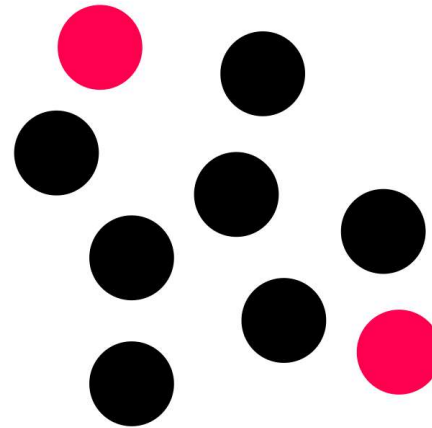# A new urban logistics model for enhancing the sustainability of cities

Senator

Smart Network Operator Platform enabling Shared, Integrated and more Sustainable Urban Freight Logistics
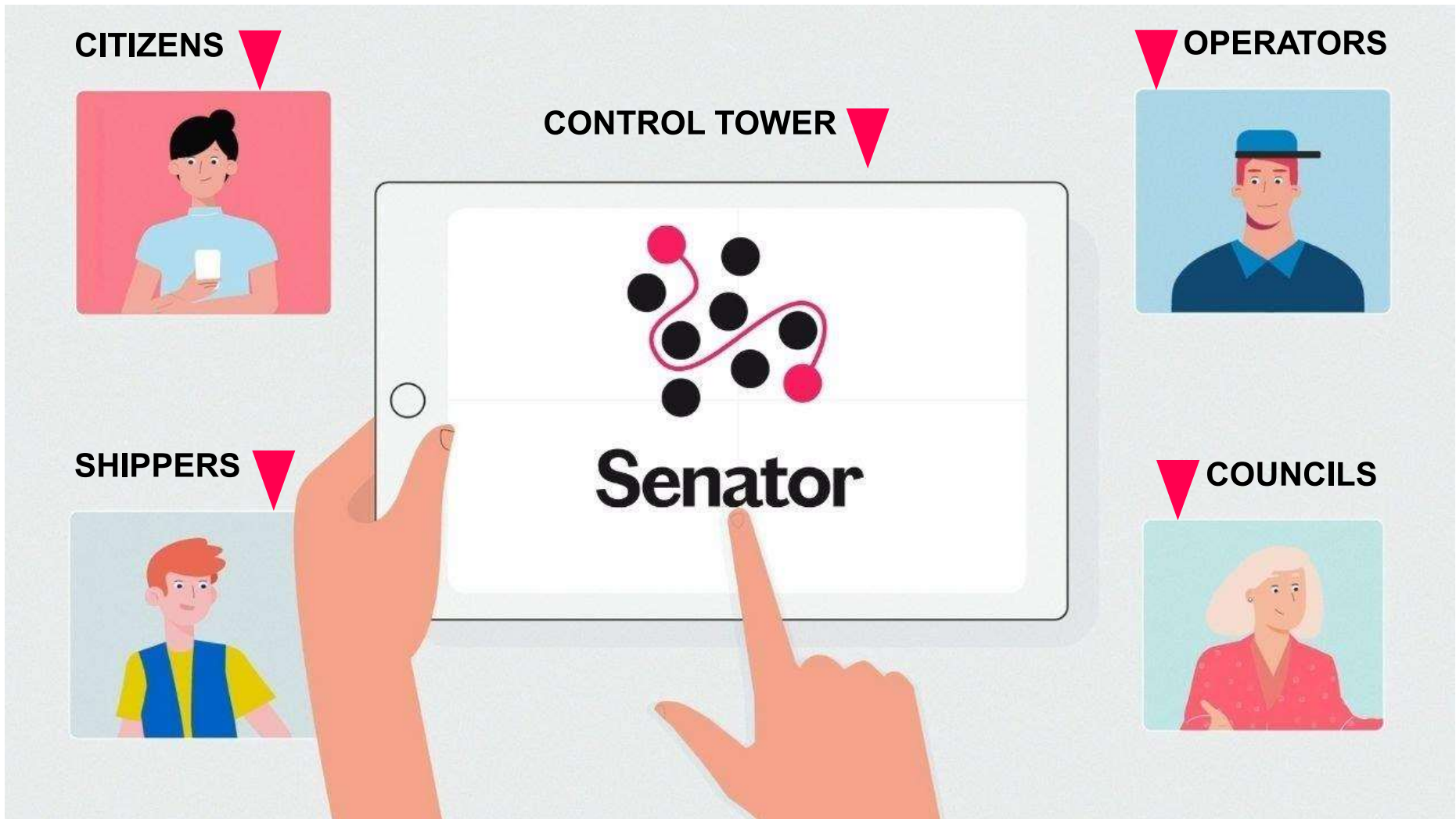
Senator

