



EPA GHG Inventory Breakfast Seminar

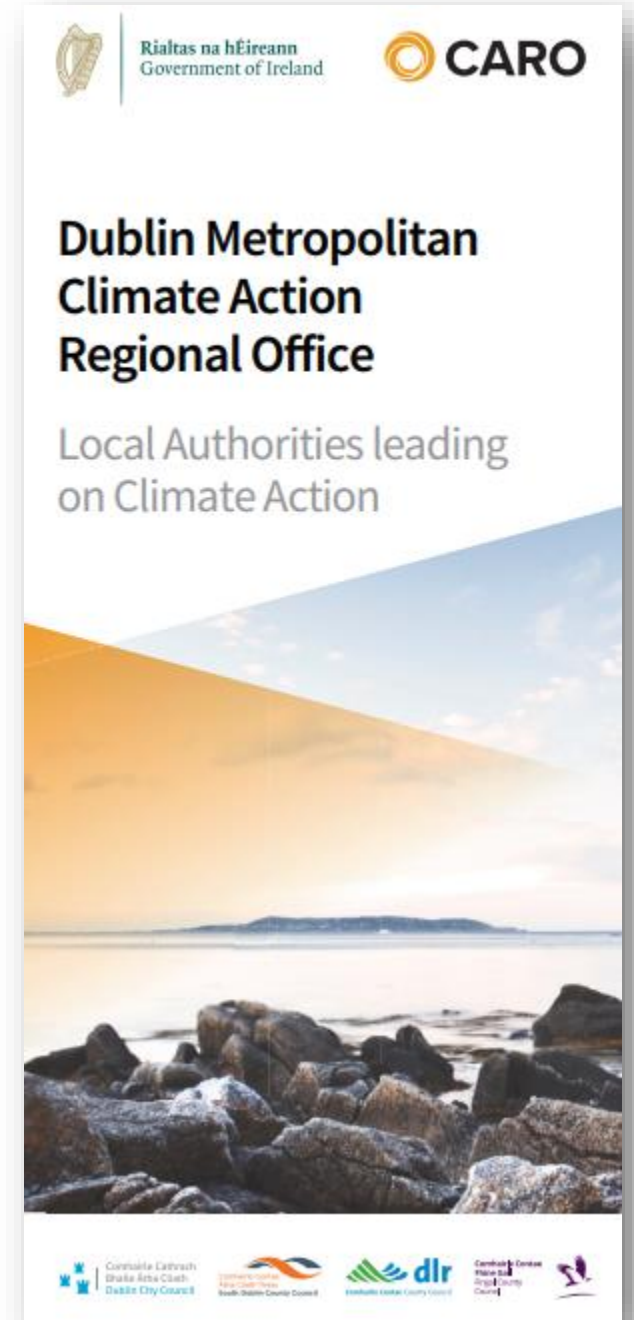
Climate Action Regional Offices (CAROs) – Climate Action by Local Authorities

Camden Court Hotel

24th October 2019

Presentation Outline

- CARO Background
- CARO Work Programme
- Dublin Climate Change Action Plans
- Actions from Climate Action Plan 2019
- GHG Inventories from National to Local
- Take home messages





Cumann Lucht Bainistíochta Contae agus Cathrach
County and City Management Association



GEOGRAPHICAL AND TOPOGRAPHICAL RISK REGIONS



Region	Climate Risk
Atlantic Seaboard North	Coastal Flooding Storms Groundwater Flooding Rural Pluvial
Atlantic Seaboard South	Sea level Rise Coastal Flooding Storms Groundwater Flooding Rural Pluvial
Dublin Metropolitan	Urban Pluvial Urban Freezing Urban Heatwave
Eastern & Midlands	Fluvial Flooding Rural Pluvial Groundwater Flooding



