ELECTRICITY NETWORK TRANSFORMATION ROADMAP

2015-25

Customer Orientation:

“Comprehending Customer 2025 Aspirations”

energy networks association

CSIRO

Important notice

These slides are solely for workshop purposes only on the 3rd September 2015. As such, the contents have been designed to foster a diversity of thinking about future possibilities in Australia. They do not represent the official position of either the Energy Networks Association or CSIRO.

Workshop notices

- Emergency exit locations
- Amenities and mobile phones
- ‘Chatham house’ rules
- Competition and Consumer Act provisions apply
- Participants to make their own call on sharing commercially sensitive material
- CSIRO research ethics form

The most significant transformation since Edison...?

"The world's electricity network will change more in the next 20-years than it has in the last 100"

- IBM Energy & Utilities, 'Smart Infrastructure – Building the Intelligent Grid of Tomorrow', Enercom Conference (March 2009).

The Disruption Generation…

iTunes

NETFLIX

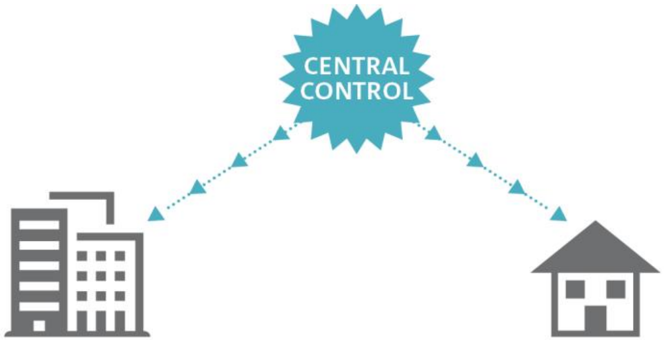
UBER

airbnb

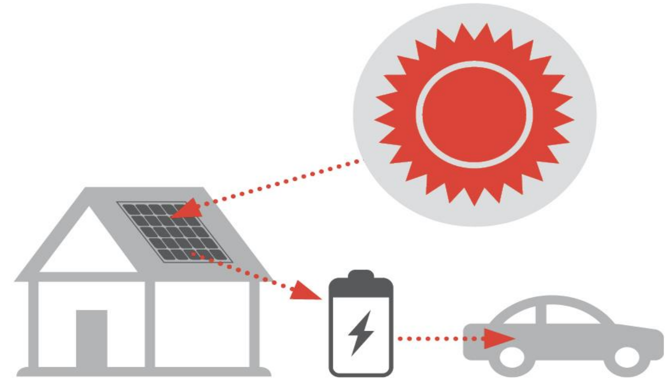
TESLA

Spotify®

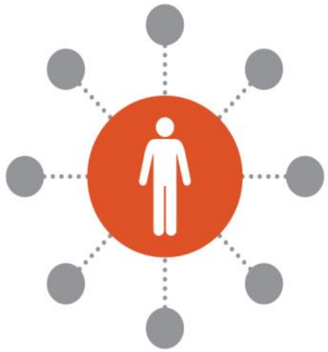
Future Grid Forum 2050 Scenarios



Set and forget

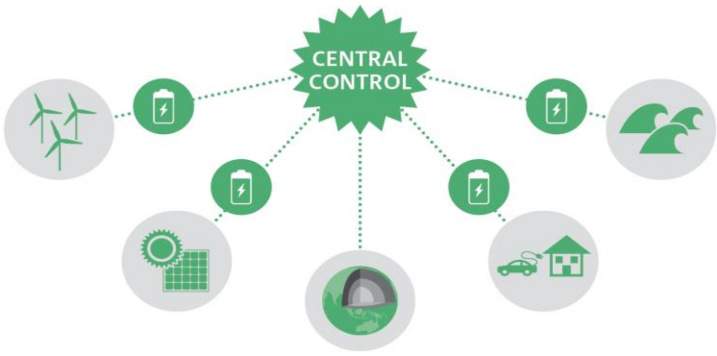


Leaving the grid



Customer-centric model
where customers consume, trade, generate and store electricity.

Rise of the 'Prosumer'



Renewables thrive

FGF reflections…

1. Network-centric → Customer-centric
2. Centralised → Hybrid/Decentralised
3. Fossil fuel generation → Continuous decarbonisation and greater intermittency
4. Regulated natural monopoly → Increasing exposure to competition
5. 20 – 50% of electricity generated locally by 2050
6. Under every scenario the electricity grid continues to play a critical (but evolved) role in 2050
7. 2015-25 decade characterised by profound transition

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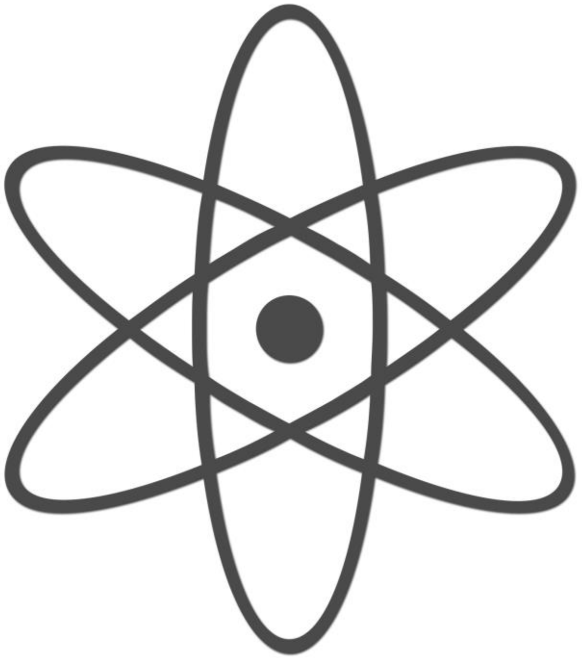
7. **2015-25 decade characterised by profound transition**

The critical 2015-25 decade…

Prediction is very difficult… especially if it's about the future.

Niels Bohr



‘Quid pro quo’: DNA of free market survival

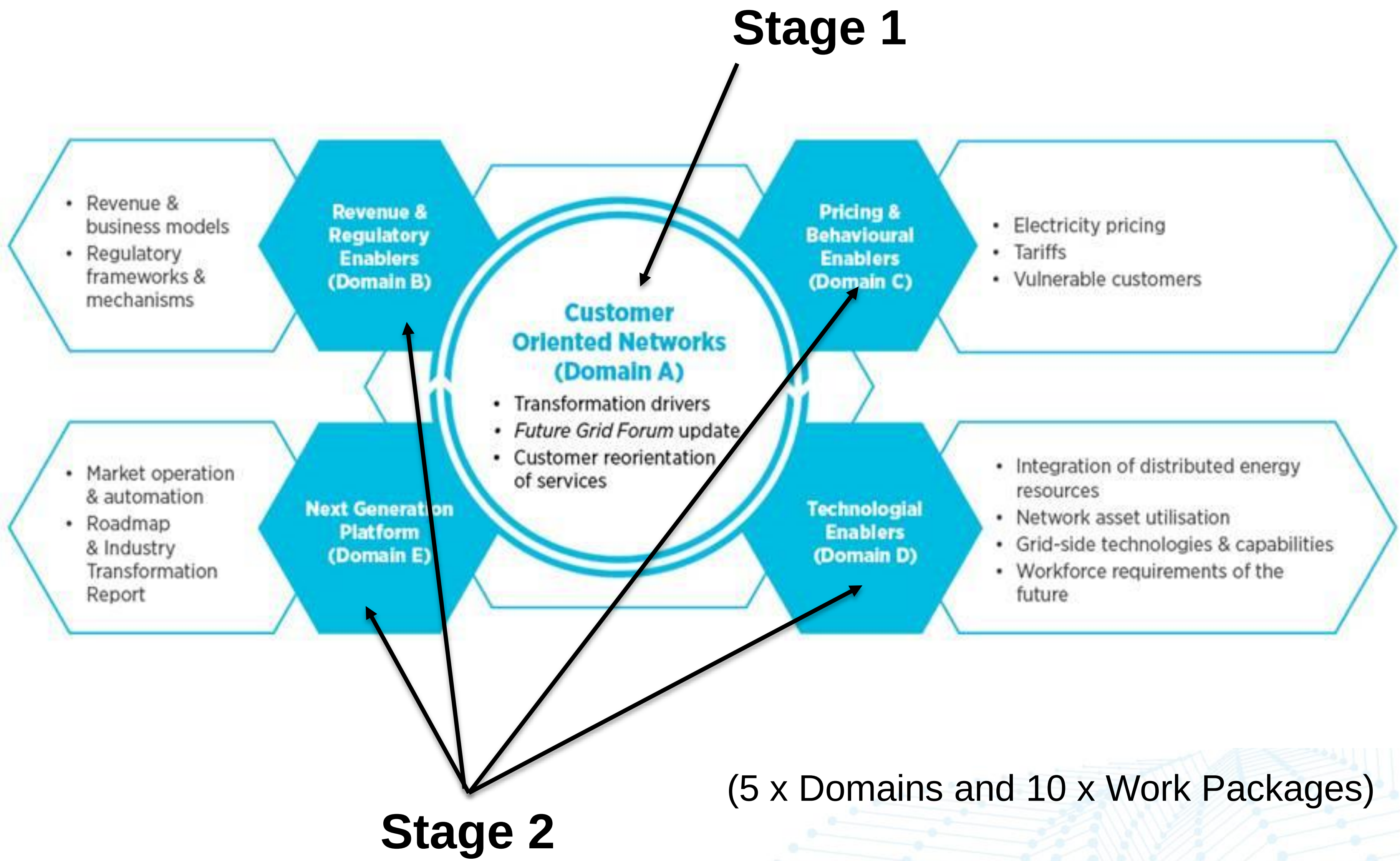
Is customer satisfaction enough? (De Martini)

"**Customer satisfaction is not a measure of loyalty** – meaning that high customer satisfaction doesn't mean a customer won't choose another alternative when given a choice.

"As such, **loyalty may be a better measure to assess the future relationship with customers** in the context of new business options. A key loyalty issue today is whether customers believe that..

