# Fit to serve Entrepreneurship in the Energy Transition

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Operating Agent Annex Energy Services Supporting Business Models and Systems
Users TCP by the International Energy Agency

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# Energy Service supporting business models and systems

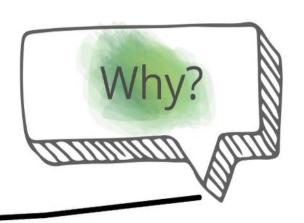


#### Synopsis

This Annex focuses on identifying measures and instruments that support the creation and uptake of user-centered energy services and new energy business models.



# But there is a slow market uptake of these innovations and business models





# We witness some successful business models: Service oriented ones...



(vargo & lusch, 2008)

## ...with the right capabilities:

(Janssen & Castaldi, 2008)



Sensing user needs, context & system



Scaling & stretching



Orchestration

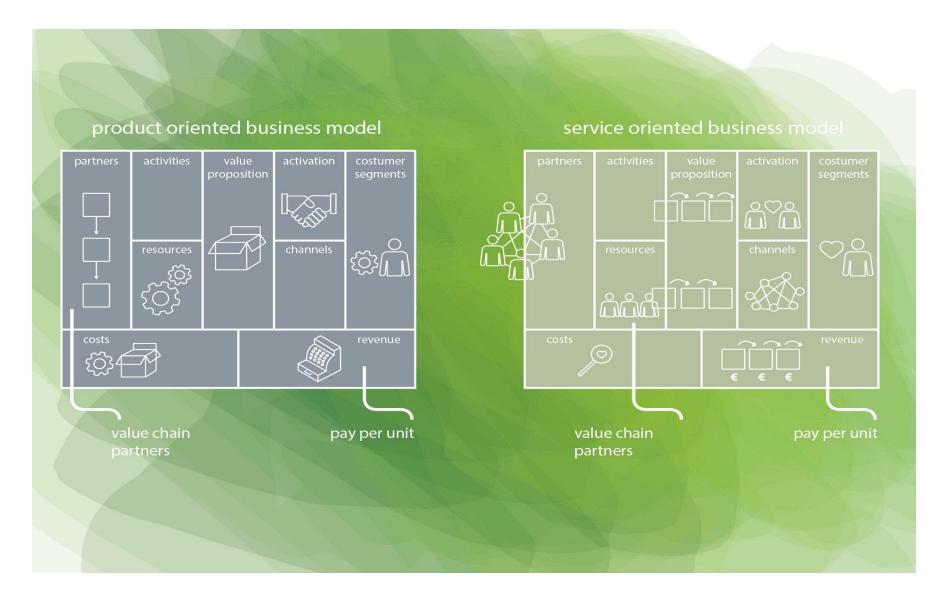


Conceptualising





## A service oriented business model





# However still many good service business models fail...

#### Microgrid Electricity Market Oper

Monash University is leader in setting radical energy targets, and recently it i 2030. As part of this, they are implementing a microgrid at the Clayton Camp (all electric), 2 EV charging stations, 1MW on-site electricity storage, a power

#### Partners

MEMO is partnering with a diverse group of strategic stakeholders, taking the experiment as a goal:

- · Indra (provider of active grid management control solution)
- · Australian Renewable Energy Agency
- · Department of Environment and, Land, Water and Planning
- · Victorian Government's Microgrid Demonstration Initiative
- · Research groups at Monash University

Future partnerships are with Network Operators, Retailers, Property Developers and Existing Aggregators.

#### Activities

- · Technological, market, customer and operational activities
- · Informing reforms and lobbying
- Research (e.g. into possible ownership model and impact on revenue)

- Multiple specialised employees
- Knowledge and research
- Energy usage data
- Market ready for uptake of MEMO
- · Strong lobby power

- · Operation of the microgrid
- Employee salaries

#### Sensing

Servitisation capabilities

Part of the project is to identify the customers and their needs, requiring sensing capabilities. On the other hand, since there are no current users, the actual capabilities remain to be seen.



#### Impact of system barriers

#### Complexity

Australia has a highly centralised and complex energy supply system and wholesale market with many regulations and laws that are hard to understand.



#### Irresponsibility



Vic

Responsibility for the energy supply system is very distributed among different authorities, microgrid policy remains largely undefined. This makes the introduction of MEMO challenging.



