

Can we create opportunities from global challenges in the Hunter?

The Carbon Valley 2050 Project

Dr Gary Ellem



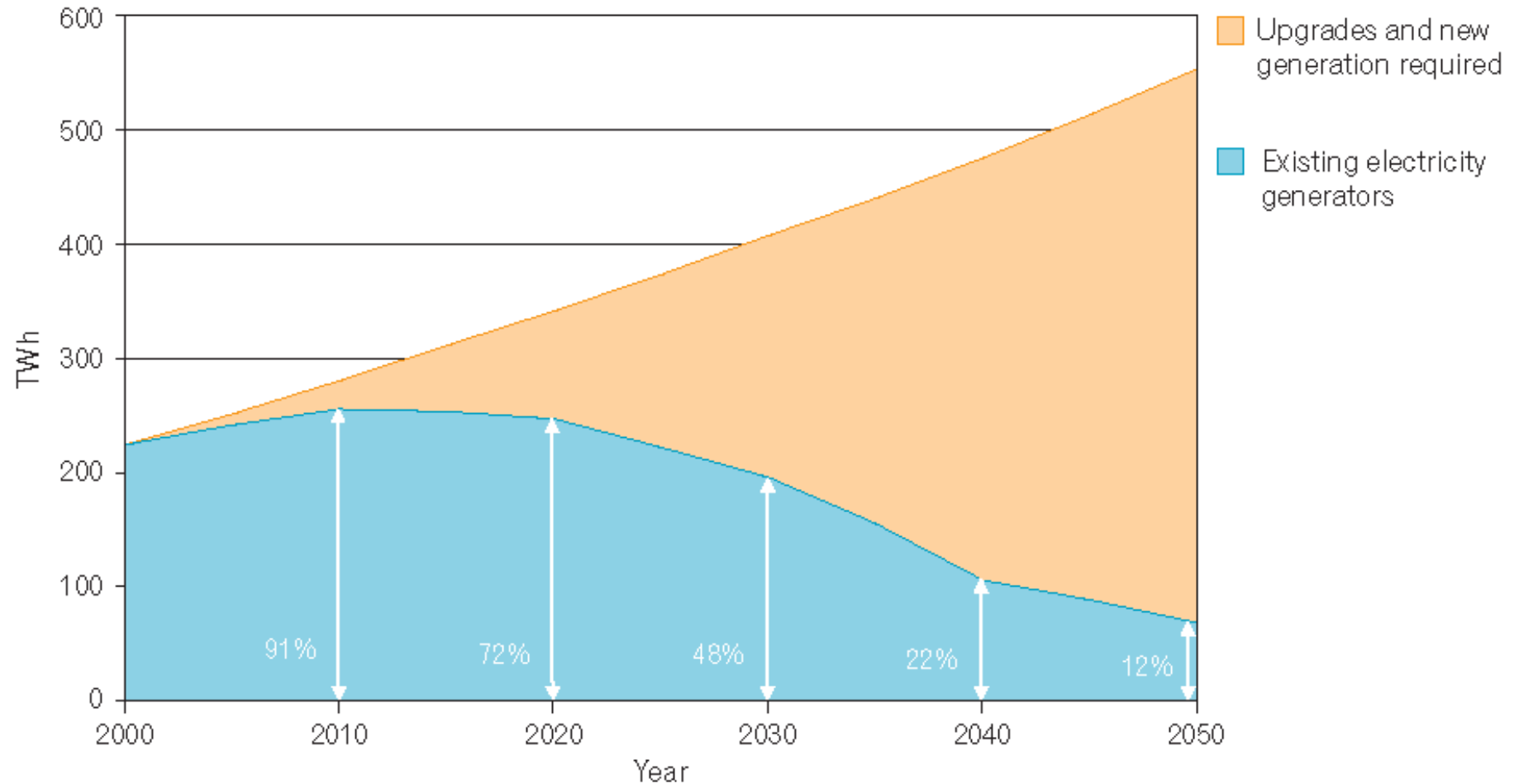
2 Minutes:

Talk to the person beside you and identify a Hunter industry or businesses who's export performance will benefit from peak oil?