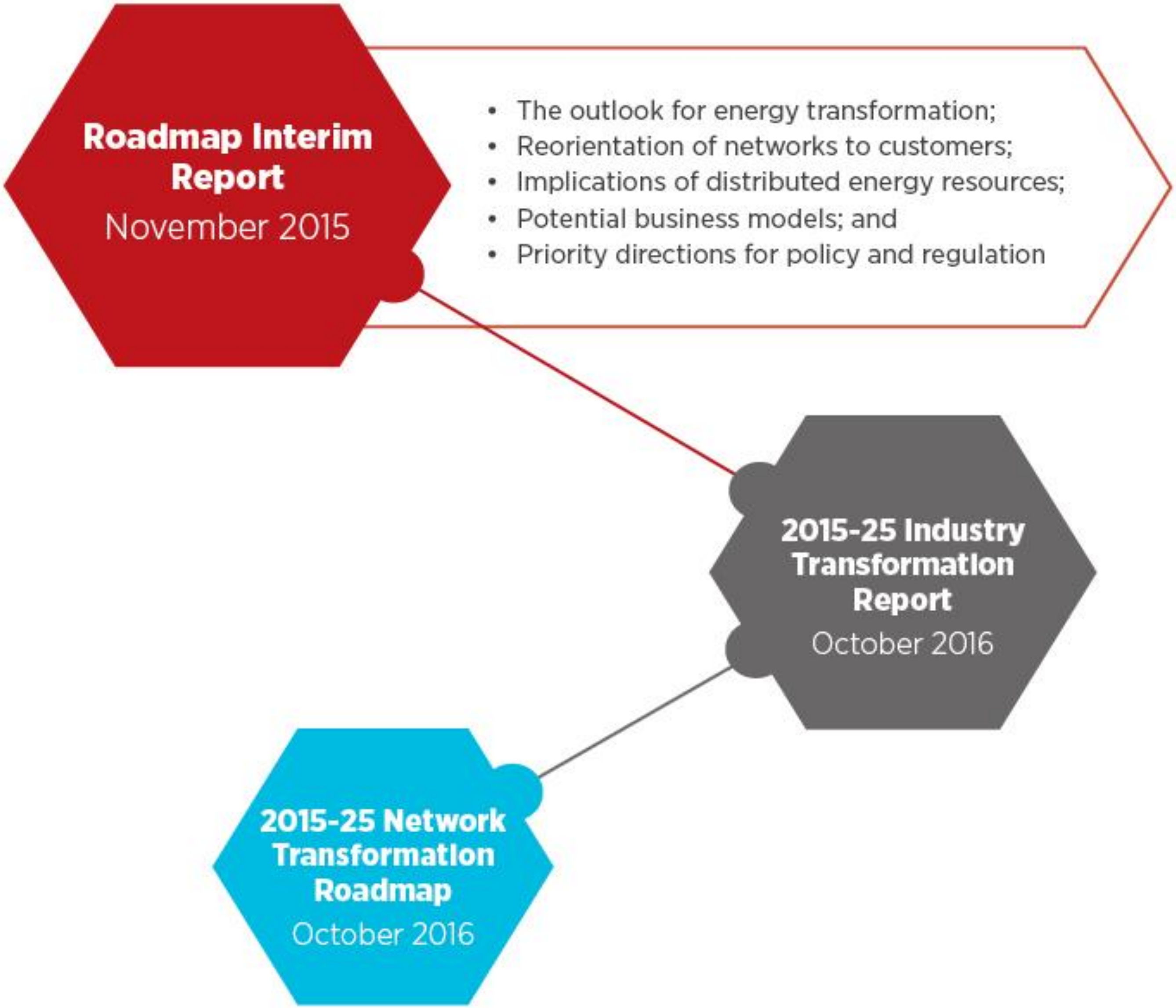
'my utility does what's right for me even if it's not best for them.'"

Five Roadmap domains to enable the transition…



(5 x Domains and 10 x Work Packages)

Key Roadmap deliverables



Stage 1

Stage 2

Today's focus…

1. **WHY** 'customer-orientation' is critical to the future success of NSPs? What does customer-orientation really mean in practice?

2. **WHO are future electricity end-users, intermediaries and competitors likely to be? What 'jobs' do they want done?**

3. **WHAT** will diverse future end-users and intermediaries value and want to pay for? What appear to be the highest potential opportunities for NSPs?

Important: The NTR project defines 'Customer' broadly to incorporate all end-users (residential, commercial and industrial) together with diverse value-chain actors and intermediaries.

Where we are today…

Business Model

Key Partners

Who are the key suppliers / partners?

What are key partner / supplier relationships?

- Strategic Alliances
- Relationships between different partners
- Joint ventures

Key Activities

- Key activities needed to make the business model work

Key Technologies & supporting resources

- Key resources required to make a business model work
- Different types of resources

Value Propositions

What value is delivered to customer?

What needs does the proposition meet?

Price?

Risk reduction?

Accessibility?

Convenience/Usability?

Customer Relationships

- What type of relationships do customers want?
- How are communications integrated with the rest of the business?
- How are customers acquired & retained?

Channels to Market

- Raising awareness of offerings.
- Helping customers evaluate value propositions.
- Allowing purchase of products/services.
- Delivering products to customers

Customer Segments

Who are the customers and how can they be best understood or categorised?

Different customers:

- Require different offers
- Use different distribution channels
- Require different types of relationships
- Are willing to pay for different offer aspects

Cost Structure

All costs incurred to operate a business model

Revenue Streams

Transaction revenues

Welcome to September 2025…

- **You are standing in 2025**: imagine yourself as standing in 2025 and describe the more optimal electricity future you see around you.

- **Accentuate the positive**: maximise creative thinking by focusing on a *positive* future vision (avoid critiquing the problems and limitations of today's system).

- **Focus on Who & Why:** focus on *who* is being serviced and *why* (what jobs do they want done, what pains avoided and what gains made)

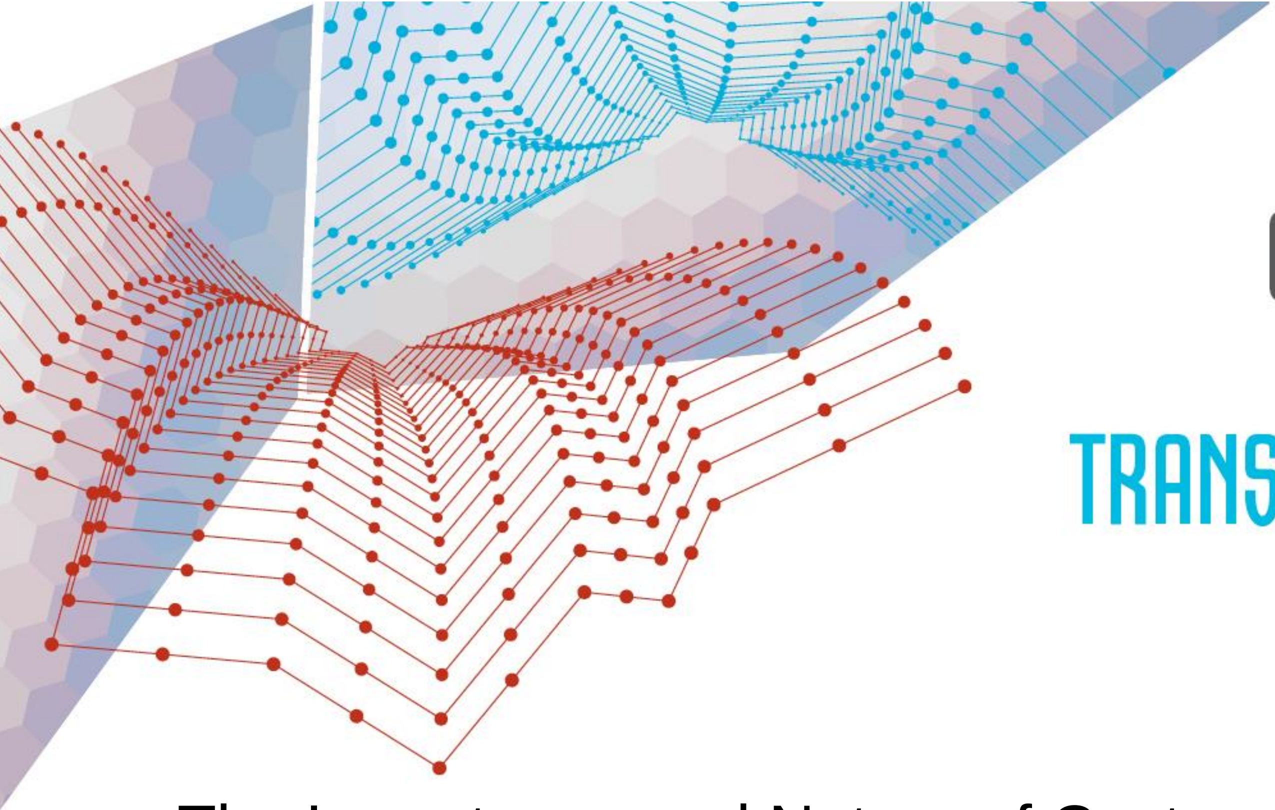
- (**Avoid How!!:** Today's creative thinking will be crippled if we revert to a 'solutions focus' that tries to determine *how* we will get to the future)

What we are <u>not</u> doing today

- **‘Perfect’ is the enemy of progress:** Today we are conducting several thought experiments -- these will help us all learn about and engage with plausible futures (plural). A highly iterative, explorative and ‘imperfect’ process is critical because ‘predicting’ the future accurately is a fantasy.

- **Future industry roles:** Today we are unashamedly transcending all discussion of industry roles and will focus first/solely on diverse customer types in 2025: ‘jobs, pains and gains’.
- **2015 issues and barriers:** We are also deliberately transcending all discussion of todays issues and barriers – we are coming at the topic ‘standing in 2025’.

