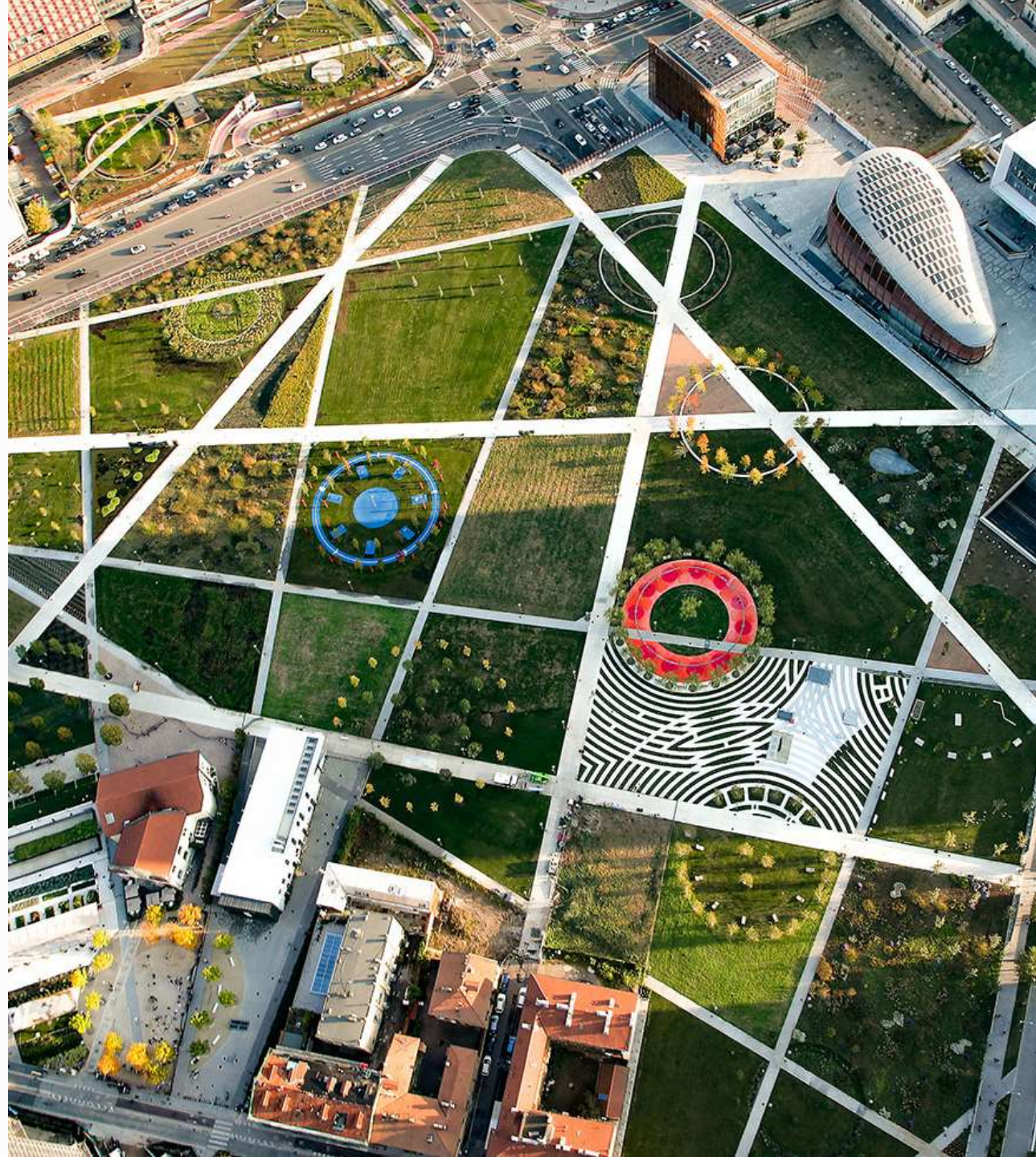


ARUP

New innovations: GHG Investment Tool

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Agenda

Background – Sustainable Finance

How we developed the tool

Results

How to tool can be used

Next steps in research



Net zero targets

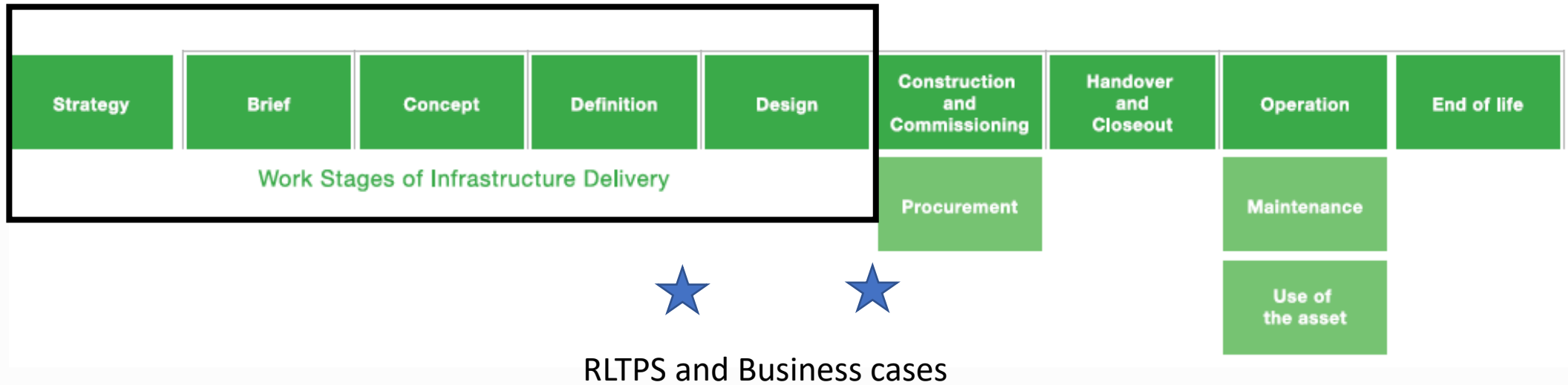


**UN CLIMATE
CHANGE
CONFERENCE
UK 2021**

IN PARTNERSHIP WITH ITALY

Sustainable Finance.

Early investment planning



GHG Investment Tool

