

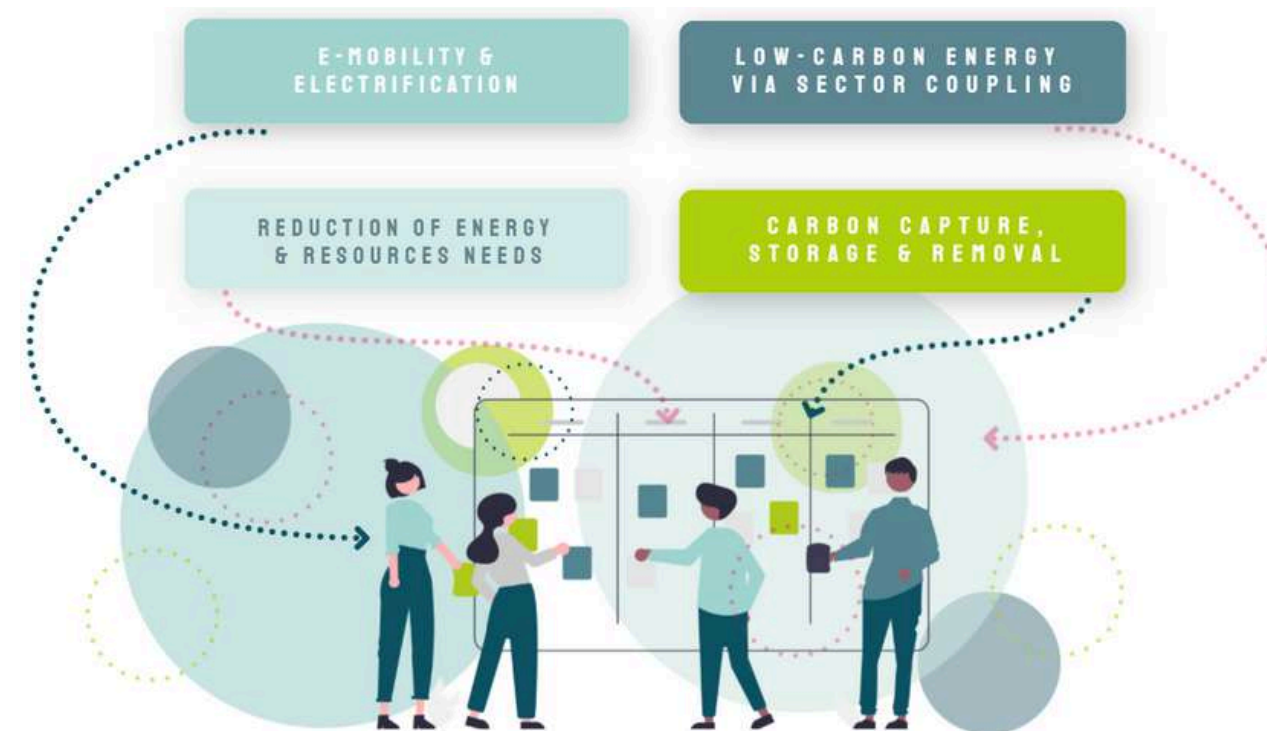


# USER GUIDANCE

Step-by-step tutorial to navigate and make the most of the Solution Bundles tool

## SOLUTION BUNDLES SERVICE

*"A systemic lens to design the climate-neutral city of the future"*



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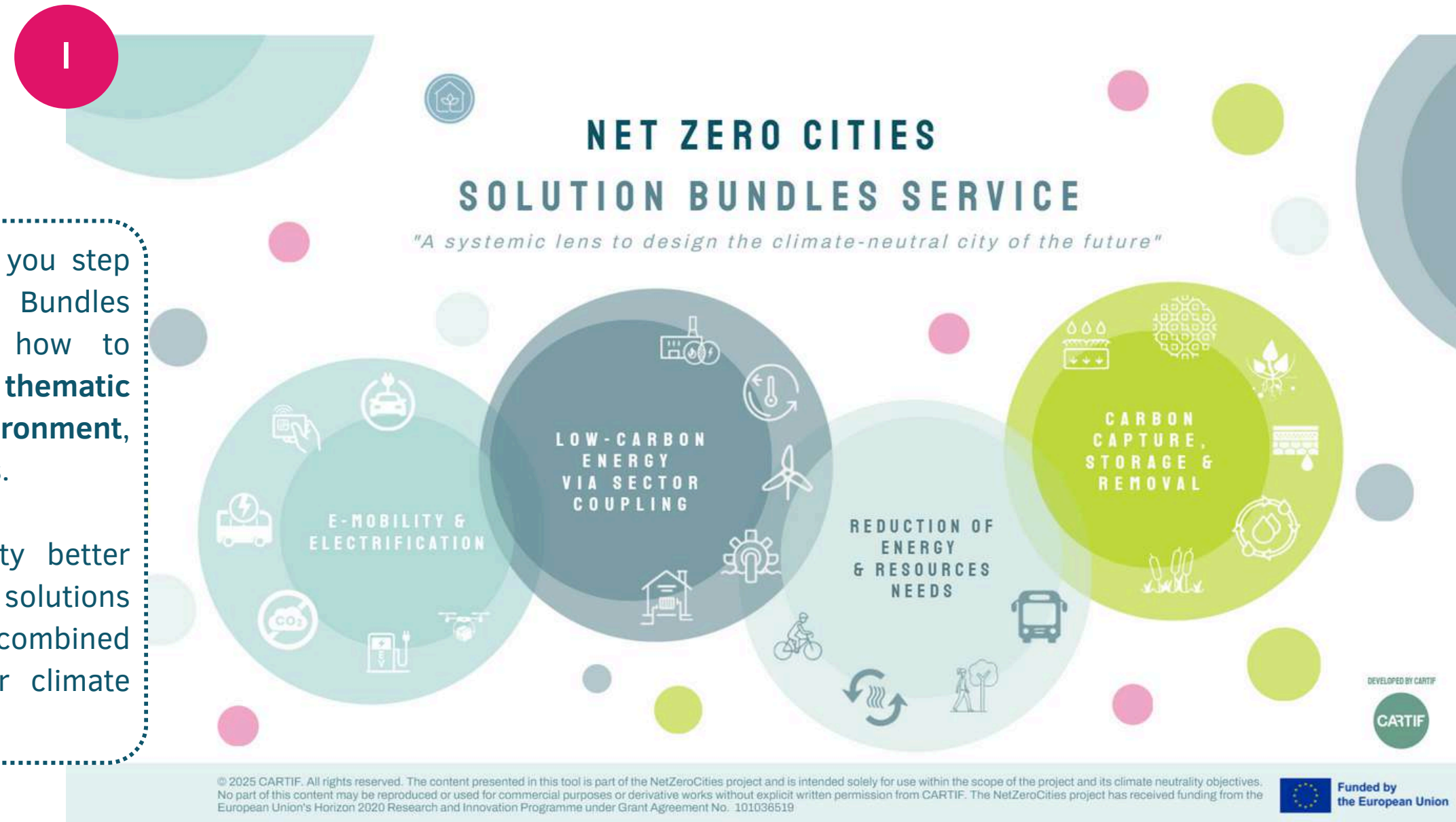
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## INTRODUCTION

