

29 JANUARY 2021

ICLEI ACTION FUND

ANN RADAR

HafenCity University
Hamburg, Germany

Identifying **Urban Testbeds** for
Sustainable Cities Pilot Projects
and **Climate Mitigation** Action

ICLEI ACTION FUND



WITH SUPPORT FROM



THE INITIATIVE



DATA-DRIVEN
ENVIRONMENTAL AND
CLIMATE ACTION PROJECTS



2,5 MILLION € FUNDING IN
EUROPE



SITE SPECIFIC – DISTRICTS
AND NEIGHBORHOODS IN
SELECTED CITIES



2-YEAR PROJECTS INCLUDING
PROTOTYPES AND PILOTS
DEVELOPMENT

CITIES: Copenhagen (DK), Birmingham and Oldham (UK), Nantes (FR) and Berlin and Hamburg (DE)

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IMPACT



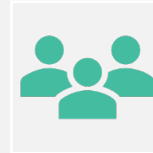
CO2 emissions
reduction



Environmental quality
improvement



Aligned with city
goals



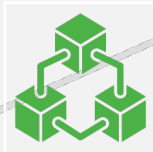
Stakeholders
engagement



Innovation



Financial
sustainability



Data sources diversity



Citizens - oriented

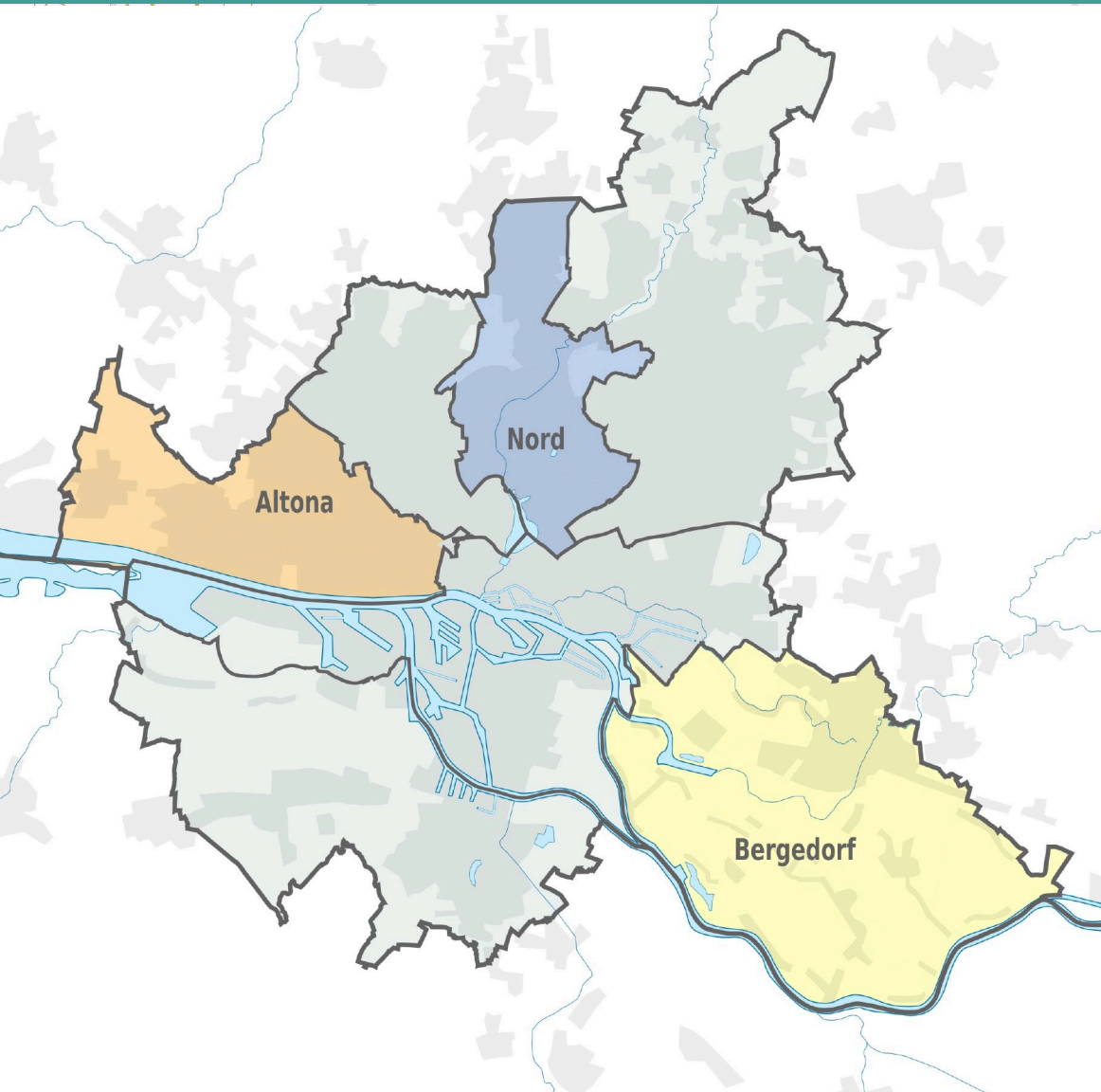
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Projects will promote the use of
**different sources of data
to drive environmental action**

