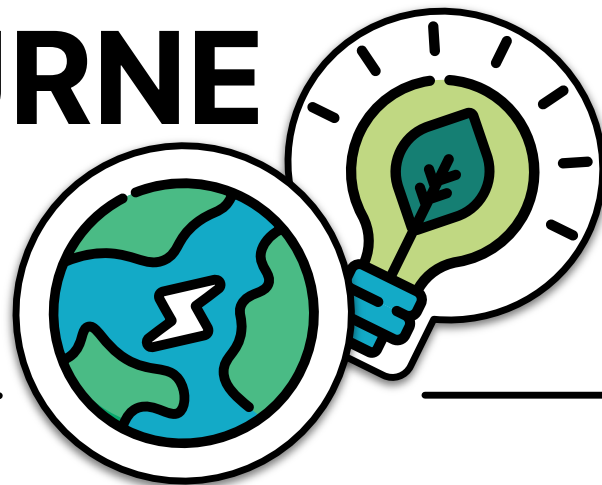


YOURMELBOURNE

SUSTAINABLE DEVELOPMENT



BMW
GROUP

SEPTEMBER

2023



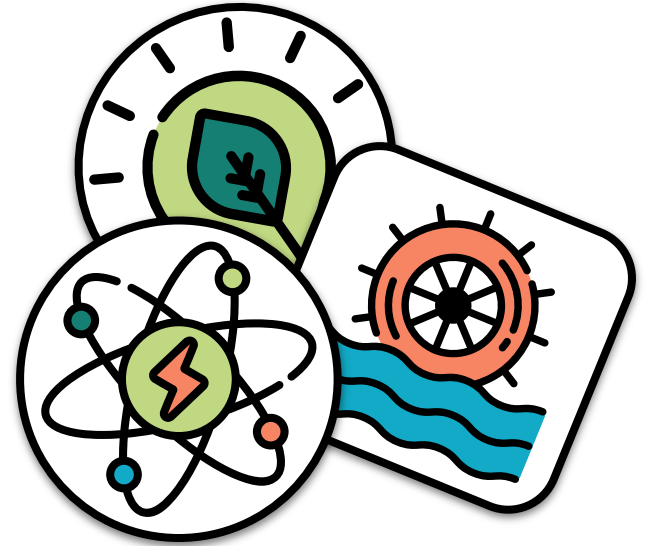
ACKNOWLEDGEMENT OF COUNTRY

I respect the traditional owners of the land on which we are present today. I pay my respect to their ancestors and elders as well as to the Aboriginal elders of other communities who may have joined us today.



“We cannot solve problems by
using the same kind of thinking we
used when we created them”

— **Albert Einstein, Physicist**



PROJECT GREEN

THE MISSION

Net zero carbon

THE OBJECTIVE

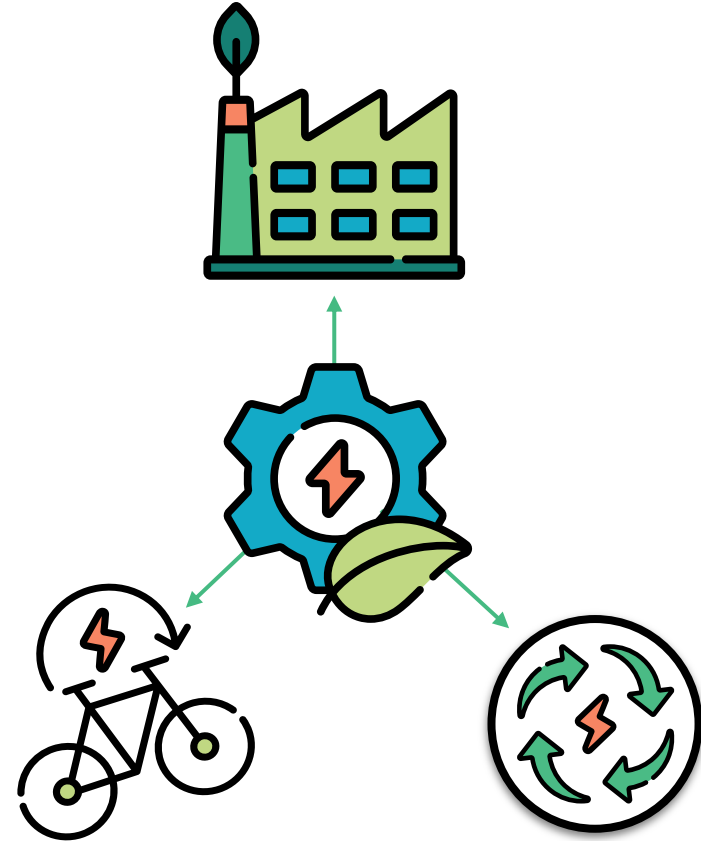
Developing a sandbox in sync with 17 UN SDGs.

THE VISION

Melbourne 2030

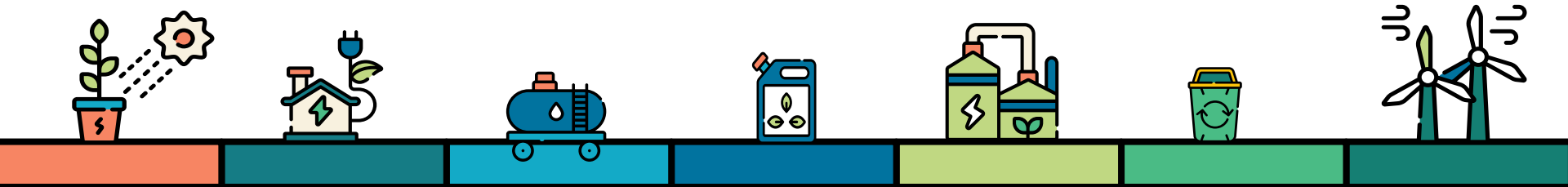
KEY INITIATIVES

Urban Planning, Mobility & Connectivity.



