



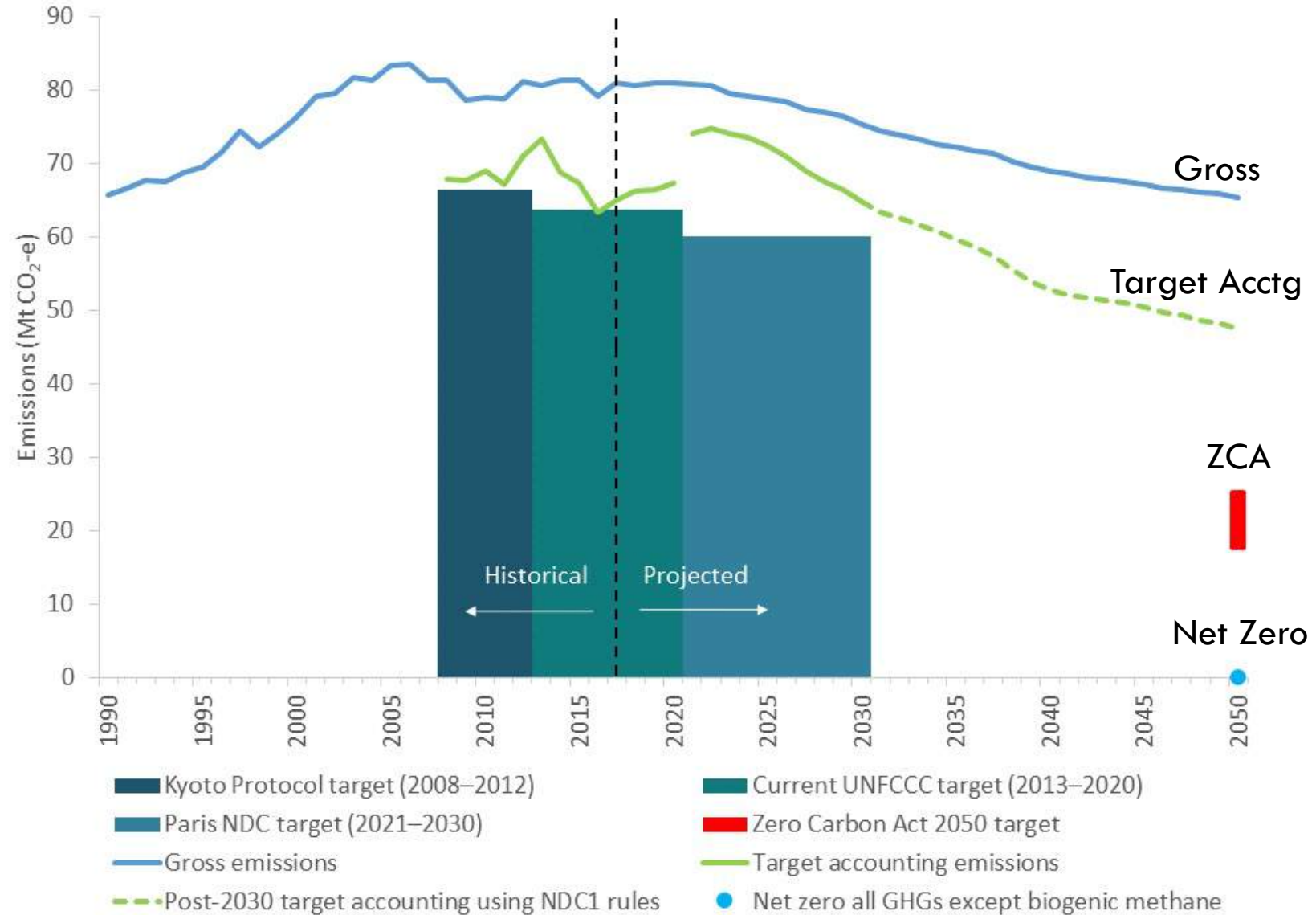
ACCELERATING LOW-CARBON INNOVATION

SHERALEE MACDONALD

ENVIRONMENTAL TECH COMMERCIALISATION

WHAT DO WE
NEED TO DO
TO ACHIEVE
THESE
TARGETS?

