

Assignment A

Sources of Marketing Knowledge for NPD

TUDOR Team Presentation

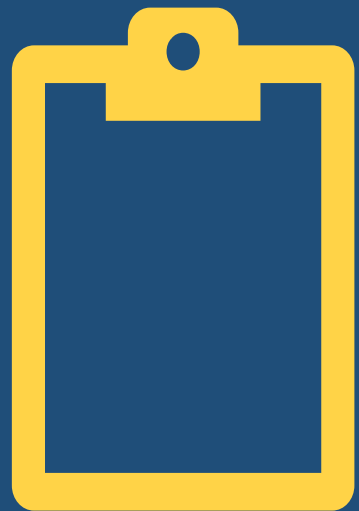


John Ford, Sara Ladd,
Sudhir Mahadikar.

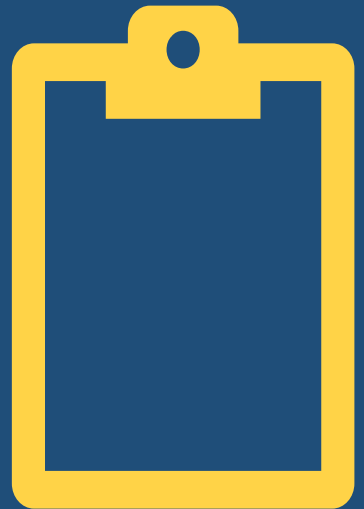
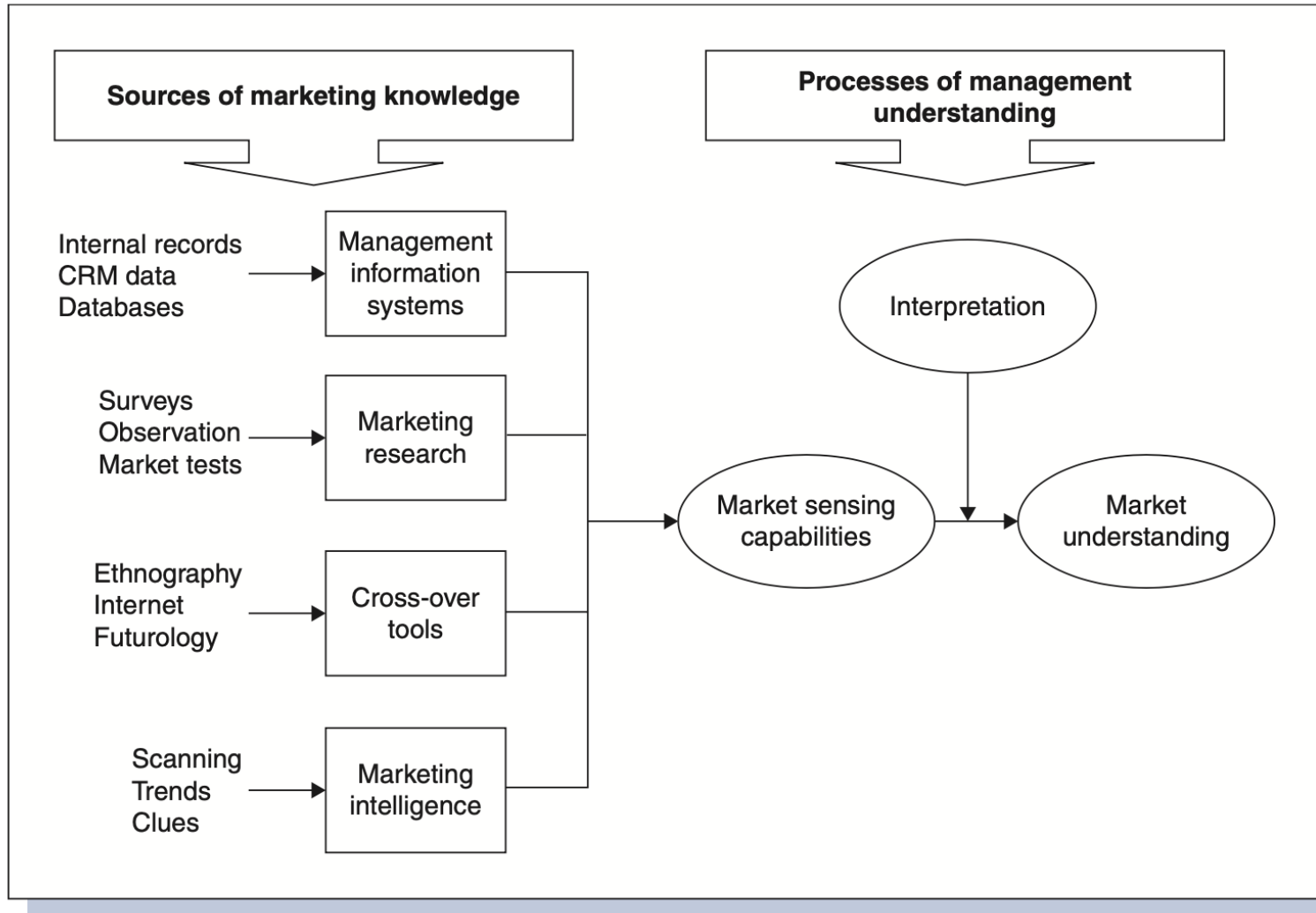
Sourcing Marketing Knowledge for the development of a Chemical Detector System (CDS)

We are ...

- A Carmarthen based SME
- Specializing in design and manufacture of Electronic Breathalysers
- Catering to Police and Security forces
- Working with local university to research on a NPD which will expand our product portfolio
- Our strength is our expertise in electro-chemical breathalysers
- Our area of interest is marketing intelligence for NPD, specifically for a speciality Chemical Detector System



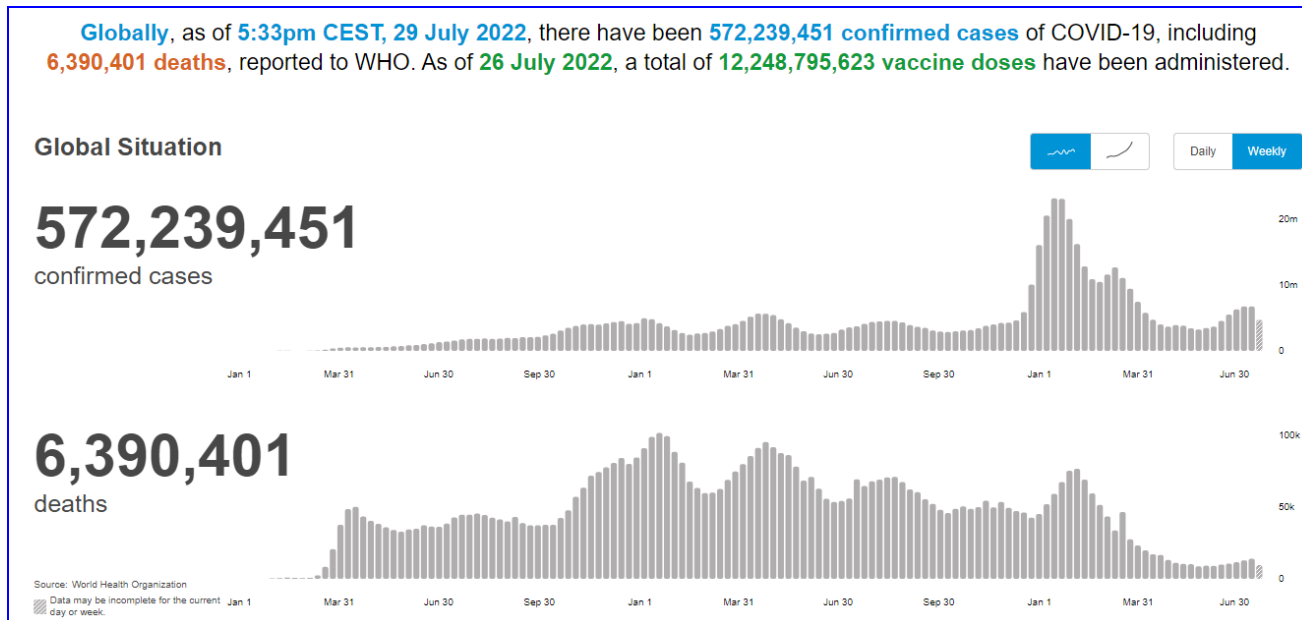
What is marketing knowledge?



