



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

Gaining a social licence to operate for radioactive waste

Professor Peta Ashworth

Chair, Sustainable Energy Futures

School of Chemical Engineering, University of Queensland

Presentation to Stimson Centre, 13th November 2018

Outline

About UQ

The world energy challenge

Social licence to operate (SLO)

Trust, risk

Procedural and distributive fairness

Public opinion







The University of Queensland

Founded December 10, 1909

Staff 6,613 FTE (2815/3798)

Students

- Undergraduate ~ 35,861
- Postgraduate ~ 16,470
- Total ~ 52,331
- International ~ 15,431

Total \$ (2016) 1751 million (1262M USD)

Total Research \$ (2016) 368 million (265M USD)



Structure - Faculties

Engineering, Architecture and Information
Technology (EAIT)

Business, Economics and Law (BEL)

Health and Behavioural Sciences (HABS)

Humanities and Social Sciences (HASS)

Medicine

Science



Structure - Institutes

Australian Institute for Bioengineering and Nanotechnology (AIBN)

Global Change Institute (GCI)

Institute for Molecular Bioscience (IMB)

Institute for Social Science Research (ISSR)

Mater Research Institute-UQ (MRI-UQ)

Queensland Alliance for Agriculture and Food Innovation (QAAFI)

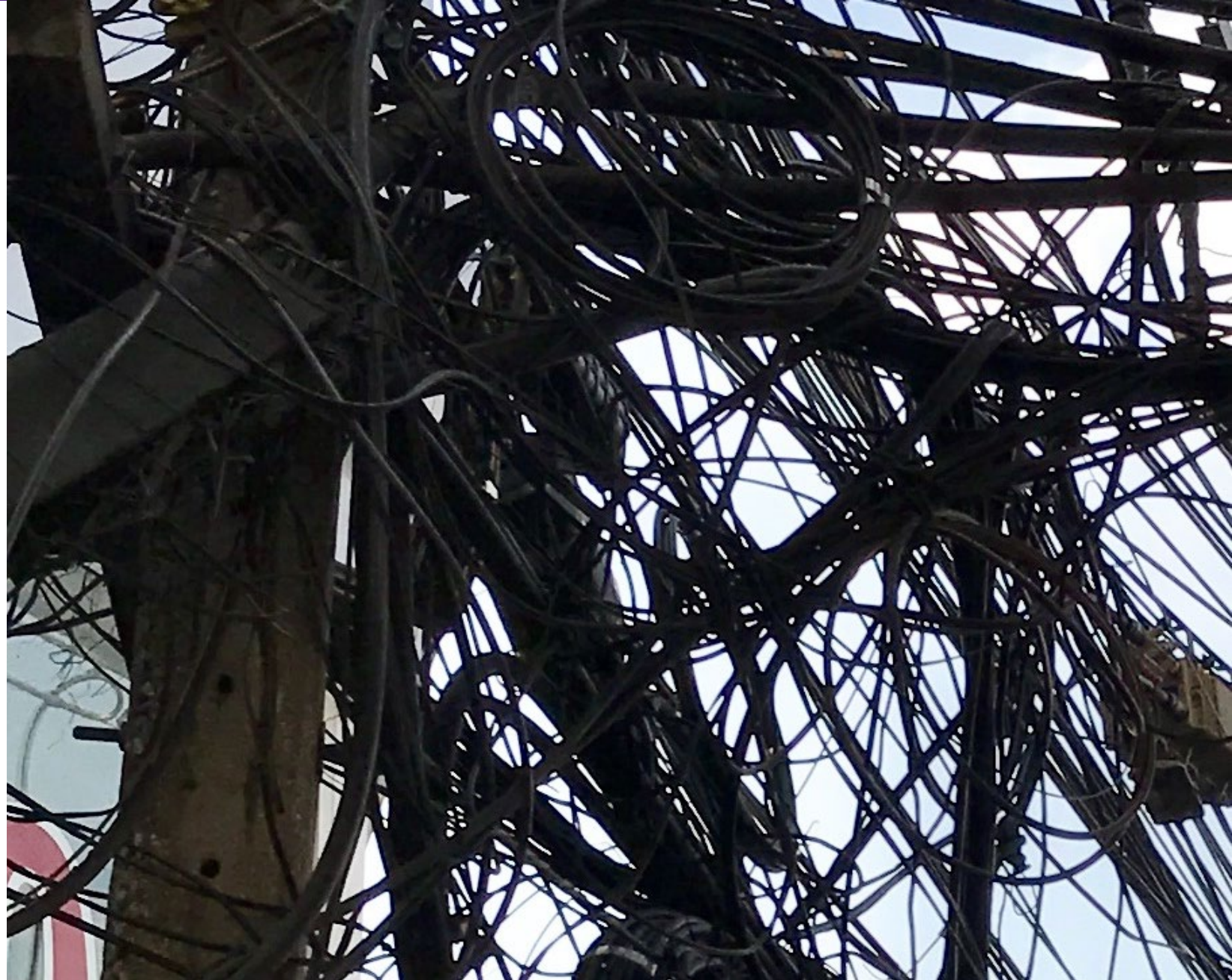
Queensland Brain Institute (QBI)