2025 Success =



ELECTRICITY NETWORK TRANSFORMATION ROADMAP

2015-25

The Importance and Nature of Customer Orientation

energy networks association

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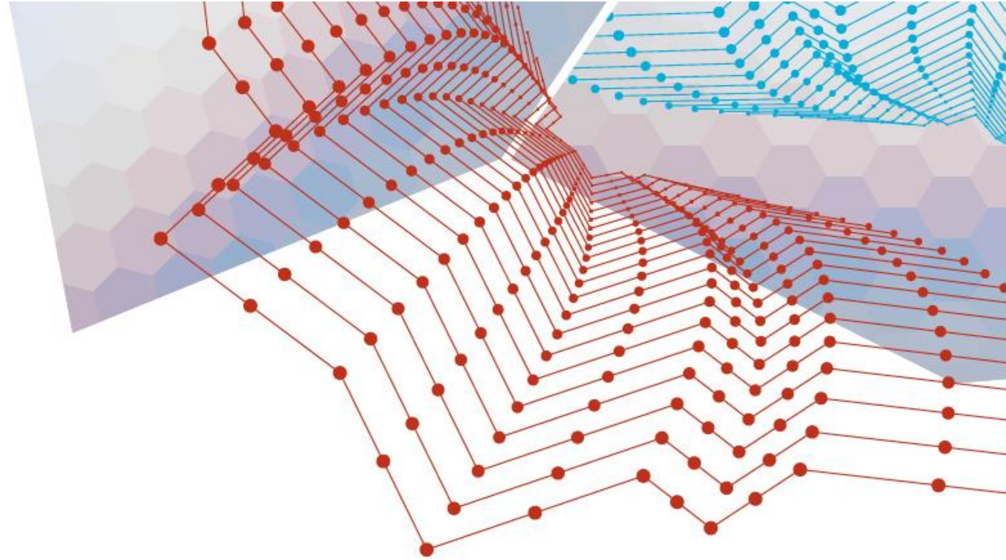
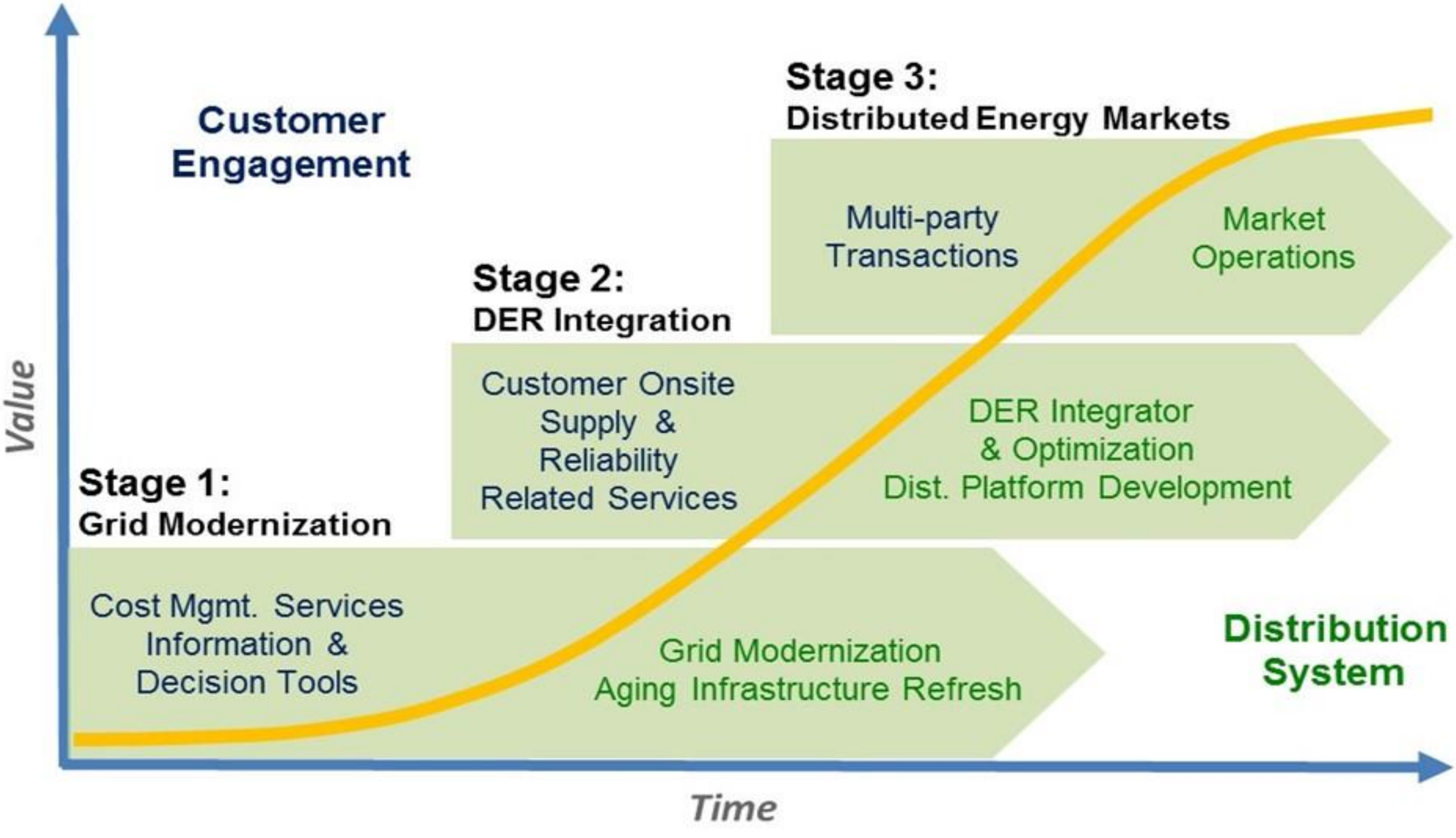


Why Customer Orientation is Important

A shift towards enhanced customer **choice, control** and **empowerment** is being driven by:

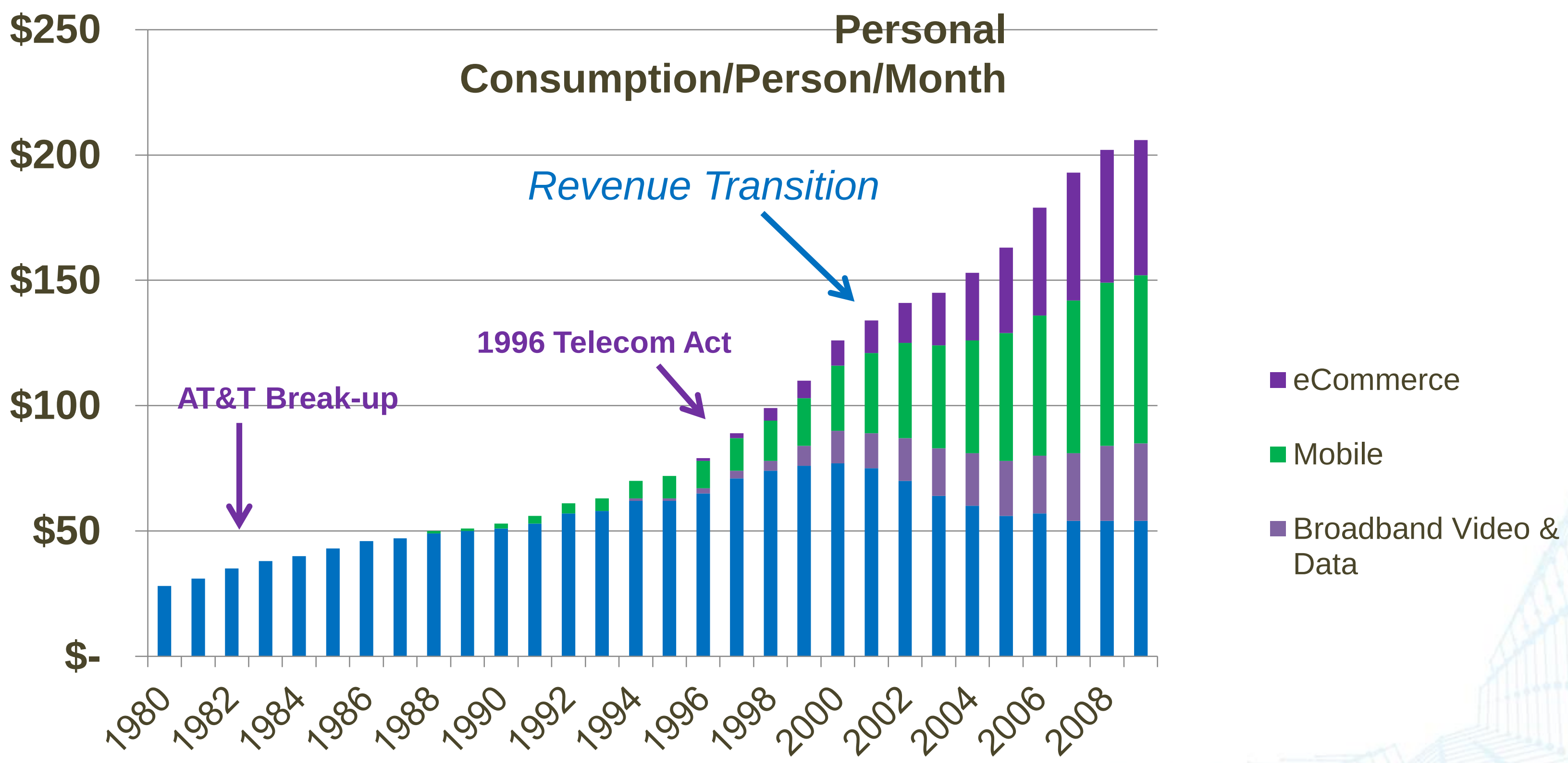
- Customers embracing **DER** to achieve a range of cost, independence, reliability, & environmental goals
- **New Products and Services** offered by emerging energy service providers, some that promise total ‘product substitution’.
- **Digitalisation** is increasing customer access to information & choice
- An increasing number of customers demand more from the grid, seeking greater **integration and interconnection** of information & DER
- Edge-of-grid capabilities enable the **multi-directional flows of power and information** enabling customers to play a greater role in the system.

A transitionary evolution to a Customer-centric Integrated Network (De Martini)



US Telecom Industry Transition Example (De Martini)

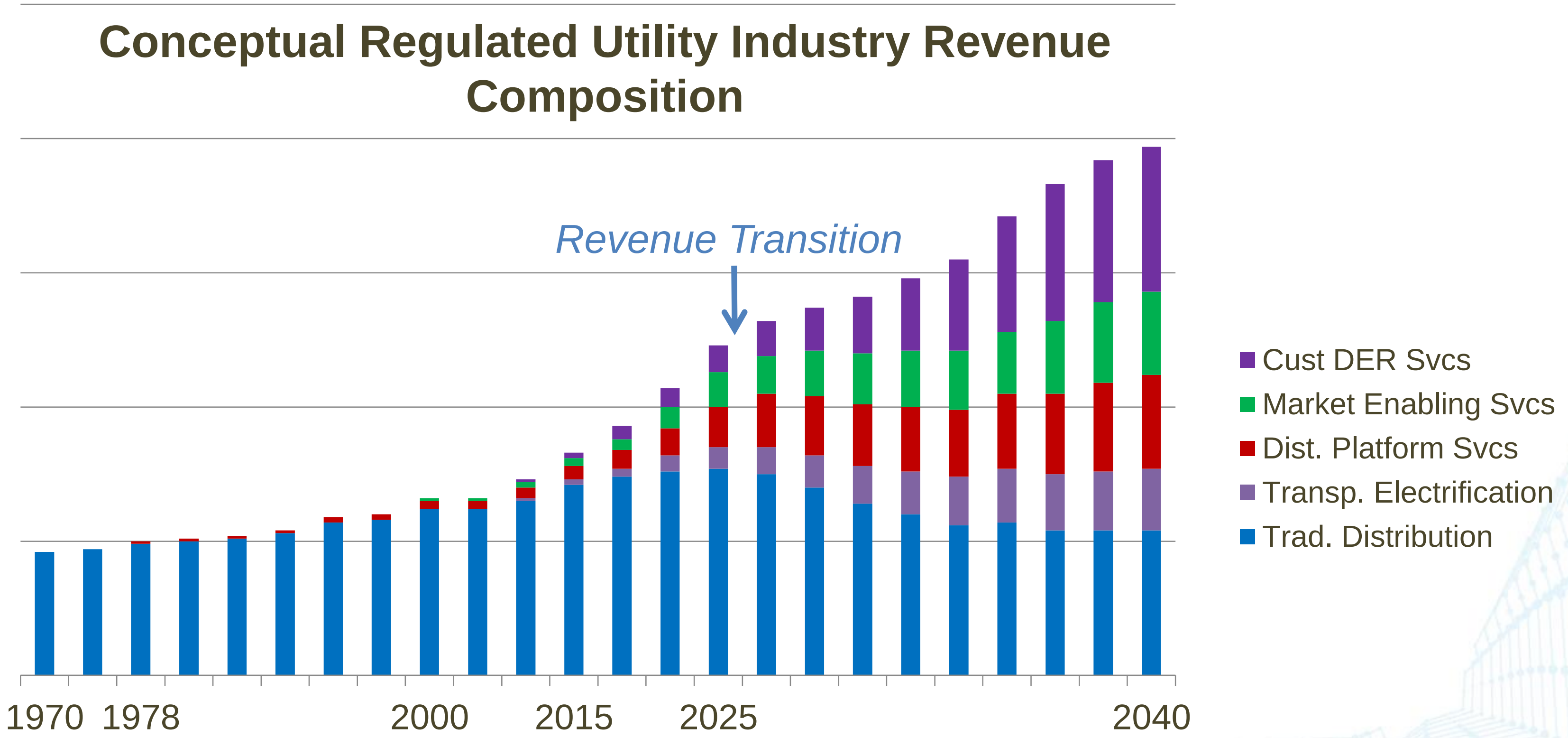
Telecom **revenue growth** from new services **leveraging modern broadband** fiber and mobile platforms **and market partnerships**



