London Business School

# Preparing for Consulting Interviews

# Before we begin

This guide is for those preparing for interviews with consulting firms and internal strategy groups in corporates. It is also for those looking to improve their general interview performance, regardless of industry and role. The suggestions and tips can help in structuring your answers, communicating well and showing your best self during interviews.

The consulting firms referred to here are those who define themselves as management consulting or strategy consulting firms. Some are specialists in certain industries or fields; e.g., corporate turnarounds, sales force, supply chain, etc. Many multinational companies have internal strategy/consulting groups who employ ex-consultants and deploy similar approaches in recruiting and interviewing.

All consulting firms and internal strategy groups use business case studies, or cases, in interviews. Interviews for most corporate roles that involve growing a business unit, maximising profits or launching a product/brand and so on will pose business scenarios or case-related questions to interviewees. Interviewers are interested in how you think, analyse and problem solve, as well as your creativity, engagement and 'fit' with the company. The core skills required for successful interviews are similar: well-structured arguments, good communication skills and being personable will take you a long way.

Consulting is highly competitive. Being able to 'crack' the case during the interview is a pre-requisite, so it is imperative to be case-ready when you apply. Converting the interview into an offer, however, requires more than simply being able to solve the case. That is where engagement, personality, communication, creativity and fit comes in.

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# Preparing for Consulting Interviews

# The consulting sector landscape


"Management consulting – or, more specifically, business strategy consulting – is conducted at an organization's highest level by those charged with making its broadest, most pivotal decisions."

Bain & Company

"Strategy consultants generally work for the company's CEO, and you work with the firm's most pressing and broadest issues. The engagements you'll work on are more likely to be short (3-6 months), high-impact (one of the CEO's top 3 issues) and relevant (time-sensitive), which means you have a direct impact on the future of the company."

www.managementconsulted.com

# What to consider before applying

### Is consulting for me?

- Evaluate how consulting fits with your short, medium and long-term plans, from both your career and life perspective. Solving high-impact project issues and working with the C-suite in a dynamic environment is exciting and glamorous. However, the job comes with long hours and a great deal of travel and these do not lessen as you become more senior.
- Do your homework. Talk to as many people as you can: friends/contacts in consulting, alumni, sponsored classmates and those who have left the sector. Ask how they got into consulting, their work-life balance, how they prepared for interviews, etc. Preparing for consulting interviews requires a huge investment of time and effort, so you need to be clear on your motivation for choosing it as a profession.

### Location

- Where do you want to build your career and network when you are in consulting, and post-consulting?
- How does this fit with your personal life, family and support network?

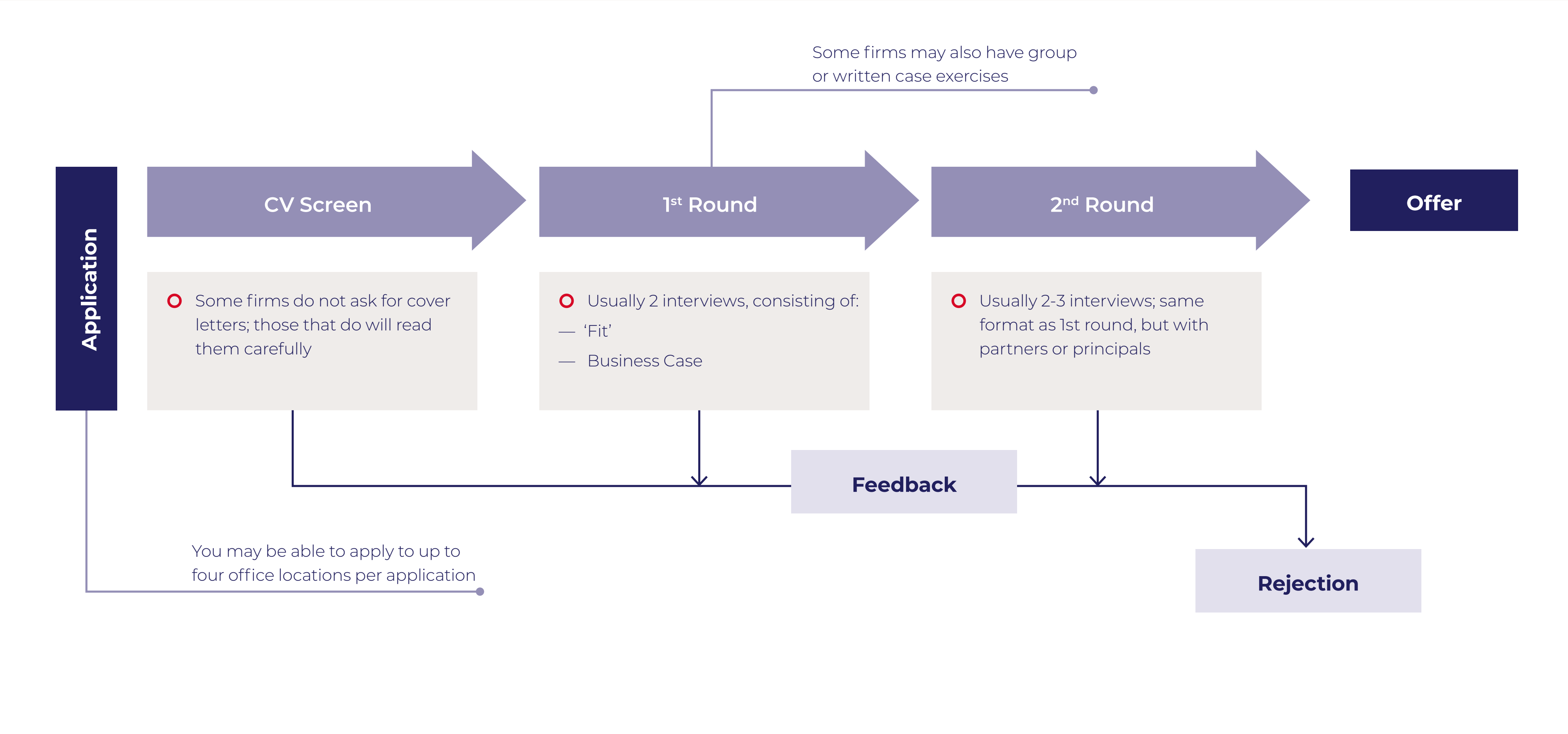
### Sector and/or practice

- Some firms specialise in certain sectors or types of project, and some sectors could be concentrated in certain locations. While you typically join as a generalist, you will start to focus at Manager/Project Leader level. Consider what areas you are interested in and how this fits with your medium and longer-term career plans.

### Timing of application

- Timelines are fixed for structured global applications; you will need to be ready by those datelines
- For direct-to-company applications (including experienced hires), apply only when you are case-ready
- Solving the case is a pre-requisite and you must be able to do so in a structured manner. However, successful candidates also need to 'ace the fit', be engaging, and communicate well.

# Typically two rounds of interviews consisting of both fit and case



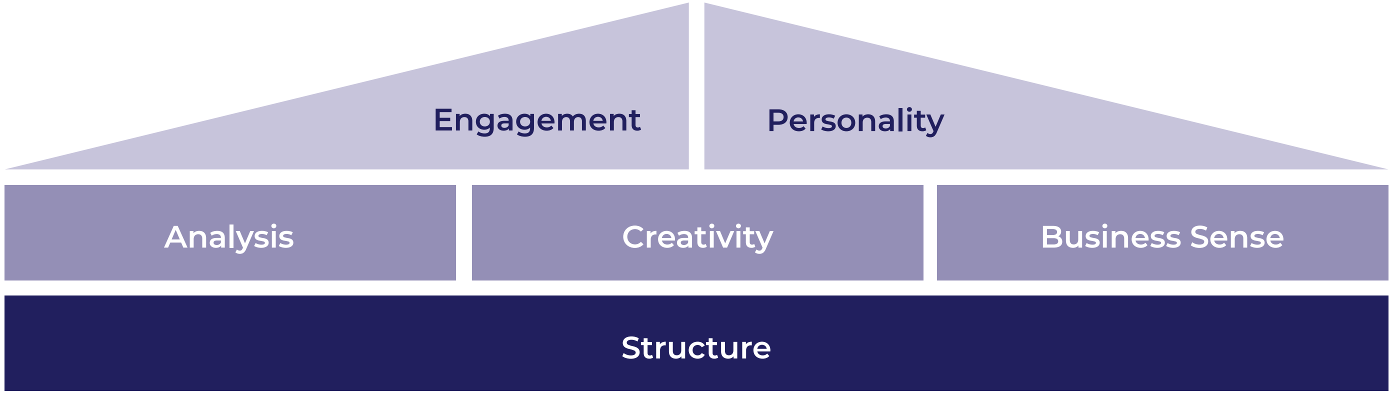
# During the interview

**Introductions** (~2 mins) → **Fit** (~10 mins) → **Case** (~30 mins) → **Your questions** (~5 mins)

Note:

- *Candidate-led interviews.* Most interviews are of this style. The candidate is expected to ask for data and drive the analysis of the case
- *Interviewer-led interviews.* These are typical for McKinsey. The interviewer will direct the flow of the case, present data and ask you questions
- *Internal strategy groups.* Some internal consulting groups may spend more time on fit and less on case
- *McKinsey personal experience interview (PEI).* The interviewer will pick one or two stories to dive into deeply, so fit could take 20-30 minutes, with overall interview including case lasting over an hour.

# What interviewers are looking for during the case




**Structure, analysis, creativity and business sense are core skills candidates must demonstrate. Successful candidates however, are those who show engagement and personality as well.**

# Types of fit question

**Guaranteed questions**

- Tell me about yourself; walk me through your CV
- Why consulting?
- Why the firm?

**Common questions**

- **Tell me…**
  - When you demonstrated leadership, team spirit, creativity, initiative, entrepreneurship or business development, problem-solving or analytical skills…
  - Your proudest achievement…
  - When you failed…
- **What are…**
  - Your strengths and weaknesses? (Commonly disguised as: "What would your manager/colleague say about you?")

# Structuring your fit answers

### Be organised in your answers

- For "Tell me when/what…" questions, use CAR, STAR or SOAR (see below). Any format is fine as long as your answer is organised
- The interviewer is most interested in the action, how you went about solving the situation, what you did, to whom you spoke
- Results do not always have to be quantitative; qualitative impact can be just as significant.

CAR = context, action, result
STAR = situation, task, action, result
SOAR = situation, obstacle, action, result

### Be concise

- About 1.5-2 minutes per answer
- Since the interviewer is most interested in the action, be sure you spend about 50-60% of airtime on this part of your answer
- For McKinsey personal experience interviews (PEI), when the interviewer asks about a particular experience, the answer for each question should also be about 2 minutes, even if you spend 10-15 minutes in total on that experience.

### Be ready with different stories

- To demonstrate leadership, team spirit, problem-solving, etc.
- Think about which stories you want to tell and how they show the way you work and interact with others.

### How you tell the story matters

- Consider your choice of words, narrative and the sequence of what you say
- Always be positive and focus on what you are looking for now and how you would do things differently, given what you have learned, etc. Never blame (e.g. client/colleague was being difficult) or complain about anything. Interviewers are interested in what *you* did about the situation
- There will be many candidates who also have international experience and great achievements: the best differentiator is your unique personality and style
- The interviewer wants to see how you learn from experience, how you handle feedback and whether you can demonstrate humility and confidence at the same time.

# What to consider for guaranteed questions

**Tell me about yourself?**

- Commonly told in chronological order, but telling in parts or chapters may work better for you
- Remember to explain your motivation for switching jobs and for going to LBS. Interviewers want to see drive and ambition.

**Why consulting?**

- Reasons tend to be typical (e.g. project diversity, knowledge acquisition, etc.), so it is crucial to explain how consulting is important to you at this stage of your career and how it fits with your short and medium-term plans
- If relevant, explain how consulting is different from your previous job, especially if you were in professional services or a role with similar job functions.

**Why us?**

- Be evidence-based. Use specific examples, ideally from people you have spoken to – and go beyond a quick read of the company’s website
- Interviewers want to see you have done your homework and that you are truly interested in the firm
- For internal strategy groups and corporates, it is imperative you are familiar with the firm, its industry and its dependencies.

**Interviewers want to see genuine interest and motivation for consulting and the firm**

# Cases reflect the type of projects consulting firms work on

| Type of case | |
|---|---|
| **New Idea** | **Reaction** |
| Market Entry<br>Product Launch<br>Industry Analysis<br>Capacity Expansion<br>M&A<br>Investment | Profit/Loss<br>New Competitor<br>Changing Trend<br>New Regulation |
| Pricing<br>Organisation<br>Capacity Expansion/Restructuring | |

### A single case is often comprised of multiple case types

**Example #1:** Our client, a venture capital company, is considering investing in a US start-up with the intention to bring its product, battery-operated home security cameras, to the UK. How would you go about evaluating this idea and price the product for the UK market?
**Case type:** investment, industry analysis, market entry, pricing.

**Example #2:** Our client, an online gardening company, has suffered declining profits recently and wants to reverse this. At the same time, it is considering launching its own line of plant pots and planters but is not sure if it has the capacity. What would you recommend?
**Case type:** profit, product launch, capacity expansion, organisation.

**Example #3:** The board of a global hotel company is considering expanding into boutique hotels. As the internal strategy group, we have been tasked with providing an evaluation for this proposal. How would you start?
**Case type:** changing trend, industry analysis, organisation.

> "As a management consultant, you will work on varied projects across topics and industries. You will be responsible for analyzing problems, discovering insights, delivering recommendations, and making change happen for our clients. Your work will help transform businesses, governments, and society."
>
> **Boston Consulting Group (BCG)**

# Case components

### ~1-3 mins — Clarify

- Understand the task at hand; what needs to be solved, what target(s) need to be achieved and in what timeline
- Do not ask questions that are part of analysing the problem (save those for the Analyse stage). Here, you just want to understand the scope of the issue/task.

### ~2-3 mins — Structure

- Lay out your plan of action – how you would go about solving the case; which buckets/areas you want to analyse (in landscape format)
- Take ~1 minute to think and write out your plan before presenting.

### ~15-20 mins — Analyse

- Ask questions to understand causes and drivers, but stay in scope
- Examine data and charts. What can you infer?
- Calculate: what do your answers mean?
- What assumptions (hypotheses) can you test? How can you narrow down to key issues/drivers?

### ~2-3 mins — Brainstorm

- What ideas can you generate to solve the issue?
- What options or alternatives can you think of for the client?
- How would a particular proposal affect the client and all involved?
- Think in buckets (vs one long list); it will help you stay organised and generate more ideas.

### ~2-3 mins — Recommend

- How would you summarise the key insights from the case?
- What action(s) would you recommend the client to take?
- What are the risks?
- What are the next steps?

# Structure is required throughout the case (not just the beginning)

Practice being organised throughout the case (not just during the structure part) and in thinking, speaking and writing.

- Organise your structure – make sure your plan of action is neat and MECE (mutually exclusive and comprehensively exhaustive; i.e., you have not missed anything and there are no overlaps)
- Organise information/data given by the interviewer neatly – in a table, if possible
- Organise your calculations especially for market sizing (see example). Write and present your method neatly and logically. The interviewer must be able to follow what you are doing. This will make it easier for you (and the interviewer) to check your work, spot mistakes and identify:
  - — The formulas and/or components for the calculations;
  - — Where the numbers for the formulas came from/how you derived your assumptions;
  - — The (calculated) results and what they mean.
- Organise your brainstorming – think, write and present your ideas in buckets, not as a laundry list. Your structure or plan of action at the beginning of the case could help organise your ideas.
- Organise your recommendation(s) – structure your suggestions, risks, next steps; e.g. "The causes of profit loss are X and Y. I recommend the client to do A, B, C. The risks are D and E. The recommended next steps are 1 and 2."
- Practice structuring drills, brainstorming drills, market-sizing drills, maths drills, and recommending drills out loud, with a timer. Remember: you need to show the interviewer you are not only structured in your thinking, but also in presenting your thoughts
  - — The timer will help you maintain a certain speed and momentum throughout the case. You only have about 30 minutes during the interview to solve the case.

# Example: market sizing

Interviewer: Can you estimate the annual ticket revenues for London Zoo?

Suggested answer:

| | | | | |
|---|---|---|---|---|
| Revenues | Volume | **Number of hours open per day** | - Assume 10 am – 7 pm, Apr-Sep when days are longer<br>- Assume 10 am – 5 pm, Oct-Mar when days are shorter. | - For 6 months, 9 hours a day: Apr, Jun, Sep = 30 days; May, Jul, Aug = 31 days<br>Total = (90 + 93 days) x 9 hours = 1,647 hours of operation<br>- For 6 months, 7 hours a day: Oct, Dec, Jan, Mar = 31 days; Nov = 30 days; Feb = 28 days<br>Total = (124 + 30 +28) days x 7 hours = 1,274 hours of operation. |
| | | **Number of days open** | - Assume open everyday except for Christmas, Boxing Day and New Year. | - Minus total of 3 days in Dec and Jan, i.e. 21 hours of operations<br>- Total hours open in Oct-Mar = 1,274 – 21 hours = 1,253.<br>↓ |
| | | **Number of visitors** | - Tickets can be purchased online or at the door. Assume less than a minute to process online tickets, and ~5 minutes to process tickets purchased at the door<br>- Given multiple ticket counters, regardless of whether tickets are purchased at the door or online, assume on average ~30 people admitted every five minutes. → | - In one hour, there are 12 x 5-min parts<br>- For one hour, 30 people x 12 = 360 people admitted per hour<br>- Number of visitors in Apr-Sep = 1,647 hours x 360 ≈ 593,000<br>- Number of visitors in Oct-Mar = 1,253 hours x 360 ≈ 451,000.<br>↓ |
| | Price | **Average price per ticket** | - Different prices for adults, children, seniors<br>- For simplicity, assume £25/ticket. → | **Total revenues per year = (593,000 + 451,000) x £25 = £26.1 m** |

# How to strengthen analytical skills

### Always state the "So What?"

Interviewers are looking for what you can infer from the charts, tables, data and your calculations. Key insights often require you to interpret data from multiple sources, beyond what is obvious from just one chart/table.

- Remember to link any new information and/or insight to the case prompt and the key question(s) you are trying to solve
- Figure out the full implications of the event, direct and indirect, or first- and second-order effects; e.g. autonomous (self-driving) cars:
  - — Direct impact: Accidents are eliminated, lives are saved;
  - — Indirect impact: Different traffic patterns → changes in road systems/designs, road capacity; -
  - — Indirect impact: Lower parking needs → land can be used in other ways;
  - — Indirect impact: No more truck drivers → changes to logistics costs for retail and e-commerce.

### Be hypothesis-driven

State your assumptions and intuition, then test them with data.

For example, instead of: "I would like to examine how costs have changed in recent years",

Try: "For an online retailer like our client, operating costs related to the platform, software and shipping costs probably make up a large proportion of overall costs. I'd like to start looking at those first and then go through the other costs, such as sourcing costs, processing fees, salaries and other payments, to make sure I haven't missed anything."

### Know your basics

- Practice market sizing. Be sure to explain your process and the rationale behind your assumptions. Note: using population estimates is not always the fastest method
- Be comfortable with margins, break-evens, ROI, NPV, IRR, valuation calculations. The skill here is how to use/derive the numbers from the data you were given to plug into the formulas
- Practice fast maths if necessary
- Practice out loud with a timer. Again, you need to do this in a structured manner and at a good speed. The interviewer must to be able to follow your thought process.

# Building creativity and business sense

### Read up on a sector every day

- Pick a company in that sector, read the company’s reports and analysts’ reports. Get the gist of key success factors, risks and trends. Understand the dependencies of the company with others within and between its industry, up and down the value chain
- This helps you build knowledge on how different companies and sectors work, which you can draw on especially during structuring, brainstorming and testing your assumptions/hypotheses.

### Practice structuring and brainstorming with as many different case types and industries as you can

- Get comfortable in coming up with structures and generating ideas with unfamiliar companies and industries.

### Customise your plan of action to the specific case situation. Interviewers want to see if you can use your skills (not sector knowledge) to work with unfamiliar situations in a structured way

- Do not try to shoehorn the case into a common framework. You need to come up with a customised plan of action that works for that specific situation. Consulting is not about off-the-shelf solutions
- Do not try to apply a one-size-fits-all framework, or ‘let’s throw everything at it and see what sticks’ approach. Consultants do not use a scattergun approach
- Common frameworks, such as Porter’s Five Forces, BCG matrix, 3Cs, 4Ps, or even your own cheat sheets for typical case types are useful starting points, but using them alone will most likely not be MECE enough for the specific case you are given
- If necessary, adjust your plan/structure/issue tree when the interviewer gives you unexpected data. The interviewer wants to see you how you react to deviations and curve balls, a common occurrence in consulting.

# Consider how you engage and let your personality shine

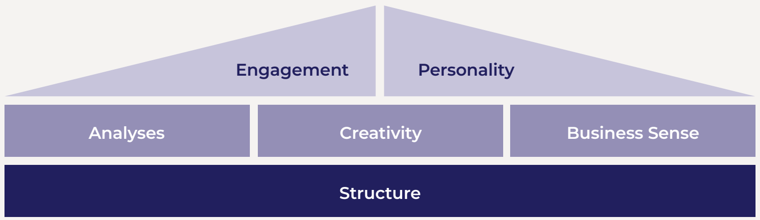
## Engagement

- Be curious
  — Probe and ask questions to understand why things happened during the case, but make sure your questions are relevant and in scope
- Use company-specific vocabulary
  — E.g., for fitness centres, talk in terms of:
  Membership fees (not price);
  Number of members (not volume);
  Gym machines and equipment (not inventory)
- No silence, please
  — Except for the one minute to prepare your structure, keep silence to a minimum. Interviewers (and clients) want to know what you are thinking
- Watch your energy and body language
  — Be interested and enthusiastic, not euphoric or zealous
  — Maintain good eye contact and posture. Watch out for tics; e.g. fiddling with pen or hair, shaking leg, clearing throat, etc.

## Personality

- Use what works for you
  — Especially with frameworks and structures
  — Doing maths
  — Calming your nerves
  — Getting unstuck and recovering from mistakes
  — Practicing cases
- Find your style
  — Everyone is different; be structured and engaging in your own way.

**Remember what interviewers are looking for:**



# Dos and don’ts

- Make it conversational; never be silent
- Be curious and interested – don’t just go through the motions of solving the case
- Do not use or regurgitate a memorised framework: customise your plan of action to the case you are given
- Always clearly state and explain your hypothesis
- Always ask relevant questions to help you solve the case
- Always support your conclusions with data
- Always explain your maths: take the interviewer (client) through the journey
- Be concise: do not talk too much or repeat yourself
- Never complain about anything or argue with interviewer (client)
- Always be structured, in both fit and case.

# Interview preparation journey

| | Fit | Case |
|---|---|---|
| **Explore** | • Research consulting interviews via company websites, Career Centre (Canvas), Consulting Club, Vault, online case prep sites, consulting interview videos, sponsored classmates, Peer Leaders, etc.<br>• Attend networking and coffee chats hosted by consulting firms. | |
| **Explore** | • Sign up to Career Centre coaching sessions, consulting sessions, career vision workshops. | • Attend case workshops offered by companies, Consulting Club, etc. |
| **Start** | • Attend Career Centre workshops for CVs, cover letters, crafting your story/ brand, preparing for fit interviews, networking, etc.<br>• Start preparing your CV and cover letters. Decide location(s) to apply to<br>• Prepare your stories and try them out with classmates, sponsored students, Peer Leaders. | • Try out a few cases by yourself; do drills in structuring, brainstorming, maths, market sizing, chart reading, etc.<br>• Do a couple of crack-a-case sessions via the Consulting Club, mock interviews with sponsored classmates and Peer Leaders, etc.<br>• Identify what areas need strengthening and how much time you need. Prepare a plan to include a combination of drills, doing cases on your own and getting tested with mocks. |
| **Develop & Do** | • Continue to fine-tune your stories, CV and cover letters. | • Be diligent with your case prep and adjust how you practice according to feedback and your own evaluation. |
| **Develop & Do** | • Do mocks, for both fit and case, with people you are less familiar with as you improve: with second-year MBAs who have done summer consulting internships, other sponsored students (from other streams or second-year MBAs), people you find intimidating. Practice with different Peer Leaders: you need to experience different interview styles, case types and industries. | |

# Final words

### Be structured, be engaging, be yourself

- For both the fit and the case (i.e., for all fit questions and throughout all parts of the case). Consulting firms want to know if they can put you in front of clients and communicate well with them; internal strategy groups want to see that you can work across business units, functions and levels.

### Practice with variety

- Become comfortable with different case types, industries and interviewer styles. You need to demonstrate you can tackle any business problem in any industry
- Specialist firms and internal strategy groups may give you cases that are not related to their businesses to see how you deal with unfamiliar industries. They are looking for skills, process and structure, not sector knowledge
- Practice getting unstuck. Interviewers want to see how you recover.

### Do, reflect, repeat

- The quality of your practice is just as important as quantity. Be sure to reflect on your own performance and work on areas that need strengthening, beyond "I need to remember to do X next time". Consider how can you practice to make sure X happens
- Treat practice with partners as mock interviews; the majority of your practice and preparation will be by yourself .

### Be ready to be interviewed

- Being able to crack the case is a primary filter in interviews. First and foremost, candidates must be able to solve business problems in a structured manner; however, candidates who secure offers show they can also communicate well, engage with clients (interviewers) and are personable.

> **"Our primary objective has always been to be our clients' most trusted external advisor. The quality of our people is the cornerstone of our ability to serve our clients."**
>
> McKinsey

# Cases for practise

# Rising Sun Service Group

accenture

## Case Prompt:

Our client, Rising Sun Service Group (RSG) is a Japanese Oil Field Services company operating in the Kingdom of Bolduria, an oil rich country near Greenland with mature fields and declining production but huge untapped reserves.

The Kingdom is currently cashstrapped: Boldurian banks made huge bets on American sub-prime, and are now repaying IMF loans out of their hydrocarbons production.

RSG provides two main services to the Boldurian NOC:

- Well production technologies (services, products, tools, and equipment to maximize and extend production for a reservoir)
- Water treatment (treatment of water that is produced as a byproduct along with the oil).

Over the last 5 years, the Boldurian NOC has accrued a US$300m debt with RSG, mostly in unpaid bills for services.

To counterbalance the existing debt, the NOC asked our client to define a 5 year business model to provide exclusive services (well production and water treatment) for their biggest field CHESTER C, the crown jewel among all Boldurian assets.

# Question 1

What are the key factors that you would like to understand in order to assess whether this sort of venture is likely to be successful?

A good answer should consider the following to understand whether there is likely to be enough recoverable oil to make the venture feasible:

- Remaining Reserves (does the field have sufficient reserves)
- Current production (what is the current production for the field)
- Current recovery factor
- Expected oil price

Candidate should conduct a "sanity check" by comparing the field potential with the debt size, monetizing the opportunity presented by remaining reserves:

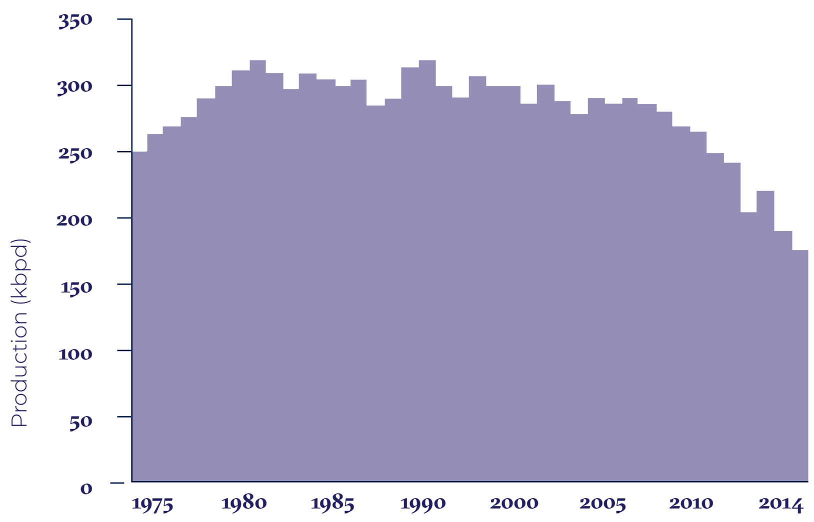
- Field opportunity size – (Remaining Reserves) x (Recovery Factor) x (Expected oil price) = 5.7 billion barrels x 24% x US$/b 80 = approximately US$110bn
- In principle, the field offers the potential to comfortably repay the US$300m debt assuming that CHESTER C Recovery factor and the oil price will remain stable in the future.

