

A satellite view of the Earth's surface, showing a curved horizon. The image displays a mix of landmasses in shades of brown and green, and large bodies of water in deep blue. White clouds are scattered across the scene, particularly over the ocean. The overall perspective is from space, looking down at the planet.

WISE

- **W**aikato **I**ntegrated **S**cenario **E**xplorer

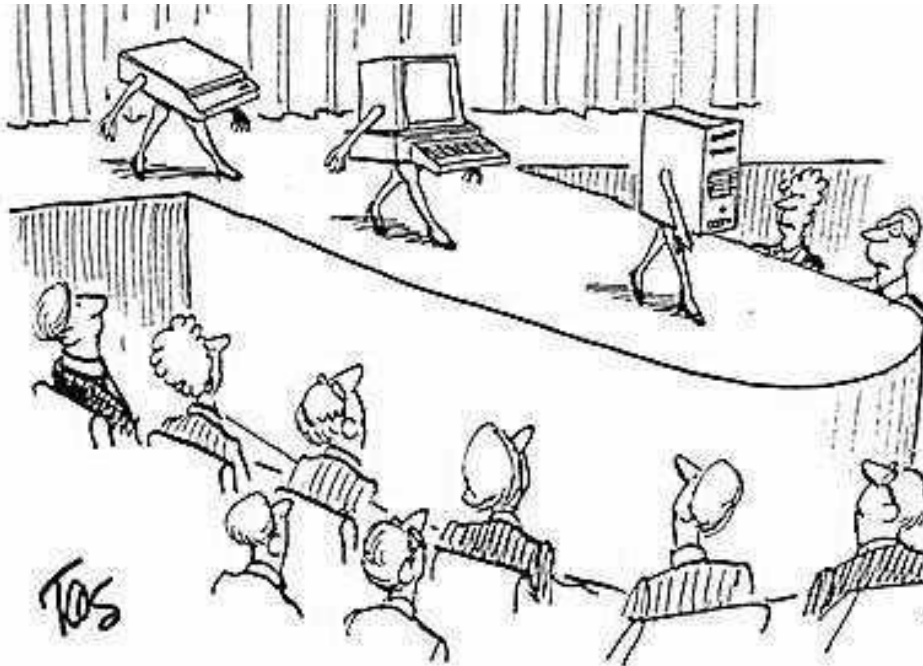
FutureProof, WRTM, WISE - 28 February 2014

Purpose of today

1. WISE 101 – overview and live demo
2. Can WISE meet the needs of FP and WRTM?



What we will cover today



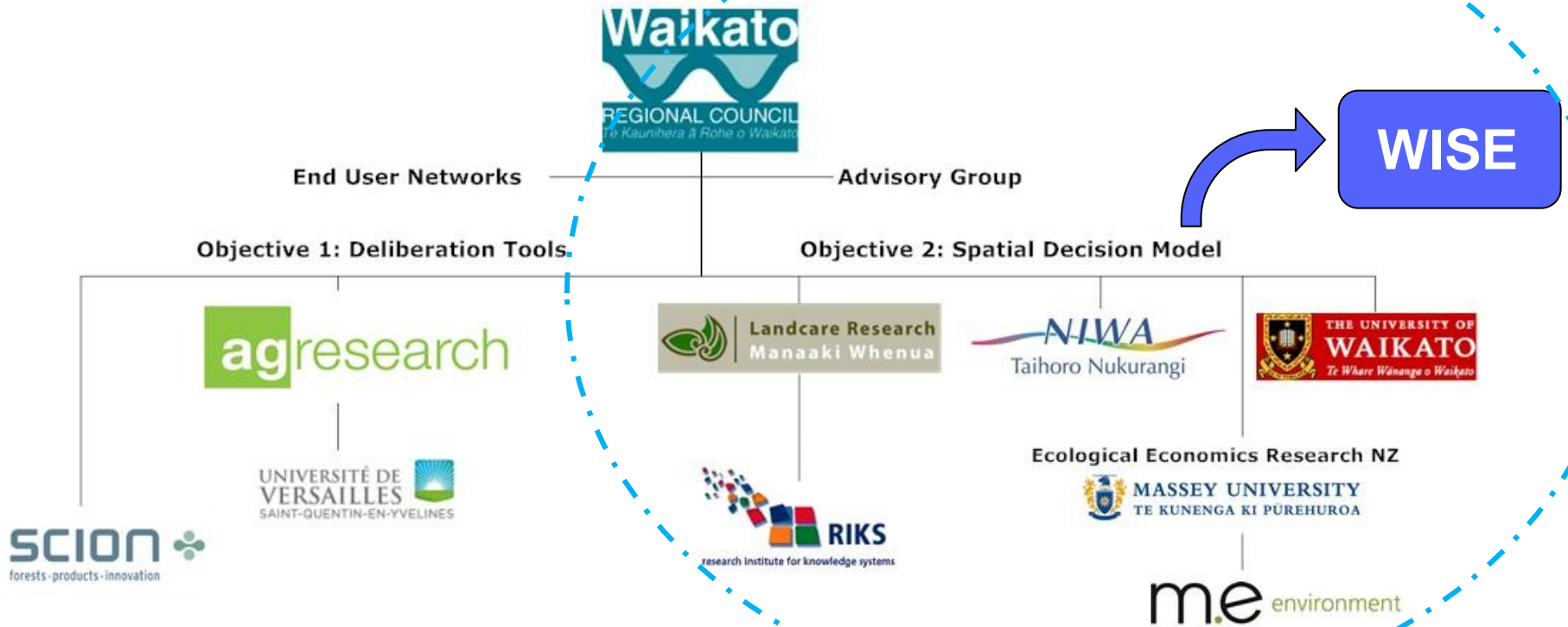
1. Overview - What is WISE
2. Why did we develop WISE
3. How does it work – live demo
4. What can it do?
5. How can the FP & WRTM information needs be met