Sources: FCC, Industry Analysis and Technology Division Wireline Competition Bureau, Sept. 2010
US Census Bureau Retail eCommerce Revenue data used to estimate per adult monthly spend

US Electric Utility Industry Hypothetical

Question is how **utilities may be allowed to participate** in the **new revenue streams** that are being created **in a more distributed future**

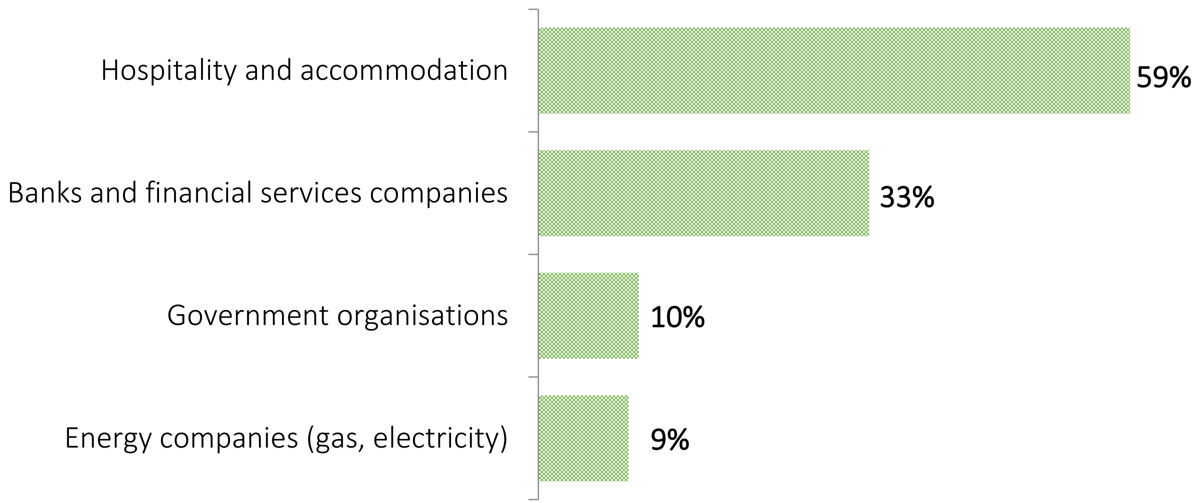


customer perception of utilities

Rebuilding trust and reputation enables an easier transition to new business models with new products and services

When Fairfax Review Business Intelligence and Accenture surveyed 699 Australians in 2014 about how satisfied they are with the customer service provided by a range of different sectors, energy utilities ranked worst and were in a similar territory to the telecommunications sector. The sobering evidence was that only nine per cent of respondents ranked energy companies either first or second when it came to delivering ‘excellent’ customer service.

Industries providing the best level of customer service



The same report also asked customers how much they trust various industry sectors and utilities scored just higher than government organisations. The report did indicate that trust levels are improving but also recognised that customers only deal with utilities on average 12 minutes per year and more than half have not interacted in the part year.

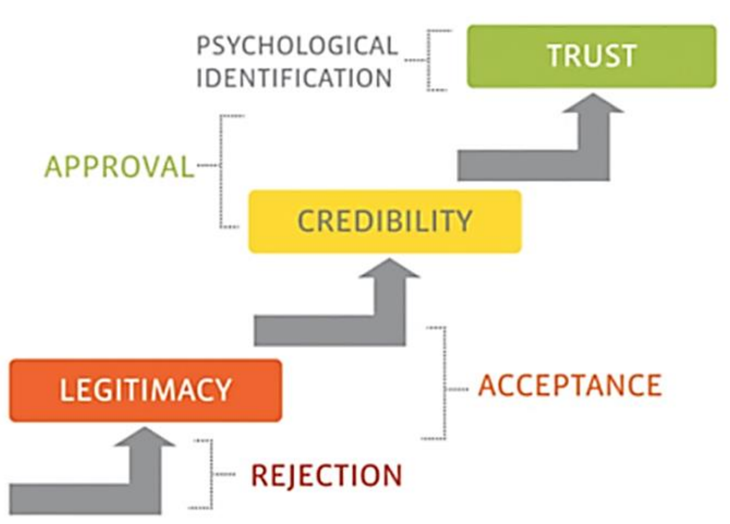
Ref The Balance of Power: Why Australian Utilities Need to Defend, Delight and Disrupt – Accenture

social license to operate (SLO)

The social license to operate (SLO) is the level of acceptance or approval continually granted to an organisation's operations by local community and other stakeholders

‘Social license’ originated in the mining industry about 15 years ago and today it is being used by many industries as they strive to improve their acceptance in the community. Interestingly it is often referred to by media businesses when industries don’t meet a trust level defined by moral standards. For example, the coal seam gas industry have had their social license under the spotlight in the last two years.

According to Robert Boutilier and Ian Thomson SLO consists of 4 levels as illustrated below



Difference between the social license and reputation?

The *social license* is a perception of legitimacy - do we do it the right way? *Reputation* is the overall favorability of the image of a company or project. Think of reputation as more ‘affective’; it’s more of an emotional like and dislike.

why is a social license to operate (SLO) important *...continue*

There are some pertinent universal truths for the utility industry. Customers don't like you.

They feel powerless against the mighty utility which almost always holds the whip hand: they decide the price and customers have to stump up. They feel they have no real choice about this; it's certainly true this is an industry whose participants offer, at base, undifferentiated products.

In simple terms, customer behaviour in different nations boils down to the level of energy liberalisation/deregulation, market mechanisms and how smart are the utilities. In those countries with state-run command and control energy systems, customer behaviour simply doesn't matter as long as supply meets demand.

Customers want to feel in control and they have to feel rewards through their own direct experimentation. Feedback is vital, but it need not be complex. Devices like the simple rate clock fridge magnets trailed in Ireland are good for time-of-use tariffs.

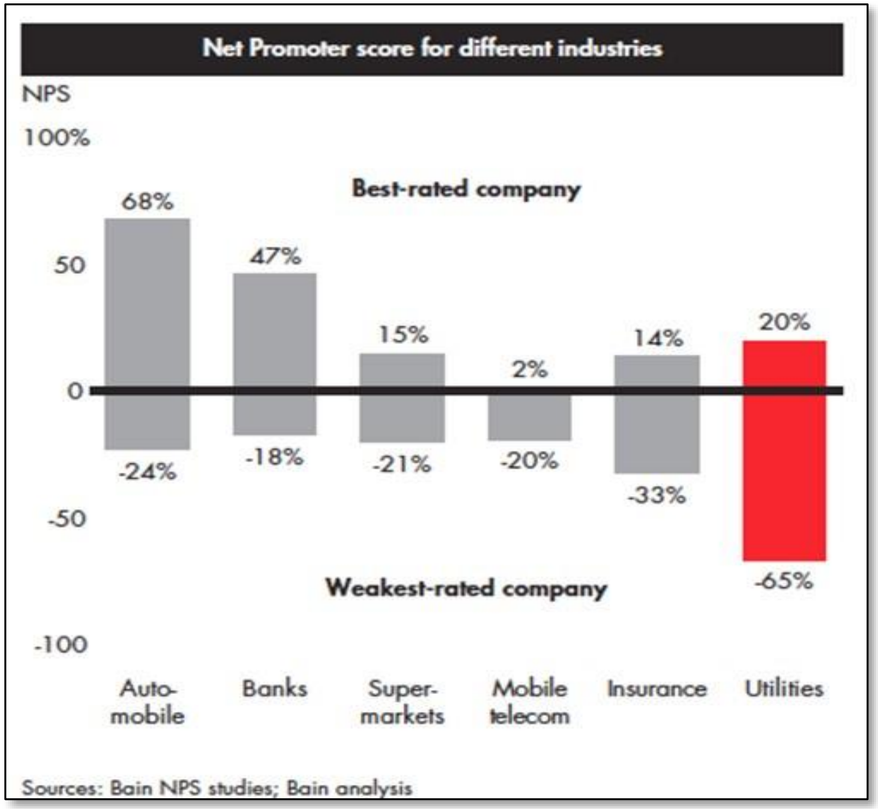
In the longer term, utilities will need to show some ankle if customer psychology is to be transformed from borderline hate to love.

What utilities think	Ben van Gils, Ernst & Young's global leader for power and utilities, said *it's not about products, it's about the relationship*. "In our experience, utilities tend to think they are not successful because they haven't introduced the right product.
Customer perception	In reality, the negative perceptions that Customers have of energy providers has resulted in limited permission for energy providers to stretch into new products and services.
Effect	"This lack of permission creates a huge obstacle for utilities, and minimises the chances that any product, regardless of how good it is, will be taken up by customers. The quality of Customers' experience with utilities must be improved before the relationship can stretch any further.
Solution	Essentially, Customers want a voice; they want to be listened to and treated as an individual. Brands and companies that can offer this are the ones that earn their trust and loyalty.
Take-away	Customers need to feel the love wherever they may be.