CITIZENS

OPERATORS

CONTROL TOWER

SHIPPERS

COUNCILS

Senator

What is Senator?

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 861540

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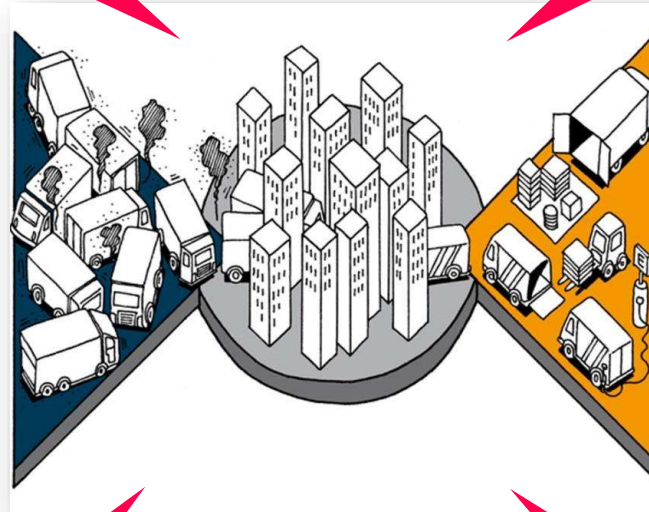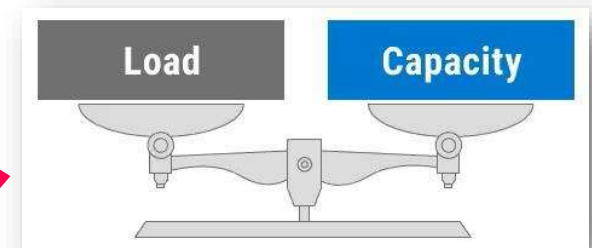Dublin City Council

Senator

INFRASTRUCTURE

NETWORK OPTIMIZATION

FLEET MIX

LOAD BALANCE

What did we expect?

The project proposes a change of paradigm in urban freight & logistics addressing the **Sustainable Development Goals (SDG)** within 2030 Agenda:

SDG 8 **Decent work and economic growth**

SDG 9 **Industry innovation and infrastructure**

SDG 11 **Sustainable Cities and Communities**

SDG 13 **Climate Action**

Why Senator?

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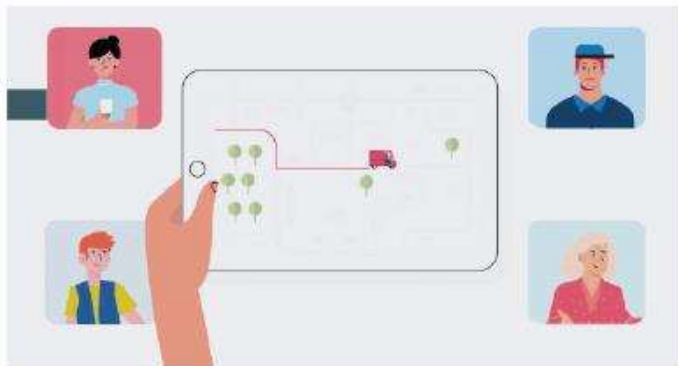Senator