What is WISE?

- An 'Integrated Scenario Explorer'
- A spatial dynamic simulation model, linking aspects of economy, environment, and society
- Stand-alone software application
- A tool to **support** policy and spatial planning
 - by assessing the effects and trade-offs of alternative future development scenarios or the consequences of policy options

Created through a research partnership

Creating Futures

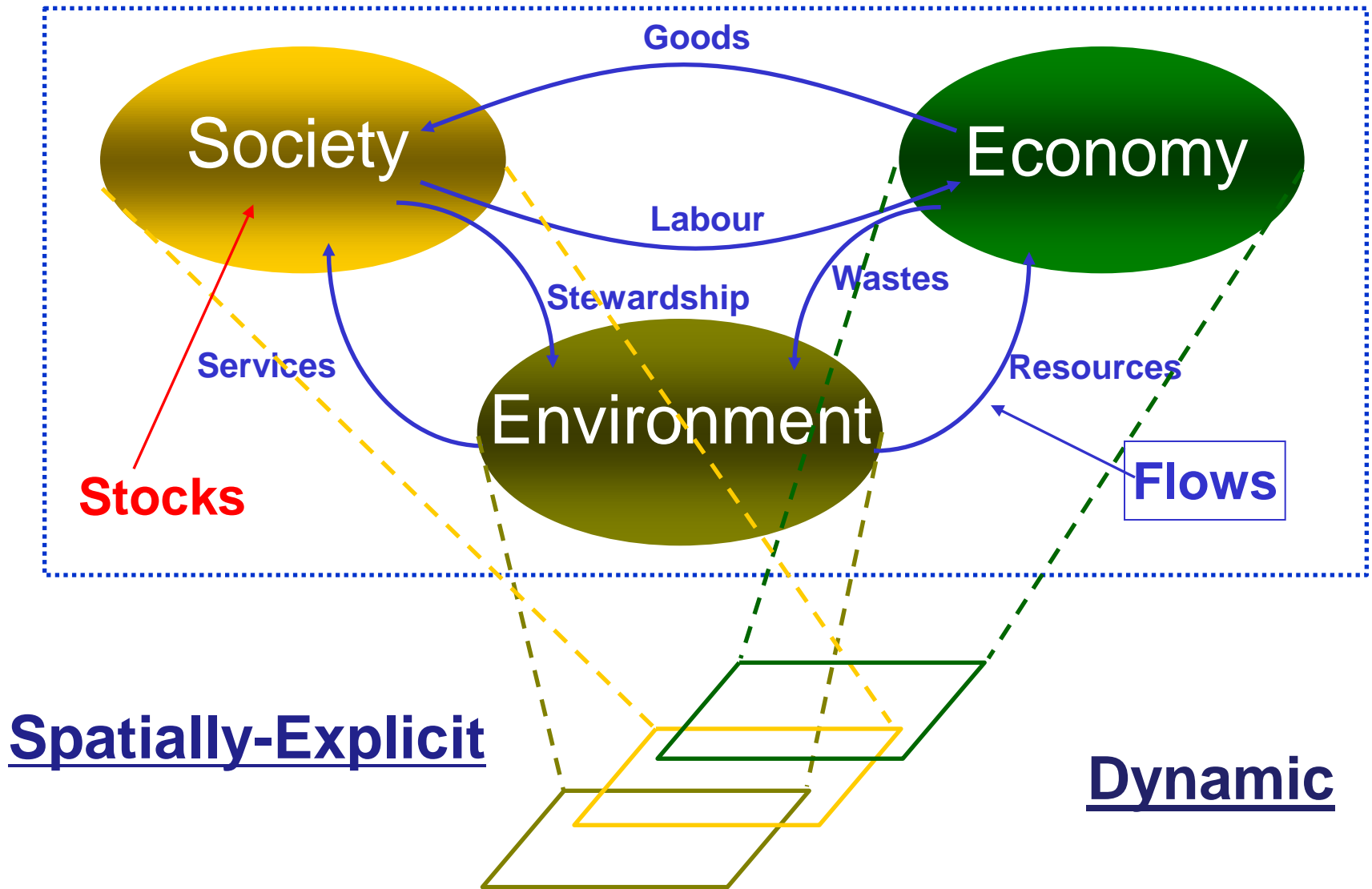


Healthy environment

Strong economy

Vibrant communities

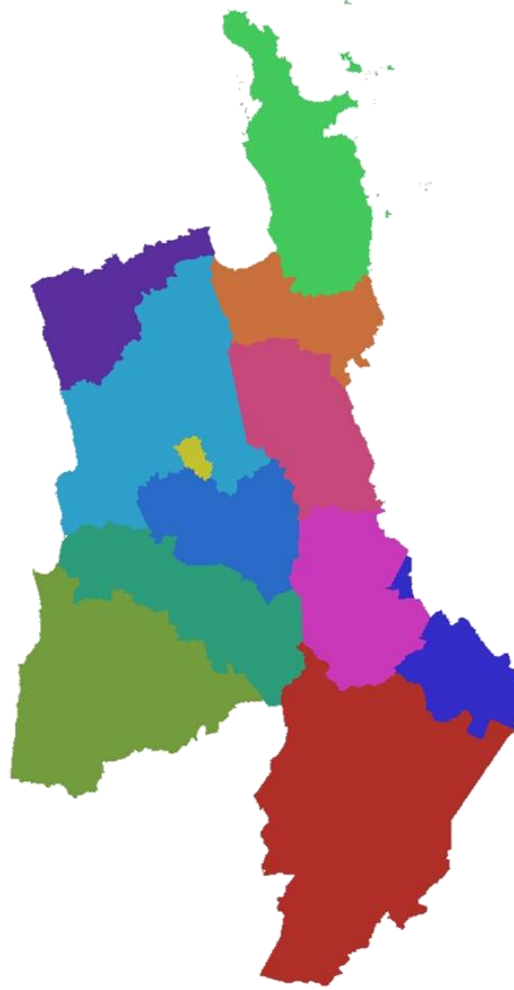
WISE uses a systems approach