Ref; http://www.intelligentutility.com/article/14/05/customer-dislike-utilities-universal-can-change

NSP Challenge: Customer Trust & Loyalty

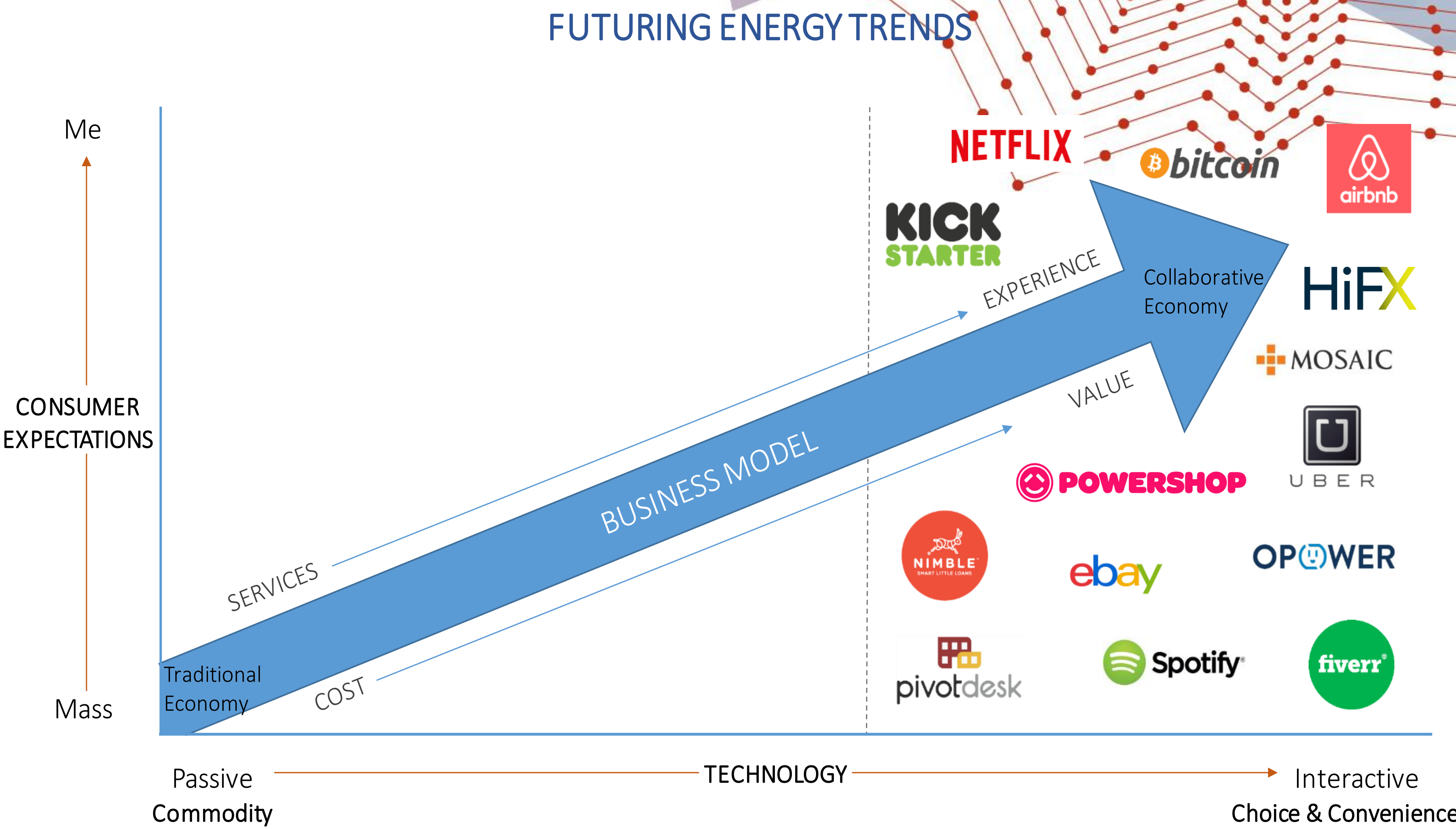
Accenture customer survey: “just **24 percent of consumers trust their utility** to **inform them of actions** they can take **to optimize energy consumption**”



Customer loyalty is important given the increasingly wide range of options including grid defection

NEWPORT CONSULTING GROUP

Future Consumer Trends: Expectation Economy



Source: Rosemary Sinclair - Energy Consumers Association

Customer Engagement Evolution

Customer engagement enabling greater **customer control** through information and choices, providing **operational/market context** for customers, **collaboratively interacting with customers**, and seeking opportunities to **co-create value**

Customer In Control	Customer/Grid In Context	Customer Collaboration	Customer Co-creation
			
Energy & Market Information Access	Geospatial Situational Intelligence	Interactive Social Business Networks	DER as System/Network Resource

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Question?

Will deep customer orientation be as essential for the future of electricity networks as for these? Why / Why not?

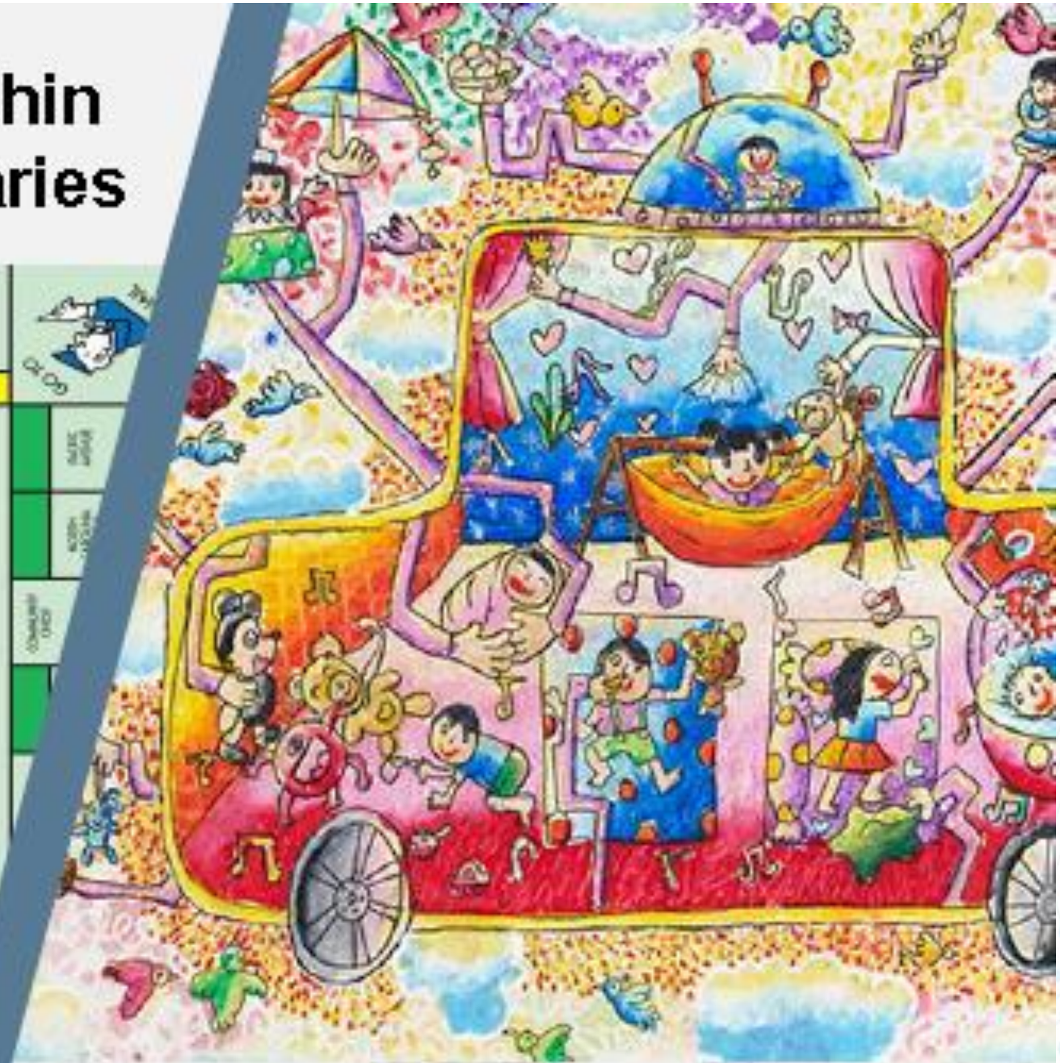
Incumbents & Insurgents

Mark Cashion

Palladium
Executing Strategy


Your traditional source of
competitive advantage is eroding
This is a tale of incumbents vs. insurgents

Incumbents operate within defined industry boundaries



Insurgents INVENT new boundaries


Incumbents innovate products & processes
Insurgents innovate experiences & interactions

Incumbents are organised to deliver FUNCTIONAL EFFICIENCY

Insurgents are organised to be close to their CUSTOMER

Incumbents improve existing touch points

Insurgents create new touch points

Incumbents are (often) vertically integrated

Insurgents exist in open and networked ECOSYSTEMS

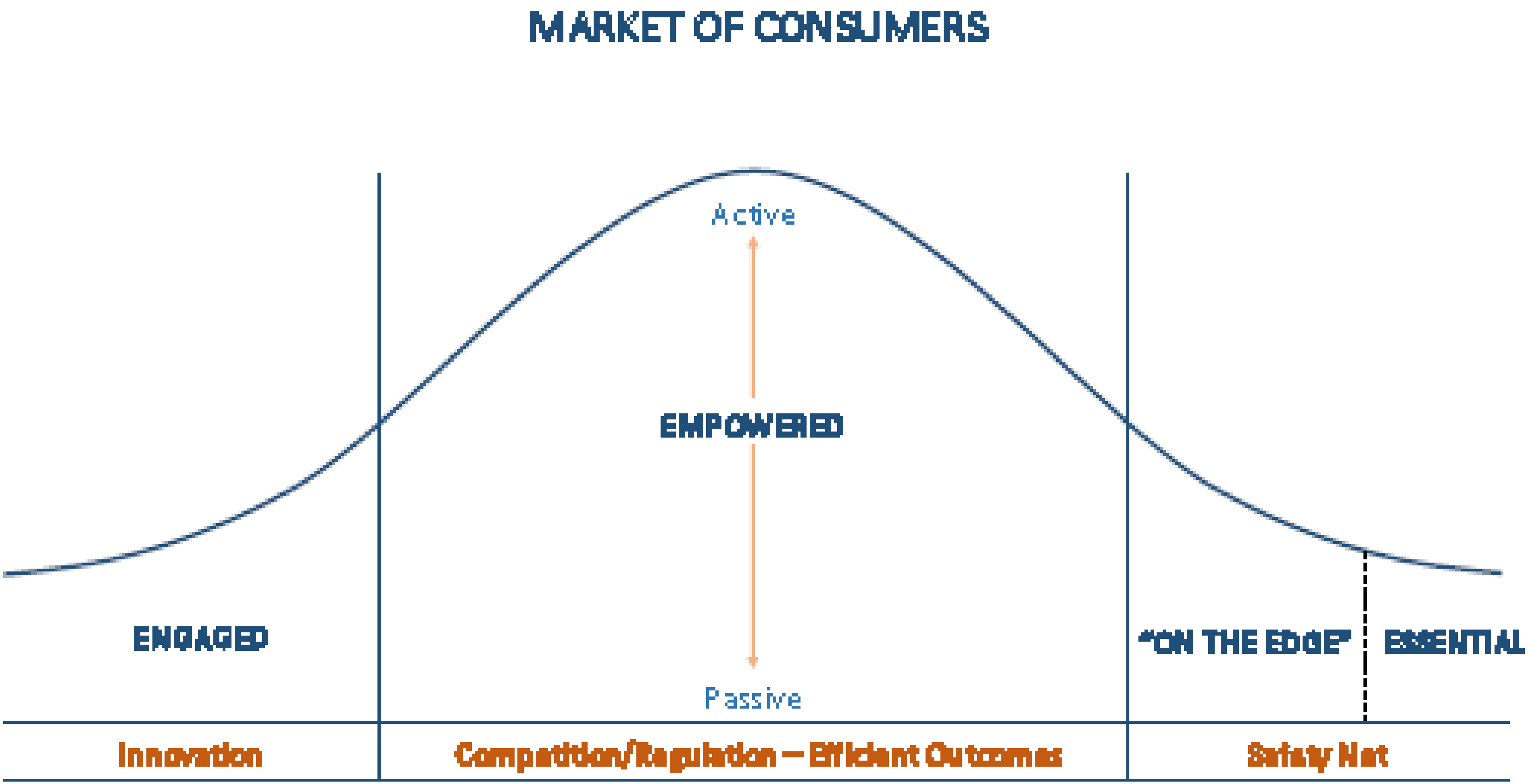

Can an incumbent become an insurgent?