NZ'S EMISSION REDUCTION TARGETS



<https://environment.govt.nz/.../new-zealands-projected-greenhouse-gas-emissions-to-2050>

IT WILL TAKE TECHNOLOGY CHANGE AND BEHAVIOUR CHANGE

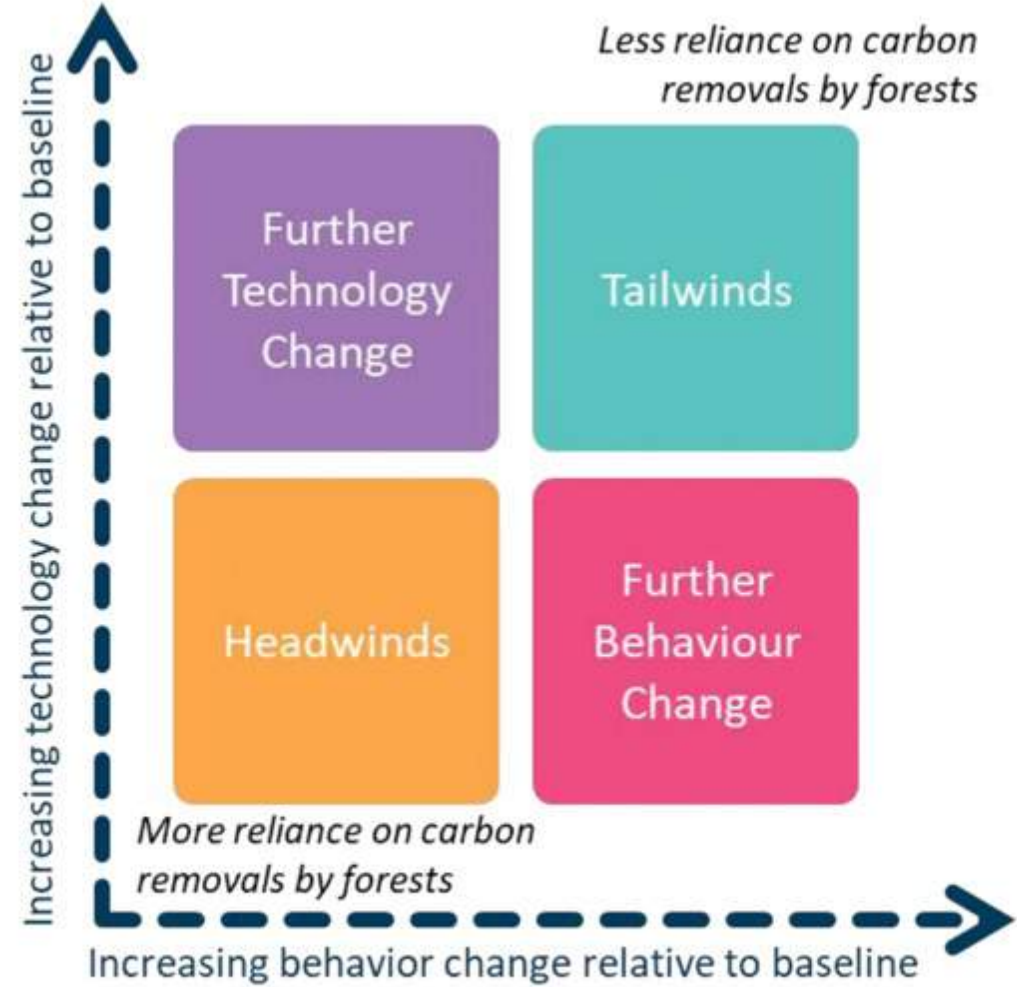


Figure 8.1: Scenario structure

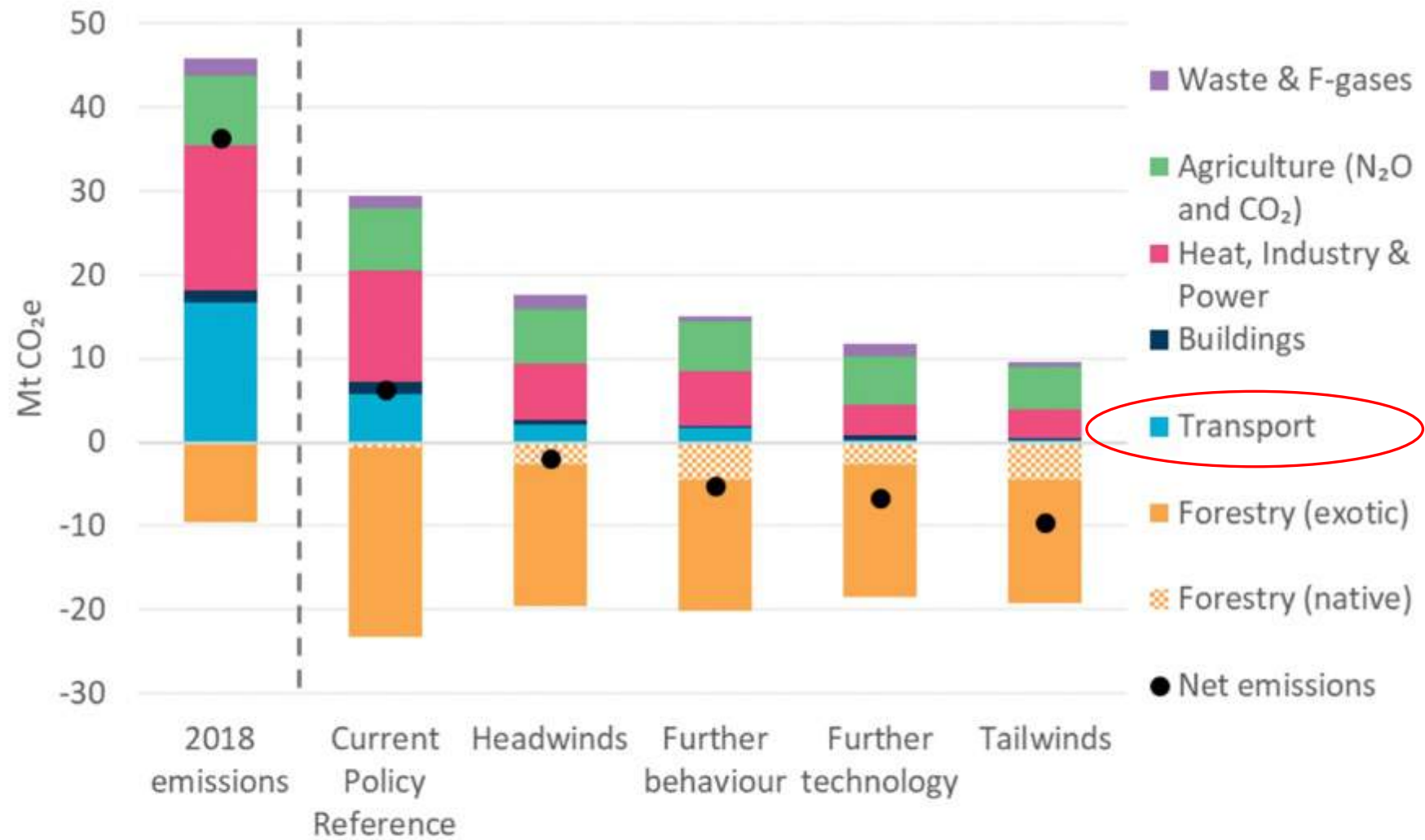


Figure 8.5: Long-lived gas emissions by sector in 2050 compared with 2018

Source: Commission analysis.

The background is a dark blue gradient. In the corners, there are white line-art graphics resembling circuit boards or neural networks, with lines connecting to small circles.

SO WHAT DOES LOW-CARBON INNOVATION LOOK LIKE?

IMPROVING EXISTING TECHNOLOGY – INCREASES UPTAKE?



Walker Half Ton Electric Truck

1918

Fleet of ~200 in Christchurch

Range: 50km - 65km

Top speed: ~20kmh

CONVERSION VS NOVEL – TIMEFRAME FOR UPTAKE?



NEW APPLICATIONS – FEASIBLE AND VIABLE?



Waste-to-energy
technology

Industrial vs
car scale

2015 (!)