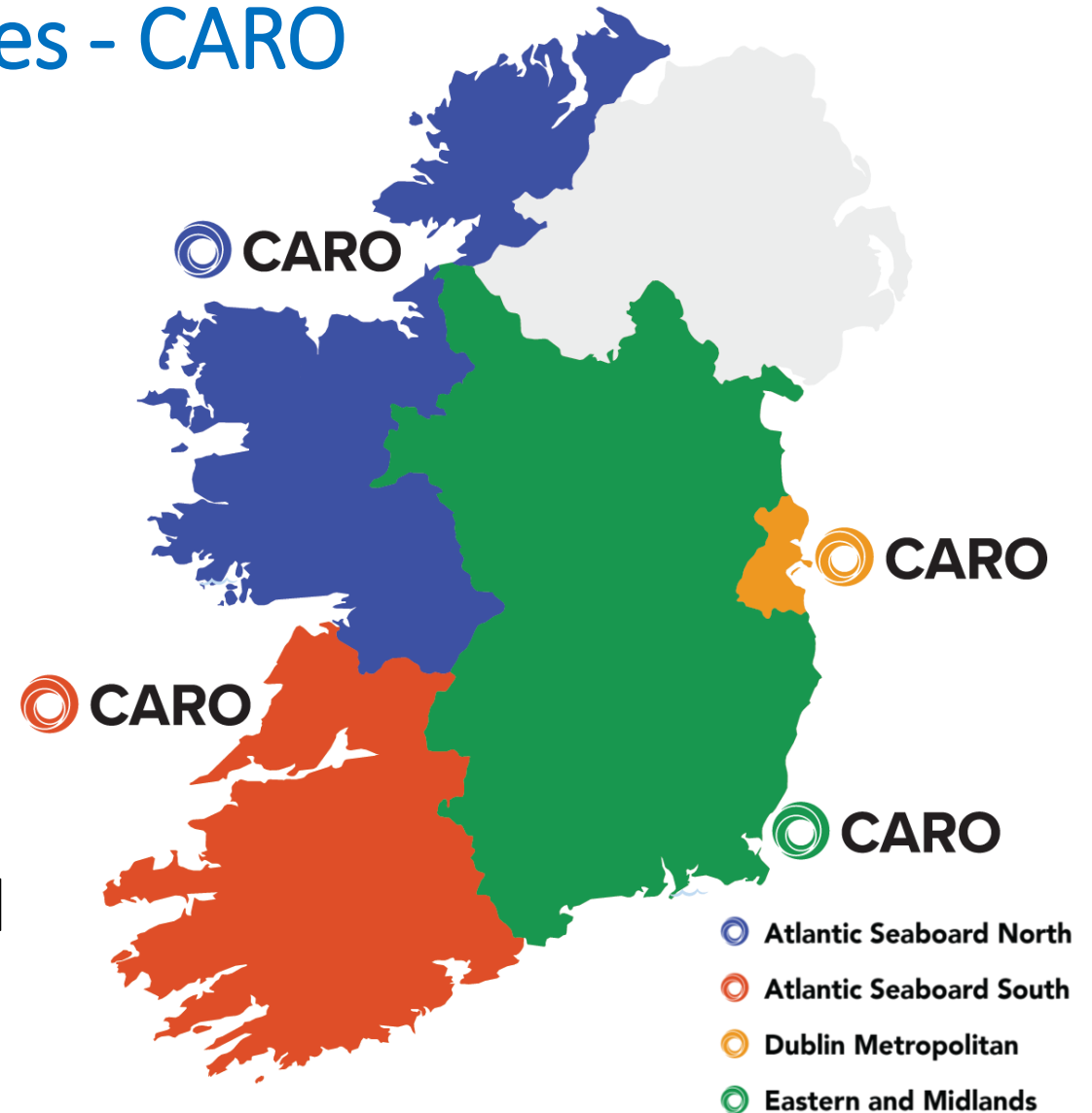
**Roinn Cumarsáide, Gníomhaithe
ar son na hAeráide & Comhshaoil**
Department of Communications,
Climate Action & Environment

Climate Action Regional Offices - CARO

- 5 year funding from DCCAE

CARO Mandated to:

- **Drive** Climate Action & Build Capacity within LA Sector
- **Coordinate** Engagement across Various Agencies and Government Departments
- **Translate** Sectoral Efforts to Local Level
- **Build on** Experience & Expertise



CARO – Work Programme 2019