SUSTAINABLE DEVELOPMENT GOALS (SDGs)

United Nations (UN)





AGENDA

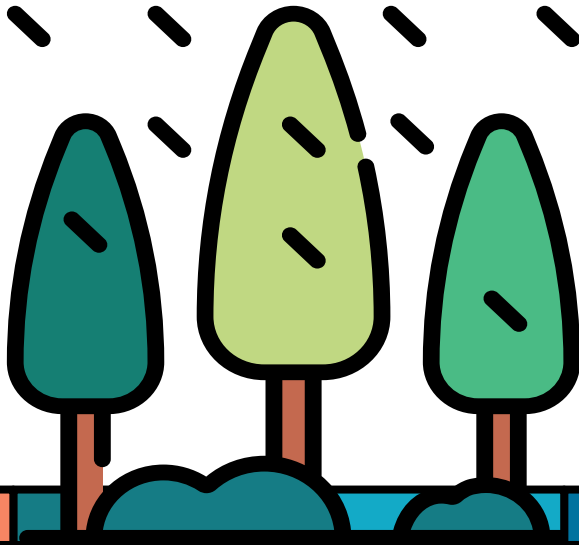
INFRASTRUCTURE 01

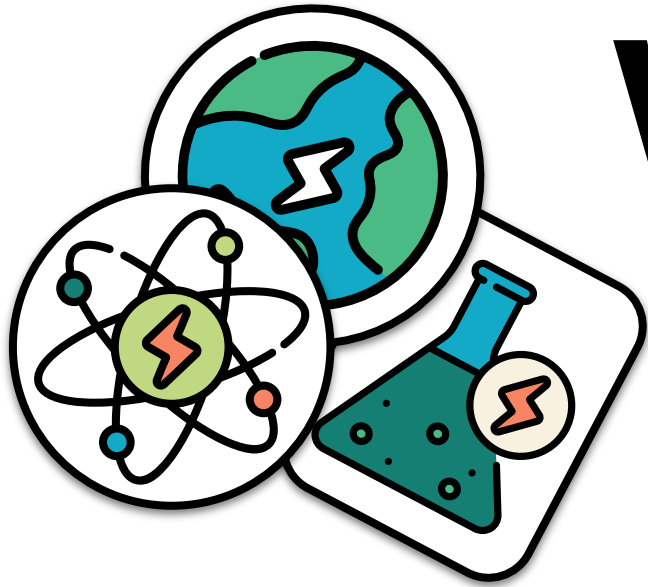
MOBILITY 02

CONNECTIVITY 03

BRIDGING THE GAP 04

REFERENCE 05





WELCOME

What to expect -

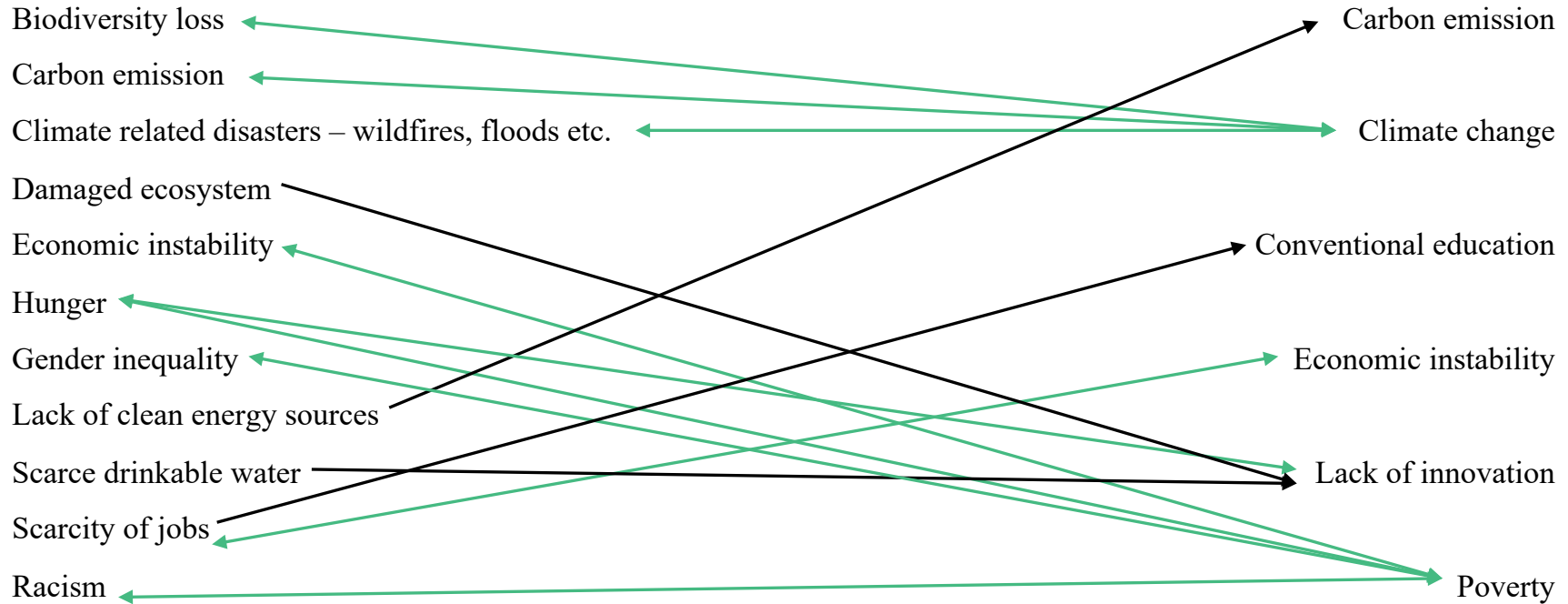
A comprehensive plan devised to help achieve
desired goals of the united nations.