This **user guidance** will walk you step by step through the Solution Bundles Service. You will discover how to **navigate** the tool, apply **thematic filters**, explore the **3D city environment**, and access detailed **factsheets**.

The aim is to help your city better understand how different solutions connect, and how they can be combined into **integrated portfolios** for climate neutrality.



## Step 01: Landing page

When you enter the Solution Bundles Service, the landing page welcomes you with the four strategic bundles. Each represents a pathway towards climate neutrality. **This page sets the scene and introduces the tool's tagline.**



### JOIN THE SOLUTION BUNDLES SUPPORT GROUP

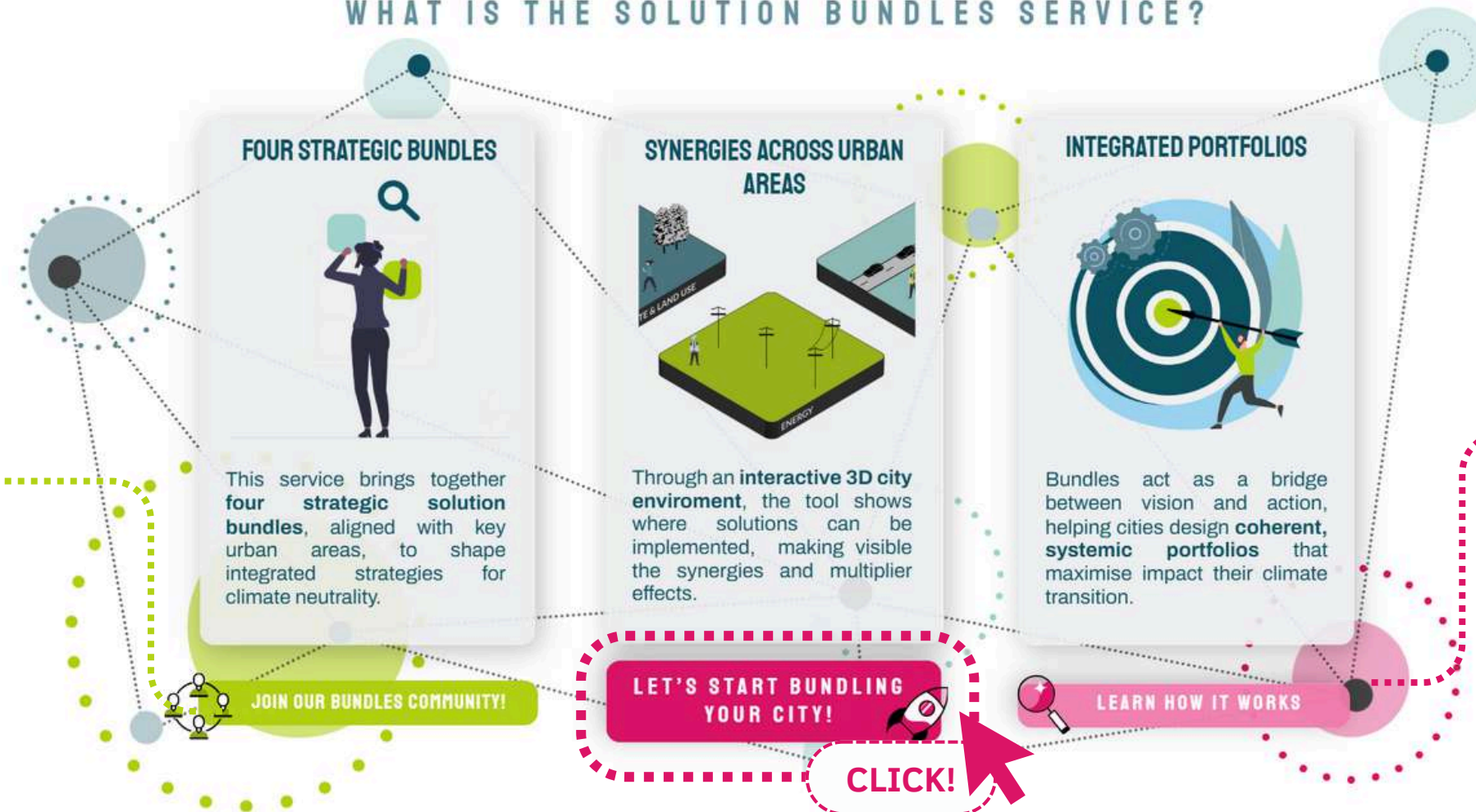
This button takes you to the NetZeroCities website, where the **Solution Bundles Support Group** is hosted.