① User demand planning

② Transport planning

③ Freight & Logistics planning

④ City infrastructure focused

City Council

Delivery Companies

Citizens

Business

Objectives

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Project

11 partners | **5** countries

2 urban living labs | **48** months

4 million euros budget

Consortium

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In order to test its effectiveness, SENATOR was validated in a real environment in 2 Living Labs in Zaragoza (Spain) and Dublin (Ireland)
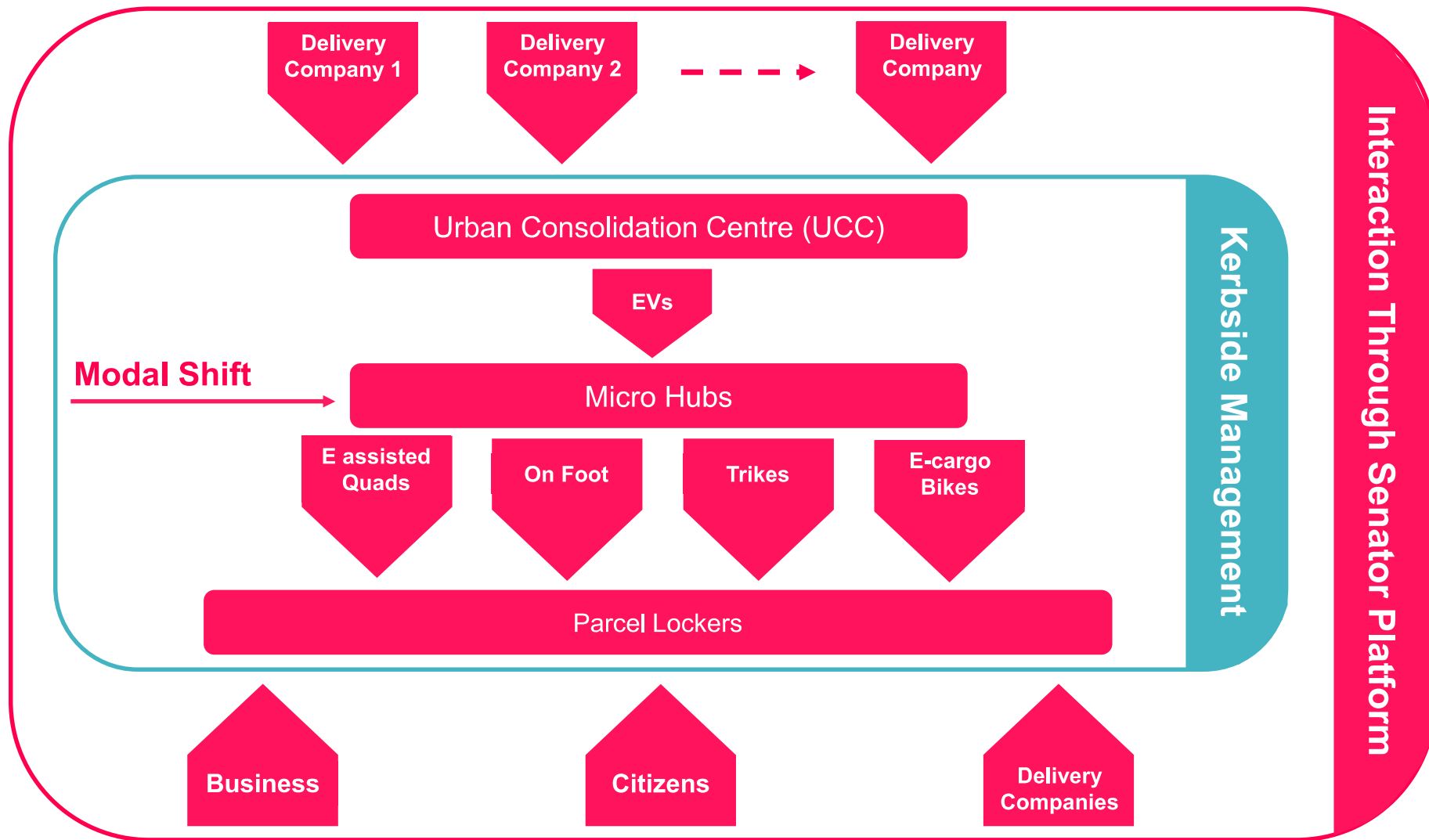