A digital investment tool that helps governments and business case owners make investment decisions during the **early planning stages** - by providing evidence for **potential GHG emission reduction** of transport projects on a portfolio level e.g. RLTPs, programme business cases

GHG Investment Tool

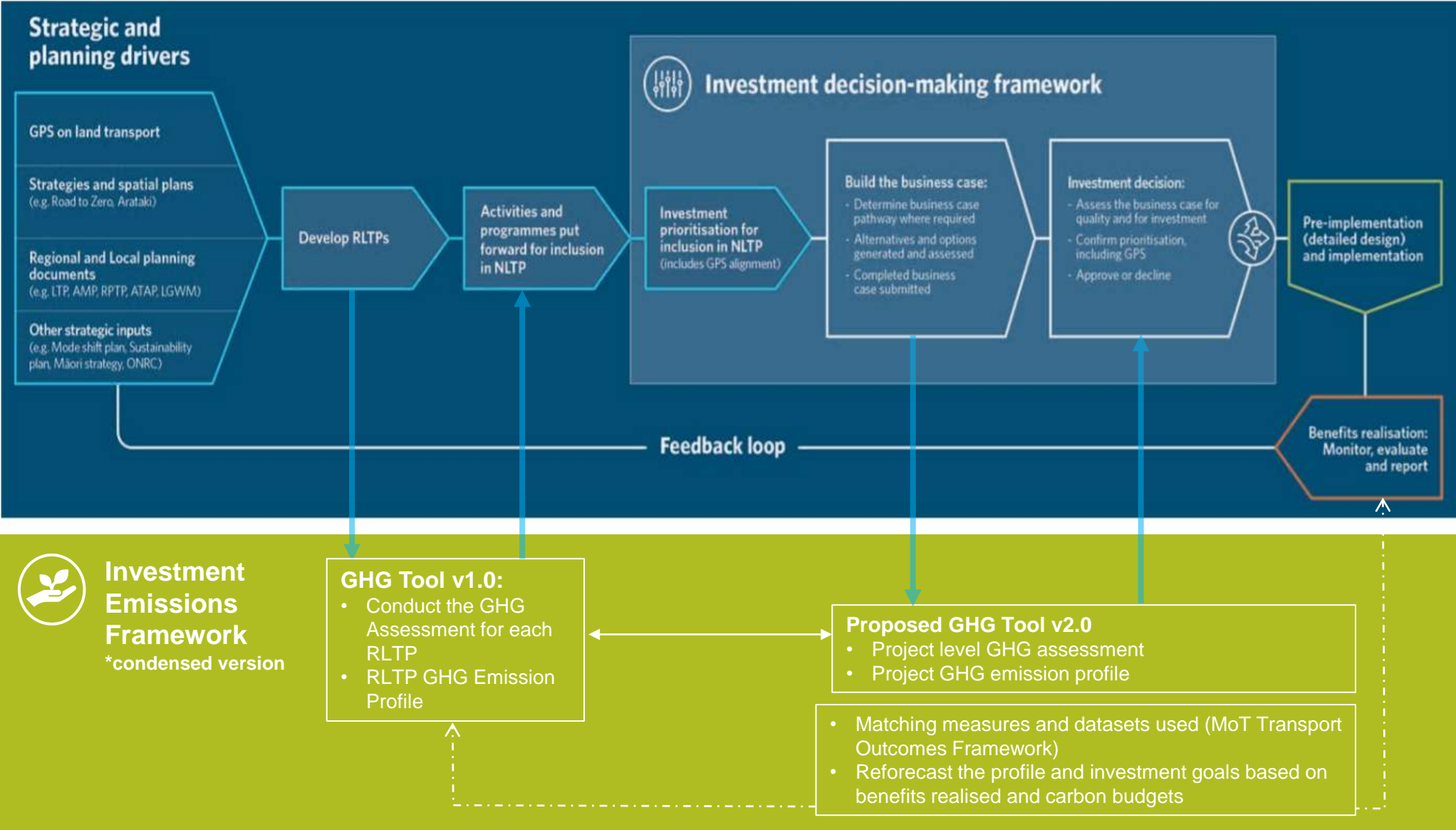
a **rapid** and **consistent** approach to evaluating the impact of transport portfolios (RLTP's) on **GHG** emissions.

