Riversimple

Innovation towards Business Model

Introduction to Innovation Management

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Outline of Assignment

To review the recent innovation history of Riversimple.

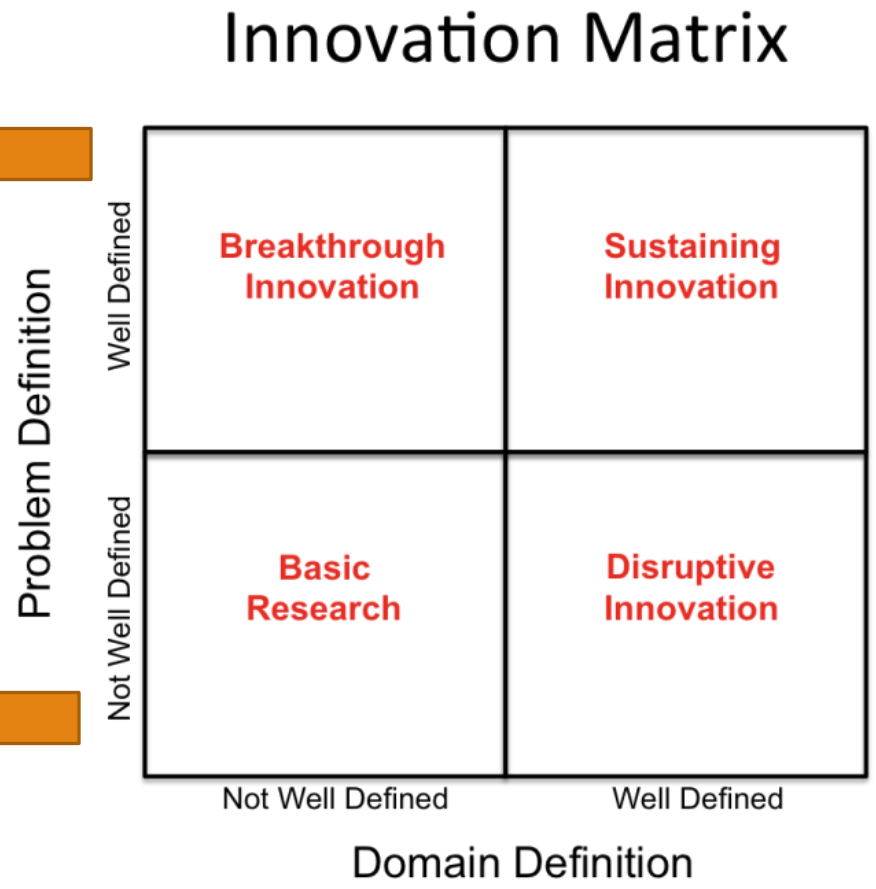
Categorise the innovation developments which have taken place in terms of Greg Satell's typology and analyse them in relation to:

1. The extent to which they have shifted the chosen company's market position.
2. The extent to which they have influenced the company's internal structures and management processes.
3. The extent to which they have been technology dependent – and if so, which technologies.
4. A consideration as to the outcome of the innovation.

Overview of Satell's Typology

Companies look at exploring unconventional skill domains and open collaboration between multi-disciplinary teams .

Companies executing research in the background, either in-house or by collaborating with R&D institutes



Companies look at improving existing capabilities in existing markets through R&D and acquisitions.

Companies look at changing their business model to meet the competitive shift in the market.

Who are Riversimple?

- Riversimple Movement Ltd - sustainable vehicle researcher and manufacturer
- Located in Powys, Wales
- Developing electric cars powered by hydrogen fuel cells rather than traditional fuels (FCEVs)
- Purpose – '*To pursue, systematically, the elimination of the environmental impact of personal transport.*'
- Riversimple will be implementing an open-source framework to encourage a faster and more collaborative elimination of environmental harm while also reducing the overall costs for all who implement the technology.