Opportunity mindset:

Big challenges are big opportunities for those who can innovate solutions



Source: Uranium Mining, Processing and Nuclear Energy Review - Department of Prime Minister and Cabinet, 2007



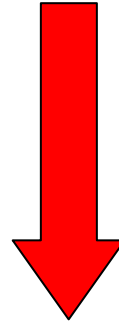
Driving Questions:

Q1: What opportunities are there for the Hunter in addressing emerging global challenges?

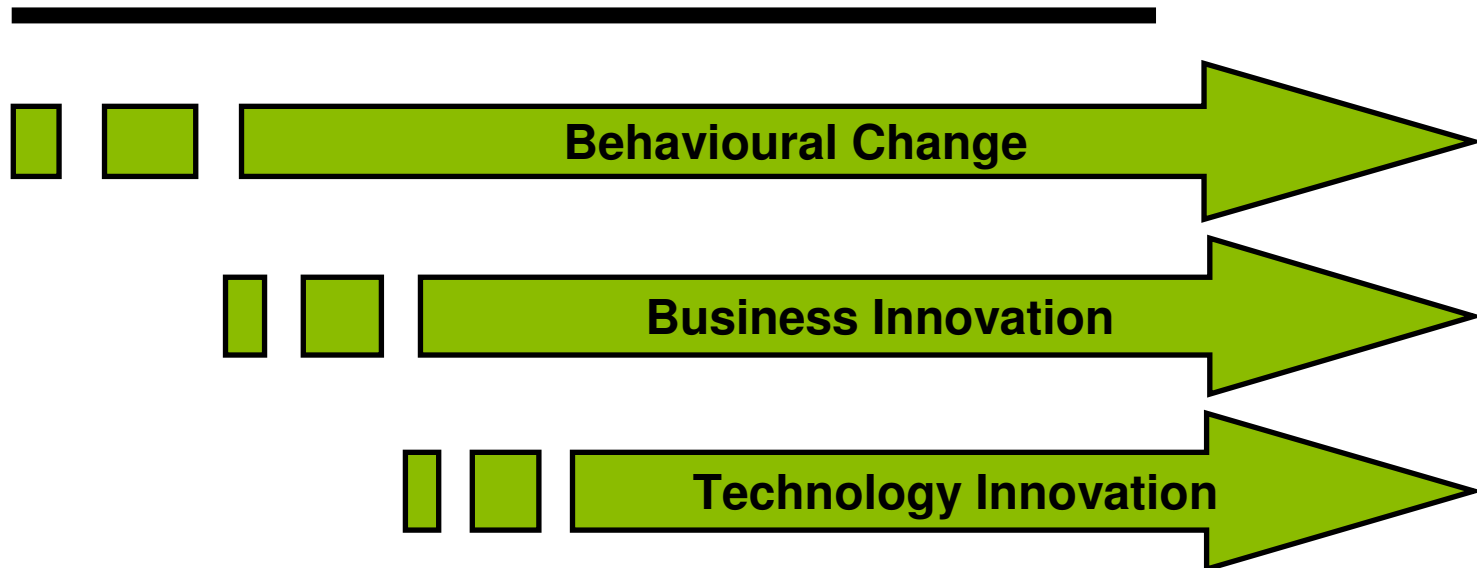
Q2: What do we need to do to make the most of these opportunities?



