



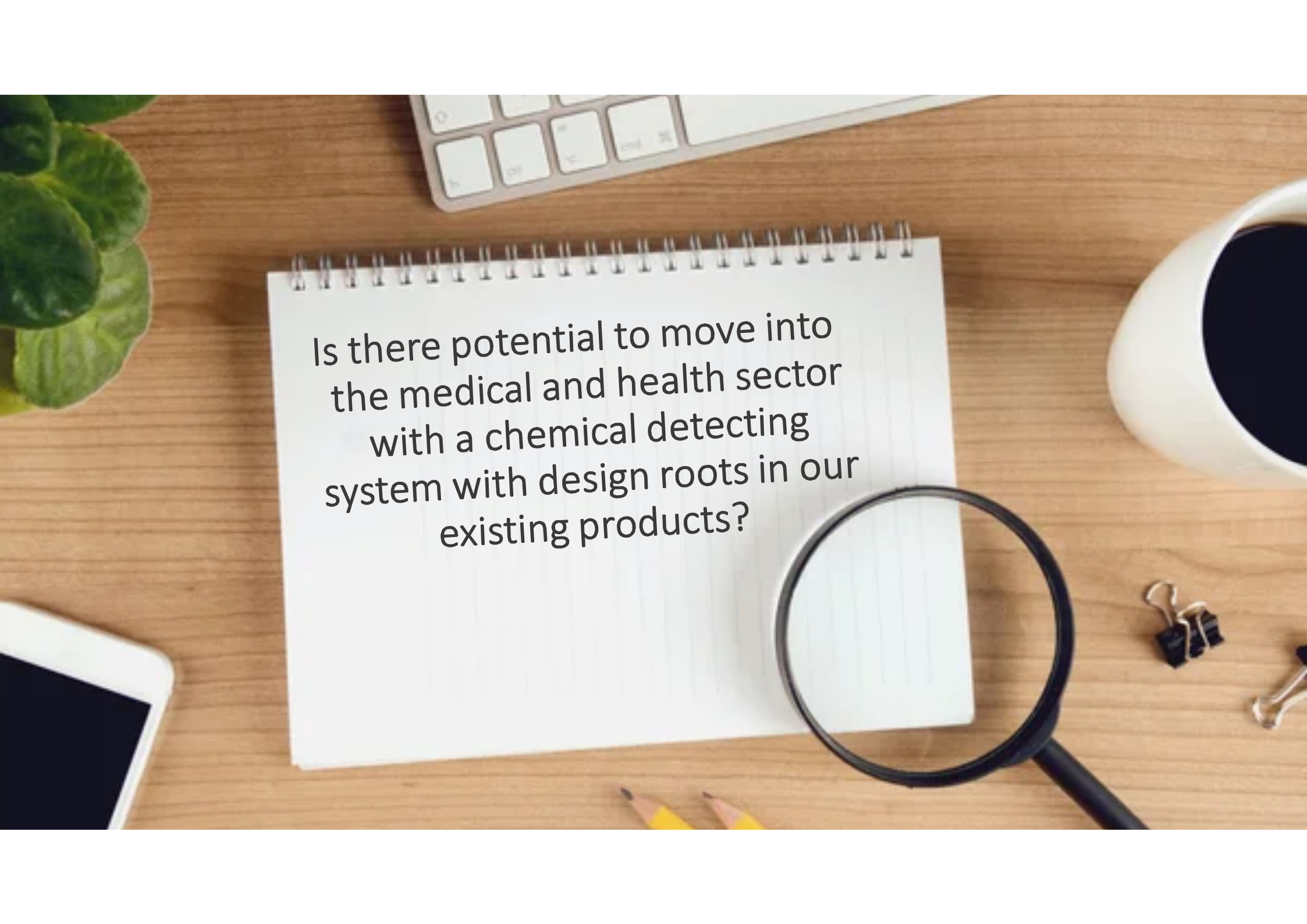
Managing New Product Development (ACPA7006) – Assessment A

Ebbw Group

Callum Cox (2220983)

Gerard Logan (2117371)

Andrew Martin (2221778)



Is there potential to move into
the medical and health sector
with a chemical detecting
system with design roots in our
existing products?

What is our current position within the market?

Looking Inwards

Utilising Management information tools we can assess our model and it's components

To do this we can focus on the two most fundamental aspects of our business

Our Customers

Our Products

Our Products

We currently have a breathalyser focused product range:

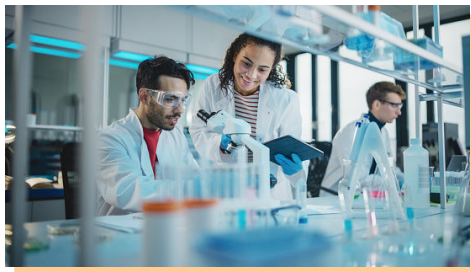
“Breath test Rapid” – For our on the field testing aiming to get results quickly

“Breath test 50” – For more reliable and accurate results

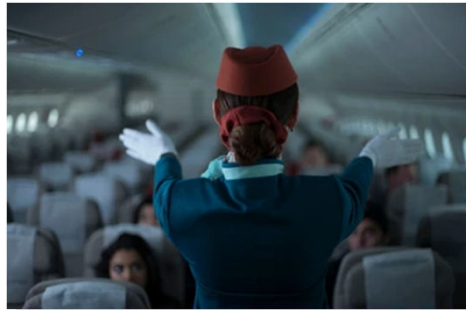
“Breath test Advanced” – For advanced use by trained individuals, requires training course