It offers a space for cities and users to **learn** how to use the tool, **exchange experiences**, **ask questions**, and share **feedback**.

Here, cities can explore how others are applying the Solution Bundles, **connect with peers**, and **request support or workshops**.

## NETZEROCITIES SOLUTION BUNDLES

WHAT IS THE SOLUTION BUNDLES SERVICE?



### OPEN THE USER GUIDANCE

This button links directly to this **User Guidance**, where you can find clear instructions on how to use the tool.

It provides **step-by-step** explanations, clarifies key features, and helps you navigate the different elements so you can make the most of the Solution Bundles tool!

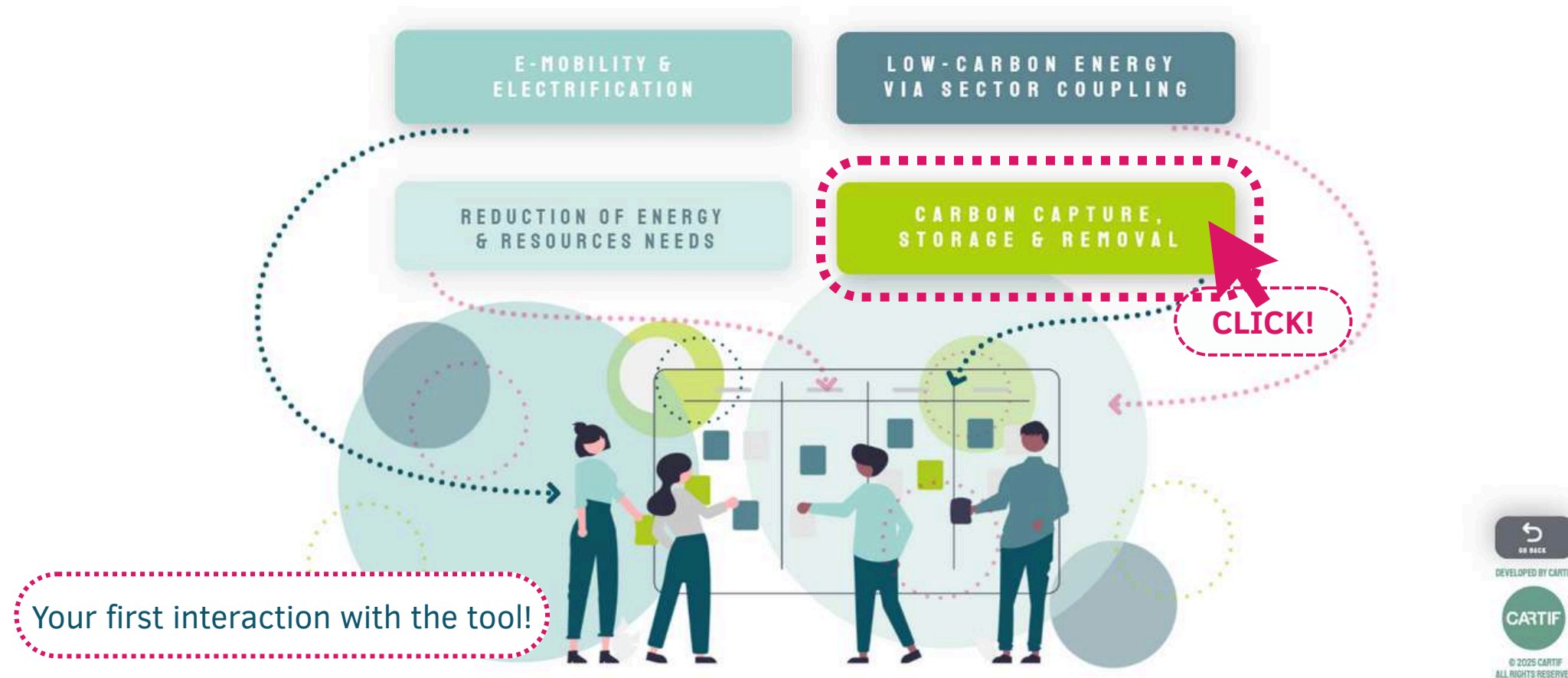
### Step 02: What is the Solution Bundles Service?

Before you start exploring, the tool highlights **three key concepts**: the four bundles, their synergies across urban areas, and how they can form integrated portfolios. On this screen, you will also find the **'Let's Start Bundling our City!'** button. Click it to begin your journey through the bundles!

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## NETZEROCITIES SOLUTION BUNDLES

"A systemic lens to design the climate-neutral city of the future"



### Step 03: Choose your bundle

On this main page, the four bundles are displayed once again. To continue, click on the bundle you want to explore. This will open the pathway to the solutions grouped within it. For this tutorial, we will select the **Carbon Capture, Storage & Removal bundle** and begin investigating its content.