1 Speed & timing

2 Consistency

3 Predictive

Integrating the Investment Emission Framework, the Transport Planning and investment system

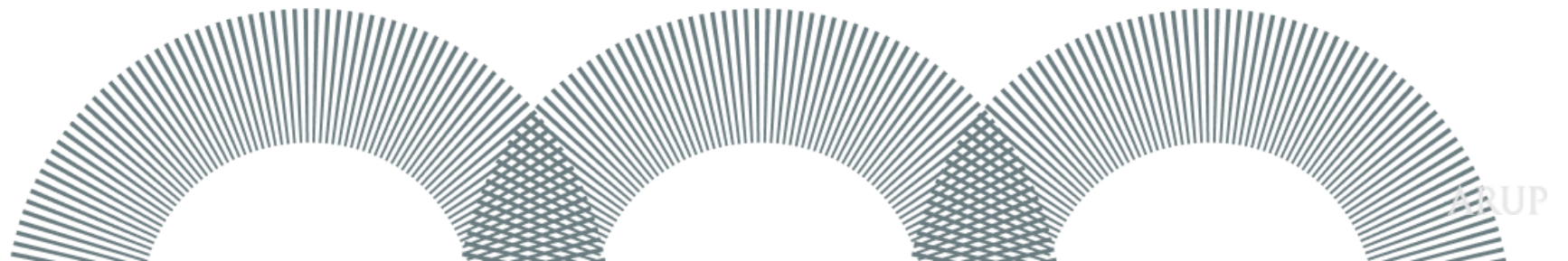


Datasets

Land use zoning
GHG emissions
Transport project types
Potential emission impact by
project type
Scale
Location
Population density
Opening year
Mode

Calculator/Machine learning

Digital GHG Investment dashboard



RLTP GHG Profile Dashboard



21%

GHG reduction projects¹



17% SHIFT

Predominant ASI strategy



GHG reduction benefits realisation begins



1.8 (low)

Average Emission Reduction Regional Rating



\$1,900 m

potential emission increasing projects²



\$ 1,000 m

potential emission neutral projects²



\$1,600 m

potential emission reduction projects³



100%

nationally identified growth region



8%

of NZ national CO₂ emissions



High volume roads

have majority of CO₂ emissions



8%

of national VKT

What we can answer so far:

- ✓ How does each region contribute to the national goals of emission reduction?
- ✓ Which kind of projects will reduce emissions? And by what level?
- ✓ What is the emission benefits realisation profile for a programme?

Next....

- ❑ What is the target GHG regional rating for an RLTP based on its current emission levels?
- ❑ How much do we need to invest in each region to reach net zero tail pipe emissions

How the tool can be used:

1. This tool can be used in RCA's during the RLTP development stage to inform and test different programme options .
2. Benchmark and compare regional RLTPs

Next stages:

1. Guidebook- NLTP Work category emission reduction. This would be especially useful for RLTP's in councils.
2. GHG Investment tool methodology applied through Agency Based Modelling.

For more information contact Kathy Matete

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Thank you

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