Our Customers

Strong partnerships in the form of repeat purchases by established customers



University Research



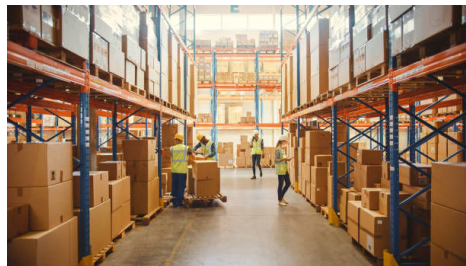
Airlines



Security



Heavy Labour

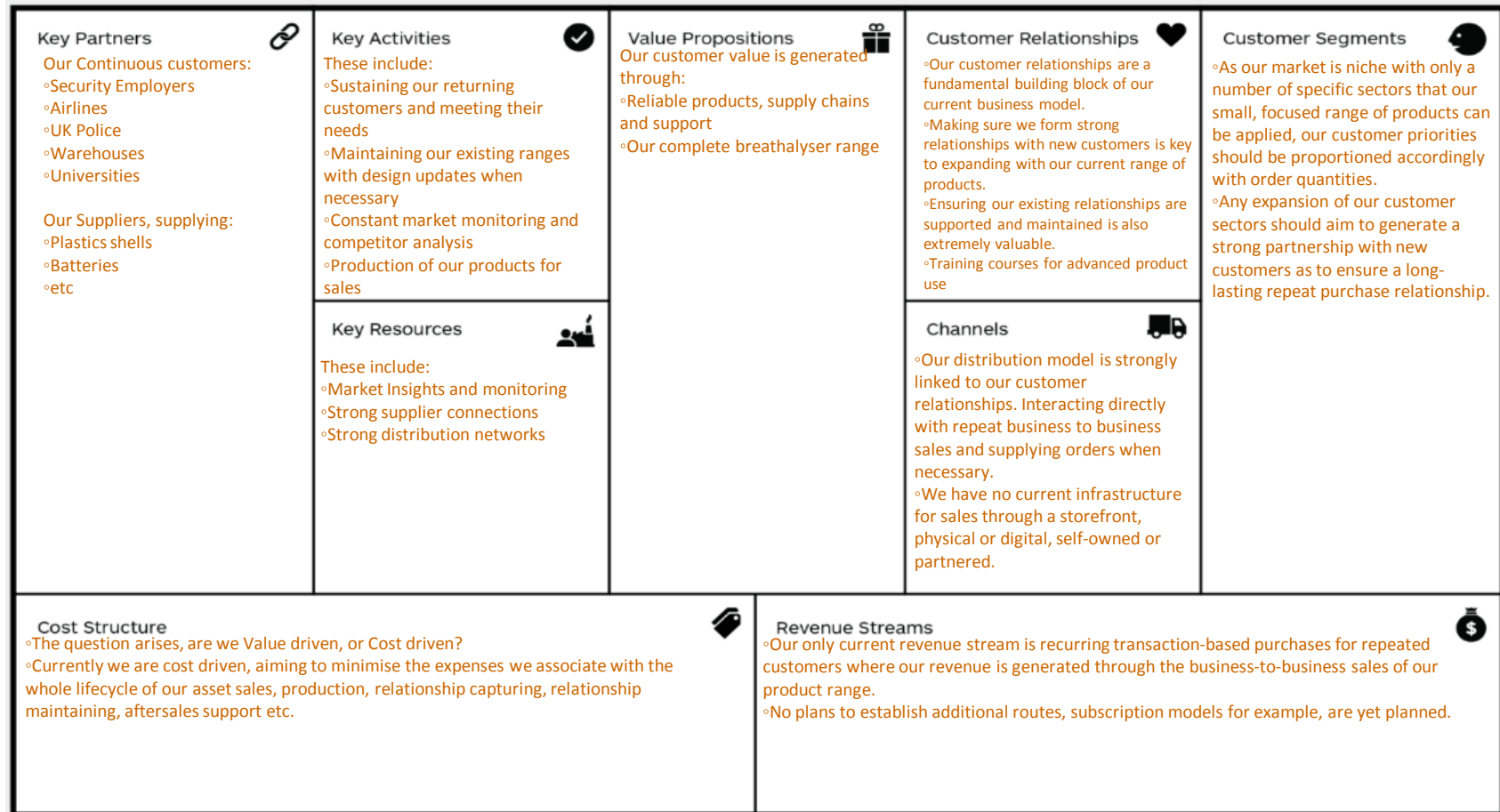


Warehouse Staff



UK police

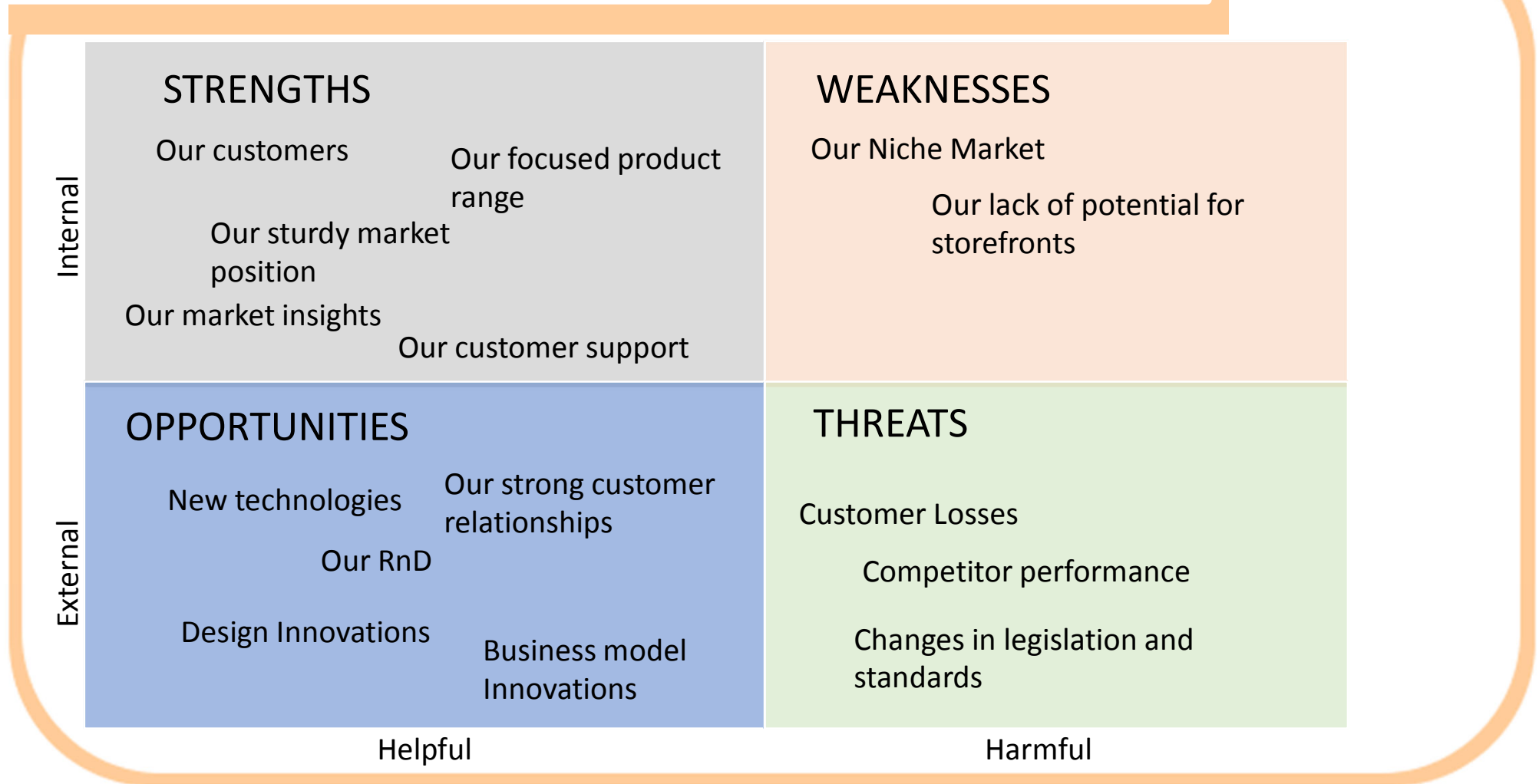
Our Current Business Model Canvas



Our Current Business Model Canvas



Strengths, Weaknesses, Opportunities, Threats



What businesses could we be in ?