1 Establish Regional Offices



2 Local Authority Adaptation Strategies



3 Projects, Research and Regional Specialisms



4 Training and Education



5 Communication



6 Mitigation

Climate Policy – Global to Local

International Conventions



European Climate Directives



National Climate Policy



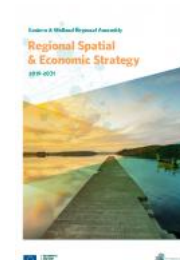
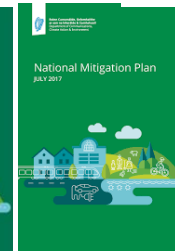
Sectoral Plans



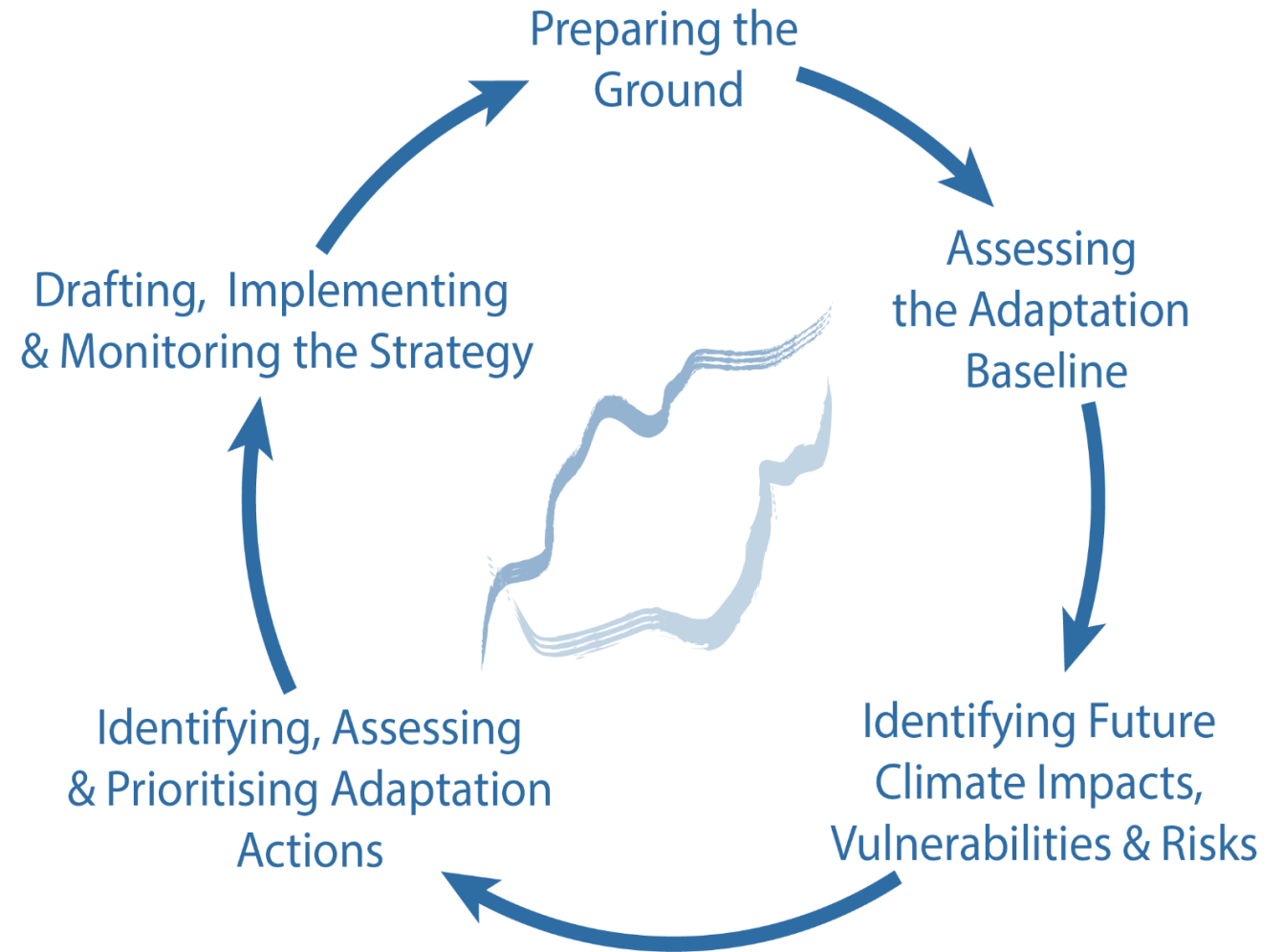
**Local Authority
Climate Change Action Plans**



