NEW ZEALAND
PRODUCTIVITY COMMISSION
Te Kōmihana Whai Hua o Aotearoa

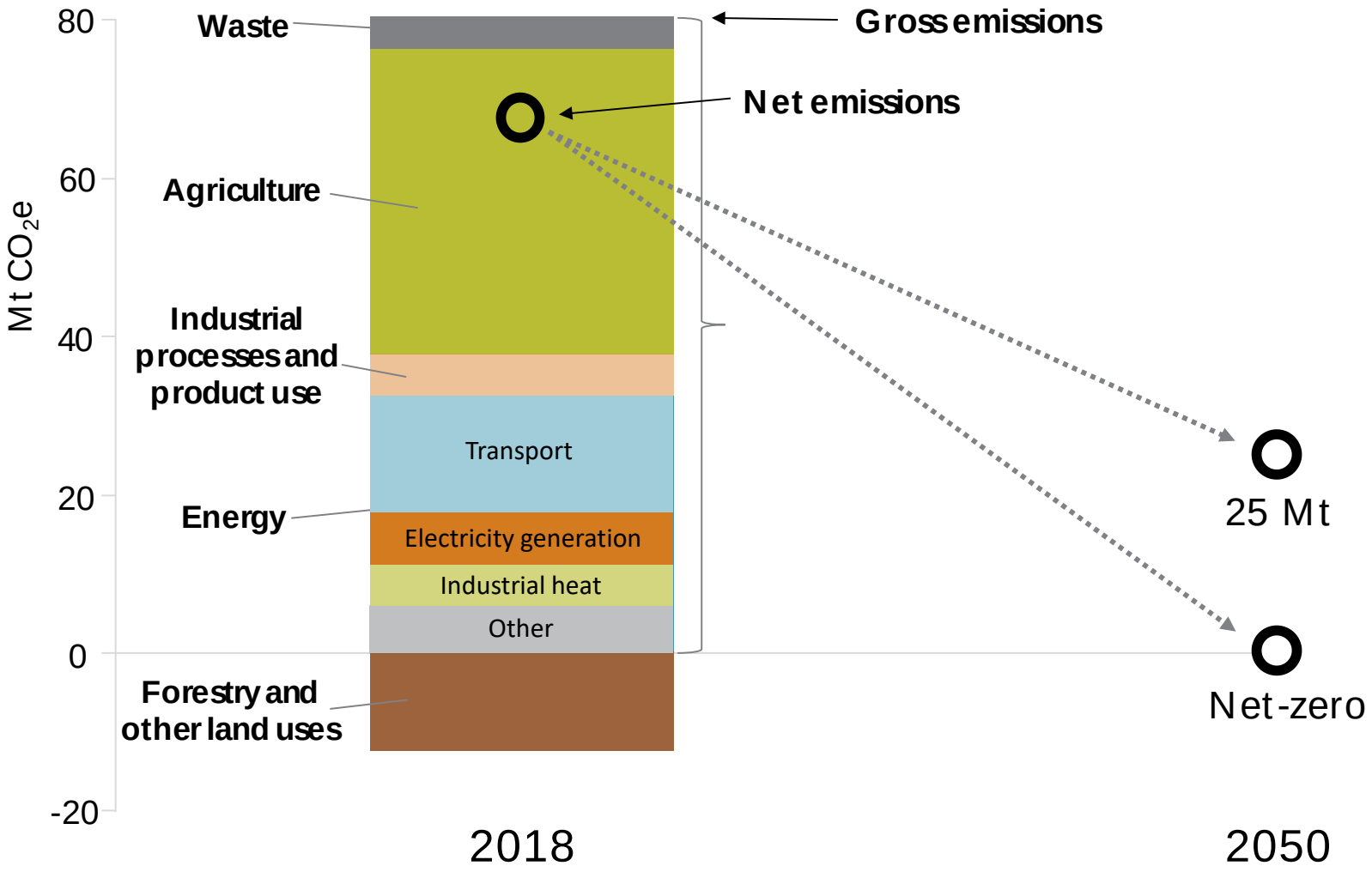
The transition to a low-emissions economy