CHALLENGES?

- Biodiversity loss
- Climate change
- Carbon emission
- Climate related disasters – wildfires, floods etc.
- Conventional education
- Damaged ecosystem
- Economic instability
- Food loss
- Gender inequality
- Lack of clean energy sources
- Lack of innovation
- Poverty
- Racism
- Scarce drinkable water
- Scarcity of jobs

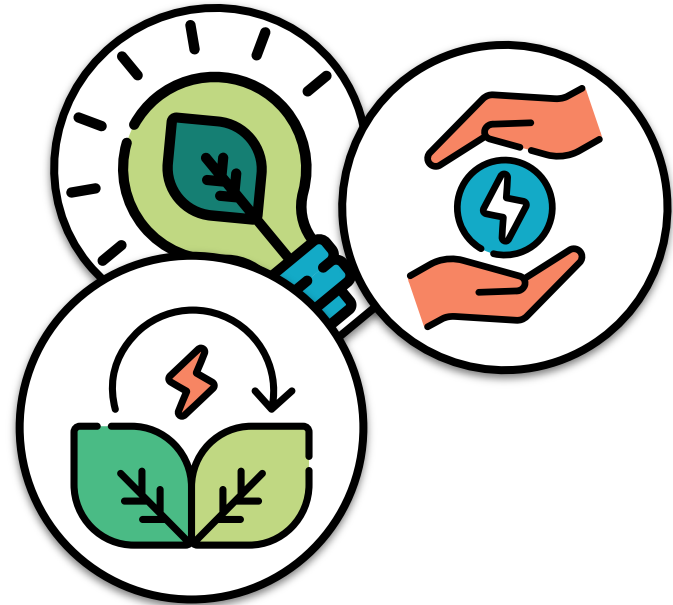


IDENTIFYING DEPENDABILITY



SOLUTIONS!

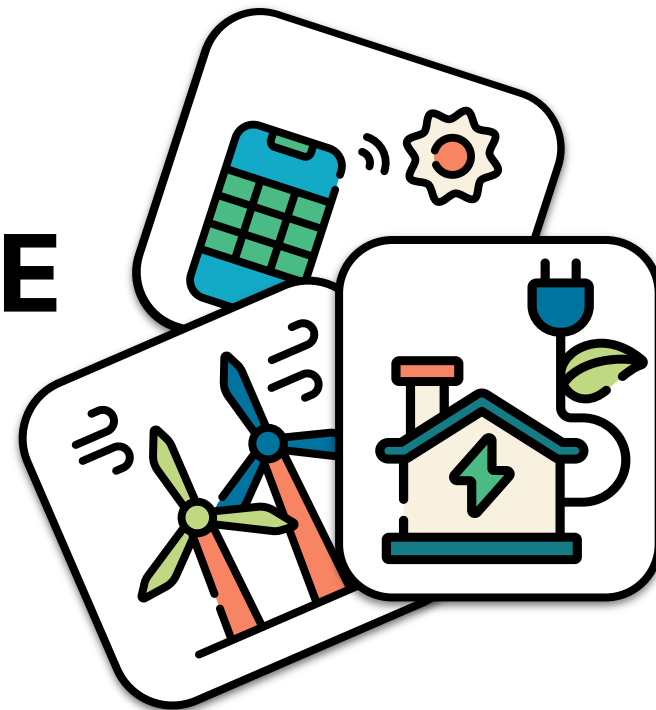
1. VERTICAL GARDENS
2. OFFSHORE WIND TURBINE
3. GREEN CORRIDORS
4. KINETIC ENERGY PAVEMENTS
5. HYPERLOOP ROUTES
6. COMMUNITY FRIDGE
7. UNDERGROUND FRIDGE



01

INFRASTRUCTURE

*Would a bird build a nest if it did not have
it's instinct for confidence in the world?*



VERTICAL GARDENS



Vertical gardens to **improve air quality** and provide a natural appeal motivating people to come out more.

The **preservation of native pollinators, small native mammals and birds** that could otherwise become extinct depends on the **presence of native flora** in urban environments which in turn increases biodiversity.

The **framework is of stainless steel** and is at a safe distance from the pillar.

Regularly watered using the **automatic drip irrigation system** which will water saplings everyday for **10 to 15 minutes**.

During rains, the water will be collected from channels into the underground storage units which will be used for watering the saplings.



