



**EnergyManagement**  
Association of New Zealand

The webinar will begin at  
4.30pm

# What you Need to Know Now about Business and Carbon

EMANZ Webinar 13 August 2018

Robert Tromop and  
Norman Smith



“The Times They Are A-Changin’”

# Accelerated change in NZ business context

## GOVERNMENT DRIVERS/INITIATIVES

- Sustainable Development Goals
- COP21 – Paris Agreement et al
- NZ's NDC
  - Emissions will be reduced to 30% below 2005 levels by 2030
- Productivity Commission report
- Transpower Te Mauri Hiko scenario
- NZ's Zero Carbon Bill pending – 10,000 submissions

## THE CHALLENGE: CAPACITY TO ACT

- By 2030
  - In an economically efficient way
  - With productivity gains to cover carbon mitigation investments.
- Capacity Building is required -
- Beyond energy management incrementalism
  - Economic investments not 'savings'

## IN AUGUST 2018

- All of a sudden, nothing is happening - YET
- Government is moving towards a leadership role
- When it does the pressure will be on, and new players will emerge
- It would be 'unfair' if somebody else eats our lunch
- Goodbye to M&T – hello **Measure-Monitor-Manage-Mitigate**
- Few organisations have put in place new structures which integrate energy and carbon

# CRISIS

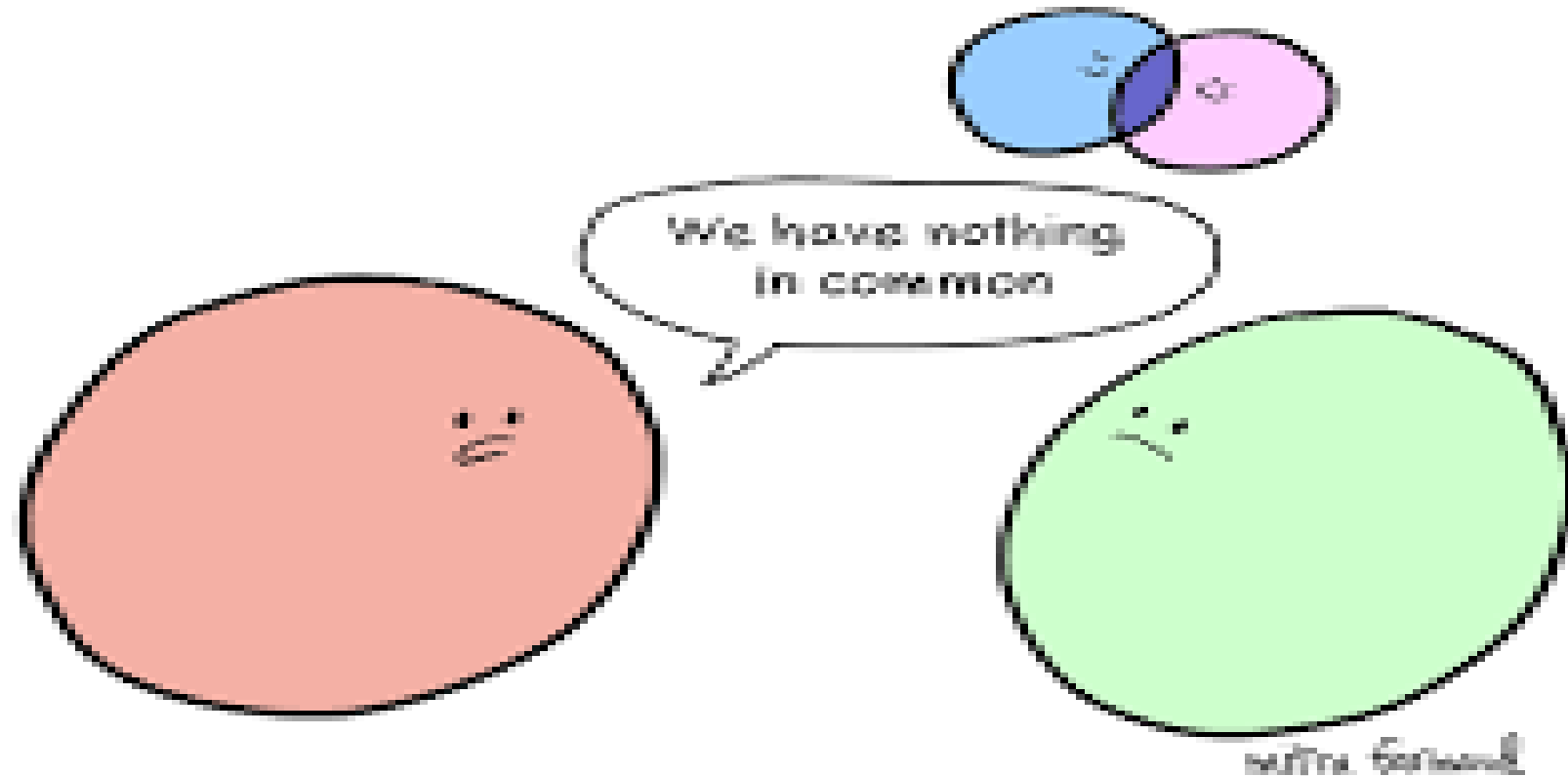
A large, bold, black Chinese character, '危' (wēi), which means 'danger' or 'crisis'. It is written in a traditional, calligraphic style.