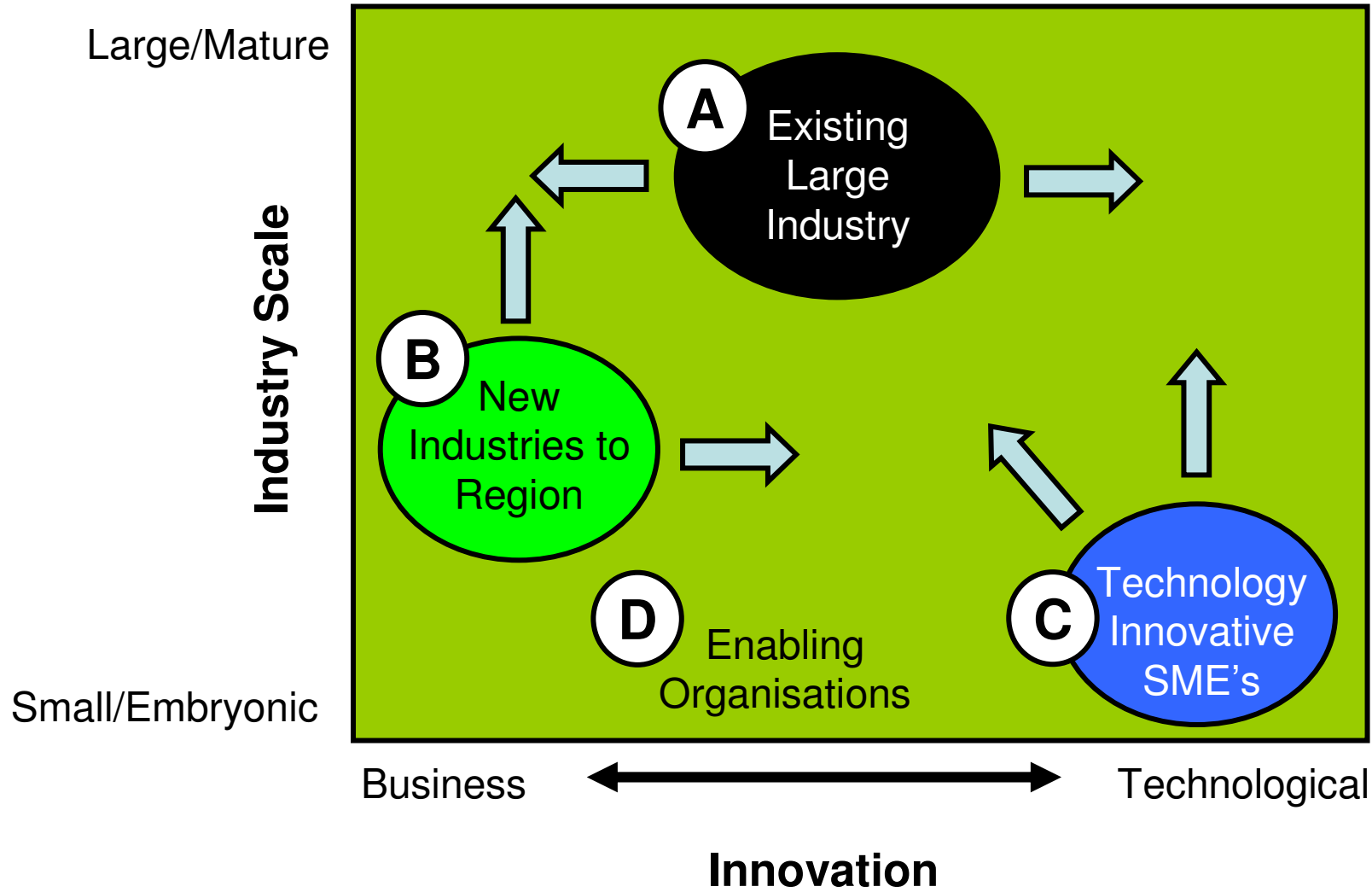
How Do Solutions Happen?