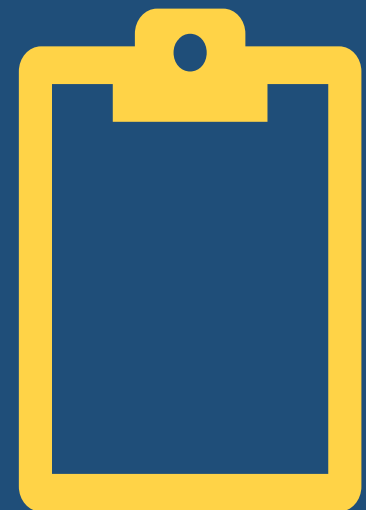
Management Information Systems

What do we already know?

- According to WHO (2022), as of 1st August 2021 there are 572.2M confirmed Covid19 Cases and 6.39M deaths worldwide.
- Impact of such pandemic on Economy, social life, health care, travel & leisure, Mental health, Education and Environment is detrimental.
- Most viral infections including Covid 19, SARS are highly contagious and can transmit through air.



(WHO, 2022)



Management Information Systems

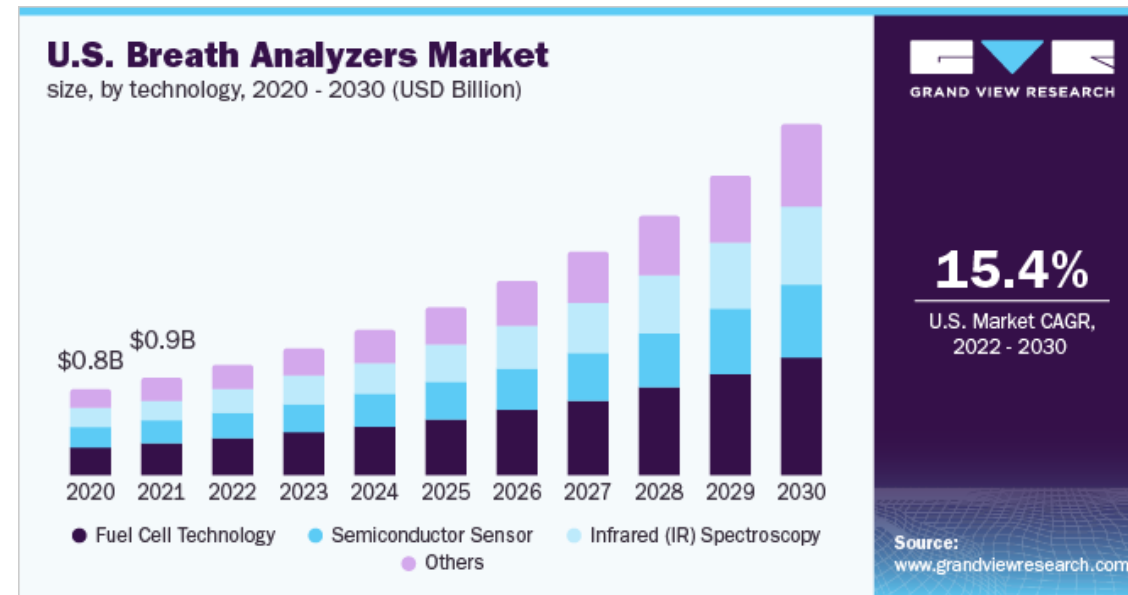
What do we already know?

- Basic research shows promising results in detection of organic matters including those generating in breath as a result of various viral infections.

- Our current experience and expertise in design and manufacture of breathalysers fits well for developing a new electro - chemical breath detector system for novel pathogens

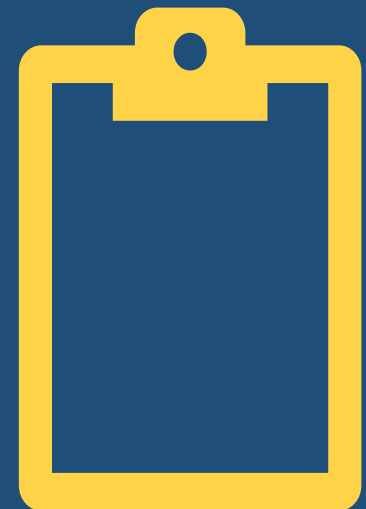
- Mordor Intelligence (2022), mention the global breathalysers market was valued at about USD 812.53 million in 2021, and it is expected to reach USD 1275.031 million in 2027.

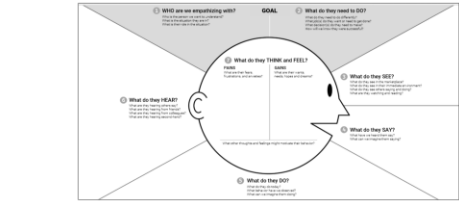
COVID19 BREATHALYSER



Grand View Research. (2022)

"In April 2022, the U.S. FDA approved the first COVID-19 breathalyzer test. The test provides results within three minutes and detects five volatile organic compounds (VOCs) associated with COVID-19. The COVID-19 pandemic notably impacted the market."





Batat, W. (2019).



Marketing Research

What do we need to know?

Who – Target Market Sectors.

What Age / Demographic / Industry?	
Is there an age limit? Any factors to consider in which we cannot target?	
Who would this product benefit?	
Equality? Gender / Disability / Medical /	
Are they previous customers?	
B2C / B2B? Who are we targeting?	
Will the target market be satisfied by this product?	
In what sectors do we want to be in?	
Can it be sold globally? Can we reach further than UK?	
Ethnography	

Ethnography

•Systematic study of people and their cultures.

'Ethnography is a social science based on anthropology and its use in marketing studies is based on the idea that richer information and insight can be generated by deep immersion in the consumer's life, rather than asking questions.'

Piercy, N (2009 p236).

Benefits of ethnographic research:

- Valuable insight into customers
- A clear, realistic insight into the market
- Direct access to the culture of a targeted group
- Will benefit a B2C target audience



Marketing Research

What do we need to know?

What– Physical product requirement / experience

- Size and Shape - Hand held/ Tabletop/ Laptop/ Wall mounted.
- Ergonomics - Ease of handling and operation, Weight, Storage, Skill requirement for operation.
- Energy Requirement - Line fed / Battery Operated
- Disposable cartridge type / single use units.
- One man operation / Semi-automatic / Fully automatic.
- Commercial / Domestic / Household Use.
- Packaging and presentation.
- Accuracy of output – inability to distinguish specific chemical compounds. Could affect the growth of the product / market.