A time of danger;

A large, bold, black Chinese character, '机' (jī), which means 'opportunity' or 'chance'. It is written in a traditional, calligraphic style.

A time of opportunity;

Unlike Harold and Daisy, Energy Management and Carbon Mitigation are destined to become inextricably joined together, largely overlapping, their futures merged. Are we ready and able to make that happen, and realise the benefits, or get left behind?



Harold had to face the painful truth. He and Daisy were never going to be a Venn diagram.

# Some challenging questions

# Do you have a carbon – productivity leader?

Managing the Carbon - Energy - Productivity function

Critical relationships with CE and Board:

- Understanding leaders and engaging
- Getting a mandate
- Having strategy conversations with board
- Working in an organisation's business strategy

Sustainability Director, Facilities Manager, Production Manager, Waste manager roles morphing into a carbon-focused sustainability manager

# How integrated are Sustainability, Carbon and Energy Management?

With commitment to carbon limits, come new business motivations.

- How to build internally on changing corporate climate ambitions
- Dealing with business challenges and risks
- Management to manage carbon and energy implications in supply chains



# Why wouldn't your Board want a focus on Productivity? Gains from Carbon and Energy Management

- Politicians, shareholders and consumers care a lot about increasing production or welfare outcomes, but energy efficiency doesn't focus beyond direct outputs
  - Need to include wider productivity, welfare and environmental outcomes
- Improving Energy productivity = Energy efficiency + Multiple benefits*
- At the economy: Macro-economic energy productivity is energy efficiency + macro economic rebounds: jobs, GDP, lowered public budgets...
  - At the firm: Micro-economic energy productivity is energy efficiency + micro economic feedbacks, multiple benefits; improved value from quality, increased output, safety, profitability..)

# Are you ready to Finance Carbon Productivity Solutions?

- Understanding the real barriers to finance
- What do investors need?
- Financial appraisal of energy efficiency:
  - Life cycle analysis
  - Getting beyond naivety of payback
- Developing investor confidence

# Are you still buying cheapest kWh or Procuring the Carbon and Energy Services and Suppliers you need?

- Purchasing energy – getting low costs and high performance
- Shifting balance of power to users
- Users determine needs and conditions
- Procuring carbon and energy services and plant
- Bureau services for carbon information, offsets, energy purchases and energy management and EPC