Urban Living Labs (ULLs)

Urban Living Lab Dublin

Pavements are for Walking and Wheeling, for Everything Else there is The Kerbside

Past

Future

RIDEHAIL

DYNAMIC PASSENGER & GOODS LOADING
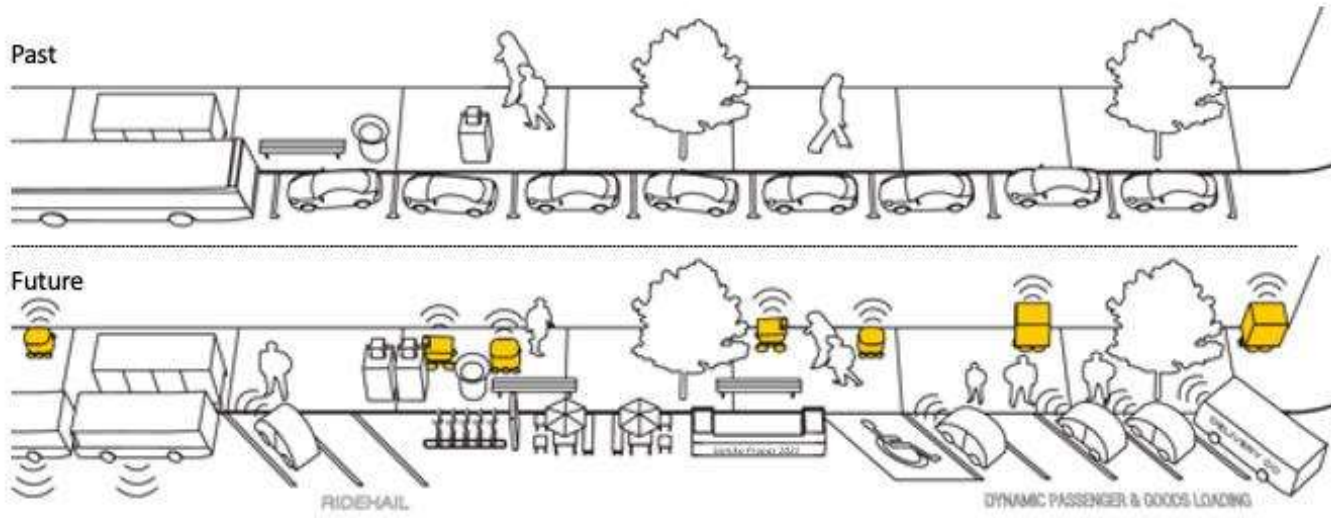
Figure 5: Annual cost of time lost due to aggravated congestion (€million)

- Base Year
- 2033

€2,081

€358

80% threshold

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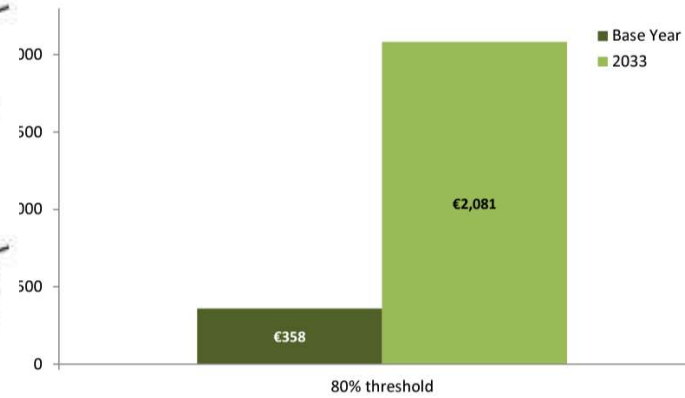
Kicking Chaos from the Kerb

Kerbside Management

To dynamically manage kerb assets (parking and loading bays). Thus, managing the vehicle movement, generating new revenue streams for the city and aid better planning of the public realm.