Show candidate if requested

## CHESTER C reserves data

| | |
|---|---|
| STOIIP (volume of oil in a reservoir prior to production) | 17 billion barrels |
| Remaining Reserves | 5.7 billion barrels |
| Current recovery factor (recoverable oil ) | 24% |
| Expected oil price | US$80 per barrel |

## CHESTER C production



# Question 2

What are the business models which could be proposed based on RSG service offerings?

A good answer would include analyzing models based on the two main services RSG provides to the Boldurian NOC, including investment requirements and how RSG earns its fees:

- Well production:
  - RSG makes a CAPEX investment to improve the infrastructure of the wells within the field
  - RSG then charges a per barrel fee based on production volumes, with a bonus – malus scheme as added incentive (bonus payment or penalty as a % of fees, based on whether production exceeds or falls below certain agreed thresholds)
- Water treatment:
  - RSG makes a CAPEX investment to build a water treatment plant for the field
  - RSG then charges a per barrel fee for treatment of the water that is produced as a byproduct of the oil

# Question 3

How would you go about assessing these options? What data would you ask for?

In order to assess these options an NPV calculation should be performed. A good answer would enquire about the following for each service provided by RSG:

- CAPEX investment required
- OPEX requirements
- Expected production
- Expected oil price
- Revenue (fees from services)
- Details of bonus – malus scheme (thresholds, payment / penalty amounts)
- Timeframes
- Discount rate.

# Question 4

Which model would you assess first

A good answer would recognize that the revenue received for water treatment would be dependent on the results from well production.

Since the fees for water treatment are based on production volumes (fee is charged per barrel processed), an increase in production would mean higher volumes to treat and therefore an increase in fees earned.

Therefore it would be a good idea to perform the analysis for well production project first as this would allow us to gain a better understanding of the production profile. Once the expected production is understood, the fees for water treatment can be predicted based on the expected volumes.

# Question 5

Through analysis of the following data (show candidates next two slides), which (if any) of the proposed scenarios would you recommend for our client?

A good answer would include the following observations:

- Well production alone would not return sufficient profits to cover the debt
- Water treatment alone would not return sufficient profits to cover the debt
- Combining both well production and water treatment would return sufficient profits to cover the debt

## Combining projects

| | |
|---|---|
| Well production NPV (US$) | 257,415,051 |
| Water treatment NPV (US$) | 157,553,236 |
| Combined NPV (US$) | 414,968,287 |
| Debt (US$) | 300,000,000 |
| Profit (US$) | 114,968,287 |

Combining both projects and offsetting the debt would result in profits of almost 115 million US$.

### Well production model – data table

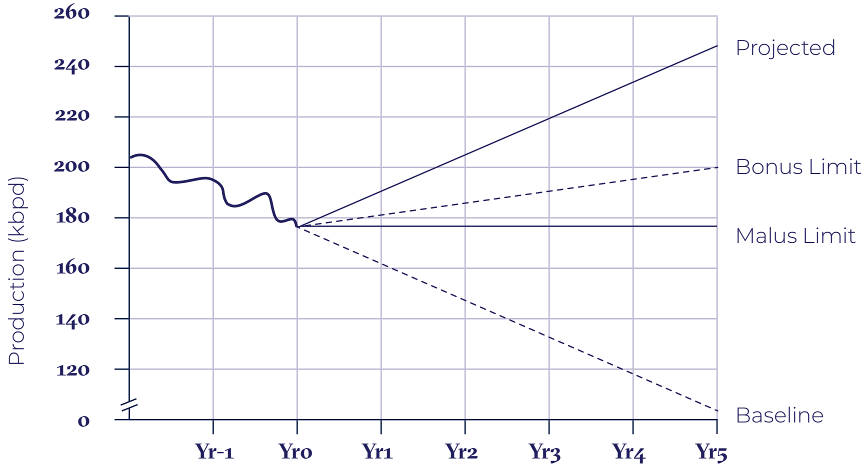
| | |
|---|---|
| Debt | 1300 million US$ |
| Expected oil price | 80 US$ per barrel |
| Number of wells) | 190 |
| CAPEX | 0.8 million US$ per well |
| OPEX | 0[1] |
| Bonus – Malus | 10% |
| Fee | 1.5 US$ per barrel |
| Production for Yr1, Yr2, Yr3, Yr4, Yr5 | 185, 190, 200, 190, 170 kbpd |
| Discount rate | 10% |

1 OPEX can be considered negligible for this service

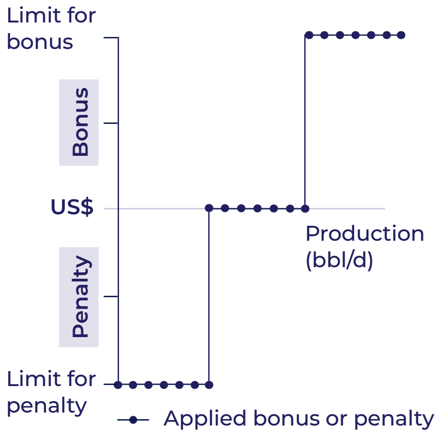
### Water treatment model – data table

| | |
|---|---|
| CAPEX | 50 million US$ |
| OPEX | 0.5 US$ per barrel |
| Water cut (ratio of water produced compared to the volume of total liquids produced) | 40% |
| Fee | 2.5 US$ per barrel |
| Discount rate | 10% |

### Bonus Malus Limits




### Bonus – Malus Scheme



Show candidate

**Well production NPV**

| | Yr1 | Yr2 | yr3 | Yr4 | Yr5 | Comment |
|---|---|---|---|---|---|---|
| **Production (kbpd)** | 185 | 190 | 200 | 190 | 170 | |
| **Annual production (kb)** | 67,525 | 69,350 | 73,000 | 69,350 | 62,050 | |
| **Fee (US$)** | 101,287,500 | 104,025,000 | 109,500,000 | 104,025,000 | 93,075,000 | |
| **Bonus/ Malus** | B | B | B | N | M | Use production volume and bonus / malus diagrams to determine fee adjustment |
| **Total fee by year (US$)** | 111,416,250 | 114,427,500 | 120,450,000 | 104,025,000 | 83,767,500 | |
| **Discount factor** | 1.1 | 1.21 | 1.331 | 1.4641 | 1.61051 | |
| **NPV (US$)** | 101,287,500 | 94,568,182 | 90,495,868 | 71,050,475 | 52,013,027 | |
| **Total NPV of inflows (US$)** | 409,415,051 | | | | | |
| **CAPEX (US$)** | 152,000,000 | | | | | (CAPEX per well) x (Number of wells) |
| **Project NPV (US$)** | 257,415,051 | | | | | |

**Water treatment NPV**

| | Yr1 | Yr2 | yr3 | Yr4 | Yr5 | Comment |
|---|---|---|---|---|---|---|
| **Production (kbpd)** | 185 | 190 | 200 | 190 | 170 | |
| **Annual production (kb)** | 67,525 | 69,350 | 73,000 | 69,350 | 62,050 | |
| **Water produced (kb)** | 27,010 | 27,740 | 29,200 | 27,740 | 24,820 | (Production) x (Water cut) |
| **Fee (US$)** | 67,525,000 | 69,350,000 | 73,000,000 | 69,350,000 | 62,050,000 | |
| **OPEX (US$)** | 13,505,000 | 13,870,000 | 14,600,000 | 13,870,000 | 12,410,000 | |
| **Profit (US$)** | 54,020,000 | 55,480,000 | 58,400,000 | 55,480,000 | 49,640,000 | |
| **Discount factor** | 1.1 | 1.21 | 1.331 | 1.4641 | 1.61051 | |
| **NPV (US$)** | 49,109,091 | 45,851,240 | 43,876,784 | 37,893,587 | 30,822,534 | |
| **Total NPV of inflows (US$)** | 207,553,236 | | | | | |
| **CAPEX (US$)** | 50,000,000 | | | | | |
| **Project NPV (US$)** | 157,553,236 | | | | | |

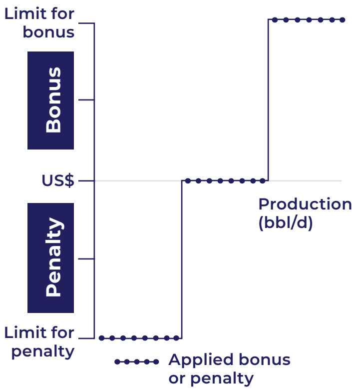
# Question 6

What are some other bonus – malus schemes that can be considered?

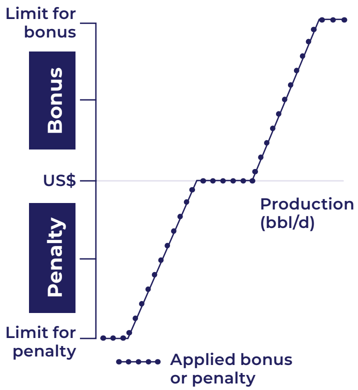
A good answer would include schemes both with and without a neutral region, as well as schemes where the bonus / malus is applied incrementally:

## Bonus Malus Scheme alternatives

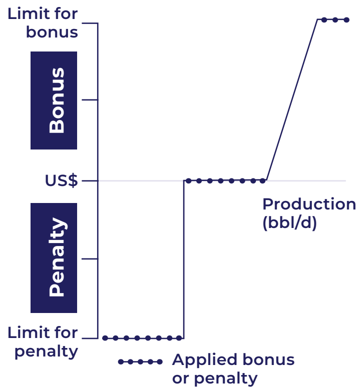
### Scheme 1



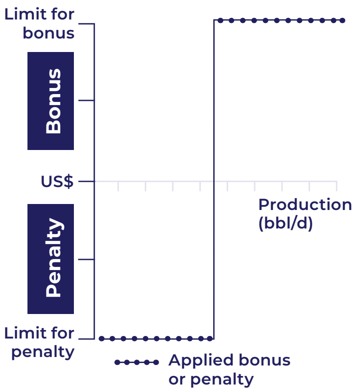

### Scheme 2



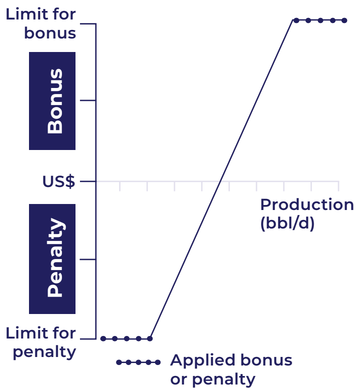

### Scheme 3



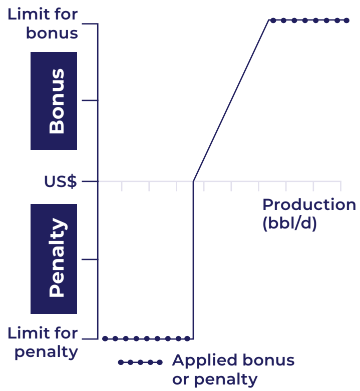

### Scheme 4




### Scheme 5




### Scheme 5



# Entertainment Co.

BAIN & COMPANY

## Case Summary

For interviewer only

| Industry | Primary Issue | Other topics |
|---|---|---|
| Live entertainment. | Stagnant profitability. | Cannibalization, market segmentation. |

### Situation

- Global touring live entertainment company
- Experienced five years of tremendous growth.

### Complication

- Ticket sales and box office revenue have been growing but profitability has lagged.

### Key questions

- What is the root cause of the slower than expected growth in profitability?
- What should management do to remedythe situation?

### Key components

- Suggested framework: Revenue & Costs
- Quantitative: Calculate gross profit of different tour stops.

### Answer

- The slower growth in profitability is driven by recent expansion that included visiting cities that do not sell enough tickets to be profitable. Client should proceed with lower cost Ice-rink format but avoid cannibalizing ticket sales by segmenting markets and avoiding markets where Ice-rink format is taking sales away from Theater.

# Detailed case answer: Entertainment Co.

For interviewer only

- Client is a live entertainment company that tours around the world
- In recent years, the client has witnessed slower than expected growth in profits despite double-digit growth in ticket sales and revenue
- Cause of the slower profit growth is that due to expansion, Entertainment Co. has started to visit several cities that do not sell enough tickets to cover costs
- Possible solutions include: Avoiding unprofitable markets, staying for longer in profitable markets, and introducing a new lower cost show format
- The Theater format has very high fixed costs, as ticket prices are high and show run lengths are long so once costs have been covered, every incremental ticket is profitable
- Ice-rink costs are substantially lower and run lengths are shorter so it may be more appropriate in certain underperforming Theater markets
- However introduction of the new format creates a risk of cannibalizing the very profitable Theater show in certain markets, so cannibalization must be mitigated by appropriate tour planning
- Client should plan tours so that they only go to markets with Ice-rink that are not suitable for Theater (i.e. not enough Theater sales to cover high FC) or can sustain both formats without causing significant cannibalization and stay for more shows in good markets where they can likely sell more tickets.

# Case structure: Entertainment Co.

For interviewer only

| | Structure | Analyze | | | | Advise |
|---|---|---|---|---|---|---|
| | Frame the problem | Use framework to guide analysis | Dig deeper | Develop insights | Synthesize what you learned | Make a recommendation |
| First pass | **Q: How would you frame the problem?**<br>A: Disaggregate drivers and components of revenue and cost | **Q: Given this framework, what questions would you ask your interviewer?**<br>A: Drill into price and cost drivers over time or by different market | **Q: How can you dig deeper to find the source of the problem?**<br>A: Dig in to price and cost drivers by market<br>**Q: Do you have a hypothesis?**<br>A: As Entertainment Co. has grown they have started to visit cities that are unprofitable | **Q: What insights can you draw from the data you have?**<br>A: Some markets have much lower ticket prices and attendance, suggesting that they may be inappropriate for such a high cost product | **Q: How would you bring together everything you have learned?**<br>A: Ice-rink show has shorter run lengths, may be appropriate where Theater cannot sustain long runs and cover FC. But in cities with long Theater runs, Ice-rink format should be avoided | |
| In-depth analys | | | **Q: Quantitative?**<br>A: Compare the profitability across multiple cities and look for root causes of variances | **Q: Draw insights**<br>A: Potentially introduce a lower cost show | **Q: Synthesize the new data**<br>A: Cannibalization may be a problem in select markets. Market segmentation will be required to avoid it | **Q: This is your client. What do you tell them?**<br>A: Plan your tours so that you choose the right format for the right markets and sell the most profitable tickets for that market |

# Entertainment Co.: Case Prompt

Read to candidate

## Situation

- Premier touring live entertainment company
- Company has enjoyed five years of tremendous growth in ticket sales and revenue.

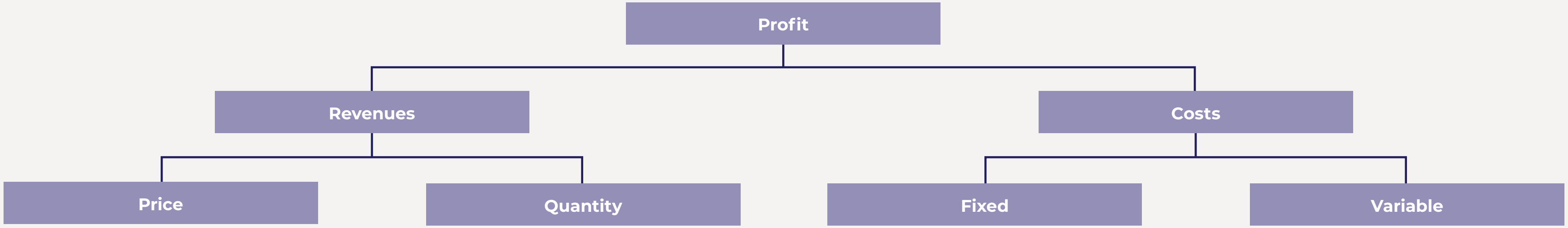
## Complication

- While ticket sales and revenues have continued to grow steadily, profitability growth has lagged.

**What is the root cause of the client's lagging profitability?**

# Suggested framework

**Note for interviewer:**
The math component of this case is very straightforward. Intent is for the bulk of the interview to be spent on the qualitative elements.

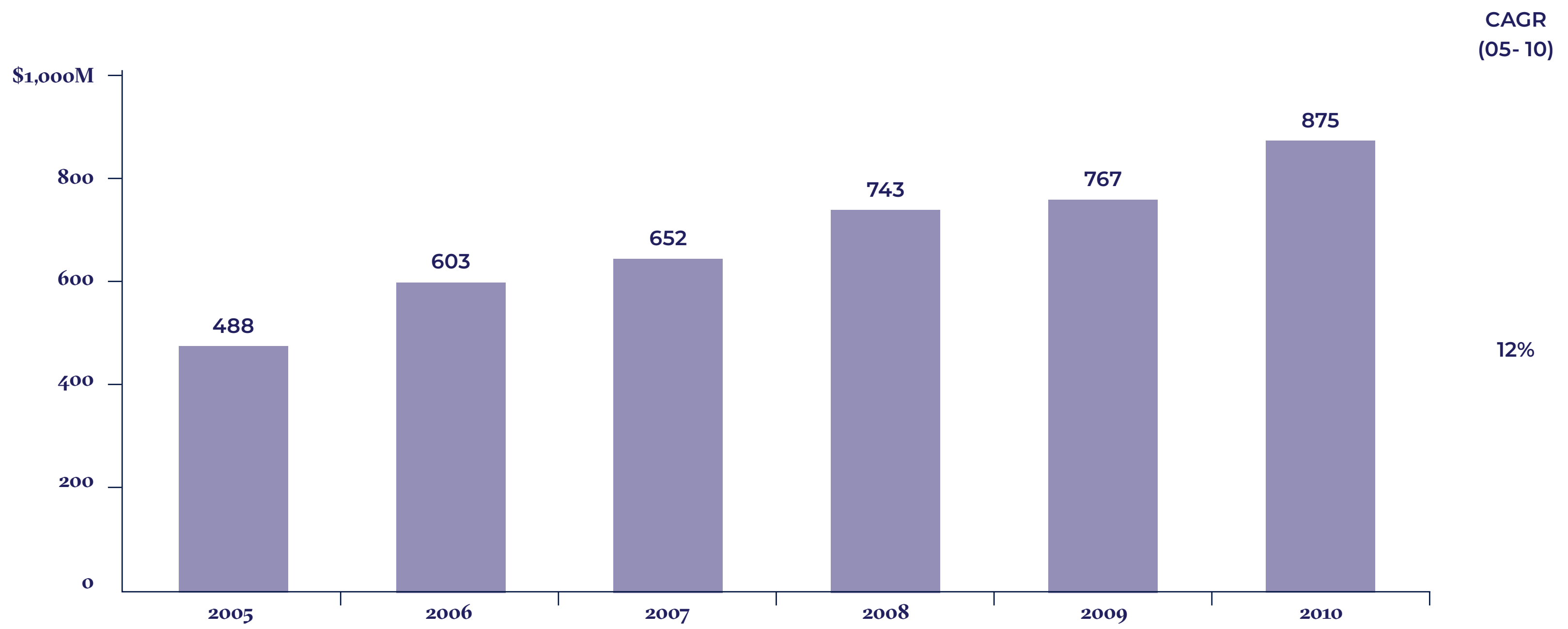



| | | | | |
|---|---|---|---|---|
| **Candidate:** | Need to understand revenue drivers. | | Need to understand cost drivers. | |
| | Has there been a significant change in ticket prices? | What has happened to # of tickets sold in past five years? | How have Fixed Costs (FC) changed in past five years? | How have Variable Costs (VC) changed in past five years. |
| **Interviewer:** | Average ticket price changes from stop to stop. Cities with largely wealthy populations typically have higher avg ticket prices. | Ticket sales volume varies greatly from stop to stop. Entertainment Co. is more popular in some places than others. | FC have grown as the client has added more tour stops. FC are **generally** allocated by length of stop. | VC from stop to stop are generally very consistent. Primary drivers of differences are venue rental. |

# Entertainment Co. financial results

Show candidate

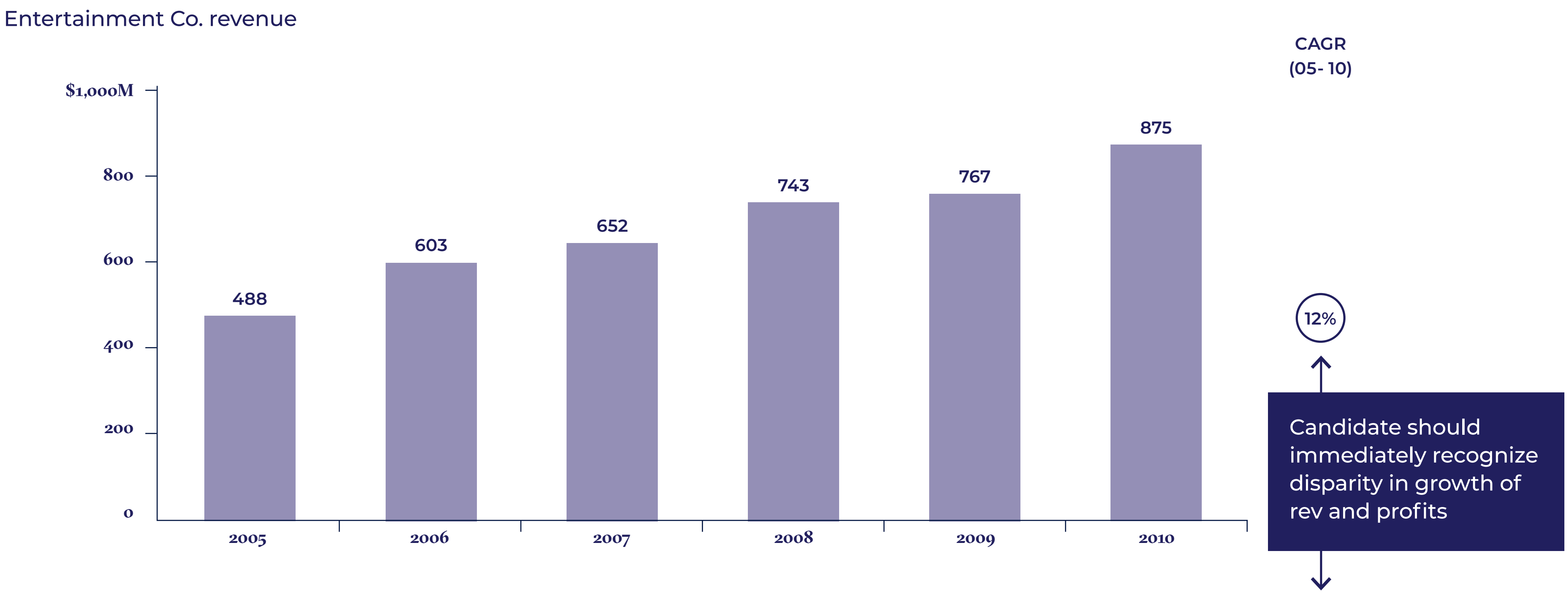
Entertainment Co. revenue




| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | CAGR (05- 10) |
|---|---|---|---|---|---|---|---|
| Gross margin | 38% | 34% | 32% | 28% | 27% | 25% | |
| Gross profit | $185M | $205M | $207M | $206M | $206M | $219M | 3% |

# Entertainment Co. financial results

Suggested answer

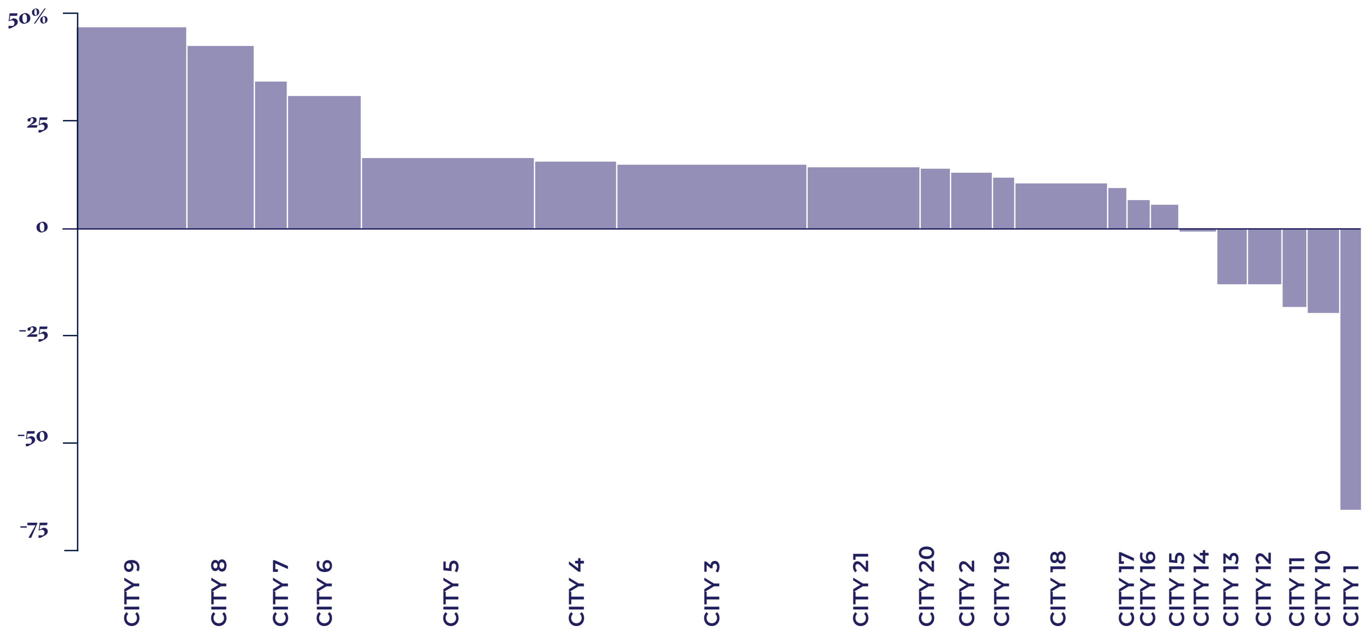



| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|
| Gross margin | 38% | 34% | 32% | 28% | 27% | 25% |
| Gross profit | $185M | $205M | $207M | $206M | $206M | $219M |

# Entertainment Co. profit margin by tour stop

Show candidate

Entertainment Co. profit margin




Show (width equals revenue)