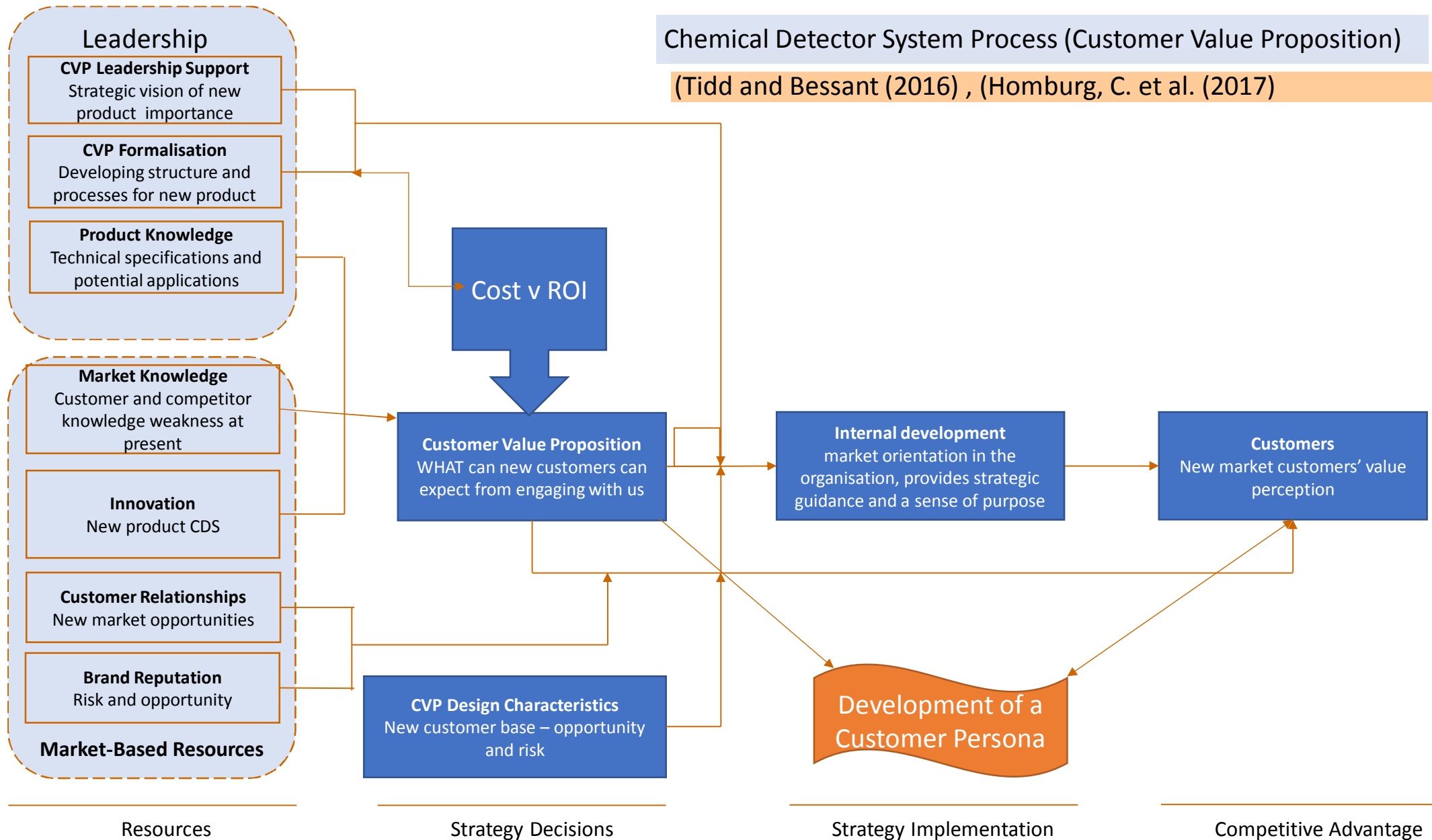
Transition from Direct to Business to a New market / Business

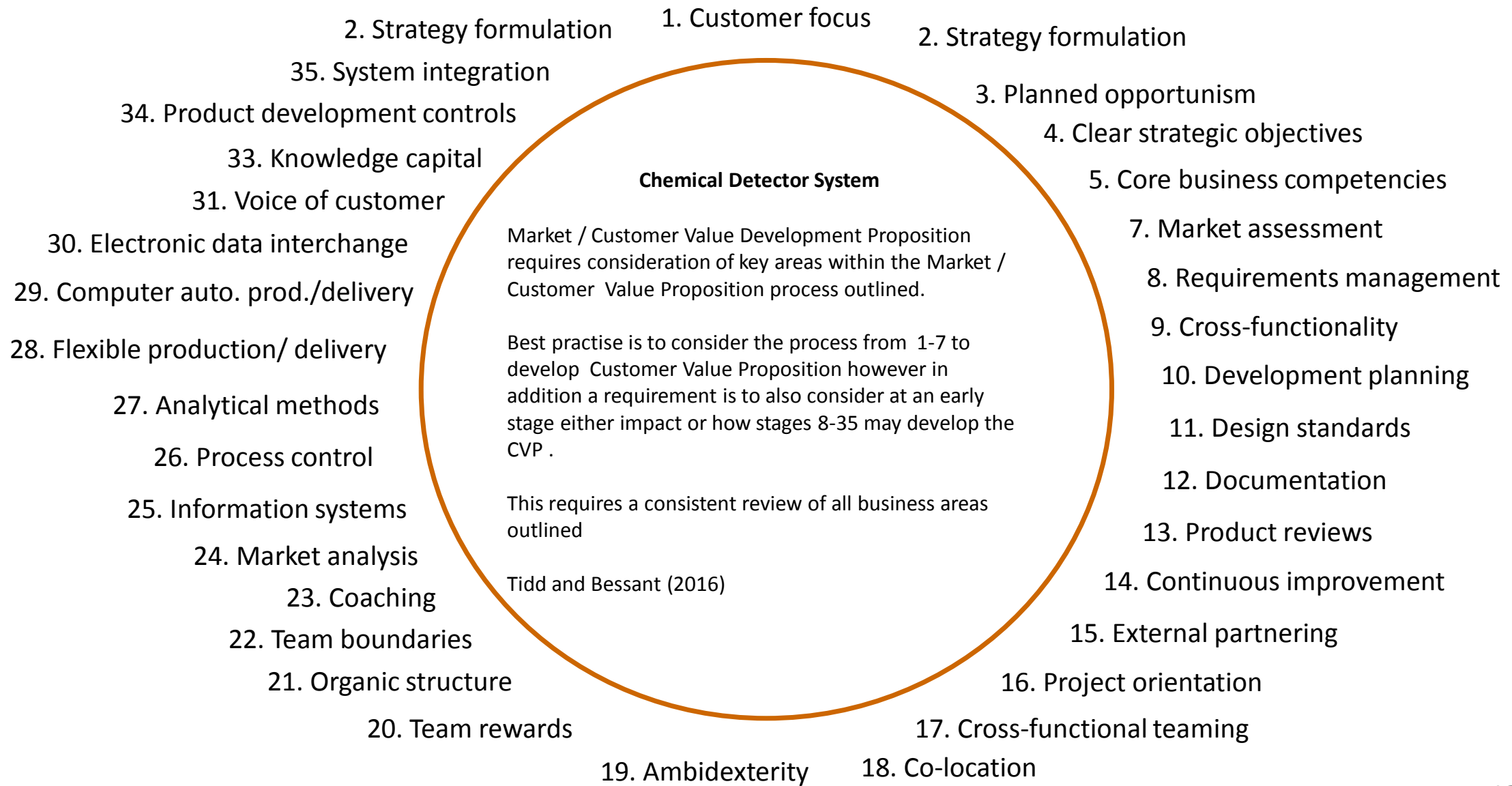
Customer Value Proposition : Chemical Detector System

- A customer value proposition (CVP) is a strategic tool that is used by a company to communicate how it aims to provide value to customers. (Anderson et al. 2006).
- A customer value proposition (CVP) is a strategic tool facilitating communication of an organization's ability to share resources and offer a superior value package to targeted customers (Payne, A., Frow, P. and Eggert, A. (2017)
- Marketers should proactively search for novel means to create desired values for their targeted customers and increase customer equity. Marketing practitioners should also put high emphasis on product and service innovations that can provide the greatest benefits for customers to achieve lasting competitive advantages (Hanaysha, J.R. and Al-Shaikh, M.E. (2022)
- Question is how does this apply to the development of the Chemical Detector System ?