Aligns with Dublin City Development Plan 2022.

Micro Distribution Centres (Microhubs)

To reduce the number of bigger, motorised vehicles entering the city and increasing the use of smaller, cleaner and zero emission vehicles for lower congestion and GHGs.

Aligns with Dublin City Development Plan 2022 and the Transport Strategy for the Greater Dublin Area.

Managing the Kerbside

Mapping the kerb

Where is everything?

Inventory Mapping

Governing the kerb

What should we use it for? How do we keep data updated?

Bye Laws, Rights, City Council and Planners

Operating the kerb

Integrating the Use Cases

Signage, Parking, Traffic, Licensing and Emergency Services

Services

✅ Completed

Governance

Smart Loading Bays Pilot **IN PROGRESS**

Enforcement

Kerbside Journey So Far….

- PIN live on e-tender for 30 days
- Steering Group met with some companies

- Building Relationships with Stakeholders though a Working Group
- First Working group meeting in The City Hall

- Surveying of South Docklands Area Completed and Maps live
- Curb IQ surveying started (delay due to legal reasons)

- Appyway and Curb IQ pilot review, API connection to Senator platform
- Preparing and releasing the Microhub PIN

Dec - Jan

Apr - May

Aug - Sept

Jan - Feb

May-Jun

2021

2022

Feb - March

Jun - July

Oct - Nov

Mar - Apr

- First Kerbside Steering Meeting
- Preparation and approval for the Kerbside PIN

- Selection of Companies for piloting the mapping solution in Senator Zone
- Stakeholder Workshop in the Mansion House

- Pilot Initiation with Appyway, survey with Cyclomedia of South Docklands

- Curb IQ platform ready
- API testing started with An Post and Dublin Town

- Digital Kerbside Pilot with companies extended for 3 months
- Smart Loading Bay Pilot Initiation

