projects that the city has undertaken in the past three years from baseline (the most recent budgetary year). Please provide some indication in the textual element as to the requirements for projects to be considered as a climate action (for example, following the EU Taxonomy for Sustainable Finance). This should be in € as well as % of overall budget.

Table 2 Finance Sources By Field of Actions, for Years 2022 to 2024

Fields of Action	Sector Subsection	Budget Allocation for Climate Actions and Projects In both Revenue and Capital Programme Budgets		
		2022	2023	2024
Transportation	*B03 Road Maintenance regional*	*€10,981,765*	*€10,916,180*	*€10,484,170*
	B04 Road Maintenance Local	*€44,030,475*	*€47,704,385*	*€52,566,842*
	B06 Traffic Management	*€34,856,455*	*€38,030,001*	*€37,008,249*
	Active Travel programme (NTA Schemes)		*€99,254,032*	*€105,536,354*

Built Environment	*Repairs to Vacant Homes*		*€30,300,000*	*€30,500,000*
	Refurbishment Schemes (Social Housing)		*€17,315,000*	*€3,315,000*
	Approved Housing Bodies		*€66,363,283*	*€88,414,392*
	F01: Leisure Facilities Operations	*€12,163,422*	*€14,466,320*	
	Housing regeneration programme – scheme in Progress		*€28,611,367*	*€24,120,000*
	Housing regeneration programme – schemes awaiting commencement		*€115,439,000*	*€237,674,730*
	Civic Offices		*€5,798,331*	*€9,555,664*
	City Hall & Manson House		*€536,000*	*€3,661,144*
	Leisure and Sports Facilities		*€7,615,000*	*€15,643,071*
	Libraries		*€5,527,041*	*€13,131,350*
	A01: Maintenance/ Improvement of LA Housing Units	*€74,792,371*	*€85,743,089*	*€90,972,048*
Energy Systems	*Dublin District Heating Phase II*		*€16,600,000*	*€2,000,000*
	B05: Public Lighting	*€11,781,488*	*€13,121,466*	*€13,246,383*
Green Infrastructure and Nature Based Solutions	*F03: Outdoor Leisure Area Operations (Parks, biodiversity and landscape services)*	*€27,865,553*	*€31,829,550*	*€34,520,191*
	Parks and Open Spaces		*€21,477,391*	*€31,447,497*
	Dublin Bay Biodiversity Centre			*€56,351*
	Liffey Vale Biodiversity Centre			*€2,900,000*
	Green Infrastructure Street Build out programme			*€900,000*
Waste and Circular Economy	*Landfill Aftercare (E0103, E0199)*	*€578,121*	*€440,075*	*€345,531*
	Recycling Facilities Operation (E0201, E0202, E0299)	*€3,963,506*	*€3,926,070*	*€5,218,767*
	Residual Waste Collection (E0403, E0499)	*€2,554,771*	*€1,971,568*	*€2,000,854*
	Litter Warden and Control, Environmental Awareness (E0501, E0502, E0503, E0599)	*€4,857,469*	*€4,708,344*	*€5,449,500*
	Operation of Street Cleaning and Litter Bins (E0601, E0602, E0699)	*€50,374,365*	*€55,106,056*	*€59,567,358*
	Monitoring and Enforcement of waste Regs, Waste Management Plan (E0701, E0702, E0799, E0801, E0899)	*€7,258,273*	*€7,841,172*	*€9,024,502*
Total in €		***€286,058,034***	***€730,640,721***	***€889,259,948***

*Not this does not included staff costs which in are included in table 1.

1.2 Module IP-A2: Strategic Funding and Financing Evaluation

This section requires an evaluation of the city's existing financial policies to understand how they are currently managing the capital allocation towards climate neutrality. This will include strategies in place and what the city has at its disposal to facilitate the transition. **The forms of capital it has access to and which are specific to their climate neutrality targets should be identified, and the current debt level of the city and any legislative requirements for new debt issuance should be outlined**

Task Goals: *By identifying the existing income and capital sources to the city – as well as potential for future capital sources – the city can start to identify ways to fund the climate actions and initiatives identified within the Climate Action Plan.*

Model IP-A2

Guiding questions:

- Do you have a clear overview of public sources of capital as well as private funding and financing sources? If yes, how detailed and accurate is it?
- To which aspects of this module does the municipality have the internal capacity to delve into detail on? Given some of these sources of finance may be combined to deliver on actions and priorities defined in the Action Plan.

A-2.1: Textual element

Local Authority Sources of Capital

The proportion of DCC income sourced through various Government Departments is 39.7%. Of the €532 million in government grants, only €2.3 million from the Department of Environment, Climate and Communication (DECC) is described as being for the 'implementation of Climate Action Plan and operation of Climate Action Regional Office'. This not an accurate representation the total spend on activities relate to climate action. These monies are received at the end of the year based on a set of parameters determined by DECC sent to all local authorities to claim back costs associated with for example development of the climate action plan, its implementation. This process illustrates a gap between National Government and local authority in understanding the true costs of action. As an example, Dublin City Council submitted a claim for €1.7 million euro, but were only allowed to claim back €177,340, this was 10% of the costs we incurred form the operations and project delivery of the climate action team within DCC.

Department of Housing, Local Government and Heritage was the largest contributor with €532 million and this reflects the capital expenditure required for Housing and Building Division. A more detailed list of income sources for the annual budget is provided in Table 3 below.

In addition to the annual budget, local authorities in Ireland are also required (under section 135 of the Local Government Act 2001) to prepare a 3-year Capital Programme Report indicating proposed capital projects and income sources. This budget was used to provide current estimated costs of actions, as indicated in Table 2.

Other Sources of Capital for Decarbonisation

Acknowledging that achieving neutrality is a collaborative effort, and we are undertaking work to gain a detailed understanding into the financial landscape available to support decarbonisation efforts of our partners in this Mission, from other public sector bodies, to companies, and communities.

At a national level the Government of Ireland is increasingly prioritising Sustainable Finance, as illustrated by the Action Plan 2024 Spotlight on Sustainable Finance Report published in in March 2024. The report outlines some of the key developments taking place including the issuance of Sovereign Green Bonds and the National Treasury Management Agency's (NTMA) having a €1 billion five-year climate action investment programme through the Ireland Strategic Investment Fund (ISIF).

In October 2022 the International Sustainable Finance Centre of Excellence (ISFCOE) was launched to champion Ireland's sustainable finance agenda. ISFCOE is a public-private collaboration that curate, produce, and disseminate knowledge to support responsible financial decisions. A wide range of topics are covered including ESG (Environmental, Social and Governance) criteria, impact investing, green bonds, climate risk assessment and ethical banking are covered, as well as capacity building through training programmes and strategic partnerships to further impacts nationally and internationally. The creation of the ISFCOE was Action 'no.1' of the Department of Finance's Sustainable Finance Roadmap. The outputs from ISFCOE to date include The Nature of Finance Report (2023) which included an assessment of nature-related risks and opportunities for national lending portfolios and insurance, exploration of scenarios for Ireland's financial sector and a proposed Nature Finance Roadmap. In addition to a Sustainable Finance Market Review (2023) which details progress on embedding sustainable finance nationally (e.g. dedicated Climate Forum convened by the Central Bank of Ireland, over 1,400 sustainable bonds listed the Irish Stock Exchange (Euronext Dublin) with over 7% of Ireland's total benchmark bonds). It should be noted that while much of the market overview is from a national perspective, the majority of the activity covered is Dublin-based.

The ISFCOE, the Central Bank or Ireland's dedicated Climate Change Unit, and the NTMA's Sustainable Finance Team have been identified as key stakeholders for the development and implementation of the CCC Investment Plan. Engagement with these stakeholders brings expertise and a broader perspective of the Irish and international context for sustainable finance into Dublin's Net Zero City endeavours. In addition, plans are being put in place so these can also assist with the measurement and monitoring processes and provide insights on Financial Service Providers Climate Action and Sustainability investments.

The Dublin team are also engaging with the Climate Policy Initiative to utilise the Net Zero Finance Tracker Tool to provide another overarching perspective on sources of finance in the Irish context, importantly including climate action impacts related to this finance. From this work it is evident that there is an absence of climate finance for projects outside of the wind and solar PV development. Further that there needs to be improvements in policy signals to investors from National Government. It is evident from comparing Ireland's performance to Singapore, that clear policy signals will drive investment by providing confidence to investors, and enables innovation. Ireland's renewable energy sector, specifically solar PV development suffered from government policy. The Irish Solar Energy Association was established in 2012 to support the sector by local Irish developers and grew to over 90 members by 2017, in that time no solar PV projects were developed on the Island of Ireland. By 2018 Ireland had 29 MW of solar PV generation and in 2023 Ireland has 371 MWs of solar.

Public Funding for Decarbonisation

Public Sector

Public bodies in Ireland as has been noted in our action plan are required to report their emissions and energy use through the Public Sector Energy Efficiency programme and Sustainable Energy

Authority of Ireland's (SEAI) Monitoring and Reporting platform. To support decarbonisation, public sector bodies can avail of Pathfinder funding to implement retrofit projects, fleet transition and staff behaviour change.

Strategic Banking Corporation of Ireland

SBCI was established in 2014 to provide funding when the private sector could or would not do so. The SBCI was created by the Department of Finance and National Treasury Management Agency using funds from the European Investment Bank and the Ireland Strategic Investment Fund, which contains assets of the National Pensions Reserves Fund. The products available to SMEs and Mid-Cap companies include Green Transition Finance and Growth and Sustainability Loan Scheme. Homeowners can now also available of low interest loans for residential retrofits using the Home Energy Upgrade Loan Scheme. In 2023, SBCI supported lending of €356 million nationally, this included loans to 3,913 SMEs with an average loan size of €90,851. In Dublin specifically, in 2024 55 Growth and Sustainability Loan Scheme (GSLS) loans were approved totalling €13,626,763 and 42 of these loans have so far drawn down €4,930,263.

Communities and individuals

In addition to public sector supports, the SEAI also administer grants and supports for communities and individuals to improve energy performance, decarbonise energy consumption and increase the uptake of renewables. The Better Energy Communities and Sustainable Energy Communities programmes are two such programmes that support these decarbonisation efforts. In terms of these communities can receive up to €10,000 to develop an energy master plan. Based on this, individuals will apply for grants to undertake works that may cost households €60,000 to achieve a BER B2 energy rating.

The Community Climate Action Fund is administered by the local authorities and Pobal, and offers community groups across the country the opportunity to develop community climate action projects under themes of Community Energy, Travel, Food Waste, Shopping and Recycling, and Local Climate and Environmental Actions. The DCC allocation is €1,938,000.

Science Foundation Ireland Challenge Funds

There are eight Challenges active under the National Challenge Fund. This €65 million programme is part of the Government's National Recovery and Resilience Plan and is funded through the EU's Recovery and Resilience Facility.

An Alternative to Influence Finance System Change

Acknowledging that we are not in a position to state with accuracy and confidence necessary to ensure and maintain public trust in our capacity to deliver on projects for public good, we are taking this opportunity to highlight the costs of inaction, or costs of business as usual.

As highlighted the mechanisms by which projects are selected for funding, often do not fully capture the indirect costs, in other words the social and personal costs.

The Cost of Inaction – Traditional Firefighting v. Firefighting Goats

In 2021 Fingal County Council, a management partner of the Dublin Bay UNESCO Biosphere and neighbouring local authority, started a 3-year heath fire management project., using the critically endangered Old Irish Goat, a species once thought extinct, to graze parts of the heathland on the Howth Peninsula. The peninsula had experienced serious gorse fires for many years, including a

fire that burned for more than two weeks earlier that year. The 3-year programme cost the equivalent of having firefighters manage fires on the peninsula for 2 weeks, In addition to reducing the risk of fires, this conservation project provided the Old Irish Goats with valuable space in which to graze and ultimately expand the herd. In 2022 15 kids goats born and a further 37 joined the herd in 2023. Additional benefits were gained as a consequence of grazing and goat movement with a profusion of native plants now colonizing the grazed areas. In addition local tour guides now offer new trails walks which includes sharing knowledge of the internationally recognised conservation project, which locals are very proud of.

With climate change causing more extreme weather, the likelihood of destructive heath fires is increased, which will result in increased costs necessary to train firefighters and purchase specialist equipment needed to fight fires in difficult to access terrain, In addition to the risk to life, there is increased risk of damage/loss of property, increased air pollution, loss of tourism etc.

As demonstrated in this example, the cost of inaction can significantly increase costs that could have been avoided and likely incur additional negative impacts, whereas properly resourced preventative action can save money and realise many additional benefits to society and the environment, meeting the do no harm principle.

With this in mind we have included where possible the costs to society based on publicly available data (Figure 3). Specifically we have used available data on health costs for treatment of preventable diseases through the provision of health environments. Further the intent in providing this information is to highlight the potential savings and cost effectiveness of applying a systems approach to policy design. Thus addressing the policy challenges presented in the AP with coherence, and distributional impacts.

Table 1: Example of flood risks: high probability risks for Dublin City
(impacts of 10% probability or "1-in-10-year" events)

	Present day	Mid-Range Future Scenario	High-End Future Scenario
Event Damage (€m)	25	333	2,937
No. Residential Properties at Risk	343	2,789	14,514
No. Business Properties at Risk	23	384	2,947
No. Utilities at Risk [1]	1	3	16
No. Major Transport Assets at Risk [2]	10	50	392
No. Highly Vulnerable Properties at Risk [3]	2	12	102
No. of Social Infrastructure Assets at Risk [4]	72	169	410
No. Environmental Assets at Risk [5]	16	17	17
No. Potential Pollution Sources at Risk [6]	0	0	2

Source: Office of Public Works Flood Risk Management Plan for the Liffey & Dublin Bay River Basin (2018, UOM09, Appendix E, pp.9-10).
Notes: The "Mid-Range" future scenario assumes an increase in rainfall of 20% and a sea level rise of 0.5 meters, whereas the "High-End" scenario assumes a 30% rainfall increase and a sea level rise of 1 meter. Examples of risk types include: 1) Power Stations, Water Treatment Plans, Waste Water Treatment Plans, Gas Assets and Telecommunication Exchanges; 2) Motorway, National, Regional and Local Roads, Ports, Airports; 3) Hospitals, Schools, Nursing / Residential Homes, Prisons, Camping / Caravan / Halting Sites; 4) Schools, Libraries, Community Centers, Local and Central Government Offices (incl. Post Offices), Emergency Services (Fire, Garda, Civil Defence, RNLI and Coast guard Stations), Health Centers, Churches, Parks and Public Gardens, Sports Facilities, Playgrounds, Local Cultural Heritage Sites; 5) Natural habitat sites, Natural Heritage Areas, Nature Reserves, National Parks; 6) Septic tanks, slurry storage facilities.

Figure 3 DCC Flooding Scenarios Costs (Source: Fiscal Advisory Council)

Table 3 Guidelines: Please identify and list all recurring city income sources for the city (e.g. local taxation revenue, deferred funding from the national or state level, profits generated by municipally-owned companies).

Table 3: List of Income Sources for the City

Income Category	City income	% of city budget
Government Grants	€532,2 million	39.7%
Goods and Services	€344.0 million	25.6%
Rates	€401.1 Million	29.9%
Local Property Tax	€27.9 Million	2.1%
Net Credit balance	€36.6	2.7%

Table 3A: List of Income Sources for the City from National Level

National Government Source	Income	Description
Department of Housing, Local Government and Heritage	€502,836,526	Parent national government department; capital is for housing and building, water services, development management, environmental services
Department of Rural and Community Development	€14,129,445	Community development
Department of Environment, Climate and Communications	€2,322,221	Implementation of Climate action plan, and operation of climate action regional office
Transport Infrastructure Ireland	€2,803,243	Traffic management
National Transport Authority of Ireland	€285,000	Active travel engagement programmes – cycling officer
Department Tourism, Culture, Arts, Gaeltacht, Sports & Media	€1,332,134	Creative Ireland office, sports partnership
Department of Social Protection	€600,000	
Department of Defence	€400,000	
Department of Health	€2,246,924	Ambulance service, first responders
Department of Children, Equality, Disability, Integration & Youth	€2,107,175	Integration services
Department of Justice	€499,914	
Department of Agriculture, Food and the Marine	€6,000	Animal welfare
Enterprise Ireland	€2,563,805	Local Economic Development office
Other National Government	€55,000	
Total in €	€532,187,387	

Table 4 Guidelines: Please identify and list all extraordinary capital sources for the city (e.g. EU grants and funding, loans from organisations like the EIB or Municipal Banks, PPPs). Give details as to when the capital was granted to the city, how much of it is left, and any specific projects to spend it.

Table 4: List of Capital Sources for the City

Type	Size Range	Level	Description
Source of Capital	Quantum of Capital Accessible to the city through this source	Private or Public	(Description of capital source e.g. cost & provider)
Carbon Tax	An estimate €9.5 billion in additional revenue will be raised by 2030 that will be ring-	Public	Managed by the Government monies earned from the carbon tax are intended to be directed at initiatives that support a just transition, prevent fuel poverty, support retrofit, incentivise green and sustainable farming.

	fenced for climate action		
Public Service Obligation Levy / Payment	The €251.79 PSO Levy calculated for 2024/25 will be allocated through multiple funding streams including Electricity Feed-In Tariff (REFIT), Renewable Electricity Support Scheme (RESS), Small-Scale Renewable Electricity Support Scheme (SRESS), and the Community Benefit Fund.	Private	The PSO Levy or Payment is collected from or paid to all electricity customers to fund schemes to support national policy objective related to renewable energy for Ireland. The PSO has supported multiple schemes including the Renewable Electricity Feed-In Tariff (REFIT) and Renewable Electricity Support Scheme (RESS). When wholesale electricity prices are high, mostly due to high gas prices, renewable generators receive greater revenues for the electricity they sell and so little or no support may be required. Conversely when prices are low additional costs are incurred by PSO-supported electricity generation. The Commission for the Regulation of Utilities (CRU) calculate the PSO levy or payment annually. In 2022/23 a PSO payment of €89.10 was paid to domestic customers for the first time. In 2023/24 it was set to zero to smooth out volatility in market prices and in 2024/25 a PSO levy will be charged again to a total of €251.79 million
National Development Plan	€11.6 billion for new public transport infrastructure		
Just Transition Fund	The EU's Just Transition Fund allocated up to €84.5 million to Ireland over the period to 2027 and this is to be matched by exchequer funding making a total of €169 million available nationally.	Public	The EU's Just Transition Fund was created within the framework of the EU Cohesion policy and operates under Regulation (EU) 2021/1056. The Fund's specific objective is to support regions and communities that are most negatively affected by the transition to climate neutrality, ensuring that no-one is left behind. In Ireland, while much of the fund will be dedicated to communities impacted by the move away from peat production, other communities and regions will also be eligible to apply.
Infrastructure, Climate and Nature Fund	€3.15 billion	Public	Ireland's second new fund is the Infrastructure, Climate and Nature Fund. This Fund is the smaller of the two new funds outlined at the time of the Budget. It is intended to help avoid the need to cut capital spending in future downturns. More generally, its dual purpose is stated as to provide for countercyclical investment in the economy and to help achieve climate and nature goals. The Fund is intended to provide support when 1) there is a significant deterioration in the public finances; and 2) there are projects that can help achieve Ireland's climate and nature goals