United Nations
Framework Convention on
Climate Change



LA Adaptation Plan Development - Methodology



Dublin Climate Change Action Plans 2019-2024

- Dublin CCAPs in development since 2016 in conjunction with **Codema**
- Regional Strategy 2016
- Workshops across all Dublin LAs 2017/18
- Draft CCAPs Public Consultation Feb/March 2019
- SEA/AA screening
- **960+** attendees at Public Information Events
- **560** submissions to CCAPs
- **Sept 2019** – Finalised and submitted to DDCAE



www.dublinclimatechange.ie



Mitigation

Actions that reduce the emissions that contribute to climate change



Sustainable Transport



Carbon Sequestration



Clean Energy

Energy Efficiency



Climate 'proofing'



Education/Awareness
Behavioural Change



Locally Sourced Food



Green Infrastructure



Water Conservation

Adaptation

Actions that manage and reduce the negative impacts of climate change



Compact & Sustainable
Settlement Patterns



Flood Alleviation



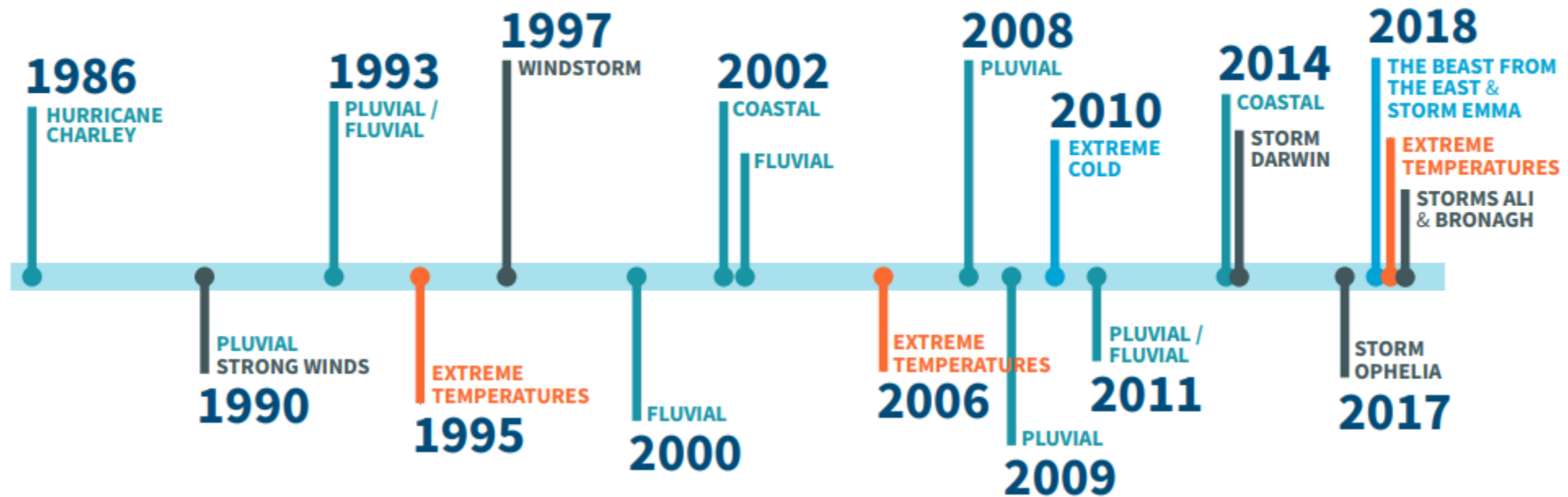
Disaster Management &
Risk Reduction



Emergency Response

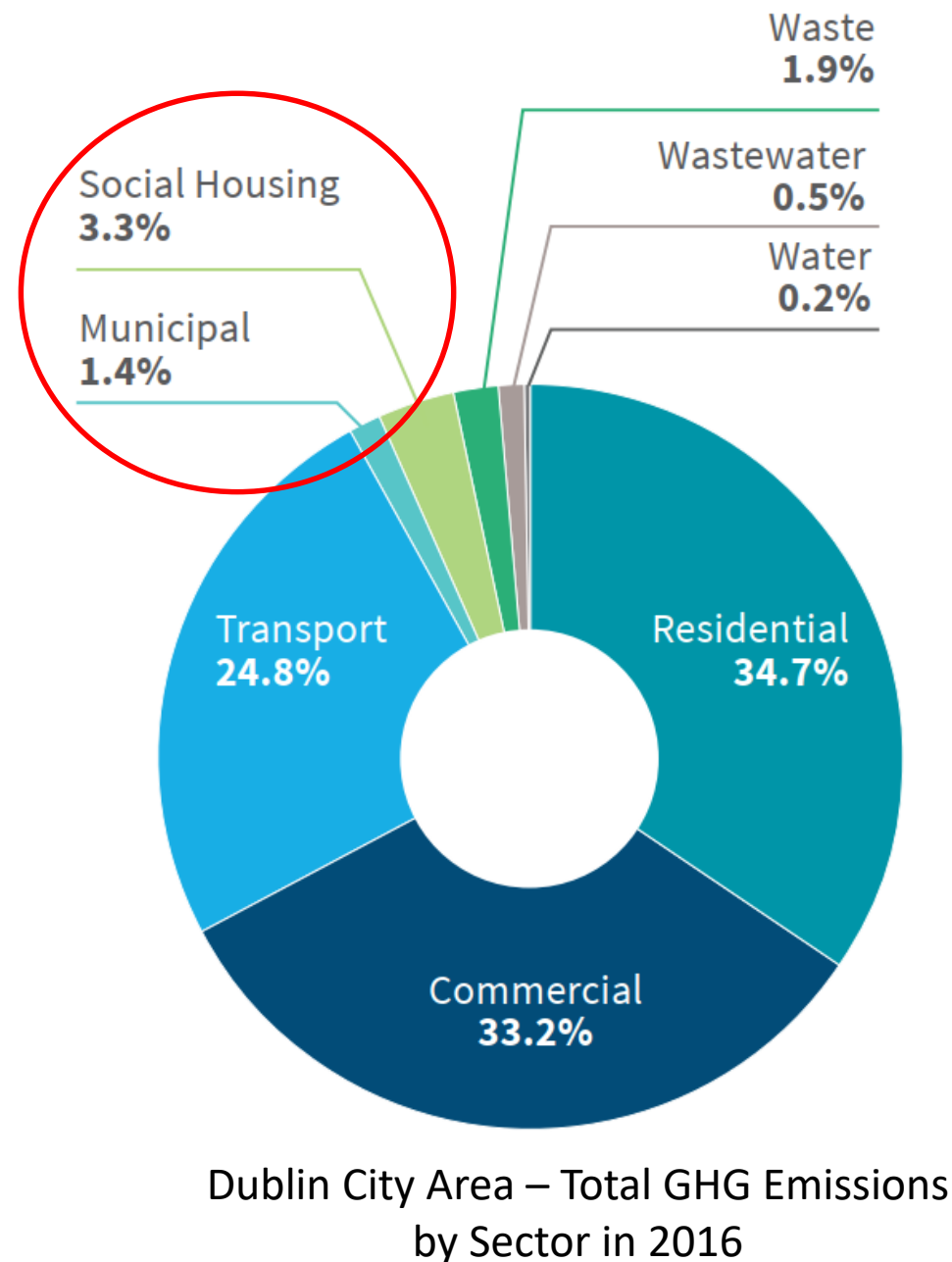


Adaptation Baseline – (Example DCC)