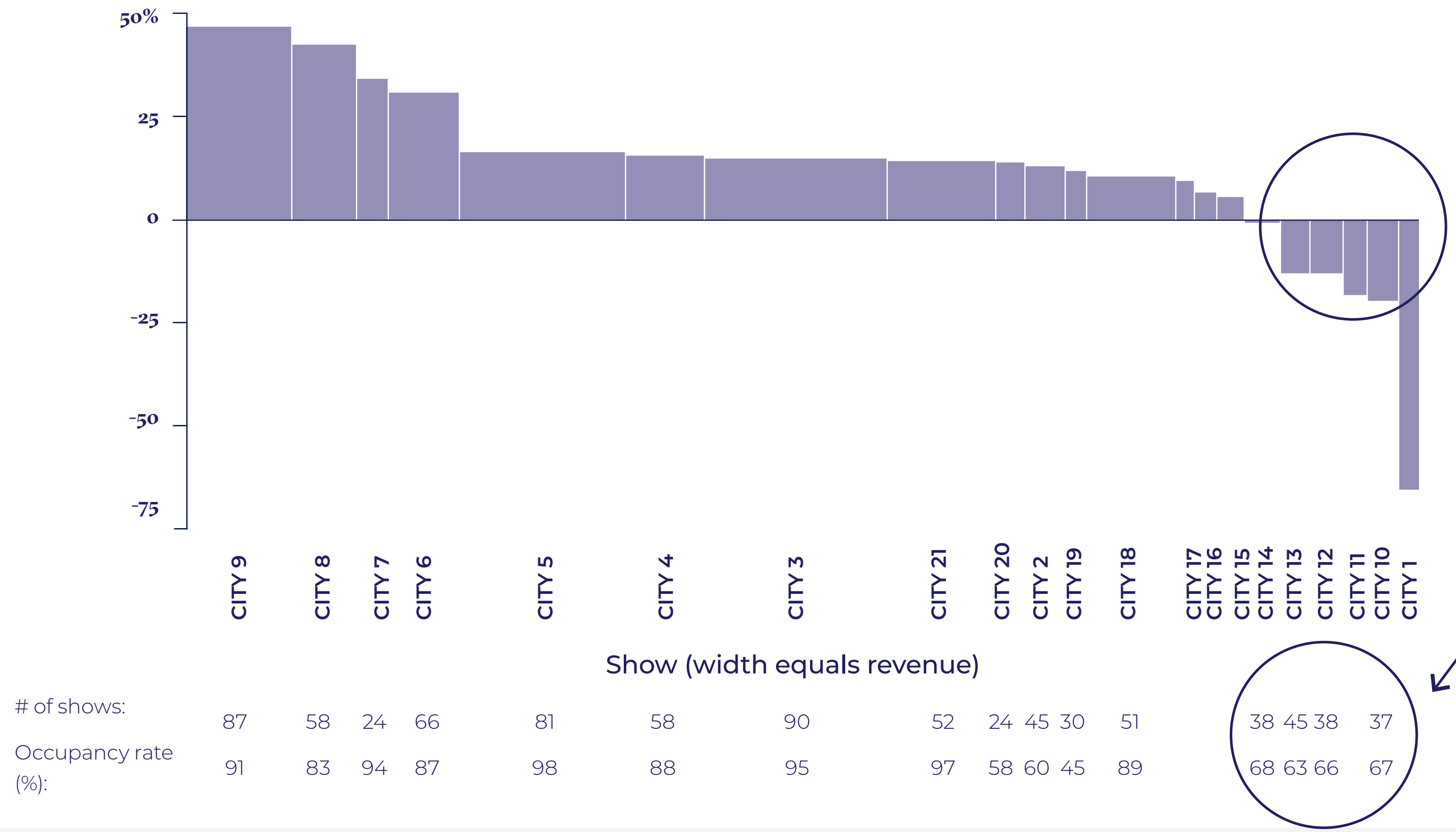
# of shows: 87 58 24 66 81 58 90 52 24 45 30 51 38 45 38 37

Occupancy rate (%): 91 83 94 87 98 88 95 97 58 60 45 89 68 63 66 67

# Entertainment Co. profit margin by tour stop

Suggested answer

Entertainment Co. profit margin




Candidate should point out that the unprofitable shows have shorter LOR and occupancy rates

# Most recent performance results from 3 selected tour stops

Show candidate

Interviewer: How does profitability vary from city to city?

| | CITY A | CITY B | CITY C |
|---|---|---|---|
| **Average ticket price:** | $100 | $80 | $90 |
| **Total shows:** | 85 | 45 | 75 |
| **Total attendance:** | 210,000 | 75,000 | 180,000 |
| **Occupancy rate:** | 95% | 64% | 92% |
| **Variable costs per show:** | $60K | $50K | $60K |
| **Fixed costs:** | $8M | $4M | $6.5M |
| **# of stops in previous 5 years:** | 5 | 2 | 3 |
| **Year of first visit:** | 2001 | 2008 | 2006 |

# Most recent performance results from 3 selected tour stops

Suggested answer

Shaded rows to be calculated by candidate

| | CITY A | CITY B | CITY C |
|---|---|---|---|
| **Average ticket price** | $100 | $80 | $90 |
| **x** | | | |
| **Total attendance** | 210,000 | 75,000 | 180,000 |
| **Gross revenue** | **$21.0M** | **$6.0M** | **$6.0M** |
| **-** | | | |
| **Variable costs per show** | $60K | $50K | $60K |
| **Total shows** | 85 | 45 | 75 |
| **Total variable costs** | $5.1M | $2.3M | $4.5M |
| **Fixed costs** | $8M | $4M | $6.5M |
| **Total costs** | **$13.1M** | **$6.3M** | **$11.0M** |
| **Gross profit** | **$7.9M** | **-$0.3M** | **$5.2M** |

# Key insights the candidate should mention at this point

Interviewer: If needed, ask “What can we conclude so far?”

Key insights by candidate:

- It appears that Entertainment Co. is growing ticket sales and revenue at the expense of profitability.
- They should be more selective about the markets that they enter. Several possibilities exist for continued growth
  - Stay longer in the good markets and don’t go to the bad markets
  - Reduce cost of the show
  - Develop a lower cost show format for the marginal cities
  - Combination of the above.

Interviewer: If needed, ask “How does profitability vary from city to city?” to help candidate conclude this:

**Revenues**

- **Price**: Avg ticket price varies from $100 to $80
- **Quantity**: Attendance ranges from 75K to 210K as result of different run lengths and occupancy rates

**Costs**

- **Fixed**: Fixed costs (which are allocated by run length) vary from $4M to $8M
- **Variable**: Variable costs range from $50-60K

Candidate can pose the following hypothesis to test:
Entertainment Co’s slow growth in profitability is a result of expansion to markets that are unprofitable or marginally profitable

# Additional analysis

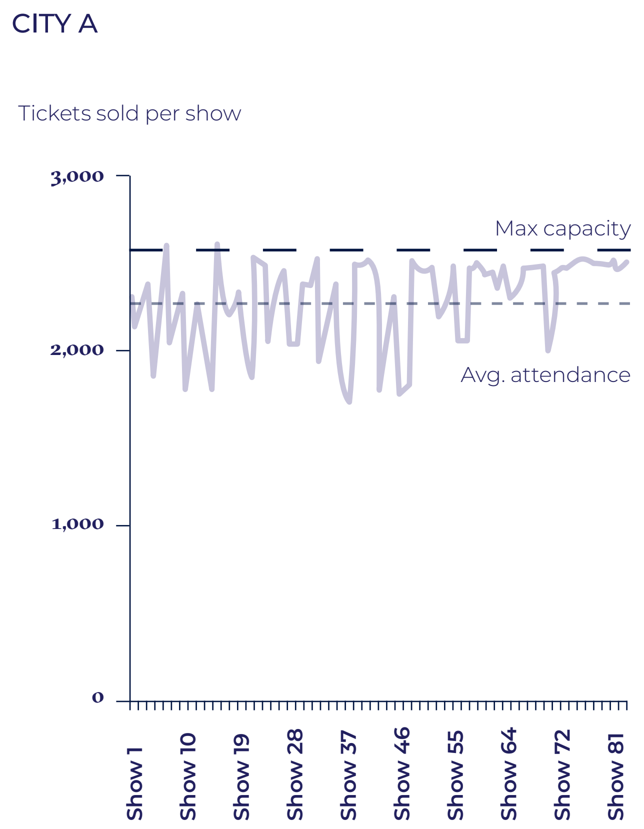
Interviewer:

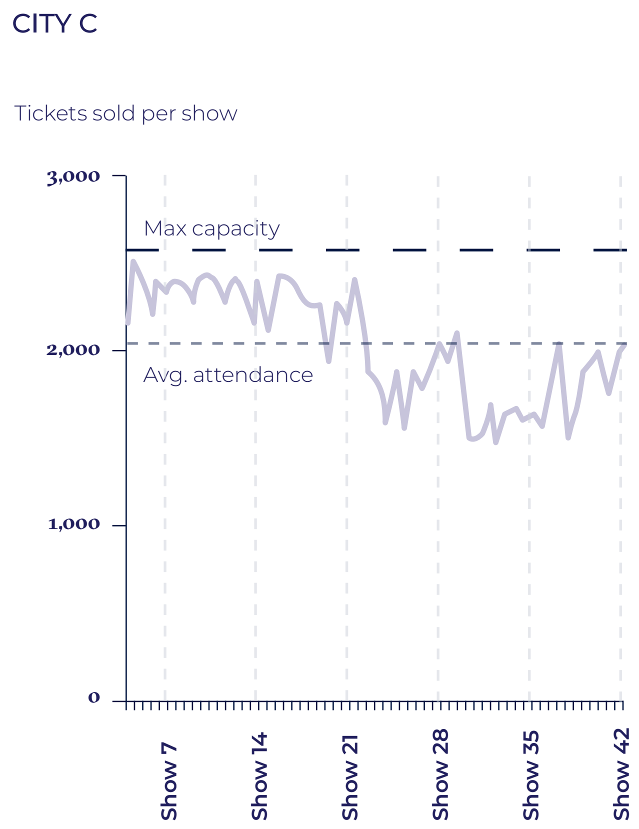
Ask candidate

- Reducing the cost of the show is not an option for artistic reasons
- We have some data on ticket sales by week in two markets that I would like you to analyze
  - Show candidate:
    "Theater show ticket sales by week"
- Entertainment Co. has launched a new lower cost format show in a few markets. The new show will be performed in Ice-rinks, rather than in Theaters like the current show
  - Show candidate:
    "Ice-rink format introduced in 2010 to offer lower cost option for younger people/families"
    "Average cost structure of two show formats"
- I have the initial profit analysis of the most recent Theater and Ice-rink show in three markets for you to analyze
  - Show candidate:
    "Theater and Ice-rink customer demographics"
    "Most recent Theater and Ice-rink results".

# Theater show ticket sales by week

Show candidate

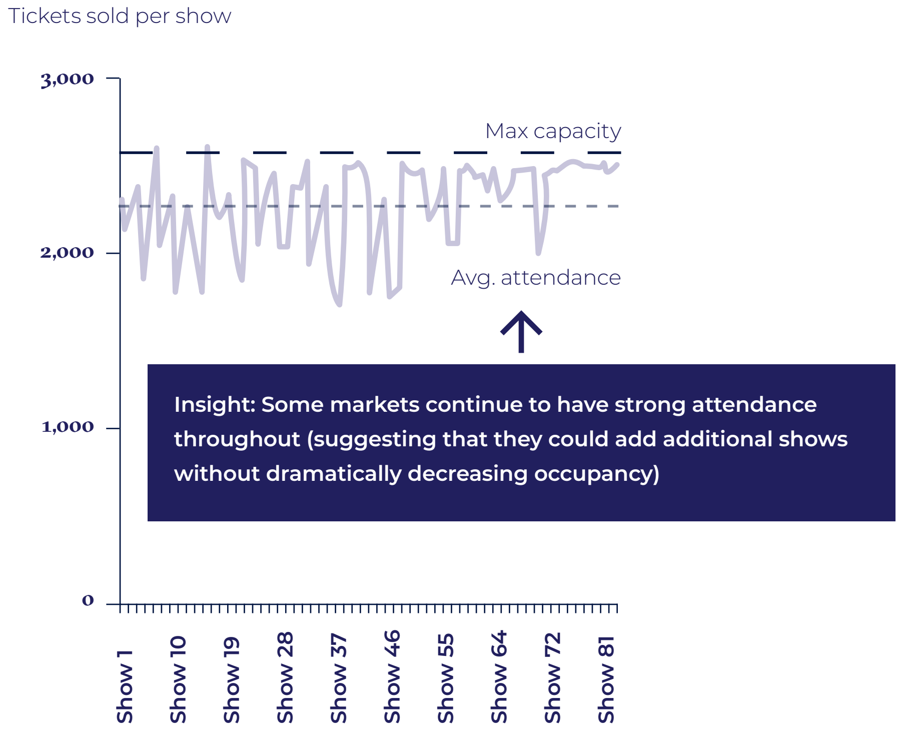


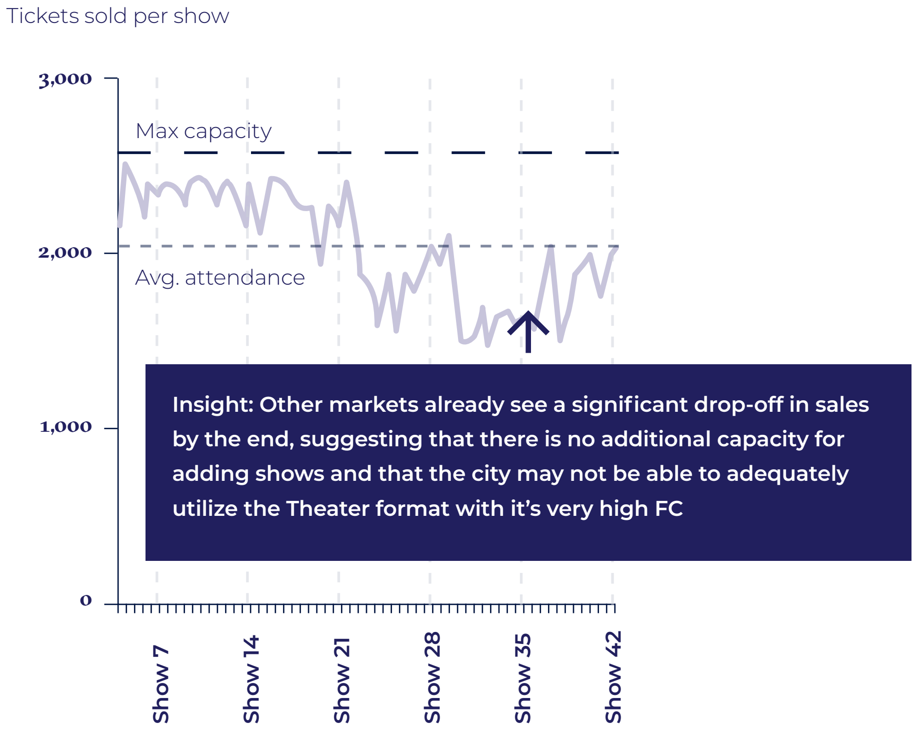
# Theater show ticket sales by week

Suggested answer

## CITY A



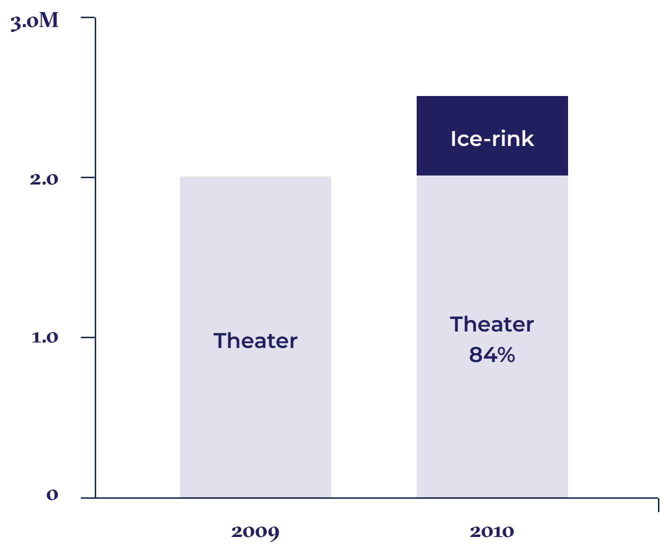

## CITY C



# Ice-rink format introduced in 2010 to offer lower cost option for younger people/families

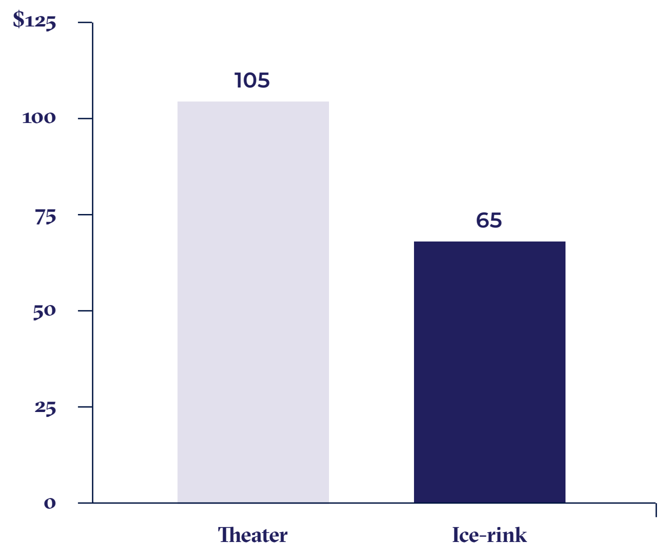
Show candidate

Total tickets sold




| | | |
|---|---|---|
| Theater occupancy rate | 83% | 76% |

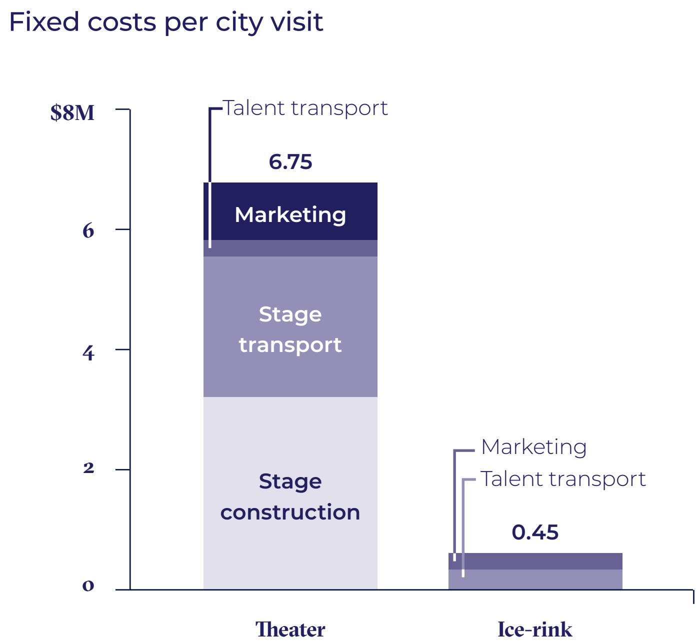
Average tickets price

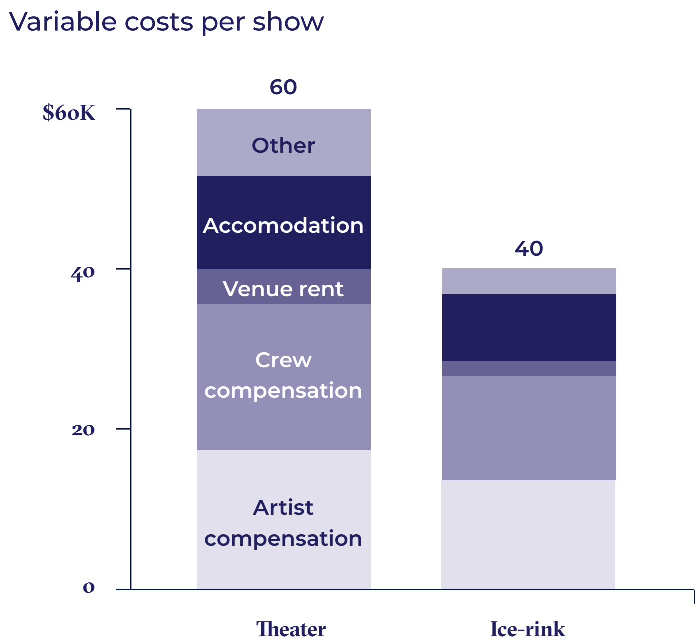



| | | |
|---|---|---|
| Avg # of shows per stop | 75 | 15 |

# Average cost structure of two show formats

Show candidate

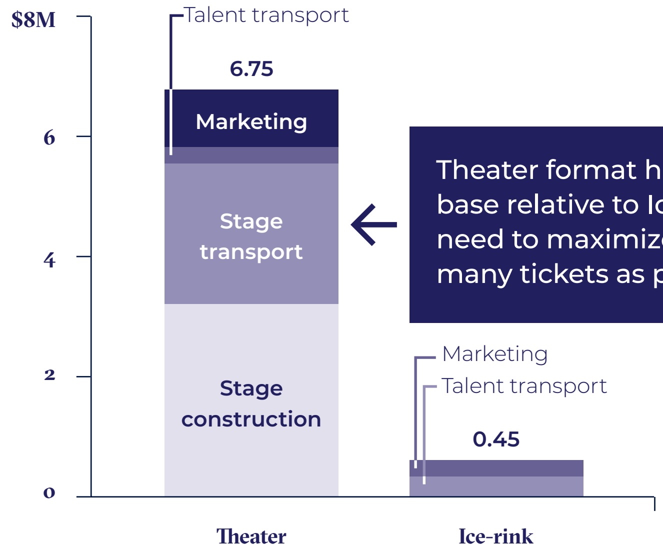


# Average cost structure of two show formats

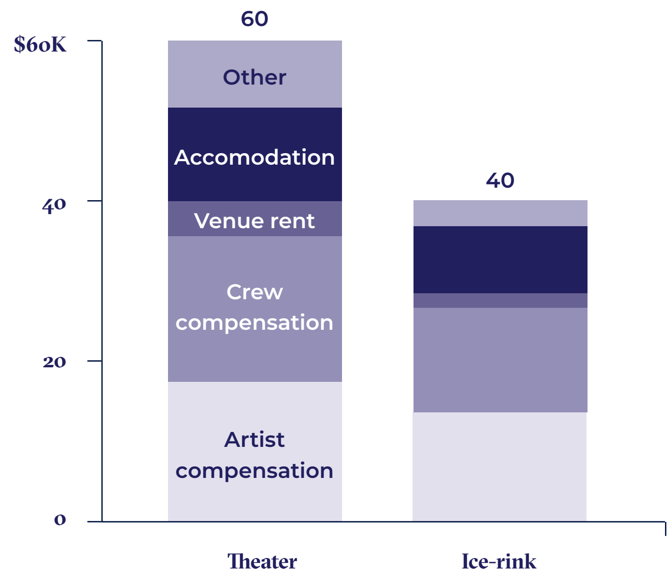
Suggested answer

Fixed costs per city visit




Theater format has very high fixed cost base relative to Ice-rink. This suggests a need to maximize utilization (i.e., sell as many tickets as possible)

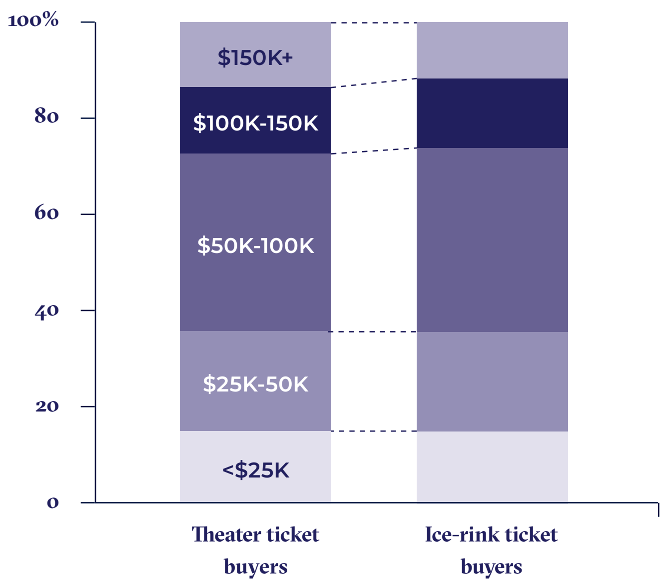
Variable costs per show



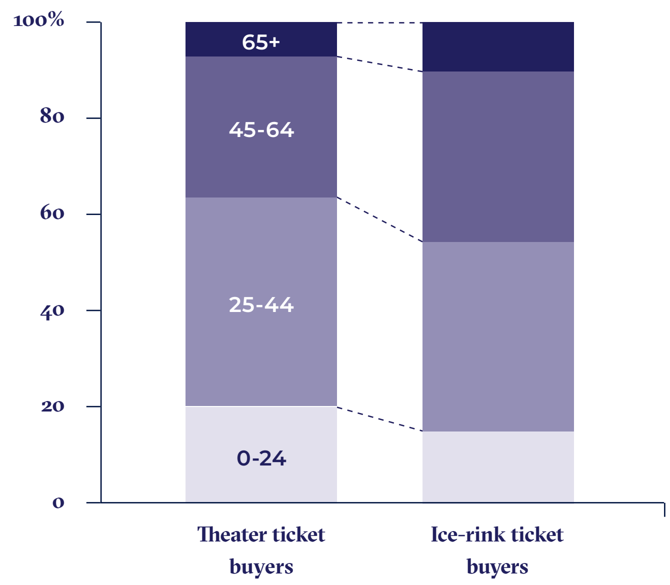
# Theater and Ice-rink customer demographics

Show candidate

% of attendees by household income



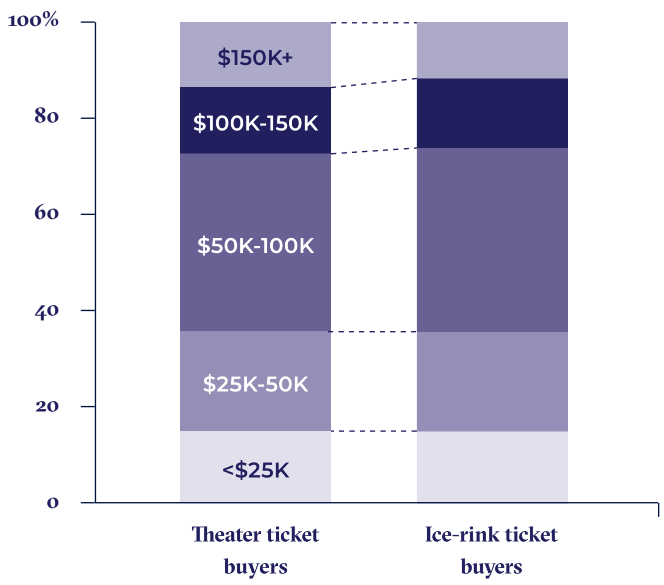

Share of population by age



# Theater and Ice-rink customer demographics

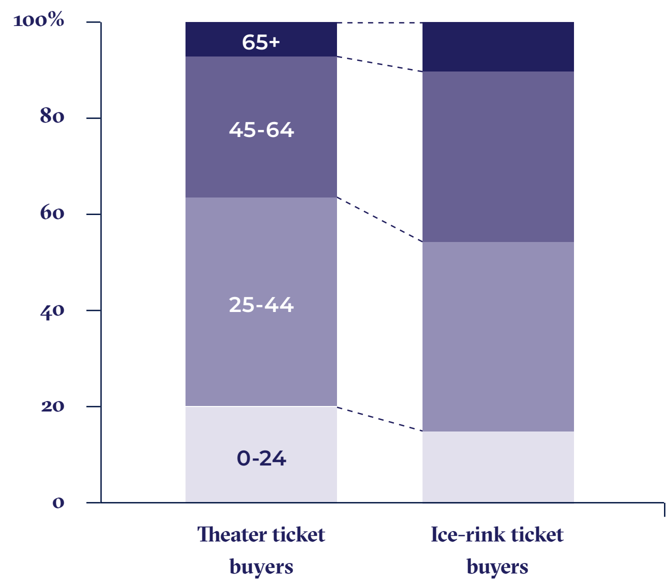
Suggested answer

% of attendees by household income




Customers appear to have the same profile, which is not what the client expected to happen when they introduced the new show format

Share of population by age




In fact it seems like a greater proportion of Ice-rink customers are older and slightly wealthier

# Most recent Theater and Ice-rink results

Show candidate

| | CITY X | CITY Y | CITY Z |
|---|---|---|---|
| **Theater total tickets sold** | 210,000 | 180,000 | 75,000 |
| **Theater gross profits** | $8M | $6M | -$250K |
| **Theater incremental profit per customer** | $105 | $95 | $80 |
| **# of Ice-rink tickets sold** | 54K | 20K | 30K |
| **Ice-rink gross profits** | $1.9M | $380K | $600K |
| **Ice-rink net profit per customer** | $35 | $19 | $20 |
| **Replacement Rate*** | 3:1 | 5:1 | 4:1 |
| **Breakeven Cannibalization**** | 19K | 4K | 5K |

*Ratio of **incremental** Theater profit per customer to Ice-rink net profit per customer. We compare incremental to net because we want to understand the profit impact of losing one additional Theater ticket **assuming that person bought a Ice-rink ticket instead**

**# of additional Theater tickets that would have needed to be sold to match the profit of the Ice-rink format

# Most recent Theater and Ice-rink results

Suggested answer

| | CITY X | CITY Y | CITY Z |
|---|---|---|---|
| **Theater total tickets sold** | 210,000 | 180,000 | 75,000 |
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| **Ice-rink net profit per customer** | $35 | $19 | $20 |
| **Replacement Rate*** | 3:1 | 5:1 | 4:1 |
| **Breakeven Cannibalization**** | 19K | 4K | 5K |

Insight: Theater format is not always profitable. Remember that there are very high FC so if you cannot sell a large # of tickets it might make sense to use the lower cost format

Insight: Some markets appear to be more susceptible to cannibalization (i.e. only ~4K incremental Theater tickets would have exceeded the profit of the 20K Ice-rink tickets. Entertainment Co. should probably stick to only the Theater format

Insight: Some markets may be able to sustain both formats without significant cannibalization. Therefore using both formats in the market may make sense

*Ratio of **incremental** Theater profit per customer to Ice-rink net profit per customer. We compare incremental to net because we want to understand the profit impact of losing one additional Theater ticket **assuming that person bought a Ice-rink ticket instead**

**# of additional Theater tickets that would have needed to be sold to match the profit of the Ice-rink format

# Summary and recommendations

Interviewer: How would you bring together what you have learned? What would you recommend the client?