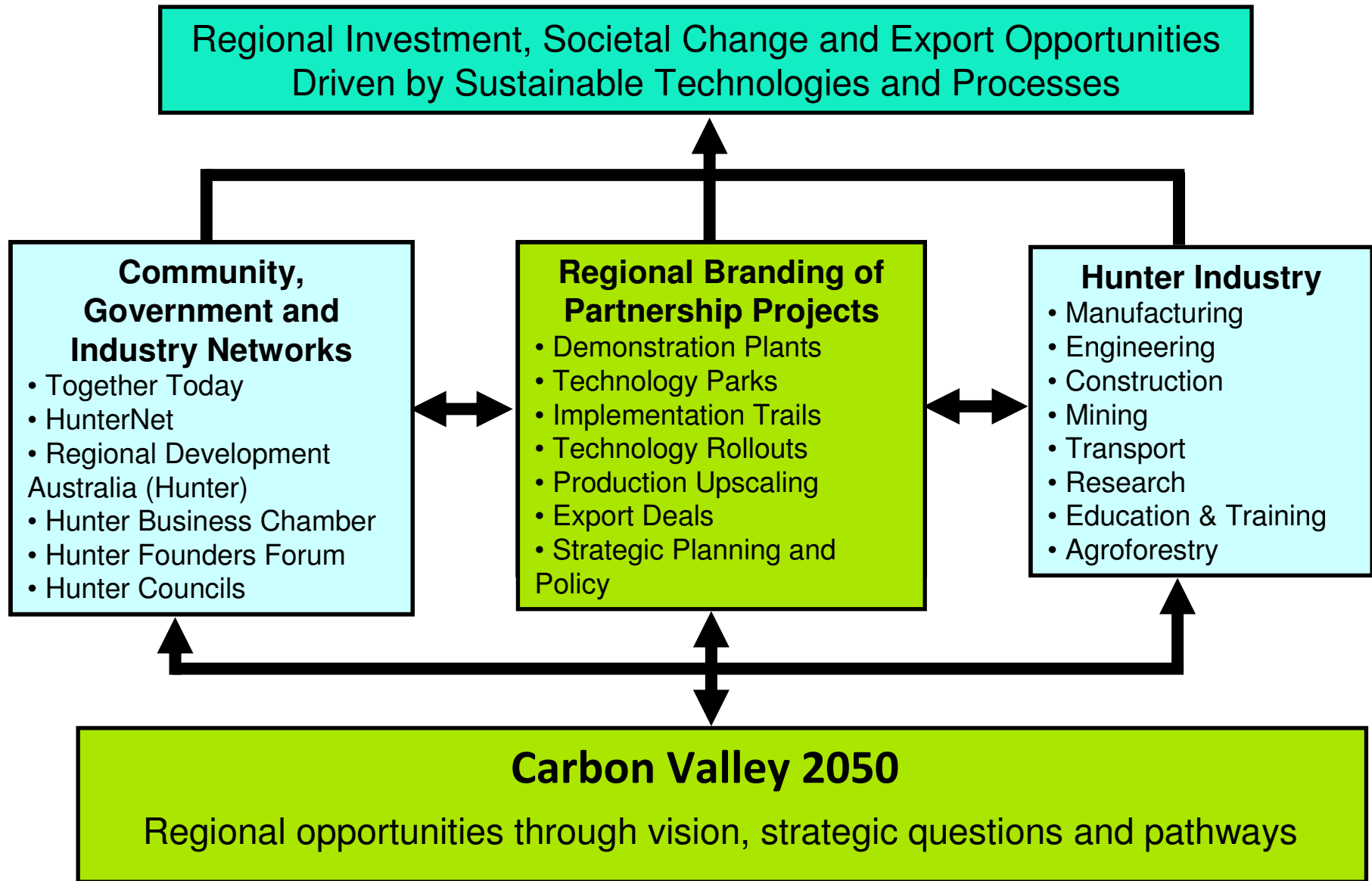


Pressure/Opportunity

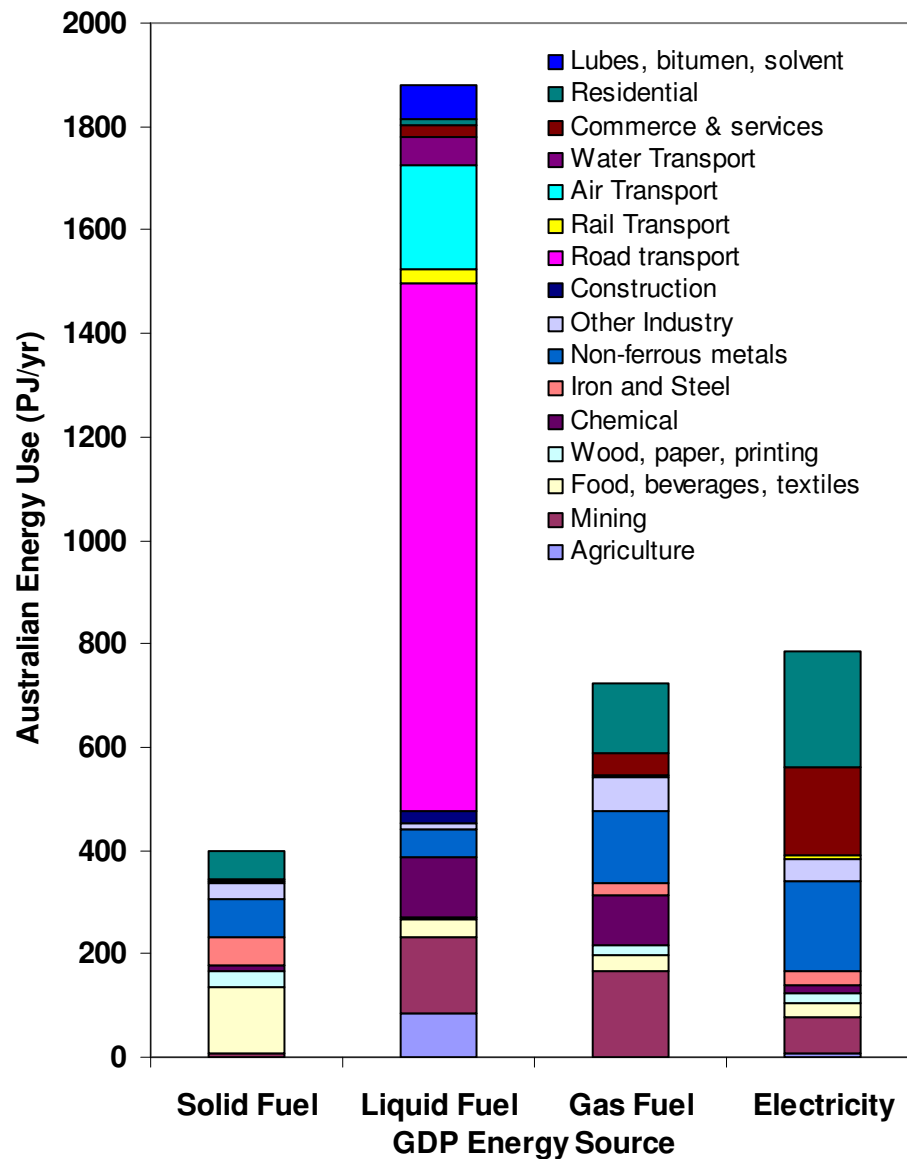


Who is involved in solutions building?





So lets get Solutions Focussed



Key Constraints for 2050:

- Zero Emissions
- Oil/Gas is Expensive
- Biodiversity loss is now of critical concern
- Global food demand has doubled

Can you see a basic strategy to meet these market demands?



Strategies I prepared earlier....

Electrification

Smart Grid
Energy Storage (mobile and stationary)
End use Infrastructure

Zero emissions
electricity generation

Grid enabling
Wind
Solar
Geothermal
CCS
Nuclear

**If we do this well,
how do we access
export markets?**

Biomass for food,
biodiversity and the
gaps

Food
Electricity Security
Diesel/Jet fuel substitution
Carbon Sequestration
Habitat



For the Hunter to be the 'Place' to be:

- Opportunity Mindset
- A coherent regional vision
- Mobilised and adaptable resource/skills base
- Good cross and within sector communication
- Domestic and export market focus
- Aligned regional branding

The Carbon Valley 2050 mission is to make this happen by working with regional networks, businesses and government organisations.



The Project Team

Steering Committee



Dr Joe Herbertson AM
Director Crucible Carbon
Board Member Tom Farrell
Institute for the Environment



Brian Gilligan
Chair Tom Farrell
Institute for the
Environment



Prof John Rodger
Director Tom Farrell
Institute for the
Environment

Roger Stephan
CEO Hunter Councils

Tim Ayres
NSW Assistant Secretary
AMWU

Chanti Richardson
Executive Director
Together Today
Cooperative Limited

Operations Team

Project Manager



Dr Gary Ellem
Principle Scientist Crucible Carbon Pty Ltd
Seconded to Tom Farrell for the project