Pathfinder	SEAI Public Sector Energy Efficiency Programme €36.3 million	Public	Department Environment, Climate and Communication; The Pathfinder Programme is part of the broader public sector energy efficiency programme which continues to expand year on year and is intended to support public sector decarbonisation of buildings. The €36.3 million refers to the total spend nationally in 2022. The DCC allocation will depend on the approved projects that are progressed. Other public sector bodies like the HSE and OPW also draw funding from Pathfinder and have multiple building within the DCC area.
Community Climate Action Fund	€1.92 Million	Public	DECC – Community climate action projects allocated from 2024 to 2026 ; Fund is to be allocated out
Urban Regeneration Development Fund	Variable	Public	Fund through National Planning framework for regeneration
Creative Climate Action Fund	Up to €250,000	Public	Allocated for 2024-2026 from Creative Ireland for Biodiversity Artists in Residence Programme
Bloomberg Philanthropies	€100,000	Private	Smart Dublin received this funding in 2024 to undertake a project
JV – DIF Capital Partners, Green Investment Group	€350,000	Private	Public Private partnership to develop Waste To Energy Facility
SEAI Business Grants	Variable	Public	Multiple grants and supports available to commercial and non-domestic organisations farms and community centres. These include Non-domestic microgen scheme (which makes up to €162,600 available for installation of renewables); EXEED (up to €3 million for new design or major renovation projects); Support scheme for Renewable Heat; Accelerated Capital Allowance: and Energy Contracting Support Scheme
Environment Fund	Fund income was 11.8 million euro in 2021 and expenditure was 10.9 million. Totals for 2022 were not available.	Public	Environment Fund (Provided for under the Waste Management (Amendment) Act, 2001, the Environment Fund is managed and controlled by the Minister for DECC with revenues from levies on plastic bags and landfills paid into the fund. Expenditure from the fund includes Environment awareness, environmental enforcement / initiatives and regional waste management planning)
Community Climate Action Fund	Climate Action Fund €500+ million has been allocated Community Climate action fund national	Public	(The programmes supported through the CAF include Strand 1: Community Climate Action Fund it allocations administered through each local authority; Strand 1a: Shared Island Projects; Strand 2 Funding programmes on climate education and capacity building administered through Pobal and Creative Ireland. CAF also supports Schools PV Programme)

	allocation - €24 million; Shared Island allocation €3 million; Creative Climate Action II €5.8 million; Strand 2 Climate education and capacity €8.5 million		
NTA Accelerated Capital Allowance	Grants of between €10,000 and €25,000 available (total funding available not known)	Public	(ZEVI administers supports and grants for commercial fleet and small public service vehicles (SPSV) to upgrade to EV
Motor tax		Public	In 2023 a total of 4,604,315 motor tax discs were issued, with Dublin City Council issuing 1,041,180 or 23% of those. Motor tax receipts for 2023 nationally were €0.9 billion in 2023.
Vehicle Registration Tax		Public	In 2023 there were 54,278 new vehicles registered in Dublin that is 44% of 123,070 registered nationally, and 24,987 used vehicles registered in Dublin, that is 47% of the 52,449 used vehicles registered nationally. A total of €878 million was raised nationally through the VRT.
Value Added tax		Public	Net VAT receipts in 2023 amounted to €20.2 billion making it the third largest tax-head in Ireland, representing 23% of net tax receipts.
CirculÉire	Announced as a €4.5 million partnership.	Public / Private	Cross-sectoral industry-led innovation network dedicated to closing the circular innovation gap. Co-created by Irish Manufacturing Research and DECC, EPA and EIT Climate-KIC.
Energy Efficiency Obligation Scheme (EEOS)/ Energy Efficiency Fund	Variable	Public/Private	EEOS in operation since 2014 and designed to promote energy efficiency in homes, business and communities in Ireland. Under EEOS the largest energy suppliers and distributors (Obligated Parties are those that sell more than 400GWh) are required to achieve energy efficiency targets and can work towards achievement through supporting homeowners, businesses and communities in making efficiency improvements. Public Sector bodies can also apply and application guidelines and a list of OPs can be found on the EEOS website.
SBCI SME and Corporate Lending	€356 million in lending provided through SBCI in 2023	Public	SBCI offer a number of financial products to SMEs and Mid-Cap companies to support decarbonisation and sustainability. These include Green Transition Finance and Growth and Sustainability Loan Scheme. The average size of loans provided to almost 4000 SMEs in Ireland in 2023 was just over €90,000.

SBCI Home Energy Upgrade Loan Scheme	Loans from €5,000 to €75,000	Public	The purpose of the loan must be to carry out home energy upgrade works that are also grant-aided through the Sustainable Energy Authority of Ireland (SEAI). You can borrow from €5,000 to €75,000 for a term of up to 10 years. Loans are available through participating finance providers, including banks and some credit unions. The interest rates will be significantly lower than those generally available in the market but will differ among the finance providers. The Home Energy Upgrade Loan Scheme is established and offered by the Strategic Banking Corporation of Ireland (SBCI) and benefits from a guarantee that has been provided by the European Investment Fund (EIF) and European Investment Bank (EIB) and supported by the Government of Ireland.
SRESS/ RESS/ ORESS		Public	
Micro Generation Scheme	Variable	Public	
Renewable heat			There are two different financial supports available when a business switches to renewable heat. The financial supports include: 1 Operational tariff support for biomass and biogas systems' 2. An installation grant for a commercial heat pump.
Total in €	€10,000 – 500,000,000		

1.3 Module IP-A3: Barriers to Climate Investment

This section requires evaluation and identification of the range of structural, policy, economic, and financial barriers for capital deployment in support of climate action.

Task Goals: *By listing the current barriers to climate investment, cities can start to identify solutions to overcome these barriers and facilitate further capital flows. This could involve collaborating to enact new policy, or identifying external stakeholders that can help to overcome structural and financial barriers.*

Model IP-A3
Guiding questions: • How is internal capacity considered to be a barrier? Are barriers able to be overcome and if so, what solutions are available ? • For which of the identified barriers do you need support from the Mission Platform? • For which of the identified barriers can other stakeholders provide support?

A-3.1: Textual element
National Government Policy Signals The ability and capacity of the city and City Council to develop and implement climate solutions is greatly dependent on the priorities and policies of central government. Currently the provision of

housing is regarded as the main priority, with polling in recent years consistently placing this issue as the most important to voters. Support for climate action is relatively strong in Ireland and the presence of the Green Party within the current Government is indicative of the support among voters for positive environmental policies. The EPA's 'Climate Change in the Irish Mind Wave 2 Report 1' found that 85% of survey respondents say "that business, local government, politicians, national government and citizens should be doing more to address climate change". With national elections due to be held in 2024, it will be informative to see if there is strong support from voters for candidates campaigning on environmental issues.

The national policy context greatly impacts the resources available at local government level, as well as the signals sent to encourage private finance into the climate solutions space. At the city level, the lack of directly elected mayor with associated mandate and resources, reduces the ability of Dublin and DCC to carve a path that deviates from that set at national government level. Internally, there is limited scope to which DCC can alter its own operations to improve cross-departmental cooperation to improve efficiencies and maximise the amount of the organisation's (financial and human) resources directed towards climate solutions.

Ireland's National Competitiveness Council reported that for the Irish economy to remain competitive four key challenges needed to be addressed:

- Reduce the cost of doing business in Ireland
- Significantly improve the planning, development and delivery of infrastructure
- Accelerate progress on the usage and generation of energy in line with our climate targets
- Enable stronger productivity growth through research, development and innovation.

The mission could assist with this through the provision of an outside perspective and best practice guidelines.

National Government Approval for Finance

Further to this the Local Government Act, Section 106 sets out the rules for local government lending and borrowing:

> ***Borrowing and lending of money.***
>
> ***106.***—*(1) (a) In this section—*
>
> *"local authority" includes a joint body;*
>
> *"appropriate Minister" means—*
>
> *(i) if the relevant borrowing or lending is in respect of matters which relate to the responsibility or interest of only one Minister of the Government other than the Minister, that Minister of the Government,*
>
> *(ii) if such matters relate to the responsibility or interest of 2 or more Ministers of the Government (none of whom is the Minister), such one of those Ministers of the Government as has the greater or greatest interest in the matters, and*
>
> *(iii) in all other cases, the Minister.*
>
> *(b) If in relation to paragraph (ii) of the definition of "appropriate Minister" there is any doubt as to which of 2 or more Ministers of the Government has the greater or greatest interest, the doubt shall be determined by the Minister and the decision of the Minister shall be final.*
>
> *(2) Subject to subsections (3) and (8) and any regulations made under subsection (5), a local authority may borrow money in any manner which it considers suitable for the effective performance of its functions.*
>
> *(3)(a) Borrowing by a local authority under this section shall only be with the sanction of the appropriate Minister.*

(b) Paragraph (a) does not apply to borrowing which the appropriate Minister may exempt for the purposes of this subsection.

(4) Any application for the sanction of the appropriate Minister under subsection (3)(a) shall be in such format as may from time to time be specified by the appropriate Minister.

*F130**[**(5) The Minister may, after consultation with the Minister for Finance and the Minister for Public Expenditure and Reform, make regulations in relation to borrowing by local authorities.**]***

(6)(a) A local authority may lend money to another local authority on such terms as to repayment and other matters as it considers proper.

*(b) F131**[**…**]***

(7) A decision to borrow or lend under this section is a reserved function.

*F130**[**(8) The appropriate Minister may, after consultation with the Minister for Finance and the Minister for Public Expenditure and Reform, sanction borrowing by a local authority in a currency other than the currency of the State.**]***

(9) Except in accordance with this section, a local authority shall not—

(a) borrow money, or

(b) lend money to another local authority

Time Scales – The Example of Social Housing 59 weeks

While there are several mechanism from which to fund social housing projects in addition to PPP from: The Social Housing Capital Investment Programme (SHCIP) provides funding to local authorities for the provision of social housing by means of construction and acquisition. The Capital Assistance Scheme provides essential funding to AHBs for the provision of accommodation for persons with specific categories of housing need such as Homeless and Older Persons, People with Disabilities, Returning Emigrants and Victims of Domestic Violence. All are subject to a 4-Stage Approval Process The funding approval process for social housing projects supported by the Department under the SHCIP and CAS schemes is in line with the Government's Capital Works Management Framework (CWMF), ***the same approach used for other publicly-funded Capital construction projects***.

Stage 1 – Capital Appraisal to verify the business case and basic project suitability – this is a light presentation of information; no design and only indicative costs are required at this initial stage.

Stage 2 –Pre-planning outline design and cost check –following site investigations, this involves the level of designs that are required for the Part 8 planning process and a completed QS cost plan; detailed tender drawings and resulting costs are not needed at this stage until planning permission is obtained.

Stage 3 – Pre-tender costs check – the more detailed designs and cost estimates have been prepared by the local authority design team at this stage and a cost check submitted before going to tender, but if costs are consistent with the earlier stages, then this review will be swift. Unless there have been changes to the design following Part 8/planning, or conditions to be met, the design is not reviewed.

Stage 4 – Tender approval from Department – the tenders have been received and assessed by the local authority and again, if costs are consistent with the earlier stages, this review will be swift. There is now a Target Programme for advancing social housing capital-funded projects through design, planning and approval.

This overall programme sets a target of 59 weeks from stage 1 submission by the local authority, to contract award for the construction. It establishes target turnaround times for the Department to

carry out the review process and for the local authority to carry out the design of the scheme, the planning process and the procurement of a builder.

This is an Illustration of the challenges with procurement and timescales. 59 weeks for approval is optimistic. Further, in that time inflation can add to the costs of the project. For example, the Dublin District Heating Project was estimated to cost €90 million but this has now risen to €120 and rising, in a span of two years.

Public Spending Code Value for Money

Value for Money is the driving principle under the public spending code, this is challenging due to time scales and consistently results in projects running over their stated budgets. Green public procurement is being rolled out and coupled with whole life carbon assessments, (and internally our own climate readiness toolkit) we are striving to make decisions based on a broad range of criteria rather than cost alone – the costs of doing nothing.

Further an action in National CAP is set to change this by providing a framework for evaluating projects based on academic research that evaluated Irish Climate Policy pre 2018.

It is hoped that as GPP becomes standard practice, and government seeks to evaluate projects on criteria other than cost that the attractiveness to investors of climate projects beyond energy projects and transport project, namely nature based solutions projects, food projects and circular economy projects is increased.

Long Term Financial Planning

In the Irish context the long term is 5 years, and the short term is one year. This has consequences. Our budget process is year to year, and our cash flow is guaranteed on a yearly basis. While long term funding may be accounted for larger projects such as district heating, funding is not certain, as long term is the life of the council, or government. For example funding of active travel projects is tied to the lifetime of the government.

This is not the case in other countries where national budgets the long term is more than a year. Acknowledging the challenges with finance, the Department of Public Expenditure and Reform are investigating options for embedding systems thinking into finance.

The shift away from fossil fuels will lead to a significant erosion in tax receipts over the next ten years, assuming no policy changes. The reduction in revenues would be mainly due to the electrification of Ireland's stock of vehicles. A temporary rise in tax receipts as people ramp up purchases of new cars will soften the transition a little initially. But the additional revenues here would be limited in scale and would not last. Unless policies adapt, we project that government revenues will reduce substantially over time

Table 5 Guidelines: Please provide an exhaustive list of all barriers to climate investment and any potential solutions (including the stakeholders involved) to overcome these barriers.

Table 5: Barriers to Climate Investment

Financial Barriers to achieving Climate Neutrality	Typology of Barrier	Description	Sector and stakeholders involved
Lack of collaboration incentive for project delivery	Policy / Structural	There is no policy in place at central or local government level to encourage collaboration across Departments through	Across Sectors, (e.g. DoT; DHLGH; DECC)

		the provision of financial incentive to cross-departmental projects.	
Regulatory constraints around inviting private finance/investment	Policy	DCC is restricted in the manner and extend to which private investment can be invited into projects for the delivery of public services. Strict procurement guidelines are in place, particularly for large capital projects. **Ministerial Approval is required to for seeking investment.**	Local Authority Sector
Data / learnings sharing across local authorities	Structural / Capacity	Each of the DLAs (Dublin Local Authorities) have their respective service delivery plans and projects to be delivered. The structures in place, and the internal capacity of each DLA, can restrict coordination of sharing data and learnings form projects taking place within each LA. Improving the opportunities for sharing could raise awareness of additional investment opportunities and make more effective use existing investments.	Local Authority Sector
Data / learnings sharing across with public sector bodies and other third parties	Structural / Capacity	Similar could be said for the sharing of data and learnings across the wider stakeholder network of other public sector bodies and third parties.	Across Sectors
Certainty of funding over longer timeframes	Policy	Central government funding priorities can change over time, particularly around election periods.	Across Sectors
Funding Allocations across climate-related themes are decided at central government level	Policy	A large portion of DCC, and city wide, climate solution financing is determined by the central government policy priorities. Currently energy decarbonisation and active travel are being prioritised, with a comparative shortfall in nature-based solutions and community engagement.	Across Sectors
Internal DCC finance / investment skills and capacity	Capacity / Skills	Identifying and developing investment opportunities is not a core function of a LA Finance Department and so there is a skills and capacity shortage within DCC for exploring novel climate solution financing options, within the constraints we face.	Local Authority Sector
Scale of private finance in climate solutions too low currently	Policy	Private finance is not being proactive in engaging with climate solutions and the current policy landscape does not provide enough certainty. Areas like energy have some private actors in the space already, others like Nature based solutions are far less developed.	Across Sectors – particularly low in Nature Based Solutions
Pace of upskilling and need for capacity building	Capacity / Skills	As detailed in the IFSCOE Market Report (2023) Financial Service Providers in Ireland been increasingly stretched by the proliferation of sustainable finance initiatives. There are on-going training programmes underway in Ireland with over 3,000 professionals in over 600 companies being upskilled by Sustainable Finance Skillnet.	Financial Services Sector
Availability of appropriately granular and accurate data	Policy / Data	As detailed in the IFSCOE Market Report (2023) there is a need to improve the availability of data across the ESG spectrum, including climate, spatiotemporal and energy/emissions performance. Policy solutions to	Financial Services Sector

		encourage and facilitate data-sharing across stakeholders are required.	
Exogenous Factors		A number of exogenous challenges detailed in the IFSCOE Market Report (2023) also act as barriers to progressing sustainable finance initiatives and integration of ESG into decision-making. These include the volatile geopolitical environment, multi-jurisdictional tensions, and macro-economic headwinds.	Financial Services Sector
Clear Policy signals that give investors confidence	Policy	Under pinning the above is the absence of clear policy signals that will give investors confidence and enable the emergence of a climate finance market. Looking to policies in other markets, namely the IT sector, government policy support the development of the sector with tax incentives. While the intent of spillover into the indigenous IT sector did not happen, Ireland has become home to multinationals.	Across Sectors
Competition	Capacity / Policy	The range of private finance providers / investors for sustainability projects is still quite low in Ireland and so there is a lack of competition in many areas. While the SBCI and ISFCOE are playing a part, in areas such as decarbonisation of the built environment through Energy Performance Contracts or similar products, there are only a limited number of suitable operators in the market, both at the Energy Service Company (ESCo) level and at the finance provider level which the ESCos rely upon. This lack of competition limits the value for money local achievable and also limits the overall capacity in the market restricting the number of projects that can be undertaken simultaneous.	Finance providers, specific services for example Energy Service Companies (ESCos)
Coherence and Relevance	Policy	Policy coherence has been an issue for both large scale and smaller scale climate investment, with some policy signals still working against decarbonisation. For example, at the individual level policies to encourage EV take-up have been hampered by reductions to EV grant, lack of guidelines delaying charging infrastructure roll-out, restrictions on home-owners charging on street, and high cost of charging on the public network. At the large scale, renewable energy projects have been delayed at planning stage and this has slowed investment in the area.	Across sectors
Cost Effectiveness			
Distributional Effects			

2 Part B – Investment Pathways towards Climate Neutrality by 2030

Part B "Investment Pathways towards Climate Neutrality by 2030" is in place to capture the actions and needs for mobilising and delivering the funding and financing needed for climate neutrality. This

Part of the Investment Plan will be aligned with and build upon the Action Plan. In addition, each of these Plans are likely to entail multiple iterations over the course of the path to climate neutrality. Cities are encouraged to fill this section out with the help of their municipal Finance or Treasury teams - the data provided should be as complete and as robust as possible. In the instances where macroeconomic data or forecasting has been completed, a breakdown of the assumptions that the city has used should be provided as an annex and – if possible – the model or worksheet that was used to obtain the data should be presented for validation.

2.1 Module IP-B1: Cost Scenarios for Climate Neutrality

These are the actions and measures which make up the 2030 Climate Neutrality Action Plan that need to be costed. It is expected that to tie the Investment Plan and Action Plan together, any action or initiative identified within the Action Plan should be referenced in Table 6, alongside forecasted costs, direct benefits (via GHG reduction) and co-benefits. Given the Investment Plan needs to be practical, the measures defined within the Action Plan need to be tagged by how much they will cost for the city, considering implementation and operational costs, so the city budget can be adapted to include them. As a minimum, absolute capex and operational costs must be presented in Table 6 – incremental costs can be provided as an addition if such data is also available.

Cities have the option to provide cost estimates at their own discretion on the measures disclosed in the Action Plan template as per table B-2.2 and in the Investment Plan template as per table 6. Given these cost estimates for the actions, cities can then include non-sectorial costs (the cost of the levers to implement these actions) these should be considered alongside the concrete actions.

For all cost-related assumptions please provide – or link to – costing methodology, headline assumptions and the macroeconomic parameters used for forecasting.

Task Goals: *By identifying the costs and potential direct and indirect benefits to all climate actions, cities can begin to budget for their climate actions and also begin to approach external funding and financing actors to help financially support their climate plans.*

Model IP-B1
Guiding questions: • How much have you already engaged in costing activities and is this carried out internally or with additional partners? • Have you previously costed actions as a part of a climate action plan? • What are optimal sources for gathering data? • Can you identify a number of high priority and capital-intensive projects and provide details on these?