### Key insight:

- The root cause of the slower growth in profitability is that as Entertainment Co. has grown they have not segmented their markets and used the appropriate show format or length of stay
  - Theater show has very high FC and therefore should only be taken to cities that can support a lot of shows and sell a lot of tickets, otherwise Ice-rink format may be a better choice
  - Some markets can probably sustain both the Ice-rink and Theater formats
  - Cannibalization is a risk that must be mitigated. Ice-rink format should only perform in cities where it is very likely to not impact Theater sales.

### Recommendations:

- Improve profitability by **segmenting markets**
  - Large markets (e.g., City A) where cannibalization is relatively low risk should be targeted for **both the Theater and the Ice-rink format**
  - Medium markets (e.g., City B) should be **limited to only the Theater format** to avoid cannibalizing the more profitable Theater ticket sales
  - Small markets (e.g., City C) should be **limited to the Ice-rink format** which can deliver greater profits than Theater
- Result will be higher penetration in large markets, improved profitability per ticket sold in the medium markets, and greater profits (at a lower risk due to lower cost base) in the small markets.

# Consumer products strategy

BCG

## Case at a glance

| Industry (case name) | Consumer products | Business problem type | Strategy |
|---|---|---|---|
| Description of the business problem | Our client is a large, multinational consumer products company with business in over 200 countries. Today, we are going to focus on its US business.<br>Our client has been following US demographic trends and has found that low income households have been growing two times as quickly as other consumer segments. Low income is defined as families with income at the poverty level or below.<br>Our client has always had a premium product strategy. It sells its products in grocery stores, convenience stores, mass retailers, etc. but its products are always priced at the high-end of their respective categories. It has never targeted the low income segment before and doesn't have a low income strategy, but given the growth of this segment, our client is considering entering the low income segment.<br>Our client has 3 questions for BCG. | | |
| Case questions to solve | 1 Should it have a low income strategy?<br>2 If it should have a low income strategy, what are some tactics it should deploy?<br>3 What are some of the risks the client may face? | | |

| | |
|---|---|
| **Questions for the candidate** | What would you like to know to help the client answer its questions?<br>[When the candidate asks about products, share Exhibit 1]. The client has shared some data for its key products. What do you make of this information?<br>If the client achieved its fair share of the low income segment, how much additional revenue would it generate?<br>What else would you like to know about diapers and cold medicine to assess the opportunity?<br>Ok. The client is not interested in cold medicine, but it has done customer research that suggests low income consumers are interested in buying diapers. [Share Exhibit 2] What do you see that could help us figure out why low income consumers aren't buying our client's diapers?<br>What else should our client think about as it develops a low income strategy? What are the risks? |
| **Information provided upon request** | Low income consumers purchase largely in smaller, local shops<br>Low income consumers can't afford salons, but will indulge on shampoos<br>Low income consumers are willing to spend more on baby food to protect their children<br>There are valid generics that compete with our client's cold medicine |
| **Recommendation** | The client should pursue a low income strategy, focusing on diapers, which could generate an additional $25M in revenue.<br>To pursue low income consumers, our client should reduce its package size. Today, our client's package size is significantly larger than its competitors. Our client could keep the price /diaper the same, but if it dropped the package size from 40 diapers to 20 diapers, it would cut the absolute price of the box to $10, even lower than its competitors.<br>There will be some risks involved with adopting a low income strategy including cannibalizing business from existing products and brand risk. |

# Quantitative analysis and solutions

## 1 Calculate overall share and share of low income consumers by product/category

| Product / category | Client overall market share | Client share of Low Income Consumers | Overall share vs Low Income Share |
|---|---|---|---|
| **Shampoo** | 100/400 = 25% | 30/90 = 33% | Overall < LI |
| **Cold medicine** | 50/250 = 20% | 7.5/75 = 10% | Overall > LI |
| **Diapers** | 150/300 = 50% | 25/100 = 25% | Overall > LI |
| **Baby food** | 100/300 = 33% | 30/100 = 30% | Overall = LI |

## 2 Calculate incremental revenue for cold medicine and diapers

- Cold medicine = (20%-10%) * $75M = $7.5M
- Diapers = (50%-25%) * $100M = $25M

**Total incremental revenue = $7.5M + $25M = $32.5M**

# Exhibit 1

| Product / category | Total category sales (US$M) | Client category sales (US$M) | Total LI consumer spend on category (US$M) | LI consumer spend on client (US$M) |
|---|---|---|---|---|
| **Shampoo** | 400 | 100 | 90 | 30 |
| **Cold medicine** | 250 | 50 | 75 | 7.5 |
| **Diapers** | 300 | 150 | 100 | 25 |
| **Baby food** | 300 | 100 | 100 | 30 |

**LI – Low Income**

# Exhibit 2

| Product / category | Client package size | Average package size of competitors | Client price | Average price of top 5 competitors |
|---|---|---|---|---|
| **Shampoo** | 10 oz bottle | 12 oz bottle | $4 | $3 |
| **Cold medicine** | 6 oz bottle | 6.5 oz bottle | $6 | $3 |
| **Diapers** | 40-pack | 32 pack | $20 | $16 |
| **Baby food** | 6 oz jar | 6 oz jar | $2 | $1.50 |

**LI – Low Income**

# Cupid's Arrow

BCG

For the interviewer only

## Case at a glance

| Part A<br>Structure & numeracy | Part B<br>Analysis & business judgement | Part C<br>Summary & recommendations |
|---|---|---|
| **Do not share any exhibits until Part B**<br>1 Structuring the case<br>○ **"Our client is Cupid's Arrow, a successful subscription-based online dating agency. They currently operate exclusively in the US market, where they are the market leader. Cupid's Arrow are considering entering the UK online dating market. What are the main factors that they should consider?"**<br>*Tests ability to structure, hypothesise and think creatively around a problem*<br>2 Market size estimation<br>○ **"How would you estimate the size of the UK online dating market?"**<br>(if the candidate is struggling, clarify this as being **"revenue per year"**)<br>*Tests structure, numeracy and ability to make reasonable assumptions*<br>○ **"What does this tell us so far about the attractiveness of the market for Cupid's Arrow? What else do we need to think about?"** | Candidate is expected to continue with their case analysis. Share facts of the case or exhibits (see the following pages for details) when these are specifically asked for by the candidate.<br>○ When sharing an exhibit, ask the candidate: **"What does this exhibit tell us? How might this affect Cupid's Arrow's entry into the UK market?"**<br>*Tests business intuition and the ability to interpret data, draw conclusions and identify implications* | Ask the candidate:<br>**"So, what recommendations would you make to Cupid's Arrow's management?"**<br>*Tests ability to synthesize and structure their recommendations, business intuition and empathy* |

# Key case insights an excellent candidate might uncover

Do not tell the candidate

- The UK market will nearly double in size over the next 2 years and is quite fragmented with at least a few new entrants
- Profit margin is healthy at 75% per customer (£180 p.a. per customer)
- Cupid's Arrow may struggle in entering the UK market (candidate may take a slightly different view of the future direction of the UK market and optimal strategy, but is expected to support their position with similar insights):
  - There is greater stigma around online dating in the UK (65%) than in the US (35%), although this is declining over time
  - Cupid's Arrow core strength in the soul mates segment in the US (60% of the US market), is less applicable in the UK where this segment comprises only 25% of the market (socialising and casual dating segments comprise 75% market)
  - The UK soul mates segment may already be quite competitive: HappyHearts (33% share and 20% p.a. growth) and Lovebirds (23% share) together have ~75% share and the soul mates segment is only 25% of the UK market
  - UK may increasingly shift towards soul mates, like the US as online dating loses its stigma, but it is not there yet
- Overall, the UK market is attractive, but may require Cupid's Arrow to adapt its image/ focus in the UK more towards the interests of UK customers (socialising / casual dating) and to form a clear strategy to compete against the aggressive growth of HappyHearts and the threat of new entrants
- Along with a clear strategy, aggressive marketing campaigns and friend referral benefit schemes, etc. are key to establishing a presence in the UK market
- Entry into the UK market could be organic growth or syndicated from the existing US Cupid's Arrow site, but would be fastest via acquisition and rebranding of a smaller site, for instant network effects between subscribers. Given the anticipated pace of growth in the UK market and the likely lock-in effect in this market based on the size of a subscriber base, acquisition and rebranding of a smaller site would be advisable.

This case is long and candidates would not necessarily be expected to finish it

# Facts to share with the candidate if asked for specifically

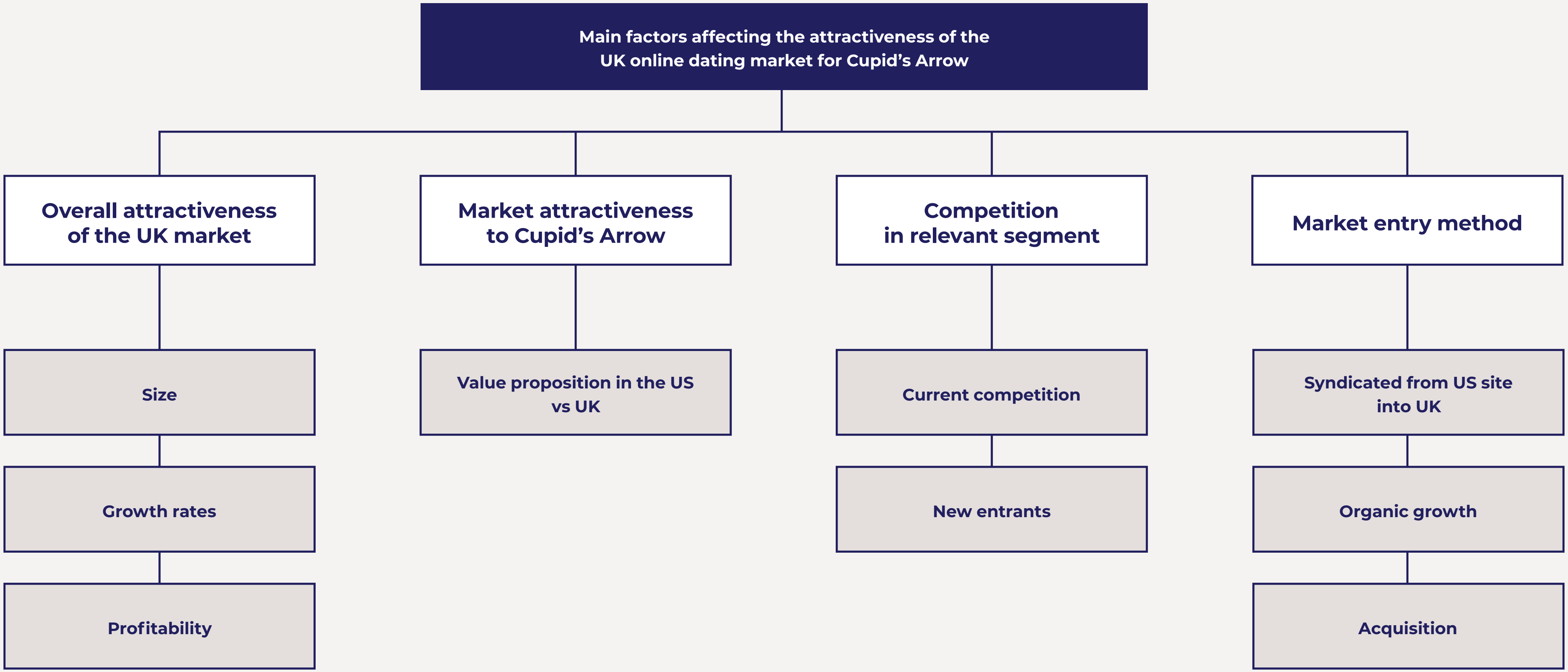
For the interviewer only

- Cupid's Arrow currently has US revenues of USD$30m per year
- Cupid's Arrow currently focuses on finding "soul mates" / life partners for its subscribers in the US
- Expected revenue for Cupid's Arrow in the UK is £20 per month per customer
- Set-up costs for Cupid's Arrow in the UK for organic growth are minimal (e.g. IT equipment, customer survey)
- HappyHeart's growth is due to aggressive marketing campaigns and friend referral benefit schemes

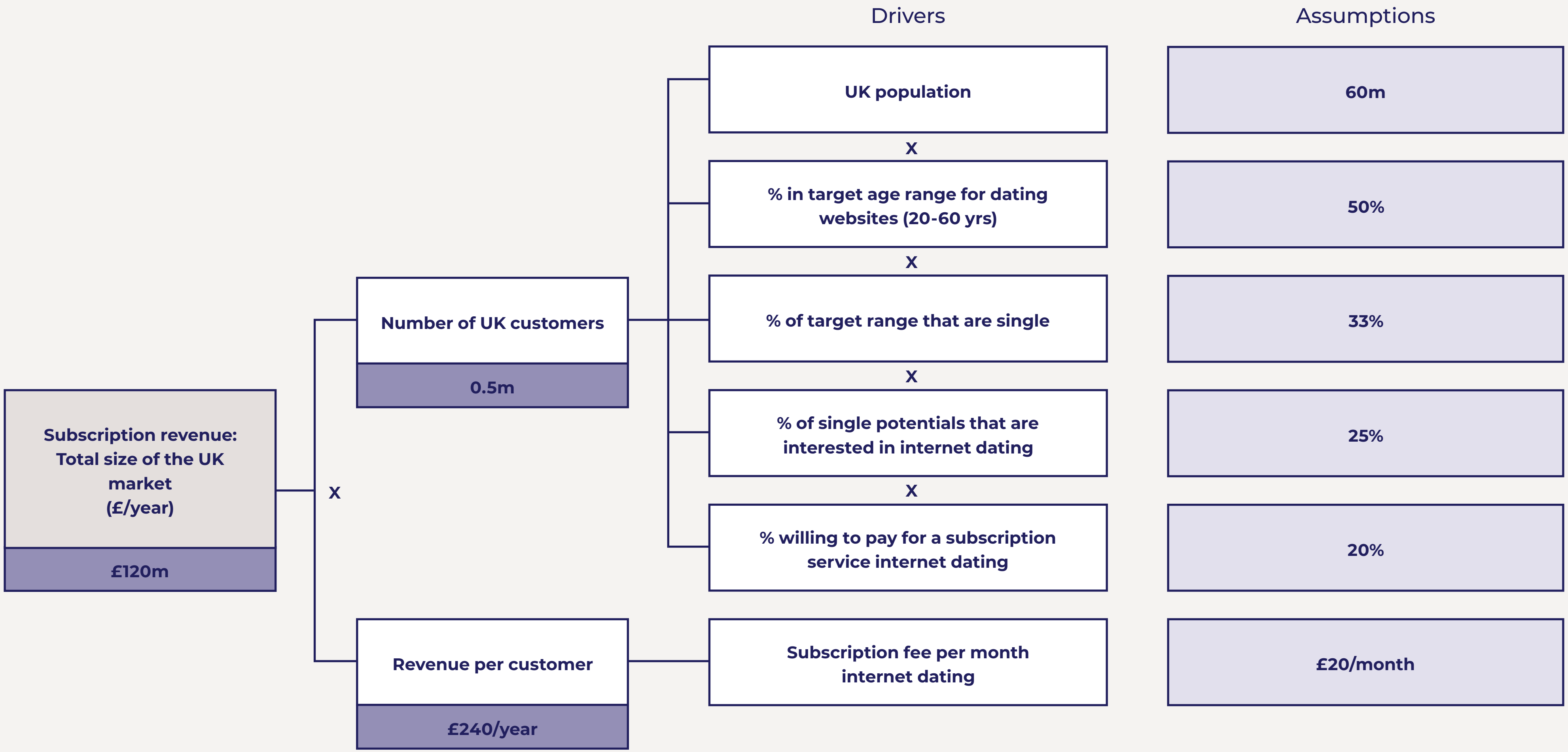
**"Exhibit: Historic and projected growth of the UK online dating market "** – share only in Part B of the case (after the market sizing) – if asked about market growth or competition

- **"Exhibit: Running costs for a typical UK online dating agency"** – if asked about costs / profitability
- **"Exhibit: US vs. UK perceptions of online dating"** – if asked about market segmentation / demographic differences / types of online dating sites in the US versus the UK.

# Example of a possible case structure



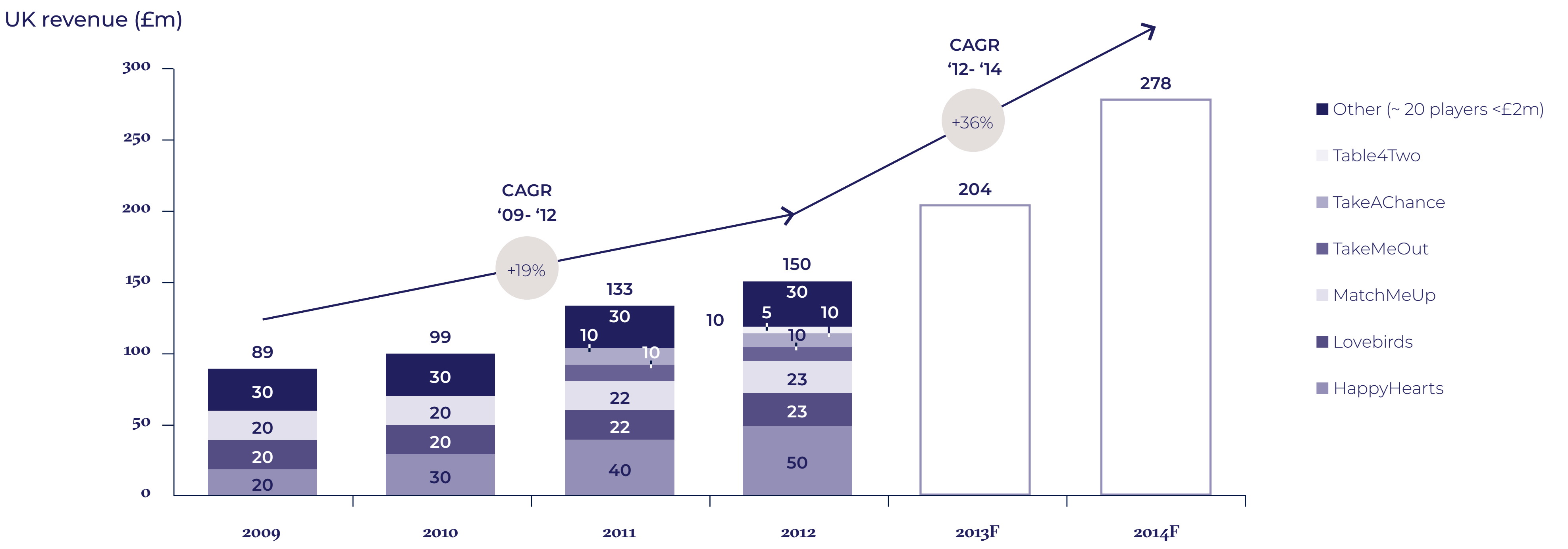
# Example calculation for the size of the UK market




A superior candidate may also identify other revenue streams (e.g. advertising and events)

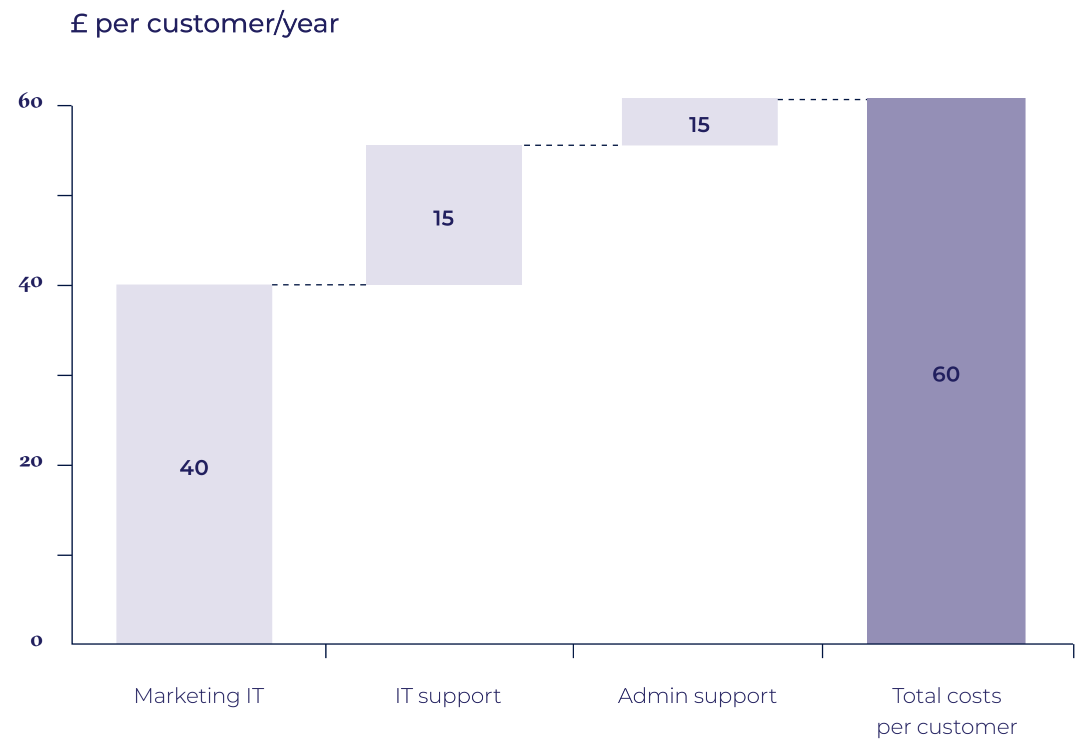
# Exhibit: Historic and projected growth of the UK online dating market

Show to candidate if this data is requested



# Exhibit: Running costs for a typical UK online dating agency

Show to candidate if this data is requested

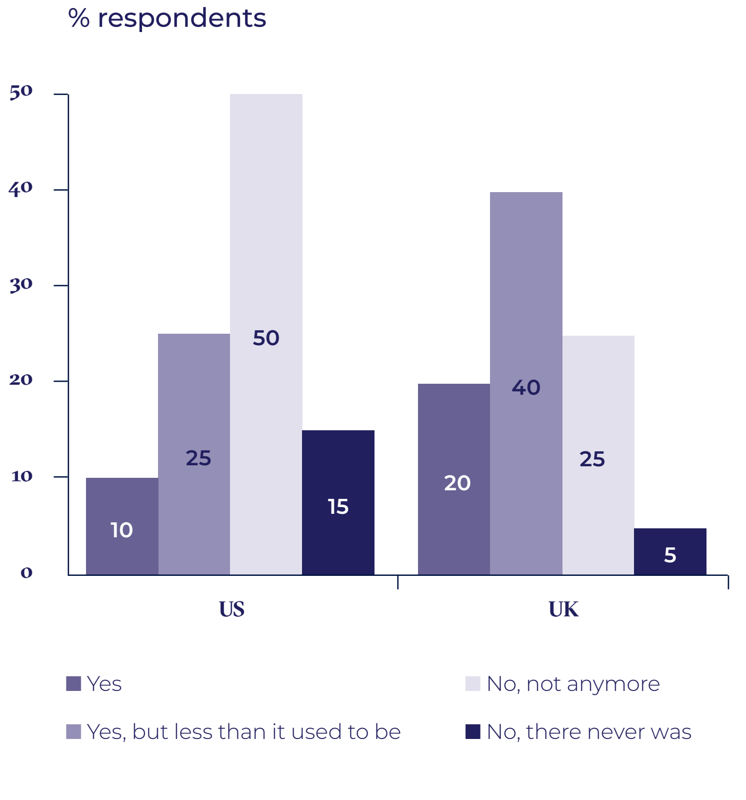


# Exhibit: US vs. UK perceptions of online dating

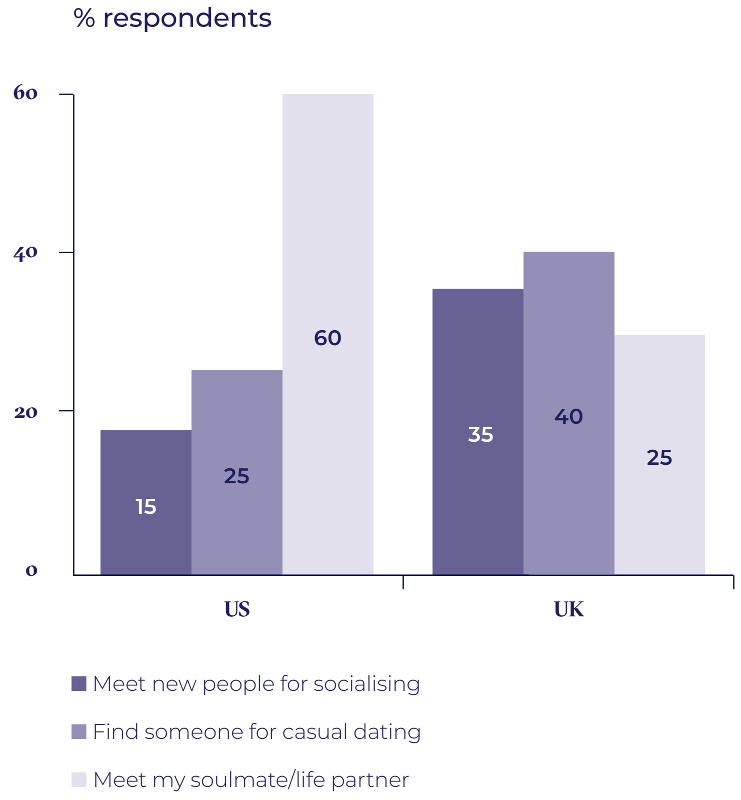
Responses to questions from a survey

Show to candidate if this data is requested

Question 1: Do you believe there is a stigma around online dating?