Sustainable Minerals Institute (SMI)



Over 1.2 billion
people lack
access
to basic electricity.

Many times this
number lack
reliable or
affordable
electricity



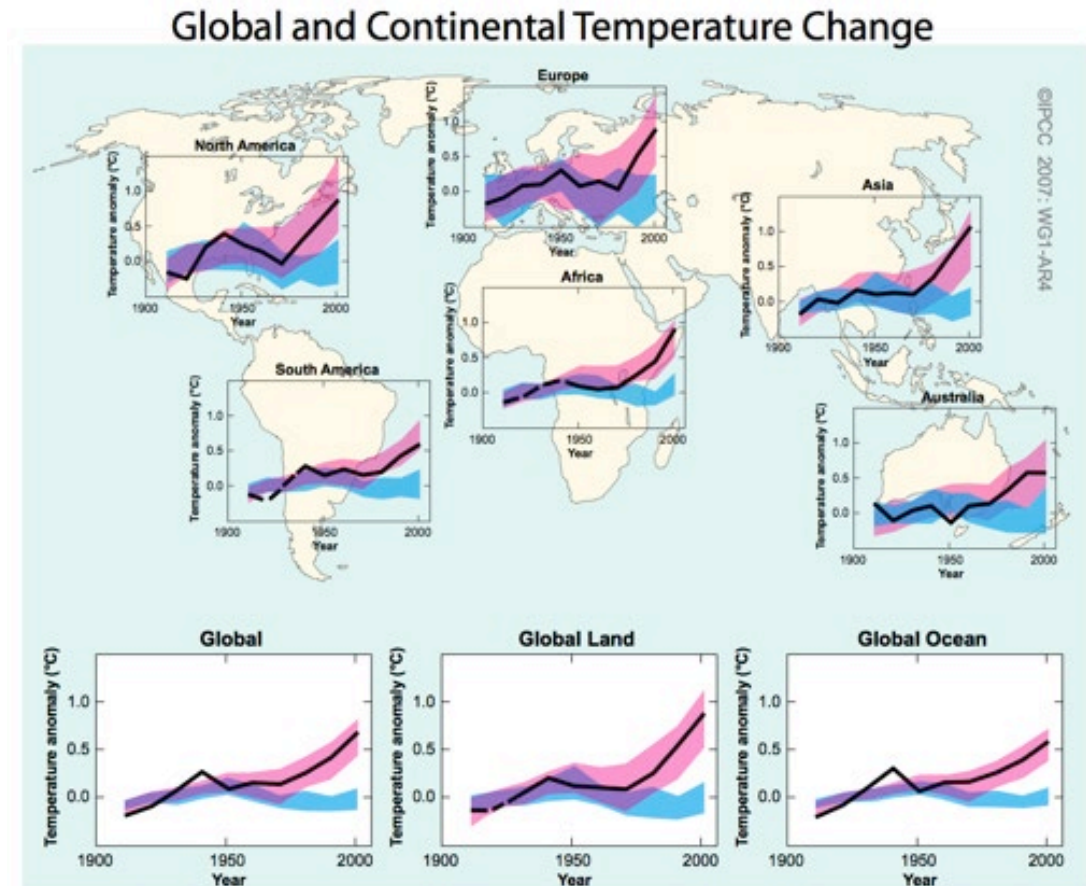
2.8 billion people
rely on biomass
for cooking and
heating.

Photo supplied from Matthew Herrington, EPRG, UQ



The science of climate change

Observed 20th century warming can only be explained by including both drivers of natural variability and the additional greenhouse gases emitted by human activities!