Murray Sherwin

NZ Wind Energy Association

Wellington, 1 May 2019

NZ's challenge to get to net-zero emissions



Key changes needed

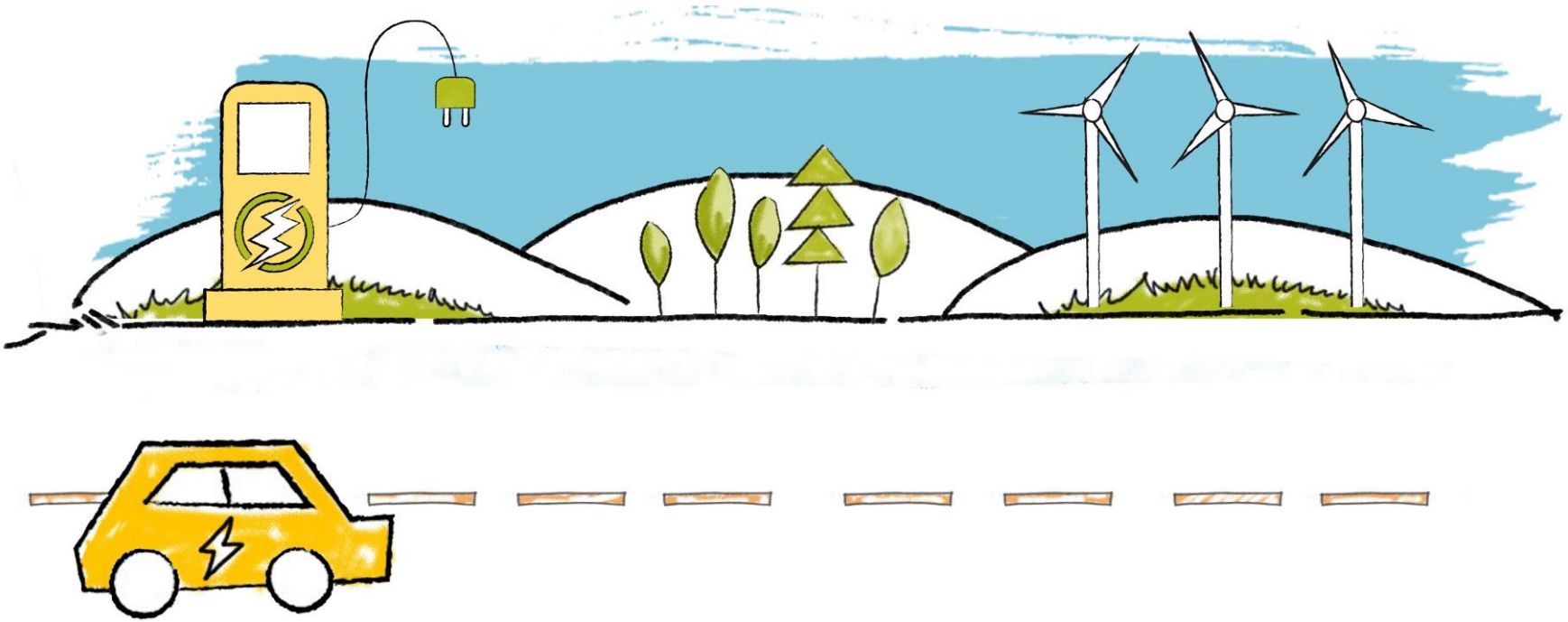
1. Replace fossil fuels with electricity and other low-emissions fuels

