

# Living Buildings

‘The gateway drug to our flourishing future’

Sustainable Healthcare Forum Aotearoa 2019



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**LIVING  
BUILDING  
CHALLENGE**

**Jasmax**



# Whakatauki

Tuheā ki te rangi

Tuheā ki te whenua

Tuheā ki te ngākau ō ngā tangata

Ko te mea nui

Ko te aroha

Tihei Mauri Ora!

Write it in the sky

Write it on the land

Write it in the hearts of the people

The greatest thing of all

is love

Behold here is life



# Questions for you

- *What is health? Where is it? How do we generate it?*
- *Why do you do what you do – what's your role?*
- *How are you taking care and responsibility for our future and the living system? Kaitiakitanga*



# Zero Energy House Auckland

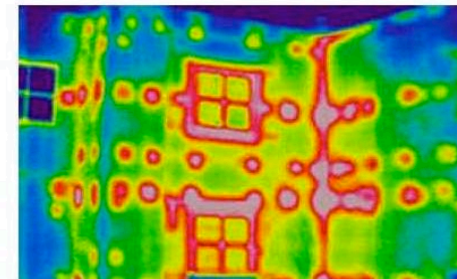


Photography by Christoph Hossley

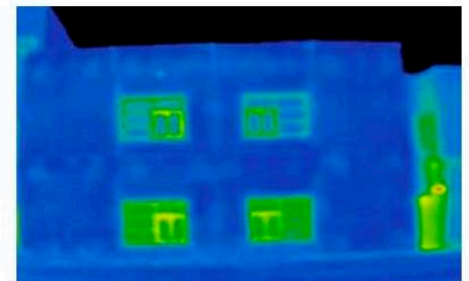


# Avondale College Auckland

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Thermographic imaging details the thermal loss that occurs through thermal bridges in poorly insulated walls.



Thermographic imaging also illustrates the thermal efficiency of the wall panel when it has been constructed with edge-to-edge THERMOMASS insulation.