2021

2022

2023

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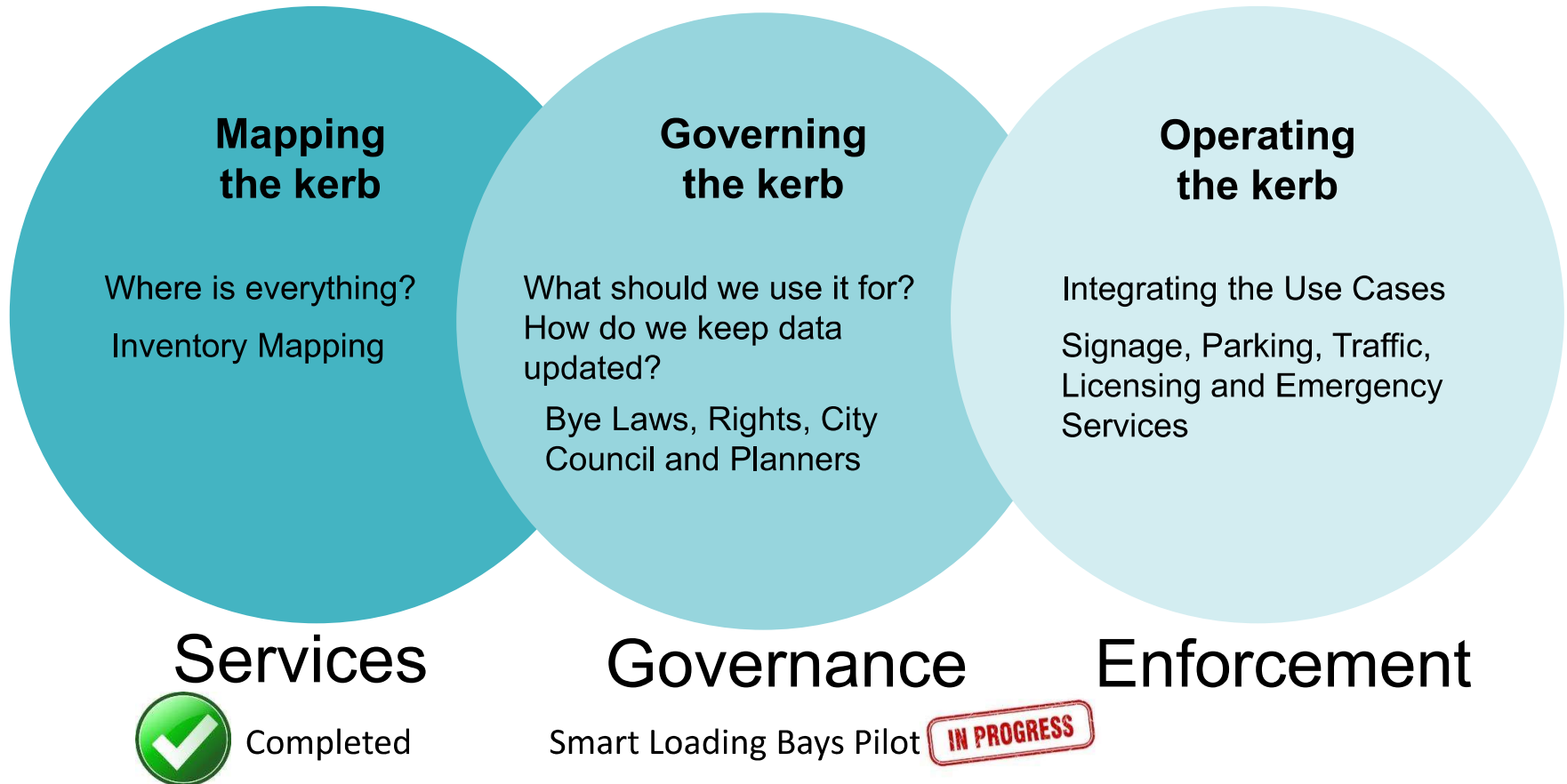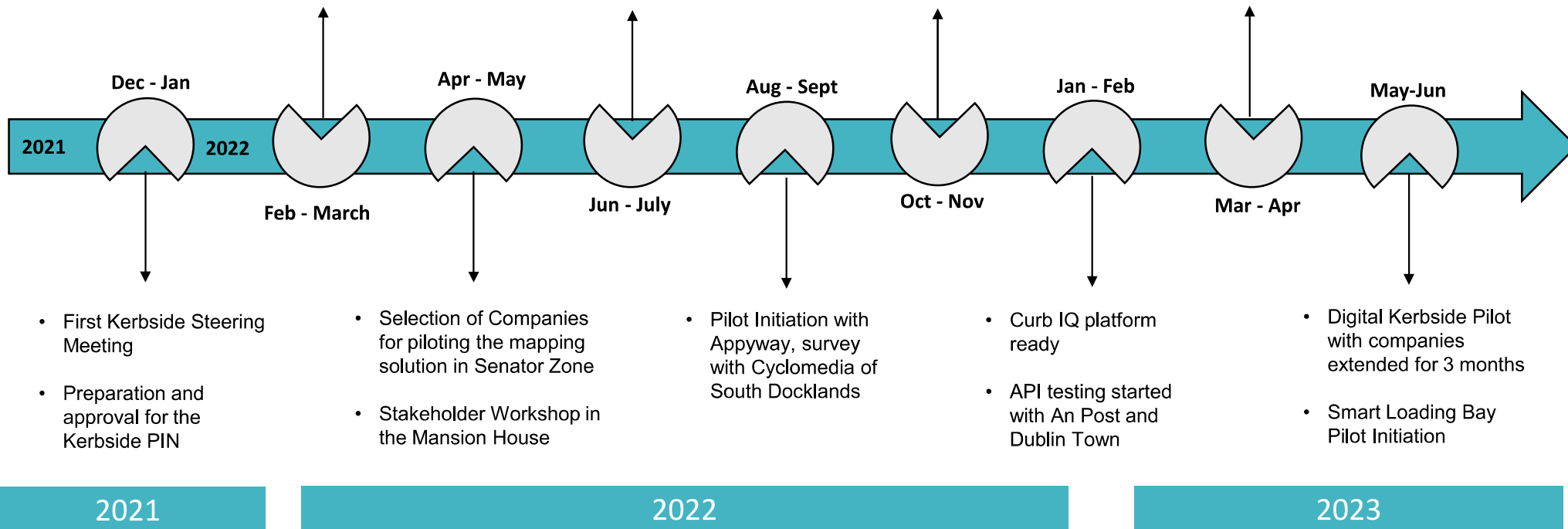