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Thematic Network(s): Circular Economy

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# DUBLIN (Ireland) – SAN FRANCISCO (USA)

**IURC - CASE STUDY** 

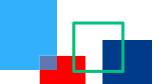
Leveraging cultural identity and circular economy approaches to achieve ambitious climate goals

## **EXECUTIVE SUMMARY**

The cities of Dublin, Ireland, and San Francisco, USA, engaged in an 18-month cooperation under the International Urban and Regional Cooperation (IURC) North America programme, focusing on circular economy (CE) practices as a cornerstone of their respective climate action strategies. Both cities have committed to bold climate neutrality targets—Dublin through the EU Mission for 100 Climate Neutral and Smart Cities by 2030, and San Francisco through its Net Zero Strategy adopted in 2021.

With strong identities as "water cities", Dublin (population 1.3 million) and San Francisco (population 769,000) have demonstrated how investing in cultural identity and empowering champions drives progress in implementing circular practices across strategic sectors such as food systems, organics management, construction, and infrastructure. Their approach emphasizes nurturing cultural heritage, fostering public participation, supporting community organizations, businesses, and innovation hubs, and grounding action in evidence-based reporting.

Through study visits, video conferences and discussions, the 18 months cooperation between the two cities explored policies, governance models, and results from on-going programs, highlighting how circularity is operationalized with a strong cultural dimension—transforming heritage, arts, and storytelling into powerful tools for public engagement and behavioural change. This peer learning highlighted the cross-sectoral nature of CE strategies, the important role of champions, and the necessity for robust data and transparent monitoring to guide effective decision-making. The collaboration also revealed challenges related to fragmented initiatives and complex regulatory environments, emphasizing the need to break down silos and streamline rules. Capacity building across public agencies and communities remains essential to fostering a shared vision for circular, inclusive, and climate-resilient urban futures.



## CHALLENGES AND SOLUTIONS

Dublin and San Francisco recognize that addressing the impacts of a changing climate is one of their most complex and pressing challenges. Therefore, both cities have adopted ambitious net-zero targets supported by multi-sectoral plans, though they face a common challenge: **how to embed circular economy (CE) principles into broader climate and social agendas**. Integrating CE requires not only new policies but also shifts in culture, regulation, and market practices. Through the IURC programme, the cities have been able to compare approaches, identify gaps, and exchange lessons that enrich their local strategies.

Key barriers they have confronted include:

- Fragmentation of initiatives, which risks creating silos instead of synergies.
- Communicating CE to citizens and businesses, making it tangible enough to influence behaviour.
- Complex regulatory frameworks, where overlapping requirements can discourage innovation.
- Transforming construction practices, still hampered by limited incentives, data gaps, and legacy standards.

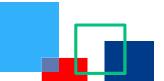
**Dublin** has built its CE agenda by reconnecting with cultural traditions and linking circularity to local economic opportunities. In partnership with Belfast, the city developed <u>Connected Circular Economy Hubs</u>, designed to support SMEs and social enterprises in scaling circular business models. These hubs complement training and funding programmes such as <u>MODOS</u>, <u>Green for Micro</u>, and <u>SoCircular</u>.

Food systems have also become a testbed for circularity. The <u>Edible Dublin: Food Strategy</u>, aligned with the Milan Urban Food Policy Pact, sets out a vision where all residents can access healthy food locally by 2030. With initiatives such as the <u>Eat the Streets</u> festival, Dublin not only reduces waste but also strengthens community connections and food literacy. These efforts illustrate how CE can be framed as a social as well as an environmental agenda.

San Francisco, meanwhile, has drawn on its longstanding leadership in waste reduction and environmental justice. The city's 2021–2025 Climate Action Plan integrates CE into policies ranging from toxics reduction to building decarbonisation. A defining element of its approach is the inclusion of consumption-based emissions (CBE) in its monitoring framework, supported by academic partners. This advanced methodology—published in concert with the 2021-2025 Climate Action Plan—has positioned San Francisco as one of the first cities to adopt legally binding CBE reduction targets (40% by 2030, 80% by 2050).

The upcoming 2025 Climate Action Plan Update, now under consultation, includes a dedicated CE chapter with 24 actions across five areas: construction, food systems, reuse and repair, aviation, and a comprehensive CE roadmap. This evolution reflects a shift from individual initiatives towards a systemic and measurable circular economy agenda.