Research Officer



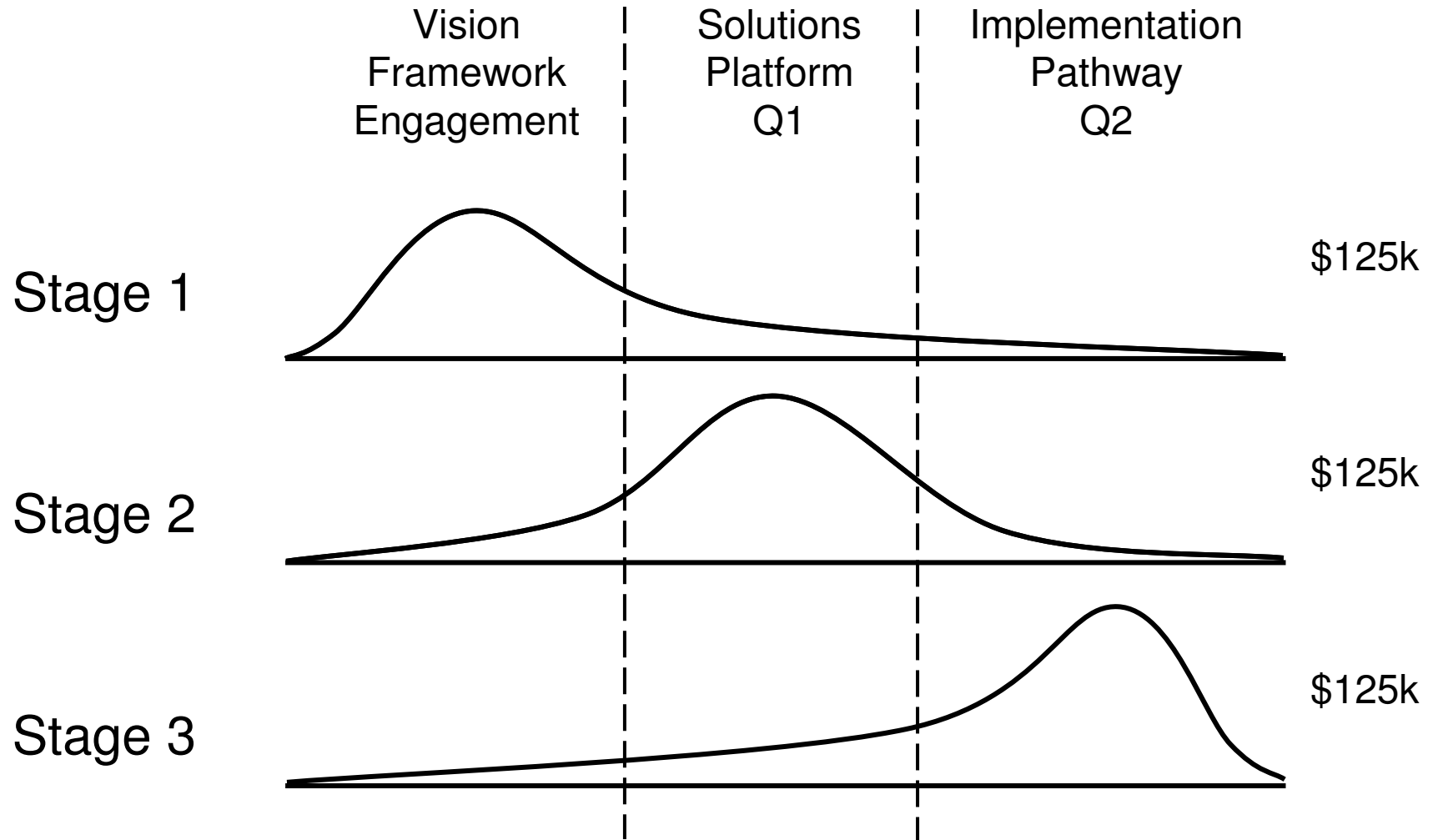
Patrice Newell
Journalist, Best Selling Author, Innovative
Farmer, Tom Farrell PhD candidate

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Partner Delegates



2010 Work Plan



We are looking for forward thinking businesses, industry networks and organisations to join our partnership team!

Diamond Partner \$50k

Graphite Partner \$10k

Organic Partner \$5k

– Principal Sponsor

– Businesses

– Research/Not for Profit

Contact: Dr Gary Ellem (Gary.Ellem@newcastle.edu.au)



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