Can this product be bulk made?

Is it user friendly?

Product lifecycle? Is it disposable? Is there a warranty?

Can we cater for supply and demand?

Competitors – is anyone already offering this?

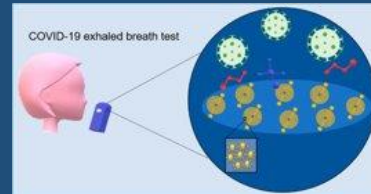
What would make the product more effective?

Is it adaptable to other products?

Health and safety policy of the product?

Is it cost effective for both business and consumer?

Could it have GPS / bluetooth technology?



Marketing Research

What do we need to know?

Supply Chain

Who will make them?

How much will they cost?

What are the lead times?

Are there any implications on import / export (Brexit / Covid19)

Can they be bulk made?

Do we need to patent the design?

Distribution Center

Who and where will they be stored?

If our customer is a B2B, are there any health and safety requirements for storing?

Do they have a sell by date?

Can this product be sold globally?



Marketing Research

What do we need to know?

Marketing

- What is the size / potential size of the current market?
- Are there growth opportunities?
- Where will we be active from a social and tech perspective?
- What factors will drive and restrain the market?
- What is our competitive advantage over others?
- What will the phygital customer experience look like?
- What will the technical, functional, emotional and social marketing look like?
- What are the empathy tools?
- What's our 'hook'?

Competition

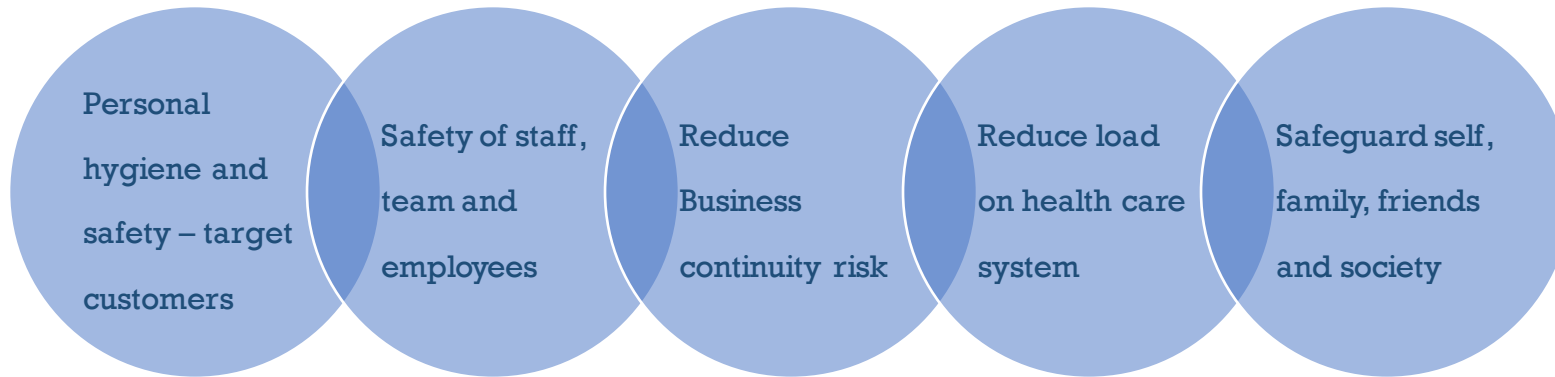
- Who are the competition? And what are they doing?
- Are there any key trends shaping the market?
- What are the key opportunities?
- Which company currently accounts for the highest market?
- What makes us different? What does our story telling consist of?
- Why should they buy from us vs others?
- What makes our brand culture / personality stand out?
- Are there opportunities for personalisation / bespoke?



Marketing Research

What do we need to know?

Why– Reason for need of this product.



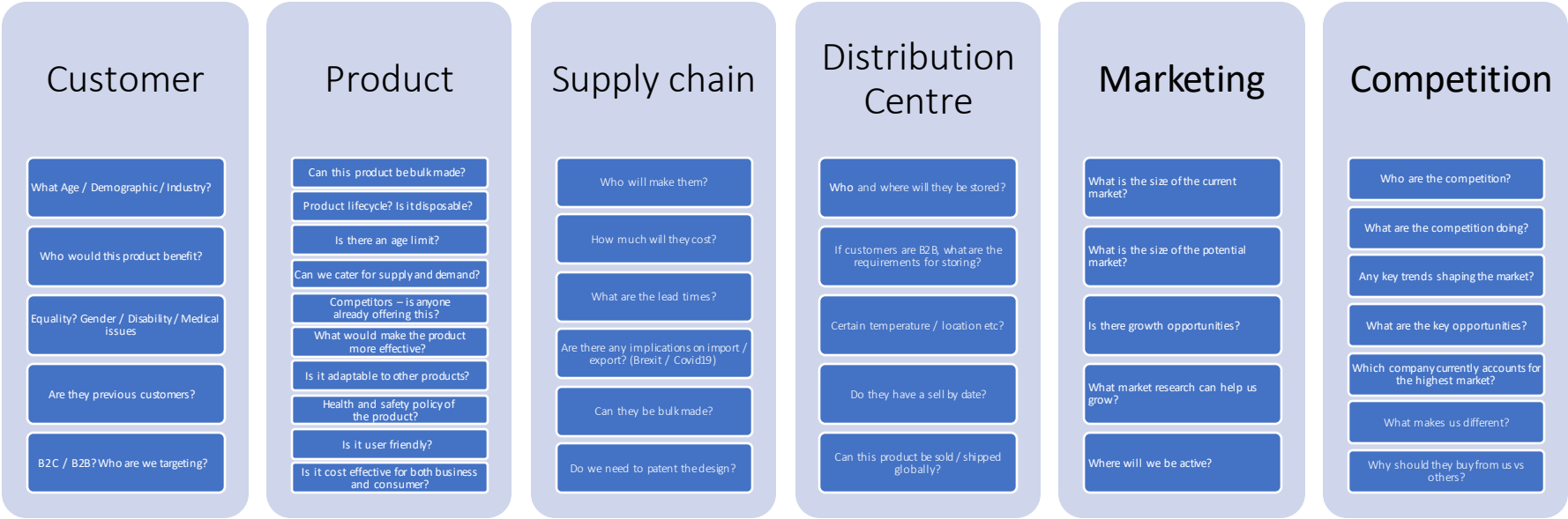
How – Challenges

- Legislative requirements – IP Auditing / patenting.
- Public and Social stigma
- Cultural and religious concerns
- Carbon neutrality
- Environmental Challenges – Battery and disposal, cartridges and Disposal, end of life concerns
- Pricing, packaging and distribution
- Competition and obsolescence
- Changing world health trends



Marketing Research

Recap



TARGET PRODUCT PROFILE COVID-19 Rapid Breath Tests for the direct and indirect detection of SARS-CoV-2			
Key Feature	Desired	Acceptable	Comment
Test Design Characteristics			
Intended Use	Direct detection of current SARS-CoV-2 infection in samples from people of all ages at any point during active infection.	Indirect detection of current SARS-CoV-2 infection by the detection of significant and specific changes in metabolites caused by SARS-CoV-2 virus from people of all ages during the active phase of infection.	Active infection: an infection in which the causative organism of the disease is reproducing. The person may be asymptomatic or symptomatic. Direct detection refers to a test that measures SARS-CoV-2 RNA and/or antigens. Indirect detection identifies SARS-CoV-2 infection by means other than the direct detection. For example, volatile organic compounds associated with inflammatory responses and/or by-products of metabolism.
Target Population	People of all ages with or without clinical signs associated with SARS-CoV-2 infection.		
Target User	A lay person with no knowledge of the testing technology.	A lay person with training or under supervision.	The target user shall administer the test to others. There may be some scope for supervised self-sampling where the sample collection device is CE, CE UKNI or UKCA marked for this purpose. For further information on device marking which is accepted on the UK market, please see our guidance . Full training appropriate to the intended user is required. Evidence of usability testing should be provided.
Target Use Setting	Non-healthcare settings (e.g. schools, workplaces, universities, airports, weddings, sports events, religious events, cruise ships).		