Chemical Detector System Process (Customer Value Proposition)

(Tidd and Bessant (2016) , (Homburg, C. et al. (2017)





Strategy Canvas – Chemical Detector System

(Sheehan, N.T. and Bruni-Bossio, V. (2015))

Review, consider,
inform,
and ensure
continuous
information flow
for
a more risk
based informed
decision

Corporate strategy and objectives

Current Customer base

Price

Legislation

Market assessment

Risk to business

Capability

Opportunity of new market

Challenge and inform current business strategy

Challenge, engage, understand current customers – can this be additional sales

New product links to legislation – HSE etc, international law

Buy in more detailed market intelligence or new marketing skills within business

New Market – direct to business (current model) or consumer direct sales

Strategy Canvas – Chemical Detector System

(Sheehan, N.T. and Bruni-Bossio, V. (2015))

Review, consider,
inform,
and ensure
continuous
information flow
for
a more risk
based informed
decision

**Corporate strategy and objectives - currently B2B model –
challenge could be new consumer model**

**Current Customer base - exploit current relationships?
Potential limited impact on breakthrough technology**

**Price – new technology leader high price base v affordability
v volumes**

Legislation - build on consumer concerns/fear linked to HSE

Market assessment - persona

Risk to business - risk is no market penetration

Capability – full capability however new resources required

Opportunity of new market – significant

Challenge and inform current business
strategy

Challenge, engage, understand current
customers, police, health, security – can this
be additional sales for those customers