B-1.1: Textual element
An analysis of DCC's Capital Programme 2024-26 found that over 97% of investment was climate action related, with the largest proportion going towards improvement in the housing stock. The Dublin City Council Capital Programme 2024-26 outlines the breakdown of the total capital income for the period, summarised as follows: Loans €301,454,370 (7%); Grants 3,407,267,974 (80.3%); Other Income 186,905,888 (4.4%); Levies 274,612,772 (6.5%); Development Capital 75,126,208 (1.8%); Total 4,245,367,212 (100%). The importance of central government policy and priorities is illustrated in the high proportion of the capital programme funding coming through grants. Table 6 below details a number of capital-intensive climate actions as laid out in the DCC Climate Action Plan – Climate Neutral Dublin 2030. As can be seen in the file attached as part of this submission "NZC CND2030 Actions Budget Monitoring 15.3.24" we have linked new actions "CCC" within the action plan to finance where possible. Certain projects, such as R4 Edible Dublin and specifically have Eat the Streets programme has an estimated budget; while RF4 Ecosystem of Social and Circular Enterprises will

require further engagement with stakeholders to understand realise the costs with establishing the necessary physical, and regulatory infrastructure to enable the ecosystem to flourish. Similarly with C2 Networks for Knowledge Exchange, C3 Innovation Districts and C4 Decarbonisation Zones. All action in the Operations and Service Delivery do have budget being part of day-to-day operations.

To calculate OPEX costs, it was estimated that this would 18% of CAPEX with a 3% increase per annum. This was used in the absence of an OPEX. The exceptions to this were DDHS which is estimated to be 20% of CAPEX and Codling which is estimated to be 5%.

As highlighted in our AP, data presents a challenge, further as mentioned, we know that using other criteria for determining projects is necessary. Projects such as Terrain-AI which aims to help understand the impact of human activity on land use and ultimately, as a driver of climate change for more sustainable land use. Terrain-AI is advancing the standards of measurement, monitoring, verification and reporting of carbon stocks and emissions across complex environments. By developing innovative AI solutions and technologies, integrated with computational models, to provide more accurate estimates of carbon fluxes across scales, and a deeper understanding of the effects of human activities, Terrain AI will enable decision makers to develop more effective climate mitigation strategies. For DCC supporting the work of Terrain AI is vital to linking the impacts and costs.

Dublin District Heating:

Our flagship energy project, the Dublin District Heating Project (DDHP) is an important project which will contribute to the reduction of carbon emissions in Dublin City and ultimately to Ireland's Climate and Energy targets by delivering on Government policy at a European, National and local level.

A new unit has recently been established to provide additional resources to deliver this project for Dublin City Council (DCC) which, in Phase 1 aims to capture waste heat from the Dublin Waste to Energy ("DWtE") and pipe it into homes and businesses in the Poolbeg, Ringsend and Docklands areas of Dublin city. Heat will be generated from the conversion of non-recyclable waste at the Dublin DWtE facility which has the potential to generate up to 90MW of heat.

Dalymount Redevelopment

Redevelopment of Dalymount Park Sports Stadium. Dalymount Park is one of the city council's major capital infrastructure projects, which will not only improve the sporting infrastructure of the city but also play a major in role in the regeneration and enhancement of the Public Domain in Phibsborough. The current plan is to develop a new four-sided municipal stadium (c. 8,034 capacity) featuring:

- Reorientation of the pitch to a North/South Axis (105m x 68m) and installation of a new sand-based grass pitch.
- New stands to the east and west side with provision for c. 6,240 seats and two new terraces to the north and south with provision for c. 1,794 standing
- The provision of a public thoroughfare along the eastern boundary connecting North Circular Road and Connaught Street to include various eateries and a new public plaza
- A community facility with an area of 585sq.m over two floors to include a multi-functional community room and a community gym.
- The provision of modern match-day facilities for teams and officials.

Dalymount provides a baseline for CCC3 developing community energy projects with GAA and FAI

City Wide Capital Projects

Codling

Codling Wind Park will be located approximately 13 – 22 kilometres off the coast of County Wicklow, between Greystones and Wicklow Town. The overall size of the array site is 125 km2. The project confirmed a maximum of 75 and a minimum of 60 turbines would now be required. To generate 1,300 megawatts (MW) of clean electricity, enough to power over one million Irish homes.

MetroLink

In addition, addition to the DCC's capital projects listed below, plans are also being progressed for a Dublin Metrolink which will be 18.8km long, linking Dublin Airport with the south of the city via the city centre and carry up to 53 million passengers annually. The project is scheduled to take 6-8 years to complete and so will not be fully completed until after 2030. The MetroLink project is being progressed by National Transport Authority and Transport Infrastructure Ireland and will have significant implication for Dublin's sustainable transport ambitions

Residential and Non-Residential Retrofit

One indicative source for spend on private residential retrofits is the SEAI's Statistics for National Home Retrofit Programmes, however this is just a fraction of total spend as it tracks the property upgrades / measures and the amount funded, rather than the total cost of a retrofit. The breakdown is by county rather than local authority, so figures for Dublin include the area of Dublin City Council, as well as South Dublin, Finglas and Dun Laoghaire Rathdown County Councils. Between 2015 and 2024 (up to 31/10/2024) there were 71,189 property upgrades registered in Dublin, with €349,230,907 total funding provided for these measures.

The total spend on property upgrades is likely 2 or 3 times that amount, as in many cases extensions to the property or other upgrades are undertaken at the same time and these costs are not captured by the SEAI, as the funding for retrofit works under schemes managed by the SEAI are limited . For a typical energy upgrade to a semi-detached house that includes measures like heat pump, windows / doors, wall and ceiling insulation, ventilation and solar panels which brings the BER from an E1 rating to an A2 rating, the median grant amount is €22,000. While the median cost of works, without any extension, to the property is €59,304. The year-on-year trend shows the level of investment in the residential sector has increased almost ten-fold in recent years. Taking 2023 as the last full year of data, there were 11,081 property upgrades with associated funding of €84,679,171 and this compares with 2015 which had 6,582 property upgrades with associated funding of €8,547,344.

This has been further evidenced by the Society of Chartered Surveyors of Ireland in their report "Real Cost of Renovation". In their study, approximately 25% of derelict and vacant properties are financially viable and of those properties that are viable they primarily located in urban centres Figure 4. The cost of retrofit in Dublin is approximately between €2,000 to €3,000 per sqm. When contrasted with the costs of delivering a new build which is €2,363/m2, it evident that making the choice to retrofit is not solely based on cost, and that other factors need to be taken into consideration.

Table 1: Summary of financial viability – 20 case studies of vacant and derelict property.

	Total development costs, incl. VAT	Market value pre renovation	Market value after renovation	Financial viability assessment (without any grants)	Financial viability assessment with Croí Cónaithe (Towns) Fund Scheme (€30k)	Financial viability assessment with Croí Cónaithe (Towns) Fund Scheme (€50k)	Financial viability assessment with €50k Croí Cónaithe + SEAI* (€21.5k)	If Croí Cónaithe (Towns) Fund Scheme is €100k
Trim, Meath	€328,896	€95,000	€350,000	-€73,896	-€43,896	-€23,896	-€2,396	€26,104
Salthill, Galway	€374,774	€725,000	€1,175,000	€75,226	€105,226	€125,226	€146,726	€175,226
Askeaton, Limerick	€161,477	€40,000	€140,000	-€61,477	-€31,477	-€11,477	€10,023	€38,523
Abbeyfeale, Limerick	€189,601	€55,000	€145,000	-€104,601	-€74,601	-€54,601	-€33,101	-€4,601
Askeaton, Limerick	€219,657	€30,000	€145,000	-€104,657	-€74,657	-€54,657	-€33,157	-€4,657
Ballinalack, Westmeath	€227,824	€85,000	€225,000	-€87,824	-€57,824	-€37,824	-€16,324	€12,176
New Bride Street, Portobello, Dublin 8	€377,162	€385,000	€865,000	€102,838	€132,838	€152,838	€174,338	€202,838
Main Street, Dundrum, Dublin 14	€338,256	€410,000	€575,000	-€173,256	-€143,256	-€123,256	-€101,756	-€73,256
Dun Laoghaire, Dublin	€176,203	€245,000	€425,000	€3,798	€33,798	€53,798	€75,298	€103,798
Prosperous, Kildare	€289,673	€170,000	€325,000	-€134,673	-€104,673	-€84,673	-€63,173	-€34,673
Schull, Cork	€280,022	€300,000	€600,000	€19,978	€49,978	€69,978	€91,478	€119,978
Kells, Meath	€291,540	€200,000	€400,000	-€91,540	-€61,540	-€41,540	-€20,040	€8,460
Beara, Cork	€605,410	€230,000	€450,000	-€385,410	-€355,410	-€335,410	-€313,910	-€285,410
Killarney Post Office, Kerry	€1,135,672	€675,000	€1,200,000	-€610,672	n/a	n/a	n/a	n/a
Ballieborough, Cavan	€1,098,320	€100,000	€800,000	-€398,320	n/a	n/a	n/a	n/a
Henry Street, Dublin	€658,805	€165,000	€790,000	-€33,805	n/a	n/a	n/a	n/a
Kilkenny Post Office, Kilkenny	€516,218	€200,000	€630,000	-€86,218	n/a	n/a	n/a	n/a
Grafton Street, Dublin	€861,726	€378,000	€1,300,000	€60,274	n/a	n/a	n/a	n/a
Main St, Askeaton, Limerick (Unit 1 and 2)	€353,573	€150,000	€385,000	-€118,573	n/a	n/a	n/a	n/a
Clondalkin, Dublin 20	€490,799	€120,000	€440,000	-€170,799	n/a	n/a	n/a	n/a

Investor-type property Owner occupier-type property

*Average Sustainable Energy Authority of Ireland (SEAI) grant (€21,500) drawn down by consumers for similar properties to those in the case studies. SEAI grants are not applicable to new buildings or extensions. An SEAI Better Energy Home Scheme Grant may be available in combination with the Croí Cónaithe (Towns) Fund. Works covered by the SEAI Better Energy Homes Scheme will therefore not be covered under the Vacant Property Refurbishment Grant. The local authority must satisfy itself that proposed works are not claimed for under any other grant. Further details are available on the SEAI website: www.seai.ie. Source: SCSI research.

Figure 4 Real Cost of Renovation - Financial Viability (Source: SCSI)

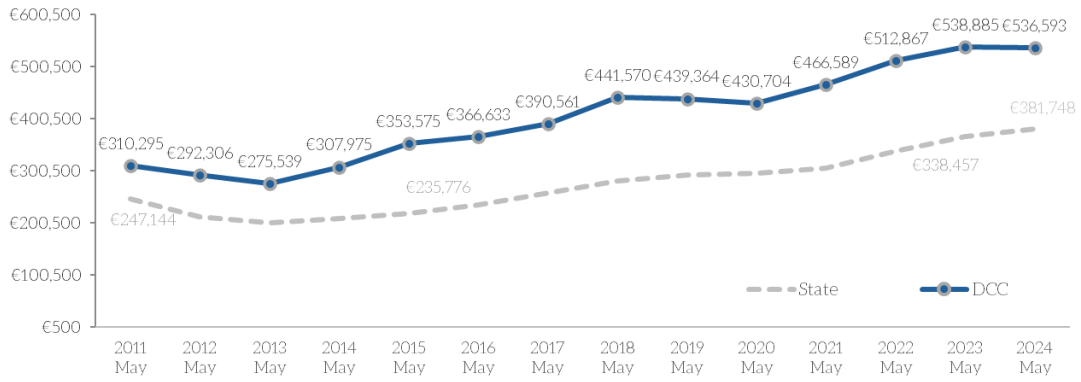

Figure 5 Average Sales Price in Dublin City, 2011 to 2024 (May, CSO Property Price Register)

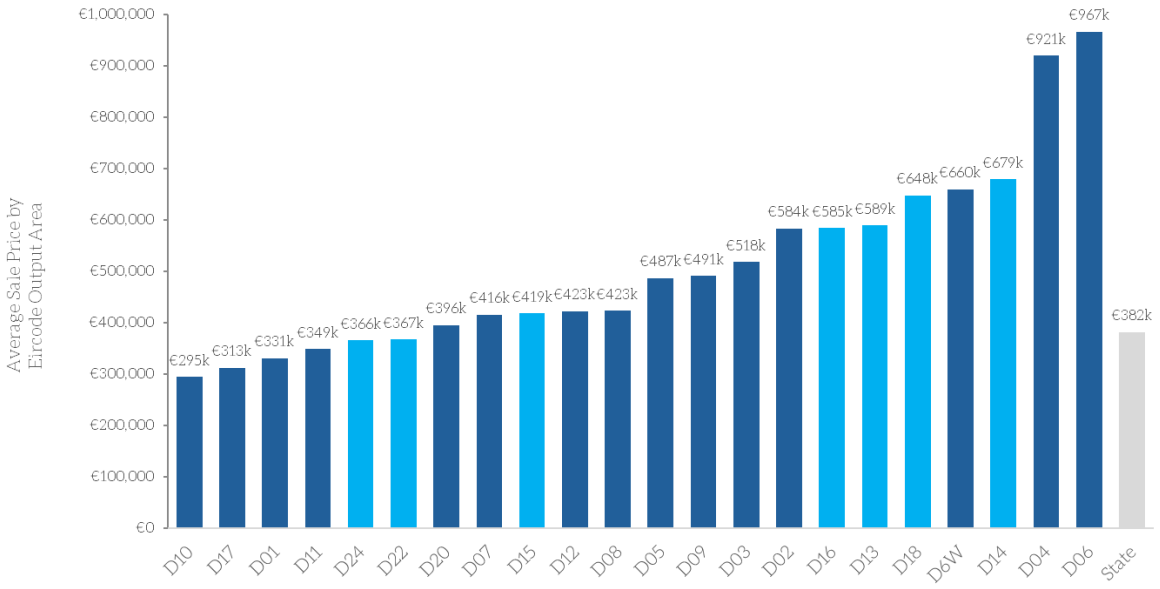

Figure 6 Average Sales Price in Dublin City Postcode Areas (dark blue) May 2024 (CSO Property Price Register)

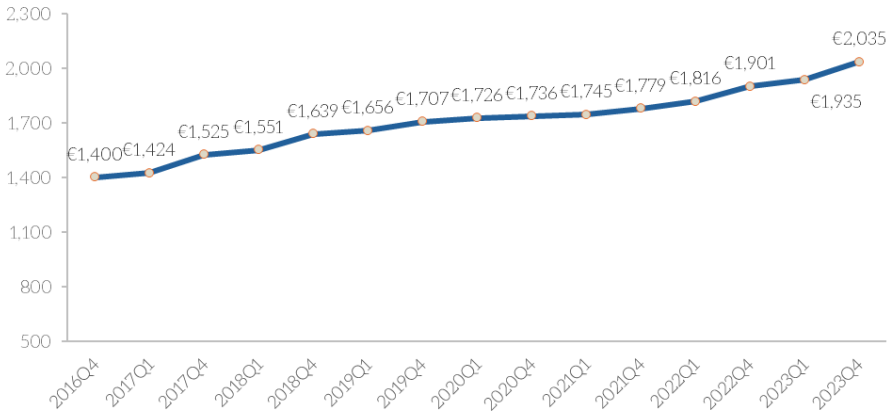

Figure 7 Average Rental Price in the Dublin Region, Q4 2016 to 2023 (Residential Tenancies Board)

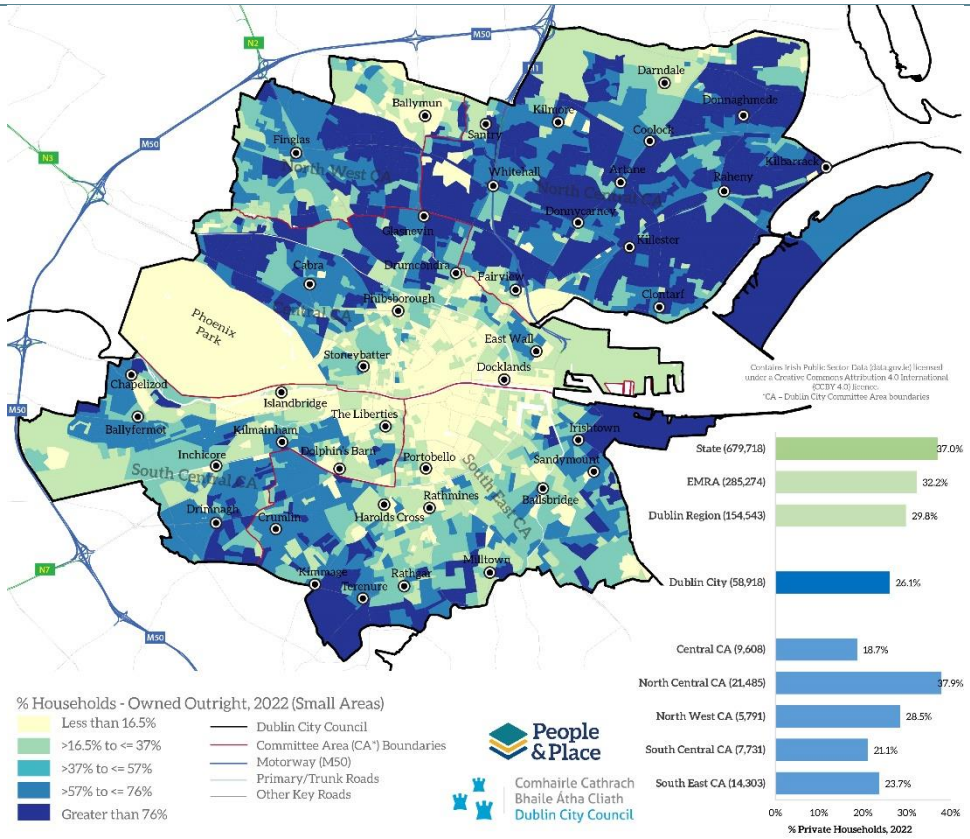

Figure 8 Housing Tenure – Households that are Owned Outright, 2022 (Small Areas)

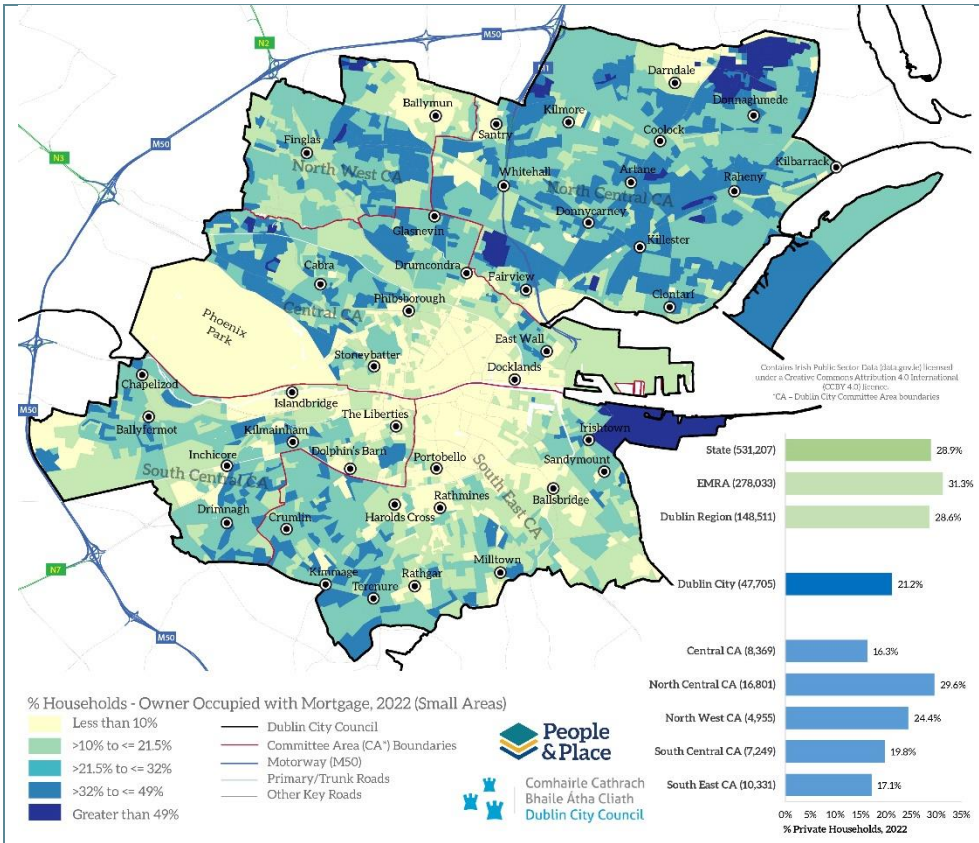

Figure 9 Housing Tenure – Households that are Owned with Mortgage or Loan, 2022 (Small Areas)

