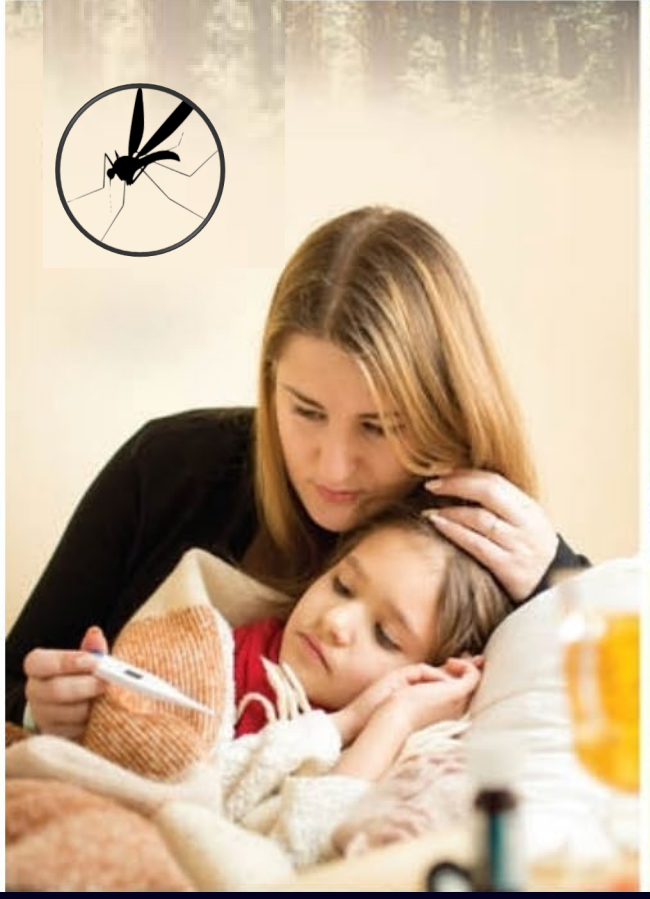
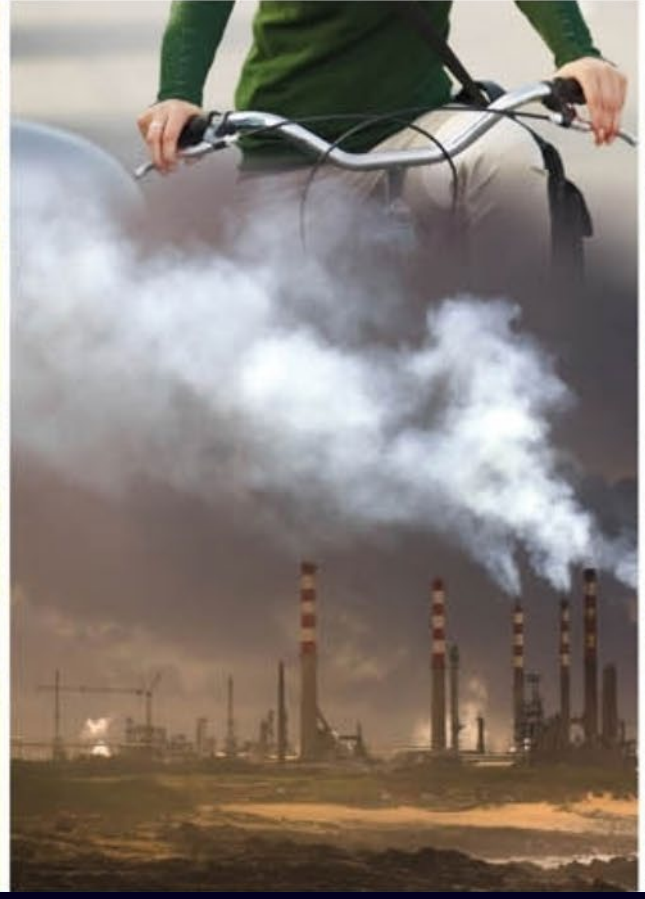





AusEnHealth Digital Twin

Scoping Study & Proof of Concept

PROJECT BACKGROUNDER

FRONTIER SI

The Challenge

Need to better understand Australian climate change/environmental impacts at a local level in order to;

- Identify vulnerable populations
- Predict future disease burden (based on forecast models)

WHY?