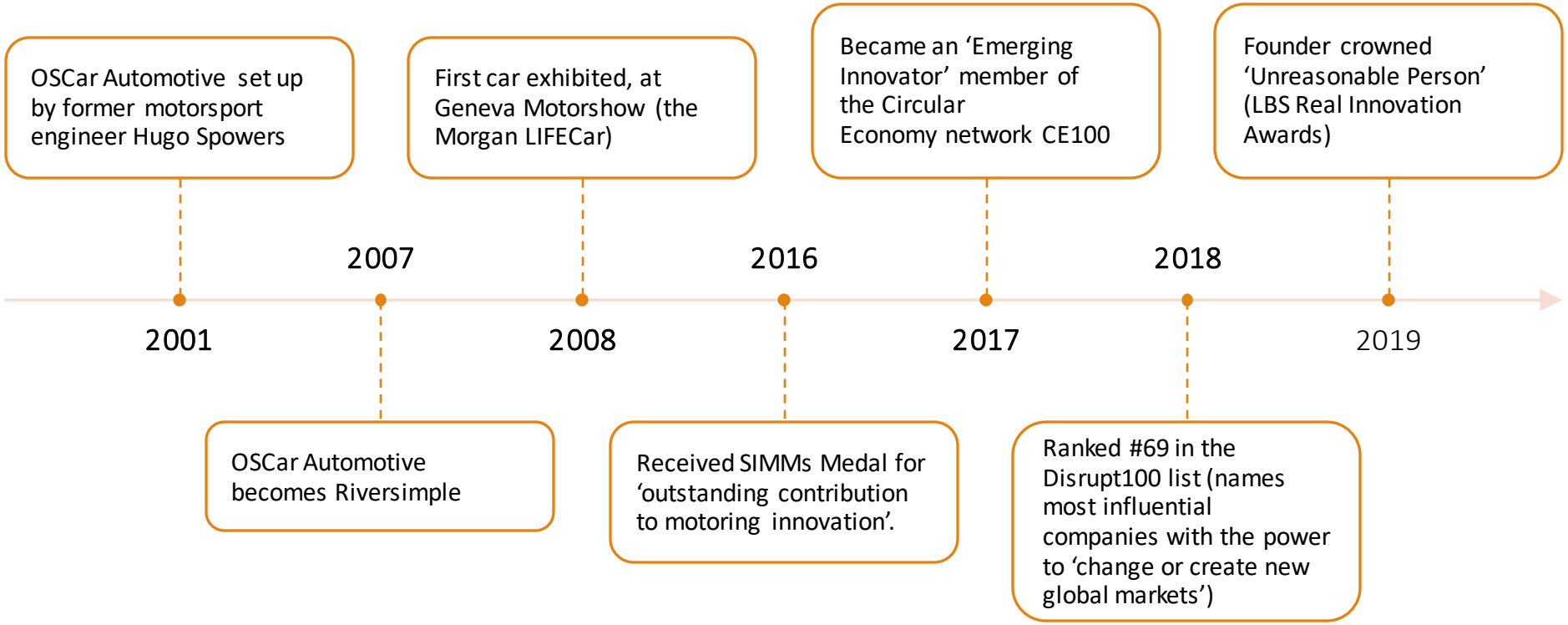
Riversimple Mission Statement

'aiming to offer customers affordable, hassle free, fun-to-drive hydrogen powered eco cars.'

- Developing sustainable, more environmentally-friendly vehicles
- Using hydrogen power rather than battery power
- Water emissions – greener than traditional vehicles
- Unusual 'sales' model – customers do not purchase the vehicles, they subscribe to them, with a monthly payment incorporating the vehicle use, fuel and insurance
- Recognize that sustainability/'going green' often requires significant investment, so aiming to 'make sustainability profitable'
- Still very much WiP – no vehicles ready for volume orders at present
- Benefitting from knowledge/skills/resources transfer by collaborating with major tech companies and initiatives inc. Siemens, MH:EK project, Arup, Catapult and Circular Revolution