Question 2: What are you looking for from an online dating agency?




Source: Survey of a random sample 20-45 year olds from the US and UK (n=100 in each country)

# Examples of creative ideas to maximise success in the UK

Candidate may take different views of optimal strategy – not all of these will apply

For review after the case interview

| Potential views of challenges | Potential creative solutions |
|---|---|
| **The UK has a stigma around online dating, compared to the US market** | **Adapt marketing to integrate with the UK market**<br>• Be less overt about finding "The One"<br>• Emphasise socialising and meeting new people<br>• Supplement UK sites with in-person social events. |
| **HappyHearts is expanding aggressively through marketing campaigns** | **Analyse the target segments of HappyHearts**<br>• Survey the target customers to understand their needs and identify those met by HappyHearts<br>• If this segment is attractive to Cupid's Arrow in the context of its new brand, offer initial sign-up deals (e.g. first 2 months free) and some free events. |
| **UK customers are looking for a different type of online service (socialising / casual dating), less geared towards finding a life partner** | **Rebrand in the UK towards a more social focus**<br>• Appropriate branding to attract a wider pool of singles<br>• Modify the website to emphasise meeting friends/casual dates as well as partners<br>• Offer regular managed events to get single people together in a fun setting (e.g. ice skating, bowling). |
| **Although 75% UK market is today focussed on socialising / casual dating, with rapid UK market growth, online dating is expected to rapidly lose its stigma and customers will increasingly seek life partners online, as has been the case in the US** | **Expand existing US site directly into the UK with strong branding to reduce online dating stigma**<br>• Maintain focus on finding life partners<br>• Aggressive, wide marketing base showing real members and matches to emphasise that "everybody's using it"<br>• Expect potentially slow growth until stigma reduces. |

# Differentiation between poor, average and superior performance

For review after the case interview

| | ☆ Poor performance | ☆☆ Average performance | ☆☆☆ Superior performance |
|---|---|---|---|
| **Structuring the analysis** | Only identifies one or two factors that affect the attractiveness of the market (e.g. market size, growth) and needs significant prompting to think of other factors. May focus exclusively on revenues/costs | Sets out a good structure for analysis- identifies at minimum three factors. Is able to provide a few explanatory points about each factor. | Sets out a clear, logical structure for analysis; touches on wider issues such as the attractiveness of the UK in the wider context of the client's business (e.g. compared to other potential markets) |
| **Making a market size estimate** | Struggles to identify the main drivers of the market. Does not have a rough idea of UK population. Struggles to provide rationale for estimates. Makes basic numerical errors | Makes a clear structure for estimation, makes no/very few errors with numerical steps | Makes a clear structure for estimation and completes analysis with confidence and enthusiasm. Makes insightful commentary around estimate assumptions. Acknowledges potential other revenue sources. |
| **Interpretation of graphical figures; identifying key info** | Needs significant prompting to understand output. Draws only basic conclusions from the data; little insight | Correctly interprets main competitor trends from graph, is able to calculate profit margin, understands some of the survey findings with little prompting | Identifies all main trends plus more subtle features of graphical outputs, asks probing questions (e.g. Do we know what is driving the doubling of the market size?) and suggests hypotheses; synthesizes clearly between the market and survey exhibits |
| **Synthesizing key findings and making recommendations; demonstrating creativity** | Poor recollection of main findings; laundry list recall with little synthesis/insight. Unable to provide creative ideas for success in the market (e.g. suggests just offering a low subscription price) | Can correctly draw together key findings with reasonable synthesis of ideas; needs prompting to come up with creative ideas for Cupid's Arrow to be successful | Summary is a well synthesized and structured view that incorporates all the main findings. Drives independently to the need for a change in strategy for entry into the UK, gives a clear strategy recommendation and rationale and makes creative suggestions |

# Iceberg

BCG

For the interviewer only

## Case at a glance

| Part A<br>Structure & hypothesis | Part B<br>Interpretation & numeracy | Part C<br>Recommendations & summary |
|---|---|---|
| Opening statement:<br><br>**"Our client is Iceberg, a major global branded ice cream producer. Iceberg develops, manufactures and markets ice cream products and sells to retailers who in turn sell to the end consumer. Ice cream is one of the most profitable products that Iceberg makes. The business has grown at 5% led by North America and developing markets. However, Iceberg has recently seen poor growth and competition intensifying in the European ice cream market, in particular from supermarkets' own-brand ice cream. Iceberg management are sure they have great products: they continue to win in consumer taste tests, there is a strong pipeline of planned product launches, and they have strong brands in many markets. Management believes this allows them to sell their products at a higher price than the competition. What could be causing the performance issue in Europe?"**<br><br>*Tests ability to structure a problem, state and explain a clear hypothesis* | Present the candidate with the slide titled: "UK ice cream tub prices" and tell them:<br><br>○ **"The Associate on this case prepared this slide. What is causing the performance issue in Europe?"** (If the candidate is struggling, ask: **"How should Iceberg segment the market and what is happening in each segment?"**)<br>*Tests business intuition and the ability to interpret data, draw conclusions and identify implications*<br><br>○ **"How does the market opportunity compare to Iceberg's business today?"** (If the candidate is struggling, ask: **"Which segment would you recommend Iceberg focus on and what is the margin and volume potential in that segment?"**)<br>*Tests numeracy, ability to make reasonable assumptions, degree of confidence/insecurity and personality in the face of challenge to their work (ask* **"Are you sure you're right?"**). | Ask the candidate:<br><br>○ **"What strategies could Iceberg use to address the performance issue in Europe and how would you prioritise them?"**<br>*Tests strategic thinking, creativity and ability to prioritise and provide reasons*<br><br>○ **"What are your recommendations for Iceberg's management?"**<br>*Tests ability to synthesize and structure their recommendations, business intuition and empathy.* |

# Key case insights an excellent candidate might uncover

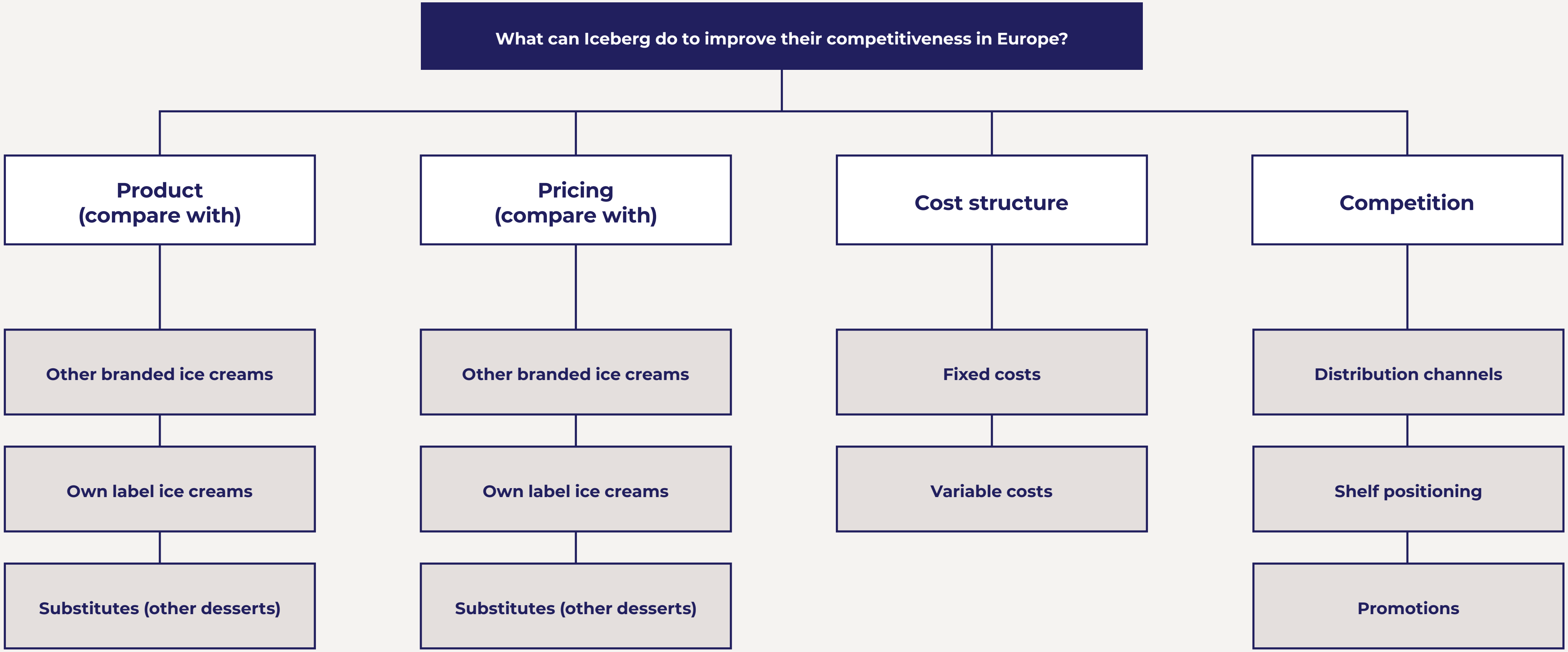
Do not tell the candidate

For the interviewer only

- There are 3 market segments: economy, mass market and premium-priced products
- Iceberg competes primarily in the mass market segment (defined as price points €2.00 – 3.99), with a ~38% market share by value (€46m out of €122m), ~34% by volume (15m L out of 44m L)
  — If the candidate delineates 3 segments slightly differently, their market size and share numbers would differ accordingly
- Mass-market consumers are becoming more price conscious (sales of €2.00-2.59 are strongest in the mass market category)
- In the mass market and economy segments, Tesco is undercutting Iceberg and other competitors on price, growing the economy segment and pushing down Iceberg's revenue in the mass market
- Iceberg is winning market share in a shrinking mass market
- Premium segment is likely growing, as brands distinguish themselves from the mass market to retain and grow margins
- To compete, Iceberg should:
  — Drive volume to improve plant utilisation (~35% in Western Europe, vs. ~60% in North America) and reduce unit costs, so that it is better able to compete on price in the mass market
  — Increase presence in premium (relying on taste performance and strength of brand)
  — Optimise drivers of consumer purchasing behaviour besides price (e.g. packaging / advertising / shelf placement)
  — Potentially expand in the upper end of the economy market, although its retailer purchase price may be less competitive
- In any given segment recommended: Iceberg's volume, margin or profit potential; its competitiveness to customers and consumers (realising they are different); and its ability to win against branded and private label products.

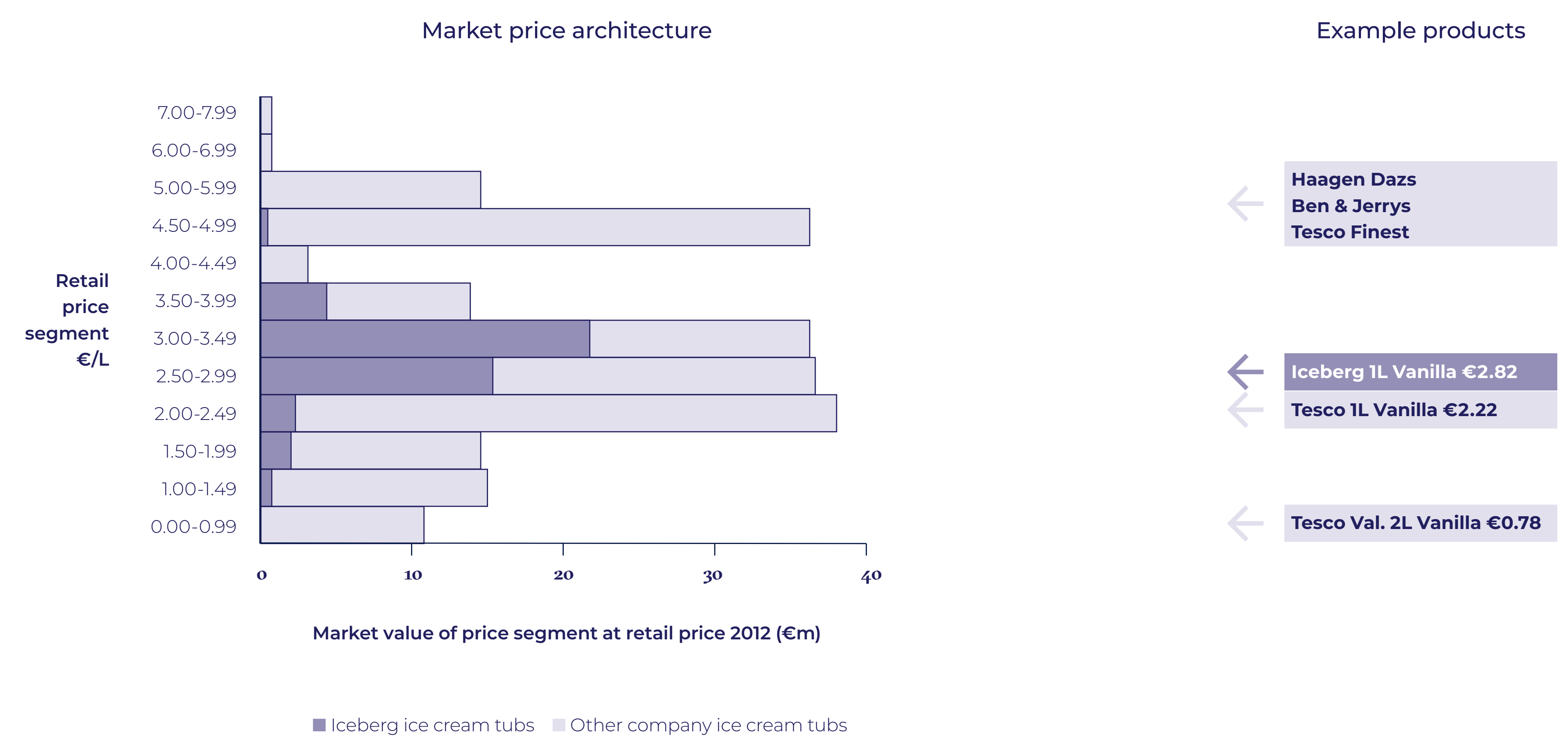
This case is long and candidates would not necessarily be expected to finish it

# Example of a possible case structure



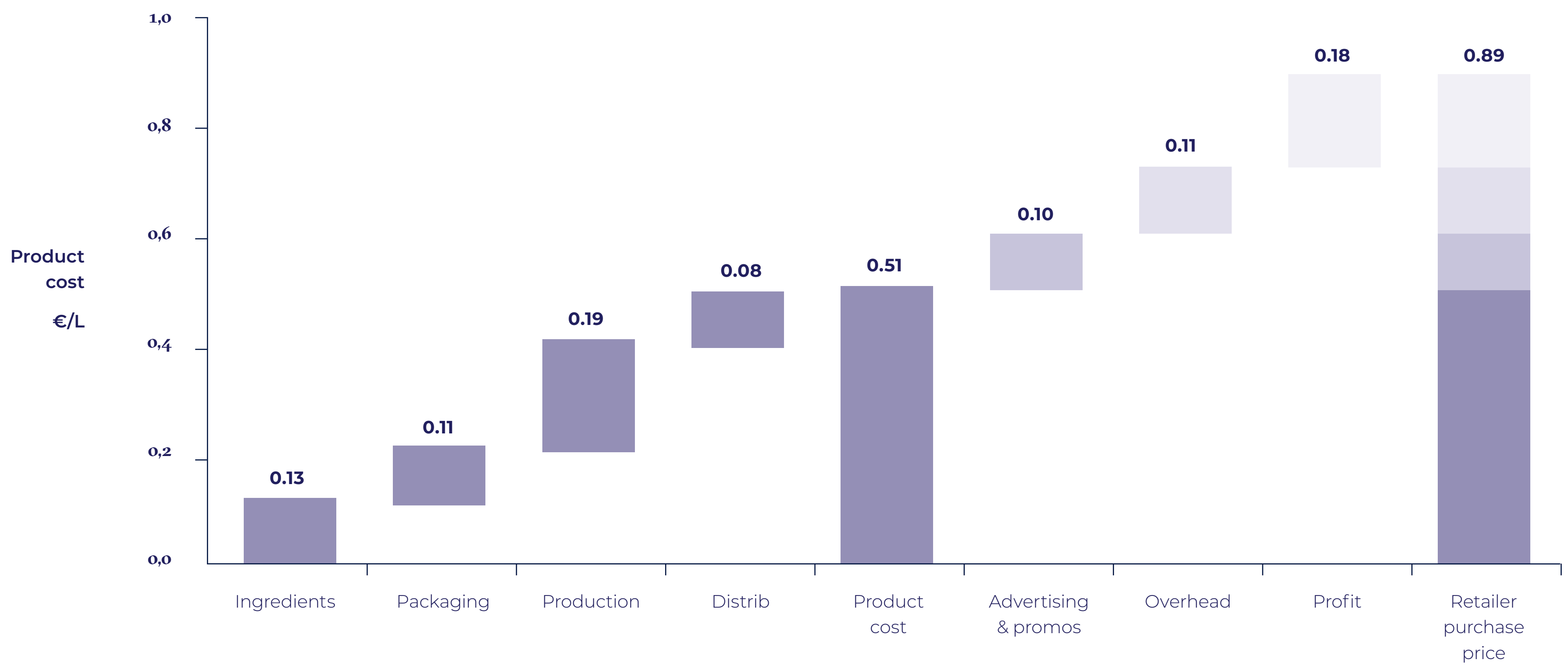
# Exhibit: UK ice cream tub prices

Show candidate



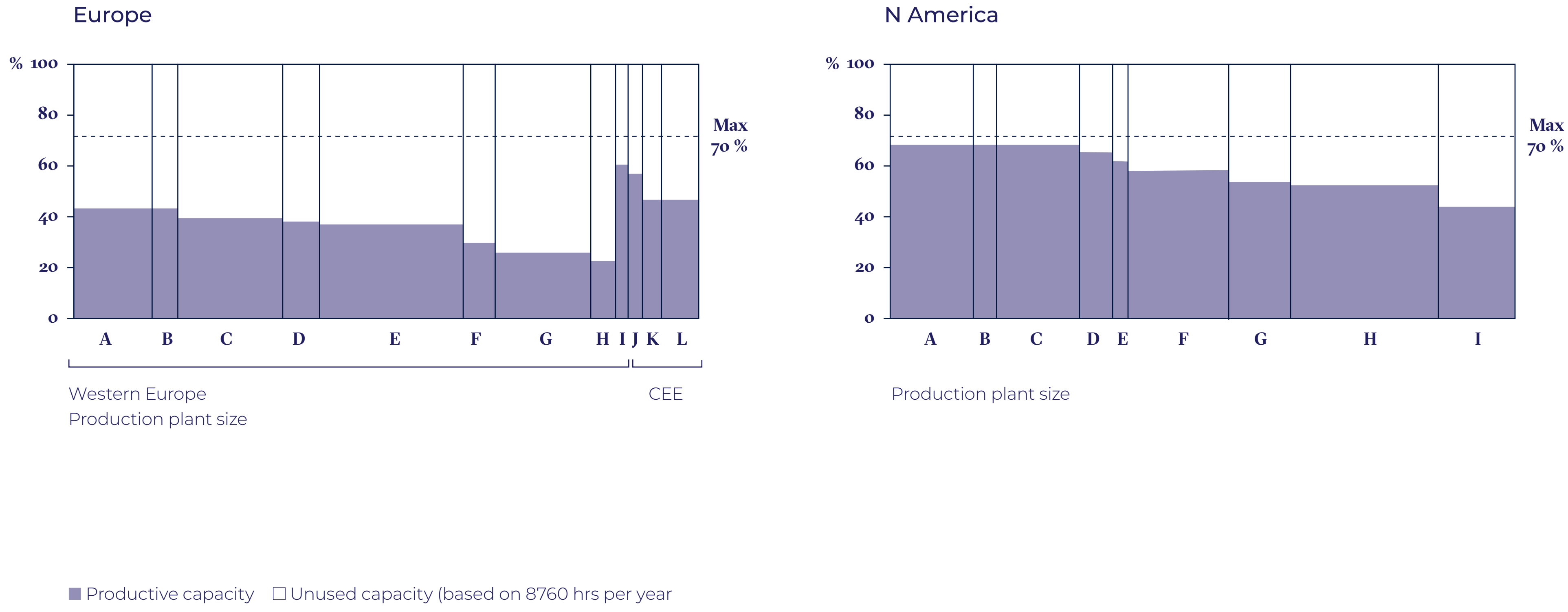
## Exhibit: Iceberg cost structure of 2L vanilla ice cream tub in UK

Show to candidate if this data is requested



# Exhibit: Iceberg global ice cream production plant utilisation

Show to candidate if this data is requested



## Differentiation between poor, average and superior performance

For review after the case interview

| | ☆ Poor performance | ☆☆ Average performance | ☆☆☆ Superior performance |
|---|---|---|---|
| **Framing problem / prioritizing issues** | Suggests what supermarkets are doing without clear rationale or structure; does not consider differences across the range of supermarket products | Sets out a structure for analysis; identifies 3 price segments, and possibly that supermarkets have power because Iceberg is reliant on them to sell its products | Sets out a clear, logical structure for analysis; recognises that market has three segments, with Iceberg strongest in the mid-price segment; identifies need to understand Iceberg's ability to compete |
| **Identifying relevant information** | Starts asking for a variety of information – no clear logic | Asks a series of specific questions related to a single logical line; identifies some key points from the graphs; can process answers and move on | Defines information needed, including rationale; identifies key points and explains their implications from the graphs presented |
| **Running calculations / drawing conclusions from facts** | Calculates incorrectly that Iceberg cannot compete at supermarket price points | Correctly calculates Iceberg can compete at lower price points except Tesco Value and quantifies margin | Realises lowering price may dilute margins and suggests ways to avoid; identifies production utilisation issue and proposes solution; calculates volume/revenue/profit potential |
| **Identifying key implications and next steps; demonstrates creativity** | Limited or illogical additional recommendations on where to improve; formulaic approach (e.g. spend more on marketing) | Needs to be asked for ideas on potential solutions; has a few ideas for how to improve | Identifies the key case insights; drives to solutions on their own; prioritises a list of alternate opportunities; goes beyond the obvious throughout the case process |

# NewCo Petrol Retailer

### Case Situation:

You are an entrepreneur on an island of 50 million people. You feel that there is an opportunity to invest in petrol retailing (there are already 1,000 petrol stations on the island).

However, you do not have any meaningful capital and are going to need to raise the investment required so you visit your local banker. She asks you to estimate what capital you are likely to need in the business.

[If prompted, the interviewer will clarify that no additional information is available to answer the question.]

### Note to interviewer:

The candidate has not been given much information with which to form a view of the size of the investment required. Before starting to answer the question, the candidate should think through a logical framework to structure her response, and to explain the intended approach to the interviewer at the outset.

The approach set out below starts by determining the potential sales of the new petrol outlet, which in turn depends on the total market size and expected market share. The economics of the business are then mapped out to develop an estimate of the profitability of the business. Using this estimate of its profitability, together with a reasonable assumption for the required rate of return on capital, the amount of capital required from the bank can be calculated.

A strong candidate would receive no further guidance. Where necessary, candidates would be prompted to address each of the following areas in turn to arrive at an estimate of the capital requirement.

# Question 1:

What is the total market size for petrol retailing?

## Answer

This can be tackled either at an individual or household level. At an individual level, an assumption would need to be made about how many of the 50m population own cars / drive and therefore purchase petrol. An assumption would also need to be made about their typical annual expenditure, which could be based on assumed miles travelled, typical fuel economy, and typical fuel price.

Alternatively the market size can be tackled at the household level. Here assumptions would need to be made around average number of people per household, proportion of households owning a car, and average petrol expenditure per annum (perhaps based on average mileage per annum and fuel economy).

Additional points that could be mentioned to improve the market size estimate would include factoring any taxation that is applied to fuel before deriving the final value of the market from the perspective of petrol retailers. In addition, the contribution from ancillary revenues e.g. convenience retail formats on the forecourt could also be considered.

## Example Calculation:

- 20m households on the island (assuming 2.5 people on average per household)
- 80% of households are assumed to own cars
- Average annual mileage of 12k per household
- Annual expenditure of £2160 (12k miles @ 30 miles per gallon = 400 gallons * 4.5 litres per gallon = 1800 litres @ £1.20 per litre)
- Annual revenue net of tax c. £650 (assuming tax take of c. 70%)
- Ancillary revenue of £80
  - c. 40 refuels per annum (assuming average refuel size of c.45 litres per visit)
  - Average ancillary spend per visit of £2
- Total market value = c. £12bn (20m x 80% x (£650 + £80).

# Question 2:

What share of the market might you be able to get?

### Answer

The market size estimate can be divided by 1000 to obtain the average revenue per petrol outlet.

In practice, however, the prime sites for locating a petrol outlet are likely to have been taken already, and therefore some downward adjustment to reflect this would be required to develop an estimate of the likely revenue for the proposed new development.

### Example Calculation:

- Market size = £12bn
- Average revenue per station = £12m (market size / 1000 stations)
- Potential revenue of proposed investment = £10m per annum (assuming declining revenue from new site locations).

# Question 3:

What are the economics of the business likely to look like?

### Answer

Having already estimated the revenue for the site, there are two possible approaches here:

1. Identify the various elements of fixed and variable costs and develop estimates for each of these.
2. (Simpler) approach is to consider typical operating margins for retail businesses, and assume this business would perform in line.

### Example Calculation:

- Typical operating margin = 5%
- EBIT = £500k (£10m x 5%).

# Question 4:

What is the required rate of return?

## Answer

In market equilibrium, the return achieved on an investment on an incremental petrol station will be just sufficient to meet the market rate of return for this asset class. Having calculated the EBIT for the outlet, this relationship can be used to derive the implied total investment capital that would be necessary to maintain this equilibrium state.

## Example Calculation:

- Assumed pre-tax required rate of return = 20% (the asset class would require a return above the risk free rate, but is potentially less risky than VC- style investments that typically require a target return of c. 30-40%)
- Investment = £2.5m (= EBIT of £500k / 20%).

Having derived the implied investment amount, it should be sense-checked to ensure it appears reasonable, and prior assumptions revisited where necessary. Strong candidates would consider which assumptions the final result is most sensitive to, and would pay particular attention to the degree uncertainty around the values attributed to these items.

# AirJet Inc.

Marakon

## Problem Statement:

### AirJet Inc. is a U.S. manufacturer of small, regional airplanes. It manufactures two types of aircraft: Jet engine (80-100 seats) and propeller aircraft (20-30 seats).

In 2011, AirJet delivered 110 jet engine aircraft and 150 propeller aircraft. This represented a unit volume increase year-over-year of 10% and 5%, respectively, and revenues of $794 million and $225 million, respectively.

Although overall AirJet turned a profit, profitability varied significantly by business.

AirJet's senior management team has hired a team of consultants to help the company develop a value-maximizing strategy. We need your help to understand:

- What are the key issues and opportunities at AirJet?
- What solutions would you recommend to management?