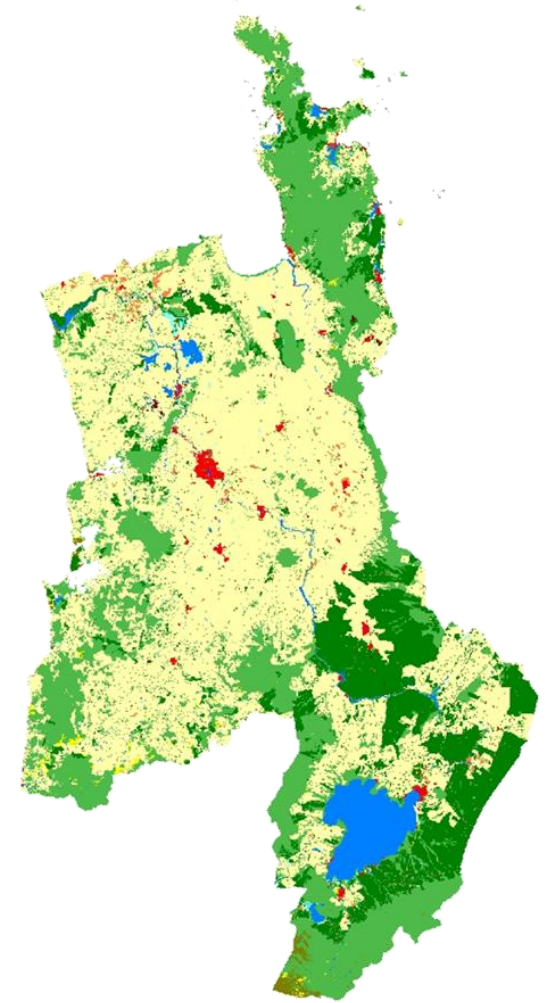
WISE is multi-scale



Region



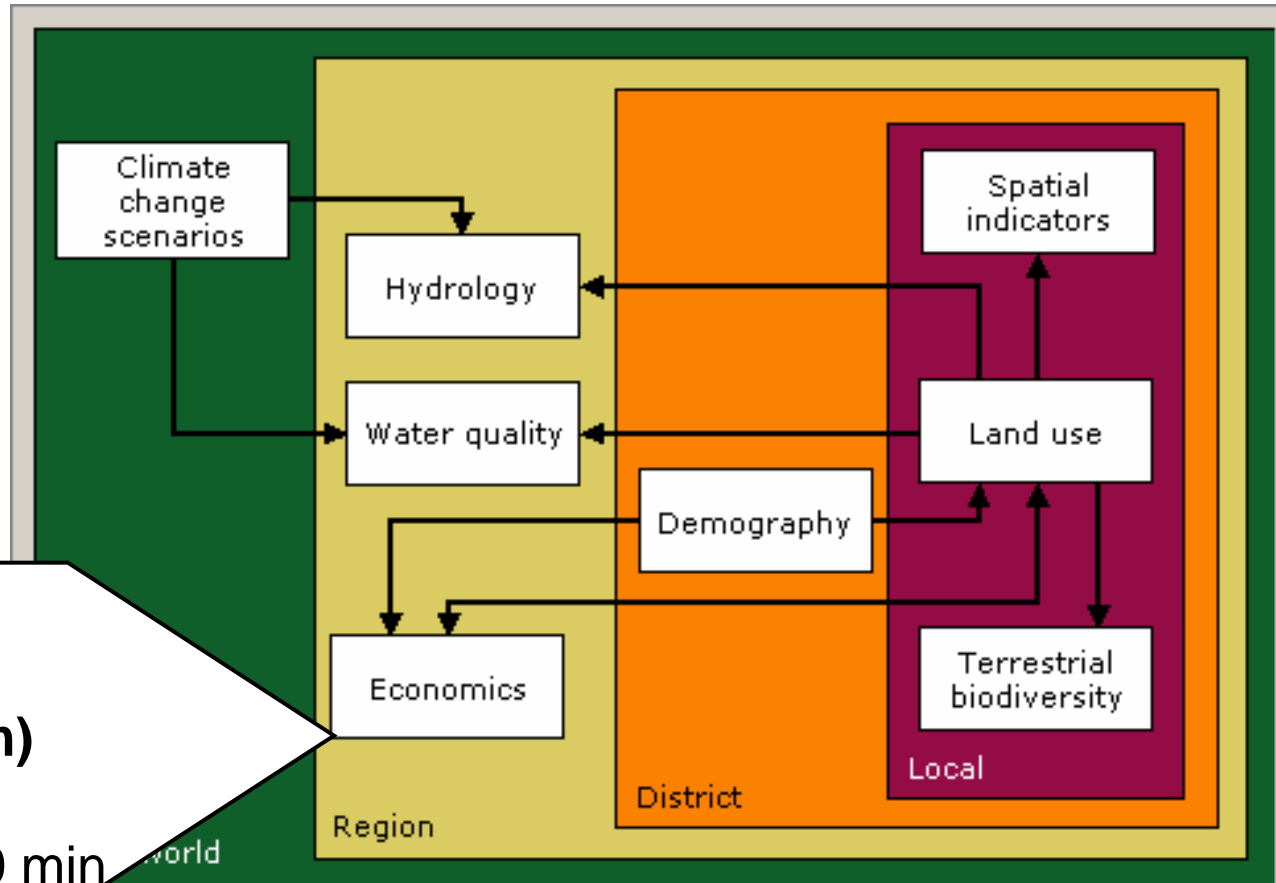
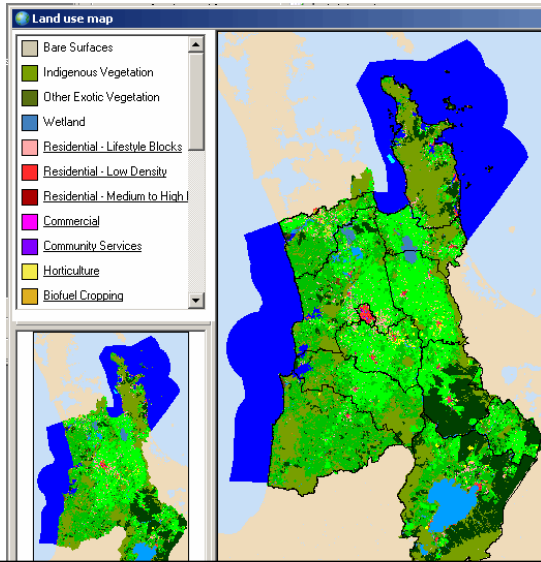
District



Local
(200 x 200 m cells)

How WISE works

WISE consists of an integrated set of models that operate across four spatial scales:



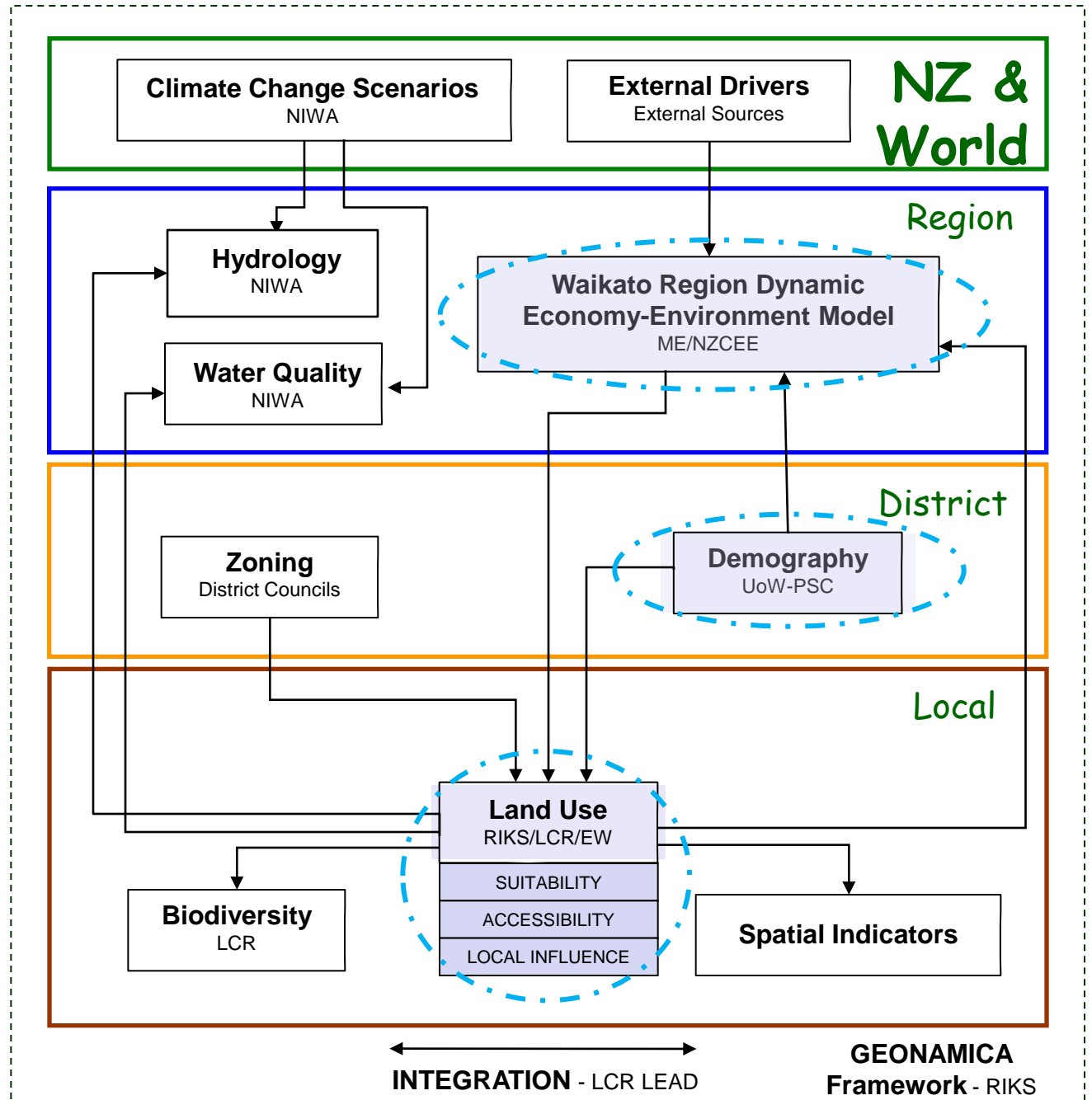
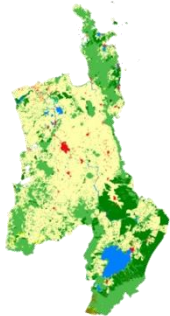
- ✓ 48 economic sectors
- ✓ 25 land uses
- ✓ **Cells 4 ha (200x200m)**
- ✓ To 2050, 1 year steps
- ✓ Simulation takes 5 -10 min