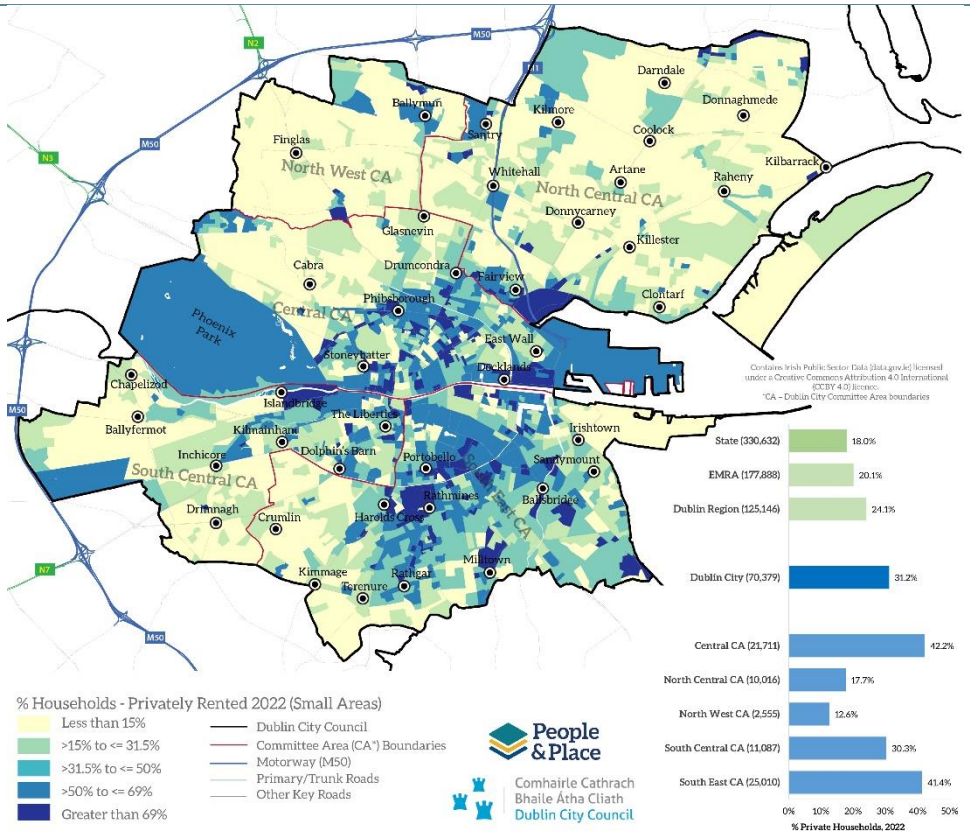

Figure 10 Housing Tenure – Households that rented from Private Landlord, 2022 (Small Areas)

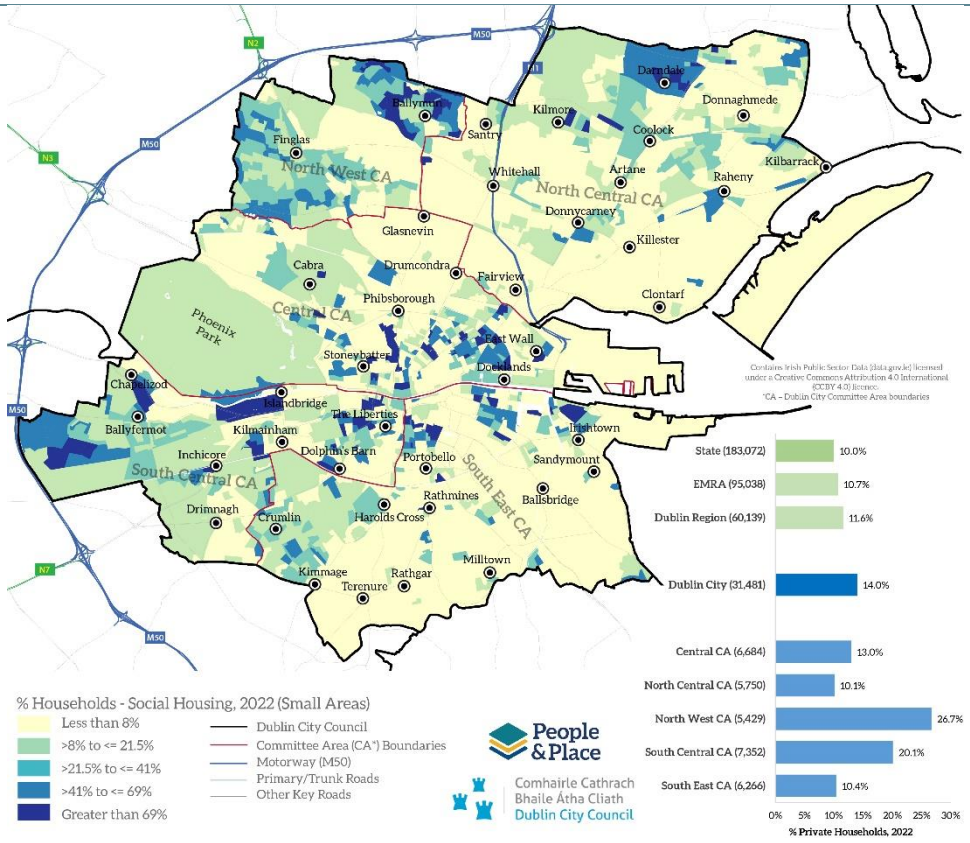

Figure 11 Housing Tenure – Households that rented from Local Authority or other Social Housing Body, 2022 (Small Areas)

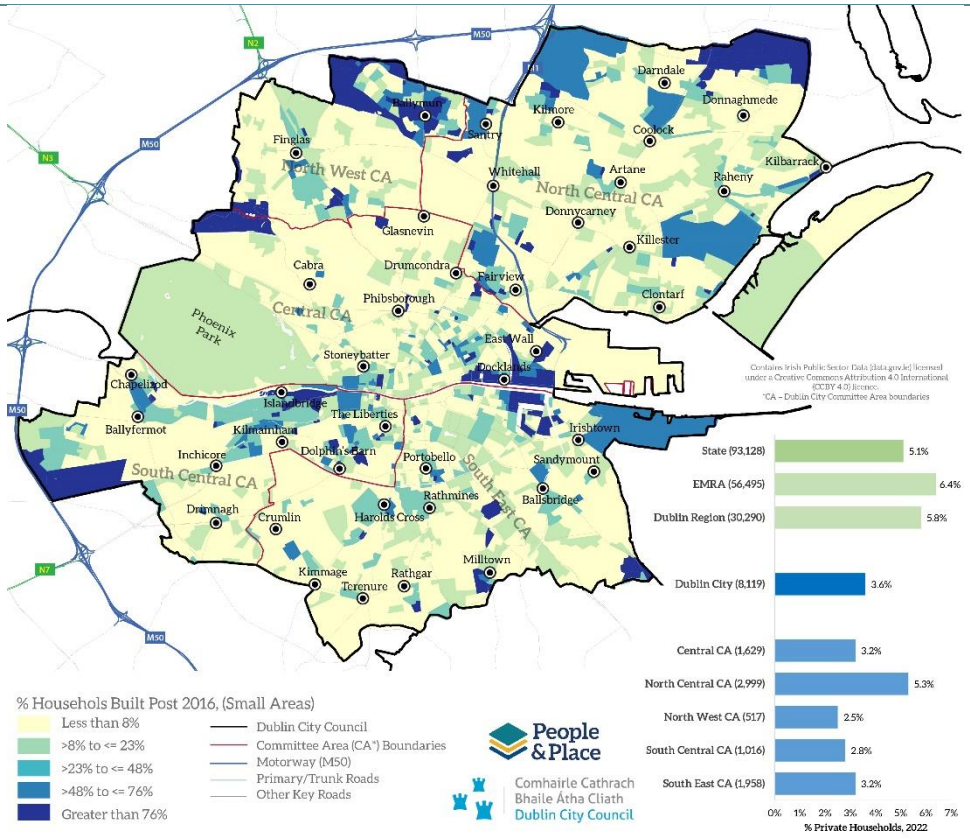

Figure 12 Households Year of Build – Post 2016, 2022 (Small Areas)

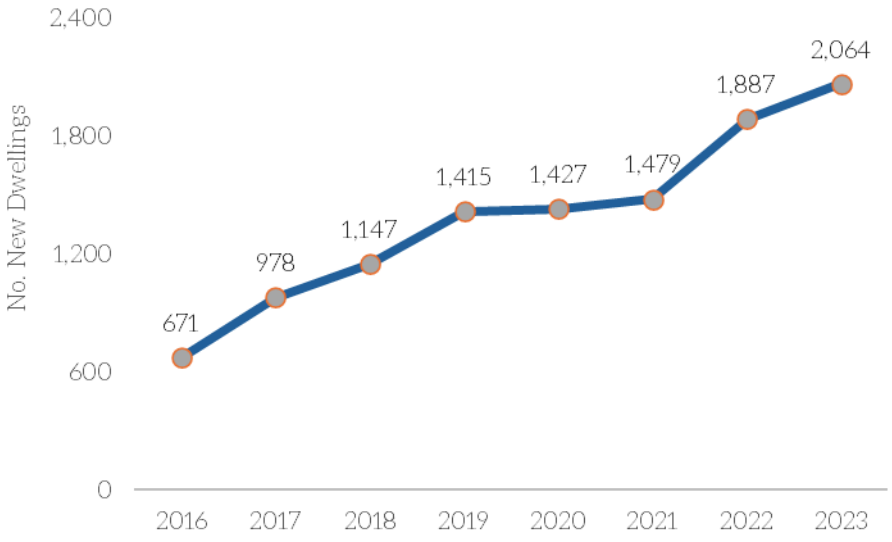

Figure 13 New Dwellings Completed in Dublin City, 2016 to 2023

Bus Connects

The overall network represents a major investment in enhanced bus services, delivering a 35% increase in annual “in-service” kilometres, a significant increase in overall capacity and frequency for customers, as well as more evening and weekend services. This new bus network plan took into

account issues raised by over 72,000 submissions at the various stages of public consultation. The implementation of the new network, known as the Dublin Network Redesign Project, is being delivered in phases over a number of years, and commenced in 2021.

Dart+

DART+ is the transformative programme that will ensure train travel is at the heart of Ireland's sustainable transport network. Funded under the National Development Plan by the National Transport Authority, DART+ is an investment that will double the capacity and treble the electrification of the Greater Dublin Area network, facilitating sustainable mobility and development to enhance quality of life in our capital and its surrounding counties. The overall programme will provide electrification of lines on DART+ West to Maynooth/M3 Parkway, on DART+ South-West to Hazelhatch and DART+ Coastal North to Drogheda. DART+ Coastal South will also see key infrastructure works as far as Greystones to allow more trains to operate.

ECOCEM and Clinker Cement

The cement sector is a high emitter of greenhouse gases. Manufacturing cement involves firing clay and limestone to high temperatures in furnaces, which results in substantial CO2 emissions. Reducing emissions tends to rely heavily on carbon capture and storage. Closing cement production in Ireland would reduce emissions. However, with Ireland still likely to consume cement, emissions would just be shifted elsewhere with no wider reduction in emissions. Closing production would also entail large costs in terms of importing cement, job losses, and lost output. As such, it is likely that public support would be provided, and this could potentially be significant.

Table 6 Guidelines: Please provide a breakdown of all the anticipated costs of the climate actions identified in the Action Plan – ***it is encouraged that this covers the period from present day to 2030****. In. each instance, please provide the absolute capex and operational costs. Implementation Costs / Capital Expenditure is the cost to develop and implement the project. Operational Expenditure is the expected annual running costs of the project once completed or operational (include annual costs and any cost savings from the project). Direct Impacts is, in this case, the CO2e reduction per annum forecasted by the project, and the indirect impacts are ideally the monetised co-benefits (or a qualitative assessment).*

To support the analysis below, please provide a methodology and all assumptions for your workings as an annex. This should include unit costs benchmarking, a baseline year for cost estimates and the methodology for both direct and indirect benefits of GHG reduction.

Table 6: Sectorial Costing

Fields of Action	Action / Indicator	Implementation Costs/Capex	Opex (estimated to 18% of CAPEX plus 3% inflation per year	Costs of Inaction/BAU	Direct impacts (Emission reductions)*	Cost Effectiveness (EUR/tCO2e)	Indirect impacts (co-benefits)*
Transportation	*S1.1-3* *Delivery of Active Travel Projects (C2CC, Liffey, Royal Canal) and associated actions (Community Events; Behaviour Change Initiatives)*	*€105,536,354 (2022-24 projects)* *€348,505,804 (2025-27 projects)*	*€58,716,416.98 (2022-24 projects)* *€193,895,386.13 (2025-27 projects)*	*Up to €2,000,000,000 in health care costs from injury*	*Funding secured for delivery of 310km of cycle network infrastructure*	*Not able to calculate*	*Social resilience; economic resilience, integration of NBS into projects reduction of heat and flood risk*
	S1.4 Community Participation Events to celebrate new active travel routes as they open and encourage use	*€10,000*	*€5,563.62*				
	S1.5 Behaviour Change initiatives to encourage use of the network and modal shift	*€10,000*	*€5,563.62*				

	across diverse groups						
	S2.2 Quiet Areas	*TBD*					
	S2.3 Low Carbon Mobility Hubs (EV Charging Infrastructure)	*€2,000,000*	*€1,112,724*				
	R1.5 Integrate EV charging facilities in all flat complex regeneration projects	*€1,070,000*	*€595307.34*				
	CCC 4 Public transport promotion with Dublin Bus and Luas	*€100,000*	*€55,636.20*				
	CCC 6 BUMBLEance	*€600,000*	*€333,817.20*	*€150,000.00*			
	CCC9 – Bus Connects: Dublin Network Redesign	*€3,700,000,000*	*€185,000,000*				
	CCC10 – Dart Plus	*€3,000,000,000*	*€150,000,000*				
	CCC 11 – MetroLink North	*€5,800,000,000*	*€290,000,000*				
Built Environment	*R1.1-4 Social Housing Regeneration (Lower Dominick Street; Oliver*	€ 58,650,000	€32,630,631.30	€1,745,431,721.30 (The funding estimate for homeless service provision in 2023 is estimated at		€8,012/tCO2e	

	Bond House; Constitution Hill; Pearse House)			€226,220,833 , this serves as the basis for the alternative of investing in social housing retrofit and providing high quality resilient housing. Assuming a 10% year on year) €358.383,398.92 this is the potential cost of energy bill for social housing tenants			
	R2.1-4 Public Building Regeneration (Civic Offices; Mansion House; City Hall; Pathfinder Programme)	*€18,070,527*	*€10,053,754.54*	*€116,277,406 (This is the estimated costs of energy use to 2029)*			
	S4.1-3 Re-imagined Public Realm (City Centre Public Realm; Laneways of D1 and D2; Vibrant Streets)	*€6,900,000*	*€3,838,897.80*	*€13,888,098.00 (Costs of Obesity treatment is used here, as there is research on obesogenic environments)*			
	RF3.1 Adaptive Re-use Programme converting existing buildings to	*€69,214,339*	*€38,508,228.07*				

	'new' uses such as social housing						
	C3.1-2 Innovation Districts (Resilient North East Inner City; Climate Smart Districts)	*€294855*	*€164,046.12*	*€44,075,422.13 (* Since 2016, the government has invested over €45.7 million under the NEIC Initiative which has achieved significant progress in enhancing the lives of the residents and communities of Dublin's North East Inner City, extrapolating this the costs from 2024 to 2029 are presented here based on yearly average spend and cumulative 10% interest.)			
	CCC 1 Private Home retrofit (included in SEC action)	*€ 12,390,140,000*	*€6,893,403,070.68*	*€402,694,197 costs of fuel allowance*			
	CCC 2 Community Energy Projects with GAA and FSAI	*€100,000,000*	*€55,636,200*				
	CCC 3 Support Non Residential retrofit -	*€ 6,388,940,575.50*	*€3,554,563,759.47*				
Assumptions for:							

CCC1 - Dublin City has a total of 225,519 residential dwelling of various typologies. We have taken an approach of estimating an average cost of €70,000 across all dwellings. The rationale for this is that we are taking a whole life carbon approach, capturing the embodied carbon. Notably it is likely that actual retrofit costs may be 4 times this amount based on SCSI's "Real Cost of Renovation" Report, in other words up to approximately €50,000,000,000 in the absence of grants CCC3 - Dublin has a total floor area of 18,254,115.93 sqm that are non-residential buildings, we have assumed that 15% of this has been retrofitted, and that the remainder will cost €1400/sqm. Of the remaining 85% we are assuming that 25% of the total can be retrofitted by 2030. As with residential retrofit we are taking a whole life carbon approach, and not focusing only the technology that will be deployed but the potential emissions stemming from waste, and transport of materials.							
Energy Systems	*R3.1Dublin District Heating Project*	*€42,700,000 (between 2024-26)*	€8,540,000		*90MW heat energy produced as a by-product of the incineration of non-recyclable waste*		Avoids sending waste to landfill by converting into electricity and heat Improved air quality (indoor and outdoor)
	R3.2 Solar PV Car Port Davitt Road	*€500,000 (between 2024-26)*	*€278,181.00*	*€19,675,097 (Estimated fuel costs to 2029)*			
	R3.4 Public Lighting Upgrade Project with LED Lighting and CMS	*€58,900,000 (between 2024-26)*	*€32,769,721.80*		*2,500 tCO_2e*	*€23,560/tCO2e*	
	S2.1 Sustainable Energy Communities	*€400,000*	*€222,554.27*	*€4,181,537,842.00 (Costs of Cardiovascular disease, CVD as links to poor living environments, better connected communities*			*Increases energy awareness within communities; aggregates SECs into a*

				improves health outcomes)			*national network*
	C4.1-2 Decarbonisation Zones (Ringsend; Ballymun)	*€500,000*	*€278,181*				*Project will include nature based solutions; support the deployment of district heating reducing demand on electricity grid for heating; building social resilience and improve health and well-being*
	CCC 8 Codling Wind Farm	*€2,000,000,000*	*€100,000,000*	*€402,694,197.3 Costs of Fuel Allowance*	*1,300 MW of wind energy*	*117/tCO2E*	*Reduces use of fossil fuels*
Green Infrastructure & Nature Based Solutions	*RF1.1 Implementation of greening strategies*	*€1,200,000*	*€1,502,177.40*	*€4,381,289,882.07 (Assumption applied here is the costs of hospitalisation and treatment related to COPD/ asthma cases)*			
	RF1.2 Dublin Bay UNESCO Biosphere Discovery Centre	*€12,750,000*	*€7,093,615.50*				
	RF1.3 Liffey Vale Biodiversity Centre	*€3,314,722.00*	*€1,844,185.36*				

	RF2.1-3 Restoring the City's Rivers (Santry; Camac; Liffey)	*€61,093,102*	*€33,989,880.41*				
	S3.1 Delivery of Parks Strategy	*€4,597,454.72*	*€2,557,849.10*	*Obesogenic Environment*			
	R4.2 Implementation of Markets Strategy	*€17,058,867*	*€9,490,905.36*				
Waste and Circular Economy	*RF4.1 Establish network of centres to enable the scaling out of social and circular small and medium enterprises*	*€250,000*	*€139,090.50*	*€7,715,610 (Cost of illegal dumping removal)*			
	C1.1 Community Hubs -Parnell Square Cultural Quarter	*€105,000,000*	*€58,418,010*	*€24,000,000 (Costs in community policing)*			
	C.1.2 Dalymount Park Redevelopment	*€44,041,787 (between 2024-26)*	*€24,503,176.70*				
	C1.3 Maker Spaces in Libraries	*€150,000*	*€83,454.30*				
	C1.4 Improved community facilities (including community kitchens)	*€822,600 (between 2024-26)*	*€457,663.38*				
	R4.1 Establish Eat the Streets Programme	*€500,000*	*€278,181*	*€500,000 (Current spend on food*	*Reduction in food waste,*		

				education programmes)	*sequestration potential*		
	CCC 7 Exploration of Systemic Finance Architecture to achieve a robust circular economy	*€300,000*					
Total		*Minimum:* ***€34,345,620,987.22***	*€19,108,598,383.69*	*Minimum costs of inaction:* ***€11,295,468,674.72***			

**Referring to the Action Plan*
***Indicative indicators*

Table 7 Guidelines: Please fill the following table in with the largest and / or most capital-intensive projects that have been established within the Action Plan and Investment Plan (in Table 6). For these projects, provide the below details including the proposed or envisaged funding structure and a description of the project including development timelines and current status.