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## CARBON CAPTURE, STORAGE & REMOVAL

### CORE IDEA

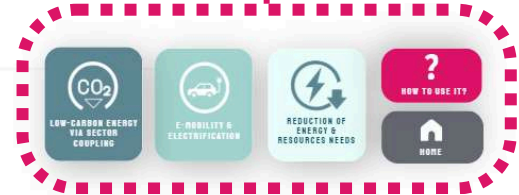
Harnessing both natural sinks (forests, soils, green infrastructure) and innovative technologies to capture, store, or reuse CO<sub>2</sub>, removing residual emissions from power, transport, and industry.

### WHY IT MATTERS

Carbon capture is essential to balance hard-to-abate emissions, achieve negative carbon outcomes, and strengthen resilience. It also improves air quality, supports circular carbon use, and enhances urban ecosystems.

### WHAT THIS BUNDLE OFFERS

Guidance for cities on combining nature-based and technological solutions, with examples tailored to different urban contexts: from green corridors and neighbourhoods to industrial zones and port districts.



### FIXED MENU



At the top right corner of the screen, a fixed menu lets you **switch bundles**, go back to the **landing page**, or reopen this **user guidance** at any time.

### MAGNIFYING GLASS



You can also use the magnifying glass filter to focus on **specific thematic areas** (e.g. energy, mobility, nature-based solutions, digital). This feature helps you organise and navigate solutions more effectively.

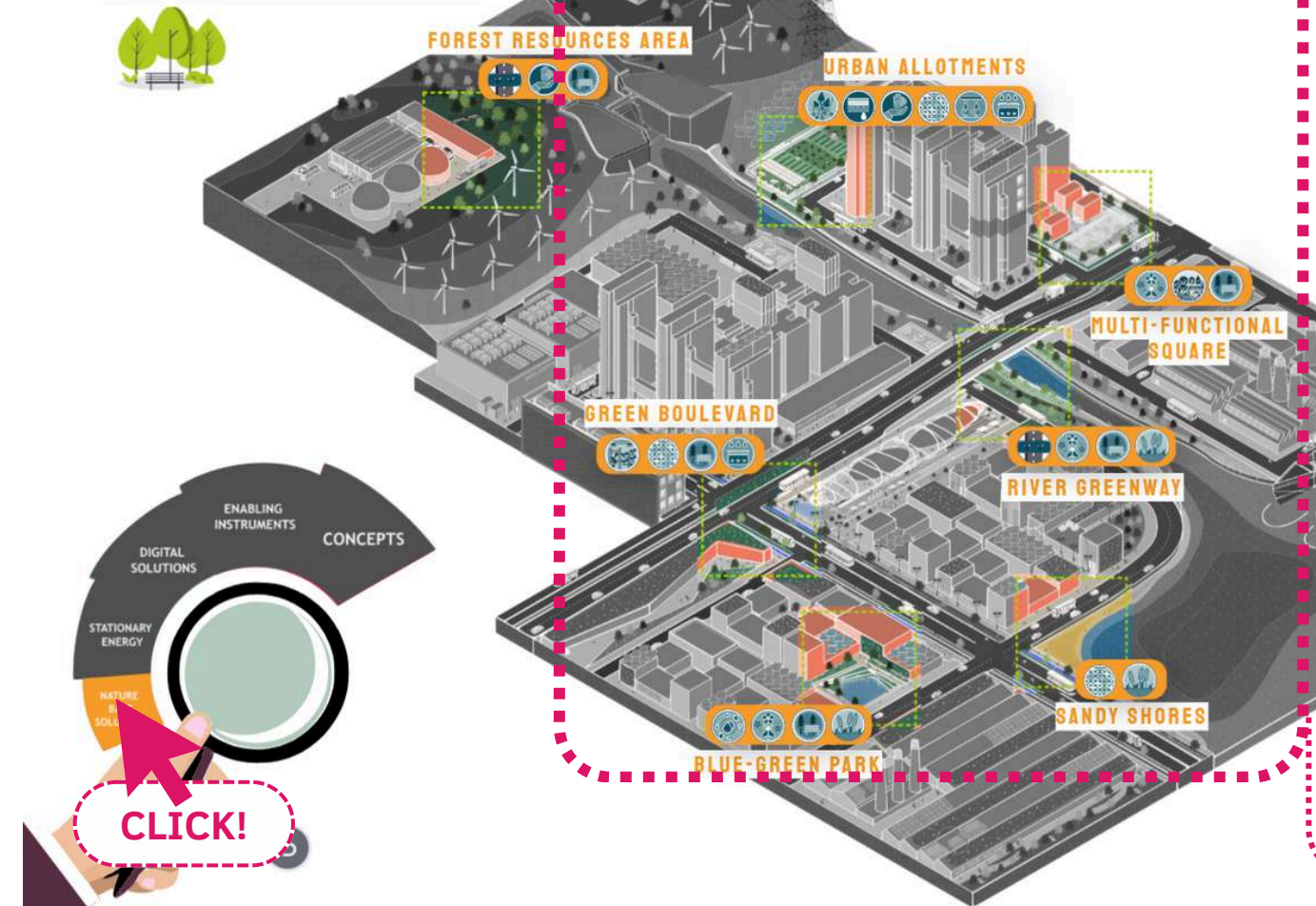
## Step 04: Introduction to the bundle

After choosing your bundle, a short overview appears. Here you will find **three key elements**: the Core Idea (the main concept of the bundle), Why it matters (its importance for climate neutrality), and What this bundle offers (the type of solutions and outcomes it brings). This introduction helps you quickly understand whether the bundle fits your city's priorities.