New product links to legislation – HSE
etc, international law

Develop persona market research

New Market – direct to business (current
model) or consumer direct sales

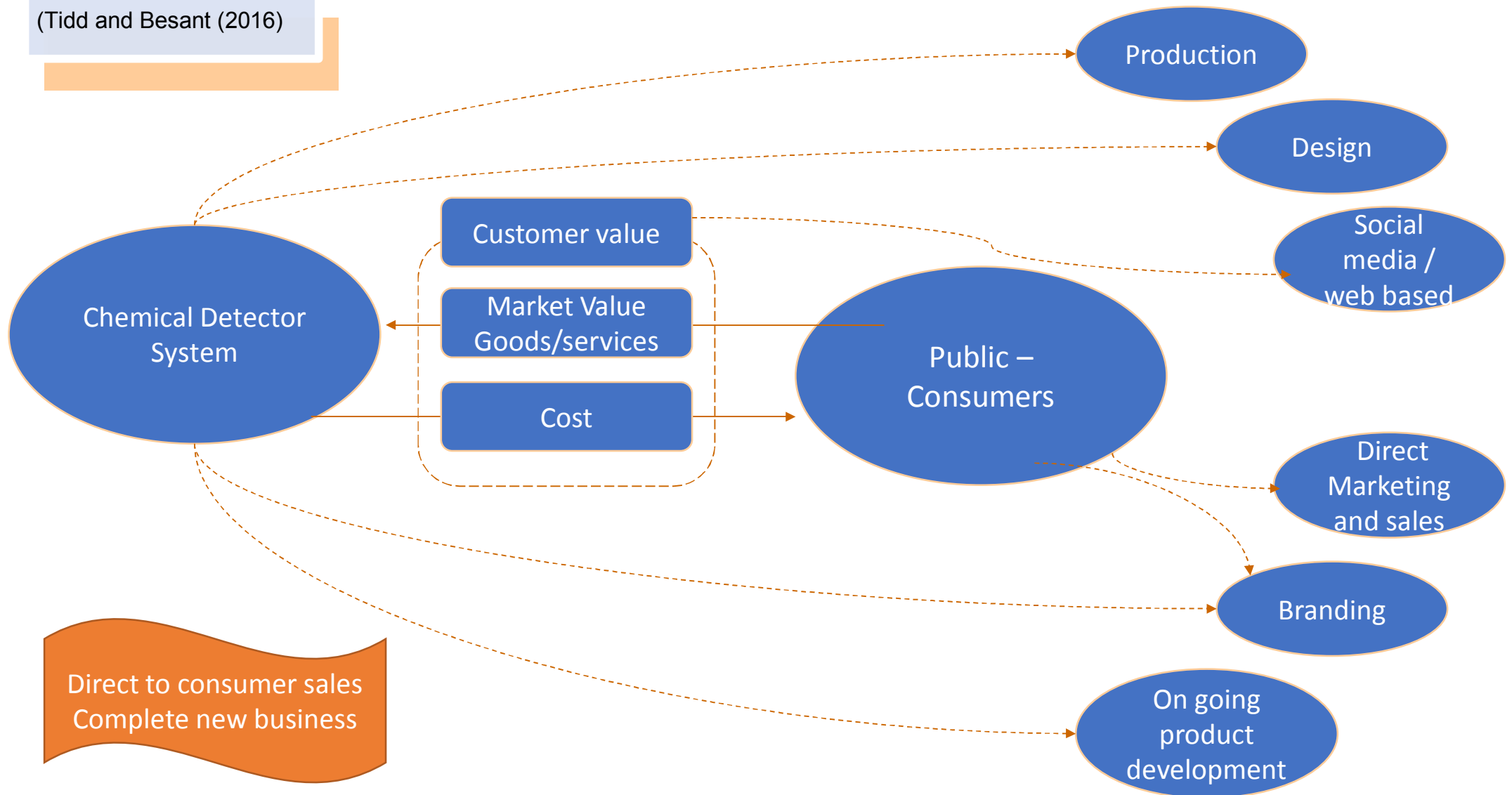
Market Research Considerations – Sector

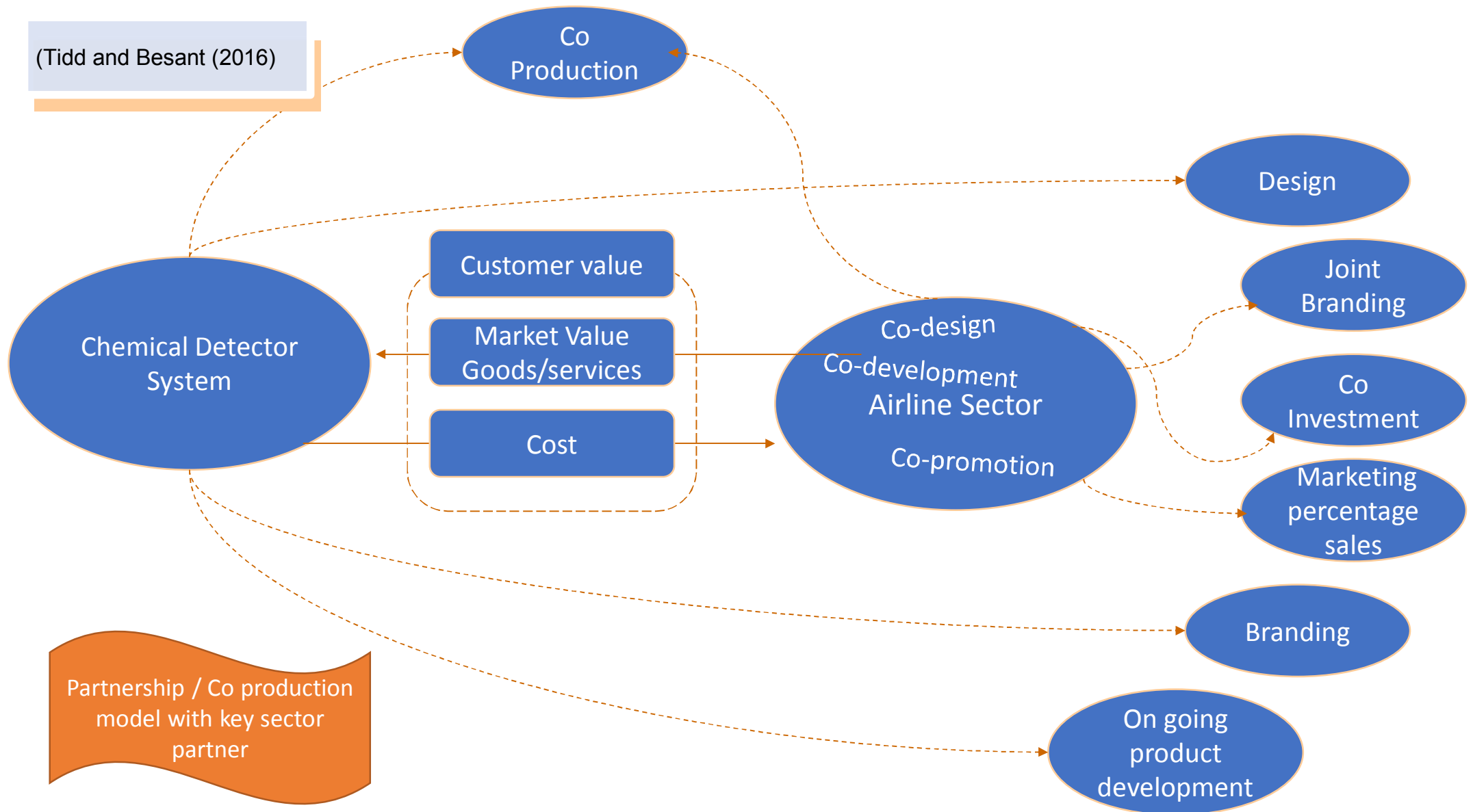
Sector	Opportunity	Size of market / market assessment	Legislation	Risk H V L	Current Business Strategy / Capability	Cost to enter market
Aerospace	Travel has opened up, but people want to feel safe	Significant £	Not detailed only advice on testing but lever potentially	Low	Some links to current business , however not direct engagement	Some cost need ROI model
Logistics	Linked to drug testing	Significant £	No legislation – not deemed as public safety risk	Low	Good current links to market	Expensive on new marketing and sector development
Police	Linked to drink and drug tests	Significant £	No legislation – not deemed as public safety risk	high	Good links to current business but not future market	Expensive , need full ROI model developed
NHS	Linked to employment law / enforced practises	Significant £	None – however have ability to influence	Med	Good links through current product	Some cost need ROI model
Security	Linked to employment law / enforced practises	Global £	None – however have ability to influence	Low	Current direct links into sector and have ability to influence and drive forward market share	Low
Direct to customer	Safety – People values / health	Global £	None	High	No current market links , no direct sales to consumer direct within business , no links to 3 rd party vendors i.e Amazon	Depending on model – high cost

Market Research Considerations – Sector

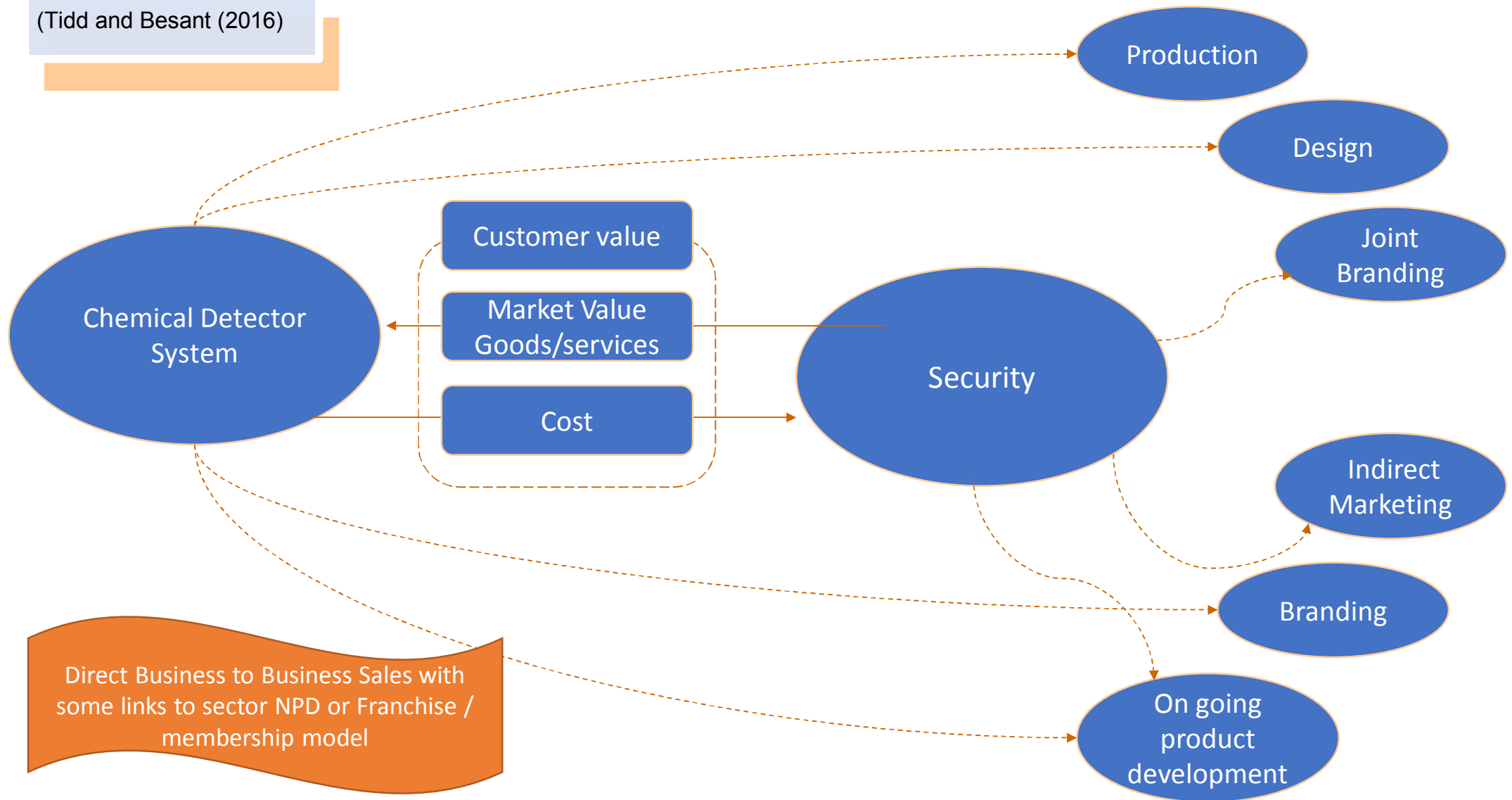
Sector	Opportunity	Size of market / market assessment	Legislation	Risk H V L	Current Business Strategy / Capability	Cost to enter market
Border Security	Travel has opened up, but people want to feel safe	Significant £	Not detailed only advice on testing but lever potentially	Low	Some links to current business , however not direct engagement	Some cost need ROI model
Health and Well being	Healthy living major market opportunities	Significant £	No legislation – not deemed as public safety risk	Low	No real links to market	new marketing and sector development
International Health	Linked to drink and drug tests	Significant £	No legislation – not deemed as public safety risk	Med	Good links to current business	need full ROI model developed

(Tidd and Besant (2016))





(Tidd and Besant (2016))



What businesses could we be in?