LEGO®

Where do we start?

1. Start with your customers… not your products
2. Solve a different problem than your competition – solve your customers problems
3. Re-define your ecosystem *(not just your industry)*
4. Open & transform your business model

Energy Market Consumer Segmentation*



*Adapted from Framework presented by Rosemary Sinclair – Energy Consumer Association

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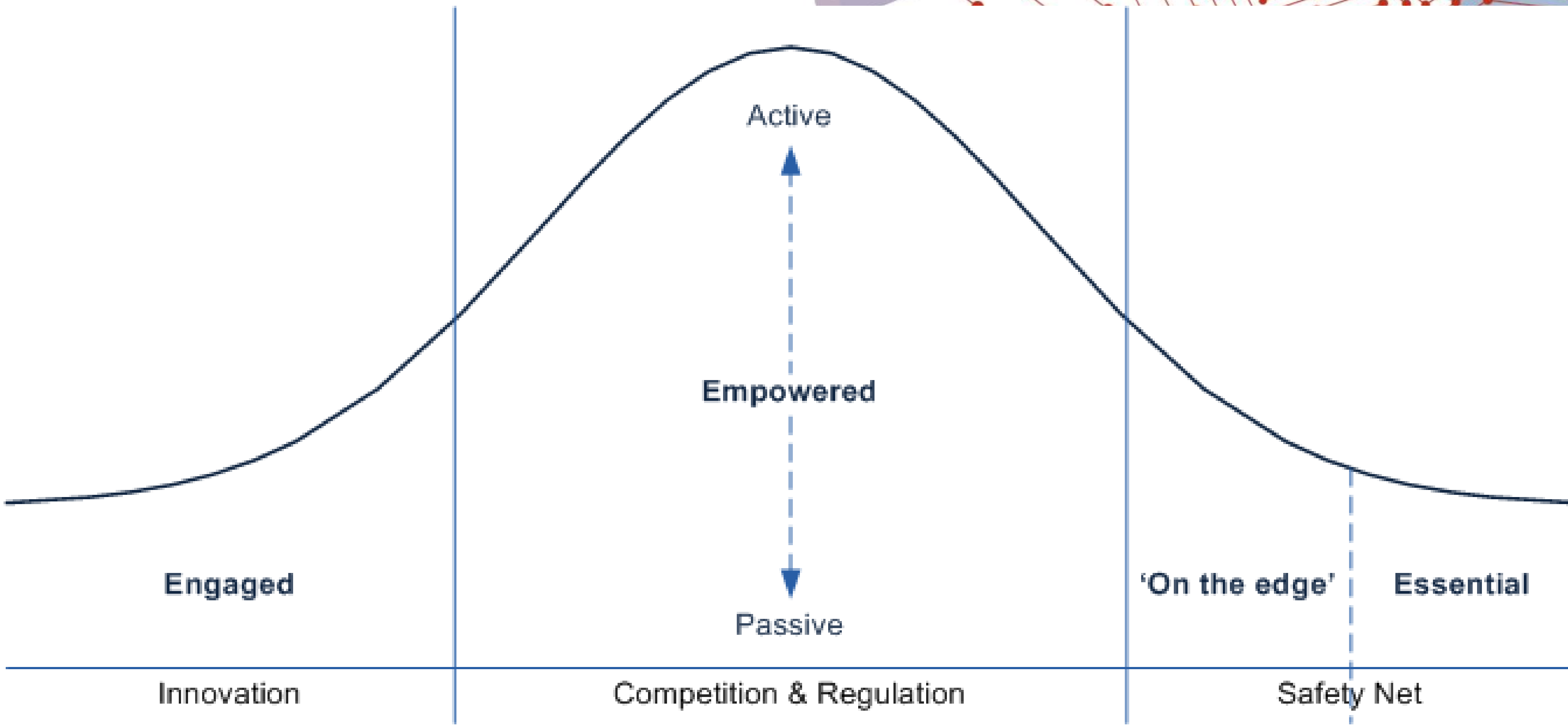

Engaged		Active	Passive	Vulnerable
Leave the Grid	Tech Focused	Hands On	Be my agent	Service Dependent

End-Consumer Segmentation

Engaged		Active	Passive	Vulnerable
Leave the Grid	Tech Focused	Hands On	Be my agent	Service Dependent
Autonomy: desire to be independent & in control (regardless of cost)	Highly active: affinity with technology and high desire to be in control (largely regardless of cost)	Active: pushes for more information and options to reduce cost and enhance levels of control. (Control to achieve Cost saving is important)	Passive: desires ease & convenience from energy services, reduced cost and some access to data/information. (Will invest in cost saving measures if easy). A portion don't mind cost as long as convenient	Dependent: needs affordable network services

End-Consumer Segmentation

- **Large Commercial**
- **Small to Medium Enterprises**

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2015-25

Morning Tea

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ELECTRICITY NETWORK TRANSFORMATION ROADMAP

2015-25

Who are Customers of the Future and what will they value?

energy networks association

“People don’t want to buy a quarter inch drill, they want a quarter inch hole”.

Ted Levitt

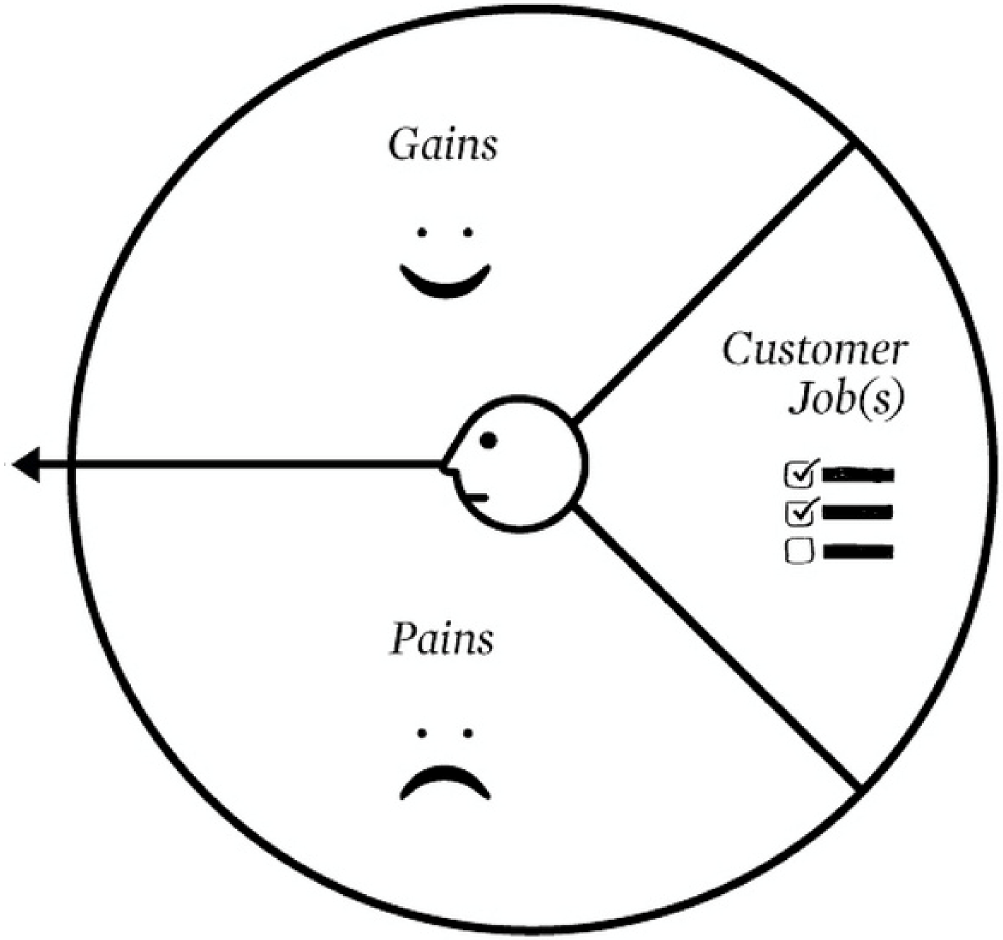
Why ‘Jobs to be Done’

- ‘Quid pro quo’ demands we understand ***who*** and ***why*** deeply
- 30,000 new consumer products are launched each year but over 90% of them fail!
- Clustering or ‘segmenting’ mass market customers by demographics gives little insight about their real drivers and foreseeing future customer needs.
- You can build the best solution to solve the wrong problem (that some or many of your customers simply don’t or no longer value)

Jobs to be Done

- In other words, the job, not the customer, is the fundamental unit of analysis for a marketer who hopes to develop products that customers will buy.