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CARBON CAPTURE, STORAGE & REMOVAL



**URBAN CARBON STORAGE & SEQUESTRATION, AND SINGULAR GREEN INFRASTRUCTURE**

URBAN CARBON SINK	GREEN SHADING STRUCTURES
SMART-SOILS AND PHYTOREMEDIATION	SOIL FILTER
POLLINATOR & VERGES SPACES	GREEN URBAN AREAS
VERTICAL MOBILE GARDENS	COMMUNITY COMPOSTING

**WATER INTERVENTIONS**

WATER OPTIMIZATION	GRASSED SWALES & WATER RETENTION PONDS
CONSTRUCTED WETLAND	WATER IRRIGATION & MAINTENANCE TECHNOLOGIES
SUSTAINABLE PAVEMENTS	

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## USE THE LEGEND



### URBAN CARBON STORAGE & SEQUESTRATION, AND SINGULAR GREEN INFRASTRUCTURE

URBAN CARBON SINK	GREEN SHADING STRUCTURES
SMART-SOILS AND PHYTOREMEDIATION	SOIL FILTER
POLLINATOR & VERGES SPACES	GREEN URBAN AREAS
VERTICAL MOBILE GARDENS	COMMUNITY COMPOSTING

Use the **legend** (which you can move freely on the screen) to check which technical solutions are represented by each symbol. These icons appear across the city map, linking solutions to specific urban areas.

## ZOOMS INTO AREAS



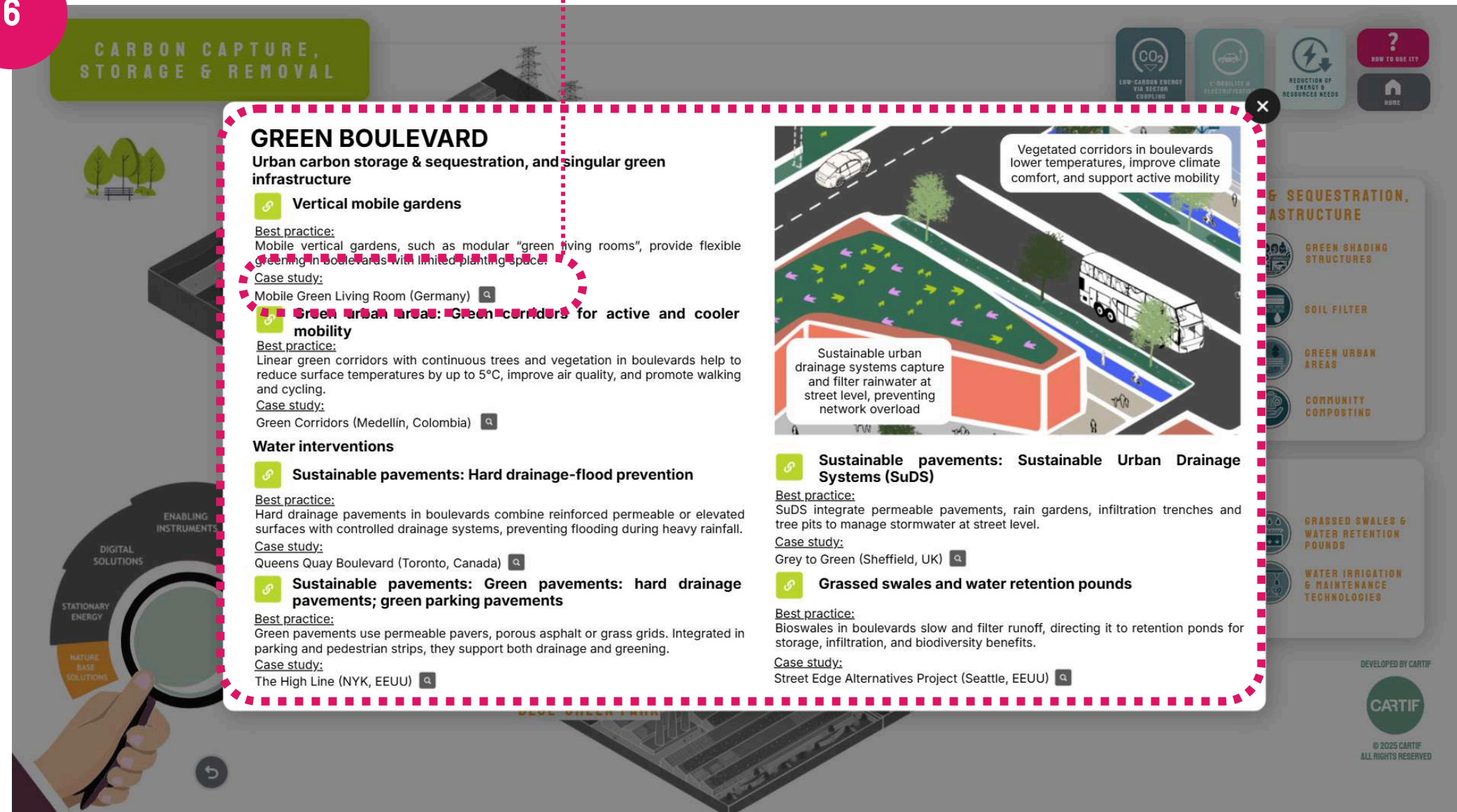
Hover over the highlighted areas. If they expand, it means they are clickable. By clicking, you will open a window with the possible solutions relevant to that context. Here, we will focus on the **Green Boulevard**.