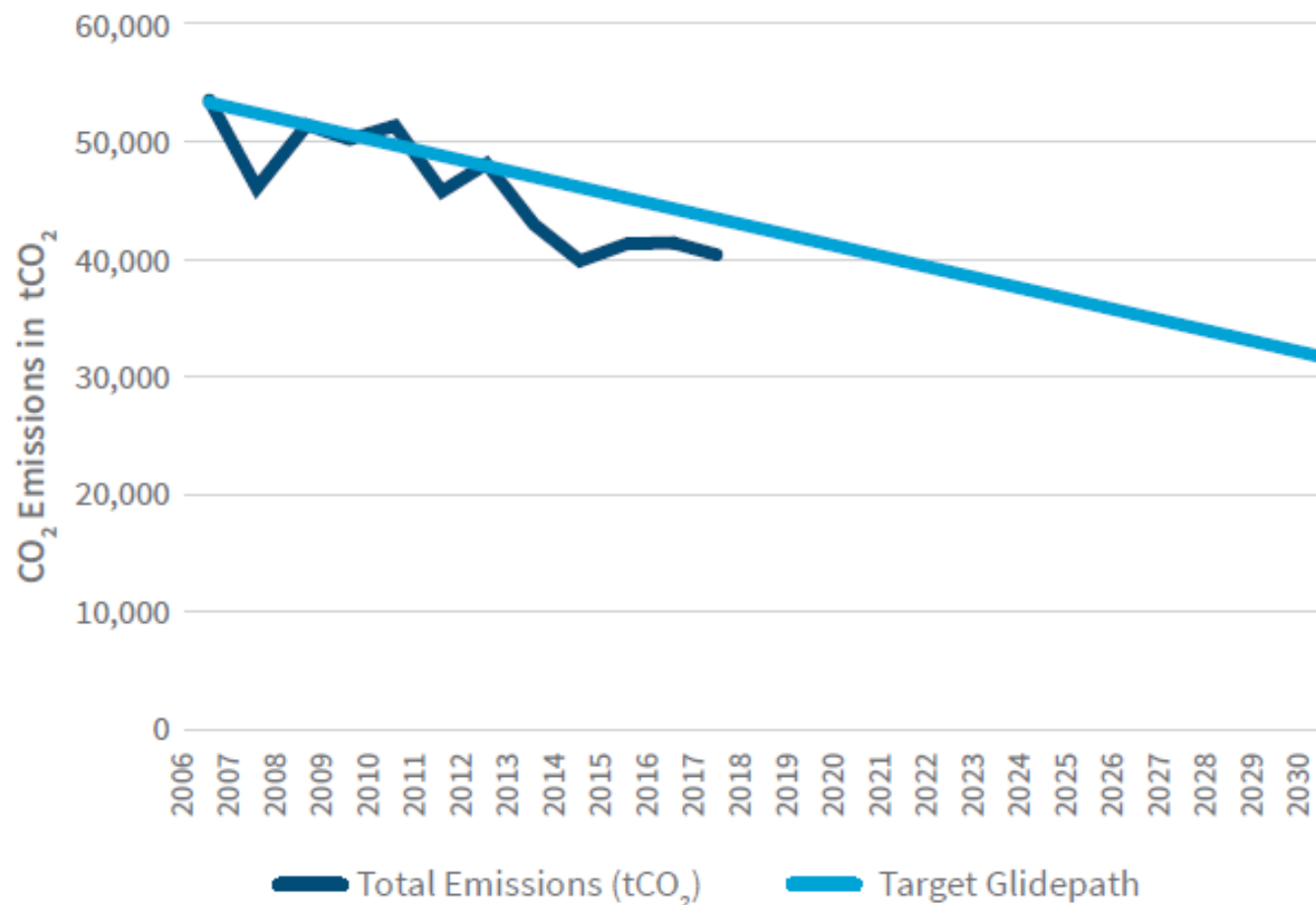


Mitigation Baseline

- Total Dublin City Emissions **2,810,880** tonnes of CO₂ equivalent
- Dublin City Council < 5% of Total Dublin City Emissions
- Public sector buildings accounted for only 1.5% of all greenhouse gas emissions in 2017 (*NCP 2019*)
- 4 Dublin LAs – Total Emissions (tCO₂eq) – **7,804,595** in 2016