In Australia... possibly the world



Affordable

Reliable

Low carbon

Social licence to operate (SLO)



Social Licence to Operate

Ongoing acceptance or approval from the local community
(Thomson & Boutilier, 2011; Thomson and Joyce, 2008)

...and other stakeholders who can affect its profitability
(Graafland, 2002)

...meaningful partnerships between operations,
communities, and government based on mutual trust that
the company will meet the needs of those local
communities (Warhurst, 2001)

Social Licence to Operate

A set of demands and expectations for how a business will operate held by multiple local stakeholders and broader civil society (Gunningham et al., 2004)

The likelihood of holding a social licence will depend on “the degree of match between stakeholders’ individual expectations of corporate behaviour and companies’ actual behaviour” (Salzman et al., 2005)

Social licence to operate

Easier to define when an operation did not have an SLO than when it did

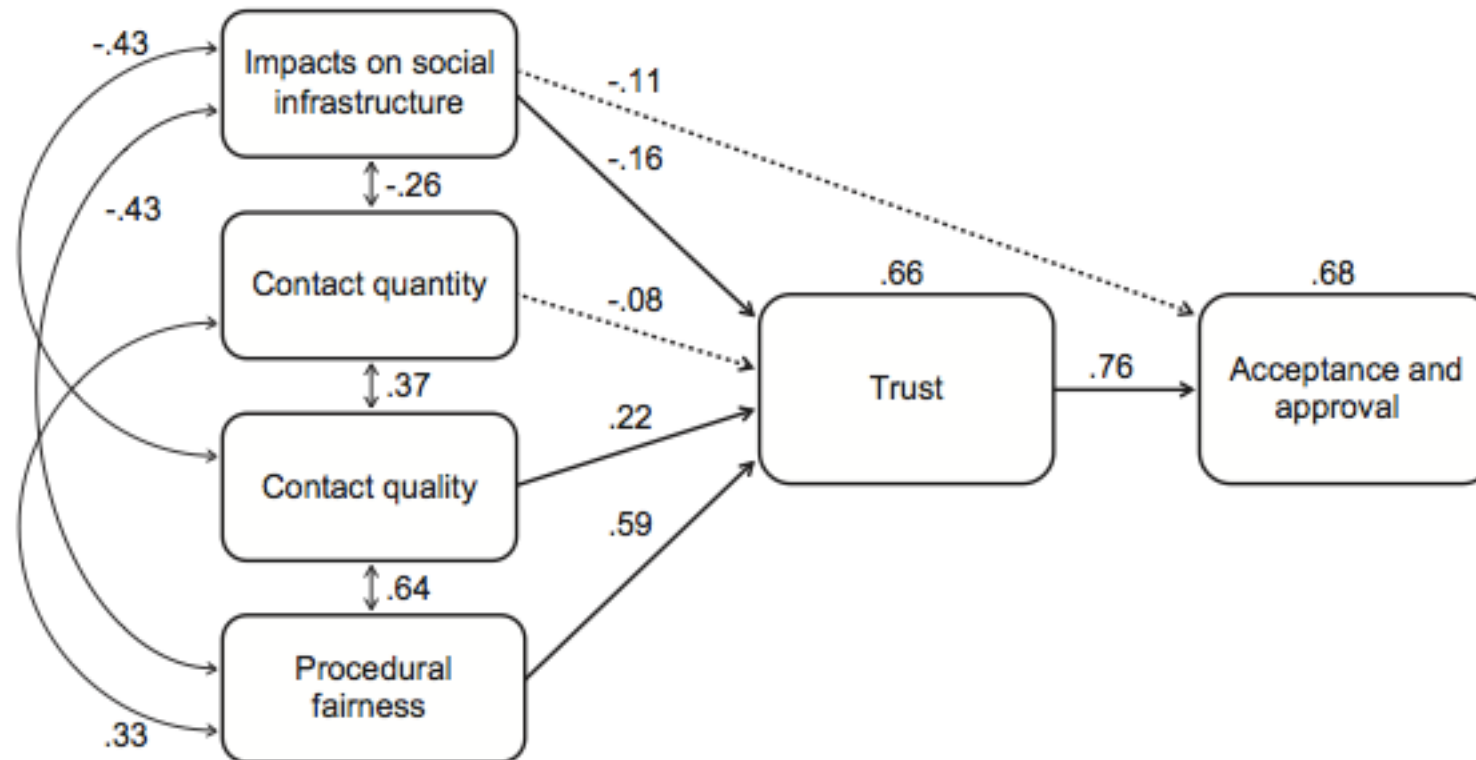
- Complaints from neighbours
- Blockades
- Community protests

It is complex

- Gained over time as relationship with community develops
- Can be easily lost



What constitutes a SLO



Moffat, K & A. Zhang, 2014, The paths to social licence to operate: An integrative model explaining community acceptance. *Resources Policy* V39. pp 61-70.