## Step 05: Apply thematic filters

Once you apply a thematic filter, the tool displays a **3D city environment** with highlighted areas such as forests, boulevards, or port districts. In this example, we selected **Nature-based Solutions**, and several zones are now visible on the map.



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## Step 06: Zoom in on priority areas

When you click on a highlighted zone, in this case the Green Boulevard, a new window opens. Here you can **explore** the **different solutions** that can be implemented in that **urban area**. Each solution is supported by at least one **best practice** and one **case study**, allowing you to explore real-world examples and evidence of implementation.

## BRIEF DESCRIPTION OF CASE STUDIES



### Vertical mobile gardens

#### Best practice:

Mobile vertical gardens, such as modular "green living rooms", provide flexible greening in boulevards with limited planting space.

#### Case study:

6.1 Mobile Green Living Room (Germany) 🔍

Hover over a case study to see a **short description**. This helps you quickly assess whether it is relevant or worth exploring in more detail.

### GREEN BOULEVARD

The Mobile Green Living Room provides movable urban oases with green walls, water and solar-powered shade, cooling squares without restricting events.

#### Case study:

6.2 Mobile Green Living Room (Germany) 🔍



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## CARBON CAPTURE, STORAGE & REMOVAL

### GREEN BOULEVARD

Urban carbon storage & sequestration, and infrastructure

**Vertical mobile gardens**

**CLICK!**

**Vertical green infrastructure: Green fences, green noise barriers, vertical mobile gardens**

**Vertical green infrastructure (VGI)** has a great potential to **support climate transition of compact urban areas**. VGI does not compete for land use, but is able to support microclimate regulation through cooling capacities, to reduce noise pollution, to recycle and upcycle rainwater and grey water, to produce food or habitat for species, and to generate pleasant green spaces, with a significant aesthetic value. From a built environment perspective, these solutions can enhance buildings' performance by protecting and increasing the durability of wall coverings [1], reducing energy consumption, improving photovoltaics panels' efficiency [2] and reducing sound transmission [3].

**Green walls and roofs** can use the functional benefits of nature to maximize buildings performance and contribute to a sustainable strategy for urban regeneration and retrofitting of buildings. In this sense, depending on the city morphology and plans, green walls can also have a greater potential than green roofs, considering that in urban centres the extent of facade greening can be double the surface of roofs [4].



Bioswales in boulevards slow and filter runoff, directing it to retention ponds for storage, infiltration, and biodiversity benefits.

**Case study:**  
Street Edge Alternatives Project (Seattle, EEUU)

**VERTICAL MOBILE GARDEN FACTSHEET**

CARTIF

METABOLIC

JRC

Last update: May 26, 2023

Tags

Biodiversity Climate resilience

Green areas Nature based solutions

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Each factsheet provides detailed information, including:

- A description of the solution and its applications.
- Co-benefits for climate, society and economy.
- Barriers and enablers to implementation.
- Examples and case studies from real-world projects.

## Step 07: Click on solution icons

Inside the window of a zoom area, click on the icon next to a solution title to open the linked **factsheet** in the Knowledge Repository. This step allows you to move from the visual exploration of bundles to **in-depth technical knowledge** that can directly support planning and decision-making in your city.



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+ INFORMATION ABOUT EACH CASE STUDY



**GREEN BOULEVARD**  
Urban carbon storage & sequestration, and singular green infrastructure

**Vertical mobile gardens**  
Best practice: Mobile vertical gardens, such as modular "green living rooms", provide flexible greening in boulevards with limited planting space.  
Case study: Mobile Green Living Room (Germany)

**Green urban areas: Green mobility**  
Best practice: Linear green corridors with continuous greenery in boulevards help reduce surface temperatures by up to 2°C and promote walking and cycling.  
Case study: Green Corridors (Medellin, Colombia)

**Water interventions**  
**Grassed swales and water retention ponds**  
Best practice: Bioswales in boulevards slow and filter runoff, directing it to retention ponds for storage, infiltration, and biodiversity benefits.  
Case study: Street Edge Alternatives Project (Seattle, EEUU)

**Mobile Green Living Room**  
Office for Living Architecture

In the course of global warming, the number of hot days in cities is expected to increase. This will heavily impair the sojourn quality of public spaces, especially if squares are completely sealed. Conventional measures of landscape planning are often limited as tree planting collides with the needs of events (festivals, markets, demonstrations) for an unhindered use of space. Mobile vegetation elements that may be combined with technical shading elements act as temporary green comfort zones and provide a solution for this dilemma.

Green walls, a water tank, and shading roofs are integrated in movable containers that serve as benches. These containers can be rapidly and easily moved by city-owned vans. Due to the solar-powered irrigation technology, the elements are independent from local technical infrastructure and may be arranged in different spatial layouts.

During a road show of the EU research project TURAS in summer 2016, a prototype will be presented in selected European cities in order to demonstrate the potentials and challenges of »urban green infrastructure«.

**CLICK!**

These real-world examples illustrate how solutions have been adapted to different urban contexts, helping you:

- Understand practical implementation steps.
- Anticipate challenges and enabling factors.
- Gain inspiration for replicating or scaling solutions in your own city.