Healthy Living / Illness Prevention Solution Providers

OR

Keeping Your Customer Safe

What businesses could we be in?

- **Aerospace** – Partnership model within the sector to provide international health assurances, could be linked to national health policies globally (World Health Organisation). Testing of airborne virus and other health issues (market circa £150Bn)
 - **Border Security** – Testing on all immigration routes to ensure the non-spread of infection and potential to contain at source before release to general population (Linked to NHS opportunity – market circa £257 Bn)
 - **NHS** – National requirement of nations health and well-being, could be used to detect a range of illnesses such as cancer and allergies linked to ill health (market circa £257Bn)
 - **International Health sector** – Health Prevention / 1st line defence against virus spread and monitoring, potential partnership Big Data provider to monitor spread of virus (World Health Organisation – market circa £500 Bn)
- (ONS (2023) Home - Office for National Statistics (ons.gov.uk) accessed 2023)

What businesses could we be in?

- **Defence** – Could be adapted for Military Use within filtration systems (Gas Masks) as first line defence capabilities, international opportunities linked to UK defence markets (UK market £71.4 Bn)
- **Security** – Large event management security linked to national threats (Manchester Arena) , on door tests or new filtration systems developed for venues (UK market £42.3BN)
- **Logistics (Government / Industry)** – Response to supply chain resilience by ensuring key areas such as food and raw materials cannot be disrupted by monitoring health in supply chain (£8.4 Trillion globally)
- **Health and Wellbeing** – Product could be adapted to be aimed at well-being market , looking at a range of uses within fitness market , diet management , future disease monitoring (circa - £4.5 Trillion globally)

(ONS (2023) Home - Office for National Statistics (ons.gov.uk) accessed 2023)

What businesses should we not be in ?

- Direct sales to Consumer –
- Major investment required in logistics and customer sales platform
- Increased sales / marketing budget to promote product
- Packaging considerations – single pack sales
- Different cash flow models for business
- Significant Investment required with high risk of possible low sales
- Monitor other sectors to consider in 12 months if this would add value

In depth PROCESS

BUYER PERSONA - EVENT MANAGEMENT & SECURITY



BACKGROUND

Undergraduate in Events ,
Event Security Supervisor,

Worked in Event Security & Hospitality for 20 years.



DEMOGRAPHICS

Age 45

Male

Married

2 Children



GOALS

Not to be seen as the classic officious security employee,

Would like a quick and easy way to tell if someone attending an event without proof of vaccination can be let in without causing delays in others getting into the event in a timely manner.

Alun Jones



HOBBIES AND INTERESTS

Football,

Rugby,

Socialising,

Motorcycles,

Rock Music (plays in a band)



CHALLENGES

Getting people in(and out) of events without any delay or disruption.

Covid has presented an issue with getting attendees into an event quickly without causing delays, despite the advice, people turn up without proof of vaccination. This could cause major upset and disruption at event entry points.



COMMON OBJECTIONS

Cost of the device,

Easily portable (weight/dimensions),

Hygiene,

Quick results,

Definitive result



MAJOR FEARS

Unruly attendees causing upset.

Delays in attendee entry to event.

A DAY IN THE LIFE...

EVENT MANAGEMENT & SECURITY

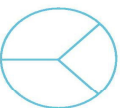
Scenario:

Coldplay playing their last ever gig (Hooray!)