through
**different applications
decision-support tools
such as monitoring systems
test beds and new guidance**

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Identifying **Urban Testbeds** for
Sustainable Cities Pilot Projects
and **Climate Mitigation** Action

Building on:

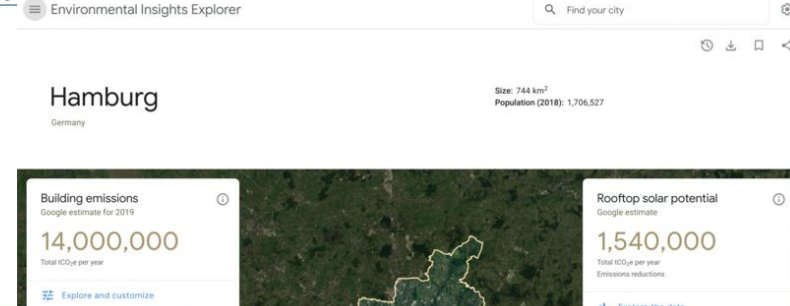
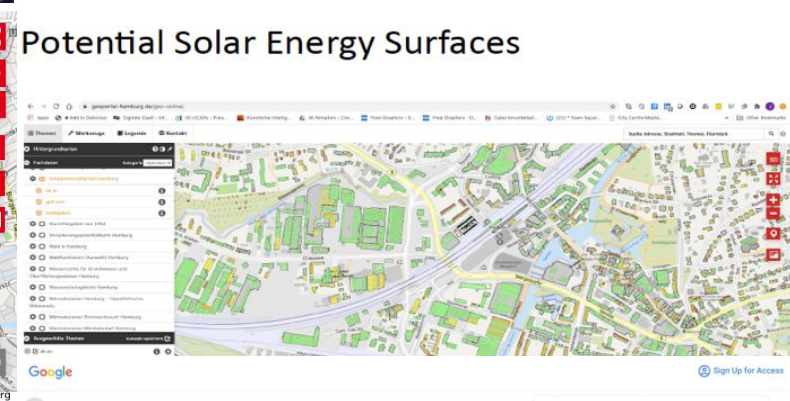
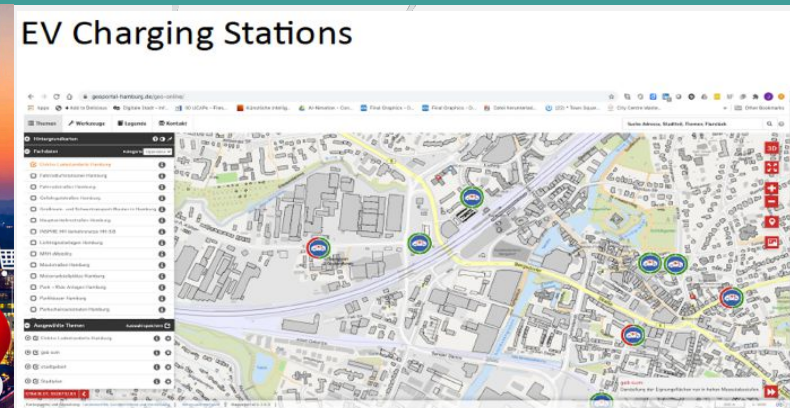
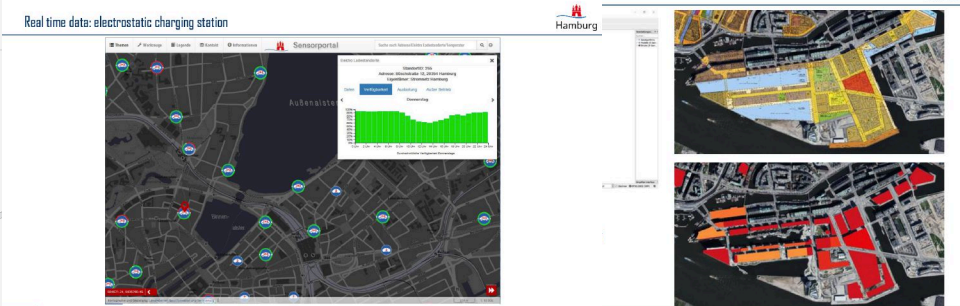
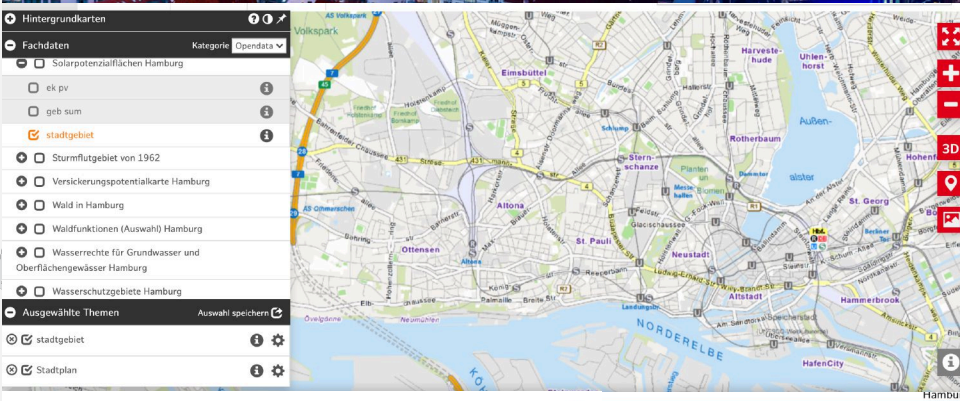
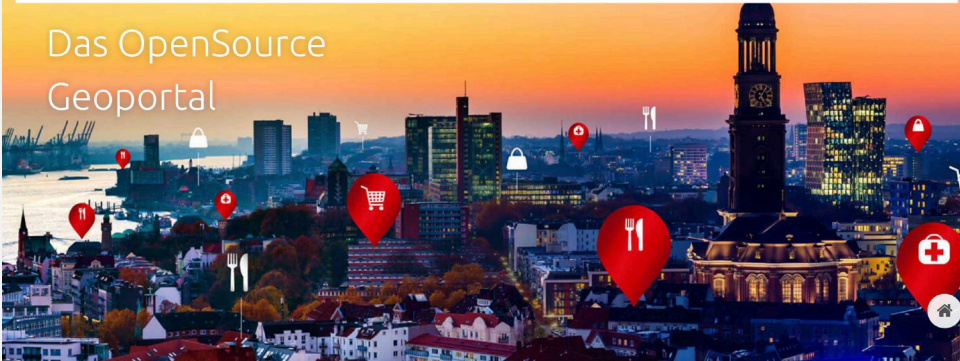
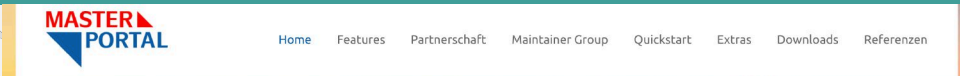
Smart Cities
Urban Testbed Experiences