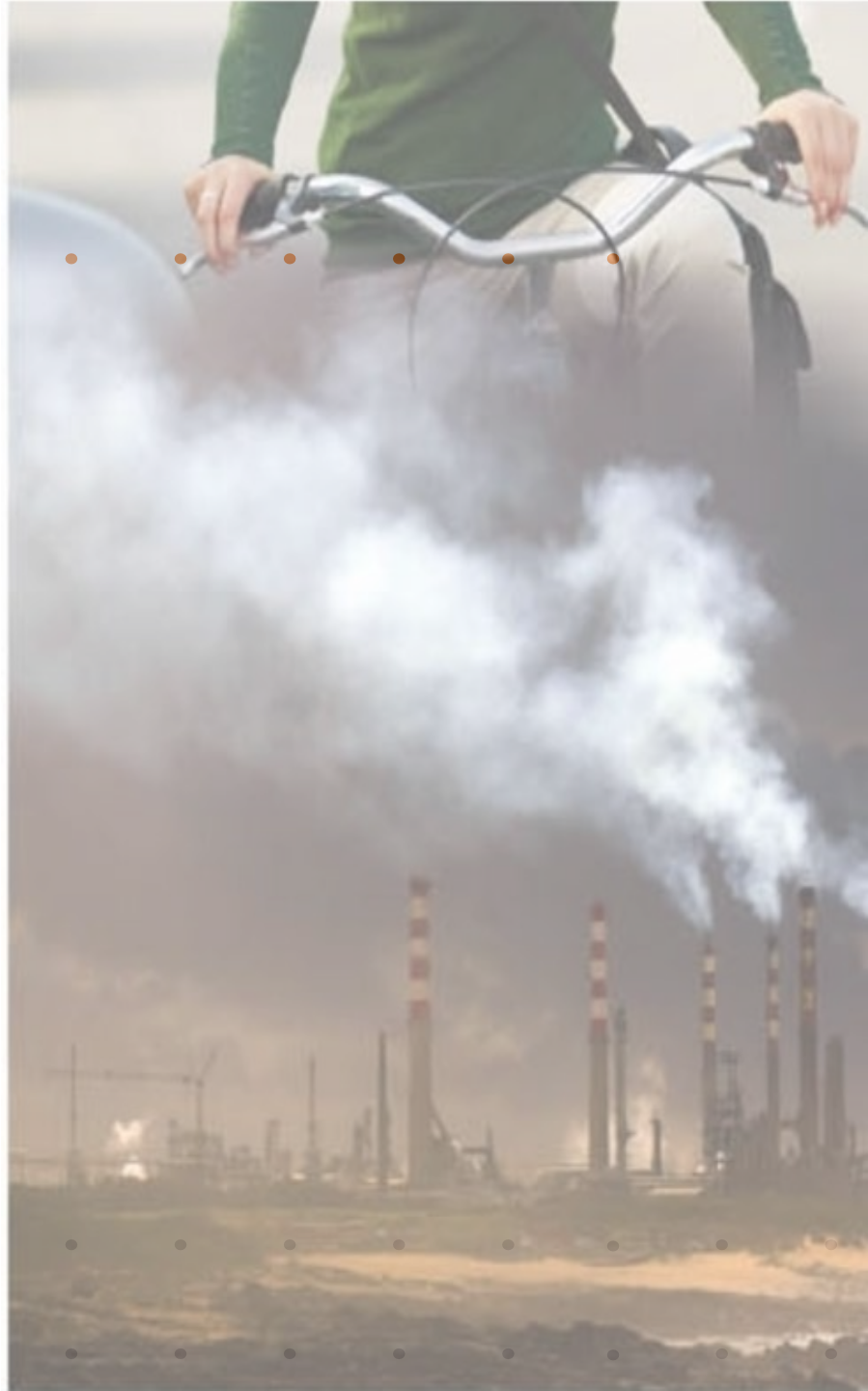
- To better target intervention and prevention initiatives
- To better plan for future burden (health resources, built environment, business/economic decisions)
- Community awareness & education
- Inform policy development

Vision

AusEnHealth Digital Twin Vision

- To build a national spatially enabled data infrastructure resource that will enable users to access, visualise and analyse environmental health data (environmental health indicators), reports and models and provide tools to support:
  - adaptation planning
  - vulnerability assessment
  - decision making

- Enable a range of users including the general public, media, policy analysts, and decision-makers, as well as researchers and scientists.



Aims of Stage 1

AIM 1: To compile the background intelligence (potential use cases, data sources, digital platform options, analytic tools) for input into a demonstrator proof of concept

AIM 2: Build a pilot digital twin as a Proof of Concept (POC)

AIM 3: Assess the pilot digital twin and develop roadmap for future development

Steering Committee & Project Partners

Committee Member	Role	Project Party
Mike Lindsay	Executive Director, Environmental Health Directorate	Western Australia Department of Health
Andrea Hinwood	Chief Environmental Scientist	Environment Protection Agency Victoria
Phil Delaney	Chief Innovation & Delivery Officer	FrontierSI
Stuart Barr	Professor and Director	Australian Urban Research Infrastructure Network
Beryl Morris/ Amanda Murphy	Director Project Officer	NCRIS Terrestrial Ecosystem Research Network
Nathan Eaton	Technical Lead	NGIS
Kerrie Mengersen	Research Lead	QUT