Table 7: Capital Intensive Projects

Fields of Action	**Action / Indicator**				
Energy	District Heating	**Capex (€m)**	**Opex (€m)**	**Cost Effectiveness (EUR/tCO2e)**	**Investment (Split by Stakeholders)**
		€42,700,00 (€120m total)	*€8,540,000*	*…EUR/tCO2e*	*Joint Venture tbd*
		The DDHP will improve Dublin City's energy efficiency and reduce greenhouse gas emissions, while making the Dublin City area more adaptive to the impacts of climate change. The provision of District Heating (DH) took a big step forward with the construction of the Dublin Waste to Energy (DWtE) Facility located on the Poolbeg Peninsula. The facility was developed under a Public Private Partnership (PPP) between DCC (acting on behalf of the four Dublin Local Authorities) & Covanta (currently known as Encyclis). With Construction commencing in 2014 the DWtE Facility became operational in November 2017 and currently: • ***Processes 600,000 tonnes of waste annually*** • ***Produces Electricity for 80,000 homes – with approx. 60 megawatts (MW) exported to the National Grid*** • ***Has heating potential for 50,000 – 80,000 homes (90MW of DH) which will act as a heat baseload for the proposed DDHP*** ***The main benefits that the DDHP will deliver for the Dublin City area is:*** • ***Improve air quality by reducing emissions and other pollutants from individual heating sources*** • ***Greater de-carbonisation of the heat sector*** • ***Less dependence on imported fuels*** • ***Use of local labour, energy resources and sources*** • ***Space saving in plant rooms and homes as no boilers are required*** • ***Improved safety having no fuel storage requirements*** ***The heat supplied is on demand, so no energy wasted***			
Energy	Codling Wind park	**Capex (€m)**	**Opex (€m)**	**Cost Effectiveness (EUR/tCO2e)**	**Investment (Split by Stakeholders)**
		€2,000,000,000	*€100,000,000*	*117/tCO2E*	*Private Venture*
		Codling Wind Park will be located approximately 13 – 22 kilometres off the coast of County Wicklow, between Greystones and Wicklow Town. The overall size of the array site is 125 km2. Previously it had been had thought around 100 turbines would need to be constructed but, in April 2024, the project confirmed a maximum of 75 and a minimum of 60 turbines would now be required. Although this is a significant reduction in wind turbines, the development will still generate 1,300 megawatts (MW) of clean electricity, enough to power over one million Irish homes.			

<table>
<tr><td></td><td></td><td colspan="4">Estimated savings of 1.7 Million tonnes of CO2e</td></tr>
<tr><td>Built Environment</td><td>Markets Strategy</td><td>Capex (€m)</td><td>Opex (€m)</td><td>Cost Effectiveness (EUR/tCO2e)</td><td>Investment (Split by Stakeholders)</td></tr>
<tr><td></td><td></td><td>€17,058,867</td><td>€9,490,905.35</td><td>TBD</td><td>TBD</td></tr>
<tr><td></td><td></td><td colspan="4">Establishment of fruit and veg markets selling local produced, and regeneration of neighbourhoods.</td></tr>
<tr><td>Built Environment</td><td>Dalymount</td><td>Capex (€m)</td><td>Opex (€m)</td><td>Cost Effectiveness (EUR/tCO2e)</td><td>Investment (Split by Stakeholders)</td></tr>
<tr><td></td><td></td><td>€44,041,787</td><td>€24,503,176.70</td><td>TBD</td><td>TBD</td></tr>
<tr><td></td><td></td><td colspan="4">Redevelopment of Dalymount Park Sports Stadium. Dalymount Park is one of the city council's major capital infrastructure projects, which will not only improve the sporting infrastructure of the city but also play a major in role in the regeneration and enhancement of the Public Domain in Phibsborough. The current plan is to develop a new four-sided municipal stadium (c. 8,034 capacity) featuring:
• Reorientation of the pitch to a North/South Axis (105m x 68m) and installation of a new sand-based grass pitch.
• New stands to the east and west side with provision for c. 6,240 seats and two new terraces to the north and south with provision for c. 1,794 standing
• The provision of a public thoroughfare along the eastern boundary connecting North Circular Road and Connaught Street to include various eateries and a new public plaza
• A community facility with an area of 585sq.m over two floors to include a multi-functional community room and a community gym.
• The provision of modern match-day facilities for teams and officials.</td></tr>
</table>

2.2 Module IP-B2: Capital Planning for Climate Neutrality

This section will include a definition of the city's capital goals and how to achieve them. As the implementation of its programme starts the below sources of capital can be laid out as a starting point. These should be aligned with the city's goals and relevant to the actions selected. Ideally this will be a target and the city will optimise towards.

Task Goals: *This exercise forces cities to identify the funding and financing gaps within their Investment Plans so as to begin the process of securing additional and (in most cases) external funding and financing for climate actions. This exercise encourages cities to begin the process of identifying potential capital solutions on the project level.*

Model IP-B2
Guiding questions: • What are the existing resources already available for each action or project (e.g., public contributions, existing funding or investments secured)? • How much of the budget is available for climate investment, and is the municipality operating at a surplus or deficit? • How can you optimise use of both public funding and private investment capital to ensure capital deployment for all costs identified to reach the climate neutrality goal?

- Do you have experience on creating a pipeline of projects with the involvement of the private sector?

Textual element

The most recent DCC Capital Programme 2024-26 the funding sources for capital investment in the coming years, detailing how 81.8% of this funding will be sourced from grants, followed by loans (6.5%) and levies (5.9%) as the next most significant sources. As the review exercise revealed, the vast majority of these capital investments have been found to be 'Climate Action Projects in line with DCC CAP 2024-2029'.

The Dublin Waste-to-Energy Project has provided experience of the PPP process to DCC and other stakeholders and its success to date is encouraging for further initiatives that invite private investment into this area. A second PPP involving the DWtE facility is being progressed in order to deliver district heating network in the area surrounding the facility, servicing a mix a residential and commercial buildings in the vicinity.

The extent to which private funding sources can be utilised is somewhat restricted insofar as local authorities within Ireland cannot sell public assets or rights to public services to private companies or investors.

To reiterate Module A, the national policy context greatly impacts the resources available at local government level, as well as the signals sent to encourage private finance into the climate solutions space. At the city level, the lack of directly elected mayor with associated mandate and resources, reduces the ability of Dublin and DCC to carve a path that deviates from that set at national government level. Internally, the degree to which DCC can alter its own operations to improve cross-departmental cooperation to improve efficiencies and maximise the amount of the organisation's (financial and human) resources directed towards climate action.

Further to this the Local Government Act, Section 106 sets out the rules for local government lending and borrowing. There are key aspects of the act that are relevant to the development of the investment plan, and necessary to summarize.

Each local authority is to produce with its elected members a revenue budget annual, as per Sections 102 and 103 of the Local Government Act 2001 specify the financial procedures governing:

- the preparation of the budget
- the Budget Meeting

The Council Revenue Budget is funded from the following sources:

- Commercial rates
- Local Property Tax
- Government grants
- Irish Water
- Pension contributions
- Income from goods and services

A service division classifies income and expenditure in the annual budget. The budget is drafted by the Chief Executive in consultation with the Corporate Policy Group. However, a local authority elected representative is not bound to accept the budget prepared by the Chief Executive and may

adopt a budget with or without amendment. In the adopted budget, the Annual Rate on Valuation is determined to finance the deficiency in the funds of the authority, i.e. the part of the authority's expenditure not met by State grants and miscellaneous receipts.

Critical sources of funding for operations are commercial rates and local property taxes. However, increase of these are not favoured, even though they are necessary to ensure the continuing delivery of services.

A second element of financing is our Capital Programme Budget, as per Section 135 of the Local Government Act the Chief Executive is required to prepare and submit to the elected council a report indicating the proposed capital projects for the following 3 years. The proposed Programme must have regard to the availability of financial resources.

The Capital Programme is funded from the following sources;

- Government Grants
- Development Levies
- Loan Borrowings
- Internal Resources

Related to this is our capacity to borrow. While the Capital Programme can be funded by loans, we must receive sanction from the relevant Minister or Ministers. This is detailed in section 1.3.

Public Spending Code Value for Money

Value for Money is the driving principle under the public spending code, this is challenging due to time scales and consistently results in projects running over their stated budgets. Green public procurement is being rolled out and coupled with whole life carbon assessments, (and internally our own climate readiness toolkit) we are striving to make decisions based on a broad range of criteria rather than cost alone – the costs of doing nothing.

Further an action in national CAP is set to change this by providing a framework for evaluating projects based on academic research that evaluated Irish climate policy pre 2018. https://diarmuidtorney.org/icpe/

It is hoped that as GPP becomes standard practice, and government seeks to evaluate projects on criteria other than cost that the attractiveness to investors of climate projects beyond energy projects and transport project, namely nature based solutions projects, food projects and circular economy projects is increased.

Fiscal Advisory report highlights the importance of this.

Long Term Financial Planning

In the Irish context the long term is 5 years, and the short term is one year. This has consequences. Our budget process is year to year, and our cash flow is guaranteed on a yearly basis. While long term funding may be accounted for larger projects such as district heating, funding is not certain, as long term is the life of the council, or government. For example funding of active travel projects is tied to the lifetime of the government.

This is not the case in other countries where by national budgets the long term is longer than one year.

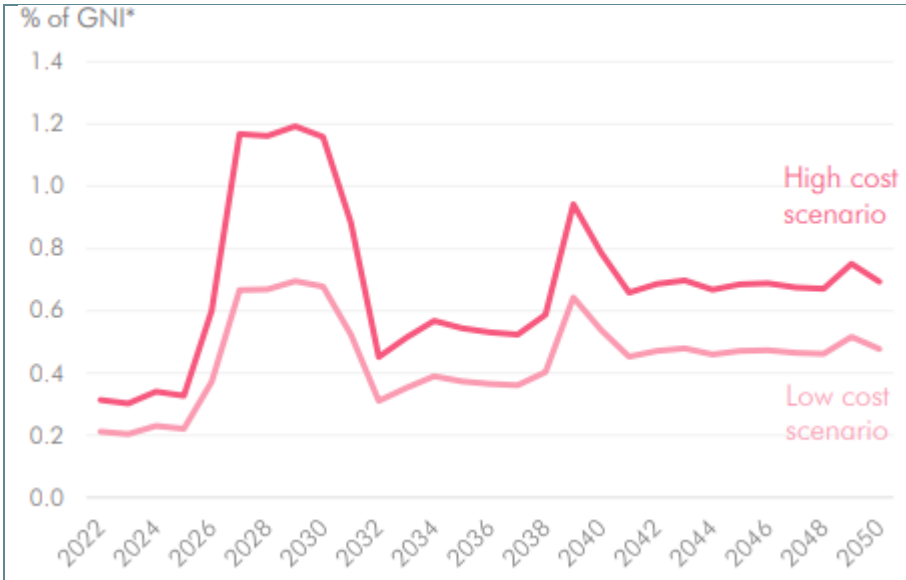

Figure 14 Public Spending on Climate (Source: Irish Fiscal Advisory Council, 2023)

Table 8 Guidelines: For each identified action, please identify the costs to all stakeholders including private citizens and the private sector or municipally-owned companies. The actions from Section B1 and the Action Plan should all be referenced here in similar detail.

Table 8: Capital Planning by Stakeholder

Fields of Action	Action / Indicator	Citizens (€)	Private Sector (€)	Municipality (€)	Transport Operators (€)	Utility Providers (€)	Total (€)
Transportation	*S1.1-3* *Delivery of Active Travel Projects (C2CC, Liffey, Royal Canal) and associated actions (Community Events; Behaviour Change Initiatives)*			*€105,536,354 (2022-24 projects)* *€348,505,804 (2025-27 projects)*			*€105,536,354 (2022-24 projects)* *€348,505,804 (2025-27 projects)*
	S1.4 Community Participation Events to celebrate new active travel routes as they open and encourage use			*€100000*			*€100000*
	S1.5 Behaviour Change initiatives to encourage use of the network and modal shift across diverse groups			*€10,000*			*€10.000*
	S2.2 Quiet Areas			*TBD*			*TBD*
	S2.3 Low Carbon Mobility Hubs (EV Charging Infrastructure)			*€2,000,000*			*€2,000,000*
	CCC 4 Public Transport promotion with Dublin Bus and Luas				*€100,000*		*€100,000*
	CCC 6 BUMBLEance		*€600,000*				
	CCC9 – Bus Connects: Dublin Network Redesign				*€3,700,000,000*		*€3,700,000,000*
	CCC10 – Dart Plus				*€3,000,000,000*		*€3,000,000,000*
	CCC 11 – MetroLink North				*€5,800,000,000*		*€5,800,000,000*
Built Environment	*R1.1-4 Social Housing Regeneration (Lower Dominick Street; Oliver Bond House; Constitution Hill; Pearse House)*			€ 58,650,000			€ 58,650,000
	R2.1-4 Public Building Regeneration (Civic Offices, Mansion House, City Hall, Pathfinder			*€18,070,527*			*€18,070,527*

	S4.1-3 Re-imagined Public Realm (City Centre Public Realm; Laneways of D1 and D2; Vibrant Streets)			*€6,900,000*			*€6,900,000*
	RF3.1 Adaptive Re-use Programme converting existing buildings to 'new' uses such as social housing			*€69,214,339*			*€69,214,339*
	C3.1-2 Innovation Districts (Resilient North East Inner City; Climate Smart Districts)			*€294,855*			*€294,855*
	CCC 2 Community Energy Projects with GAA and FSAI		*€ 100,000,000*				*€100,000,000*
	CCC 3 Support Non Residential Retrofit		*€6,388,940,575.50*				*€6,388,940,575.50*
Energy Systems	*R3.1Dublin District Heating Project*		*…*	*€42,700,000 (between 2024-26)*			*€42,700,000*
	R3.2 Solar PV Car Port Davitt Road			*€500,000 (between 2024-26)*			*€500,000*
	R3.4 Public Lighting Upgrade Project with LED Lighting and CMS			*€58,900,000 (between 2024-26)*			*€58,900,000*
	S2.1 Sustainable Energy Communities (CCC 1 Private Home Retrofit)	*€12,390,140,000*		*€400,000*			*€12,390,140,000*
	C4.1-2 Decarbonisation Zones (Ringsend; Ballymun)			*€500,000*			*€500,000*
	CCC 8 Codling Wind Park		*€2, 000,000,000*				*€2, 000,000,000*
Green Infrastructure & Nature Based Solutions	*RF1.1 Implementation of greening strategies*		*…*	*€1,200,000*			*€1,200,000*

	RF1.2 Dublin Bay UNESCO Biosphere Discovery Centre			*€12,750,000*			*€12,750,000*
	RF1.3 Liffey Vale Biodiversity Centre			*€3,314,722.00*			*€3,314,722.00*
	RF2.1-3 Restoring the City's Rivers (Santry; Camac; Liffey)			*€61,093,102*			*€61,093,102*
	S3.1 Delivery of Parks Strategy			*€4,597,454.72*			*€4,597,454.72*
	R4.2 Implementation of Markets Strategy			*€17,058,867*			*€17,058,867*
Waste and Circular Economy	*RF4.1 Establish network of centres to enable the scaling out of social and circular small and medium enterprises*		…	*€250,000*			*€250,000*
	C1.1 Community Hubs -Parnell Square Cultural Quarter			*€105,000,000*			*€150,000,000*
	C.1.2 Dalymount Park Redevelopment			*€44,041,787 (between 2024-26)*			*€44,041,787 (between 2024-26)*
	C1.3 Maker Spaces in Libraries			*€150,000*			*€150,000*
	C1.4 Improved community facilities (including community kitchens)			*€822,600 (between 2024-26)*			*€822,600 (between 2024-26)*
	R4.1 Establish Eat the Streets Programme			*€500,000*			*€500,000*
	CC 7 Exploration of Systemic Finance Architecture to achieve a robust circular economy		*€200,000*	*€100,000*			*€300,000*
Total		*€12,390,140,000*	*€*	*Minimum: €965,640,411.72*	*€12,500,100,000*		*Minimum:* ***€34.345.620.987.22***

Table 9 Guidelines: For each identified action from the Action Plan, please identify the costs specifically to the municipality and what percentage of costs is currently covered. For any actions that will be funded in full or in part by other stakeholders (e.g. private sector, loans, grant funding), please identify where these costs will come from if a source has been identified.