Bergedorf & Altona districts,
SmartSquare

Stakeholder Ecosystems

incl. Mayor's Office, Districts,
Climate Coordination Office,
Civic and Citizens Organizations,
State Agency for Geoinformation

DATA DRIVEN APPROACH



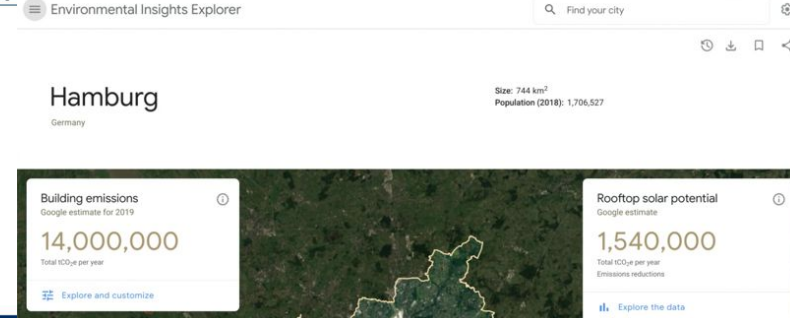
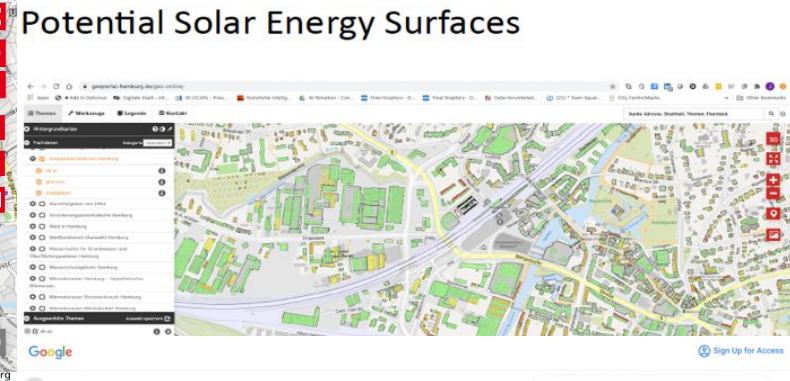