### Note to interviewer:

AirJet Inc. is losing money in the Jet Engine business. However, the average player in the jet engine aircraft market is profitable. AirJet has gained significant market share by aggressively serving the Lessor customer segment which tends to buy 15 or more planes. Lessors, in purchasing large volumes of aircraft, have been able to exert significant buying power over our client and achieve large price concessions.

# Question 1:

How would you develop an approach to root cause the profitability issue?

Provide Exhibit 1 (either in full or as requested by the candidate)

### Answer

**Using a typical profitability framework, the candidate should make the following observations:**

- Jet Engine business is unprofitable while the Propeller business is highly profitable
- Gross margins in Jet Engine business are much lower than the propeller business
- The problem lies with the Jet Engine business.

### Interviewer:

**Additional information to be given to candidate if asked:**

- Costs and hence margins are in line with market average
- Jet Engines parts are complex and typically bought from specialized OEMs.

# Exhibit 1

| | Jet Engine Aircraft Business | | Propeller Aircraft Business | |
|---|---|---|---|---|
| **2011** | Financials ($m) | %of Sales | Financials ($m) | %of Sales |
| **Revenues** | 794 | 100% | 225 | 100% |
| **COGS** | -659 | -83% | -86 | -38% |
| **SG&A** | -99 | -12% | -16 | -7% |
| **Delivery & Other** | -42 | -5% | -8 | -4% |
| **Net Income** | -6 | -1% | 69 | 31% |
| **Capital Charge (at 10%)** | -25 | -3% | -3 | -1% |
| **Economic Profit** | **-31** | **-4%** | **66** | **29%** |

**Economic Profit = Net Income – Charge for Cost of Capital**

Note:

**Economic profit includes a charge that accounts for the required return on capital.**

- When EP > 0 value is created,
- When EP < 0 value is destroyed (even if Net Income is positive!),
- At EP = 0 the business generates exactly the required return.

# Question 2A:

Show Exhibit 2. What can you infer?

### Answer

1 The market is profitable and growing with the average competitor generating 5% economic profit margins

- Total Revenues = $3520 mn
- Revenue per aircraft = $3520/440 = $8mn
- Cost per Aircraft = $6.8m + 10 % of $3300mn Capital = $7.6mn
- Economic Profit per aircraft = $8 mn - $7.6 mn = $0.4 mn
- EP Margin = 0.4/8 = 5%.

2 AirJet has the largest market share at 25% (was 20% 3 years back)

3 AirJet growing at ~15%, market growing at ~7%

4 Four other competitors control the remaining market ranging from 16-22%

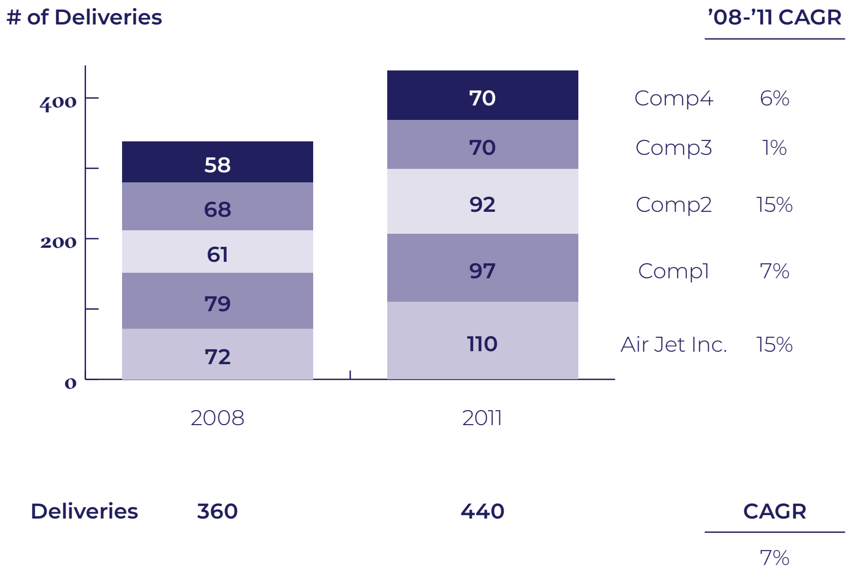
5 There is no dominant competitor in the jet engine business

# Exhibit 2

## Overall Market Economics

| | 2011, $m |
|---|---|
| Total US Market Size | 3,520 |
| Average Costs per aircraft | $6.8 |
| # of Jets Sold | 440 |
| Total Capital Invested | 3,300 |
| Cost of Capital | 10% |

## Market Structure



# Question 2B:

The candidate should focus the rest of the discussion on the Jet Engines business and understanding market size, growth and profitability within the segment.

| **Market Growth**<br>**Good candidates would seek to explore the market growth. Additional information to share for discussion:** | **Competitive Position**<br>**Once the candidate identifies that AirJet has gained market share over the last 3 years, he/she should explore the reasons for it. Information for supporting this discussion:** |
|---|---|
| The market is expected to continue growing at 7% for the next 10 years due to:<br>a Changes in regulation (e.g. Open Skies) and globalization (India, China) have lifted restrictions on U.S. based airlines to service these segments<br>b The current customer base for Airjets is largely US based<br>c Success of newer businesses such as Fractional Jet Programs (time sharing of jets)<br>d Expected replacement cycles as older jets are retired. | 1 AirJet is pricing its product lower than the market on average. They can increase price by 20% and still have a competitive product which provides a fair benefit to customers<br>2 There doesn't seem to be much differentiation versus products from competitors<br>a Cockpit: Similar to industry standard, resulting in low switching costs for new customers<br>b Performance: Range of ~500 miles which is similar to the market average<br>c Maintenance and Asset Life: The majority of the fragmented jet engine aircraft maintenance companies have the capabilities and parts to service AirJet's aircraft<br>3 Therefore, just increasing the price by 20% will put AirJet in midst of the cluster. Without any offer advantage, AirJet will lose market share relative to its current position |

# Question 3:

**Once the student identifies pricing disadvantage as the issue, direct the conversation to lead to customer segmentation at the root of the issue. Provide the candidate Exhibit 3 and the following information, if not requested by the candidate:**

- Affluent Individuals: Buy 1 aircraft during a buying cycle (approximately every 5 to 15 years)
- Corporate Customers: Buy 2-3 aircraft, mostly large multinationals for executive travels
- Lessors: Buy 15 or more aircraft and lease to airlines, governments, corporations etc.

## Answer

Ask the student to compute average price by customer segment

- The main driver of profitability between segments is solely price without doing any math, since operating cost per aircraft produced and delivered is the same regardless of the intended customer
- The Lessor segment makes large purchases and exploits a negotiating leverage over AirJet
- Average revenue per customer is: $390M / 60 aircraft = $6.5M per aircraft from Lessors, compared to $8.4M from Affluent Individuals and $8.0M from Corporate Customers
- Lessors comprise the largest customer segment [more than 50% of the total market by volume]

- Segment 1: 80 planes, our share 12.5%
- Segment 2: 120 planes, our share 33%
- Segment 3: 240 planes, our share 25%.

# Exhibit 3

### Jet Engine Economics

| 2011, $m | Per Aircraft[1] | Total |
|---|---|---|
| **Fixed Cost** | $1.5 | $165 |
| **Variable Cost** | $6.0 | $660 |
| **Total Cost[2]** | $7.5 | $825 |

### Jet Engine Customer Segment Economics

| 2011, $m | Affluent Individuals | Corporate Customers | Lessors |
|---|---|---|---|
| **AirJet Revenues** | $84 | $320 | $390 |
| **# Customers** | 10 | 13 | 4 |
| **# Aircraft sold** | 10 | 40 | 60 |
| **Market share** | 12.5% | 33% | 25% |

Note:

(1) Per Aircraft costs based on 2011 volume of 110 planes

(2) Total costs include costs of capital

# Question 4:

Prompt the candidate to develop alternatives for solving the profitability issues.

## Answer

1 Increase prices for Lessors: for every $500K we lose 1 customer (15 aircraft). After a few calculations the candidate should see that with such elasticity this alternative cannot be profitable, e.g.

a Increase in Price to $7.0 mn, losing 1 customer

b Total Aircrafts sold = 10 + 40 + 45 = 95

c Total Aircrafts Cost = 165 + 95*6 =$735

d Total Revenue = 84+320+ 7*45 = $719

e Profit (Loss) = ($16) mn [remains unprofitable at $7.5m and $8m – i.e. losing 2 or 3 customers]

2 Exit the Lessors segment: Similar calculations show that the loss of scale makes the other two segments unprofitable as well (cannot cover fixed costs)

3 Enter the leasing business: Forward integration. Also creates a threat for the Lessor customer and improve negotiating leverage

4 Other

**Discuss pros and cons of each alternative. For Option 3 (enter the leasing business) the following information should indicate that it is a good opportunity that can help prop-up the Lessor segment as well:**

- **Market Growth:** The jet engine, regional aircraft leasing market is large and growing. In 2011, the new aircraft leasing market represented almost 50% of all new aircraft delivered (with operating leases comprising half) and is expected to grow 5% per year
- **Market Economics:**
  i. The aircraft leasing market is profitable with the average competitor generating ROE's of ~15% (cost of equity ~10%)
  ii. The key driver of profitability is cost of funds. AirJet would be at parity
- **Competition:** Three aircraft lessors (also AirJet's customers) dominate the market with a combined share of 65%
- **Customer:** AirJet has marketing relationships with all aircraft end-users who are leasing their aircraft from the company's aircraft lessor customers. AirJet works with these end-users to help them configure the plane during the front end of the sales process.

**If time permits and the candidate has reached a satisfying solution for the profitability issue, use the rest of the time to brainstorm additional growth alternatives for the business. The following is a starter list**:

1 Other Markets: Jet Engine Segments – 50 to 80 seaters, 100+ segment

2 Geographies – International Expansion

3 Understand the propeller business to find avenues of growth

4 Enter Fractional Jet Ownership Market

# Old Pharma

McKinsey&Company

## Case Context:

**Our client is OldPharma, a major pharmaceutical company (pharmaco) with USD 10 billion a year in revenues. Its corporate headquarters and primary research and development (R&D) centers are in Germany, with regional sales offices worldwide.**

OldPharma has a long, successful tradition in researching, developing, and selling "small molecule" drugs. This class of drugs represents the vast majority of drugs today, including aspirin and most blood-pressure or cholesterol medications. OldPharma is interested in entering a new, rapidly growing segment of drugs called "biologicals". These are often proteins or other large, complex molecules that can treat conditions not addressable by traditional drugs.

Biological R&D is vastly different from small molecule R&D. To gain these capabilities, pharmacos can build them from scratch, partner with existing startups, or acquire them. Since its competitors are already several years ahead of OldPharma, OldPharma wants to jumpstart its biologicals program by acquiring BioFuture, a leading biologicals start-up based in the San Francisco area. BioFuture was founded 12 years ago by several prominent scientists and now employs 200 people. It is publicly traded and at its current share price the company is worth about USD 1 billion in total.

OldPharma has engaged McKinsey to evaluate the BioFuture acquisition and advise on its strategic fit with OldPharma's biologicals strategy.

Should OldPharma acquire BioFuture?

## Question 1:

What factors should the team consider when evaluating whether OldPharma should acquire BioFuture?

A good answer would include the following:

- **Value of BioFuture's drug pipeline**
  Number of drugs currently in development. Quality of drugs (likelihood of success). Potential revenues and profits.
- **Biofuture's R&D capabilities (future drug pipeline)**
  Scientific talent. Intellectual property (e.g., patents, proprietary processes or "know-how" for biologicals research). Buildings, equipment and other items that allow Biofuture's R&D to operate.
- **BioFuture's marketing or sales capabilities**
  Especially how promotional messages will be delivered, e.g., relationships with key opinion leaders that can promote biologicals; key opinion leaders can come from the academic arena, like prominent medical school professors, or from the public arena, like heads of regulatory bodies or prominent telejournalists.
- **Acquisition price.**

A very good answer might also include multiple additional key factors OldPharma should consider. For example:

- **BioFuture's existing partnerships or other relationships with pharmacos.**
- **OldPharma's capability gaps in biologicals, R&D, sales and marketing, etc.**
- **OldPharma's alternatives to this acquisition**
  Alternative companies OldPharma could acquire. Other strategies for entering biological segment, e.g., enter partnerships rather than acquisition. Pursuing other strategies than entering the biological segment.

## Question 2:

The team wants to explore BioFuture's current drug pipeline. The team decides to focus first on evaluating the value of BioFuture's drug pipeline – both its current portfolio, as well as its ability to generate drugs on an ongoing basis. What issues should the team consider when evaluating the value of BioFuture's existing drug pipeline?

A good answer would include the following:

- **Further cost of R&D until each drug is ready to be sold.**
- **Potential value of selling each drug.**
  - Market size, e.g., size of patient population, pricing
  - Market share, e.g., number of competitive drugs in R&D or on the market; different side effects, convenient dosing schedule (i.e., patients are prescribed to take a drug at regular intervals that are easy to remember such as once a day or every 12 hours), etc.
  - Costs to manufacture and sell, e.g., marketing, distribution, etc.
  - Press about these drugs, e.g., have famous doctors called for this kind of drug, is it only slightly improving on what is on the market already?

A very good answer would also include the following:

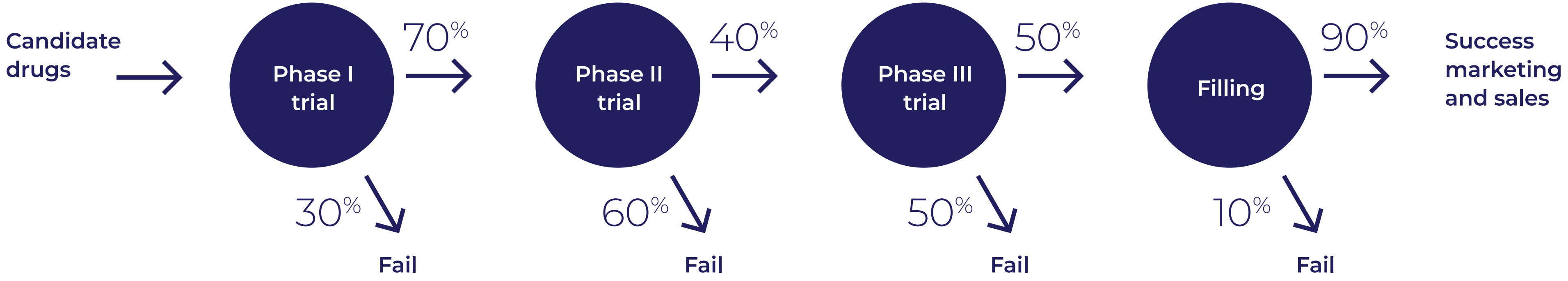
- **Risk level**
  - Likelihood clinical trials of a drug will prove effective
  - Likelihood drug will win regulatory approval
  - Side effects and potential legal exposure, e.g., potential law suits due to unexpected side effects
  - Emergence of substitutes – are competitors working on substitutes already? Is it about speed and does BioFuture have enough researchers working on the respective drugs?
  - Strength of underlying patents, i.e., how likely is it that a competitor can successfully copy BioFuture's drug?

Below is a description of expected probability of success, by stage, in the Pharma R&D pipeline.

## Exhibit 1: Expected probability of success, by stage of research and development

Percent

Fictitious Exhibit




**Note:** "Filing" is the process of submitting all of the clinical and safety evidence from Phase I, II, and III trials, and asking for regulatory approval to actually sell the drug.

## Question 3 (for Exhibit 1):

OldPharma believes that the likelihood of success of BioFuture's primary drug candidate can be improved by investing an additional USD 150 million in a larger Phase II trial.

The hope is that this investment would raise the success rate in Phase II, meaning that more candidate drugs successfully make it to Phase III and beyond. By how much would the Phase II success rate need to increase in order for this investment to breakeven?

Assume that if the drug is successfully marketed and sold, it would be worth USD 1.2 billion (i.e., the present value of all future profits from selling the drug is USD 1.2 billion).

### A very good answer would include the following:

Investment would need to increase probability of success in Phase II from 40% to 80% (increase of 40 percentage points). There are multiple ways to approach this calculation. One method is shown here:

- If a candidate drug passes Phase II, then it has a 50% x 90% = 45% chance of being successfully marketed and sold. Since a successful candidate drug is worth $1.2 billion, a candidate drug that passes Phase II is worth 45% x $1.2 billion = $540 million
- To breakeven, i.e. to make the $150 million investment worth while, value of the candidate drug that passes Phase II would need to increase to $540 million + $150 million = $690 million. This means, the probability of combined success in Phase I and II would need to increase by (150/540) = 28 percentage points
- So the current probability of Phase I and II, i.e., 70% x 40% = 28% would have to increase by 28 percentage points, i.e., to 56%. In order to come up to 56%, Phase II probability would have to increase from 40% to 80% (70% x 80% = 56%)
- This seems like a very big challenge as an increase by 40 percentage points means that the current probability of 40% needs to double.

## Question 4:

Next, the team explores the potential setup with BioFuture after the acquisition. Although BioFuture's existing drug pipeline is relatively limited, OldPharma is highly interested in its ability to serve as a biological research "engine" that, when combined with OldPharma's existing R&D assets, will produce many candidate drugs over the next 10 years.

What are your hypotheses on the major risks of integrating the R&D functions of BioFuture and OldPharma?

A very good answer would include the following:

- Scientists do not have overlapping disease (therapeutic area) interests or expertise and are unable to materially collaborate
- Integration into the process-driven OldPharma culture kills the entrepreneurial culture at BioFuture that has been key to its success
- Language barriers severely hinder communication and sharing of information
- Poor management and sense of community as a result of R&D operations that might come with a time difference of 9 hours
- Key scientific talent leaving BioFuture after the acquisition – either because acquisition makes them independently wealthy or because they don't want to be a part of the new big OldPharma pharmaco.

# Question 5:

Post-acquisition, OldPharma believes that it will be necessary to consolidate all biologicals R&D into one center. There are two logical choices: OldPharma's existing headquarters in Germany, and Biofuture's current headquarters in San Francisco. OldPharma does not have any current biologicals facilities or operations in Germany, so new facilities would have to be built.

How would you think about this decision?

A very good answer would include the following:

- Reasons for consolidating at OldPharma's corporate HQ in Germany:
  - Better coordination with non-biologicals R&D at OldPharma
  - Better coordination with other business units of OldPharma (e.g., marketing, manufacturing)
  - Easier to intermix scientists in biologicals and traditional R&D units, and transfer any unique capabilities & knowledge
  - Overall easier to integrate BioFuture's R&D capabilities into OldPharma.
- Reasons for consolidating in BioFuture's San Francisco location:
  - Less likely to see flight of talent: many top scientists would likely leave rather than relocate to Germany
  - Easier to recruit and find top research talent in San Francisco vs Germany
  - Easier to retain the entrepreneurial spirit and culture of BioFuture
  - No need to rebuild e.g. manufacturing plants, research facilities.

# Question 6:

While researching the integration barriers, the team learns that one of OldPharma's top competitors, DrugMax, has already partnered with BioFuture on their lead drug candidate essentially agreeing to split all development costs and future profits 50/50. OldPharma is considering buying out DrugMax's 50% share of the BioFuture lead drug candidate. As a first step in valuation, they have asked the McKinsey team to estimate the potential peak sales of this drug candidate – this is another way to verify potential future profits of a drug. The drug candidate is intended to treat non-Hodgkin's lymphoma. New cases are diagnosed each year in 25 out of every 100,000 U.S. men and 15 out of every 100,000 U.S. women.

Given this and any other information you might need, what are the estimated U.S. peak sales of this compound?

### Give this information to candidate if requested:

- U.S. population is 300 million, half men, half women
- Full course of therapy takes 90 days and OldPharma believes the drug can be sold at a price of $500 per day
- Estimated market share (i.e., % of eligible patients who are treated with this drug), is 25%.

### A very good answer would include the following:

- Expected peak sales of this drug candidate are USD $675 million
- Assuming a U.S. population of 150 million men and 150 million women, there would be 37,500 estimated diagnoses among men, and 22,500 diagnoses among women, or 60,000 new cases of non-Hodgkin's lymphoma per year
- Each course of therapy will yield $45,000 in revenue (90 days at $500 per day). Therefore total U.S. market potential is $2.7 billion. Estimated market capture is 25%, leading to an estimated U.S. peak sales of $675 million.

# Question 7:

On the third day of the engagement you run into the Vice President of Business Development for OldPharma in the cafeteria. He asks what the team's current perspective is on the BioFuture acquisition and what next steps you are planning to take.

How would you respond?

There is no right or wrong answer on whether to buy or not buy and there are various ways on how to build an argumentation. One possible very good answer would be:

An acquisition of BioFuture can bring two major sources of value to OldPharma: the value of its existing compounds and the potential value of integrating its research capabilities into OldPharma.

In terms of BioFuture's existing pipeline there are a couple of challenges: firstly, the proposed idea of investing heavily in Phase II trials is not likely to be a profitable investment; secondly, one of your competitors, DrugMax, currently has a cooperation with BioFuture for its lead drug candidate. This needs to be taken into account when trying to acquire BioFuture. We are still looking into other potential synergies, but it appears unlikely that OldPharma can justify the cost of an acquisition purely based on BioFuture's existing pipeline.

The greater source of upside is likely to be the long-term benefits of integrating BioFuture's research capabilities with OldPharma. There are significant risks to this as well, given the "two worlds" nature of their organizational cultures.

As next steps we therefore want to better understand the feasibility of bridging the cultural gap and better understand pros and cons of different consolidation options; estimate the cost of this research integration; get a better understanding of the value of BioFuture's future potential to develop drugs.

# RefreshNow! Soda

McKinsey&Company

## Case Context:

**Our client is RefreshNow! Soda. RefreshNow! is a top 3 beverage producer in the U.S. and has approached McKinsey for help in designing a product launch strategy.**

As an integrated beverage company, RefreshNow! leads its own brand design, marketing and sales efforts. In addition, the company owns the entire beverage supply chain, including production of concentrates, bottling and packaging, and distribution to retail outlets. RefreshNow! has a considerable number of brands across carbonated and non-carbonated drinks, 5 large bottling plants throughout the country and distribution agreements with most major retailers.

RefreshNow! is evaluating the launch of a new product, a flavoured non-sparkling bottled water called O-Natura. The company expects this new beverage to capitalize on the recent trend towards health-conscious alternatives in the packaged goods market.

RefreshNow!'s Vice President of Marketing has asked McKinsey to help analyze the major factors surrounding the launch of O-Natura and its own internal capabilities to support the effort.

Which factors should RefreshNow! consider and act on before launching O-Natura into the U.S. beverage market?

# Question 1:

What key factors should RefreshNow! consider in deciding whether or not to launch O-Natura?

A good answer would include the following:

- **Consumers**
  Who drinks flavoured water? Are there specific market segments to address?
- **Cost/Price**
  Is the flavoured bottled water market more profitable than those markets for RefreshNow!'s current products? Is it possible to profitably sell (price set by the market, internal production costs) O-Natura? Given fixed costs involved, what would be the break-even point for O-Natura?
- **Competitors**
  Which products is O-Natura going to compete with? Which companies are key players and how will they react?

A very good answer might also include multiple additional key factors RefreshNow! should consider. For example:

- **Capabilities and Capacity**
  Are the required marketing and sales capabilities available within RefreshNow!? Does the product require specialized production, packaging, or distribution? Is it possible to accommodate O-Natura in the current production and distribution facilities? What impact does geography have on the plant selection?
- **Channels**
  What is the ideal distribution channel for this product? Are current retail outlets willing to add O-Natura to their product catalogue?

# Question 2:

After reviewing the key factors RefreshNow! should consider in deciding whether to launch O-Natura, your team wants to understand the beverage market and consumer preferences to gauge potential success of O-Natura.

The bottled market splits into non-sparkling, sparkling, and imports. Flavoured water falls within non-sparkling. Your team has gathered the following information on the U.S. bottled water market. The information shows an estimate for the share of flavoured water, as well as the current share for the two main products: Cool and O2Flavor (show candidate Exhibit 1).

Based on the target price and upfront fixed costs, what share of the flavoured non-sparkling bottled water would O-Natura need to capture in order to break even?

Here is some additional information for you to consider as you form your response:

— O-Natura would launch in a 16 oz. presentation (1/8 of a gallon) with a price of $2.00 to retailers

— In order to launch O-Natura, RefreshNow! would need to incur $40 million as total fixed costs, including marketing expenses as well as increased costs across the production and distribution network

— The VP of Operations estimates that each bottle would cost $1.90 to produce and deliver in the newly established process.

A very good answer would include the following:

**O-Natura would need to capture a 12.5% market share of flavoured non-sparkling bottled water in order to break even. Therefore, O-Natura would need to be the Number 2 product in the market:**

1 O-Natura would need to sell 400 million units in order to break even:

- Variable profit per unit = $2.00 - $1.90 = $0.10
- Break even units = Total fixed costs / Variable profit per unit = $40 million / $0.10 per unit = 400 million units

2 O-Natura would need to capture a 12.5% market share:

- Non-sparkling flavoured bottled water market = 5% * 8,000 million gallons = 400 million gallons
- O-Natura sales in millions of gallons = 400 million units / 8 units per gallon = 50 million gallons
- Market share = 50 million gallons / 400 million gallons = 12.5%.

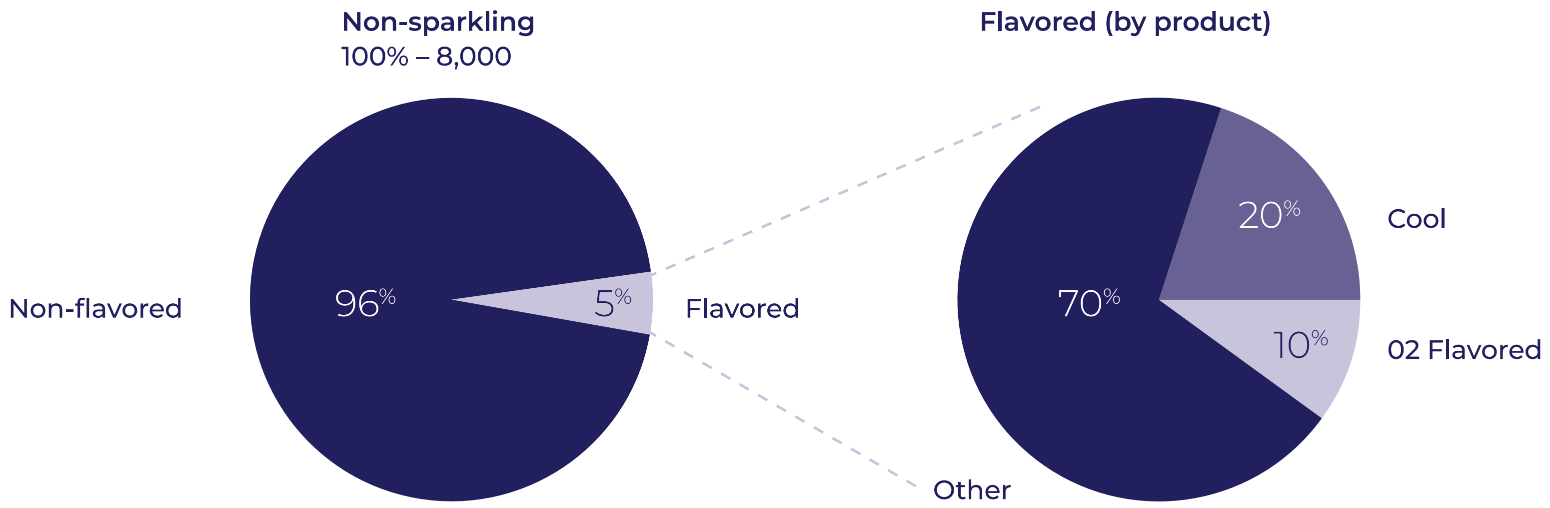
# Exhibit 1

Show candidate

**U.S. Bottled Water Market**

Millions of gallons

FICTITIOUS EXHIBIT



# Question 3:

RefreshNow! executives believe that the company's position as the top 3 beverage company in the country gives them strategic strengths toward achieving the desired market share. However, they ask the team to characterize realistically what they would need to achieve that target.