Project Delivery Team

Team Member	Role	Org	FTE
Prof Kerrie Mengersen	Research Lead	QUT	0.1FTE In-kind
Nathan Eaton	Technical Lead	NGIS	0.1 FTE In-kind
Paula Fievez	Project Manager	FrontierSI	0.1FTE In-kind
Aiden Price	RA Data Scientist	QUT	1.0FTE
TBC	RA Technical Associate	QUT	0.4FTE
TBC	Research Associate	AURIN	0.3FTE
TBC	Technical Development	NGIS	0.3FTE
Support			
Wenbiao Hu	Professor, Public Health	QUT	0.05 FTE In-kind
Lidia Morawska	Director, International Laboratory for Air Quality and Health	QUT	0.05 FTE In-kind
Darren Wraith	Senior Lecturer, Biostatistics	QUT	0.05 FTE In-kind
Belinda Spratt	Lecturer, Statistics	QUT	0.05 FTE In-kind

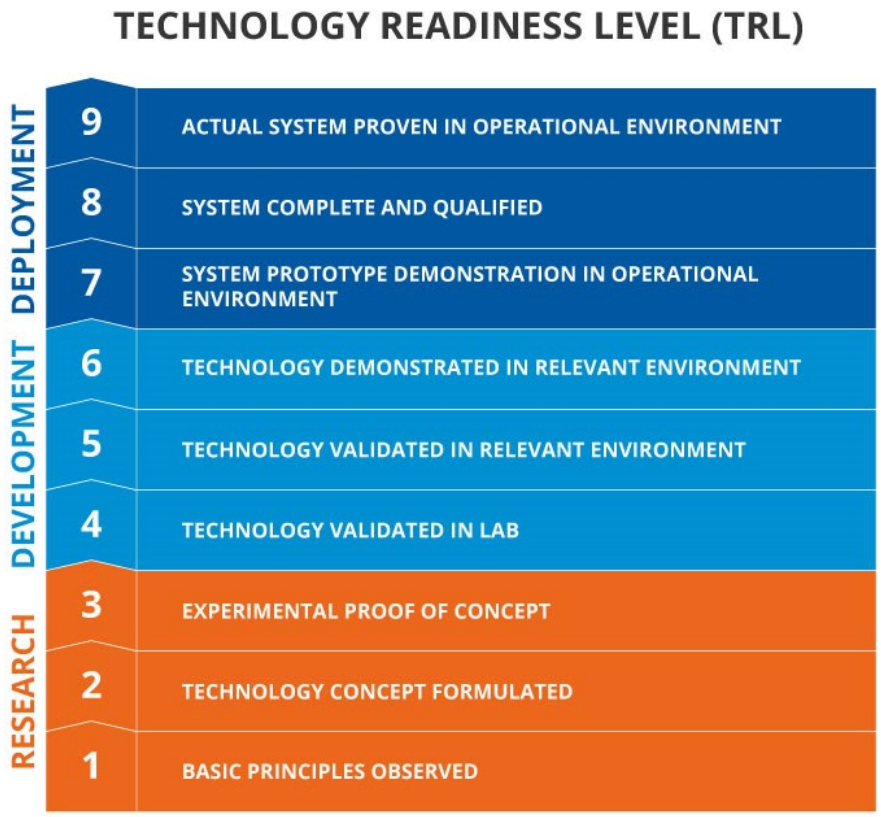
Project Advisory Group

Jurisdiction	Advisor	Organisation
National	Ivana Ivanova	Curtin University (Data standards)
National	Irina Bastrakava	Geoscience Australia (Director, Spatial Data Architecture)
National	Matt Beaty	Federal Department of Health (DIPA's Heat wave project)
WA/LGA	James Spath	City of Swan - Local government representative WA
WA/State	Grace Yun	WADOH, Spatial Lead
WA/State	Alex Ziao	WADOH, Epidemiologist
WA/State	Peter Franklin	WADOH Env Health Directorate (Chemical hazards)
WA/State	Mirella Goetzmann	WADOH Env Health Directorate (Toxicologist)
WA/State	Nimmi Carlose	WADOH (Principle Surveillance Analyst)
Vic/State	Martine Dennekamp	Vic EPA, Senior Epidemiologist
Vic/State	Shaun Coutts	Vic EPA, Senior Pro Manager Env Health
VIC/State	Angie Bone	DHHS Vic - State health department representative VIC
VIC/State	Melissa Harris	Department of Environment, Land, Water & Planning
NSW/State	Wayne Patterson	Spatial Services NSW
Qld/State	Stephen Jacoby	Qld Department of Natural Resources, Mines and Energy

Deliverables

Ref	Deliverable
1	Report on Data Audit Scope
2	Report on Data Analysis Scope
3	Report on Digital Twin Platform Scope
4	Pilot Digital Twin*
5	Revised Pilot Digital Twin (based on stakeholder feedback)*
6	Report on Proposed Budget and Pathway for Full Digital Twin

*Note the Pilot DT will aim to be delivered to a Technology Readiness Level (TRL) of 3 or 4.



For More Information

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