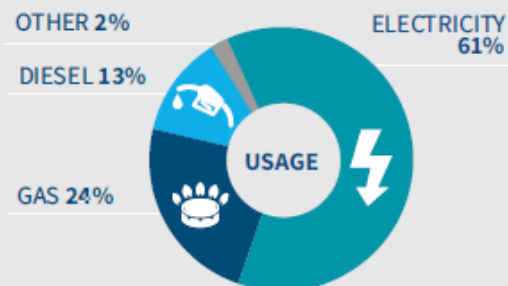
Mitigation Baseline



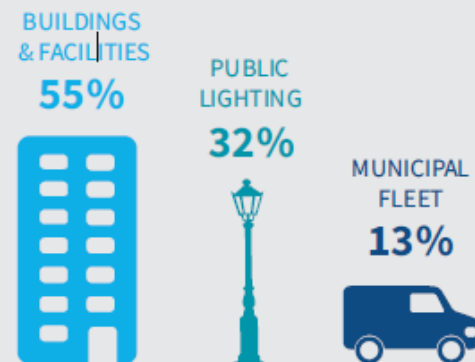
DCC EMISSIONS OVERVIEW

TOTAL
EMISSIONS PRODUCED
BY DCC IN 2017
40,370
TONNES OF CO₂

DCC'S EMISSIONS PER FUEL TYPE



DCC'S EMISSIONS PER CATEGORY

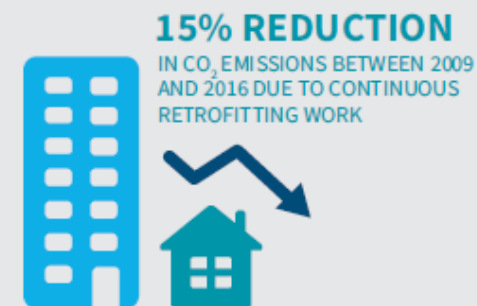


SOCIAL HOUSING EMISSIONS OVERVIEW

TOTAL EMISSIONS
FROM SOCIAL HOUSING
SECTOR IN 2016
94,040 tCO₂



30% OF SOCIAL HOUSING STOCK IN DUBLIN CITY WAS **RATED C3 OR BETTER**, WITH 'F' BEING THE MOST COMMON BER TYPE



Next Stage – Implementation



Climate Action Teams



Implementation Plan



Monitoring



Reporting on Progress



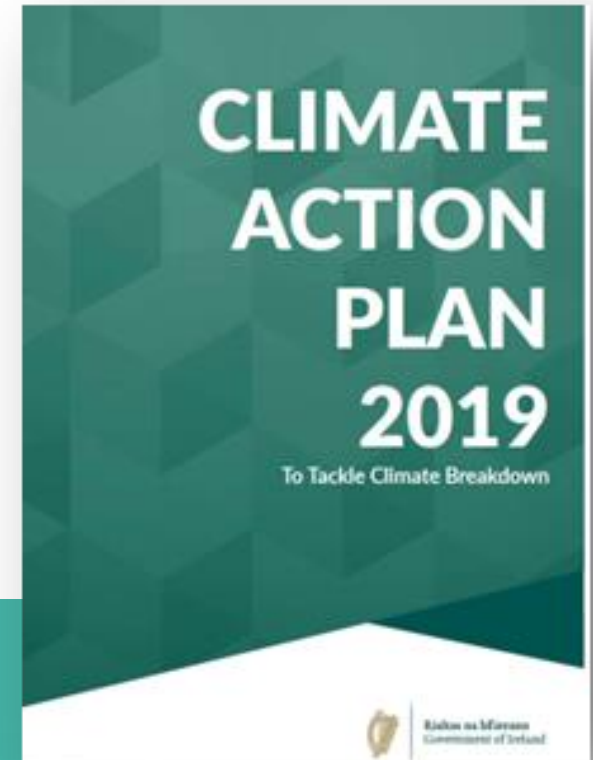
Key Performance Indicators

Climate Action Plan: Public Sector

‘Engaged and empowered public bodies can achieve more than just reduce their own emissions, they can stimulate and inspire action across wider society’.

To meet the required level of emissions, by 2030 we will:

- Reduce CO₂ eq. from the sector by 30%
- Improve the energy efficiency of public sector buildings by 50%
- Set a target to demonstrate leadership in the adoption of low emission transport options
- In 2019, have a Climate Mandate adopted by every Public Body, making the sector a catalyst for climate action
- In 2019, agree a Climate Action Charter with Local Authorities
- All Public Buildings to reach BER ‘B’ Rating



Steps Necessary for Delivery	Timeline by Quarter	Lead	Other Key Stakeholders
Each local authority will identify and develop plans for one “Decarbonising Zone”	Q4 2019	DHPLG	SEAI, LAs
Introduce a capital support that will be provided to Local Authorities for the development of up to 200 on-street public chargers per annum	Q3 2019	DCCAE	SEAI
Seek Government approval for public sector mandate requirements for all non-commercial public bodies and for a Climate Action Charter for Local Authorities	Q3 2019	DCCAE	SEAI, DPER
Develop a methodology and guidance for local authorities to estimate and evaluate the greenhouse gas emissions impact of strategies for future development as part of the City/County development plan process, to include arrangements for the publication and evaluation of such information and measures for monitoring and review	Q1 2020 with ongoing monitoring and review at appropriate intervals thereafter	DHPLG	EPA
Local Authorities to build capacity and lead deep retrofit of social housing stock to Cost Optimal performance of B2	Q4 2019	DHPLG, DCCAE	Local Authorities, DCCAE, Approved Housing Bodies.

GHG Inventories from National to Local?