Table 9: Capital Planning

Fields of Action	Action / Indicator	Cost to Municipality	Cost to Other	% Of Costs Covered
Transportation	*S1.1-5 Delivery of Active Travel Projects (C2CC, Liffey, Royal Canal) and associated actions (Community Events; Behaviour Change Initiatives)*	*€105,536,354 (2022-24 projects) €348,505,804 (2025-27 projects)*		*100*
	S2.2 Quiet Areas	*TBD*		*100*
	S2.3 Low Carbon Mobility Hubs (EV Charging Infrastructure)	*€1,000,000*		*100*
Built Environment	*R1.1-4 Social Housing Regeneration (Lower Dominick Street; Oliver Bond House; Constitution Hill; Pearse House)*	€ 58,600,000		*100*
	R2.1-4 Public Building Regeneration (Civic Offices; Mansion House; City Hall; Pathfinder Programme)	*€4,000,000*	*50% to SEAI*	*50%*
	S4.1-3 Re-imagined Public Realm (City Centre Public Realm; Laneways of D1 and D2; Vibrant Streets)	*TBD*		*100%*
	RF3.1 Adaptive Re-use Programme converting existing buildings to 'new' uses such as social housing	*TBD*		*100%*
	C3.1-2 Innovation Districts (Resilient North East Inner City; Climate Smart Districts)	*€300,000*		*100%*
Energy Systems	*R3.1Dublin District Heating Project*	*€42,600,000 (between 2024-26)*		TBD
	R3.2 Solar PV Car Port Davitt Road	*€500,000 (between 2024-26)*		*100%*
	R3.4 Public Lighting Upgrade Project with LED Lighting and CMS	*€37,075,852 (between 2024-26)*		*100%*
	S2.1 Sustainable Energy Communities	*€400,000*	*€10,620,120,000 (Private citizen Finance)*	*0.01%*
	C4.1-2 Decarbonisation Zones (Ringsend; Ballymun)	*€500,000*		*100%*
Green Infrastructure &	*RF1.1 Implementation of greening strategies*	*€1,200,000*		*100%*

Nature Based Solutions	*RF1.2 Dublin Bay UNESCO Biosphere Discovery Centre*	*€12,750,000*		*100%*
	RF1.3 Liffey Vale Biodiversity Centre	*€3,314,722.00*		*100%*
	RF2.1-3 Restoring the City's Rivers (Santry; Camac; Liffey)	*€20,000,000*		*100%*
	S3.1 Delivery of Parks Strategy	*€19,887,629*		*100%*
Waste and Circular Economy	*RF4.1 Establish network of centres to enable the scaling out of social and circular small and medium enterprises*	*€250,000*		*100%*
	C1.1 Community Hubs -Parnell Square Cultural Quarter	*€20,000,000*		*100%*
	C.1.2 Dalymount Park Redevelopment	*€44,041,787 (between 2024-26)*		*100%*
	C1.3 Maker Spaces in Libraries	*% of €1,200,632 (between 2024-26)*		*100%*
	C1.4 Improved community facilities (including community kitchens)	*€822,600 (between 2024-26)*		*100%*

2.3 Module IP-B3: Economic and Financial Indicators for Monitoring, Evaluation and Learning

A range of financial policies need to be considered to execute the actions laid out in the 2030 Climate Neutrality Action Plan. The city's financial policies should align with their current process and capital allocation. This will depend on the actions selected and be drawn from possible financial tools to assist the transition.

Task Goals: *A strong and robust monitoring, evaluation and learning framework is crucial for internal monitoring of the implementation of climate actions, as well as a requirement for securing external capital where any private actor would require the ability to monitor project implementation and progress towards benchmarks and targets. By developing this framework now, cities can fully track their progress through the NetZeroCities Mission.*

Model IP-B3

Guiding questions:

- Do you have a monitoring system in place that evaluates the impact of green investments?
- Do you have a system to estimate emission reduction (following recognised methodologies) or co-benefits to measure the impact of investments?
- Do you have a monitoring and evaluation system for capital investment planning process-mapping deviation?
- Which indicators are most aligned with the work done in the Action Plan?
- Is the required data for the calculation of selected indicators available, or do you need to involve additional stakeholders?

B-3.1: Textual element

Within the DCC Climate Action Plan – Climate Neutral Dublin 2030, progress towards all the actions is monitored across various aspects including budget allocation; greenhouse gases (emitted (including embodied and operational) - Avoided (counterfactual/status quo) - sequestered; Target Impacted (GHG resilience/Just Transition). The data requirements, indicators and national policy alignments are listed within Appendix 1 of the DCC CAP 2024-2029, For example, green investment of €500,000 dedicated to R1.1 Dominick Street Lower will be monitored in terms of

emissions reductions and aligns internally with Capital Programme 2023-25; DCC Housing Delivery Action Plan 2022-26; Waste Management Plan; Sustainable Urban Drainage Guidelines; And externally with Housing For All; CAP 23 (specifically actions JT/23/2 EN23/11 - reduction in embodied carbon in construction materials, Also BE 23/55- Construct exemplars public sector buildings using alternative techniques and materials and monitor their performance'); CCSAP BIO 4.4; NBAP4 4C1, 4C2, 4C3.

In addition, connections across the foundations to the Plan and alignment with internal / organisational and external / national policy objectives are also captured within the monitoring process, including identification of the SDGs relevant to each Foundation of the Plan. This monitoring approach which acknowledges connections across the Foundations and alignment with a range of internal and external objectives seeks to maximise the opportunity for looking beyond individual silos and KPIs and broaden the definition of success. Through the implementation of this monitoring approach DCC will increase the recognition of the co-benefits occurring across the organisation from the projects being delivered.

In addition to monitoring of actions delivered by DCC, the team are also engaging with key national stakeholders who are based in Dublin to bring additional expertise and perspective to the monitoring process. Stakeholders engaged to date included the ISFCOE, the Central Bank or Ireland's dedicated Climate Change Unit, and the NTMA's Sustainable Finance Team and plans are being put in place so these can also assist with the measurement and monitoring processes and provide insights on Financial Service Providers Climate Action and Sustainability investments. The Dublin team are also engaging with the Climate Policy Initiative to utilise the Net Zero Finance Tracker Tool to provide another overarching perspective on sources of finance in the Irish context, importantly including climate action impacts related to this finance.

As part of our submission, we have uploaded our baseline as provided to us by our energy agency following a bespoke methodology. The inventory has been produced using data that is publicly available. A key challenge with the methodology is that it deploys a synthetic methodology to estimate energy use from which to calculation emissions in the residential and commercial sectors. The methodology relies on building energy ratings, year of build and typology to estimate the energy use and in turn the emissions. A key challenge is that a BER is an estimate of potential energy use not actual energy use. This is further compounded by the requirement for a building to have a BER in order to be rented or sold. A BER certificate is valid for 10 years, and if not renewed it defaults to the lowest energy rating. As such estimation for the built environment do not reflect actual energy use.

Another particular gap in our emissions inventory is the AFOLU sector. Within Dublin City there are large swathes of green space that are not accounted for. Further our measures undertaken to increase green cover are not captured. As such we acknowledge that the baseline may lack detail. As stated in our CCC improving our data capacity is a strategic priority for Dublin City and provides an avenue for collaboration.

Urban Sense, a pilot project between Terrain AI at Maynooth University, Microsoft, Cellnex, Edgieliot and DCC has seen the deployment of 20 sensors across residential and commercial areas in Dublin. The sensors, which measure greenhouse gases such as carbon dioxide and methane, as well as air quality parameters and weather variables, will provide a real-time visual pulse of the city, reflecting differences in land use, seasonal cycle in vegetation growth, weather events and even hourly patterns of traffic moving in and around the city streets. DCC is keen to see how this partnership will strengthen our capacity to communicate the impacts of our policies.

Further, DCC is also actively supporting the continuation of Terrain AI, a multidisciplinary research collaboration to understand the impact of human activity on land use.

Recognising the compounding challenges of climate change and the demands that emerge with a growing global population. Terrain AI is exploring innovative AI and computational methodologies in how we collect, fuse and model multi-thematic data in order to develop a better understanding of

GHG exchange across our farms, forests, peatlands and urban spaces. These improved GHG monitoring methodologies and standards will be adapted & scaled for other regions and countries across the globe.

Funded by Science Foundation Ireland (SFI) and Microsoft Terrain AI develops new cloud-based, automated work-flows and machine learning data toolsets for profiling and characterising environment types for more effective and precise carbon mitigation policies and practices.

Terrain-AI is advancing the standards of measurement, monitoring, verification and reporting of carbon stocks and emissions across complex environments. Researchers are developing innovative AI solutions and technologies, integrated with computational models, to provide more accurate estimates of carbon fluxes across scales, and a deeper understanding of the effects of human activities, to enable decision makers to develop more effective climate mitigation strategies.

Ultimately, Terrain AI is developing a rolodex of data sets, alongside a standardized cookbook for processing data that can be accessed by researchers and policy makers, to gain a deeper understanding of policy impacts.

For Dublin City, this presents an opportunity for delivering evidence based policy enriched by data insights that can tell a rich picture of the impacts of projects, programmes and plan.

Further at the National level there are several initiatives that will contribute to an in depth understanding of emissions. Ireland has recently joined International Carbon Observatory System (I-COS, and the Irish Centre for High-end Computing is involved in Destin-E

Table 10 Guidelines: Please develop some project- and sector-level economic indicators as well as some cross-cutting indicators to monitor the implementation of the Investment Plan and identified projects. If you are having trouble conceptualising these indicators, please utilise the ***Indicators Guidebook*** *which can be found on the NetZeroCities portal.*

Table 10: Economic Indicators by Sector

Fields of Action	Indicator	Indicator Unit	Indicator Baseline*	Indicator Target 2030*
Transportation	*Pedestrian and Cycling Infrastructure Emission return on investment*	*EURm/Kt CO2 Reduction*	*TBD*	*TBD*
	Fleet Electrification Public to Private Capital Ratio	*Ratio Public: Private Spending*	*0%**	*25%**
Built Environment	*Building Retrofit Emission return on investment - Private*	*EURm*	*TBD*	*TBD*
	Building Retrofit Emission return on	*EURm/Kt CO2 Reduction*	*TBD*	*TBD*

	investment - Commercial			
Energy Systems	*Community energy projects – Public to Private Capital Ratio*	*Ratio Public: Private Spending*	*0*	*50%*
Green Infrastructure and Nature Based Solutions	*Tree Planting Emission Sequestration Return on Investment*	*EURm/Kt CO2 Reduction*	€10,000 (cost of tree)	*€1,000*
Waste and Circular Economy	*Circular Economy infrastructure re-use and re-design - Public to Private Capital Ratio*	*Ratio Public: Private Spending*	0	50%

**Indicative indicators*

Table 11 Guidelines: Please develop some project- and sector-level financial indicators as well as some cross-cutting indicators to monitor the implementation of the Investment Plan and identified projects. If you are having trouble conceptualising these indicators, please utilise the ***Indicators Guidebook*** *which can be found on the NetZeroCities portal.*

Table 11: Financial Indicators by Sector

Fields of Action	Indicator	Indicator Unit
Transportation	*Pedestrian and Cycling Infrastructure Emission return on investment*	*EURm/Kt CO2 Reduction*
	Fleet Electrification Public to Private Capital Ratio	*Ratio Public: Private Spending*
Built Environment	*Building Retrofit Emission return on investment - Private*	*EURm*
	Building Retrofit Emission return on investment - Commercial	*EURm/Kt CO2 Reduction*
Energy Systems	*Community energy projects – Public to Private Capital Ratio*	*Ratio Public: Private Spending*
Green Infrastructure and Nature Based Solutions	*Tree Planting Emission Sequestration Return on Investment*	*EURm/Kt CO2 Reduction*
Waste and Circular Economy	*Circular Economy infrastructure re-use and re-*	*Ratio Public: Private Spending*

	design - Public to Private Capital Ratio	

3 Part C – Enabling Financial Conditions for Climate Neutrality by 2030

Part C "**Enabling Conditions for Climate Neutrality by 2030**" is the third section of the Investment Plan and is intended to identify other enabling factors the city needs to consider in the implementation of the Investment Plan.

3.1 Module IP-C1: Climate Policies for Capital Formation and Deployment

The allocation of capital will need to be optimised between both public and private sources across the portfolio outlined in the Action Plan to meet the cost of the actions identified for reaching climate neutrality over time.

Task Goals: *Tied to A3, this exercise is an opportunity for cities to identify existing and potential policies to help facilitate capital flows towards climate actions. This could be focused on high-level municipal actions such as the ability to issue green municipal bonds, through to increasing parking fares in the city centre to raise funds for climate actions. If including EU-wide and national policies, please explain the direct impact for the city of these actions.* ***Although linked to the Action Plan exercise, please use this as an opportunity to identify climate policies that specifically support capital formation and deployment.***

Model IP-C1
Guiding questions: • Does your city have an existing process for policy formulation (tool method, transversal team, procurement and innovative contracting, etc.) that supports financing or funding innovative areas and climate action? • What process is in place for your Transition Team to input on financial/funding policy, so that they do not operate in a silo for the 2030 ambition?

C-1.1: Textual element
As described in the previous sections, we are governed by the Local Government Act that determines our financial processes. Enabling finance outside of our direct responsibility requires further capacity building, and engagement with national stakeholders such as those listed in table 12 A. Most critically to ensure that Ireland is attractive to private sector finance, and in depth understanding of the challenges with existing funding streams and current financial system is a necessity. The CCC serves as a catalyst for conversation. It is evident from table 6, that there is a significant gap in finance available to deliver neutrality, especially retrofitting of the built environment. The mechanisms for financing private residential retrofit will need new finance mechanism designed to enable and incentivise retrofit in a manner that is just. The commercial sector will also pose a significant challenge, especially against a backdrop of rising costs. It is evident that as we bring new stakeholders on board, especially those from the private sector and civil society we will need to co create solutions. Collaboration is needed for this. Dublin City Council is embarking on a pilot, specifically action CCC 7 *Exploration of Systemic Finance Architecture to achieve a robust circular economy*, to understand how to unlock capital to drive the transition to a circular economy. While specifically focused on circular construction the process will prove valuable to understand how we can take a systems approach to finance. To understand how this might be achieved, we are embarking on a project with the Centre for Public Impacts to understand the system architecture for finance. The objectives of this project will be to: • Enable the deployment of capital into a systemic climate investment plan for Dublin City (and County) • Amplify the impact of climate investments through co-benefits and combining of interventions across different systems and value changes, within in an investment portfolio

- Create a blueprint for democratising the management and deployment of urban climate finance by focusing on people and communities in the design of the process.
- Build capacity of Dublin City Council (and other local governments) to design and build strategic investable portfolios.

As stated in the AP, achieving systems innovation requires radical collaboration, which in turn requires narratives to bring stakeholders to the table. Unlocking investment potential of climate action projects will require this, further this process will contribute to increasing policy coherence, which has been identified as a barrier to attracting finance.

We are exploring examples in other jurisdictions that may serve as models two are summarised here:

- The North Devon UNESCO Biosphere launched the Biosphere Foundation in 2022 with the aim of securing funding from investors for natural capital projects to enable landowners to undertake specific actions. An example provided for funding is the development of a 15 hectare woodland. The natural capital services of this action are accounted for including carbon capture, reduced flooding (insurance), pollution control etc. Dublin could seek investment opportunities for seagrass and dune restoration both of which would provide natural defences from storm surges (insurance) and carbon capture, as well as benefiting local wildlife. Further, at present there are two projects explore Blue Carbon potential in Dublin - - BlueC and Quest – will examine how marine habitats store carbon and potentially reduce carbon dioxide concentrations in the atmosphere. Coastal saltmarshes provide globally important ecosystem services including 'blue carbon' sequestration, flood protection, pollutant remediation, habitat provision and cultural value. Large portions of marshes have been lost or fragmented as a result of land reclamation, embankment construction, and pollution. Sea level rise threatens marsh survival by blocking landward migration where coastlines have been developed. Research-informed saltmarsh conservation and restoration efforts are helping to prevent further loss, yet significant knowledge gaps remain.
- Canada: A challenge with funding retrofit of residential (and non-residential) buildings is the prescriptive nature of the grants available. Canada has taken the approach of defining deep retrofit as a holistic endeavour which includes measures to improve resilience and adaptation to climate change. This allows for innovation and consideration to lifestyles,

which are different from coast to coast. The Deep Retrofit Accelerator Initiative provides funding to "retrofit accelerator" organisations that assist building owners in developing and Implementing deep retrofits in commercial, institutional and mid-to-high-rise multi-unit residential buildings (note: it does not cover capital costs). Natural Resources Canada has also launched the Retrofit Hub in early 2024 hosting information and resources to support retrofit projects

Table 12 A. Summary of stake holders and where they may be key in as levers in the various emissions domain

Domain	Energy Systems						Mobility & Transport						Waste & Circular Economy						NBS and Green Infrastructure						Built Environment					
Levers	TI	GP	SI	DP	FF	LC	TI	GP	SI	DP	FF	LC	TI	GP	SI	DP	FF	LC	TI	GP	SI	DP	FF	LC	TI	GP	SI	DP	FF	LC
NATIONAL GOVERNMENT STAKEHOLDERS																														
Department of the Taoiseach		x						x						x						x						x				
Department of Finance					x						x						x						x						x	
Department of Public Expenditure and Reform					x						x			x	x		x						x						x	
Department of the Environment, Climate and Communications		x			x			x						x				x							x	x				
Department of Housing, Local Government and Heritage					x			x							x					x					x	x	x		x	
Department of Health								x		x		x								x	x	x				x				
Department of Transport			x				x	x				x		x					x											
Department of Justice								x		x						x														
Department of Enterprise, Trade and Employment	x		x						x				x		x			x	x		x		x	x	x		x		x	
Department of Agriculture, Food and the Marine							x						x	x	x				x	x				x		x				
Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media			x			x			x			x			x			x			x			x			x			x
Commission for Regulation of Utilites		x												x						x						x				
Office of Public Works																				x		x	x		x	x			x	
Environmental Protection Agency				x		x				x		x				x		x				x		x				x		x
National Transport Authority							x	x		x	x									x						x				
Sustainable Energy Authority of Ireland	x		x	x	x	x	x		x		x														x	x	x	x	x	
NON GOVERNMENT STAKEHOLDERS																														
EirGrid	x		x	x																										
Electricity Supply Board (ESB)	x			x			x		x	x	x														x		x	x		
Uisce Eireann	x			x									x			x				x				x						
Dublin Bus/ CIE	x						x		x	x																				
Irish Rail/ Dart	x						x																							
TransDev	x			x					x	x																				
Waterways Ireland	x			x			x												x			x								
Irish Green Building Council	x		x	x		x		x	x	x		x						x		x		x		x		x	x	x		x
Irish Planning Institute				x		x	x	x	x	x		x						x		x		x		x		x	x	x		x
Dublin Port Company	x		x	x			x						x		x	x		x			x	x		x						

Table 12 Guidelines: Please identify and describe any potential policies to support capital facilitation and deployment in the city, describing the policy, its current status or stage of development, and the intended outcome (e.g. increased parking fares to deter driving but also raising capital for additional climate actions). ***For city-level policies, please include some quantifiable range as to the amount of capital raised by intended policies.***

Table 12: List of Climate Policies to Enable Capital Deployment

Climate Policy	Policy Status (Enacted, In Process, Development, etc.)	Description of the policy (sector, targeted audience, etc.)	Intended Outcome for Capital Formation
Project Ireland 2040	Enacted	National Planning Framework under Project Ireland 2040, the overarching policy and planning framework for the social, economic and cultural development of our country.The National Planning Framework (NPF) is the Government's high-level strategic vision for shaping future growth and development in the country. The NPF seeks more concentrated growth with 50% of overall national growth to be targeted towards the five main cities, including Dublin.	Sets financial priorities for the state
National Development Plan 2021-2030 (National Investment Plan)	Enacted	The National Development Plan sets out the Government's over-arching investment strategy and budget for the period 2021-2030. It is an ambitious plan that balances the significant demand for public investment across all sectors and regions of Ireland with a major focus on improving the delivery of infrastructure projects to ensure speed of delivery and value for money. 1.3 Billion Allocated to Flood	Sets financial priorities for the state
Public Spending Code	Enacted	The Public Spending Code is the set of rules and procedures that apply to ensure that these standards are upheld across the Irish public service. The Code brings together in one place all of the elements of the value-for-money framework that has been in force up to now, updated and	Processes for spending

		reformed in some respects.	
Green Budgeting – Department of Finance (National Level)	Enacted	Green budgeting is a process that seeks to consider the impacts of the budgetary process and wider fiscal policy on the transition to a more sustainable, environmental and climate friendly economy. It includes an analysis of both climate positive and climate negative tax revenues and expenditure in the tax system	Provides an indication of performance In 2024 it was
Community Climate Action Fund	In Process	Community groups across DCC (and all other local authority areas) can apply to the local authority for support for a range of climate action projects. The application process is currently underway with successful projects being delivered over the next 12 months.	Provide capital support of up to €100,000 to facilitate community engagement with climate action
Renewable Energy Support Scheme		The Renewable Electricity Support Scheme **provides support to renewable electricity projects in Ireland**.	Auction mechanism
National Energy and Climate Plan	In Process	The NECP brings together the policies, targets, tools and associated material from across Government bodies and departments in one document.	Sets priorities for climate finance, key signalling document
Carbon Tax and Carbon Budgets	Enacted	Carbon Budgets determine the carbon tax, revenues from carbon tax are ring-fenced for climate mitigation projects	Funding stream
SEAI Pathfinder Programme	Ongoing	Funding programme to support capital intensive decarbonisation projects in the public sector	Grants for retrofit
Off shore renewable support scheme	Ongoing	Ireland's second offshore wind energy auction, ORESS 2.1 will be the first auction to take place in Phase Two and will procure up to 900	Auction mechanism