## Step 08: Review case studies

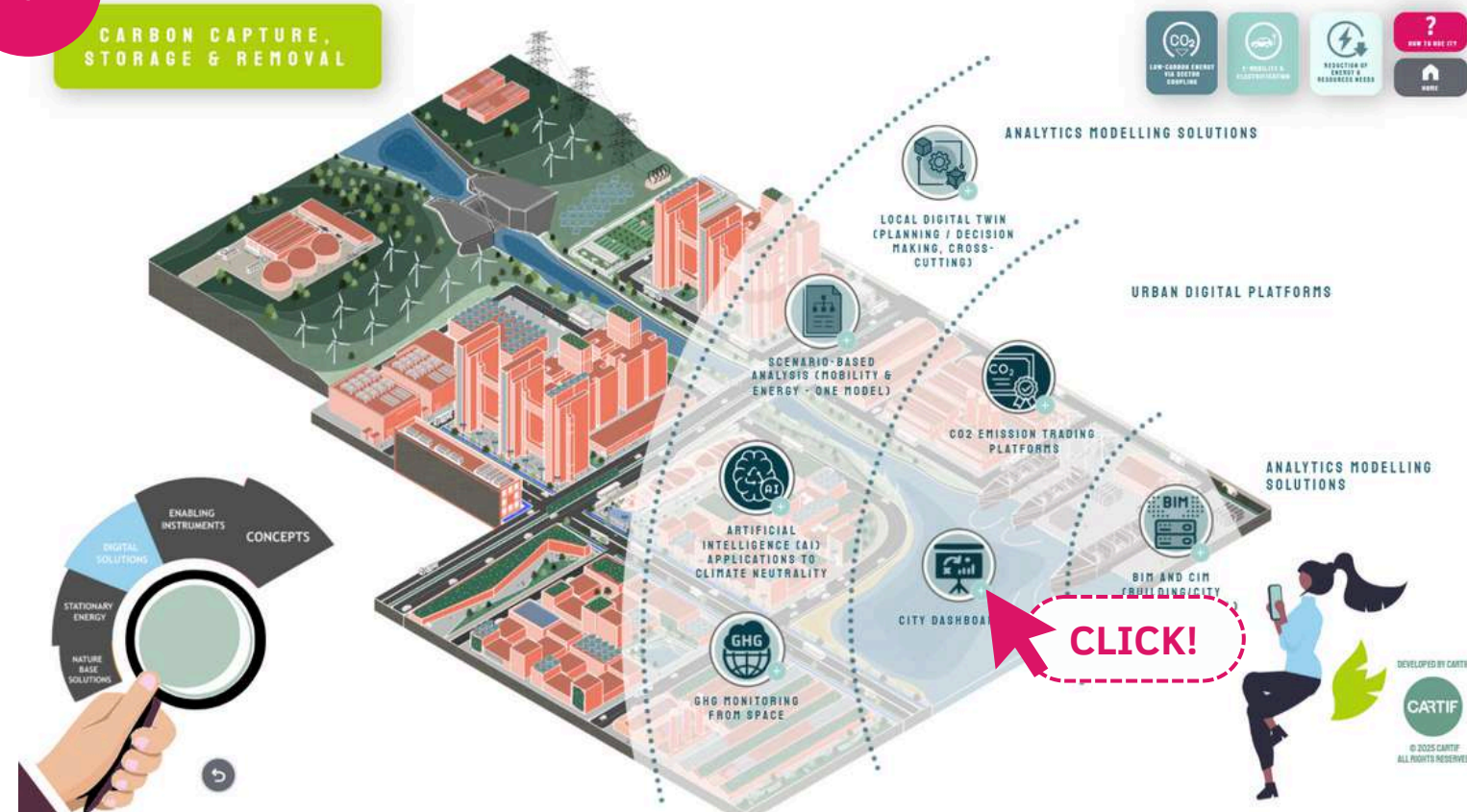
At this stage, you can explore best practices and case studies embedded in the tool. In this example, the Mobile Green Living Room (Germany) illustrates how vertical mobile gardens can provide flexible greening options in dense urban areas. If you click on the **icon next to the case study title**, you will be redirected to the original reference, website or article for that specific case study.



## OTHER THEMATIC AREAS INTERFACE

Not all thematic areas are organised through zooms or intervention zones. Some sections, such as **Concepts, Enabling Instruments, Digital Solutions, and Circular Economy**, use a simpler interface, where solutions are directly linked to the Knowledge Repository factsheets. In these cases, you can open the content either by clicking on the icons or directly on the solution titles.

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### Step 09: Digital solutions

Some categories, such as **Digital Solutions, Concepts, and Circular Economy**, do not use zooms or intervention zones. Instead, solutions are directly linked to the Knowledge Repository. Click directly on the “+” or on the solution icons to open the corresponding factsheets.