What we know about trust

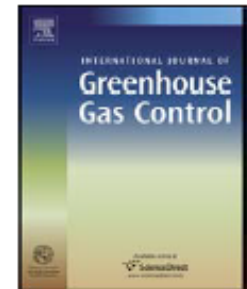
International Journal of Greenhouse Gas Control 5 (2011) 181–188



Contents lists available at ScienceDirect

International Journal of Greenhouse Gas Control

journal homepage: www.elsevier.com/locate/ijggc



Review

Going beyond the properties of CO₂ capture and storage (CCS) technology: How trust in stakeholders affects public acceptance of CCS

Bart W. Terwel*, Fieke Harinck, Naomi Ellemers, Dancker D.L. Daamen

Leiden University, The Netherlands

Trust and public acceptance

- Public acceptance depends on people's sense of trust in project stakeholders and not solely on the properties of the technology itself.
- Public trust is based on perceived organizational competence and perceived organizational integrity.
- People perceive smaller risks and larger benefits and, as a result, tend to be more positive about CCS in the case that competence-based trust in a CCS proponent is high rather than low.

Trust

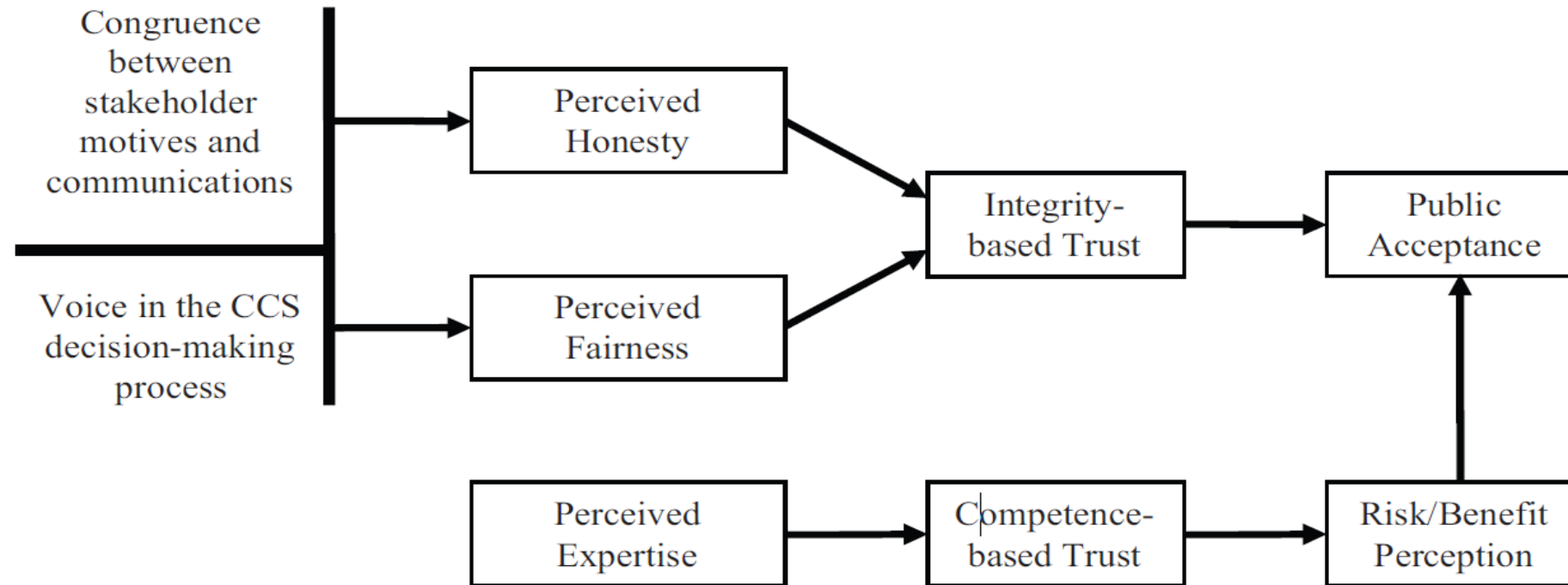


Fig. 1. Overview of relationships between concepts.