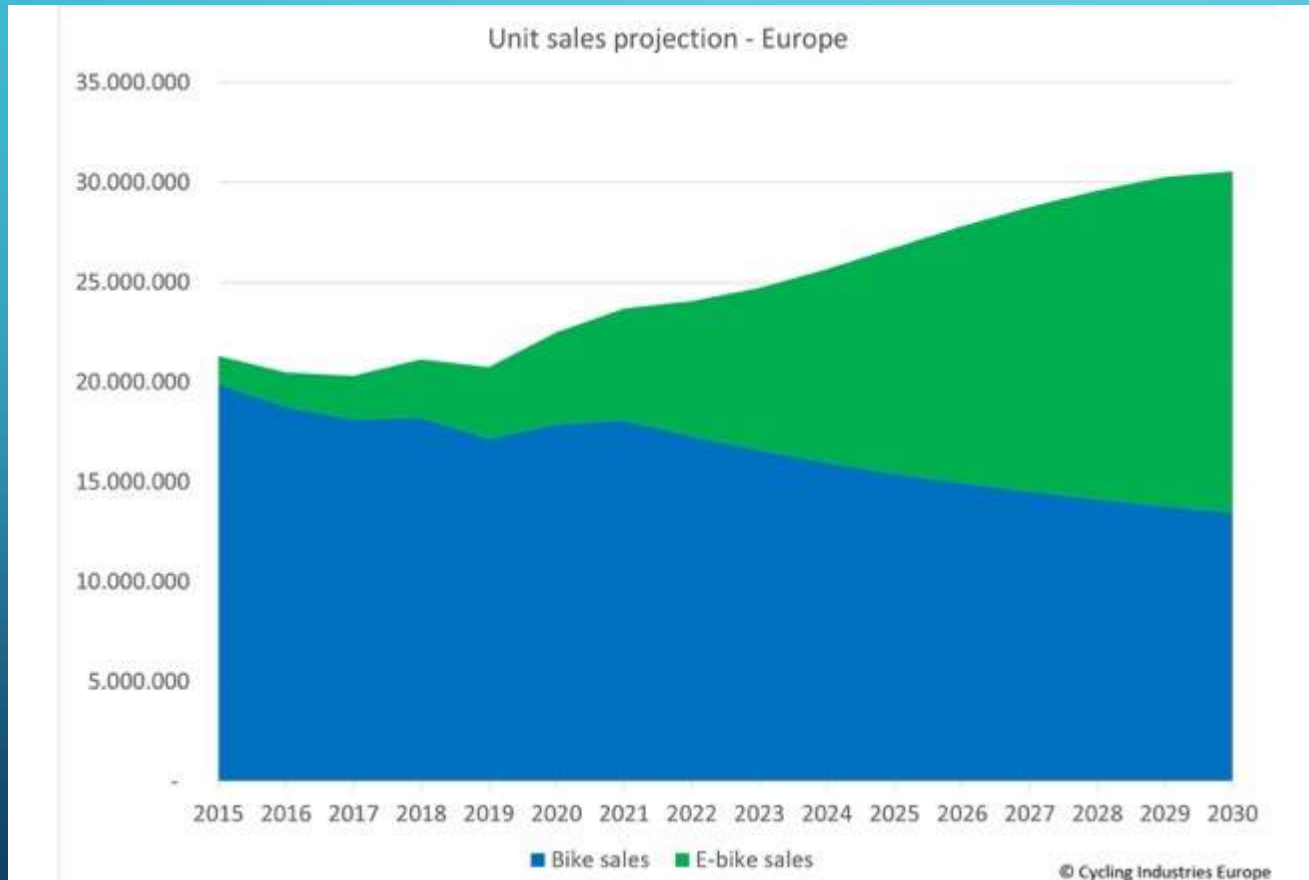
TECHNOLOGY VS BUSINESS MODEL INNOVATION



Micro-Mobility

Mobility As A
Service (MAAS)
business model
increases scale of
tech uptake

BIKES PROJECTED TO OUTSELL CARS IN EUROPE TWO-TO-ONE BY 2030



E-bike sales up
23% year-on-
year

WHAT ACCELERATES INNOVATION AND UPTAKE?