What would RefreshNow! need to ensure realistically to gain the required market share for O-Natura (12.5% of non-sparkling flavoured bottled water)?

A very good answer would include the following:

**Match with Consumer Preferences**

- Ensure product image, attributes, and quality fulfil the needs of all consumers or niche segment, reaching desired market share
- Ensure target price is consistent with other products in the market and the consumer's expectations.

**Strong Branding/Marketing**

- Create a successful introductory marketing campaign, including advertising, pricing, and bundling promotions
- Leverage top 3 producer status and limited market fragmentation in order to position O-Natura brand within top 3 in the market segment
- Anticipate response from competitors (e.g., advertising, pricing, distribution agreements). Ensure product positioning does not cannibalize on other, more profitable, RefreshNow! products.

**Operational Capabilities**

- Ensure access to preferred distribution channels. Ensure sales force capabilities to sell the new product
- Ensure production ramp-up that allows response to increased demand.

# Question 4:

Within the key drivers for market share, RefreshNow! wants to know which to tackle first and what the strategy should be. Therefore McKinsey helped RefreshNow! design and run a study to understand branding and distribution. The following information shows results from the study, based on a sample of target consumers (show Exhibit 2).

What can you conclude from the study in regards to the preferred marketing image and strategy of O-Natura?

A very good answer would include the following:

- **Branding should emphasize sports drink identity**
  "Healthy" identity is dominated by Cool product, "Leisure" by O2Flavor and "Sports" fragmented in other products. Clear niche within "Sports" identity, with top 2 brands currently occupying only 30% of share of mind. Sports branding should also determine thinking around the sales channels (e.g., sales during sports events or at sports facilities)
- **Distribution differs from current outlets and needs new agreements/research**
  Major shifts compared to current distribution model required in "Supermarkets", "Other", and "Convenience stores". Agreements with major retail players may accommodate for product introduction, with RefreshNow! managing mix across channels. "Other" channels need further research, since they are a major component of the Flavoured water segment
- **Marketing message to emphasize identity and availability**
  Marketing campaign should be built around the currently unaddressed market need for sports drink in order to connect with customers in that segment. Given required changes in distribution channels, O-Natura messaging should clarify new distribution strategy.

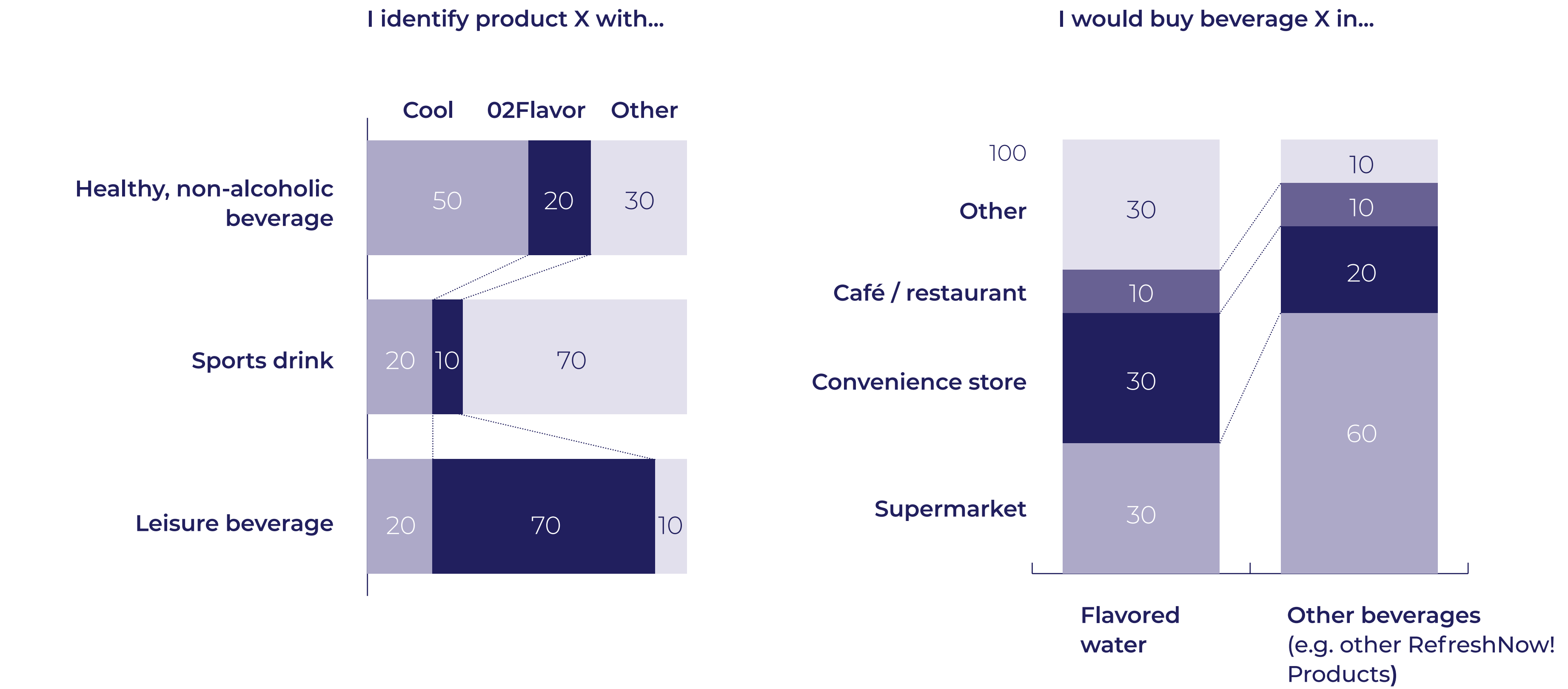
# Exhibit 2

Show candidate

**Consumer preferences**

In percent

FICTITIOUS EXHIBIT



# Question 5:

The team now explores RefreshNow!'s internal operational capacity to fulfil the projected O-Natura demand. RefreshNow! has decided to produce O-Natura from an existing dedicated production line in a single facility. In order to be on the safe side in case of increased demand they plan for an annual capacity of 420 million bottles (units) of O-Natura. The production line they have in mind currently operates for 20 hours per day, 7 days a week and 50 weeks per year. The speed for the current bottling process is 750 units per minute.

Is the current production capacity sufficient to fulfil the desired annual production plan of 420 million bottles of O-Natura?

A very good answer would include the following:

**RefreshNow! would need to increase its capacity because it would currently only allow to produce 315 million bottles of O-Natura:**

- Daily production = 750 bottles per minute * 60 minutes per hour * 20 hours per day = 0.9 million bottles
- Weekly production = 0.9 million bottles per day * 7 days per week = 6.3 million bottles
- Annual production = 6.3 million bottles per week * 50 weeks per year = 315 million bottles.

# Question 6:

Given the need for a specialized production process for O-Natura, the company has decided to add a new production line to only one of their 5 facilities. What factors should they consider in selecting the adequate plant?

### A very good answer would include the following:

- Required investment in target plant consistent with O-Natura budget
- Match of selected plant cost structure with fixed and variable cost targets for product
- Product assignment matches network growth targets (i.e., expected growth due to O-Natura is consistent with planned growth for the plant)
- Speed of installation given current plant commitments
- Adequate location for overall logistics; if only one plant concentrates on production, national shipments should be optimized.

### A very good answer would include both economic and non-economic factors, and provide examples of how different conditions could shift decision:

- Non-economic factors

Availability of additional resources, for example:

— Space
— Water
— Material supplies (e.g., bottle caps, labels)
— Local labour pool
— Management bandwidth
— Skills and training needs due to specialized process
— Commitments to and support from selected plant community.

# Question 7:

The RefreshNow! CEO has seen the team's analysis and confirms that the decision to launch O-Natura has been made. The product will be marketed as a sports drink, produced in the Midwest US, and distributed through supermarkets, convenience stores, and sport outlets.

He asks the team what the company should start doing tomorrow?

A good answer would include economic factors like:

**Finance to allocate required resources for launch.**

- Communicate launch decision and timeline to Finance department
- Analyze upfront investment and ongoing profitability targets
- Secure resources required for initial investment and allocate to each department (e.g., Marketing, Sales, Production, Distribution).

**Marketing to start designing launch strategy.**

- Design product identity, message, packaging, etc.
- Create advertising and promotional campaign
- Define any channel-specific considerations (e.g., displays, alternative campaigns)
- Prepare product communications for investors, customers, and consumers.

**Operations to begin product testing, production line design, and logistics.**

- Create and test product
- Communicate and negotiate product characteristics and prices with suppliers
- Renegotiate supplier contracts for materials and water supply if necessary
- Increase capacity of the existing production line (maybe building a new one)
- Hire new people if needed.

**Sales to start designing product approach and training for Associates.**

- Collaborate with marketing in defining message for retail outlets and consumers
- Design distribution strategy and allocate resources for new product
- Design and deliver product training for sales
- Communicate new product characteristics and targets to clients (e.g., supermarkets, convenience stores, restaurants, sports clubs).

# Footloose: Introduction

**Duraflex is a German footwear company with annual men's footwear sales of approximately 1.0 billion Euro(€).**

They have always relied on the boot market for the majority of their volume and in this market they compete with three other major competitors.

Together, these four brands represent approximately 72% of the 5.0 billion € German men's boot market. The boots category includes four main sub-categories:

Work boots, casual boots, field and hunting boots, and winter boots. Work boots is the largest sub-category and is geared to blue collar workers[1] who purchase these boots primarily for on-the-job purposes. Casual boots is the fastest growing sub-category, and is geared more towards white collar workers[2] and students who purchase these boots for week-end / casual wear and light work purposes.

The four key competitors in the market are Badger, Duraflex, Steeler, and Trekker.

[1] Blue collar workers: wage earners who generally work in manual or industrial labour and often require special work clothes or protective clothing, which are replaced approximately every 6 months

[2] \White collar workers: salaried employees who perform knowledge work, such as those in professional, managerial or administrative positions

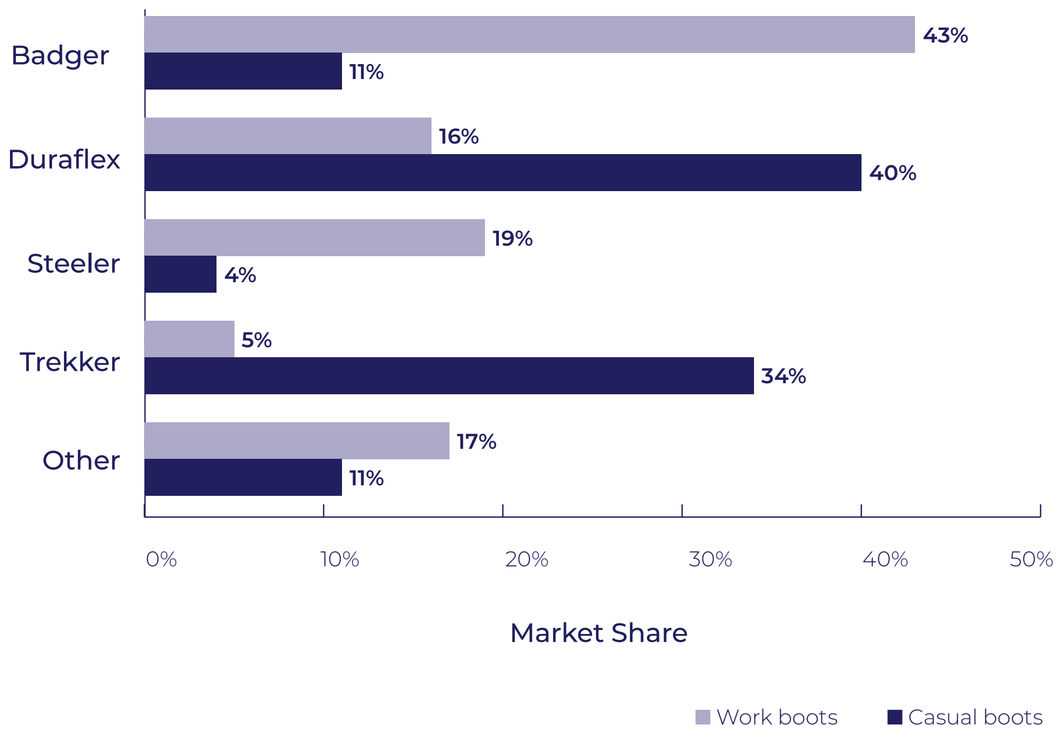
# Competitor Profiles

**Badger and Steeler are both well established as work boot companies, having a long history and strong brand recognition and credibility among blue collar workers.**

At the other extreme is Trekker, a strong player in the casual boot market but a very weak player in work boots. Duraflex, however, is a cross between the other competitors, having a significant share in both work boots and casual boots.

Historically Duraflex had an even stronger position in the work boot sector. However, since 1996 when the company began selling casual shoes and focusing on the growth opportunity in casual boots, sales of the Duraflex work boot line have steadily declined. Also, around the same time Duraflex shifted its emphasis, Badger became a much more assertive competitor in the work boot market, increasing its market share to 43% in just three years.

Market Share of Work and Casual Boots by Company



# Consultants' Role & Data Collected

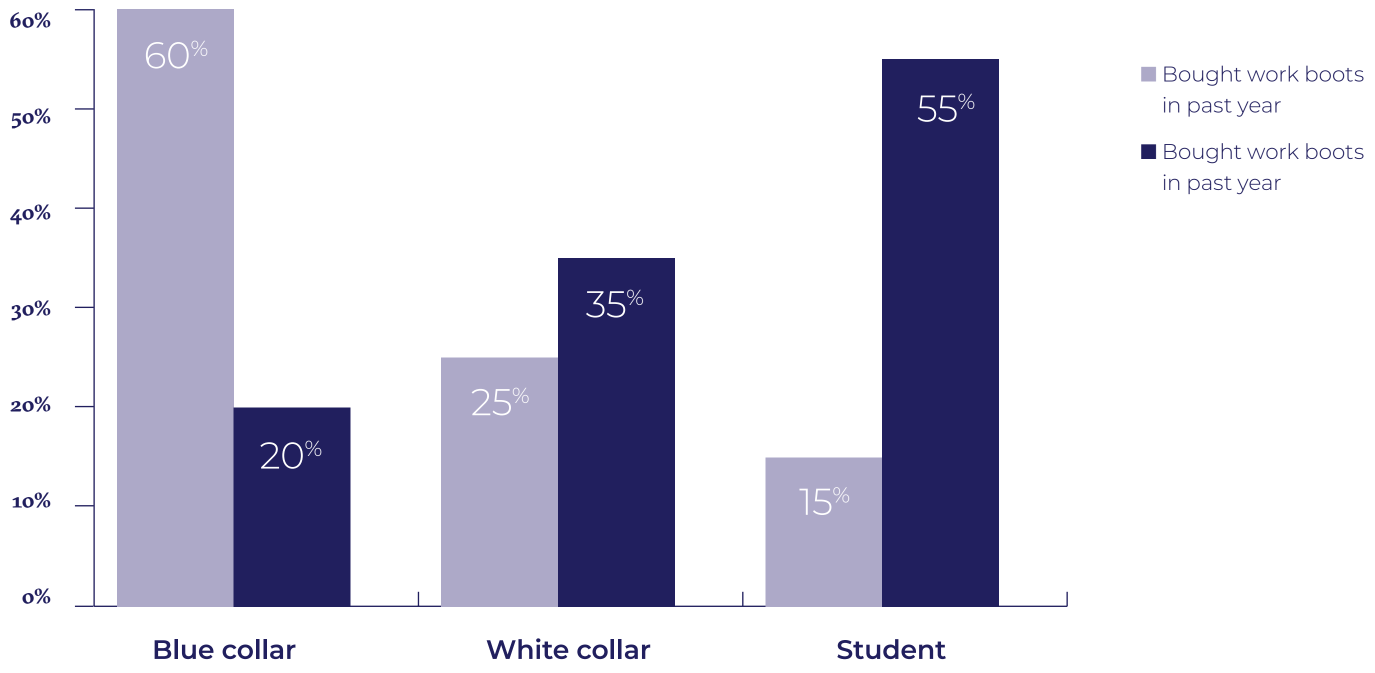
In the fall of 1998, Badger launched a new line of aggressively priced work boots. The strong success of this line has caused Duraflex's management to re-evaluate their position in work boots. With limited additional resources, management must now decide if they should focus their efforts on competing with Badger in the work boot sector, or focus their resources on further strengthening their position with casual boots.

In January of 1999 Duraflex hired a leading consulting firm to conduct research to help management in its decision making. To make an informed recommendation, the consultants realised they needed to collect information that would enable them to size the market and better understand Duraflex's competitive position.

To begin with, the consultants developed a 20 minute quantitative telephone survey that was conducted among 500 randomly dialed consumers across the country's 6 primary regions. In addition, the consultants completed some internal cost and pricing analysis for Duraflex's work and casual boot lines. The market pricing analysis showed Duraflex competing at the premium end of the market for both its casual and work boot lines.

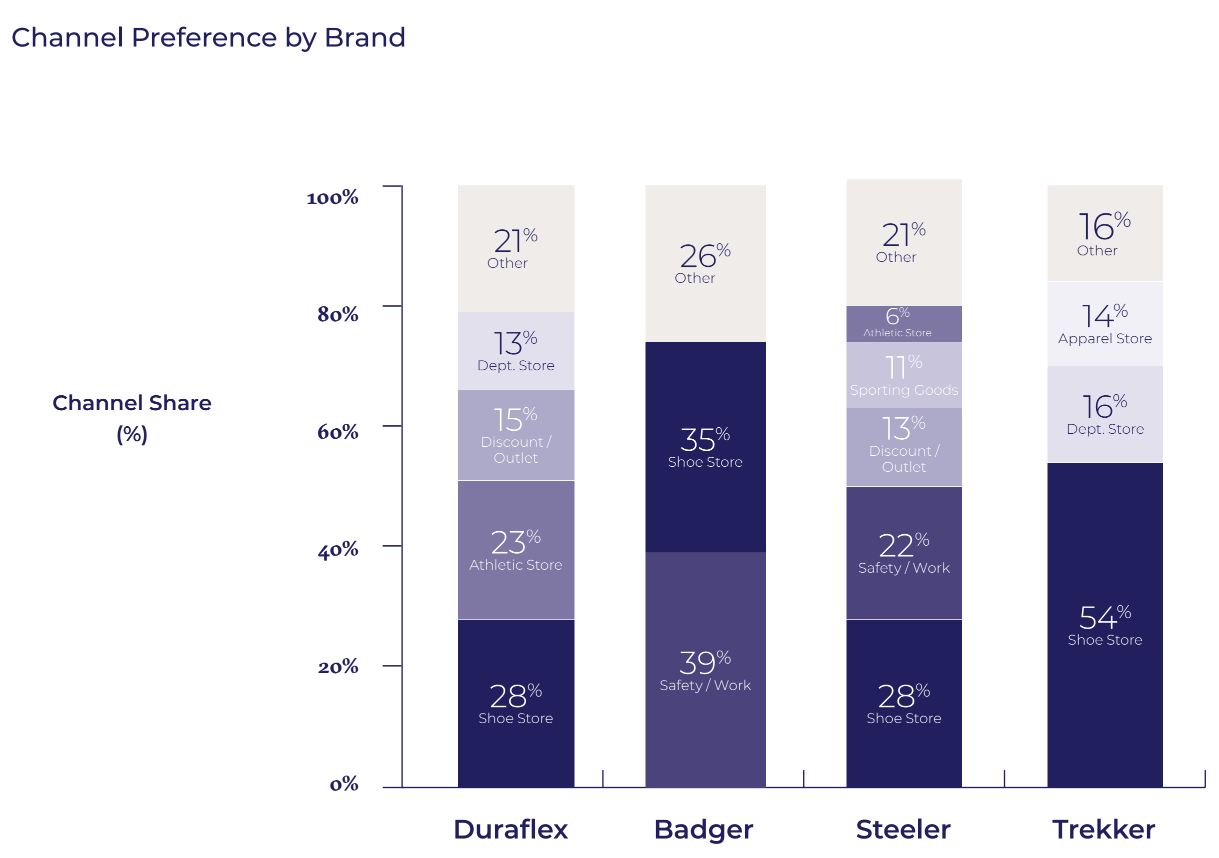
# Exhibit One

Propensity to buy boots by population segment (Male Population 12+)



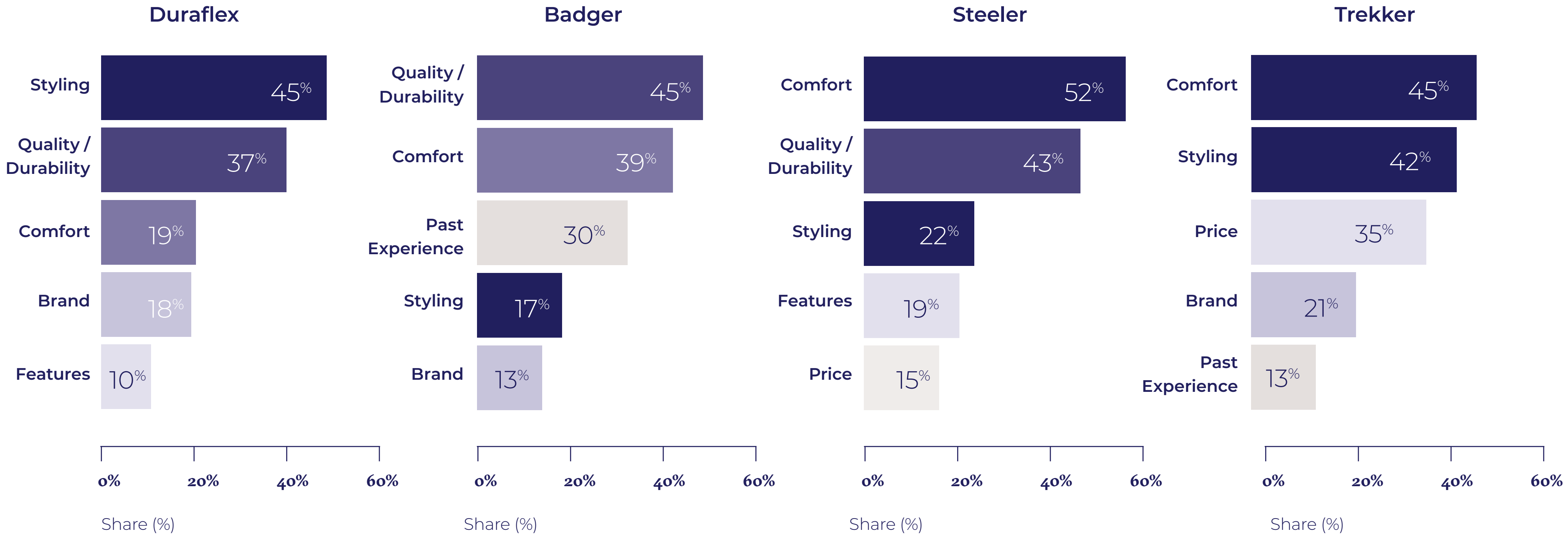

| | Blue collar | White collar | Student |
|---|---|---|---|
| **Population** | 11.0 MM | 12.0 MM | 7.0 MM |
| **Average Price Paid for Boots** | 140€ | 130€ | 110€ |

# Exhibit Two


Channel Preference by Brand
Channel Share (%)
100%
80%
60%
40%
20%
0%
21% Other
13% Dept. Store
15% Discount / Outlet
23% Athletic Store
28% Shoe Store
26% Other
35% Shoe Store
39% Safety / Work
21% Other
6% Athletic Store
11% Sporting Goods
13% Discount / Outlet
22% Safety / Work
28% Shoe Store
16% Other
14% Apparel Store
16% Dept. Store
54% Shoe Store
Duraflex
Badger
Steeler
Trekker

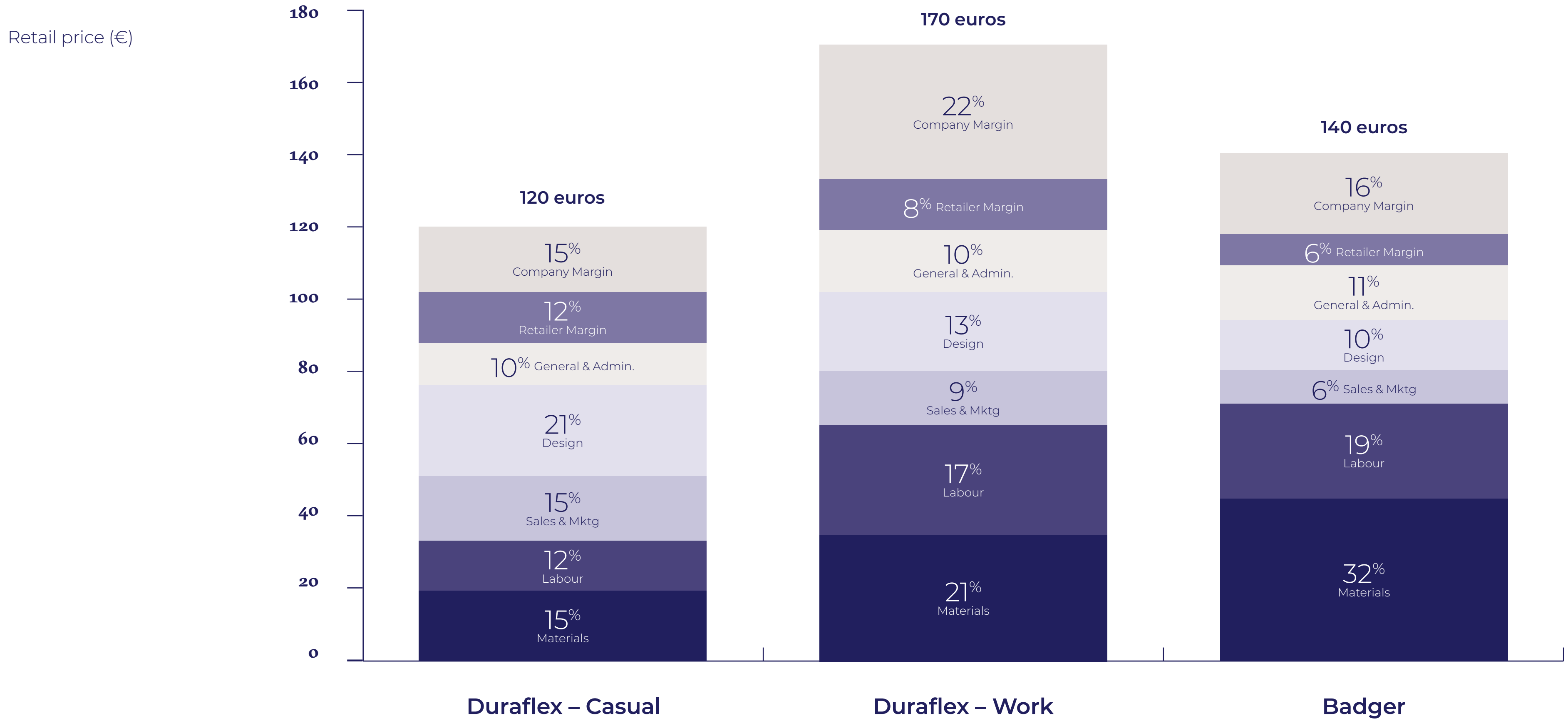
# Exhibit Three

Buyer Purchase Criteria by Brand



# Exhibit Four

Retail price of selected boots, split by price component



# Case Study Questions

**Q1** How big is the work boot market (expressed in euros)? Does Duraflex get more of its revenue from work boots or casual boots?