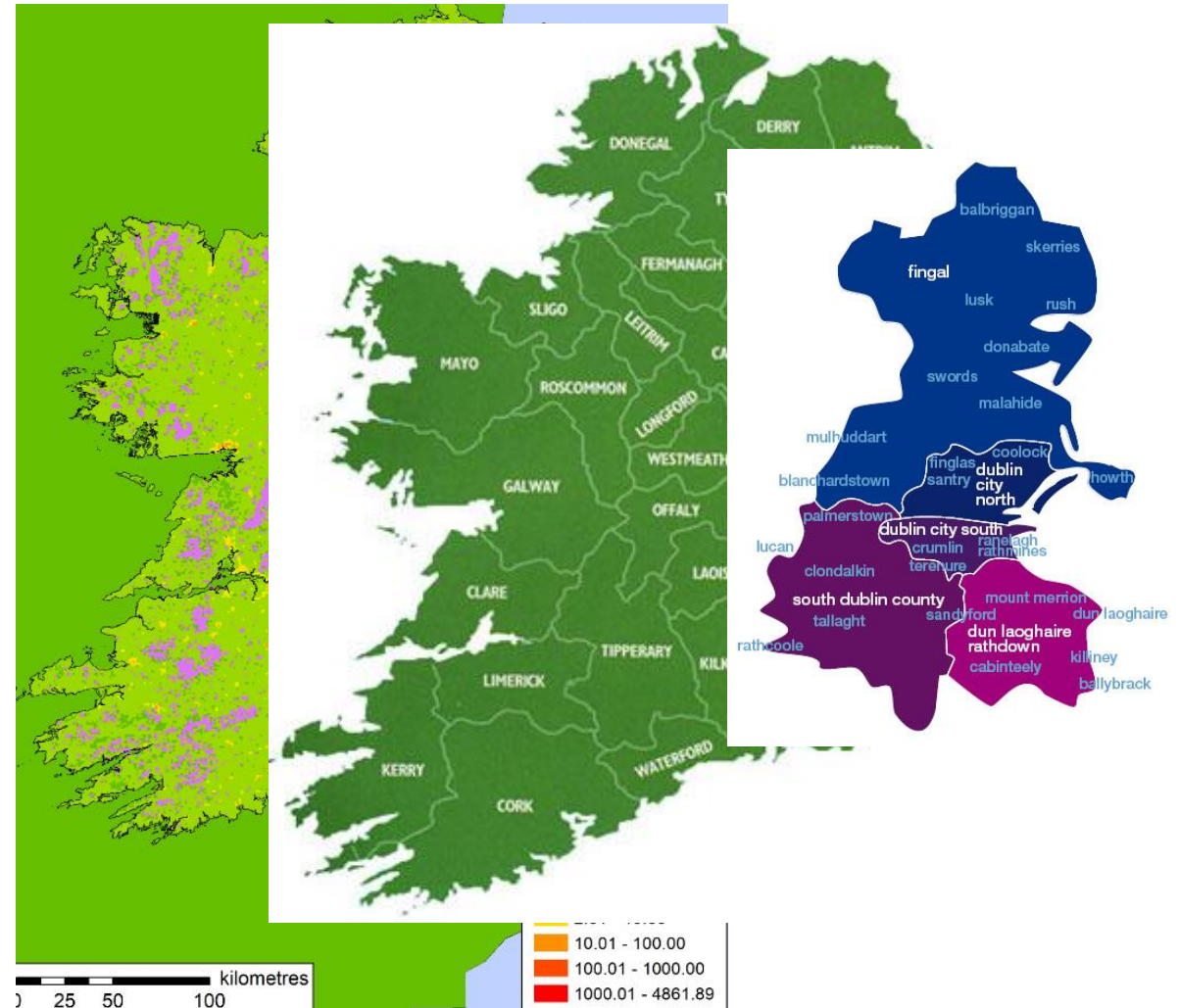
MapElre.dk

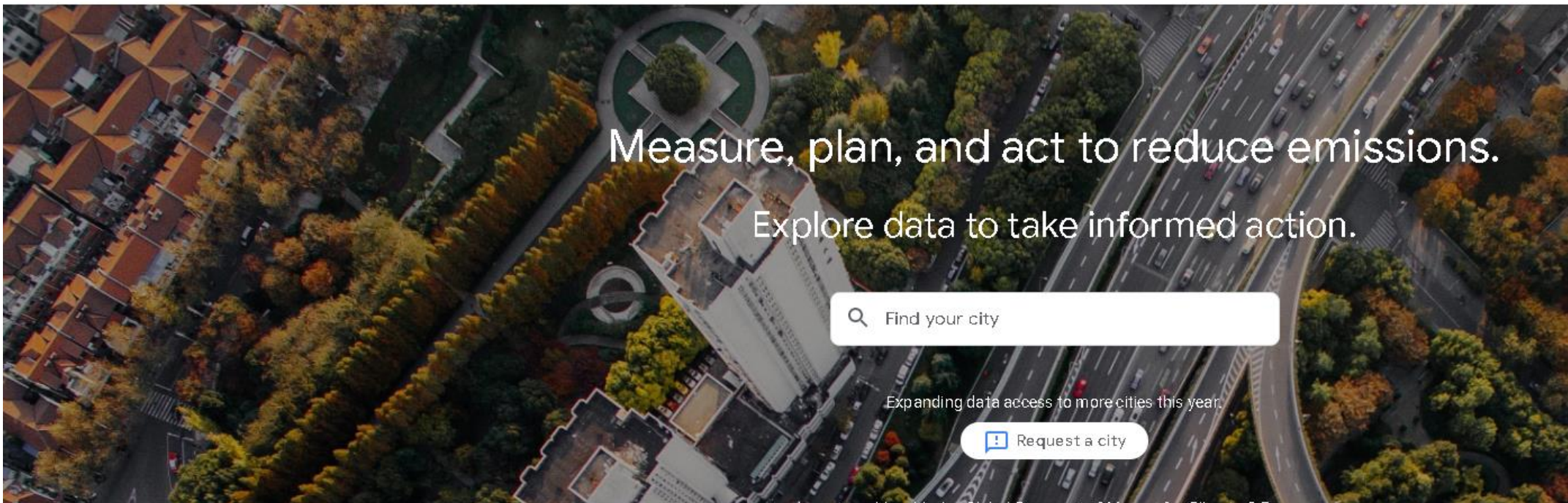
- » Project description
- » Spatial modelling
- » Spatial results
- » Temporal modelling
- » Temporal Results
- » Publications
- » Login



National mapping of GHG and non-GHG emissions sources

The project National mapping of GHG and non-GHG emissions sources (MapElre) is funded by the Irish EPA and is part of the Environmental Protection Agency Research Call 2015 on Climate - Air Science under the EPA Research Programme 2014-2020. The project will run for 24 months starting January 2016.





Mapping emissions

Explore Google's data to discover the impacts and opportunities in your city



Measure

Estimate your city's greenhouse gas (GHG) emissions



Plan

Run scenarios based on granular levels of data and adjustable inputs



Act

Inform mitigation goals and identify reduction opportunities



Building emissions

Estimated consumption in commercial and residential buildings, based on Google map data for building size and type.



Transportation emissions

Estimated consumption by all trips, on all roads, and by any mode, that start or end within the city boundary, based on aggregated and anonymized location history data.