# Burwood Hospital

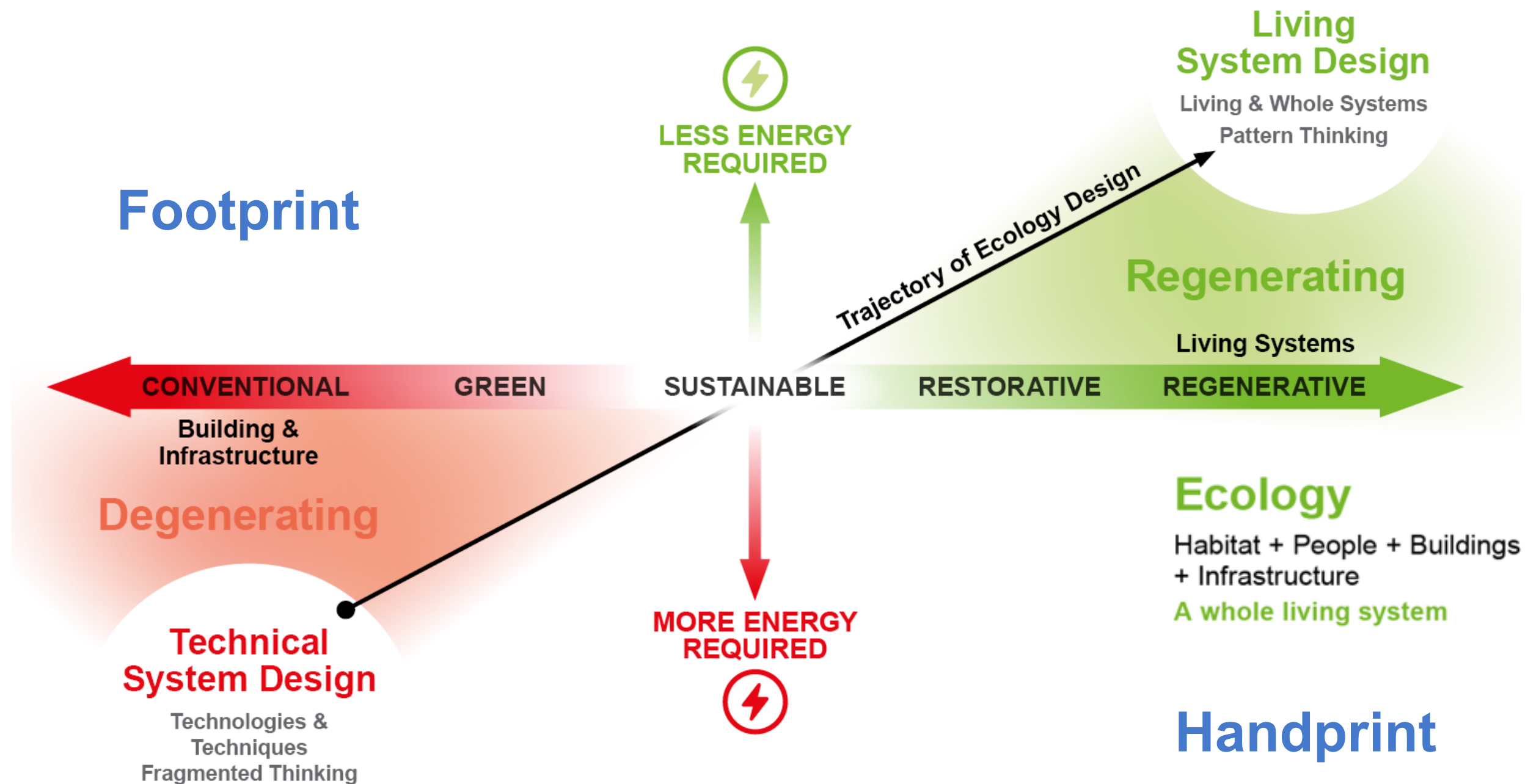




# Fraser's Brickworks Retail Centre



# Trajectory of Ecological + Health Design





# Building Code and 'First cost' impacts Challenges

Over a building's first 40 years, design and construction are 11% of the total costs of use and ownership

**This building leaks energy, water and health undermines long term investment value**







# Building Lifecycle Challenges

loss of resources and increasing toxicity in the environment



# Sustainability – A Global Perspective

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Health of Living System  
**declining**

Population, toxic chemicals  
and consumption of life-  
supporting resources  
**rising**







# **LIVING BUILDING CHALLENGE<sup>SM</sup> 3.1**

**A Visionary Path to a  
Regenerative Future**



**INTERNATIONAL  
LIVING FUTURE  
INSTITUTE™**





# THE METAPHOR OF THE FLOWER

ROOTED IN PLACE AND YET:

Harvests all energy + water

Is adapted to climate and site

Operates pollution free

Is comprised of integrated systems

Is beautiful



PLACE



Limits to growth  
Urban Agriculture  
Habitat Exchange  
Human Powered Living

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WATER



Net Positive Water

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ENERGY



Net Positive Energy

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Rooftop Solar Array at The Bullitt Center  
Seattle, WA  
Photo: Benjamin Behnschneider

HEALTH &  
HAPPINESS

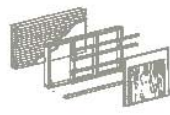


Civilised Environment  
Healthy Indoor Environment  
Biophillic Environment

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## MATERIALS

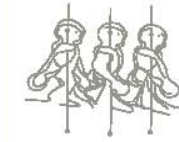


Red List  
Embodied Carbon Footprint  
Responsible Industry  
Living Economy Sourcing  
Net Positive Waste

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University Childcare Centre  
Burnaby, BC  
Courtesy: Spence2place

## EQUITY

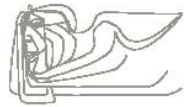


Human Scale  
Universal Access  
Equitable Investment  
Just Organisations

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The Bullitt Center, Seattle, WA  
Photo: Benjamin Benschneider

## BEAUTY



Beauty & Spirit  
Inspiration and Education

VanDusen Botanical Garden  
Visitor Center, Vancouver, BC  
Photo: Mic Lehoucq / Courtesy: Perkins+Will

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Transformational thought at  
home, work, towns cities.