Healthy environment

Strong economy

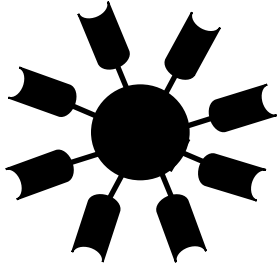
Vibrant communities

WISE System Design



How WISE was built

Basic Framework



Geonamica



Model library



Economic



Population



Transport



Land use



Climate



Hydrology

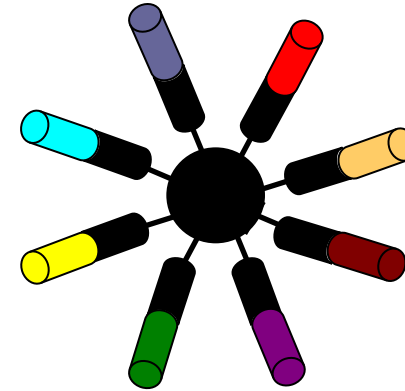


Water Quality



Biodiversity

WISE



NZ Project Partners



Creating Futures



RIKS – Research Institute for Knowledge Systems

Policy support

Models

Extensions

Services

Pricing

Announcements

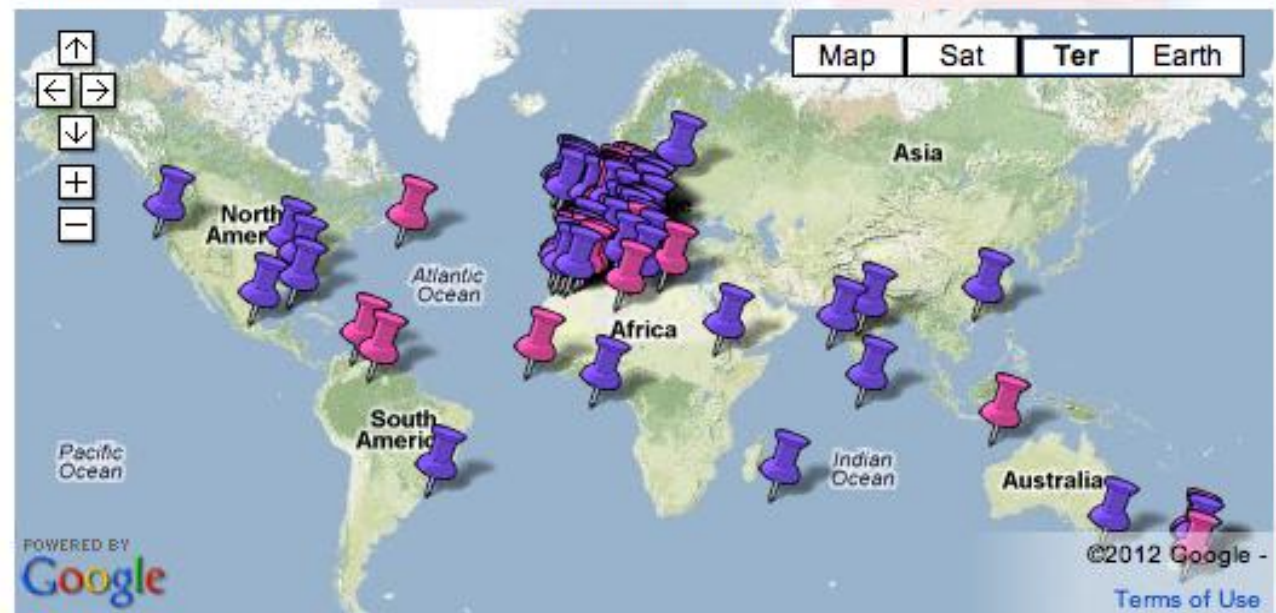
- New introductory training course planned for November 2011. [Read more...](#)
- Metronamica version 4.2 now available. [Read more...](#)

You can use Metronamica to interactively simulate the impact of a variety of external influences and policy measures on the regional development of a city, region, country or even continent. With the integrated scenario support you can conduct what-if analyses that help you evaluate alternative plans or communicate the future problems that need to be addressed today. Since the models of social, economic, physical and environmental processes mutually affect each other, Metronamica presents a possibility for truly integrated analysis of real-world problems and solutions.

[Download the Metronamica brochure \(PDF\).](#)

Worldwide users

Metronamica has been applied to a large number of cities, regions and countries worldwide. It is in use by various governmental and research organisations.