Start time: 19:05

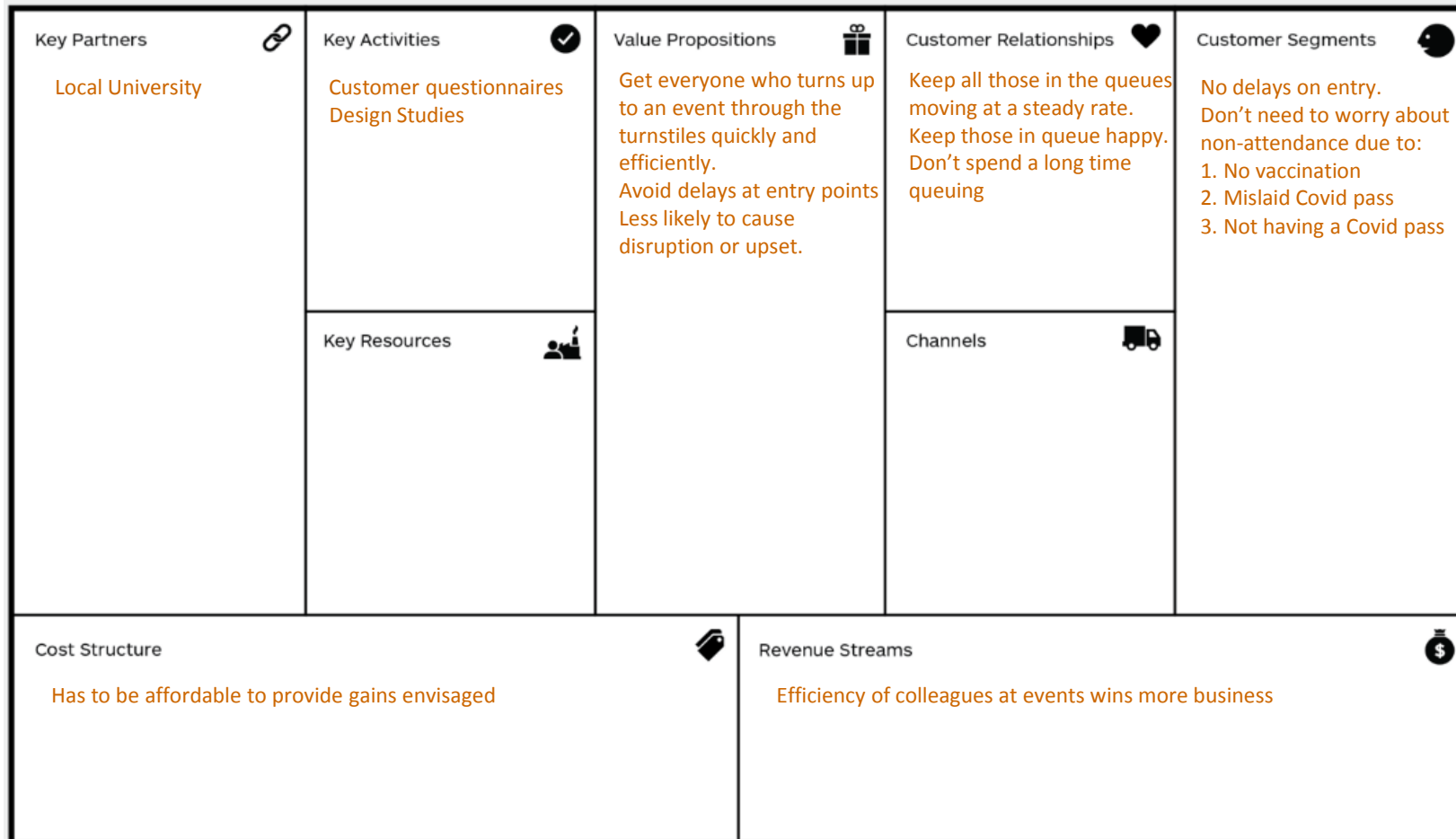
Venue: Manchester AO Arena

Auditors from a local university observed the main entrance to the Arena, keeping a log of instances where attendees were denied entry to the gig through not being able to produce a valid Covid pass, recording what reason triggered this, what occurred and Alun's thoughts.

Time	Activity (what I see)		Notes (what I think)
18:30	A older couple turned up with no Covid pass, and were not vaccinated. I had to make space in queue to turn them away.		If only I had a quick detector that could test people in seconds they could have attended the gig.
18:42	A group turned up who had left their printed Covid passes in their car. I had to make space in queue to turn them away so they could retrieve their passes - they missed the first act of the gig .		If only I had a quick detector that could test people in seconds they would not have missed any of the gig.
18:52	2 Teenagers who had been drinking beforehand, did not have Covid passes. When I turned them away, they wanted to fight/cause disruption. Trouble started with others in the queue. Police had to escort the teenagers away.		If only I had a quick detector that could test people in seconds the trouble might have been avoided.
19:05	2 Groups of 4 turned up late (gig had started) Had trouble finding their Covid passes on their phones (been drinking but merry) I had to be patient while some of them re-downloaded them and i had to keep both groups patient with each other.		If only I had a quick detector that could test people in seconds they could have attended the gig.
19:15	A father and his young daughter turned up late (gig had started) They had a train delay. Their Covid passes were on another phone (which had been left at home) - the child was inconsolable - I helped the father download a new Covid pass. They missed quite a lot of the gig.		If only I had a quick detector that could test people in seconds they could have entered the gig more quickly.

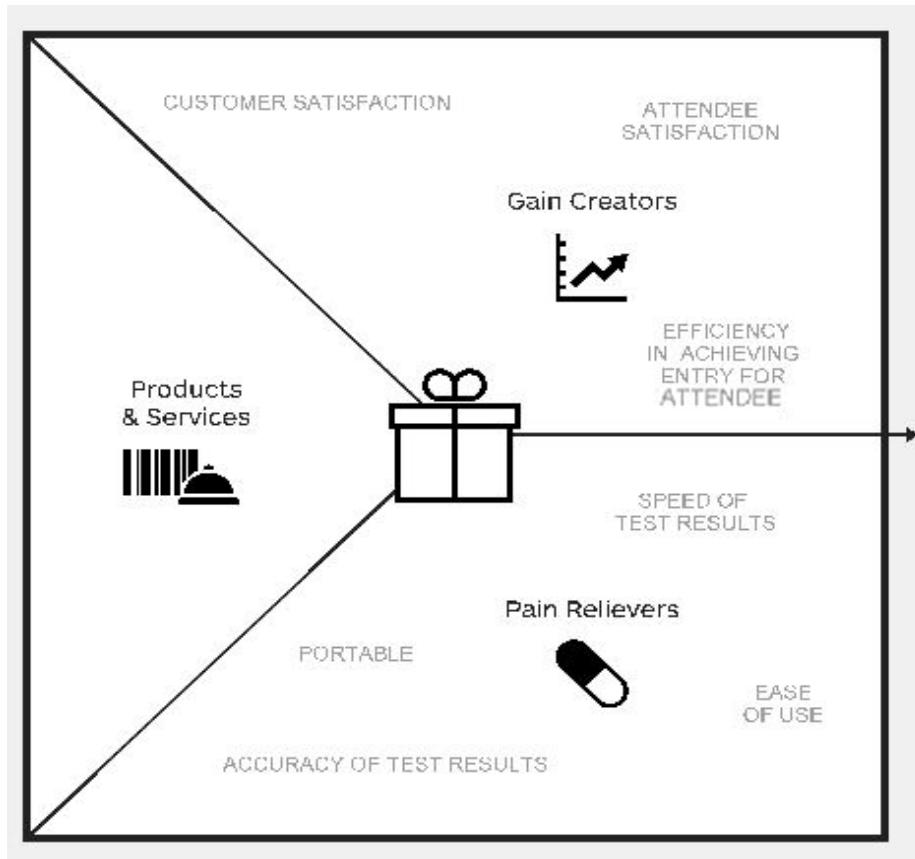
BUSINESS MODEL CANVAS

EVENT MANAGEMENT & SECURITY



VALUE proposition canvas

EVENT MANAGEMENT & SECURITY



Proposition aim:

EVENT ATTENDEES

A means of:

- Efficiency in achieving attendee entry to events,
- Through results in a quick time frame,
- Achieving accurate results,
- Re-using the same test kit,
- Keeping crowd disruption to a minimum.

Customer VALUE proposition

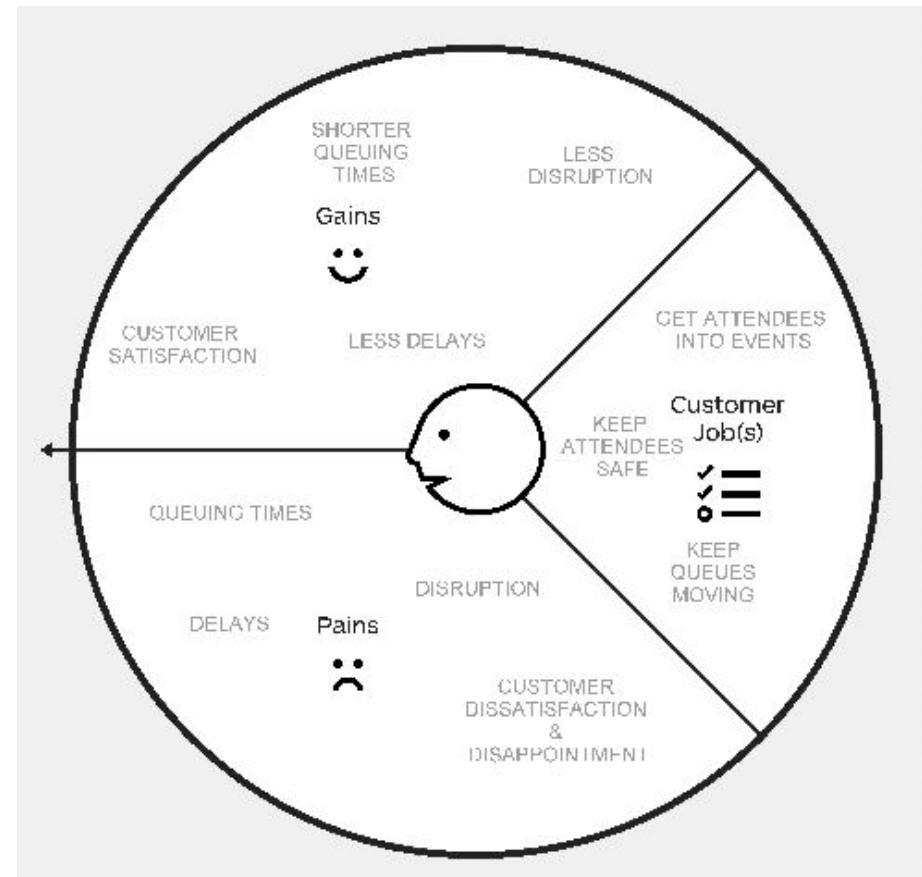
EVENT MANAGEMENT & SECURITY

Product aim:

EVENT ATTENDEES

A device that:

- will test for presence of COVID-19 virus,
- provide results in a quick time frame,
- is re-usable,
- results to be accessed by an app/website,
- results to be shared with third parties - i.e Track & Trace, Airlines, Hotels, Bars & Restaurants.