- ***Socially Just***
- ***Culturally Rich***
- ***Ecologically Flourishing***



# Tūhoe Te Kura Whare 'Our Living Building'













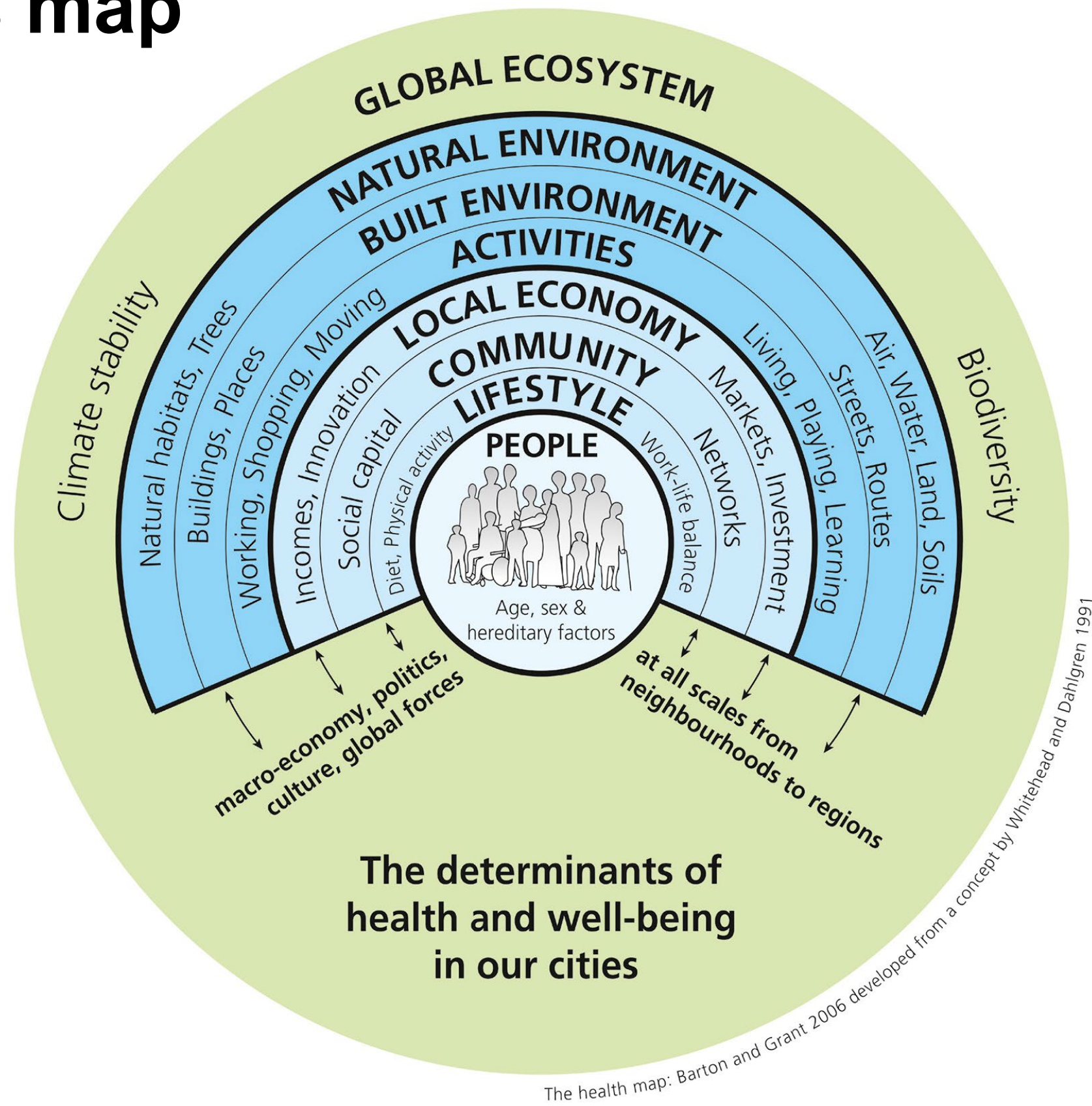


TE KURA WHARE



# Determinants of Health + Wellbeing

## A systems map





# Here's a thought! - Dunedin Hospital

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**1/ Indicative Cost \$1.7Bn or \$1 700 000 000! for the building + fitout project**

**2/ OK say we Invest \$0.3Bn on green retrofitting the neighbourhood and \$1.4Bn Hospital**

- Create safe + beautiful routes for cycling, walking and e-scooters - suppress car use
- Day-light streams, green stormwater swales, 100's of trees + flowers
- Productive + accessible Urban Food Hubs, bees, organic waste as fertilizer etc
- Retrofit 1000 homes – warm, fresh, dry, non-toxic, minimal utilities costs
- Create a development policy for a compact living city

## **3/ Outcomes**

- Reduced pollution and improved air quality – increase respiratory health
- Active lifestyles – reduced obesity, diabetes and heart issues
- Biophillic benefits - healthy relationship for people and nature – mental health
- CO2 sequestration + flood management – social health
- Local, fresh + affordable food and reducing organic waste – nourished people
- Healthy homes and more income for those in absolute need – a healthy life foundation

**4/ *and* Dunedin Hospital as a Living Building - a built solution to drive systemic health!**



# Breathe Living Village – Christchurch EQ Response





# Life is complex – not complicated!

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*"The major problems of the world are the result of the difference between the way nature works and the way people think"* Gregory Bateson



It matters how we think -

Let's think 'flourishing future' into every relationship, every decision, every project, every community and the places we love.



- 
- > Buck the unsustainable trend.
  - > Share our vision.
  - > Collaborate and learn.
  - > Transform and improve.
  - > Deliver advanced sustainable environments.

# Creating Living Buildings

**Understand how a strategic approach using Integrated Design and the Living Building Challenge can deliver cost effective high performance buildings.**

Find out how to create long term value for your investors and the environment.

## Creating Living Buildings Professional Practice 2 Day short course 2019

- Christchurch 22-23 August
- Auckland 27-28 August

With Otago Polytechnic + ARA Institute



**Tihei mauri ora**

**Transforming our relationships with Health  
For a flourishing future**

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