Target Product Profile (TPP)

- Outline the desired 'profile' of a target product.
- Specifically aimed at a particular disease.
- Tools to frame development.
- Sufficient details for understanding (MHRA, 2021)



Marketing Intelligence

What can we find out from existing knowledge?

Scanning

- -> Trends

-> PESTLE analysis

Secondary Data

Requirements

-> SWOT Analysis

-> Emic / Etic



Marketing Intelligence

What can we find out from existing knowledge?

SWOT analysis: “A planning tool used to identify key factors that are favourable or unfavourable to an organisations objective” (CIPD, 2022a)

Strengths

Weaknesses

Opportunities

Threats



Marketing Intelligence

What can we find out from existing knowledge?

SWOT analysis: “A planning tool used to identify key factors that are favourable or unfavourable to an organisations objective” (CIPD, 2021)

S

- Pre-existing supply chain and manufacturing set-up for breathalysers
- Relevant contacts in correct markets/industries

W

- No internal expertise on viral identification (viral load etc.)
- No direct experience in additional markets (e.g., data sales)
- One manufacturing line – need re-calibrating

O

- Complete new revenue lines within new markets
- Subscription to data provides better forecasting
- Diversification – reducing commercial exposure

T

- Grant funding applications through KTP's – could be withdrawn
- Size of market could quickly shrink as COVID-19 fatigue increases
- Government health legislation could become increasingly onerous



Marketing Intelligence

What can we find out from existing knowledge?

P.E.S.T.L.E analysis: “Studies the external factors that influence an organisation”
(CIPD, 2022b)

POLITICAL	ECONOMIC	SOCIAL	TECHNOLOGICAL	ENVIRONMENTAL	LEGAL	ETHICAL
• Must follow UK/EU/US health legislation • Data laws vary globally, have to understand numerous data access policies	• Must be priced for maximum uptake • Global expenditure varies substantially (impacts markets to sell in) • Frugal innovation important)	• Likely age/ethnic demographic to use product? • Has people attitudes changed for good, or just for now? • Does this (data sales) affect our ESG policies?	• Use of high-tech line production processes • What over technologies are available to us to increase production • Use of AI in Big Data analytics (curated from anonymized data)	• ?increased risk of viral-pandemics based on environmental change • Resuable vs. single-use plastic packaging • Sustainable plastic case, plant based • Positive ESG policy	• IP protection • Application for Patents – protect data acquisition within device • ESG policy – make sure all modern legislation is in place within supply chain	• Take into account data protection laws when collecting data • Ethical – positive societal change, allowing people to self-regulate • interaction (through measurement)



What Business are we in?

Law enforcement

- Use to detect alcohol and drug abuse as factoring fuels.

Dual breathalyzers

- An instant analysis of THC.
- Law enforcement / Employers

Smartphone Breathalyzers

- Personal / Professional
- An estimation of the time required to get back to the right level of content. Launched 2018.

Fortune Business
Insights. (2021)



What Business Could we be in?

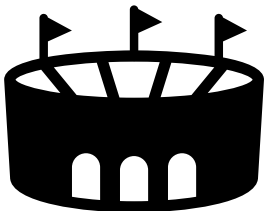
- New business lines allow for new revenue streams

Testing of specific viral loads at different venues

Ports of entry

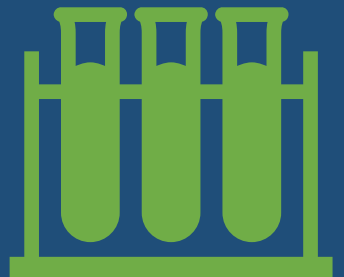


Stadiums



- COVID-19, SARS etc. and other pathogens spread through air-borne delivery
- Drink/drug detection

Hand-held system operated by trained security personnel

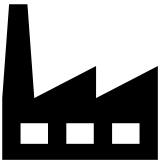


What Business Could we be in?

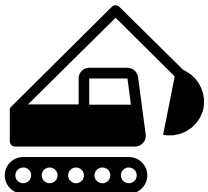
- New business lines allow for new revenue streams

Testing of specific viral loads at different venues

Industrial workplaces

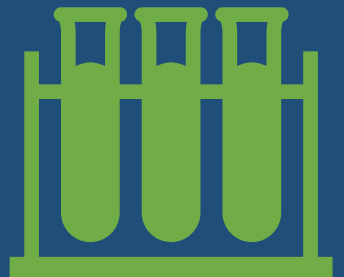


Vehicles



- Automated system designed to stop work-place accidents by restricting access to workplace/machinery/vehicles based on breathalyser results
- Fully automated system deployed, marking move into digitalisation of products and services

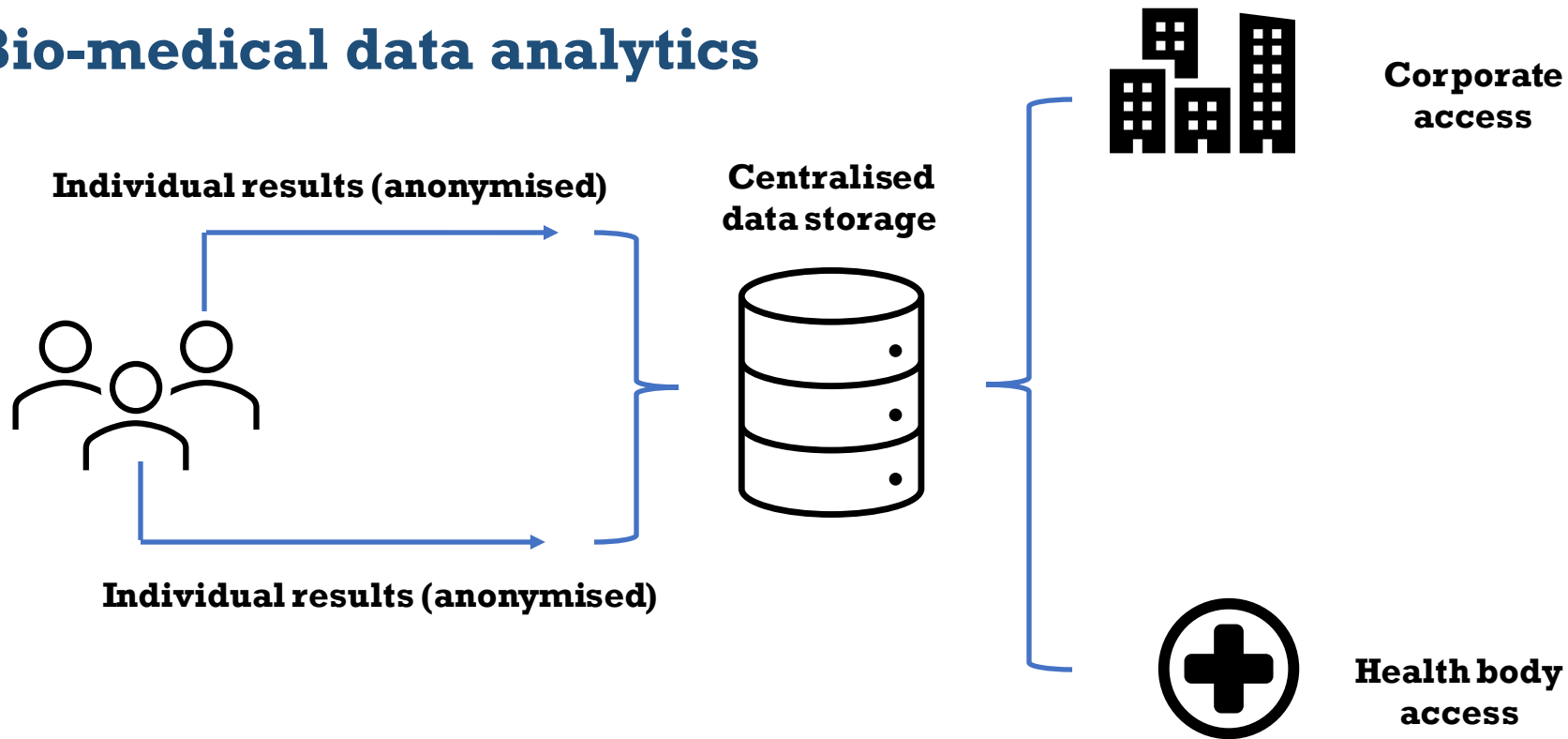
System deployed to client. No requirement for security training