Rooftop solar potential

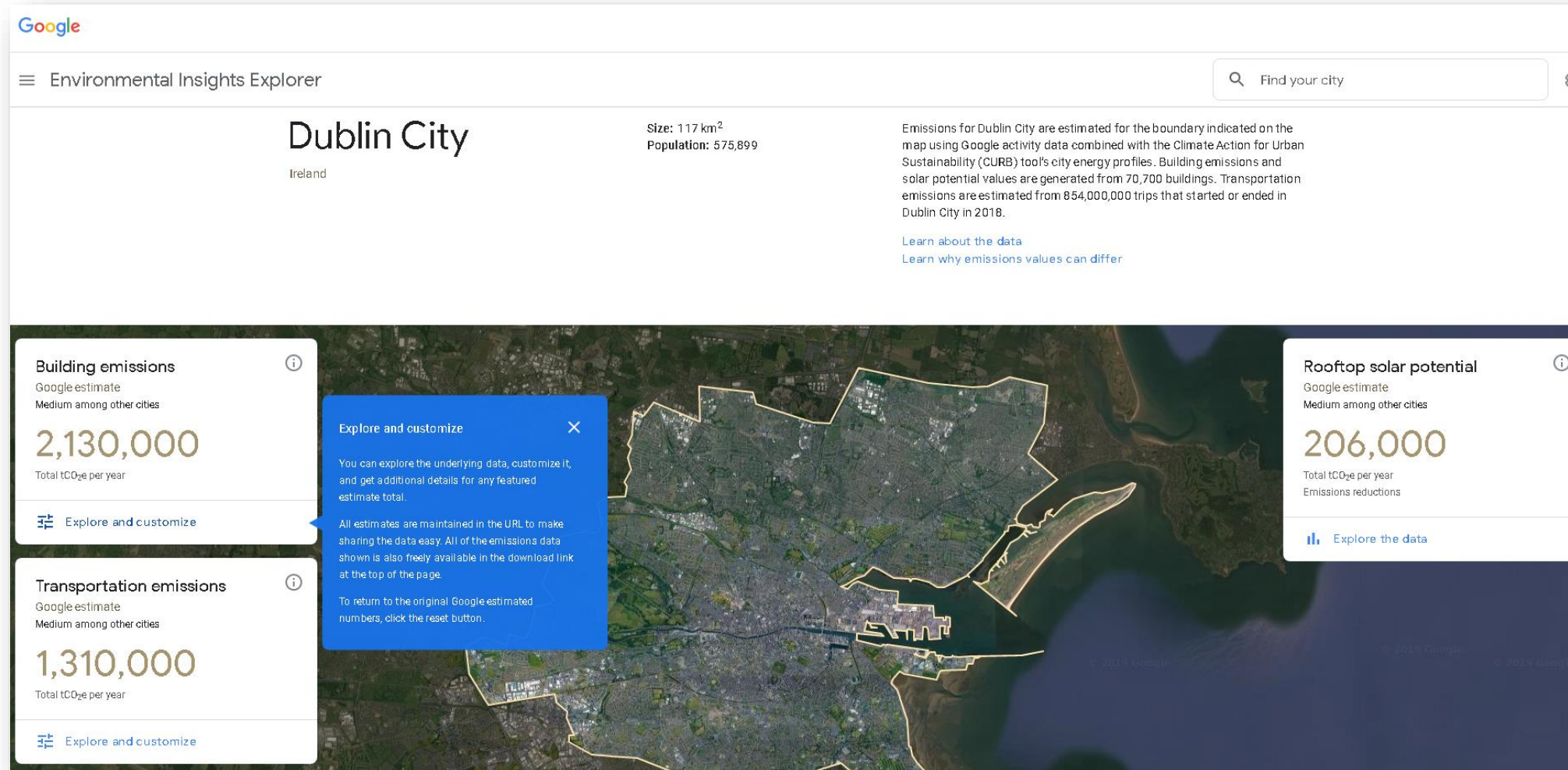
Estimates for solar production potential of all buildings in a region, based on shade models, weather patterns, and roof size.



Climate forecasts

Future weather computed in Google's Earth Engine using models that account for the impact of greenhouse gas concentrations in a business-as-usual scenario.

Google Environmental Insights Explorer



[\(https://insights.sustainability.google/\)](https://insights.sustainability.google/)

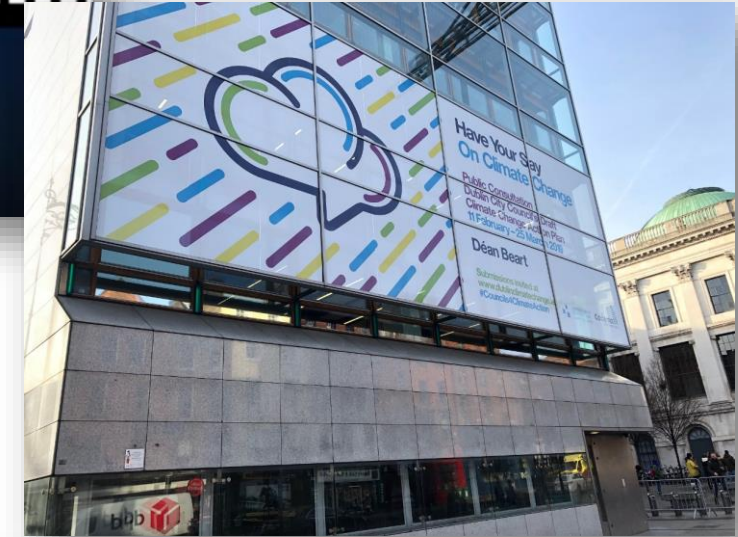
Climate Action – Mitigation Examples



Climate Action – Adaptation Examples



Climate Action – Awareness and Engagement



Take home messages

- LA emissions are a **small** % of overall county/city level emissions
- LAs can be **leaders on climate action** for the wider community
- **All of Government** and **all of society** approach is needed
- Further **disaggregation** of emissions are needed to inform policy
 - National, Regional, County etc.
- Significant **resource implications** for implementation of Climate Action Plan
- Resource requirements implications for LAs/CAROs
- **Adaptation** and **Mitigation** must be undertaken in parallel



Go raibh maith agaibh

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#councils4climateaction