		Megawatts of capacity from a State-selected provisional designated area known as a Designated Maritime Area Plan (DMAP) off Ireland's south coast	
Home energy Upgrade loans scheme	Ongoing	The purpose of the loan must be to carry out home energy upgrade works that are also grant-aided through the Sustainable Energy Authority of Ireland (SEAI). You can borrow from €5,000 to €75,000 for a term of up to 10 years. Loans are available through participating finance providers, including banks and some credit unions. The interest rates will be significantly lower than those generally available in the market but will differ among the finance providers.	Green mortgages for housing retrofit
Energy Efficiency Obligation Scheme	Ongoing	The Energy Efficiency Obligation Scheme (EEOS) is a Government of Ireland energy efficiency scheme operating since 2014. The scheme is designed to promote energy efficiency in homes, businesses and communities in Ireland. Actions carried out through the scheme are expected to achieve 60% of Ireland's energy efficiency target for 2030. How does the scheme work? Under EEOS, the largest energy suppliers and distributors in Ireland are required to achieve annual energy efficiency targets. Large energy suppliers and distributors include companies that sell more than 400GWh of energy per year to final customers. These companies, known as Obligated Parties, are given specific annual targets based on their market share within the energy industry. EEOS is a regulation with three sub targets: Cross-	Supposed to incentivize private retrofit

		sector 85%, Residential 10% and Energy Poverty 5%. Obligated Parties can achieve their annual targets by financially supporting homeowners, businesses and communities to carry out energy efficiency upgrades. For every unit of energy saved, Obligated Parties earn energy credits towards their annual goal. The 2014-2020 EEOS supported energy efficiency actions in more than 300,000 homes and 3,000 businesses. The most recent 2021-2030 EEOS obligation period continues to obligate large energy suppliers and distributors in the electricity, natural gas, liquid fuel, and solid fuel markets.	
Zero Emissions Vehicle Rebate		**Electric vehicles and motorcycles** Series production passenger cars or commercial vehicles (VRT categories A and B) that are: • powered only by an electric motor • **and** • registered before 31 December 2025 Are eligible for relief from VRT up to a maximum amount of €5,000. Vehicles with an Open Market Selling Price (OMSP) of up to €40,000 will be granted relief of up to €5,000. Vehicles with an OMSP of greater than €40,000 but less than €50,000 will receive a reduced level of relief. Reliefs have been removed for any electric vehicles above €50,000. Series production electric motorcycles are exempt from VRT until 31 December 2025. Sample calculations of the VRT chargeable for electric vehicles	Incentives for EVs

Bike to work scheme	Enacted	Grant covering 50% of the costs of a new bicycle.	Grant

3.2 Module IP-C2: Identification and Mitigation of Risks

The risks relevant to the implementation of an Investment Plan should be considered, which may impact the ambition to achieve climate neutrality, mitigation techniques should be identified where necessary and where possible, these should align with the financial policies selected.

Task Goals: *All projects identified in the Climate Action Plan will have potential risks regarding funding and financing – for example, a project overshooting cost estimates. By establishing a risk management framework and developing risk mitigations at both the sector and project level, cities can ensure they are equipped to identify any problems quickly, and sufficiently deal with these problems once they arise.*

Model IP-C2

Guiding questions:

- Does risk analysis feature in your decision-making investment process?
- How do you regularly identify and measure risk related to financing actions?
- What is your understanding of risk mitigation and quantification methods?
- How have you devised your risk management framework and how frequently – and via what process – will it be reviewed?

C-2.1: Textual element

During the budgetary process undertaken by the Council, risks are assessed as part of the development of the budget. These risks are presented to inform the council's decision making process. However many risks remain out of the control of the local authority and are driven by national government policy.

Key risks include:

- Elections/ Political opinion – as highlighted political timescales define what is long term and this creates challenge for long term public good projects, as one government may view something as a priority another will not
- Inflation - Inflationary pressures impact on all DCC activities whether through the goods and services we procure or the works contracts we commence.
- Skills – Our capacity to retrofit is challenged due to a lack of skills in the market that is partly driven by the high costs of living here.
- Policy Signals and Incoherence- A key issue as highlighted is the lack of strong policy signals from National Government, coupled with a preference for "A let the market decide approach" market failures persist and we do no experience the rapid transformation we need. While Ireland demonstrated success in growing its information technology sector, that success has not translated confidently into climate finance.
- Policy Coherence - Silo'd thinking has resulted in competing policy priorities, for example our flagship social housing project on Lower Dominick St began as an exercise to illustrate what needs to be done to align housing retrofit targets set by the Department for Environment, Climate and Communications for retrofit of housing to reach B2 standard, and the Department of Housing for 500,000 new homes to be built, which have a carbon footprint. This is a simple example, but there are many others that we are seeking to identify especially in the context of the circular economy.
- Foresight

Mitigating Risks

We know that whole society behaviour change towards more sustainable lifestyles is needed. To spark (and to nurture) change, systems need to be designed so that the sustainable choice is the most convenient. So that we make Dublin into a resilient, resourceful, social and creative city for all. We have identified implementation actions that need to be undertaken for our city's transition to a low carbon and climate resilient future are as follows:

IM1. **Oversight by Steering Group:** Proactive collaboration across internal departments, and with external agencies and organisations to implement and monitor the impacts of this climate action plan requires strong leadership from senior management. A Steering Group chaired by the Chief Executive to oversee the overall direction of progress and ensure that Dublin City Council, as an organisation is a leading light in decarbonisation, embedding climate resilience, facilitating co-benefits for climate and other environmental factors, and principles of equity in our operations and service delivery has been established. The Steering Group will ensure that internal structures are in place to foster ownership, accountability, and delivery of actions and projects are resourced; and provide quarterly reports to elected members via Strategic Policy Committees, and annually to the full Council.

IM2. **Challenge Led Approach:** Recognising the limitations of "change-as-usual", our Plan is taking a challenge led approach to foster better coordination and increased engagement; and to unleash the collective intelligence of a variety of actors impacted by, and responsible for the change to be realised by our plan.

IM3. **Monitoring**: Without monitoring we will not know how we are progressing, what is working or not, and who we need to engage to implement changes necessary for climate neutrality. The actions in our plan are linked to headline indicators and sub indicators as well as our targets. Together the data from these indicators and targets provide a picture and a story of the impacts of our actions on quality of life in the city. Monitoring is also an opportunity for collaboration. (the need for data is evident in the triage approached illustrated by Figure 19, and is vital to informing the actions taken and in monitoring success)

IM4. **Ireland& Dublin& You:** Your active participation in the implementation of this climate action plan, which is about safeguarding our collective future is essential. We will keep you informed, engaged and active in this plan through our Climate Newsletter, events and reports to council.

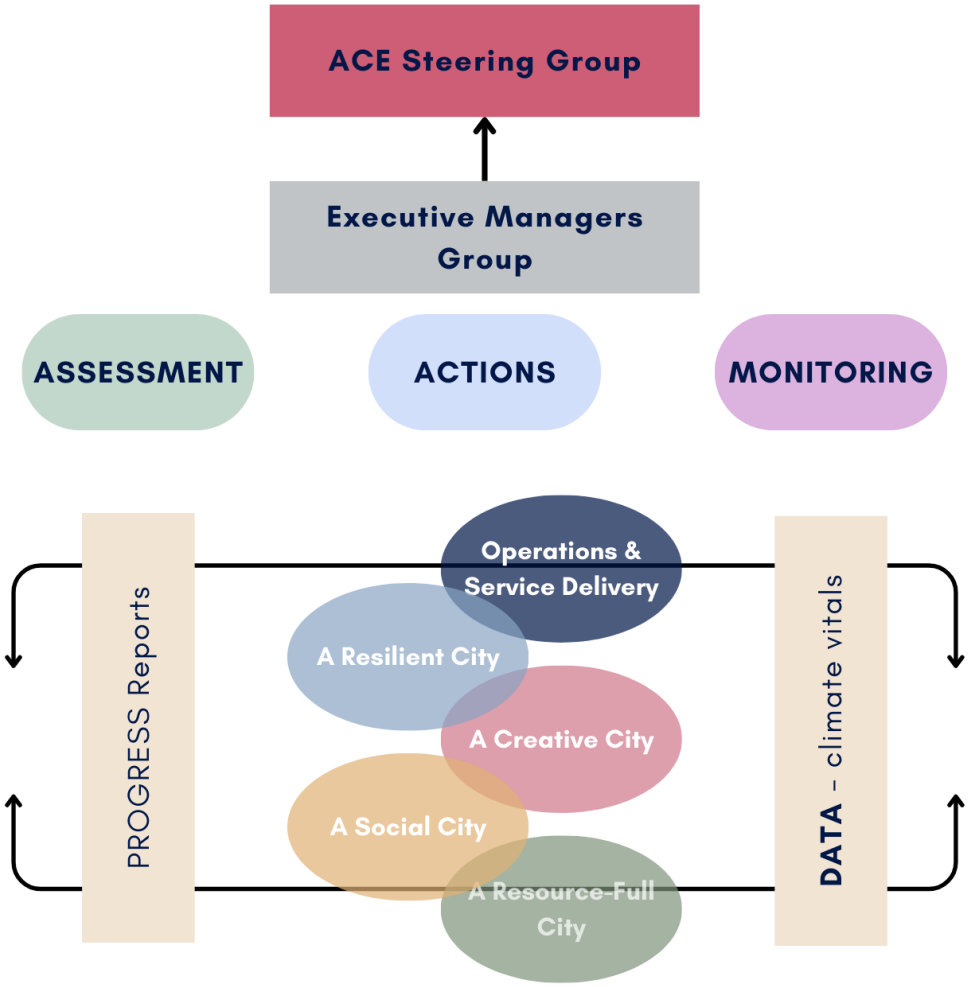

Figure 15. Internal Governance – Steering Group

Steering Group

ACE Steering Group members

- Chair: Richard Shakespeare, Chief Executive
- John Flanagan, Assistant Chief Executive and City Engineer, E&T
- Tony Flynn, Assistant Chief Executive, CRES
- Eileen Quinlivan, Assistant Chief Executive, HRCST
- Mick Mulhern, Assistant Chief Executive, HCS
- Victor Leonov, Assistant Chief Executive and Head of Finance
- Derek Kelly, Executive Manager, E&T
- Michael Ryan, Head of Communications

Mandate

Responsible for ensuring the successful delivery of CND2030 by:

- Developing partnerships with key external stakeholders. (as per Figure 17)

- Fostering cross department collaboration to realise co benefits, efficiency and cost effectiveness of projects and programmes.
- Providing support and direction to executive managers group.
- Reviewing and deciding on options provided by executive managers group.
- Ensure resources (staff and finance) are adequate and available.

Procedures:

	Ordinary meeting	Extraordinary meeting	Agenda & Reports
ACE Steering Group	Every Quarter Second Wednesday of January, April, July and October	At any time upon request of the Chief Executive	Agenda and Reports received 7 days in advance of meetings outline progress and challenges to be addressed
Executive Managers Group	Every Quarter Third Wednesday of December, March, June and September	At any time upon request of any member of the group	Agenda and updates for report to be submitted to ACE Steering Group

Executive Managers Group Members

- E&T
  - Climate
  - District Heating
  - Water
  - Traffic
  - Environment
- Planning
  - Planning
  - Property
- HRCST
  - Transformation
- Finance
  - Finance
- H&CS
  - Operations
  - Delivery
- CRES
  - Economic

Mandate

Responsible for ensuring the successful delivery of CND2030 by:

- Developing partnerships with key external stakeholders (as per Figure 17, based on sectors)

- Fostering inter department collaboration to realise co benefits, efficiency and cost effectiveness of projects and programmes through day to day work and challenges (Figure 16).
- Receiving, reviewing and determining new “Dublin Let’s…” Challenge as proposed by selves and teams.
- Providing support and direction to Challenge Delivery Team.
- Ensure proper resourcing and supports for challenge delivery teams
- Provide ACE Steering group with regular updates on progress of day to day work and challenges noting barriers and proposed options to address barriers; presenting lessons learned and celebrating successes.
- Ensure timely monitoring and reporting by teams on climate actions within their remit.

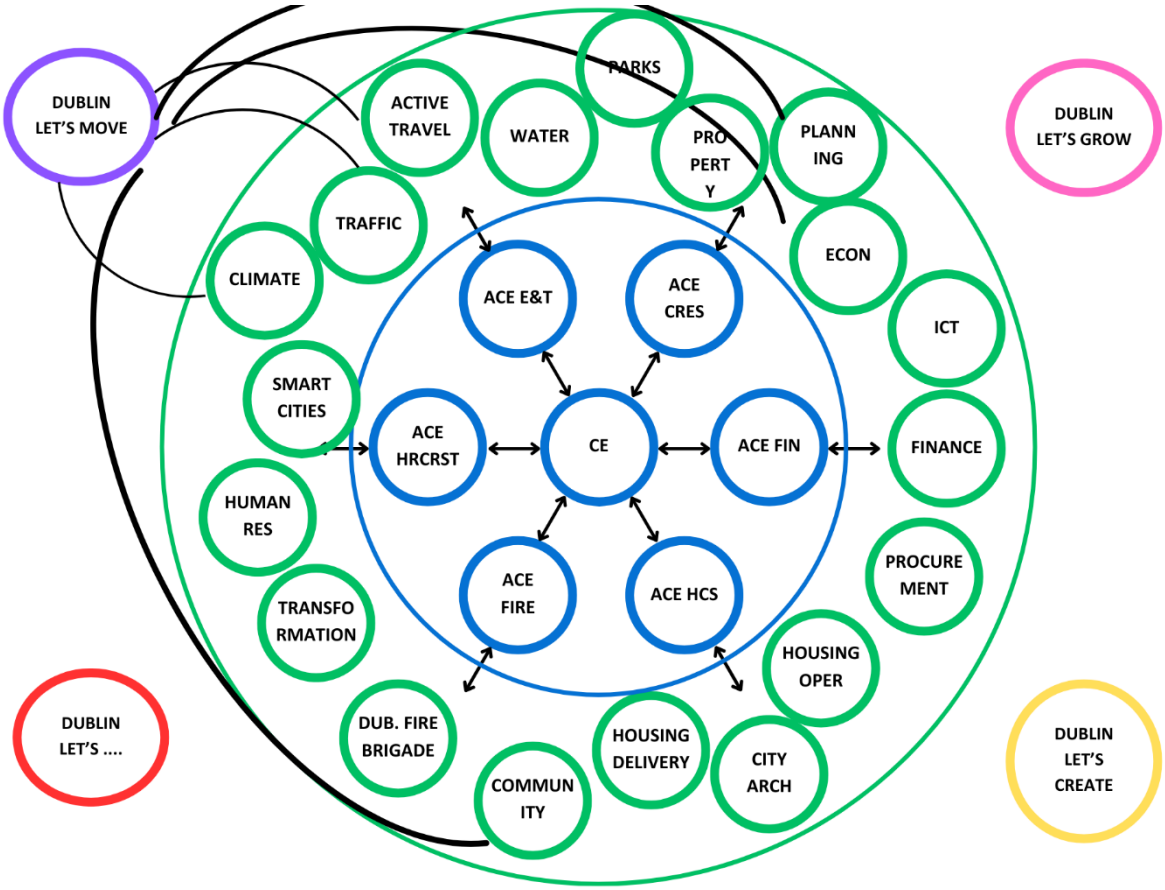

Figure 16 DCC Organisational Structure for Local Climate Teams & Challenges

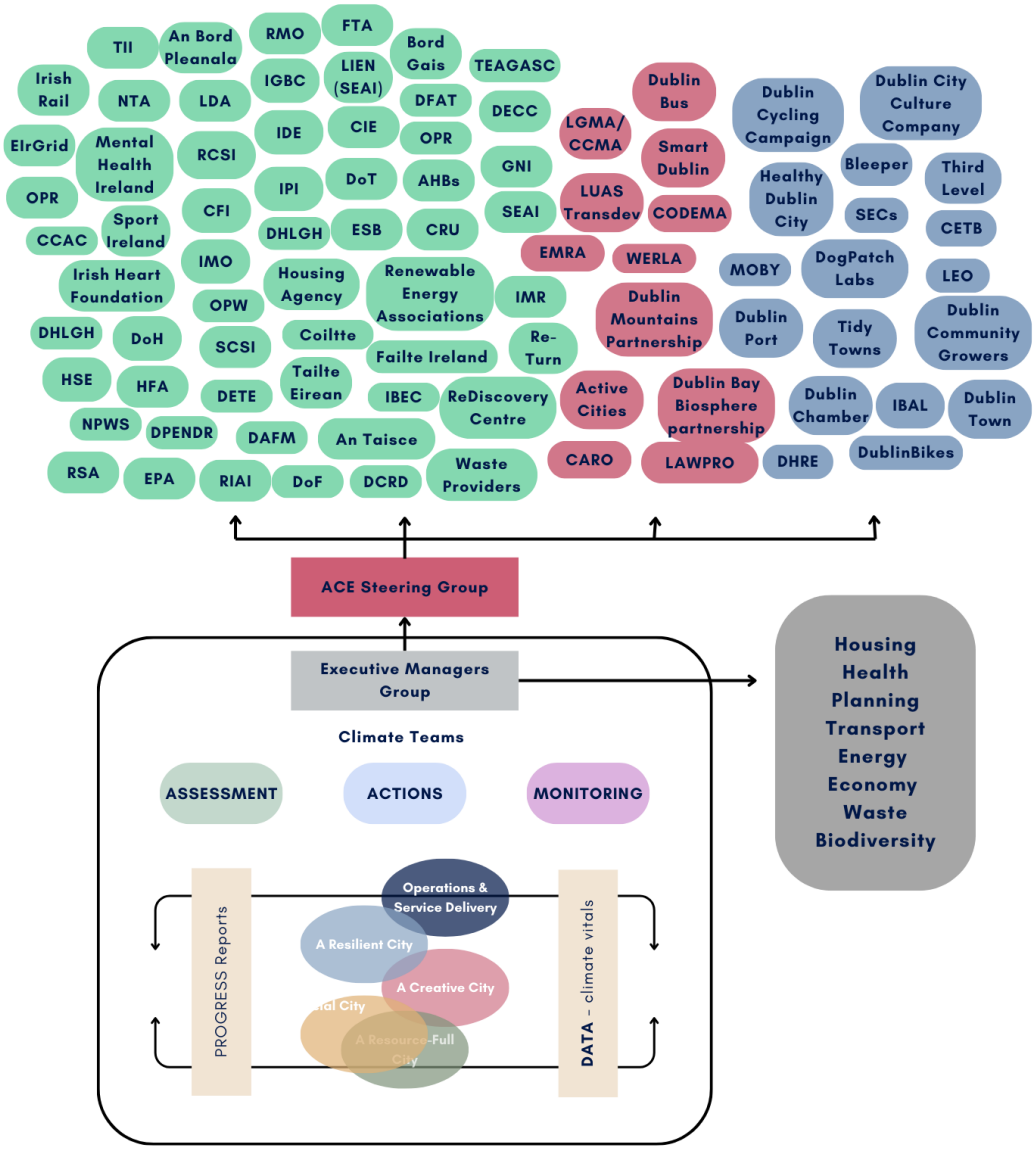

Figure 17 Steering Group and External Relationships

Implementation will be essential in mitigating the risks identified, as a commitment to ensuring collaboration and co creation of solutions, under pins implementation. In the absence of this, addressing the existing barriers to making Dublin, and Ireland attractive for investment will be impossible. Here the National Mirror Group plays a role in bringing people to the table to address these barriers and challenges and turn them into opportunities for co-creation and collaboration that will enable policies to be designed and implemented that are coherent, cohesive, and robust. In addressing this the other risks of skills, and inflation will be addressed. As the key lever to unlocking neutrality in the Irish context is governance and policy.