- Collaboration - science, business, government
- Awareness/behaviour change
- Stable public policy / regulatory frameworks
- Market confidence
- Finance
 - ROI/decreasing costs/true cost of carbon

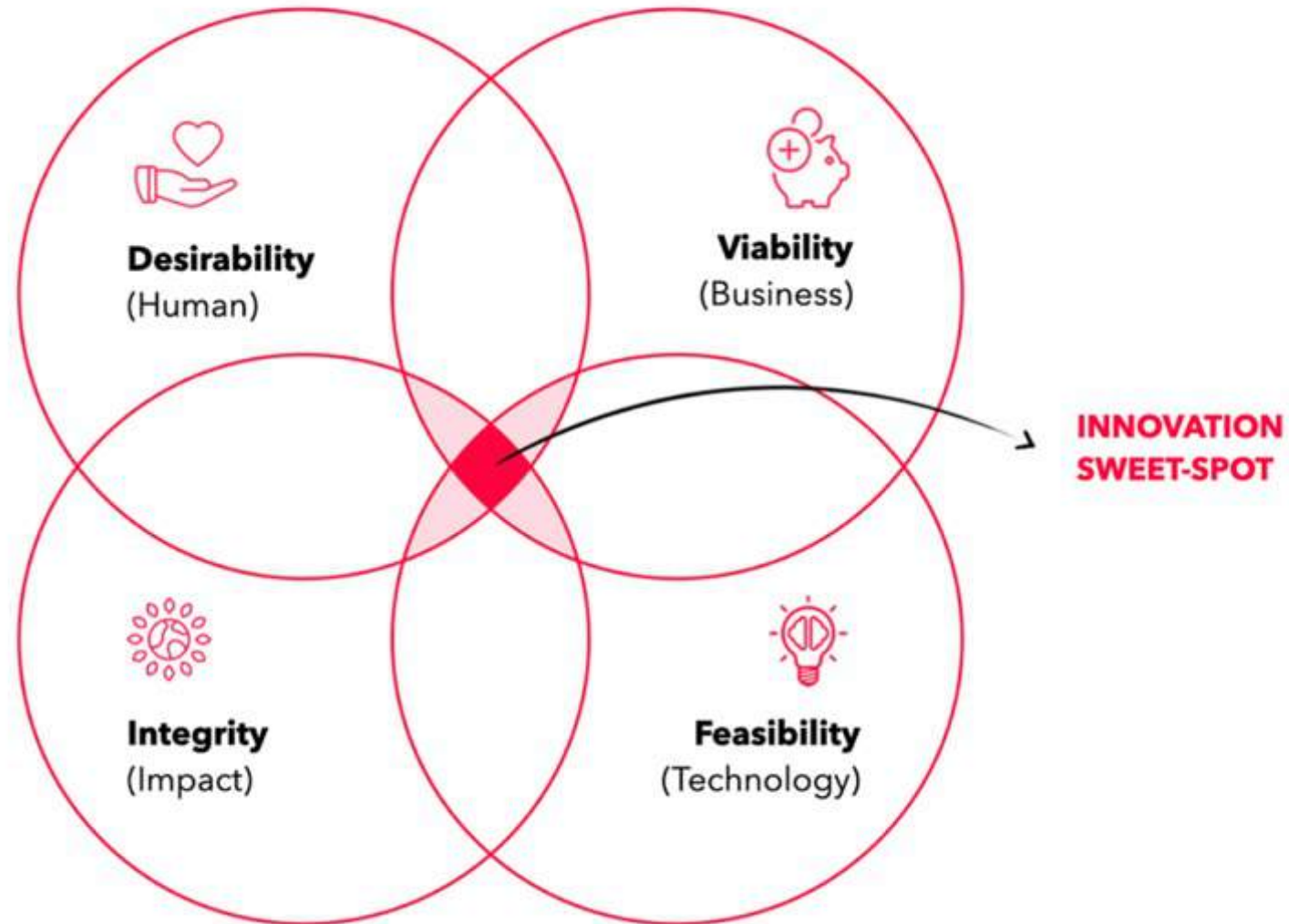


FROM IDEA TO REDUCING EMISSIONS!