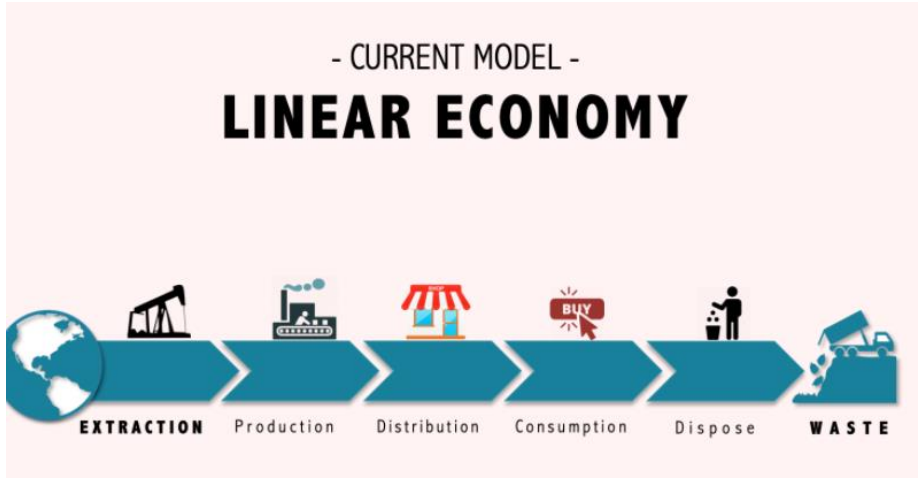
SOURCE 2: RIVERSIMPLE WEBSITE

Riversimple History

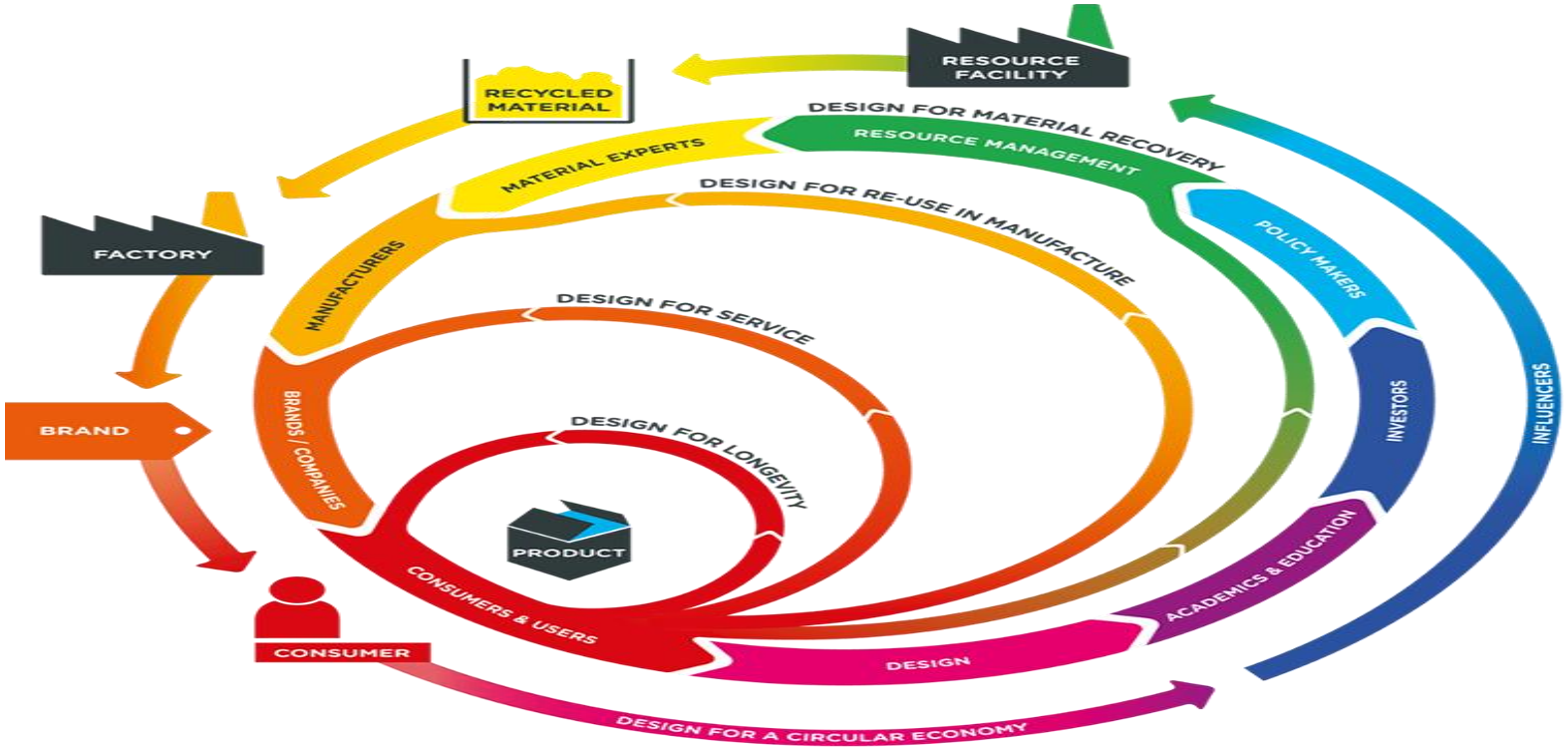


SOURCE 2: RIVERSIMPLE WEBSITE

Linear to Circular Economy - An innovative change in Business Model



Linear Economy



Circular Economy

Innovation in Riversimple

These are the multiple ways Riversimple have been innovative in design to align their business model to that of a Circular Economy:

Breakthrough Innovation

Combination of Hydrogen fuel Technology and Battery technology. Collaboration of disciplines and expertise that would not normally align.