Mutual learning through IURC has been central to these efforts. Dublin has been inspired by San Francisco's evidence-based monitoring and its innovative CBE inventory, which offers a replicable model for tracking consumption-related emissions. San Francisco, in turn, has looked at Dublin's cultural framing of circularity to engage residents and businesses in practical, everyday actions. The dialogue has highlighted how technical innovation and cultural engagement are both essential to advancing circularity, offering complementary lessons that strengthen each city's ability to deliver on climate commitments while fostering inclusive, local benefits.



## RESULTS AND IMPACT

Through their IURC cooperation, Dublin and San Francisco have gone beyond advancing their individual circular economy agendas to exchange practical lessons, governance models, and technical know-how. This collaboration demonstrates how cities with distinct contexts, but strong cultural identities, can adapt each other's approaches to accelerate progress towards climate neutrality.

Dublin's initiatives—such as building food resilience through the <u>Edible Dublin Food Strategy</u>, supporting SMEs via <u>Connected Circular Economy Hubs</u>, and engaging communities through creative tools like the <u>Eat the Streets</u> festival—provide models that San Francisco is examining as it looks to embed equity and neighbourhood-based strategies into its own CE plan. Conversely, San Francisco's pioneering work on consumption-based emissions (CBE) and its robust monitoring and evaluation system offers Dublin concrete methods for impact measurement and cross-departmental coordination.





"Looking to the past, Dublin City's rich history is evident. Growing around the River Liffey and its tributaries, residents of the City flourished harvesting vegetables in the hinterlands, trading livestock at marts in the City, and bringing spices into the City at the port. The City's social and economic life was defined by food."

**Edible Dublin** 

For **San Francisco**, measurable results are already visible. According to its public <u>Climate Plan Dashboard</u> and the <u>EcoData Lab CBEI Dashboard</u>, the city reduced CBEs by 20% between 1990 and 2022. The largest reductions came from Housing (-31%), Transportation (-29%), and Food (-26%). These reductions were driven by energy efficiency and electrification, the shift from fossil fuels to renewables, lower car ownership and vehicle miles travelled, diversion of organic waste, and shifts in dietary habits. San Francisco's evidence-based approach highlights how consumption-focused accounting broadens the scope for circular interventions. This monitoring system has informed the city's <u>2025</u> Climate Action Plan Update. The Circular Economy chapter of the 2025 update now reflects new circular projects such



as updating low carbon material specifications for infrastructure agencies including Public Works, SFO (Airport), and Port of San Francisco. Existing private and non-profit programs indicates an appetite for circular innovations already underway. For example, <u>YesSF</u>, a public–private innovation hub revitalising downtown with sustainable start-ups, and the transformation of flood-prone spaces like Treat Plaza through community-driven green infrastructure. These initiatives reflect a deliberate effort to connect CE with economic revitalisation and resilience planning.

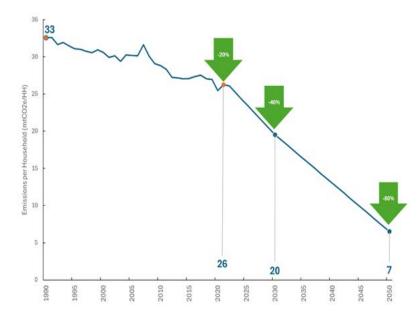


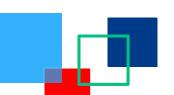
Figure 1. Consumption-Based Emission Reductions from 1990-2022 and Future 2030 and 2050 Targets (Data extracted from EcoData Lab SF CBEI Dashboard, graphic created by Brian Reyes SF Environment Department, 7/17/2025)

Photo Credit: Provided by Brian Reyes

## National, statewide and local actions likely drove San Francisco's reduction trends¹ including the following:

- 1. Reduced energy use through energy efficiency and electrification policy, programs, and incentives for residents and businesses.
- 2. Shift from fossil to renewables and reduced carbon intensity of fuels to power homes and vehicles.
- Reduced vehicle ownership and vehicle miles travelled due to increased density, an aging population, declining household size, carpooling, teleworking, and use of non-vehicle forms of transport.
- 4. Reduced organics to landfill.
- 5. A combined reduction in the carbon intensity of meat produced and consumer diet shifts away from red meat, poultry, fish, eggs, and dairy.