# How do you Develop Carbon and Energy Productivity in an Organisation - Soft skills

## *The Long March through the Institution*

### Building teams



### Taking people with you

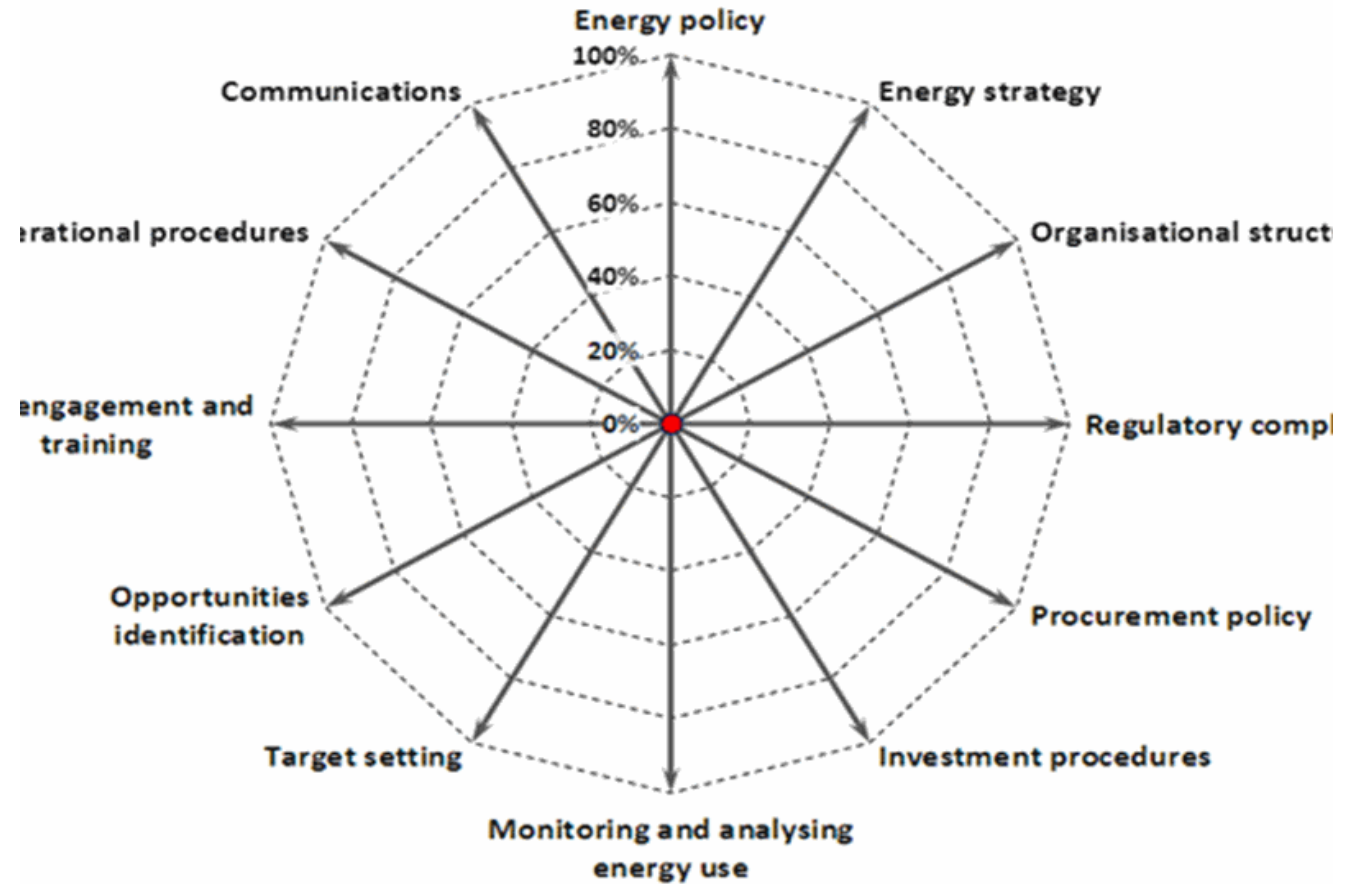


- Most energy managers occupy a 'staff' position in their organisation
- often they lack the authority of a 'line' manager to direct staff, initiate projects and spend money
- Carbon – productivity activities must be negotiated using a range of soft skills and techniques