Sustaining Innovation

Sourced engineers from Motorsport industry to design a new chassis and adapted their existing technical skills to design for lightness rather than speed.

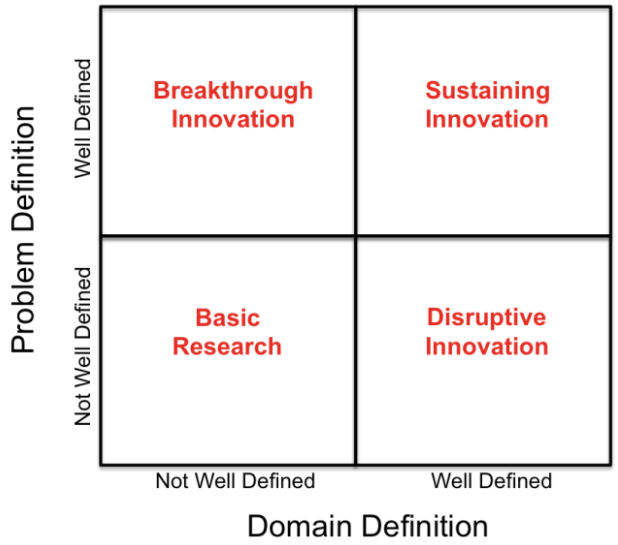
Basic Research

Using in house expertise to solve problems or outsource work to external partner with specific expertise.

Disruptive Innovation

Step change in business model to align with the circular economy

Innovation Matrix



Why is it disruptive?

The reasons as to why the business model is considered as disruptive innovation is due to:

- The service that Riversimple are providing to enable a low emission, sustainable car which is accessible for everyone.
- Users don't take ownership of the car.
- Return-on-Investment from two channels: short-term subscriptions and recyclable materials to be reused on future models.
- There are currently 3 other hydrogen powered cars that are mass produced however these are done so via a linear based manufacturing model

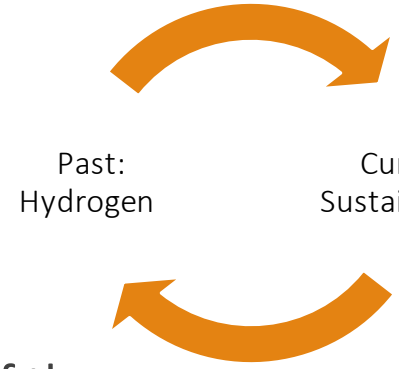
Disruptive Innovation

Step change in business model to align with the circular economy

Disruptive Innovation – Market Position

1) The extent to which they have shifted the chosen company's market position.

"Riversimple is a sustainable car company, not a hydrogen car company"



- A statement that allows a certain fluidity to the concept of Riversimple in terms of the markets which the company operates in.
- From a prototype to proving hydrogen fuel cell technology works to a commercial vehicle that is user focused whilst maintaining the business goal of being sustainable. Step change 2016.
- Riversimple are positioned within the clean energy car market, however they are in a unique position due to their focus on sustainability and their circular economy model.

Disruptive Innovation – Market Position

Original equipment manufacturer	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
BMW Group			25		15-25%					10
BAIC Group	2				1.3					50%
Changan Automobile (Group)					33					
Daimler		10			25%					50%
Dongfeng Motor Co	1	30%	1		1				1	1
FAW					40%					60%
Ford		40				100%*				
GM Group			22		30	1				1
Honda										40%T
Hyundai-Kia					1 29					
Mazda		1								5%
Renault-Nissan		20 20%								
Maruti Suzuki	1									1.5
SAIC					30%					30
Stellantis					38%* 31%**					70%* 35%**
Toyota Group	1				15					>1
Volkswagen			1		20% 3 75				26	70%* 50%**
Volvo (Geely Group)	1	1	1	1	50%					100%*

% of sales electric
Annual sales (million)
New EV models (number)
Cumulative sales (million)

* European market only
** Chinese and US markets only
T Includes both EVs and FCEVs

- Riversimple are yet to appear on any global clean energy sales tables.
- Their business model would mean that they would be 1 of only 3 companies with a target of 100% clean energy sales.