What Business Could we be in?

- New business lines allow for new revenue streams

Bio-medical data analytics

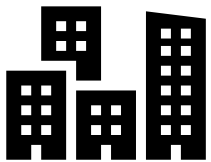


What Business Could we be in?

- New business lines allow for new revenue streams

Bio-medical data analytics

Data collection and licenced access provides new revenue stream



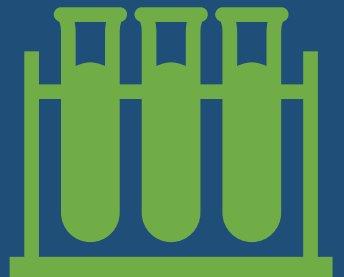
**Corporate
access**



**Health body
access**



- Subscription model to large dataset, charged on month/annual basis
- Rental of data charged on day/week/month basis
- One-off fee to licence key dataset (geography/time/Age group)



Market Sensing Capabilities and Market Understanding

“ The ability to recognize emerging **market** requirements and trends, assess customer responses rapidly, and design rapid **market**-entry strategies ” (Day, 1994)

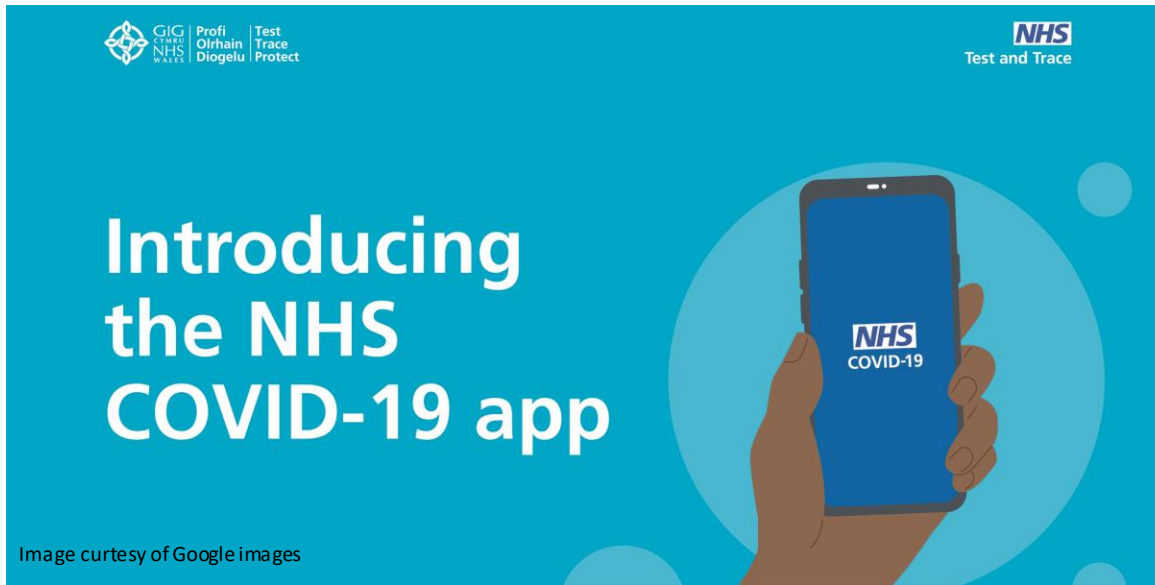
- What trends have emerged since the COVID-19 pandemic?
 - Individual/collective responsibility for our health taken more seriously?
- Has industrial appetite for health data grown since COVID-19?
- Are governmental bodies more overt in their data acquisition?

		Probability of the event occurring		
		High	Medium	Low
Effect of the event on the company*	7			
	6	Utopia		Field of dreams
	5			
	4		Things to watch	
	3			
	2	Danger		
	1			
		*1 = Disaster, 2 = Very bad, 3 = Bad, 4 = Neutral, 5 = Good, 6 = Very good, 7 = Ideal		

A structure for market sensing (Piercy, 2009)



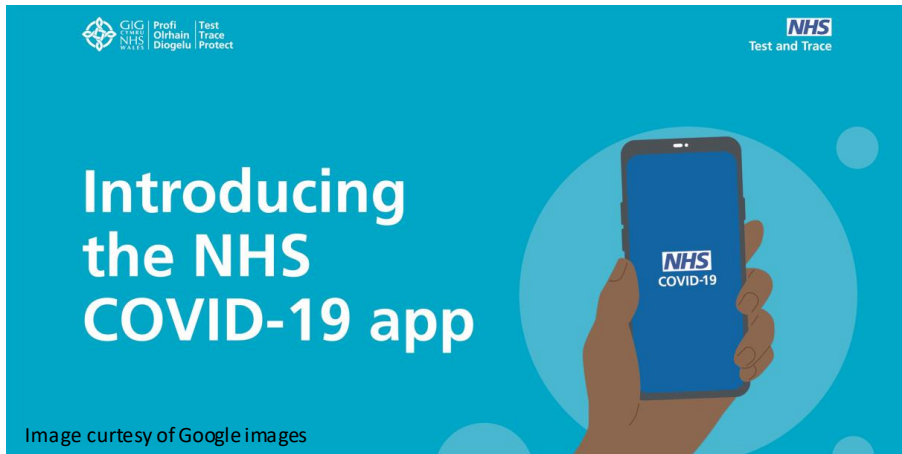
Market Sensing Capabilities and Market Understanding