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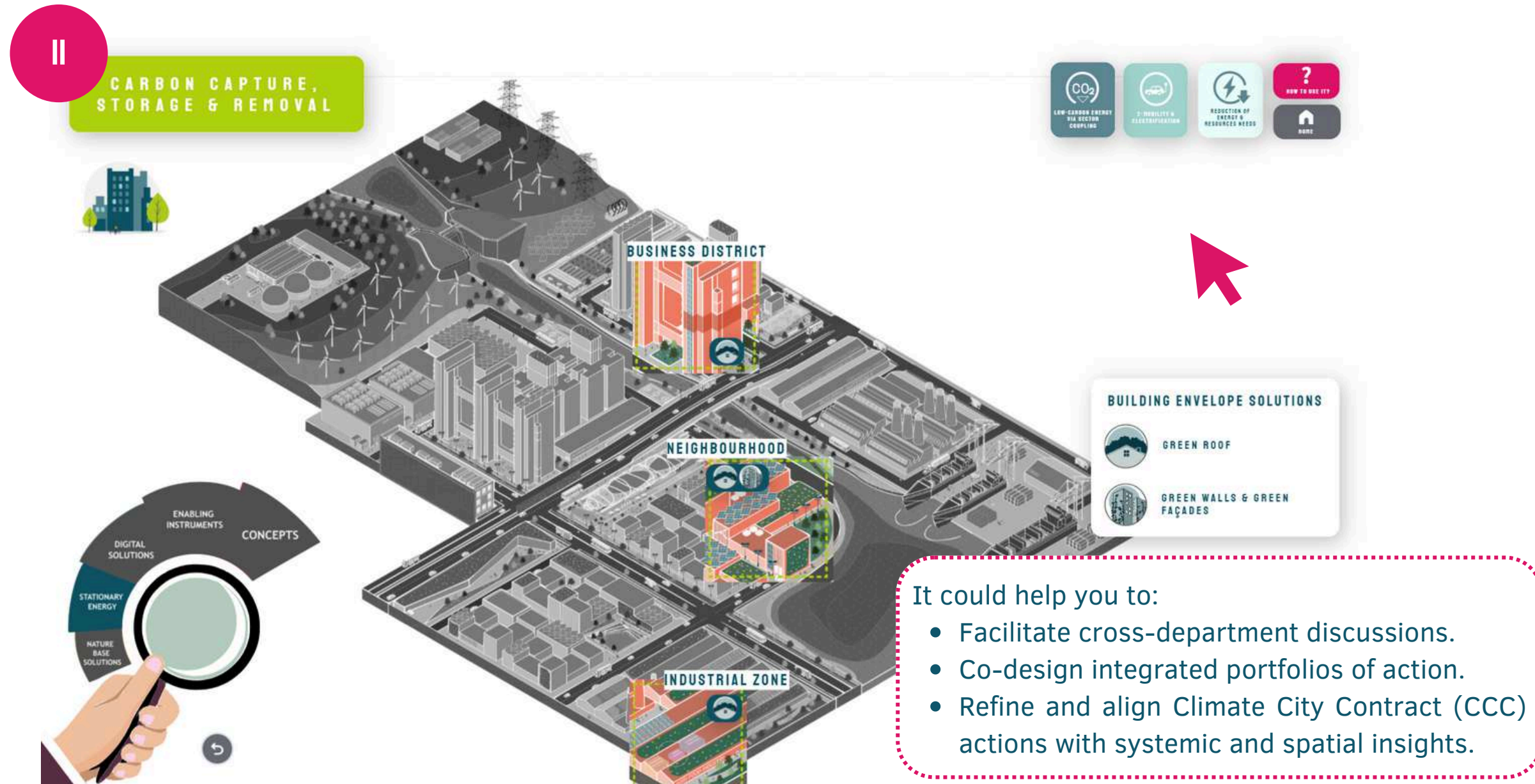


### Step 10: Enabling instruments

In Enabling Instruments, the tool displays a list of subcategories. By clicking on each subcategory, the related solutions appear in the same format. To access the details, click directly on the titles, which will take you to the Knowledge Repository factsheets.



Think of the tool not only as a digital explorer, but also as a planning companion that supports your city's pathway towards climate neutrality!



## Step 11: Use in workshops and planning

The Solution Bundles tool can be used beyond individual exploration. Bring it into workshops with stakeholders or municipal meetings as a shared visual reference. By using the tool in collaborative sessions, cities can create a common understanding and strengthen cooperation around climate-neutral strategies.

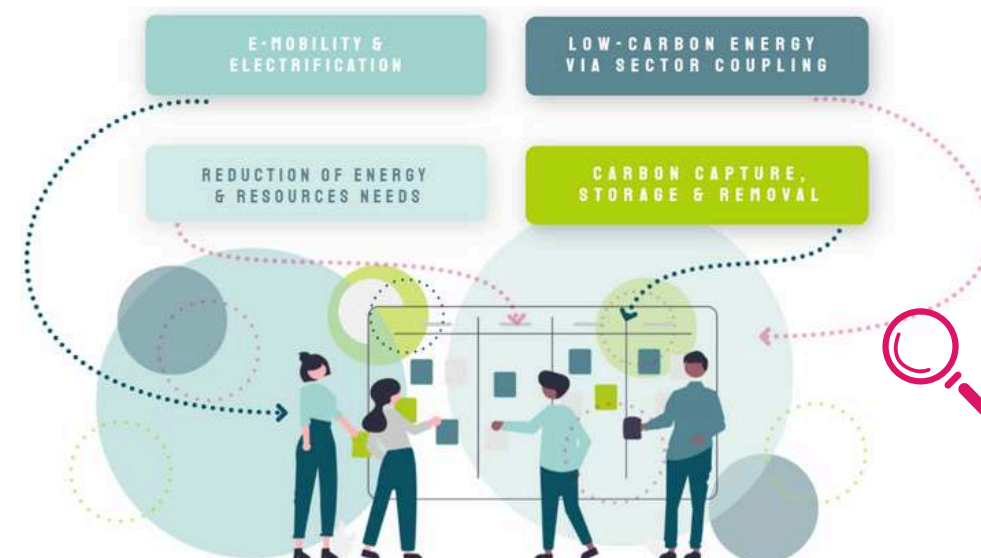


# THANK YOU FOR EXPLORING THE SOLUTION BUNDLES!

We hope this guidance has supported you in navigating the tool and enjoying its features.  
Keep exploring and experimenting to design your city's climate-neutral future.

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