2. Significant afforestation

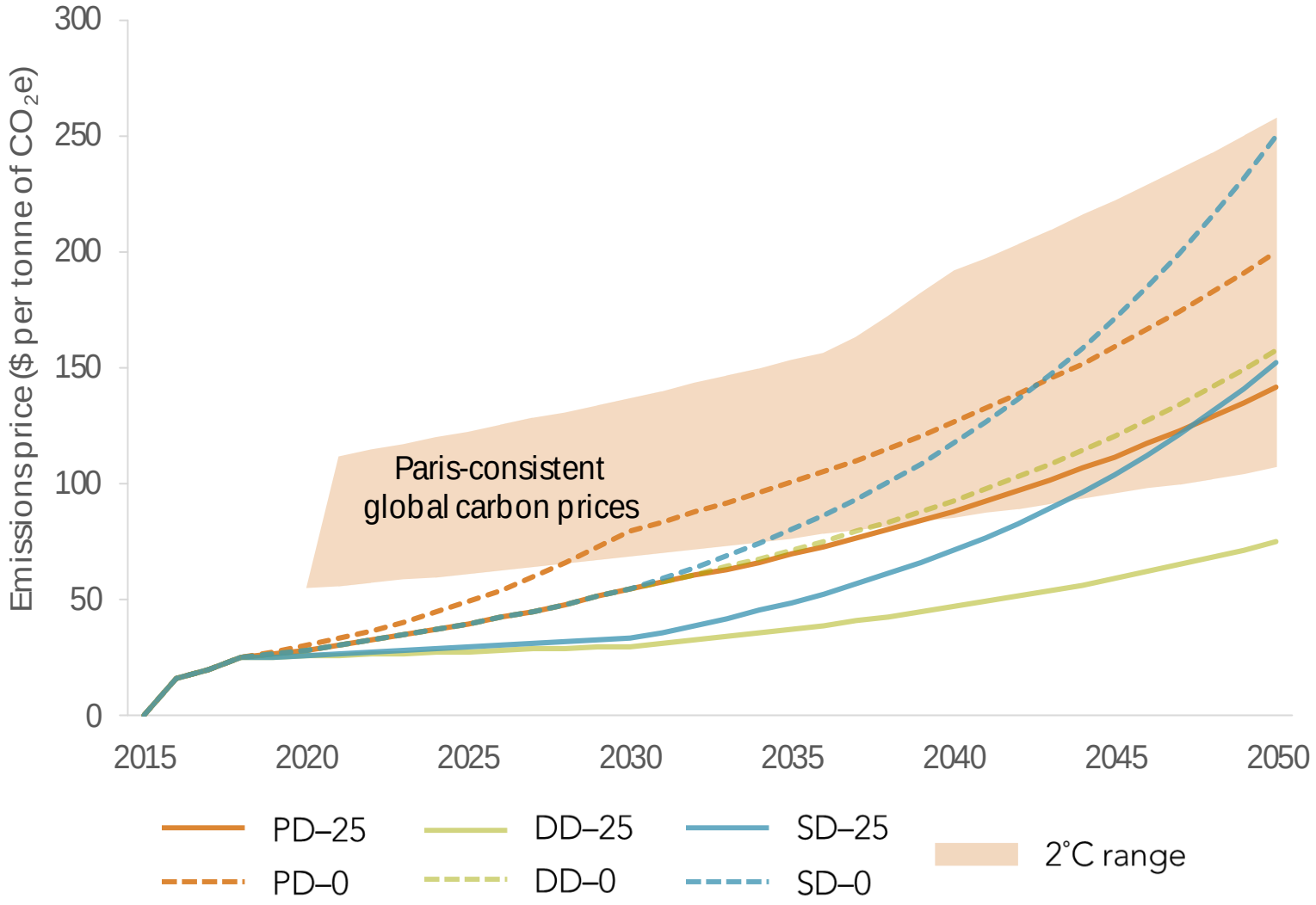
3. Changes to the structure and methods of agricultural production