#### Uncertainty



There are many uncertainties in the system, for example in regulation, protocols, standards. valuation of flexibility. This makes scaling a challenge



#### Contestations



There are many contestations in terms of interpretation of microgrids and relevant policy. However, the state of Victoria works in favour of MEMO as it actively supports the initiative and gave room for it.





The system is not necessarily perceived as a technocratic block, but regulations make it hard to understand the market, which seems to act as one.

#### Capabilities to deal with system barriers



#### Collaboration

Collaboration has been established between several strategic partners, to experiment, and better understand the system and cocreate the system support needed.



#### Leadership



MEMO took up leadership "MEMO takes a role in a world where regulation comes later. There was no natural owner yet of this market operator role" (Tony Fullelove)



#### Anticipation & co-creation



Uncertainty was countered by anticipating on the need for a third-party operator to sell and trade the electricity.



#### Acknowledging differences



Universities such as Monash can actively play an intermediation role between stakeholders, needs, at different scales.



#### Unravelling the system

By interacting with the different players in the system, MEMO is able to understand what is missing in order for the market to be ready for a microgrid.

#### Conclusions

- The business model in itself is a transition, but as a community initiative, relying on volunteers, there is limited capacity to tackle system issues that hinder replication and scaling.
- This business model is built in response to several system failures such as lack of transparency, unfair electricity prices, peak black outs, lack of federal leadership.











In interviews we found many entrepreneurs experience the following barriers and pitfalls in running and scaling up their service business. These system failures slow down the transition to a green and inclusive energy sector:



complexity due to interconnectedness



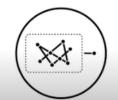
orchestrated irresponsibility



uncertain outcomes



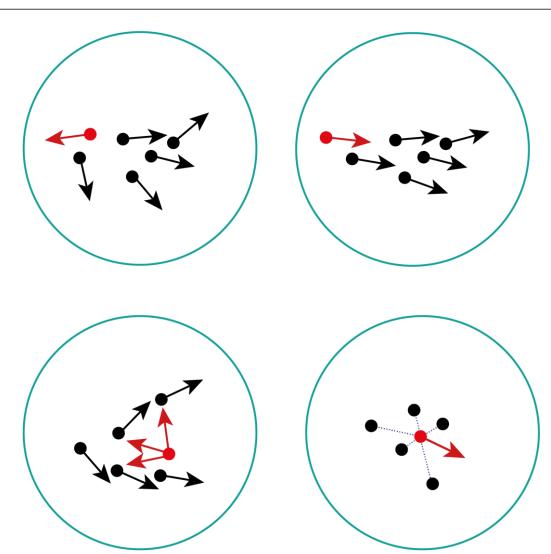
contestations

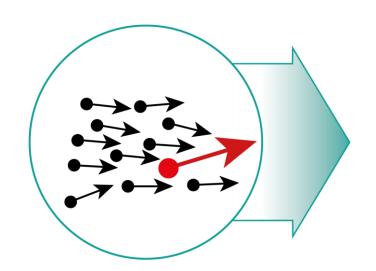


feels like a technocratic block



# From ignoring to following to reconfiguring the system







# **Insights**

### Institutional entrepreneurship ...



## ... requires additional capabilities:



Complexity



collaboratively
working towards the
creation of multiple
values to multiple
stakeholders



Irresponsibility



demonstrating leadership, orchestrating and fulfilling intermediary roles



Uncertainty



anticipating, negotiating and cocreating with various stakeholders, leading to flexible, iterative outcomes



Contestations



acknowledging the diversity and contestation of knowledge and conceptualising propositions that mediate or span across multiple interests



Technocracy



unraveling the system into individual actors with whom they establish a long-term relationship



Capability to do institutional work is based on a mix of **Entrepreneurial** elements Skills Institutional Intellectual **Expertise Entrepreneurial Experience** Institutional **Formal authority** Resources **Authorative** Informal authority **Discourses** Time **Economic** Agency by institutional entrepreneurs Money Informal **Social position Social network** Organizational Institutional

"the current energy transition market is too product-centered and needs to broaden its focus towards users, stakeholder values and human relations to increase or accelerate the uptake of energy solutions "



# Thank you!

### https://userstcp.org/annex/business-models-and-systems/

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