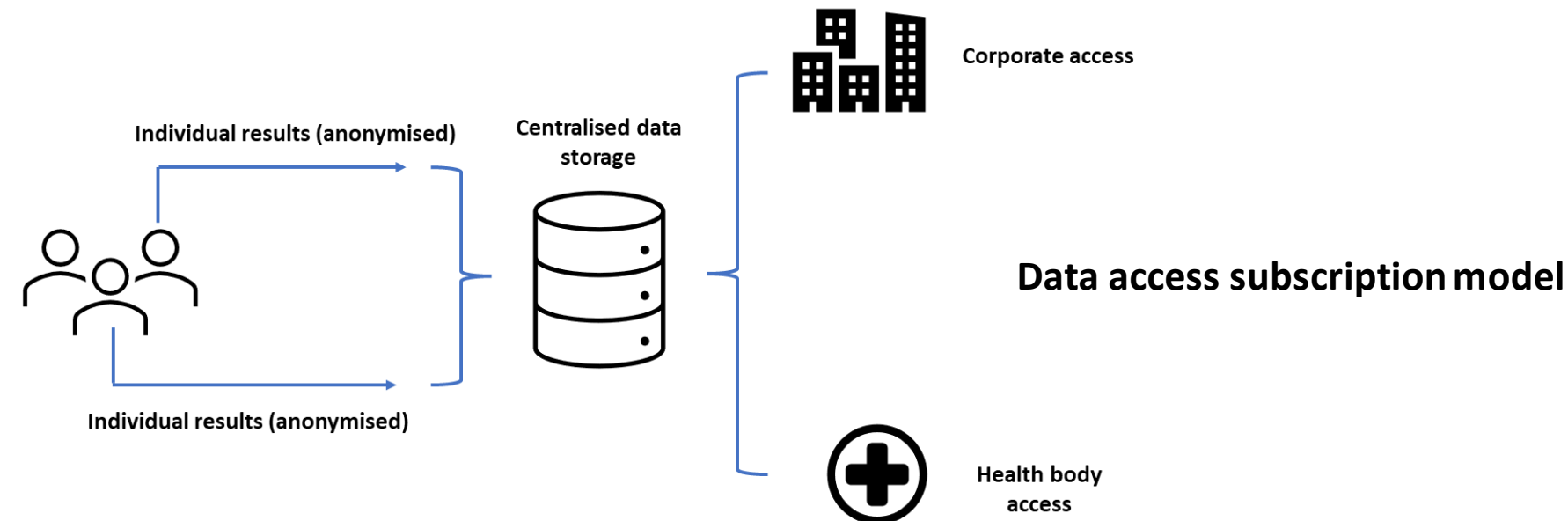
- Track and Trace App demonstrates shift in governmental data acquisition
- Also demonstrates significant increase in individuals providing data to large datapools
- May indicate a willingness to adopt health tech. that collects data for the 'common good'



Market Sensing Capabilities and Market Understanding



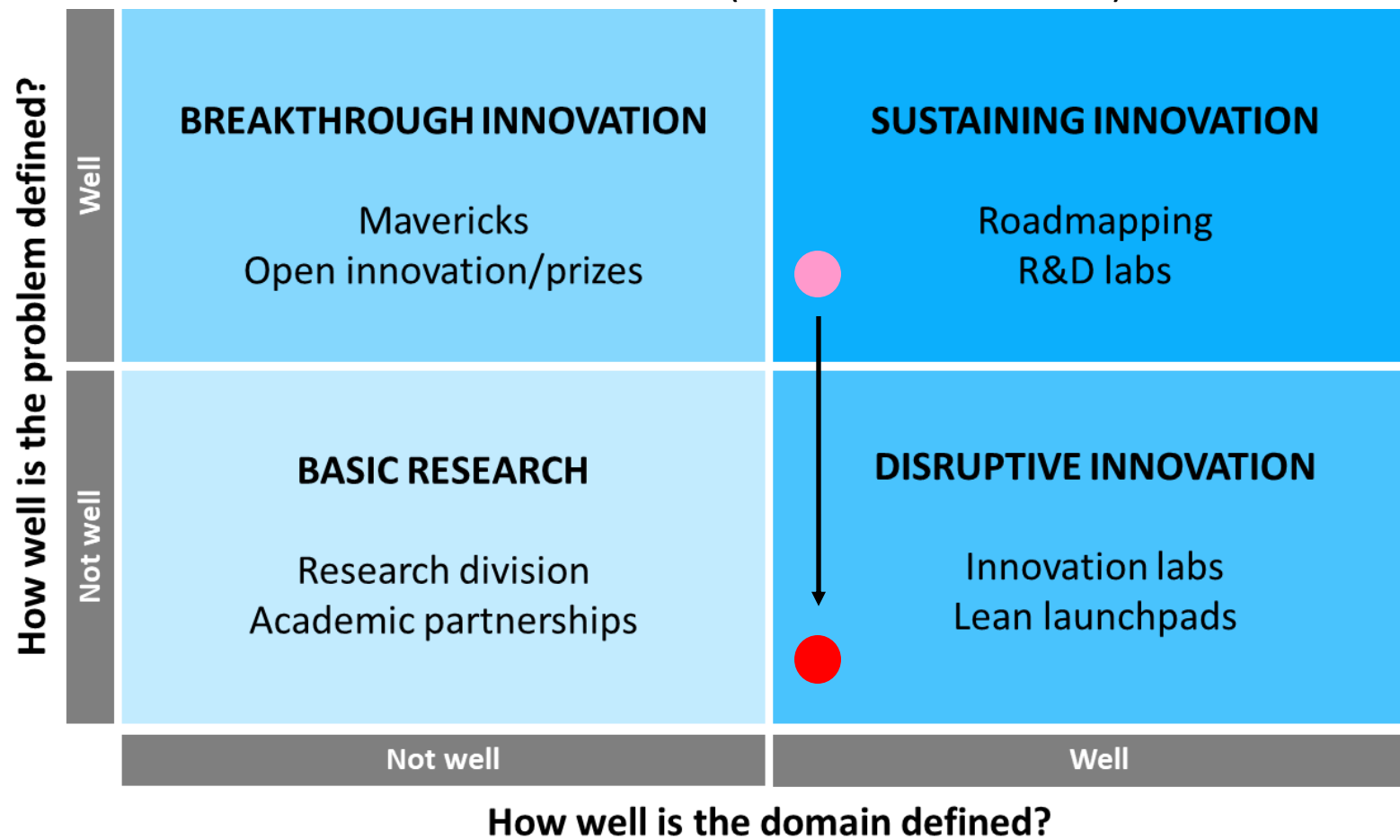
- Reviewing adoption of Track and Trace app will be key to understanding potential customer adoption of this technology