Get a free demo version
Subscribe to mailing list

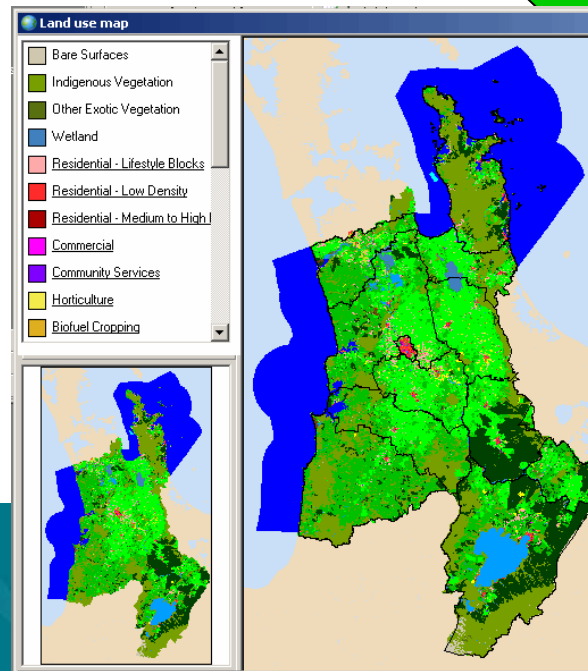
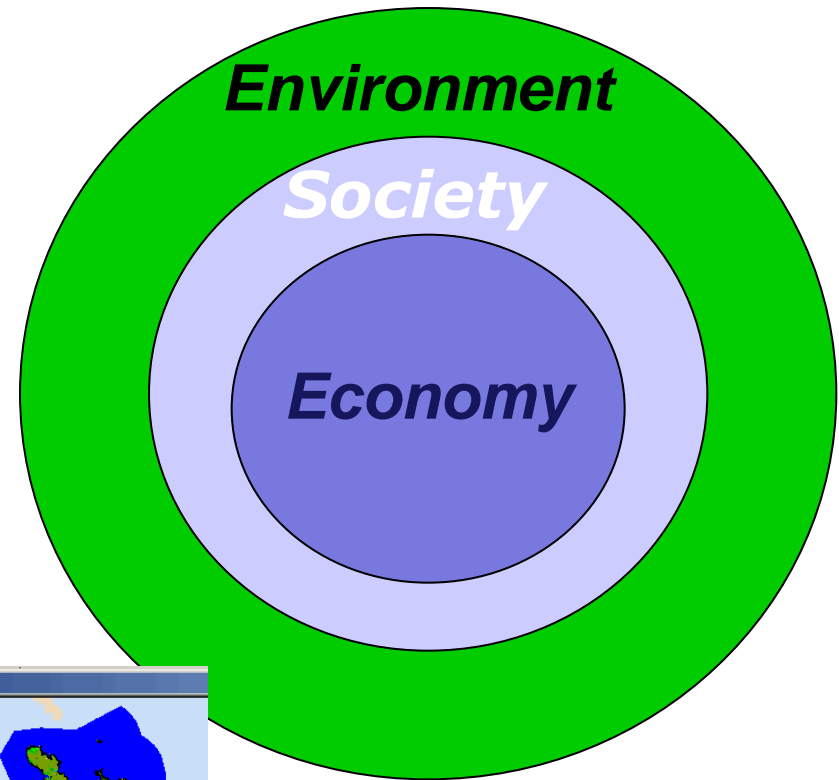


research institute for knowledge systems

[View full size map](#)

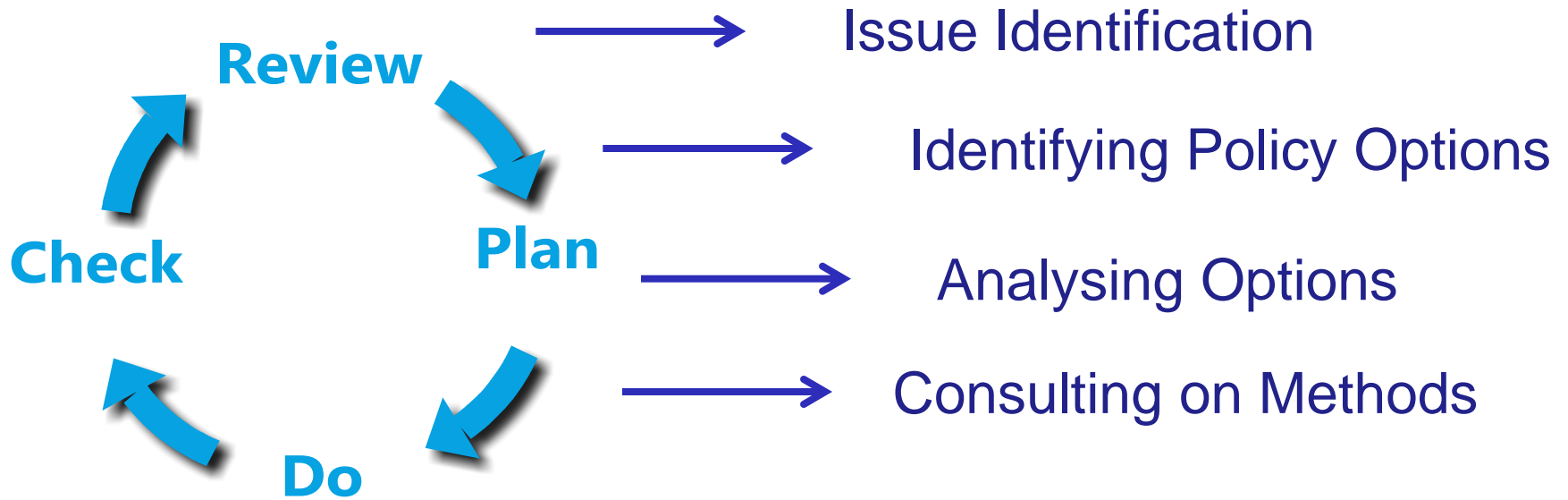
Why WISE?