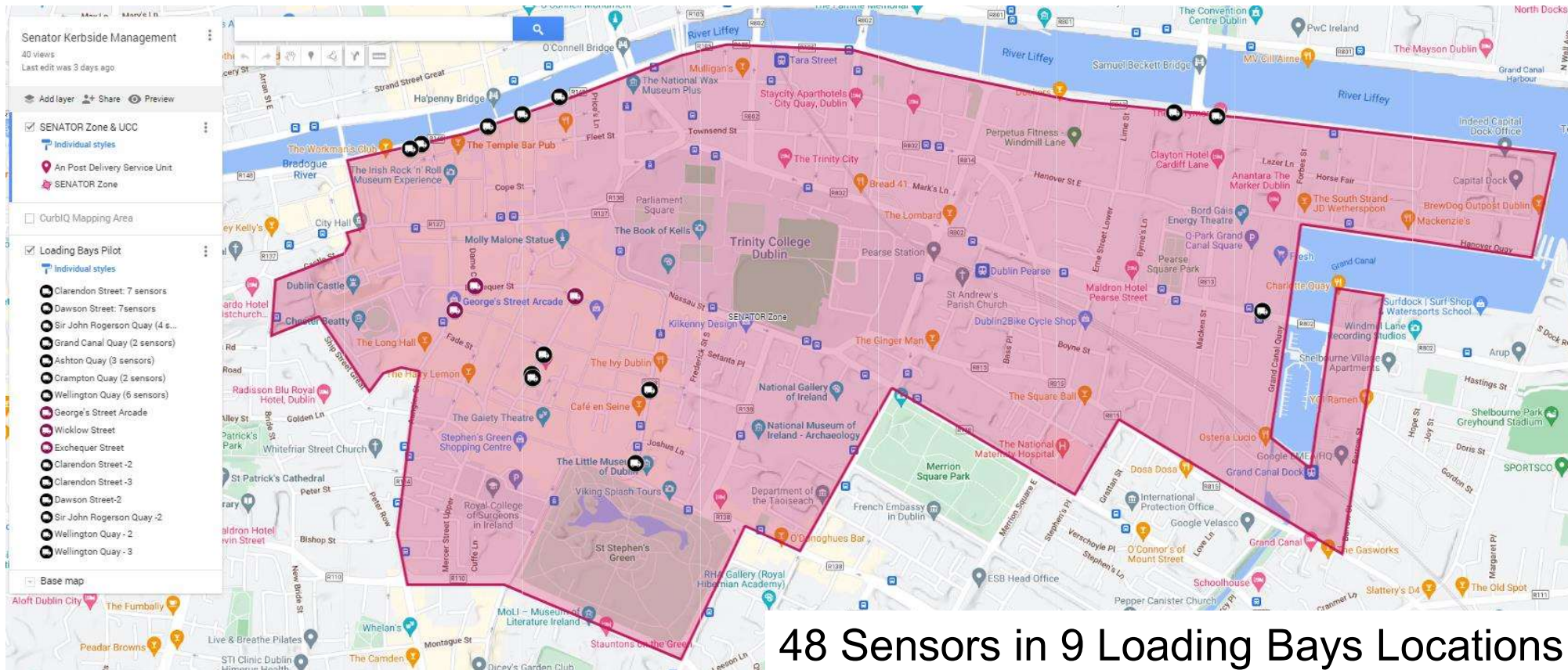
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Smart Loading Bays Pilot

48 Sensors in 9 Loading Bays Locations

Thank you