Source: Terwel et al (2011:183)

And from the US...



Available online at www.sciencedirect.com



Energy Procedia 1 (2009) 4665–4672

**Energy
Procedia**

www.elsevier.com/locate/procedia

GHGT-9

**The Role of Social Factors in Shaping Public Perceptions of CCS: Results of
Multi-State Focus Group Interviews in the U.S.**

Judith Bradbury^{1*} Isha Ray² Tarla Peterson³ Sarah Wade⁴ Gabrielle Wong-Parodi²
Andrea Feldpausch

*

Trust and context are critical

- A lack of confidence in government, industry and science to manage associated health, environment and social risks is likely to compound negative perceptions
- Can we trust the project owners and government to take care of our problems?
- What have our previous relationships been like?

Procedural and distributive fairness

Who benefits?

Is the process fair and transparent?

Can we have a say in what happens?

Will anyone listen to us?

Who can I call?

Perceptions of risk

“Risk is a social construct, meaning different things to different people, and cannot be measured independently of our minds and culture” (Finucane and Holup, 2005 pg.1604)

People’s responses to hazard are diverse and depend on each individual’s characteristics and concepts (Slovic, 1987).

Experts vs lay public risk perception



Risk perceptions



P. Slovic (2000) The Perception of Risk. Earthscan, London

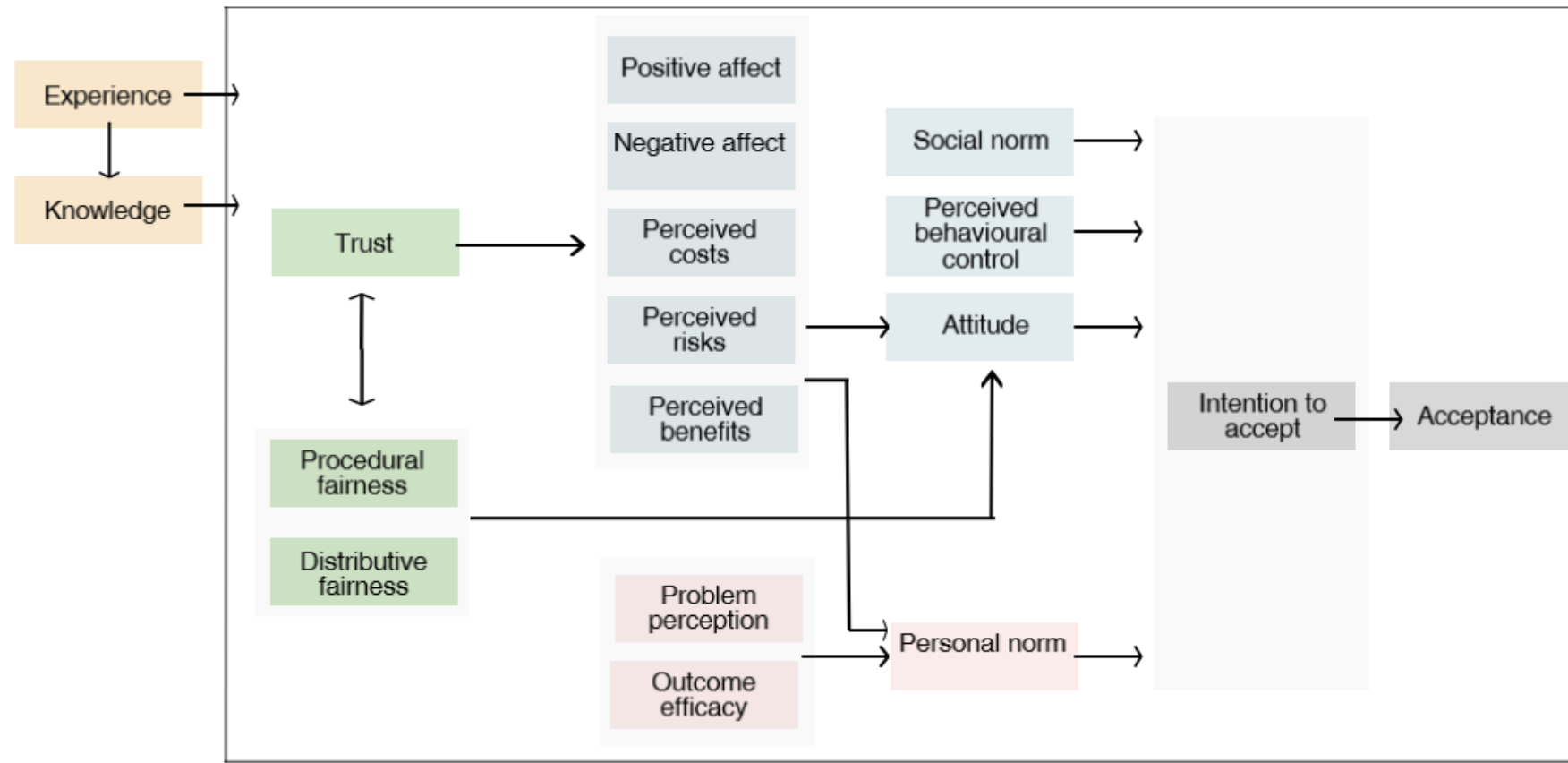
Are heightened when:

- Unknown
- Catastrophic
- Uncontrollable

Outcome contributes when:

- Irreversible
- Potentially devastating
- Felt immediately
- Affect other people

Technology Acceptance Framework



Energy technologies can be divisive

I don't think this technology should be utilised at all let alone in any populated area.

Provided I was consulted along the way and I was sure it was completely safe - go ahead.

Definitely would not be happy if it was proposed in my area. I'm not sure how far away would make me feel better.

After consultation I think they were to start a new area, I am not sure how they should be, far away enough that there is minimal noise, traffic congestion, and an eyesore to the environment?

Core issue: Threats to livelihoods and lifestyles

Carr-Cornish & Roman, 2013

Public opinion

Public opinion to new (or unfamiliar) technologies can change over time. However, once formed they can be slow to change.



What is in it for me? Local benefits

Many of the **benefits** are very **global** in nature

- Emissions reduction
- Transitioning to low carbon economy
- Energy security
- Continued use of resources – economic return

Most the **risks** are very **local**

- Risk of contamination
- Potential leaks – will it stay there
- Effect on house price, land values
- Competing land use

How do we define local benefits

Decisions made **collectively** NOT responding to decisions made by others

Dialogue with a **range of stakeholders** across all levels - experts and non-experts

What is important - pros and cons

What does each community **value**

Not a **done deal** – takes **time**

Avoiding this...



We don't want this! Period!

Decide Announce Defend

- Focus on permitting procedure
- Concerns addressed as legally required
- Powerless opponents
- No discussion of alternatives/adaptations
- Information/persuasion - no participation
- Increasing public opposition
- Project delay
- Deadlock



The role of volunteerism

- *National Radioactive Waste Management Act 2012*
- Provisions for nominations
 - Nomination by a land council (represents Indigenous people)
 - General nominations (by individuals who own land)
- Approval of nominations and procedural fairness
 - 60 day consultation period – anyone with right or interest in a nomination can make representation
 - Act overrides state legislation
 - Minister is decision maker and can accept a nomination
 - After this point a nomination cannot be withdrawn
- Regional Consultative Committee
- Capital Contribution Fund

Prioritizing stakeholders

AUDIENCE	APPROACH
Influential stakeholders: Politicians, CEO's, Media, Finance, NGO's , Insurance	\$\$\$ Large group process, Special Functions Parliament engagement
Community	Workshops, Shop fronts, meetings, one on one
Education	Schools programs Universities Vocational training sector
Project Specific	Local regions: <ul style="list-style-type: none"> • Influential • Community • Education



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

Thank you

Prof Peta Ashworth | Chair, Sustainable Energy Futures
School of Chemical Engineering
p.ashworth@uq.edu.au
0409 929 981



[facebook.com/uniofqld](https://www.facebook.com/uniofqld)



[Instagram.com/uniofqld](https://www.instagram.com/uniofqld)



[@PetaAshworth_](https://twitter.com/PetaAshworth_)



<https://au.linkedin.com/in/peta-ashworth-5502002>