Dublin, while earlier in its CE journey, began reporting milestones in 2024 through the Climate Neutral Dublin Annual Report. Early achievements include the launch of Edible Dublin, the creation of circular hubs with Belfast, and high levels of civic engagement—over 1,300 participants joined the 2024 Eat the Streets festival. The programme's launch gathered more than 250 stakeholders and featured cultural elements such as an artist-in-residence scheme that promoted biodiversity and circularity through community cookbooks, audio tours, and urban agriculture initiatives.



These examples underline Dublin's distinctive approach: embedding CE in cultural identity and community empowerment.

Both cities have acknowledged how these different strengths are complementary. Dublin is drawing inspiration from San Francisco's systematic use of indicators and transparent reporting, recognising that quantifiable metrics help rally public and political support. San Francisco, in turn, sees value in Dublin's cultural framing of CE, particularly around food systems, to bring abstract concepts into everyday life.

By combining rigorous measurement with community-driven engagement, Dublin and San Francisco are charting locally relevant but globally significant pathways to climate neutrality. Their cooperation within IURC has reinforced that while contexts differ, the challenges—and many solutions—are shared. The mutual learning generated ensures that progress is not only accelerating in each city, but also contributing to a wider body of knowledge that other cities worldwide can adapt and replicate.

#### **KEY FIGURES**

-20%

50+

Reduction in San Francisco's consumptionbased emissions compared to 1990 levels (as of 2022) community groups
Funded by Dublin's Community
Climate Action Fund to implement
grassroots circular and climate
projects

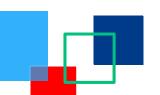
## LESSONS LEARNED

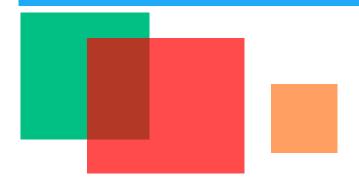
# Importance of cultural identity and community involvement.

Leveraging unique cultural and historical assets—such as Dublin's connection to water and agriculture and San Francisco's parks and community gardens—strengthens public engagement and aligns environmental, social, and economic goals with community values.



Addressing regulatory friction by streamlining codes, permits, and standards is critical to enabling transformative shifts in construction, infrastructure, and circular practices.







#### Leveraging champions.

Building on successful practices recognises the leaders and can create broader momentum across city agencies and private industry practitioners (e.g., SFO airport). It can be a source of pride, but it must also be leveraged for future innovations and investments.

# Ambitious targets require rigorous measurement and reporting

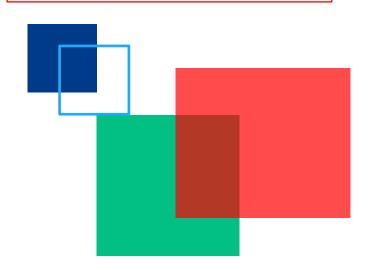
Robust tools like emissions inventories and public dashboards are essential for tracking progress, guiding priorities, and fostering accountability; setting ambitious targets—such as embodied carbon reduction—can catalyse systemic change.

## Circular economy strategies are flexible and cross-sectoral.

CE approaches can be integrated into climate agendas, delivering economic, social, and environmental benefits. San Francisco reoriented their zero-waste strategy to focus on upstream actions and reoriented communications to improve citizens' engagement. Both cities recognize and value the contribution of staff and local expertise.



Both cities are working to leverage public and private investments to advance CE best practices and achieve maximum impact (e.g., airport, port resiliency and revitalisation, public works streets and roads) and nurturing an ecosystem of SMEs with existing programs (e.g. Dublin's Circular Hubs).







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# THE INTERNATIONAL URBAN AND REGIONAL COOPERATION PROGRAMME IN NORTH AMERICA

The International Urban and Regional Cooperation program in North America (IURC NA), funded by the European Union, partners European cities with Canadian and USA cities to facilitate knowledge exchange through online tools, face-to-face interactions, study visits, participation in thematic and networking events, and capacity-building initiatives. Its activities support the achievement of policy objectives as well as major international agreements on urban development and climate change, such as the EU Urban Agenda, the UN Sustainable Development Goals, and the Paris Agreement. The program is part of a long-term strategy by the European Union to foster sustainable urban development in cooperation with the public and private sectors, researchers, innovators, community groups, and citizens. IURC NA is financed under the EU Foreign Policy Instruments and benefits from the strategic support of the Directorate-General for Regional and Urban Policy of the European Commission.

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#### Links to related outputs:

Edible Dublin: Food Strategy
Eat the Streets
San Francisco's Climate Plan Dashboard
YesSF