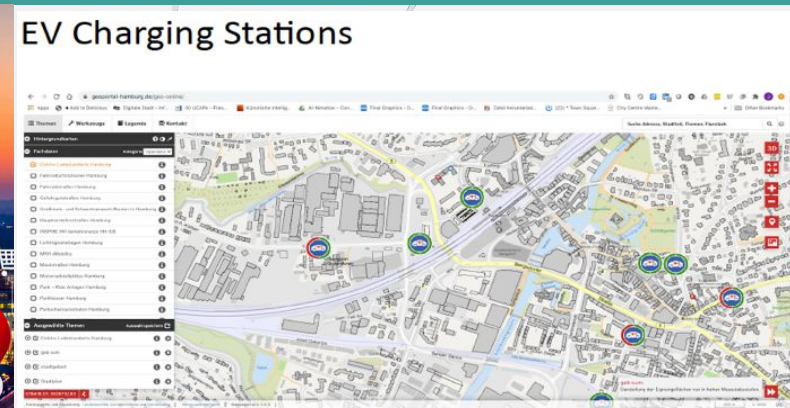
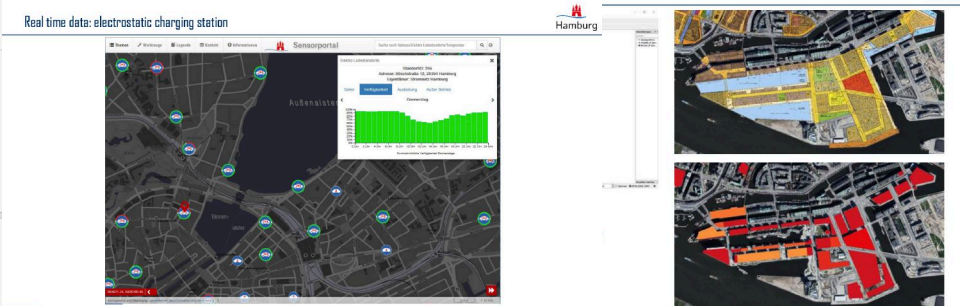
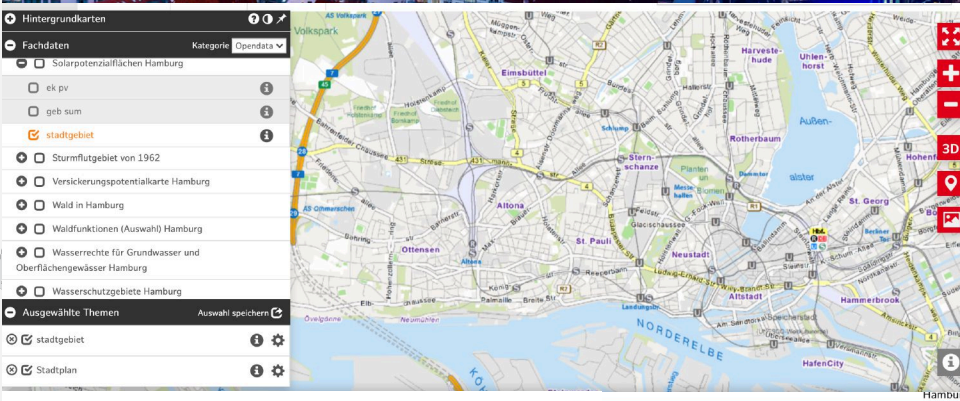
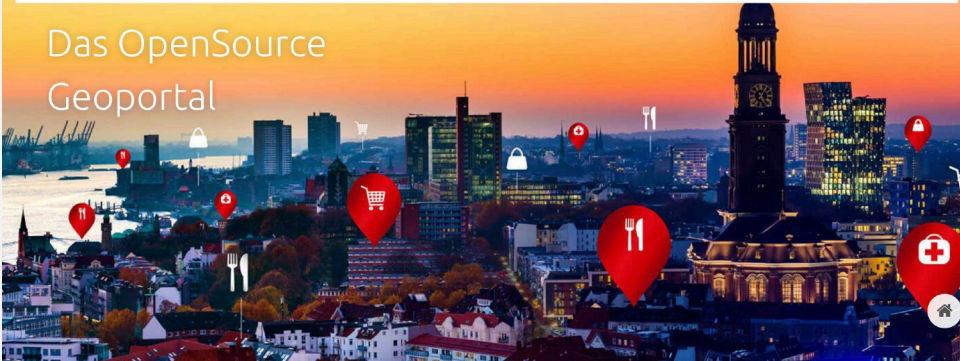
Open, Public and Private Data Sources

Urban Data Platform,
Open Data Portal,
Stakeholder Data,
Google EIE, ...