VERTICAL GARDENS



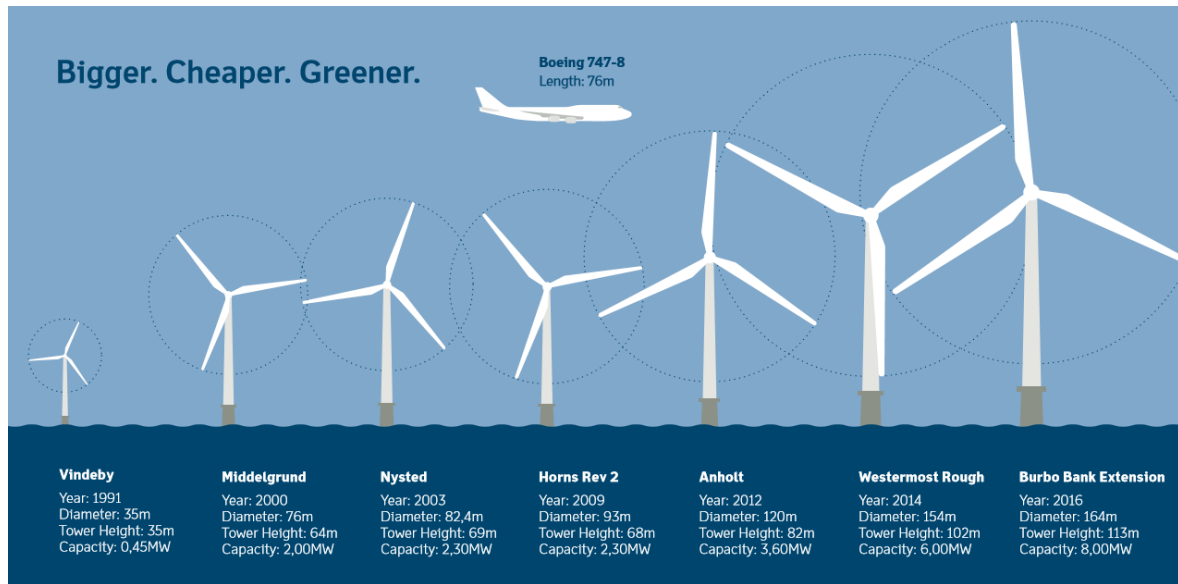
Where? On highway pillars, overpasses and buildings.

What will it do?

- Reduce urban heat island effect and mitigate air pollution.
- Counter carbon emission from vehicles.
- Filtered sound and light inside a building plus natural cooling which means less demand for power; decreasing the overall energy use.
- Enhance biodiversity.
- Increase employability.



OFFSHORE WIND TURBINE

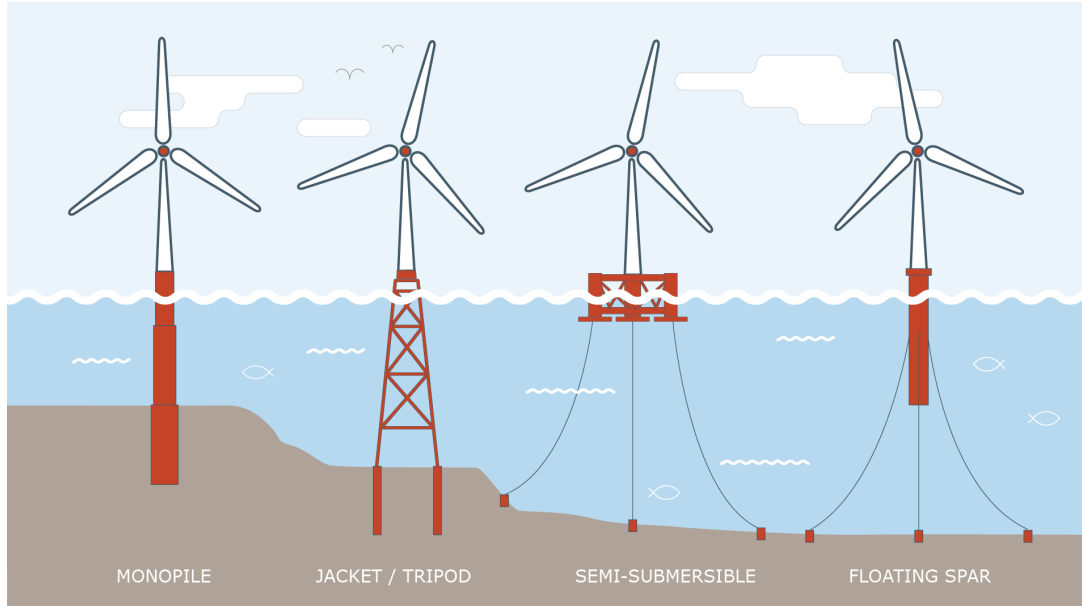


Offshore wind turbines capture the **strong and constant winds of oceans/ rivers** to convert it into electricity.

Each blade will be 100m long and especially made to endure high winds.

Underwater cables will be used to transport electricity to onshore substations which are connected to the transmission towers.

OFFSHORE WIND TURBINE



Where? Port of Hastings/Port Phillip

What will it do?

- Connect offshore wind farms to existing grid supplying clean renewable energy to nearly 1.5 million homes.
- New jobs, career pathways and regional investment.
- Restricted areas will help protect the surrounding marine ecosystems.
- Zero carbon emission.
- Easy transport of electricity to nearby grid.