Customer Profile Analysis



Value Proposition Canvas - customer profile (Osterwalder et al)

Applying 'jobs to be done methodology'

1. Review literature on what jobs future customers will need to be done

Future Grid Forum

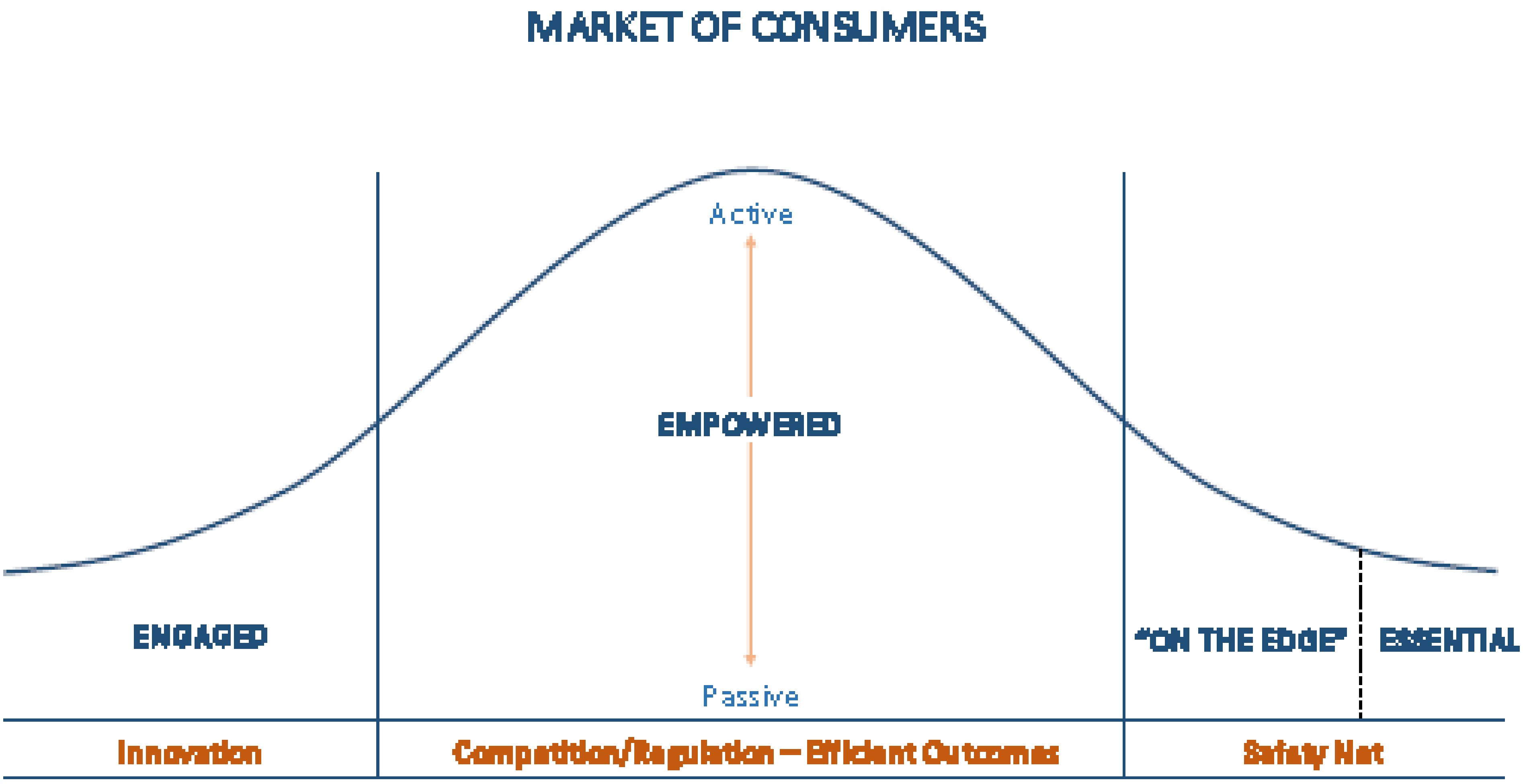
DNV/GL, Accenture, PWC

RMI, De Martini, McKinsey

2. Synthesise features into consistent themes

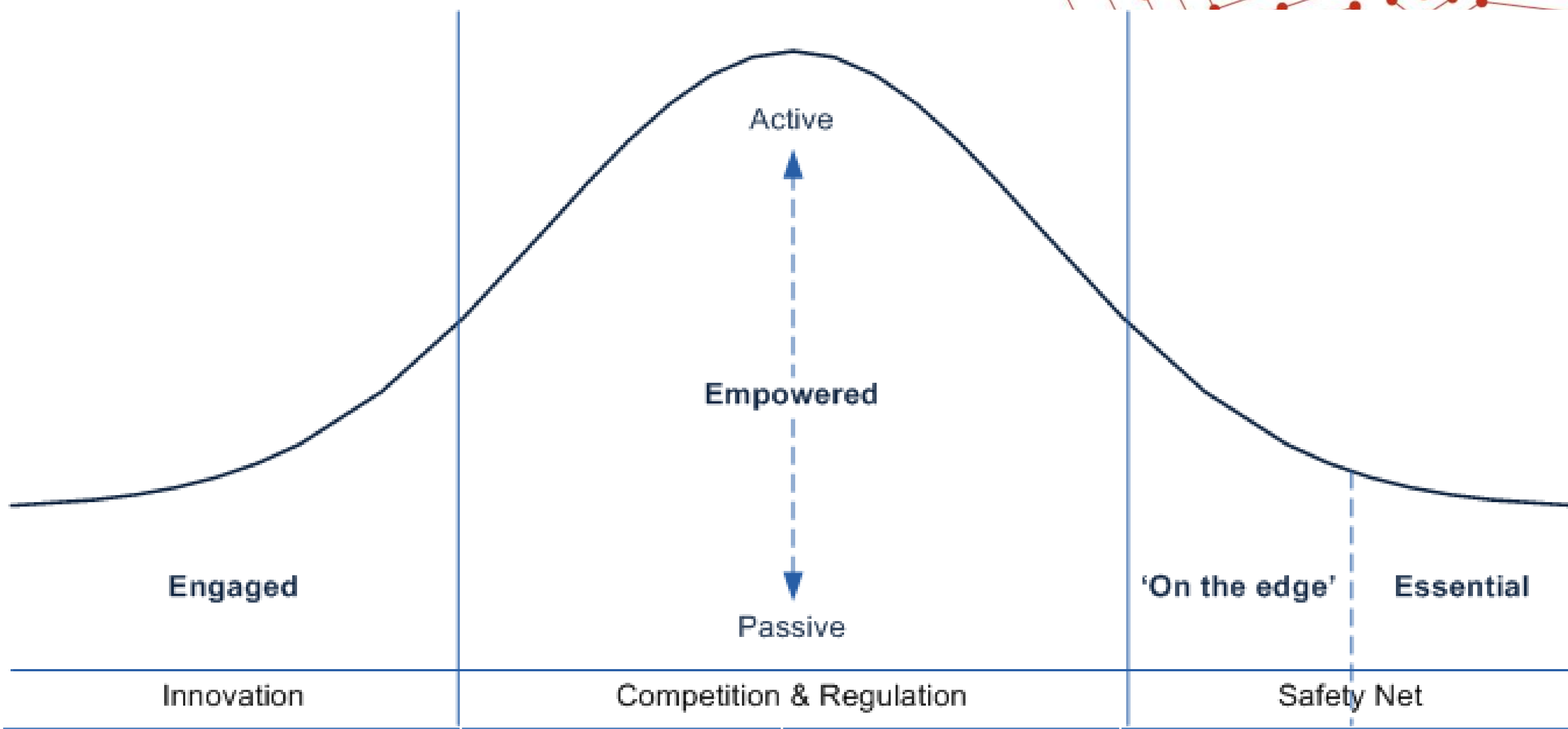
3. Produce Summary Groups for Jobs to be done analysis

Energy Market Consumer Segmentation*



*Using Framework presented by Rosemary Sinclair – Energy Consumer Association

Energy Market Consumer Segmentation*



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Applying ‘jobs to be done methodology’ cont…

3. Summary groups for ‘jobs to be done’

4. Compare against key characteristics of customer values

5. Identify key values / jobs to be done

Customer Characteristics for ‘jobs to be done’:

After reviewing literature, the following list was summarised:

Functional

- Bill savings
- Security / privacy
- Control
- Comfort
- Convenience
- Technology savvy (technology attractiveness)
- Access to bundled / ancillary services / layering of services
- Ease of use/ simplicity / effort required (reduce complexity)
- Customisation / personalisation
- Integration with other systems (automation)
- Ability to interact with Grid / Market

Social

- Prestige

Emotional

- Environment / Green apperance
- Autonomy / degree of control

Compare Customer groups against Customer Characteristics

	Service Dependent	Be my agent	Hands on	Tech Focused	Leave the Grid
Functional					
Bill savings	Vulnerable	High	High	Moderate - High	Low
Security / privacy	Moderate	Moderate	Moderate	High	Very high
Control	Low	Low	Moderate	High	Very high
Comfort	Low	Moderate	High	Moderate - High	Low – moderate
Convenience	High	High	Medium	Low – Moderate	Low
New technology savvy (technology attractiveness)	Low	Low	Moderate	High	Very high
Access to bundled / ancillary services / layering of services	Low	Low	Some	High	High
Ease of use/ simplicity / effort required (reduce complexity)	High	High	Moderate – med	Low	Low
Customisation / personalisation	Low	Low	Moderate	High	Very high
Integration with other systems (automation)	Low	Low	Some	High	Moderate – (none)
Ability to interact with Grid / Market	Limited	Low	Med – high	High – (none)	(None)
Dependence on the grid	Very high	High	Integrated to buy & sell	Some to maximize value	None
Social					
Prestige	Low	Low	Low – moderate	High	High
Emotional					
Environment / Green appearance	Low	Low	Some	High	Very High
Autonomy / degree of control	Low	Low	Moderate	High	Very high

Customer Re-orientation Workshop Work Groups

31st August 2015

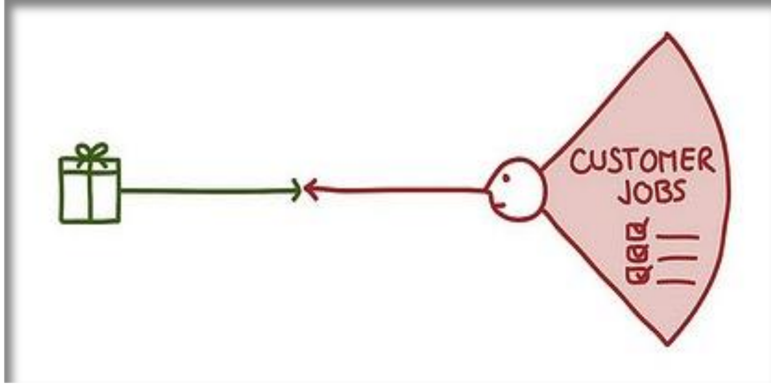
The Palladium Group Asia Pacific
Level 20, 44 Market St, Sydney NSW 2000
(02) 8259.1010
www.thepalladiumgroup.com

Palladium
Executing Strategy

Draft Work-group Exercise #1

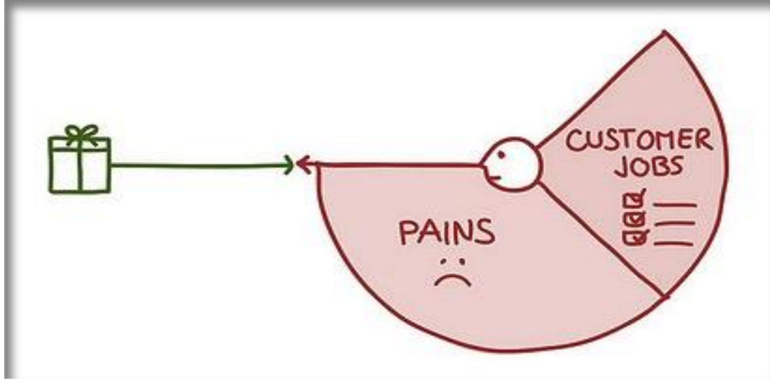
- Break into working groups
- Review customer segment
- Discuss and list potential “Pains”, “Gains” and “Jobs to be Done”
- Think as broadly as possible – do not restrain yourselves to 2015 – we are thinking about 2025
- Resist the urge to “solve” the equation… we want to identify issues and opportunities – not solutions (at this stage)
- Present your interesting findings / key themes from your working group