Four pillars to achieve a low-emissions economy

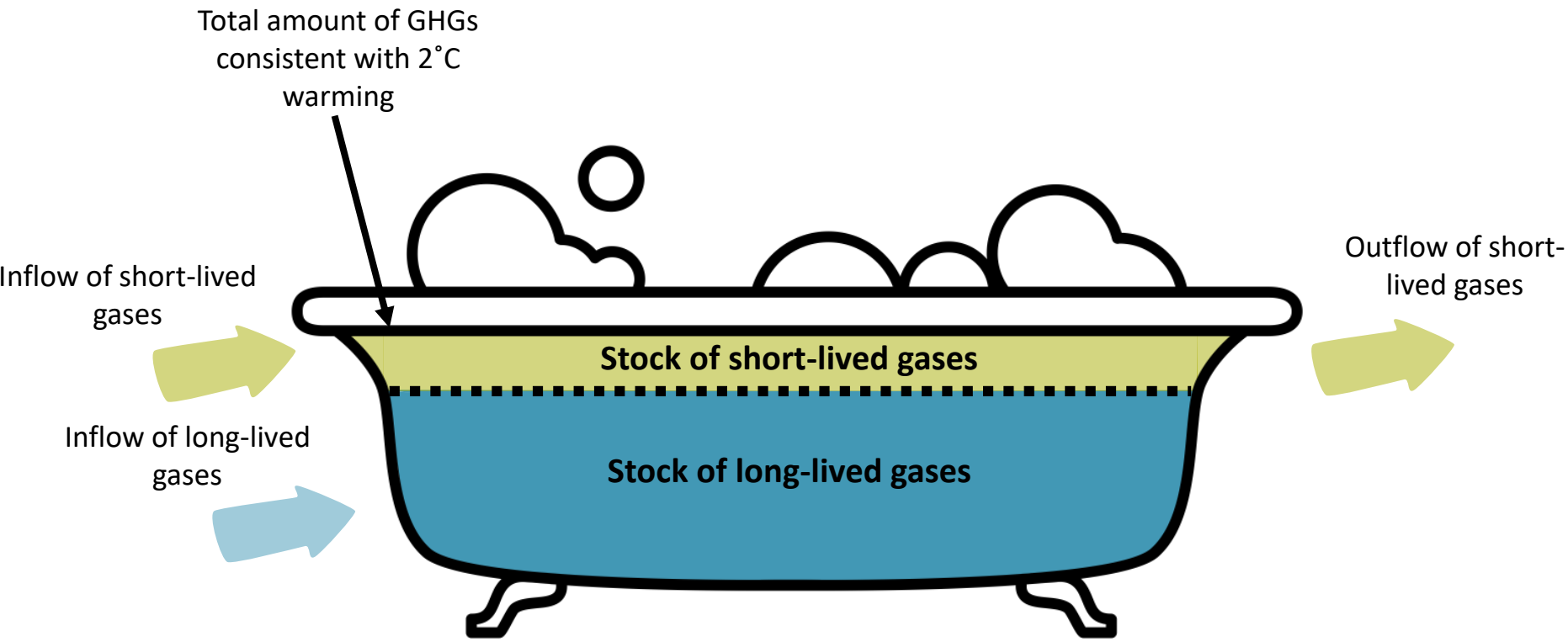
1. EMISSIONS TRADING SCHEME
2. LEGISLATION AND INSTITUTIONS
3. COMPLEMENTARY REGULATIONS AND POLICIES
4. INVESTMENT AND INNOVATION



Let an effective emissions price do its work

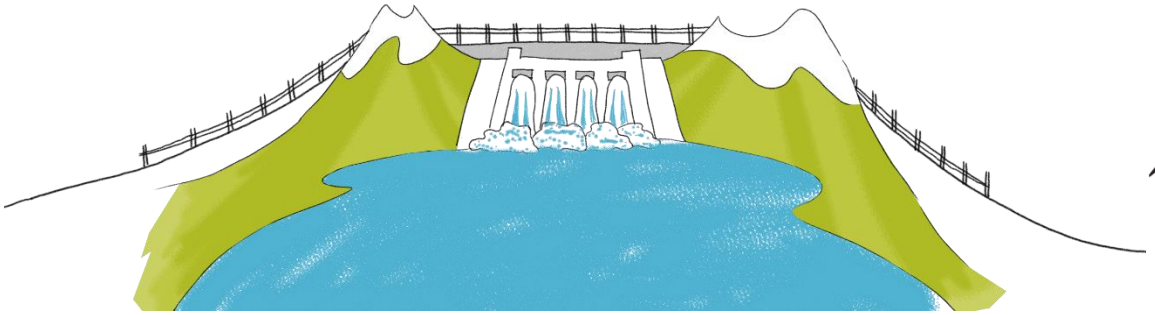


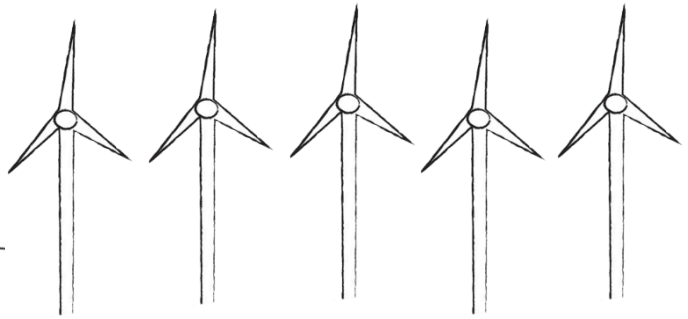
Short- and long-lived gases



The long-lived gas steady state requires that inflows are net-zero.
The short-lived gas steady state requires inflow = outflow.

An abundant supply of low-emissions electricity





- Low-emissions (and low price) electricity is central to the transition
- New Zealand has abundant unused sources of renewable energy (especially wind but also solar)
- Targets for emissions reductions need to be met without driving up wholesale prices
- Resource consents under the RMA must be compatible with increased renewable generation
- Demand-side management (eg, time-of-use pricing) and distributed energy (eg, solar power and batteries) will play an increasingly important role

www.productivity.govt.nz/lowemissions

@NZprocom