Table 13 Guidelines: Please identify potential risks, routes to monitoring these risks, and a mitigation plan to prevent risk escalation. This should be completed for the project- and sector-level as well as city-wide risks. Instead of simply listing risks, this is an opportunity for cities to outline a risk

management framework (including identifying high, medium and low priority risks), the likelihood of all risks and any residual risks following mitigation actions.

Table 13: Climate Investment Plan Risk Framework

Fields of Action	Sectoral Project	Risks Identified	Description of Risk	Risk Priority	Mitigation of Risk
Transportation	Active travel programme	Change in government	Funding is linked to national government	Low	Co-benefits, linking projects with other benefits has been valuable – specifically applying the greenways concept to introduce flood alleviation through NBS into projects; Public acceptance is high
Built Environment	Social Housing retrofit	Change in government	Funding is linked to national government	low	Housing is a key priority
	Social Housing retrofit	Skills within the market	Their currently is skills shortage in Ireland that interlinked with our cost of living crisis this is driving the increasing costs of retrofit	Medium	Providing training and apprenticeship opportunities; considering provision of housing for construction workers
Energy Generation	DDHP	Public objection	The existing WtE is controversial due to assumptions of pollutants being released into the atmosphere	High	Communication of the critical nature of the project
Green infrastructure and Nature Based Solutions	Greening Strategies	Lack of Finance	Currently the adaptation budget nationally is non existing. Funding for green strategies is driven primarily through the city's own budget	high	Communicating the value of these projects to emissions sequestration, and the co-benefits; and linking to food growing.
Waste and Circular Economy	An ecosystem of social and circular economy	Policy Coherence	Conflicting policies, that limit material re-use or prevent the emergence of new enterprises	Medium	Research is ongoing to identify issues
City Wide Risks (Cross Cutting)	Just transition	Elections	Changes in government will bring new policy priorities	medium	Communication with parties and linking with priorities
	Climate Action Plan	Policy Coherence	Conflicting legislation and competing interests	Medium to high	Efforts are ongoing to understand the conflicts between legislations that prevent the transition, and slow progress

3.3 Module IP-C3: Capacity Building and Stakeholder Engagement for Capital and Investment Planning

Internal capacity and capabilities should be assessed and developed, working with both internal and external stakeholders to accelerate the transition to climate neutrality by 2030. This stakeholder mapping and identification of engagement pathways are tied to the Action Plan exercise but should focus on financial and investment-focused stakeholders including (but not limited to) municipal banks, private sector companies that must invest to decarbonise their assets and all private capital providers or funding organisations. For non-financial stakeholders, provide a breakdown of costs for any stakeholder incentive schemes such as transport subsidies or funding for retrofitting of residential properties.

Task Goals: *The first element of this task is an opportunity for cities to assess internal capacity and identify any knowledge or resource gaps within the Transition Team. This should be clearly outlined in the text as well as any plans to overcome these gaps.*

For the stakeholder engagement exercise, cities should use this exercise to identify any potential stakeholders that can support the financing and development of their Climate Action Plan. As has been documented, the local authority accounts for a small proportion of emissions within the city and private stakeholders must also invest to decarbonise their emitting assets. By identifying these stakeholders early, cities can facilitate engagement optimally. ***Cities can take the same approach to this task as the similar task within the Climate Action Plan, but focus on financial actors (i.e. any stakeholder that can deploy funds for proposed climate investments – whether to public projects or their own corporate actions) or the costs associated with interacting with the non-financial actors (e.g. incentive schemes for citizen behavioural shift).***

Model IP-C3
Guiding questions: • Is your Transition Team well-resourced and does it have the necessary skillsets to develop a robust Investment Plan? • Have you identified the capacity gaps (both knowledge and personnel) in your Transition Team to develop and implement the Plan? • Have you identified relevant stakeholders to develop an Investment Plan in your city? • Do you have a clear engagement strategy for relevant stakeholders?

C-3.1: Textual element
While we have identified our transition team we are in the process of building it and inviting key stakeholders. We are also critically building our own internal capacity for collaboration. This was identified as a key step in both the delivery of our statutory climate action plan, but as well our CCC. We recognise that Dublin's success is Ireland's success, and success requires that everyone is working together. How we work together to collaborate and co-create needs to evolve for us to succeed. Figure 18 Illustrates the governance and policy structure that under pinned our first local authority climate change action plan. In recent years, it has become clear that "change-as-usual" is not enough to address whole society problems such as climate change. Implementing change that improves efficiency but continues to allow us to work in siloes, will not enable us to meet our targets and realise the co-benefits of climate action that will improve people's health and well-being. In this context we developed our climate readiness toolkit to shift our ways of working to a more coordinated and collaborative approach to action, that is a whole systems approach. Figure 19 demonstrate how a triage approach might work for the city, with Dublin City Council teams being represented by blue ovals and the external stakeholders in red ovals. It is evident from this that an adaptive governance approach is needed to respond to the climate crisis, that hierarchical governance is not sufficient

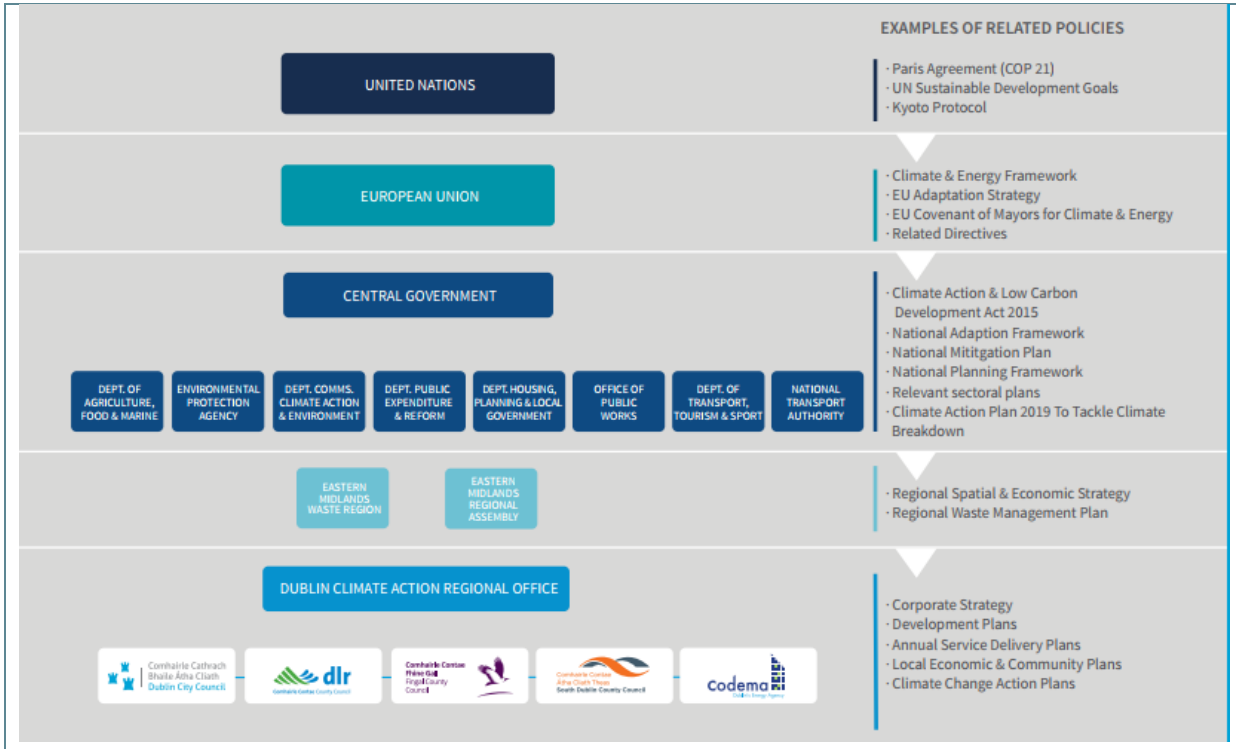

Figure 18 Governance and Policy Context for first Climate Change Action Plan 2019-2024

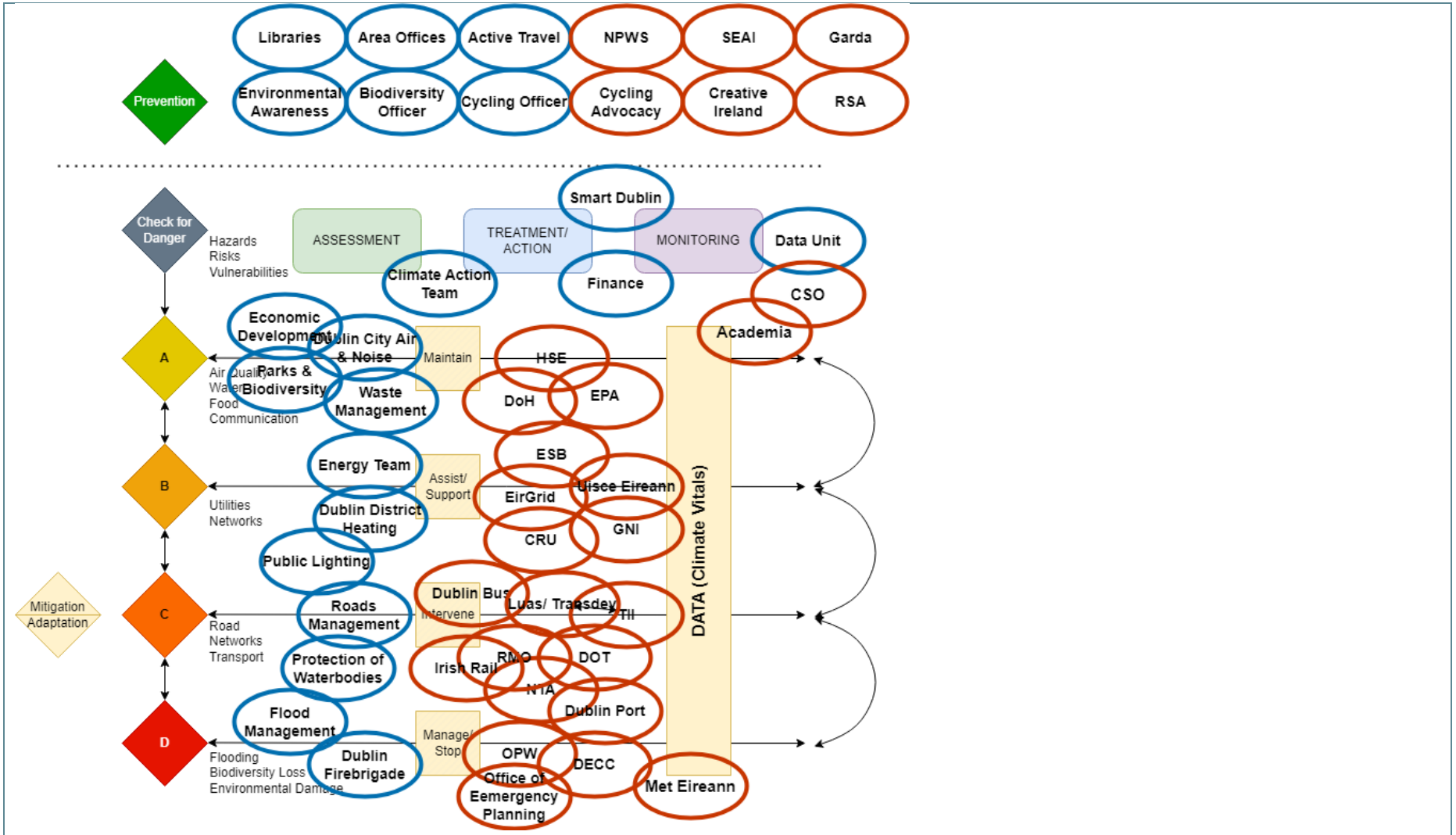

Figure 19 Applying a triage approach for action

In as much as we need an understanding of the finance land scape, to utilise it we need to use the expertise within our organisation to understand the various pieces of legislation and regulations that may inhibit progress in accessing finance. Furthermore we by taking this step we unify around a narrative and improve our capacity to communicate internally and externally.

As the capital city, Dublin is well positioned to benefit from the increasing prioritisation which Climate Action and Sustainable Finance receiving. The International Sustainable Finance Centre of Excellence, which is based in Dublin, will provide welcome support and expertise regarding both the level investment taking place across Dublin and also the impact this finance is achieving.

Our elected members having adopted Climate Neutral Dublin 2030, we are on our way. We report every two months to the strategic policy committee for Climate Action and Environment SPC on progress, and annually to the full council. We anticipate that amendments will be made to CCC/Climate Neutral Dublin 2030 as we progress and invite new stakeholders to join us.

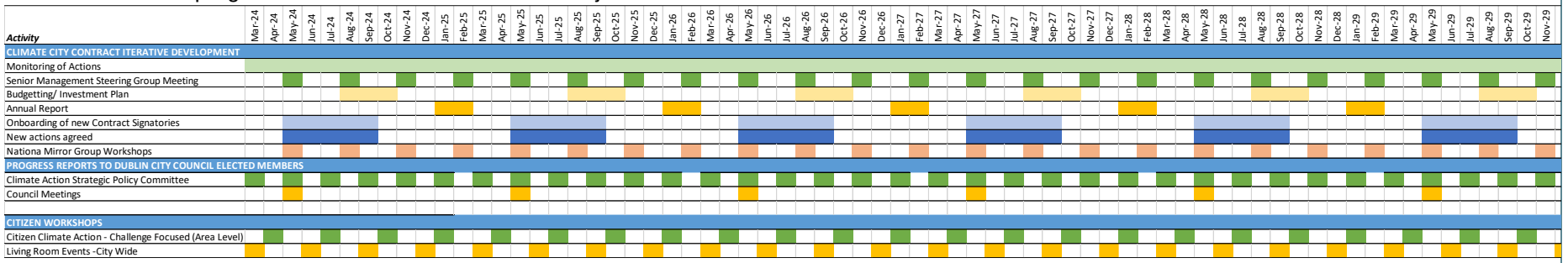

Figure 20, provides an indicative schedule of iterative development of the climate city contract. Aligning city budgeting process in the fall, we endeavour to bring new signatories on board following the annual report and in advance of budgeting. Additionally included is our reporting process to elected members and engagement with citizens to 2030.

Community Climate Action Programme

During the life of the programme and as programmes complete, we will share best practice via our social media platforms and website. We will also work alongside participating communities to help identify additional funding opportunities so we can build on the successes achieved as we further transition to lower carbon communities.

Further, ensuring continuous support citizens we anticipate building on the challenge led approach and working across the city on area specific challenges and bringing these communities together quarterly to share experiences.

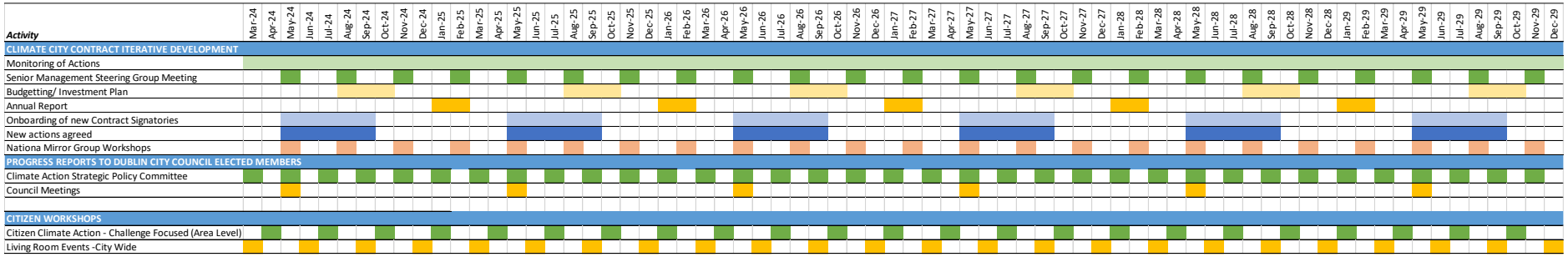

Figure 20 Refinement of CCC to 2030

Table 14 Guidelines: Please identify any financial stakeholders – private sector companies, commercial banks and lending organisations – that the city has an existing or future relationship with, including the level of influence and interest, and the type of engagement. If they are linked to a specific climate action or project, please list that here as well as the required investment from the stakeholder.

Table 14: Stakeholder Engagement Mapping

Stakeholders involved	Required Investment (€)	Network	Influence	Interest	Level and Type of Engagement
European Investment Bank	…	…	…	…	…
Allied Irish Bank	€15,000,000 to support retrofit across the city	Home energy Upgrade scheme	Support home owners	Scheme is backed by the EIB	Enabling housing retrofit through loans, i.e. green mortgages
PTSB		Home energy Upgrade scheme	Support home owners	Scheme is backed by the EIB	Enabling housing retrofit through loans, i.e. green mortgages
Bank of Ireland		Home energy Upgrade scheme	Support home owners	Scheme is backed by the EIB	Enabling housing retrofit through loans, i.e. green mortgages
Avant Money		Home energy Upgrade scheme	Support home owners	Scheme is backed by the EIB	Enabling housing retrofit through loans, i.e. green mortgages
Irish League of Credit Unions		Home energy Upgrade scheme	Support home owners	Scheme is backed by the EIB	Enabling housing retrofit through loans, i.e. green mortgages
IPB insurance	TBD – based on flood works and costs of greening investment should be		Reduce risks of flooding and damage to buildings	Reducing risks and pay outs from claims	Reducing risk of climate events
Aviva			Reduce risks of flooding and damage to buildings	Reducing risks and pay outs from claims	Reducing risk of climate events
VHI	TBD - based on costs to health starting should be:		Support improvement in living environments.	Reducing risks and pay outs from claims	Reducing health risks associated with climate change

Laya	€5,000,000,000		Support improvement in living environments.	Reducing risks and pay outs from claims	Reducing health risks associated with climate change
Allianz	TBD – based on costs related to injury starting should be €110,000,000		Support improvements in movement through the city	Reducing risks and pay outs from claims	Reducing risk of injury and emissions

Table 15 Guidelines: For any engagement or incentive schemes involving non-financial actors, please list these below and identify any specific costs to the city for conducting these (e.g. reduced transport fares to encourage modal shift).

Table 15: Stakeholder Activity Cost

Stakeholders involved	Activity	Cost to Municipality (€)
Dublin Bus	Transition of fleet to EVs	0 to us,
Failte Ireland	Supporting hospitality sector in decarbonisation	0 to us,
Luas	Increasing ridership	0 to us,
Bike to work	Expanding grant to include annual repair costs	0 to us,
Car Share	Increase coverage and membership	0 to us,
Commercial Sector	Encouraging living above the shops; but also use of vacant buildings	0 to us but needs to be driving by central government
Garda (Police)	Automated fines for road violations	0 to us,