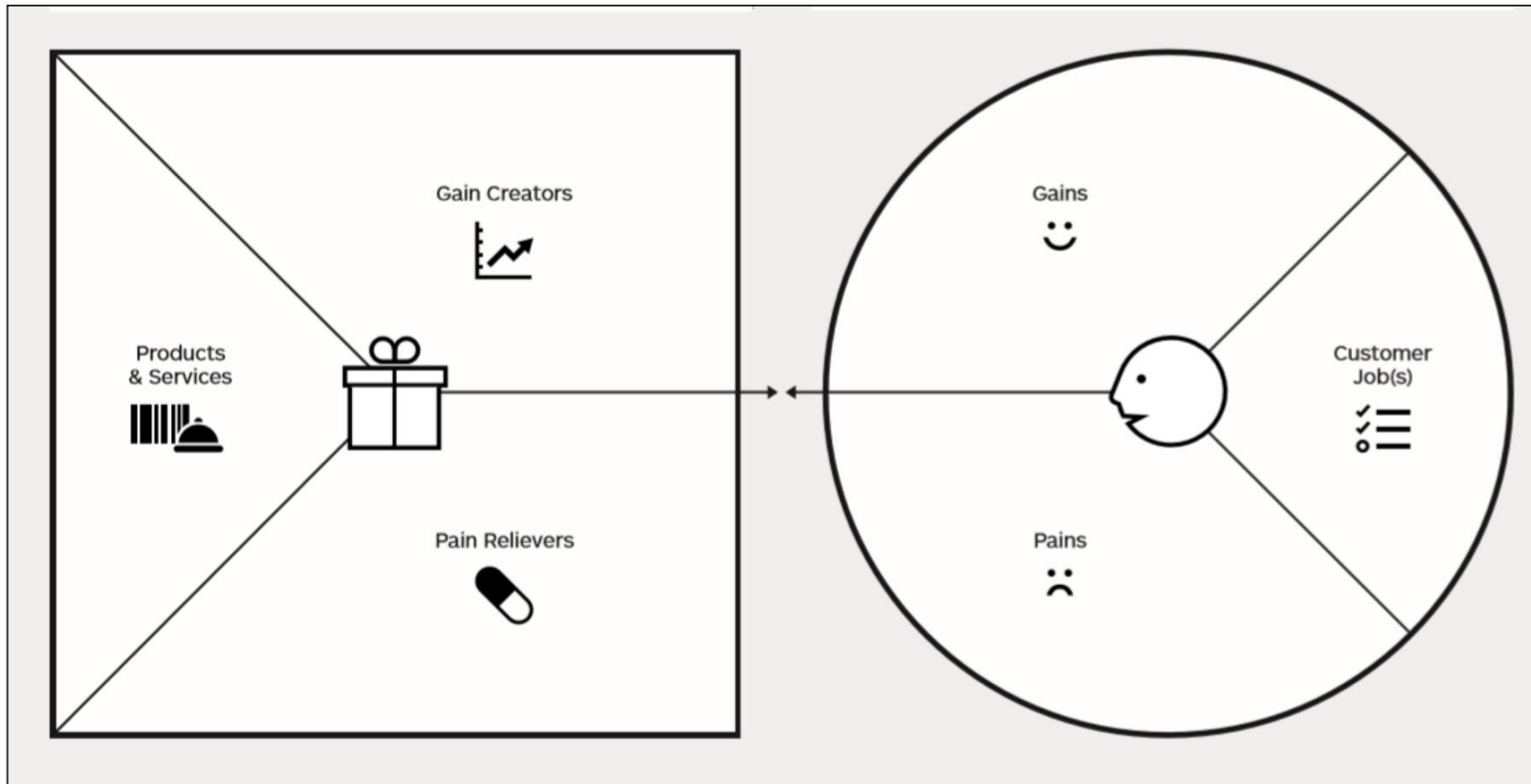
Market Sensing – Innovation control

Greg Satel's innovation matrix

Development of 'disruptive' innovation – requires a new approach to market sensing (as it is a new market!)



Market Understanding - ETIC



Batat, W. (2019).

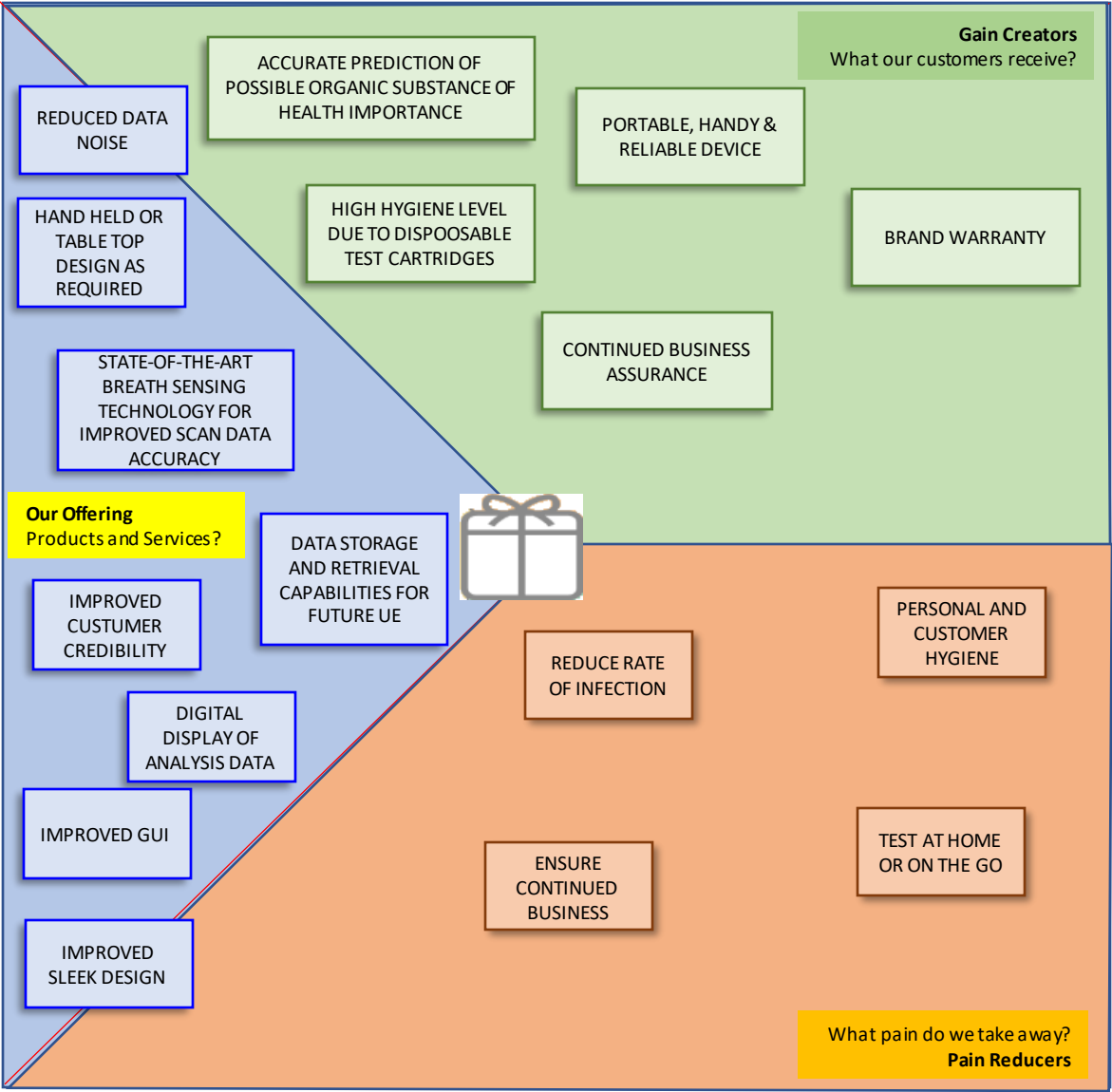


Customer Value Proposition Canvas 1 - Trades Person

Ade Jones
Lock Smith
Called out several times a day to different customer locations for lock servicing