# How to Design and Implement a Carbon and Energy Management Programme?

*Performance across discipline areas*

[www.carbontrust.com/resources/tools/energy-management-self-assessment-tool](http://www.carbontrust.com/resources/tools/energy-management-self-assessment-tool)



# Practical accounting systems for Carbon and Energy Productivity

## The 'Carbon-Energy Management Information System'

- Not just a software package for anomalies in billing or excessive electricity use.
- Central to identifying cost-effective investments
- Monitoring wider costs thru energy
- Profitability focus to all aspect of energy management
- The importance of baselines
- Ex-ante and ex-post perspectives
- Evaluation tactics for multiple benefits

# How do you track your Carbon Footprint?

- What's involved in accounting for carbon
- Why its trickier than energy
- In-house or the value from a rigourous approach by a contracted expert

# Which Technologies will give us both Energy Productivity and Carbon Reduction?

Extending the business productivity focus to cover new energy technologies and services:

- Low Carbon technologies for Commercial Buildings
- Low Carbon technologies for Industry
- Disruptive renewables
- Growing range of ICT tools for energy management

Focus on real-time process energy demands

Integrating options and optimizing investments



# How do you develop your Low–Carbon Transport System?

Integrating transport into carbon and energy management programmes:

- Working with transport data
- Transport measures
- Coping with change

# The Energy-Carbon Manager Professional course:

Equip participants with the skills and knowledge to develop and lead significant carbon - energy – productivity programmes.

- A new training - accreditation process for carbon-energy managers
- Skills for carbon-energy productivity for New Zealand businesses
- Deliberate focus on carbon-energy management skills for energy managers in firms and organisations
- Up-skill managers with diverse operational backgrounds to be competent and capable carbon-energy managers

# *EnergyCarbon Manager Professional Curriculum*

1. The Carbon and Energy Manager and their Organisation
2. Integrated Carbon and Energy Management
3. Productivity Gains of Carbon and Energy Management
4. Financing Carbon and Energy Solutions
5. Procuring Carbon and Energy Services and Suppliers
6. Developing Carbon and Energy Management in an Organisation
7. Designing and Implementing a Carbon and Energy Management Programme
8. Monitoring and Targeting for Carbon and Energy Productivity
9. Carbon Accounting
10. Verification and Reporting for Carbon and Energy productivity
11. Disruptive Technologies for Energy Productivity and Carbon Reduction
12. Managing change to Low-Carbon Transport System

# Course Structure and Content

**Management – Leadership General/Finance (45%)**

**Managing Energy Tools and Processes (30%)**

**Managing Products, Technologies and Productivity (25%)**

- An advanced professional development programme.
- Enables people with a wide range of qualifications and work-based experience to gain additional, specialised skills to undertake energy management responsibilities
- Curriculum and outcomes are aligned with ISO Standard 50001:2011, and ISO14064
  - based on the systems model of continual improvement
- A mix of classroom based learning and self-directed activity within the workplace
- Sets participants up for EMANZ certification as *Energy-Carbon Manager Professional*

# EnergyCarbonManager Professional

Join New Zealand's growing team of  
leading edge Energy Professionals.

.....  
visit [emanz.org.nz](http://emanz.org.nz)

learn more>>

- <http://www.emanz.org.nz/energy-and-carbon-manager-professional-training>

[norman@rminz.org.nz](mailto:norman@rminz.org.nz) 021 499 031

[Robert.Tromop@eeil.co.nz](mailto:Robert.Tromop@eeil.co.nz) 027 5315133