- **INTEGRATION**
- **LONG-TERM**
- **SPATIAL**



Healthy environment
Strong economy
Vibrant communities

How can WISE help you?





What, if...?



Waikato in 2050?

Healthy environment

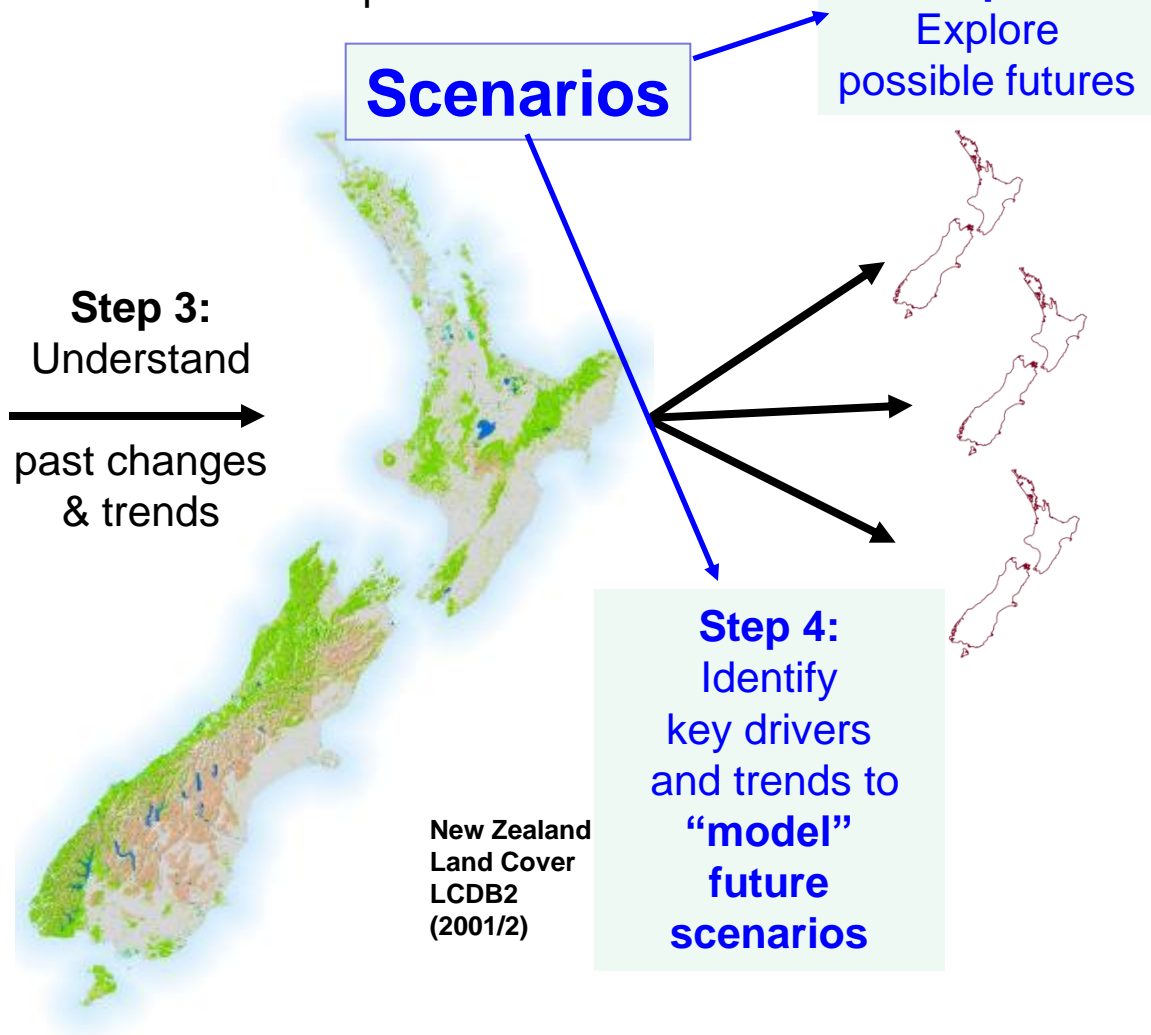
Strong economy

Vibrant communities

Step 2:
Understand
the past



Step 1:
Characterize
the present



Healthy environment

Strong economy

Vibrant communities