Value Map

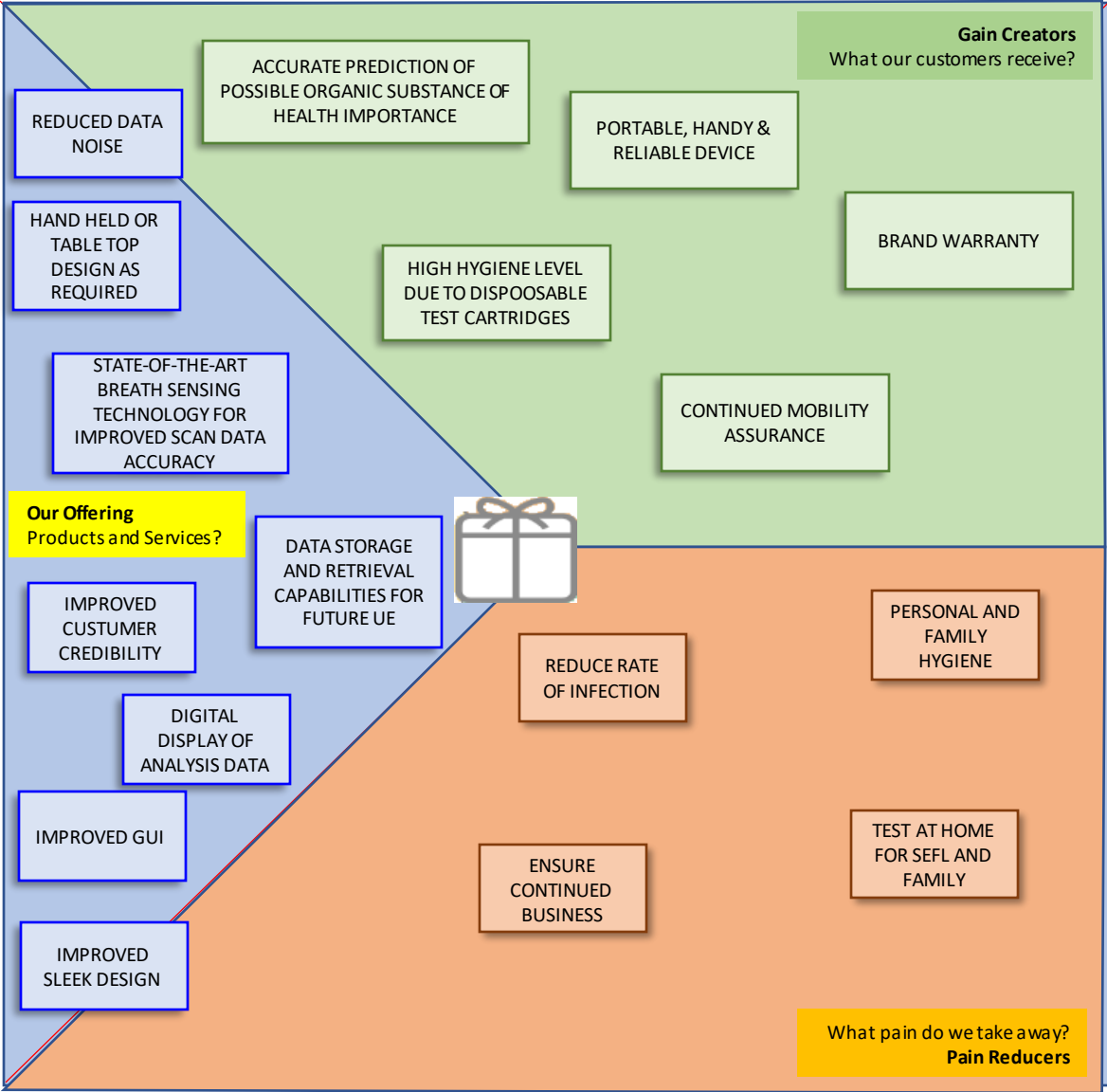
Customer Profile



Customer Value Proposition Canvas 2 - Individuals

YOGI KUNCHE
SOFTWARE ENGG
Married, Father of 2,
cricket, badminton, health
& adventure enthusiast

Value Map



Customer Profile



Conclusion.



- Public perception around health has changed; greater personal responsibility – now is the time to tap into that market
- Data subscription services can provide major, new revenue stream

Initial concepts + ideas

Market Intelligence & sensing



- Market research focussing on Emic and Etic principals will provide a foundation to understand new markets
- SWOT and PESTLE analysis provide objective tools to evaluate market research and provide market sensing insight

New Product design



- New Product to be designed based on market intelligence results
- New revenue streams achieved

Thank you for
listening.

Any questions?



References

- Batat, W. (2019). *Experiential Marketing Consumer Behavior, Customer Experience and The 7Es*. London: Routledge.
- CIPD, (2021a). PESTLE analysis. [Online]. Available at: <https://www.cipd.co.uk/knowledge/strategy/organisational-development/pestle-analysis-factsheet#gref> [accessed 9 August 2022]
- CIPD, (2021b). SWOT Analysis. [Online] Available at: <https://www.cipd.co.uk/knowledge/strategy/organisational-development/swot-analysis-factsheet#gref> [accessed 9 August 2022]
- Day, G.S., (1994). The Capabilities of Market-Driven Organisations. *Journal Of Marketing*. Vol. 58. No. 4. PP.37 – 52
- Fortune Business Insights. (2021). *[2021-2028] Breathalyzers Market Size, Share, Growth, Trends, Revenue, Competitive Landscape, Forecast Report*. [Online]. www.globenewswire.com. Last Updated: 24 February 2021. Available at: <https://www.globenewswire.com/news-release/2021/02/24/2181431/0/en/2021-2028-Breathalyzers-Market-Si> [Accessed 3 August 2022].
- Grand View Research. (2022). *GVR Report cover Breath Analyzers Market Size, Share & Trends Analysis Report By Technology (Fuel Cell Technology, Semic.* [Online]. www.grandviewresearch.com. Available at: <https://www.grandviewresearch.com/industry-analysis/breath-analyzer-market> [Accessed 3 August 2022].
- Laboratories, L. (2022). Lion Laboratories. [Online] Available at: <https://www.lionlaboratories.com/> [Accessed 03 August 2022].
- Mordor Intelligence, (2022). *Mordor Intelligence*. [Online] Available at: <https://www.mordorintelligence.com/industry-reports/breathalyzers-market#:~:text=The%20global%20breathalyzers%20market%20was,8.5%25%20during%20the%20forecast%20period>. [Accessed 02 April 2022].
- MHRA, U., (2022). UK Government Medicines & Healthcare products Regulatory Agency. [Online] Available at: <https://www.gov.uk/government/organisations/medicines-and-healthcare-products-regulatory-agency> [Accessed 03 August 2022].
- MHRA, (2022). Medicines, medical devices and blood regulation and safety. [Online] Available at: <https://www.gov.uk/topic/medicines-medical-devices-blood/medical-devices-regulation-safety> [Accessed 03 August 2022].
- MHRA. (2021). *Target Product Profile Rapid Breath Tests for the direct and indirect detection of SARS-CoV-2*. [Online]. assets.publishing.service.gov.uk. Last Updated: 3 March 2021. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachme nt_data/file/9662 [Accessed 9 August 2022].
- MHRA, (2020). Medical devices: how to comply with the legal requirements in Great Britain. [Online] Available at: <https://www.gov.uk/guidance/medical-devices-how-to-comply-with-the-legal-requirements> [Accessed 03 August 2022].
- Piercy, N.F., (2009). *Market-Led Strategic Change*. Fourth edition ed. Oxford: Butterworth-Heinemann is an imprint of Elsevier.
- Value proposition canvas (Batat, 2019)
- WHO, (2022). *WHO Coronavirus (COVID-19) Dashboard*. [Online] Available at: <https://covid19.who.int/> [Accessed 01 Augustus 2022].