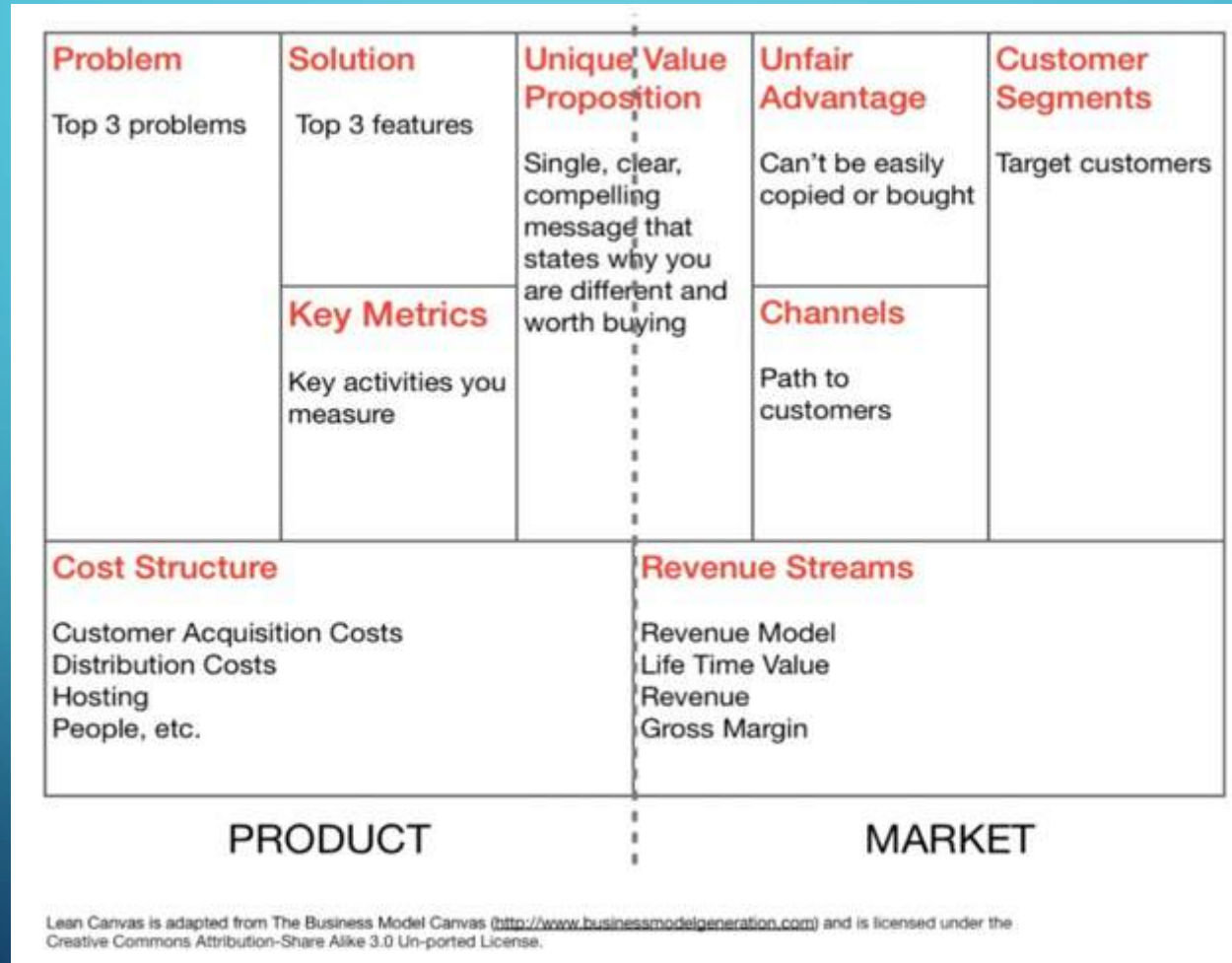
Turn your
bright idea
into a business



What is the innovation sweet spot?



LEAN CANVAS – IT'S NOT ALL ABOUT THE PRODUCT



WHAT PROBLEM DOES IT SOLVE FOR WHO?

Every problem has a human element.

EMPATHIZE

DEFINE

Think big - all ideas are welcome.