Action Fields

Sustainable Mobility
Energy-efficient buildings
Solar energy development

URBAN TESTBED RADAR



KPIs such as:

Local Sustainability Strategy/Plan

Transitional Goals

Stakeholder Ecosystem
(Quadruple Helix partners)

Potential for Citizens Engagement

Experimental Governance

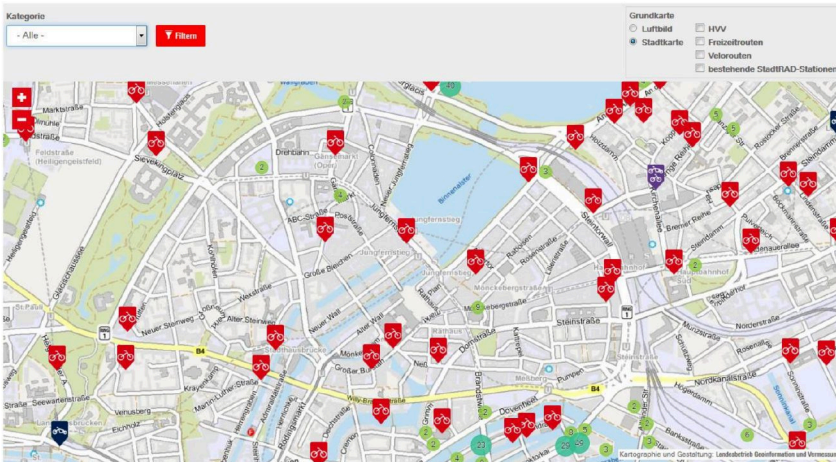
Data-driven/supported
decision making

Data availability, accessibility
and governance

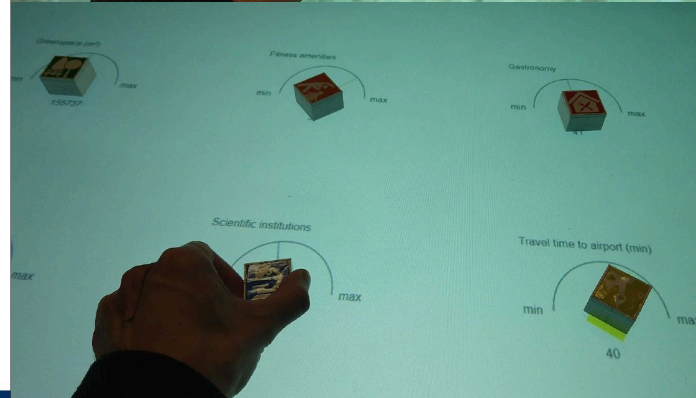
URBAN TESTBED RADAR



Masterportal Integration in CMS



MASTERPORTAL



Activities:

Ecosystem: Map & Engage

Co-Design Sprint

KPIs & Balanced Scorecard

Impact Assessment

Agile Prototype Design

Experimental Assessment Cycles
Refined Prototype

Experimental Governance

Tools and Methods Adoption and
Transfers (MASTERPORTAL)

CONTEXT



A NEW NORMAL

Foreword

Lord Mayor Sally Capp

No one could have imagined the devastating events that have unfolded around us in 2020. The intense summer bushfires that ravaged our countryside and choked our cities have brought a distressing reality to our climate emergency. Our recovery was barely underway when COVID-19 emerged, its rapid spread damaging communities and economies everywhere.



The environmental and economic challenges ahead are immense. We will overcome them together. From dislocation and disruption there comes the opportunity to re-evaluate the way we do things and reset our cities on a safer, more sustainable, more resilient path. As we rebuild, we will need courage and vision to stay the course.

Cities like Melbourne must play a leadership role in this "new normal", working with our communities to demonstrate the social and economic advantages of new and better ways of thinking. We know Melbourne's commitment to net zero emissions by 2040 will be more important than ever to many people in the wake of our horrendous bushfires; a transition to 100 per cent renewable energy for buildings and transport will play a major role in reaching that target. The creation of a circular economy is another necessity as we turn our minds to reducing or using waste more thoughtfully. Melbourne also plays an active part in an international community of cities dedicated to sharing ideas and acting together to adapt and respond.

This report, *A New Normal*, builds on case studies from cities around the world and proposes practical solutions to make better, healthier municipalities across Greater Melbourne while generating jobs and economic opportunities. The

projects presented here have been carefully costed and developed with a focus on economic viability.