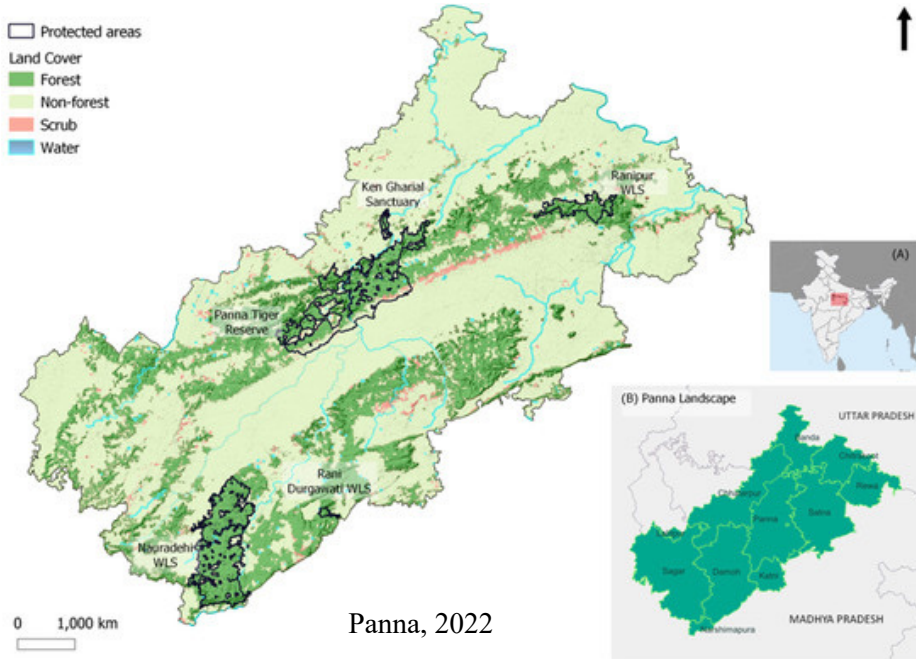


02

MOBILITY

To infinity and beyond.
- Buzz Lightyear

GREEN CORRIDORS

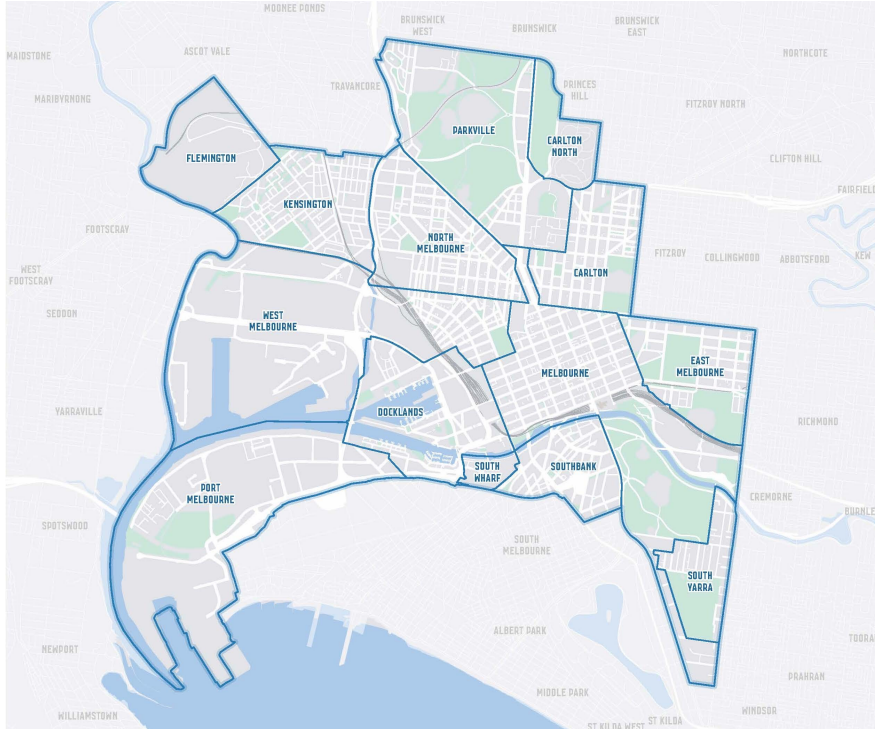


Linear natural infrastructure to **link parks, green spaces and tree lined pathways** with each other to form a **green urban network**.

Green and natural pathways across the corridors making them beautiful and **decreasing the chances of knee arthritis by 40%** when walking on a natural surface.

Natural network for wildlife travel and conservation providing them a home which includes connecting national parks, wildlife sanctuaries, community reserves and conservation reserves thereby increasing biodiversity

GREEN CORRIDORS



Where? Melbourne Parks & Green spaces

What will it do?

- Reduce urban heat island effect and mitigate air pollution.
- Increase in levels of walking, cycling and use of public transport.
- Counter carbon emission from vehicles.
- Provide a natural tree shade eliminating the need to build wasteful infrastructure.
- Enhance biodiversity.
- Habitats and resources for wildlife.

KINETIC ENERGY PAVEMENTS



Install kinetic energy-generating pavements to create **off the grid clean electricity**.

80% of the tile will be made from **recycled materials**.

Footsteps generate energy which can power streetlights, traffic signals or store energy to charge electronic devices.

(Fun fact: A single footstep can power an LED street lamp for roughly 30 seconds)

Life cycle of each tile – **5 years**.

Every individual can have their **contribution counted and traded for rewards or donations to charities** via an application wirelessly through bluetooth providing with a sense of inclusion and satisfaction.