IDEATE

PROTOTYPE

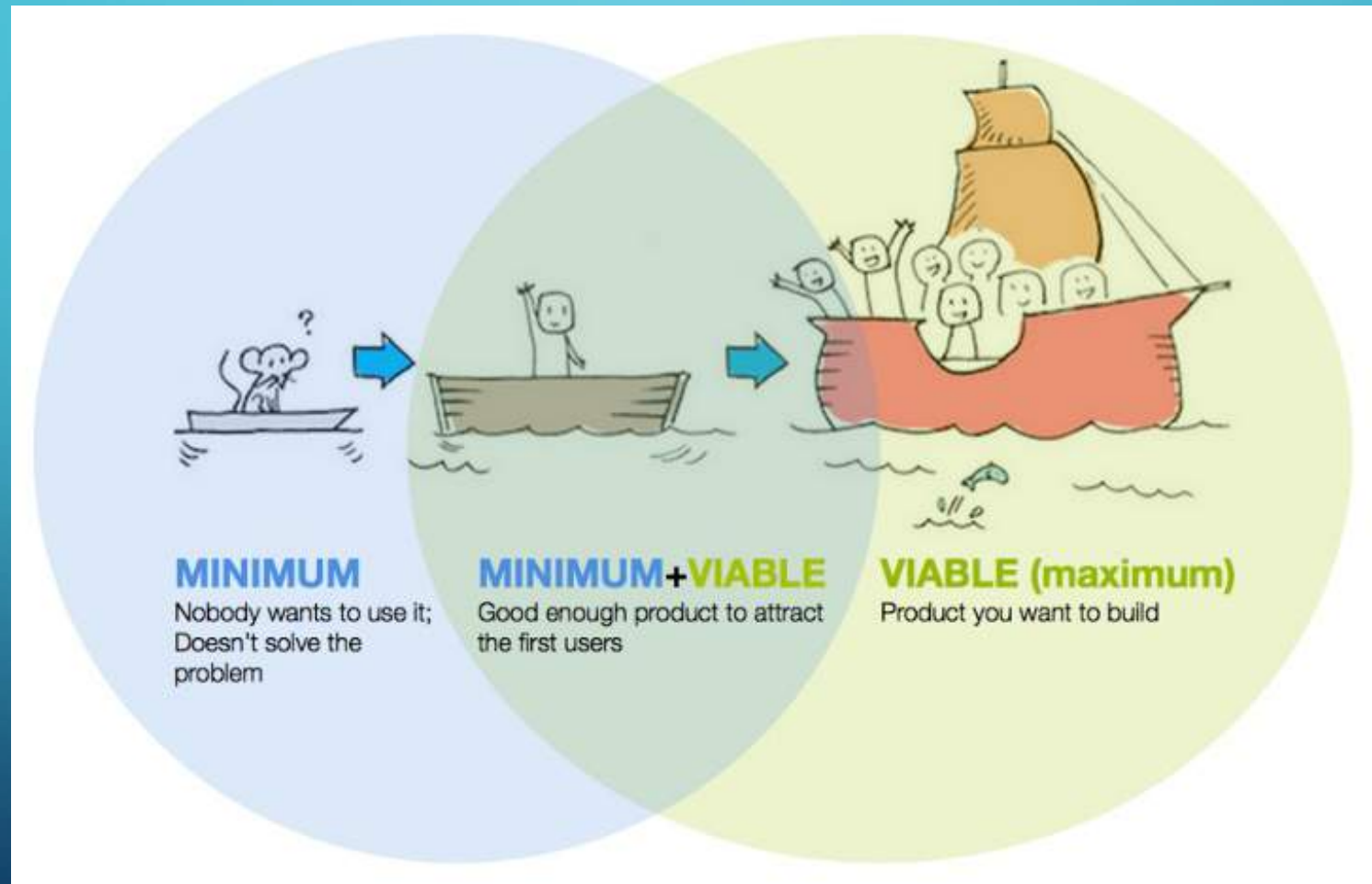
Test the prototype, get feedback, fine tune.

TEST

What are we trying to solve?

Develop a test model.