Customer Jobs – guiding questions



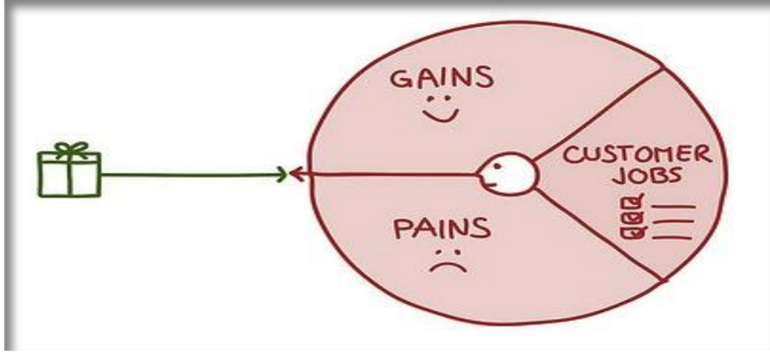
- What functional jobs is your customer trying get done? (e.g. perform or complete a specific task, solve a specific problem, ...)
- What social jobs is your customer trying to get done? (e.g. trying to look good, gain power or status, ...)
- What emotional jobs is your customer trying get done? (e.g. esthetics, feel good, security, ...)
- What basic needs is your customer trying to satisfy? (e.g. communication, shelter, safety & security, ...)

Customer Pains – guiding questions



- What does your customer find too costly? (e.g. takes a lot of time, costs too much money, requires substantial efforts, ...)
- What makes your customer feel bad?(e.g. frustrations, annoyances, things that give them a headache, ...)
- How are current solutions underperforming for your customer? (e.g. lack of features, performance, malfunctioning, ...)
- What are the main difficulties and challenges your customer encounters? (e.g. understanding how things work, difficulties getting things done, resistance, ...)
- What negative social consequences does your customer encounter or fear? (e.g. loss of face, power, trust, or status, ...)
- What risks does your customer fear? (e.g. financial, social, technical risks, or what could go awfully wrong, ...)
- What's keeping your customer awake at night? (e.g. big issues, concerns, worries, ...)
- What common mistakes does your customer make? (e.g. usage mistakes, ...)
- What barriers are keeping your customer from adopting solutions? (e.g. upfront investment costs, learning curve, resistance to change, ...)

Customer Gains – guiding questions



- Which savings would make your customer happy? (e.g. in terms of time, money and effort, ...)
- What outcomes does your customer expect and what would go beyond his/her expectations? (e.g. quality level, more of something, less of something, ...)
- How do current solutions delight your customer? (e.g. specific features, performance, quality, ...)
- What would make your customer's job or life easier? (e.g. flatter learning curve, more services, lower cost of ownership, ...)
- What positive social consequences does your customer desire? (e.g. makes them look good, increase in power, status, ...)
- What are customers looking for? (e.g. good design, guarantees, specific or more features, ...)
- What do customers dream about? (e.g. big achievements, big reliefs, ...)
- How does your customer measure success and failure? (e.g. performance, cost, ...)
- What would increase the likelihood of adopting a solution? (e.g. lower cost, less investments, lower risk, better quality, performance, design, ...)

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2015-25

Lunch

energy networks association

CSIRO

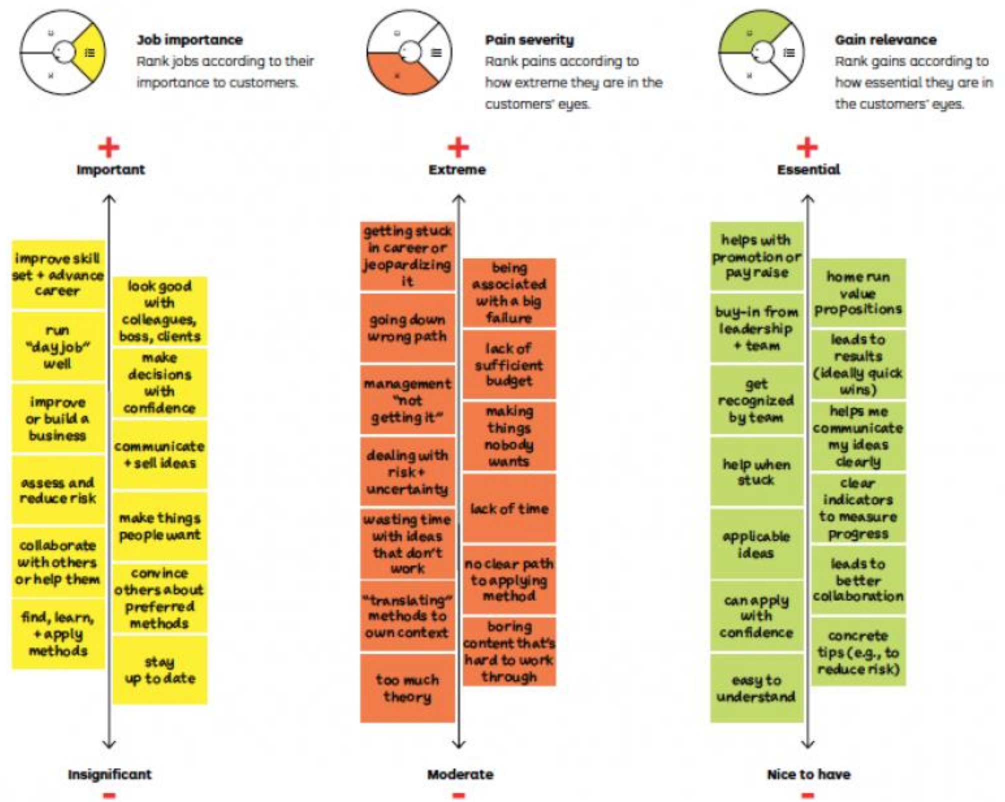
Draft Work-group Exercise #2

- Break into working groups
- Review work from exercise #1
- Conduct an initial ranking to identify a shortlist of the most critical “jobs”, “pains”, and “gains”
  - Apply prioritisation criteria to full list
  - Apply critically to enable a refined short list to be determined
  - Try to limit to 5-10 for each category
- If first cut is still >10, then re-prioritise shortlist comparatively against the reduced set
  - Re-prioritise from most to least critical for presentation to the wider group

Existing model lacks clarity for our workshop

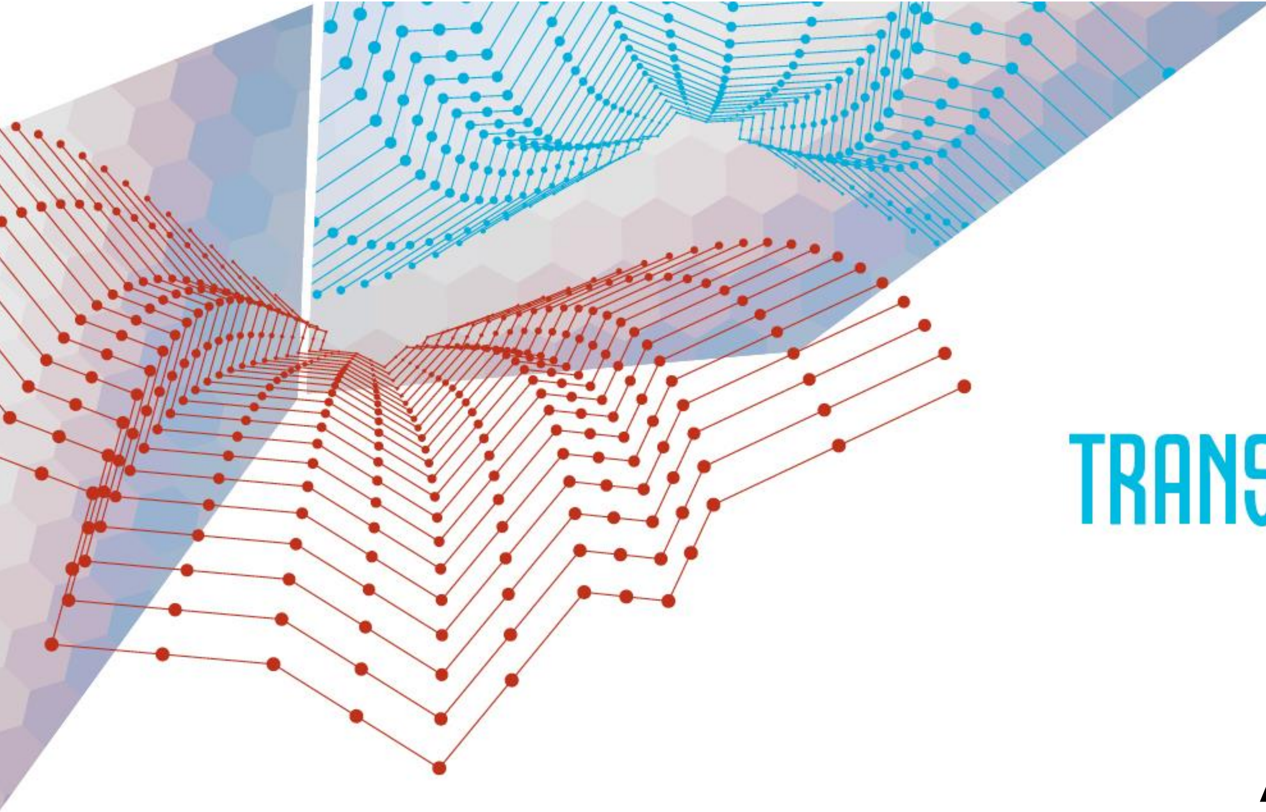
I don’t think that applying this prioritisation model exactly as it is will enable the groups to work efficiently

I propose that we simplify the “ranking” criteria to make it more clear and easier for the teams to navigate



Revised Ranking Model

	Job Importance	Pain Severity	Gain Relevance
+	important	extreme	essential
5	critical to personal livelihood / organisation success	intense pain causing significant discomfort / negative impact	dramatically improved utility / value creation (potential)
3	moderate impact on "job" quality of delivery	moderately sever pain, but not a deal breaker	moderate value improvement – but not a game changer
1	little to no impact on "job" on completion quality	very light – more annoyance than pain	little to no benefit improvement / gain
-	insignificant	moderate	nice to have



ELECTRICITY NETWORK TRANSFORMATION ROADMAP

2015-25

Afternoon Tea

A partnership between the ENA and CSIRO

ELECTRICITY NETWORK TRANSFORMATION ROADMAP

2015-25

Next Steps

energy networks association

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