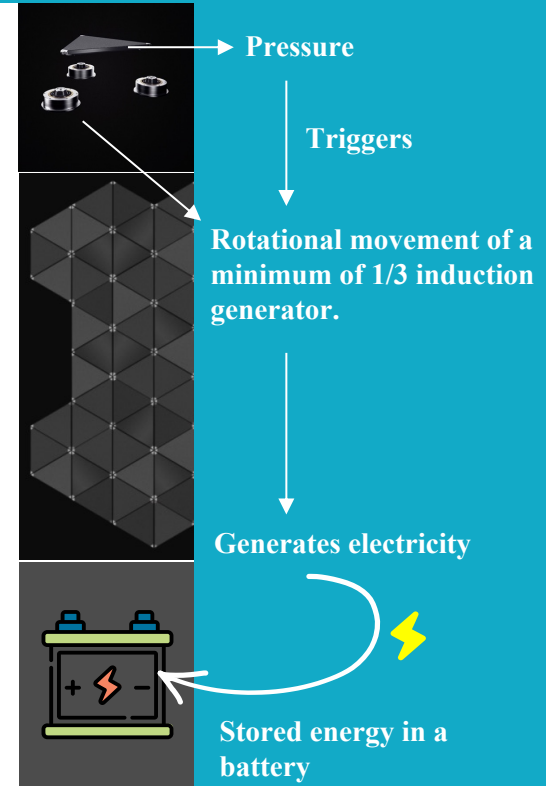
KINETIC ENERGY PAVEMENTS



Where? In high foot traffic areas like malls, sport centres, etc.

What will it do?

- Ensure clean and affordable energy.
- Motivate people by providing a sense of purpose to go out for walks which will help in reducing collective carbon emission.
- Reuse batteries from electric cars.
- Recycle materials to make the tiles.
- Collaborative potential to combine with solar panels to create more energy.
- Future use case to implement on motor roads increasing the pressure on tiles resulting in massive generation of electricity to reach regional areas.

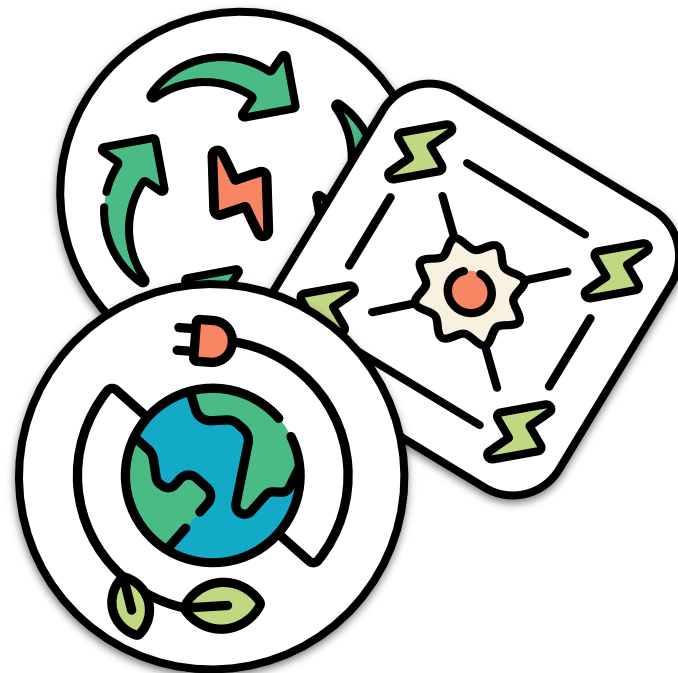


03

CONNECTIVITY

Antient experience confirms at every point that everything that is linked together is inseparable.

- Dalai Lama



HYPERLOOP ROUTES



Hyperloop test route **connecting Melbourne to nearby cities.**

Near-vacuum tube would transport people in pods at the **speed of sound.**

The line would run above-ground through rural areas and underground in urbanised zones.

The loop can be used to **transport people and materials with zero carbon emission.**

Cross country transport at unimaginable speeds is the future.

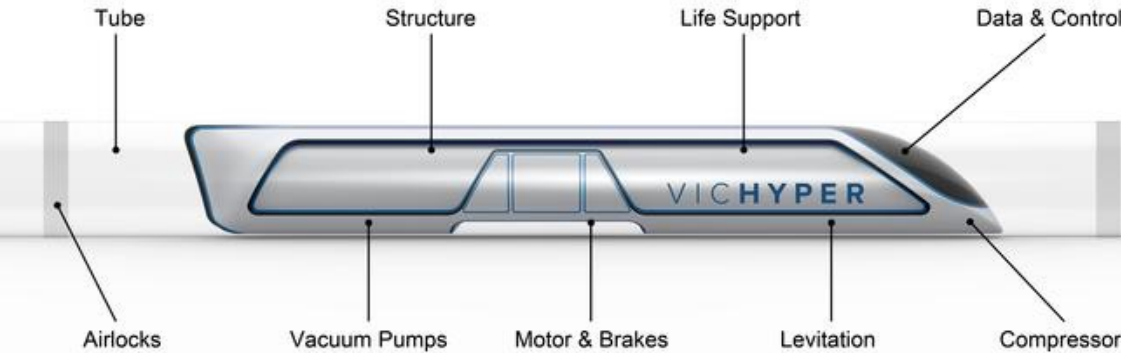
HYPERLOOP ROUTES



Where? Australia and nearby islands.

What will it do?

- Reduce domestic plane travel, which would mean less flights resulting in a less carbon emission.
- Faster Cargo travel; booming economy.
- Provide growth for towns such as Shepperton, Wodonga and Goulburn.
- Intercity united single economy potential.
- Growth in tourism



COMMUNITY FRIDGE



Take what you want, leave what you can!

Food will be **labelled with date and contents.**

Refrigerators powered by **renewable energy**

Restaurant, NGOs, Grocery chains and Homes will be motivated to **minimize food waste by donating** and help beat hunger.



COMMUNITY FRIDGE



What will it do?