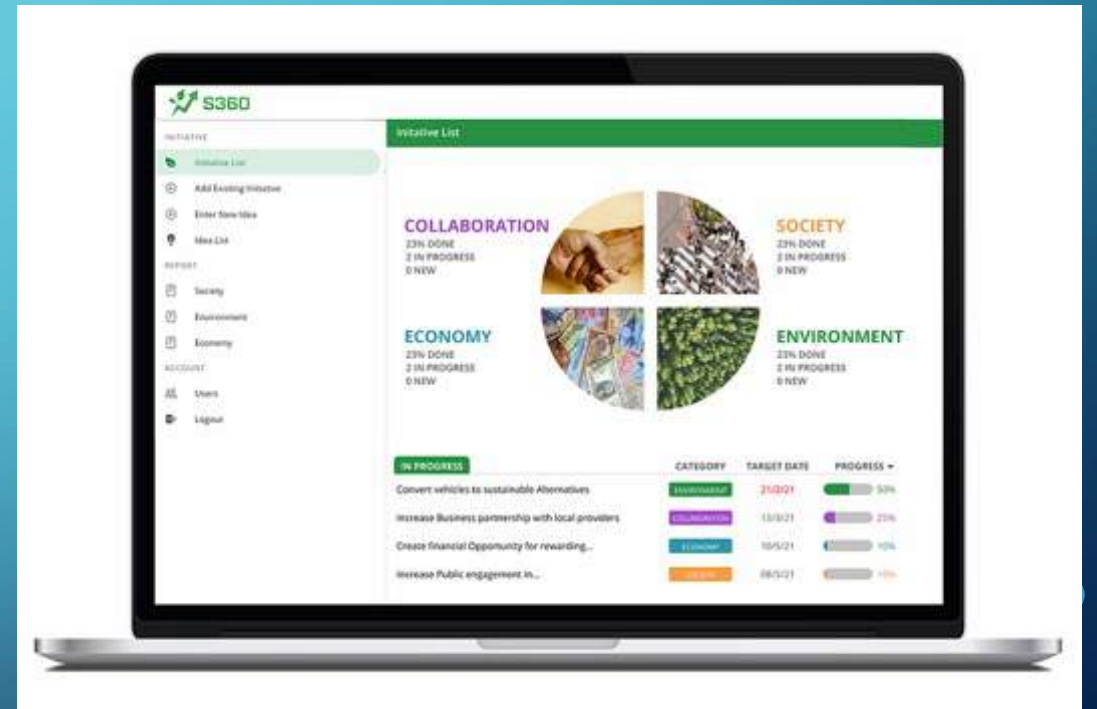
TEST IN-MARKET WITH MINIMUM VIABLE PRODUCT



“XERO FOR SUSTAINABILITY”



- Simple dashboards show initiatives and progress
- Automatic reminders create action
- Calculate, track and report on short- and long-term carbon emission targets
- Easily link to and report on the UN’s Sustainable Development Goals
- Engage staff and customers and collect their ideas



Seeking pilot customers for next phase and partnerships caroline@s360.co.nz

LOW-COST BATTERY MANAGEMENT SYSTEM (BMS)

Helping businesses/schools

reduce carbon emissions and energy costs

by providing **economically viable**
solar/storage/BMS system

for use with a variety of batteries

Email john@sunshinesolar.co.nz "BMS" to trial



SunshineSolar

ACCELERATOR PROGRAMMES FOR ENTREPRENEURS



**Orion Energy
Accelerator**

This accelerator is powered by:

Orion

MOA
Ministry
of Awesome

**Ara
Ake**
Future
Energy
Development

Future of Energy

E mobility and EV charging

Energy storage

Smart home and commercial construction

- Smart customer engagement
- Smart grids
- Energy affordability

<https://www.orionaccelerator.nz/>



Climate Response Accelerator

Powered by Creative HQ

DEMO DAY 16 SEPT



ENERGY



WATER



WASTE



<https://creativehq.co.nz/climate-response-accelerator/>

The image features a blue gradient background with white circuit-like lines in the corners. These lines consist of straight paths that branch out and terminate in small circles, resembling a stylized PCB or network diagram. The lines are located in the top-left, top-right, bottom-left, and bottom-right corners.

QUESTIONS?