References – Glossary of Terms, Citations and reference literature utilised

A

Aljanabi, A.R. (2020) "The role of innovation capability in the relationship between marketing capability and new product development: Evidence from the telecommunication sector," *European Journal of Innovation Management*, 25(1), pp. 73–94. Available at: <https://doi.org/10.1108/ejim-04-2020-0146>. [Accessed 03/03/23]

B

Breathalyser applications – [online] available at [Dallas Innovates](#) [Accessed: 01/03/23]

Breathalyser applications – [online] available at [Four cool ways breathalyzers are used as medical tools \(medcitynews.com\)](#) [Accessed: 02/03/23]

Braungart, M. and McDonough, W. (2019) *Cradle to cradle: Remaking the way we make things*. London: Vintage.

C

Homburg, C. *et al.* (2017) "The contingent roles of R&D–sales versus R&D–marketing cooperation in new-product development of business-to-business firms," *International Journal of Research in Marketing*, 34(1), pp. 212–230. Available at: <https://doi.org/10.1016/j.ijresmar.2016.05.008>. [Accessed 02/03/23]

D E

F

Five basic methods market research – [online] available at [The five basic methods of Market Research - Verizon Small Business Essentials Resources](#) [Accessed: 01/03/23]

G

GOV.UK (2021), Assessing new patients from overseas: migrant health guide – [online] available at <<https://www.gov.uk/guidance/assessing-new-patients-from-overseas-migrant-health-guide>> [Accessed 04/03/23]

H

Hyman, MR, and Kostyk, A. (2019), A Prospectus on Marketing Futurology, *European Journal of Marketing*

Health Online(2020) Everything to Know About VO₂ Max, Available at <<https://www.healthline.com/health/vo2-max>> [Accessed 28.02.23]

Hanaysha, J.R. and Al-Shaikh, M.E. (2022) "An examination of entrepreneurial marketing dimensions and firm performance in small and Medium Enterprises," *Sustainability*, 14(18), p. 11444. Available at: <https://doi.org/10.3390/su141811444>. [Accessed 28/02/23]

Herskovitz, S. and Crystal, M. (2010) "The Essential Brand persona: Storytelling and branding," *Journal of Business Strategy*, 31(3), pp. 21–28. Available at: <https://doi.org/10.1108/02756661011036673>. [Accessed 01/03/23]

I

J

John Hopkins Medicine, (2022) *Gastroenterology and Hepatology* Available at: <https://www.hopkinsmedicine.org/gastroenterology_hepatology/clinical_services/specialty_services/breath_testing.html> [Accessed 28/02/23]

K

Kadens, RJ, Linda, G and Prince, M. (2012). *Leading Edge Marketing Research: 21st-Century Tools and Practices*, SAGE

L

Lion Laboratories (2022) *Products*. [online] Available at: <<https://www.lionlaboratories.com/products/>>, [accessed 01/03/23]

M

Miaskiewicz, T. and Kozar, K.A. (2011) "Personas and user-centered design: How can personas benefit product design processes?," *Design Studies*, 32(5), pp. 417–430. Available at: <https://doi.org/10.1016/j.destud.2011.03.003>.

References – Glossary of Terms, Citations and reference literature utilised

N

NHS – [online] available at <<https://www.nhs.uk/>>, [Accessed: 01/03/23]

O

Oxford Academic, Breath Analysis: Potential for Clinical Diagnosis and Exposure Assessment *Clinical Chemistry*, Volume 52, Issue 5, 1 May 2006, Pages 800–811, Available at: <<https://doi.org/10.1373/clinchem.2005.063545>> [Accessed 27/03/22]

Office of National Statistics (ONS (2023) Home - Office for National Statistics (ons.gov.uk) [Accessed 01/03/23]

Olson, E.M. *et al.* (2001) "Patterns of cooperation during new product development among marketing, operations and R&D: Implications for project performance," *Journal of Product Innovation Management*, 18(4), pp. 258–271. Available at: <https://doi.org/10.1111/1540-5885.1840258>. [Accessed 28/2/23]

Osterwalder, A., Pigneur, Y. and Clark, T. (2010) *Business model generation : a handbook for visionaries, game changers, and challengers*. Hoboken, N.J: John Wiley & Sons.

P

Payne, A., Frow, P. and Eggert, A. (2017) "The customer value proposition: Evolution, development, and application in marketing," *Journal of the Academy of Marketing Science*, 45(4), pp. 467–489. Available at: <https://doi.org/10.1007/s11747-017-0523-z>. [Accessed 05/03/23]

Pestle Analysis – [online] available at - [What is PESTLE Analysis? An Important Business Analysis Tool](#) [Accessed: 01/03/23]

Piercy (2009). *Market led strategic change*, Fourth Edition, pp. 247

Porter, M.E. (1989) "How competitive forces shape strategy," *Readings in Strategic Management*, pp. 63–78.

Q R

S

Sheehan, N.T. and Bruni-Bossio, V. (2015) "Strategic value curve analysis: Diagnosing and improving customer value propositions," *Business Horizons*, 58(3), pp. 317–324. Available at: <https://doi.org/10.1016/j.bushor.2015.01.005> [Accessed 03/03/23]

T

Tidd, J. and Bessant, J.R. (2021) *Managing innovation: Integrating technological, market and organizational change*. Hoboken: Wiley.

U V

W

Wided Batat (2019). *Experimental marketing*

X Y Z

Online reading resources were accessed through the University Library service or other outlets using student sign in wherever possible.

Team Activity

The team researched in detail the background of detail of the business , the type of innovation , the detailed laws internationally , other businesses within the sector and meet on a regular basis to have a detailed discussion on the overall assignment brief . The team shared research papers and books to increase knowledge exchange across the group and participated in robust debates at each stage of the process of assessing the business questions posed .

Each Team member took on assigned and agreed tasks , and a dedicated Teams and WhatsApp portal were developed to ensure ease of sharing information . The team used the debate opportunities to use work-based experiences to aid the debate and linked back all the discussion to the journals and academic reading , to ensure a robust process was developed to understand and provide detailed conclusions.

The team developed an open and robust challenge system , where ideas could be discussed in a fair and open manner.

This allowed a greater understanding of the academic models and the ability to use them to test our conclusions with greater and focused rigor.