- Provide accessibility to those who don't have the means to travel to foodbanks.
- United by food for all thereby reducing inequalities.
- Cultural diversity.
- Reduced food waste as food stays fresh for longer.
- Healthier food options free from long-life preservatives.
- Ensure good health and well - being.



UNDERGROUND FRIDGE

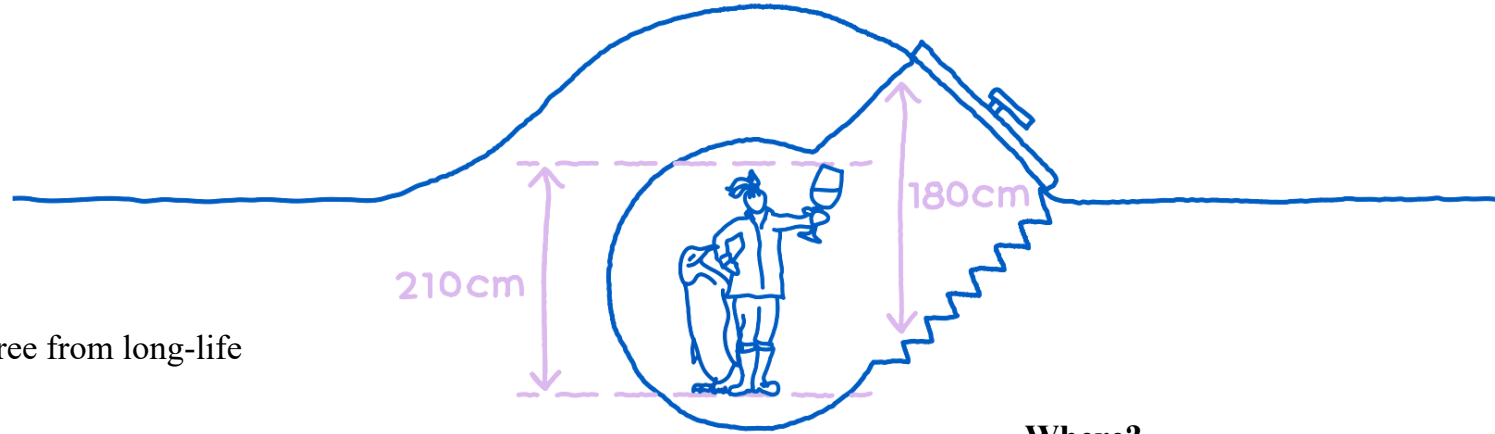


Take what you want, leave what you can!

Works without electricity and stays at a **stable temperature of 10-12°C** - uses the insulating effect of the ground and the cooling effect of the groundwater.

What will it do?

- Cultural diversity.
- Reduced food waste.
- Food for all.
- Healthier food options free from long-life preservatives.
- Ensure good health and well - being.



Where?

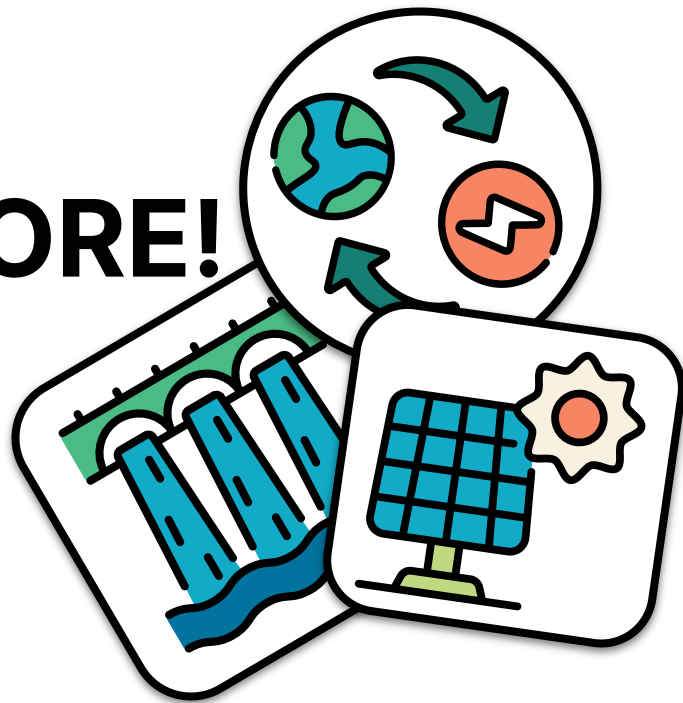
Every Beach in Melbourne.

04

WAIT, THERE IS MORE!

*If you no longer go for a gap that exists,
you're no longer a racing driver.*

- Ayrton Senna





CLIMATE CHANGE



In our brief time on the planet, humans have overused resources. Clearing forests and grasslands, burning fossil fuels, and destroying ecosystems with devastating impacts on the long-term health of our planet. However, we can still mitigate these challenges. As the saying goes “**Better late than never**” right?

What can we do?

CORPORATE ACTION - THE CORPORATE CLIMATE MITIGATION BLUEPRINT

- Motivate businesses to be on the forefront of change by including Nature Based Solutions (NBS) in their climate strategies within the Science Based Targets Initiative (SBTi) which will also help them generate long term business value.
- Influence policy - Companies can help promote legislative and policy changes by aligning trade associations to support policies consistent with achieving net-zero by 2050, adhere to the AAA framework for policy engagement or its equivalent and allocate advocacy and lobbying funds to groups that support a pro-climate policy agenda.
- Build Resilience - Avoid harming nature, use nature to help people adapt to climate change and help nature itself to adapt to climate change.