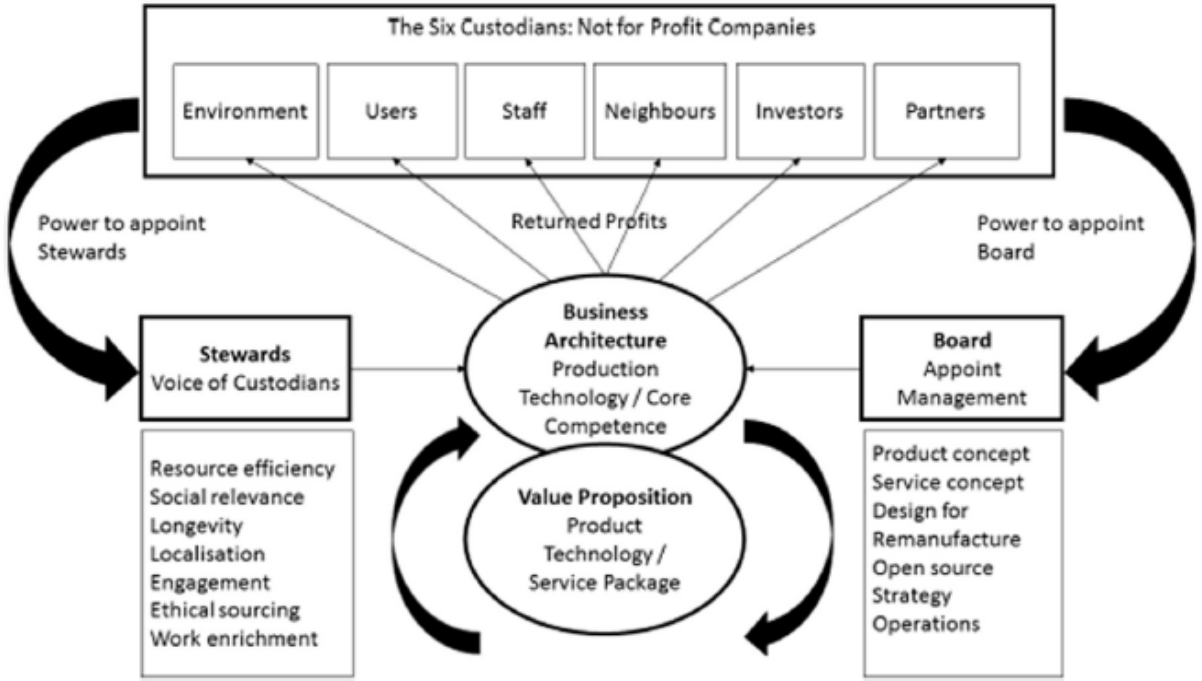
Disruptive Innovation – Internal Structures and Management Processes

2. The extent to which they have influenced the company's internal structures and management processes.

River Simple have structured the entire business such that the society has a stake in the business.

Key Points:

- Limited staff with expertise i.e. few vehicle engineers
- River Simple's design and technological choices and thinking are influenced by the six custodians.
- CEO has implemented a new culture where the staff could align their thinking with society by allowing them the freedom to engage with the six custodians.
- Open-source approach



Disruptive Innovation – Technologies

3. The extent to which they have been technology dependent – and if so, which technologies.

Mass decompounding is one of the major innovation gateways to making this product accessible to 'normal' consumers – it allows for a satisfactory vehicle range which makes this vehicle more accessible to commuters (I.e 'mainstream consumers') - This is the key to market success

1. Manufacturing technology

2. Material technology

3. Design technology

Disruptive Innovation – Conclusion

4. A consideration as to the outcome of the innovation.

- Difficult to measure the success of the innovation around the business model. However, recent investments are still currently being made by the Government which shows the level of interest and confidence in the business.
- From incorporating the feedback from six custodians, Riversimple have created a working product.
- Due to the business model opting for a service-based approach, Riversimple will face a lot of uncertainty and thus high risk by not testing the subscription model with the target market.
- Infrastructure is a limiting factor.

Thank you

Any Questions?

References

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