In addition, fifteen Melbourne architecture practices have collaborated to help visualise the findings by sharing their vision for transition and recovery. Their approach is to integrate the physical infrastructure that makes our city function with the cultural infrastructure that enables it to thrive.

Bringing together business, all levels of government and the people of Melbourne, the ideas presented in the *New Normal* will stir much-needed discussion and deserve serious consideration. In our recovery from the bushfires and COVID-19, we have an opportunity to re-imagine and transform our city with a vision for the long-term while solving our short term challenges.

Let's build something to be proud of for generations to come.

Sally Capp

Lord Mayor of Melbourne

With support from...

Resilient Melbourne

Prof. Jens Bley, eCultureLab c/o CityScienceLab, HafenCity University, Hamburg, Germany

10 Key Profitable Initiatives Required to Transform Melbourne By 2030:

01 Electrify Transport



Phase out the internal combustion engine, transitioning to electric vehicles, while also discouraging vehicle ownership by improving public and human powered transport infrastructure

02 Energy Storage



Utilise the energy storage available in our electrified transport system in combination with thermal and hydro to create grid stability.

03 Electrify Architecture



Phase out natural gas, replacing gas heating and hot water with heat pumps, gas appliances with efficient electric equivalents

04 Efficient Architecture



Mandate the retrofit of all existing buildings with only profitable initiatives to reduce their energy & water consumption

05 Solar Architecture



Improve solar PV uptake within Greater Melbourne, installing solar PV on a minimum of 50% of all rooftops

06 Solar & Wind Grid Scale



Transform the LaTrobe Valley into a renewable energy & agriculture region, ending coal fired generation

07 Water Unlimited



Treat and reuse sewer water within the city

08 Waste to Energy



Install anaerobic digesters throughout the city to convert organic waste into energy and fertiliser

09 End Landfill

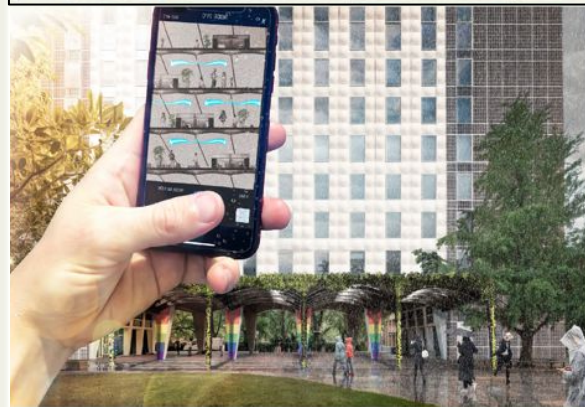
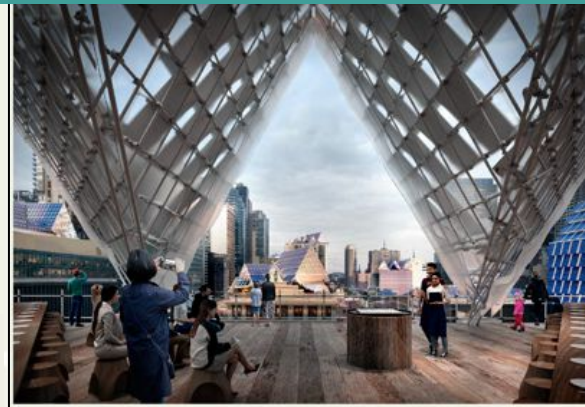


Ban the sale of any product destined for landfill

10 New Architecture



Mandate net-positive energy, water-neutrality and zero-waste for all new buildings



ANN RADAR

connected in local, national and international networks

and to the initiative

A New Normal Sustainable Melbourne 2030

in regard to:

Prototypes

Pilots

Key Performance Indicators

Transfers

New Urban Narratives

ANN RADAR

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