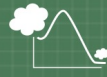
Corporate Climate Mitigation Blueprint

1



Account
& disclose

2



Reduce value chain
emissions, in line
with an ambitious
science-based target
pathway^a



3



Quantify financial
commitment by
pricing remaining
emissions^b

4



Invest the financial commitment
for climate and nature impact

Further emissions
reductions

Unlocking
climate solutions

Quality carbon
credits/mitigation
outcomes^c

Landscape finance^d

Climate innovation^e

GHG reduction

GHG removal

Alongside and throughout ...

Influence climate policy in
own sector and beyond

Collaborate with value chain, peers,
employees, and other key stakeholders

Build resilience in a
changing climate





Lack of access to basic amenities, limited opportunities for upward mobility and rising cost of living highlights the need for social and economic reforms.

What can we do?

POVERTY




1. **Education and Skills Training** – Update courses in sync with real life scenarios and interests of individuals while having conventional courses. For example: People interested in personal finance can take finance management as a minor subject with math and learn about tools and skills to manage money.
2. **Support Start-ups** – Incentives for small businesses growth in economically disadvantaged areas, creating job opportunities and economic stability.
3. **Community and Corporate** – High bracket individuals and blue-chip companies will be responsible to pay a monthly pocket money for the poor who fall under the categories below:
 - Children below the age of 17.
 - Adults above the age of 60.
 - Disabled people who are unable to work because of their disability.
4. **Skill-based training sessions** – Free weekly training for the poor to fill the employer-employee gap

NET-ZERO CARBON



The importance of achieving net-zero carbon emissions cannot be overstated. It plays a pivotal role in addressing and mitigating some of the most pressing challenges that we face today. This includes:

- Climate Change
- Human  Health
- Environment Protection
- Economic Instability
- Social Inequity

While these challenges are bigger than we can imagine, it's safe to say that Melbourne has the potential to pave the way towards a greener future, inspiring others to follow and ultimately preserving the planet for generations to come.



What can we do?



Renewable Energy – A combination of Wind (offshore wind turbine), Solar (panels on every public transit stop, gardens, parking lots, building tops and streetlights) and Hydroelectric power (a staggering amount of over 40 waterfalls live across Victoria).



Waste Reduction and Recycling – Minimize landfill waste, promotion of composting and organic waste recycling, educating people for raising awareness.



Reforestation – Urban green spaces and green corridors through community led tree planting and reforestation projects.



Policy and Regulation – Policies to mandate emission reductions to meet targets.



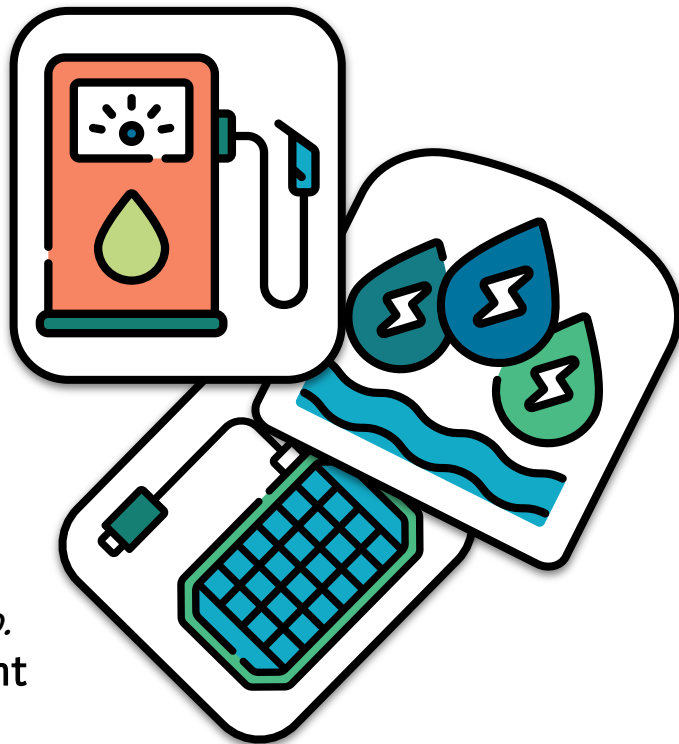
Carbon credit and Incentives – Subsidies, Tax breaks and financial incentives for low-carbon technology and practices.



05

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*The most important thing is to try and inspire people
so that they can be great in whatever they want to do.*
- Kobe Bryant



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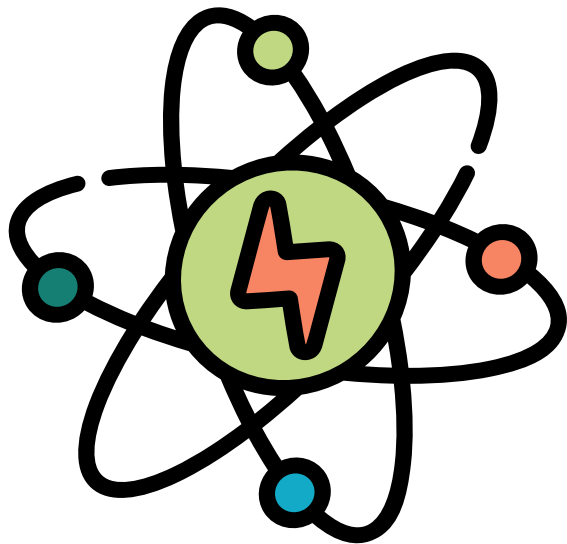
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THANKS!

Questions? Send them on the email below ↓



Developed by:
Abhijeet Raj Singh