**Q2** Explain why Badger is outperforming Duraflex in the work boot market.

**Q3** What changes would you recommend to Duraflex's work boot strategy? Why? Would you recommend they introduce a sub-branded boot line?

# Answer Q1:

How big is the work boot market (expressed in euros)? Does Duraflex get more of its revenue from work boots or casual boots?

## Answer Q1

To find the size of the market, we can use the following equation:

(Average Boots Price) * (% of male population that bought work boots in past year) * (total population for the segment) * (number of pairs bought in a year)

**Exhibit One gives us the populations for each segment and the percentages that bought boots. We therefore need to find the number of boots sold and the average price of each pair. For this question, the candidate will need to make some assumptions.**

1 **Average number of boots purchased per user**

- For work boots, we know that blue collar workers purchase an average of 2 pairs per year (from Introduction, Footnote 1)
- White collar workers and students who buy work boots probably use them less rigorously and less frequently, therefore probably only 1 pair per year
- For casual boots, we can make a reasonable assumption, knowing that casual boots are purchased primarily for weekends and light wear (from text) so the average number of pairs should be no more than work boots from Exhibit 1 (i.e. 1 pair per year).

2 **Average price per pair of boots**

- Work boots cost more (compare Blue Collar vs. Student) so the average price should be higher than 140 € for all (150 € is reasonable); casual should be lower than student (100-110 € is reasonable).

# Answer Q1:

How big is the work boot market (expressed in euros)? Does Duraflex get more of its revenue from work boots or casual boots?

**Answer Q1**

The total market value will then be the sum, for each segment, of the following equation:

(Average Boots Price) * (% of male population that bought work boots in past year) * (total population for the segment) * (number of pairs bought in a year)

(€150 * 60% * 11Mill * 2) + (€150 * 25% * 12 Mill * 1) + (€ 150 * 15% * 7 Mill * 1) = €2,587.5 Mill or 2.6 Bill

The following table shows another way to see it:

| | Population | % Buying Work Boots | # Pairs Work Boots Bought / Year | Price Per Pair (€) | Segment Size (€) |
|---|---|---|---|---|---|
| **Blue Collar** | 11.0 Million | 60% | 2 | 150 | 2.0 Billion |
| **White Collar** | 12.0 Million | 25% | 1 | 150 | 450 Million |
| **Student** | 7.0 Million | 15% | 1 | 150 | 155 Million |
| | | | | **Total** | **2.6 Billion** |

# Answer Q1:

How big is the work boot market (expressed in euros)? Does Duraflex get more of its revenue from work boots or casual boots?

**Answer Q1**

Following the same procedure the casual boot market is then:

(Average Boots Price) * (% of male population that bought casual boots in past year) * (total population for the segment) * (number of pairs bought in a year)

(€100 * 20% * 11Mill * 1) + (€100 * 35% * 12 Mill * 1) + (€ 100 * 55% * 7 Mill * 1) = €1,025 Mill or 1.0 Bill

Or

| | Population | % Buying Casual Boots | # Pairs Casual Boots Bought / Year | Price Per Pair (€) | Segment Size (€) |
|---|---|---|---|---|---|
| **Blue Collar** | 11.0 Million | 20% | 1 | 100 | 220 Million |
| **White Collar** | 12.0 Million | 35% | 1 | 100 | 420 Million |
| **Student** | 7.0 Million | 55% | 1 | 100 | 385 Million |
| | | | | **Total** | **1.0 Billion** |

# Answer Q1:

How big is the work boot market (expressed in euros)? Does Duraflex get more of its revenue from work boots or casual boots?

## Answer Q1

### Summary:

- We know from table 1 that Duraflex has a 16% share of the work boot market and 40% of the casual boot market, therefore:
  - Duraflex's revenue from the work boot market = 16% * 2.6 Bill = 416 Mill
  - Duraflex's revenue from the casual boot market = 40% * 1.0 Bill = 400 Mil
- So Duraflex gets most of its revenue from work boots, even though the revenues are almost evenly split.

### Our Answer:

The work boot market is 2.6 Billion €. The casual boot market is 1.0 billion €. Duraflex generates 416 Million € from work and 400 Million € from casual. Depending on assumptions, casual may be slightly larger but the two should be relatively close.

# Answer Q2:

Explain why Badger is outperforming Duraflex in the work boot market.

## Ways to approach the question

According to the data we have, and what we know as industry dynamics, the analysis can be split in 4 main areas that would demand further study:

- Distribution
- Buyer Purchase Criteria by Brand (BPCs)
- Pricing
- Cost analysis.

Even if you have many good ideas to answer this question, you won't be impressive without STRUCTURE. You don't need a formal framework, just be methodical and organised in your approach – and summarise at the end!

# Answer Q2:

Explain why Badger is outperforming Duraflex in the work boot market.

## Distribution

- Duraflex is not sold where work boots are being purchased. Exhibit 2 shows that Badger's and Steeler's boots are often purchased in safety / work channels, whereas Duraflex does not have a significant presence in them
  - Therefore, Duraflex will need to broaden distribution if it is to increase its share; it needs to get shelf space in the relevant channels.

## Buyer Purchase Criteria by Brand (BPCs)

- Exhibit 3 shows us that Badger's top two associated criteria are: "Quality / Durability" (45%) and "Comfort" (39%). The same holds true for Steeler. Thus, these seem to be critical criteria for work boot market
  - However, Duraflex's top criteria are "Styling" (45%) and "Quality / Durability" (37%), with Comfort is a distant 3rd at 19%, far from its competitors figures
    - Duraflex is not meeting the key needs of blue collar workers and will need to strengthen its "comfort" perception
- Additionally, we should note that Badger has built up a loyal customer base: "past experience" as a criteria represents 30% and is 3rd on its list of associated criteria.

## Pricing

- We know that Badger is launching an "aggressively priced" work boot line. Duraflex can alter its pricing strategy, e.g. lower its own boot price
  - However, looking at Exhibit 3, among the stronger work boot market competitors, we see that only Steeler shows price as a top BPC (and then it is the lowest one) – potentially because they are the lower cost option is this market
    - Given that price does not appear to be an important criteria for work boot consumers, Duraflex will likely not realise great benefits from this strategy, and will also lower its profits in so doing
    - We know from the case that Duraflex has premium price positioning, hence lowering its price may lead to perception of lowering quality.

## Cost Analysis

- Comparing Badger to Duraflex work boots, from Exhibit 4, there is one key area where Badger proportionately and absolutely spends more than Duraflex: "materials". This supports their perception of "quality / durability" and "comfort" among their consumers. Also, they spend more on "labour"
  - Retailer margin is lower for Badger – due to significant presence in safety / work channel
  - Sales & Marketing spend is lower for Badger – potentially driven by lower marketing requirements in safety / work channel as well as established brand name among blue collar workers; Also, Badger has built a loyal customer base, and it is less costly to maintain existing customers than attract new ones
    - Badger has lower margins (both absolute and relative); given already higher market price, Duraflex has limited flexibility to raise its boot prices; Duraflex may lower its margin somewhat and shift emphasis to labour and materials.

# Answer Q2:

Explain why Badger is outperforming Duraflex in the work boot market.

## Answer Q2

### Summary

- Duraflex is not sold where work boots are being purchased
- Duraflex is not meeting the key needs of blue collar workers, as it is weaker than competitors on the critical 'Comfort' dimension
- Badger prices its boots more competitively, which is likely to be particularly appealing to the large work boot market; this has helped develop a large and loyal consumer base
- Badger has lower retailer margins (both absolute and relative) and spends less on Sales & Marketing.

# Answer Q3:

What changes would you recommend to Duraflex's work boot strategy? Why? Would you recommend they introduce a sub-branded boot line?

## Ways to approach the question

There are two reasonable answers to this question. The company can either:

- Focus on increasing its work boots activities, or
- Emphasize casual boots.

Each option has its own justifications and implications

**The important thing with a subjective question is not *what* you answer to the question, *but* how you answer the question – pick a point of view and support it with critical reasoning!**

# Answer Q3:

What changes would you recommend to Duraflex's work boot strategy? Why? Would you recommend they introduce a sub-branded boot line?

## Increased Work Boot Market Focus

### Justification:

- Represents approximately 40% of Duraflex's business (from question 1), making it very difficult to profitably ignore this market
- While Duraflex does have greater market share in the casual boot market, we know from information given in the case that the casual boot market is smaller in size than the work boot market, which may indicate less opportunity for share growth; also, we derive lower margins (15% vs. 21%) from casual boots (from Exhibit 4)
- Given that Badger is introducing a new work line, they may see new growth potential in the market which Duraflex may also want to capitalise on
- Building a stronger image among blue collar workers may entice them to try other Duraflex footwear products.

### Implications:

- Enter safety / work channel – we may be faced with pressure from Badger exerting influence on retailers in this channel
- Build "comfort" and "quality / durability" perception among blue collar workers
- Increase proportion of costs allocated to materials and labour – potentially reducing company margin
- There may be unique / niche positionings for Duraflex (suggestions should be well thought out)
- Introduce sub-brand or increase promotion of brand with a focus on blue collar workers: may include on-site promotions, advertising in industry publications, or advertising in magazines / on television during programmes with a higher blue collar readership / viewership.

# Answer Q3:

What changes would you recommend to Duraflex's work boot strategy? Why? Would you recommend they introduce a sub-branded boot line?

## Emphasise Casual Boots

### Justification:

- Stronghold for Duraflex right now (40% market share)
- Fastest growing market
- Represents approximately 40% of Duraflex's business (from question 1), making it very difficult to profitably ignore this market
- Focusing additional resources on work boot market would risk of alienating casual boot buyers (white collar workers and students)
- "Style" is the top BPC for Duraflex (from Exhibit 3). From the statistics on Badger and Steeler, we know this is likely not an important criteria for the work boot market. By focusing on the casual boot market Duraflex can devote additional resources to keeping up with styles to better appeal to this target.

### Implications:

- Unlikely to be a strong competitor reaction, since Duraflex is already dominant player
- Duraflex will not need to enter new distribution channels
- Candidate should discuss a strategy for work boot market – either winding down, maintenance etc. and implications of this.

# Mobile Phone Company

Roland Berger

## Case Context:

Mobile Phone Company (MPC) is a global mobile phone handset manufacturer that has seen its market share in Europe (by value) slip from 20% five years ago to 1% today. MPC has discussed its ambition to become relevant in Europe again and has set itself a stretch target to get back to its previous market share position. The European handset market has traditionally been dominated by two dominate players but the last few years has witnessed new entrants from the far East.

What volume does MPC need to regain its past market share position and what key challenges does it face in getting there?

### Information to be provided as a response to candidate questions:

- Assess only the five key markets of UK, Germany, France, Spain and Italy (populations of 60m, 80m, 65m, 45m, 60m)
- European mobile market is dominated by four key operators that handset manufacturers sell to (Vodafone, Orange, Telefonica/O2, T-Mobile)
- Handsets are split into two tiers – smartphones and feature phones
- Smartphone penetration rate across 5 key markets should be assumed to be 35%.

### Suggested approach:

- Assess the size of market in five key countries by volume and value
- Assess what MPC needs to achieve to reach its goal by volume and value
- Discuss the key challenges that ABC needs to overcome.

# Step 1: Size of the market

**Start with confirming the expectations on splitting the market – i.e. 5 key markets (e.g. UK, France, Germany, Spain and Italy), expectations of assumptions between different markets, only two tiers of handset types: standard handsets and smartphones.**

From the population across the five key markets – expect the candidate to do this on an aggregated basis, but if they start doing it for each of the five markets then let them continue.

Develop fist key assumption of the mobile penetration rate. The candidate should come up with one rate across Europe for calculation purposes but should discuss that this would not be the case in reality (the candidate might wish to give some indication of how they think this might differ by market).

Calculation – candidate should apply mobile penetration rate to the market populations to give the number of handsets in circulation.

At this point the candidate should bring in the smartphone penetration and calculate that number of smartphones vs. feature phones in circulation.

Key step – candidate should discuss the rate at which handsets in circulation will be replaced by consumers. They should quickly identify that the replacement rate for smartphones and feature phones are different. From this the candidate should develop assumptions for the two replacement rates.

Calculation – candidate should use the replacement assumptions to calculate the number of smartphones and feature phones sold in one year (market volume) and follow this on with an assumption on the value per unit (smartphone and feature phone) to give the market value.

# Step 2: MPC ambitions

This is relatively simple calculation to assess what MPC's market ambitions translates to in terms of value and volume from 1% to 20% market share.

The main task will come in the next section where the candidate will need to demonstrate the ability to rationalise what this ambition means for MPC.

| | | UK | GER | FR | SP | IT | TOTAL T5 | |
|---|---|---|---|---|---|---|---|---|
| Population | | 60 | 80 | 65 | 40 | 60 | 305 | Data provided |
| Ratio of Mobile penetration | | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | | Assumptions from candidate |
| Mobiles in circulation | | 75 | 100 | 81 | 50 | 75 | 381 | Calculation required |
| Smartphone % | | 35% | 35% | 35% | 35% | 35% | | Data provided |
| Smartphones [mn phones] | | 26 | 35 | 28 | 18 | 26 | 133 | Calculation required |
| Feature phones [mn phones] | | 49 | 65 | 53 | 33 | 49 | 248 | Calculation required |
| Smartphones replacement rate [yrs] | | 2 | 2 | 2 | 2 | 2 | | Assumptions from candidate |
| Feature phone replacement rate [yrs] | | 3 | 3 | 3 | 3 | 3 | | Assumptions from candidate |
| Smartphones sold in a year [mn phones] | | 13 | 18 | 14 | 9 | 13 | 67 | Calculation required |
| Feature phone sold in a year [mn phones] | | 16 | 22 | 18 | 11 | 16 | 83 | Calculation required |
| Value of average smartphone [EUR] | | 300 | 300 | 300 | 300 | 300 | | Assumptions from candidate |
| Value of average feature phone [EUR] | | 100 | 100 | 100 | 100 | 100 | | Assumptions from candidate |
| Market value [EUR bn] | | 5.6 | 7.4 | 6.0 | 3.7 | 5.6 | 28.3 | |
| MPC current market share [value EUR bn] | 1% | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 | 0.3 | |
| Assume split of MPC phones (smartphone vs feature) | | 35% | 35% | 35% | 35% | 35% | | Assumptions from candidate |
| in smartphones [mn phones] | | 0.05 | 0.06 | 0.05 | 0.03 | 0.05 | 0.23 | Calculation required |
| in feature phones [mn phones] | | 0.06 | 0.08 | 0.06 | 0.04 | 0.06 | 0.29 | Calculation required |
| MPC market share ambition [value EUR bn] | 20% | 1.1 | 1.5 | 1.2 | 0.7 | 1.1 | 5.7 | |
| Assume split of MPC phones (smartphone vs feature) | | 35% | 35% | 35% | 35% | 35% | | Assumptions from candidate |
| in smartphones [mn phones] | | 0.92 | 1.23 | 1.00 | 0.61 | 0.92 | 4.67 | Calculation required |
| in feature phones [mn phones] | | 1.14 | 1.52 | 1.23 | 0.76 | 1.14 | 5.78 | Calculation required |

# Step 3: Key challenges

**The candidate should be able to identify that MPC is not Apple or Samsung and be able to straight away determine that to reach its ambitions it will have to overcome significant challenges.**

The candidate should group these into some of the following areas:

- Consumer trends
- Product capabilities
- Marketing spend vs. brand value
- Competitor positioning
- Relationships with key operators
- Large and diversified markets
- Global hardware solution for localised markets

Creative viewpoints – additional points for discussion

- Candidate should discuss the time frame for such ambitions and conclude that such ambitions in the short to medium term could be too challenging
- MPC should have more realistic goals in the short to medium term to ensure operationally it is focused in the right areas but can still keep a stretch target for the future
- Keeping employees incentivised to realistic targets will help to maintain staff moral
- In such a fast changing environment the right product with the right support and market execution will always do well
- Quick assessment of what the candidate thinks have been Apple's and Samsung recipe for their recent successes and what learning could MPC take away for themselves.

# Private Jet Company

## Case Context:

Private Jet charter Company (PJC) has 5 aircrafts, Lear Jets, which are used by businessmen, heads of state and high net worth individuals. The jets are now 8 years old and while recent performance has been very good, there are some individuals in the company who think it is time to replace the fleet as it is looking a little tired.

In fact, customers are beginning to say that they prefer competitors' planes because they are new, but this might be just because the cabins are more up to date. The market is growing and PJC remains the market's leading prestige brand. If the aircraft fulfil the customers' criteria, there is enough demand to go round.

Should PrivetJetCo replace its fleet?

### Information to be provided as a response to candidate questions:

**Aircraft Utilisation**

- Aircraft utilisation is measured in Block Hours – 500 hours is considered excellent;
- Older aircraft are less popular – in another 5 years, utilisation will halve;
- Utilisation is driven more by facilities (e.g. cabin, seats, in-flight movies) than aircraft age.

**Pricing**

- The price to charter a Lear Jet is USD 3,000 per BH.

**Costs**

- Assume all fixed costs will remain the same; they can be ignored in this case
- Old aircraft will get increasingly expensive to operate (fuel efficiency, maintenance) – assume USD 1,500 per BH for an 8-year-old plane, rising to USD 2,000 per BH in another 5 years
- Cost of a new aircraft is USD 6 m
- Cost of refurbishing an aircraft is USD 1 m (including new cabin, in-flight entertainment, GSM etc)
- Engines require full overhaul after 4,500 hours; cost of USD 0.5m (per engine)
- Cost of capital available to PJC can be assumed to be 10%.

# Suggested approach:

1 **Establish that the options are:**

a. Do nothing, continue with the existing fleet

b. Replace the fleet with new aircraft

c. Refurbish the existing fleet

The candidate should question the business model and various dynamics.
The candidate should identify the revenue and variable cost components of PJC's business and demonstrate clear thinking about the dynamics that affect each.

2 **Evaluate each option**

A good answer considers the revenue and cost implications of each option and looks to build a simple, top down business case. Creative candidates will be able to identify more cost and revenue dynamics but the successful answer will be able to keep one eye on the scope and time available in the case.

3 **Draw conclusions about the best investment case**

This is about more than the numbers; we want to see candidates who can interpret the analysis into actionable recommendations.

# Step 1: Identify the evaluation structure

A simple evaluation model can be used to generate three NPV cases. The key point here is to first create a baseline case in which the cash flow of a do-nothing approach is calculated. Once this has been achieved, the same calculations can be re-run for the other investment scenarios.

The key differentiator here is recognising that there is a third way – refurbishment. This is hinted at in the question and will be made available in the information above should the candidate ask the right questions. The aircraft age is a key driver of costs but the customer is driven by a range of criteria including cost, safety, prestige, comfort and the latest facilities (e.g. being able to connect phones and laptops while in flight).

**1 BASELINE (DO-NOTHING)**

- Calculate revenue from declining utilisation as customers choose competitor's planes over PJC
- Calculate variable costs driven by cost per Block Hour, which will increase over time due to aircraft age
- Calculate cash flow (which will be the same as gross margin due to absence of capital investment.

**2 RE-NEW FLEET**

- Calculate revenue which will hold firm as customers continue to use PJC's newer planes
- Calculate variable costs will remain stable due to lower maintenance and fuel costs on newer planes
- Calculate cash flow driven by investment in replacement fleets.

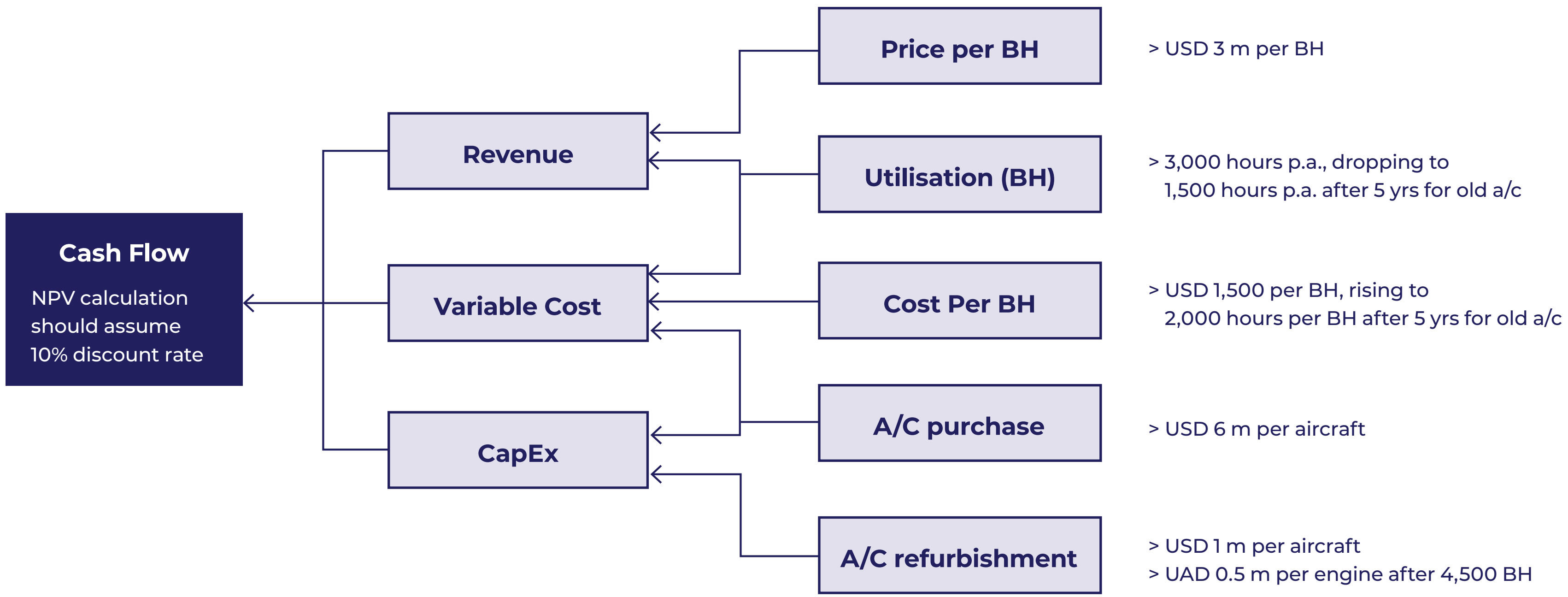
**3 REFURBISH FLEET**

- Calculate revenue which will hold firm as customers continue to use PJC's newer planes (cabin not aircraft is important)
- Calculate variable costs driven by cost per Block Hour, which will increase over time due to aircraft age
- Calculate cash flow driven by investment in re-furbishing fleets.

# Step 2: Evaluate each investment option

The second thing to get right is the structure of the calculation itself.

The important thing here is to concentrate on answering the question and avoid getting trapped in the detail or going off on tangents. The candidate should have a tree structure to show understanding of the big picture.



# Step 2: Evaluate each investment option (continue)

## Baseline Option

Developing a top-down revenue and cost model over 5 years will enable the candidate to build a cashflow and NPV. For the baseline case, revenues will decline over time as the aircraft interiors look increasingly old compared to newer aircraft owned by the competitors. In 5 year's time, as many as half of all bookings are going to competitors.

In addition, variable costs (fixed costs can be ignored in this comparison) are rising as the aircraft spends more time on the ground being fixed, fuel costs increase. By 2013, the engines will have completed the maximum 4,500 hours and will require an overhaul costing USD 1 million for two engines.

The resultant cash flow will be positive but the candidate should recognise that the company is no longer growing; a lack of investment leads to stagnation and eventual decline.

One useful tip – the comparison only needs to be completed for a single aircraft but it is important that the candidate clearly states this assumption.

| Baseline | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|
| **Block hours** | 500 | 450 | 400 | 350 | 300 | 250 |
| **Price per BH (USD)** | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 |
| **Revenue** | **1,500,000** | **1,350,000** | **1,200,000** | **1,050,000** | **900,000** | **750,000** |
| **Var. cost per BH** | 1,500 | 1,600 | 1,700 | 1,800 | 1,900 | 2,000 |
| **Total OpeEx** | **750,000** | **720,000** | **680,000** | **630,000** | **570,000** | **500,000** |
| **Gross Profit** | 750,000 | 630,000 | 520,000 | 420,000 | 330,000 | 250,000 |
| **CapEx** | | 1,000,000 | | | | |
| **FCF** | 750,000 | (370,000) | 520,000 | 420,000 | 330,000 | 250,000 |
| **NPV** | **1,399,605** | **10% discount rate** | | | | |

# Step 2: Evaluate each investment option (continue)

## Renew Fleet Option

For renewing the fleet, PJC needs to spend USD 6 million on a new plane in 2012 but no longer needs to overhaul the engines. The new plane will enable full utilisation of 500 block hours per aircraft and will stop costs from rising so fast in the future (at least for the time being).

| Renew Fleet | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|
| **Block hours** | 500 | 500 | 500 | 500 | 500 | 500 |
| **Price per BH (USD)** | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 |
| **Revenue** | **1,500,000** | **1,500,000** | **1,500,000** | **1,500,000** | **1,500,000** | **1,500,000** |
| **Var. cost per BH** | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 |
| **Total OpeEx** | **750,000** | **750,000** | **750,000** | **750,000** | **750,000** | **750,000** |
| **Gross Profit** | 750,000 | 750,000 | 750,000 | 750,000 | 750,000 | 750,000 |
| **CapEx** | 6,000,000 | | | | | |
| **FCF** | (5,250,000) | 750,000 | 750,000 | 750,000 | 750,000 | 750,000 |
| **NPV** | **(2,188,100)** | **10% discount rate** | | | | |

# Step 2: Evaluate each investment option (continue)

## Refurbish Fleet Option

For refurbishing the planes, PJC incurs much lower capital expenses - USD 1 m per aircraft in 2012 and USD 1 m per aircraft in 2013 (remember the engines will still need overhauling!). The costs will continue to rise as the aircraft maintenance bills will still be higher – although fuel costs may be improved due to the overhaul. Most importantly, PJC will maintain full utilisation on the aircraft without needing to tie up USD 6 million in capital.

Replacing a single aircraft will generate negative NPV of over USD 2 million using the above assumptions. Simply re-furbishing the aircraft will generate a positive NPV of over USD 1 million if the numbers provided here are applied.

| Refurbish Fleet | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|
| **Block hours** | 500 | 500 | 500 | 500 | 500 | 500 |
| **Price per BH (USD)** | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 |
| **Revenue** | **1,500,000** | **1,500,000** | **1,500,000** | **1,500,000** | **1,500,000** | **1,500,000** |
| **Var. cost per BH** | 1,500 | 1,600 | 1,700 | 1,800 | 1,900 | 2,000 |
| **Total OpeEx** | **750,000** | **800,000** | **850,000** | **900,000** | **950,000** | **1,000,000** |
| **Gross Profit** | 750,000 | 700,000 | 650,000 | 600,000 | 550,000 | 500,000 |
| **CapEx** | 1,000,000 | 1,000,000 | | | | |
| **FCF** | (250,000) | (300,000) | 650,000 | 600,000 | 550,000 | 500,000 |
| **NPV** | **1,046,700** | **10% discount rate** | | | | |

# Step 3: Make a recommendation

The candidate needs to interpret the figures to make a clear recommendation. Comparing NPV over 5 years' values would dictate that PJC is best placed if it does nothing but candidates are encouraged to demonstrate an understanding of the limitations of the NPV calculation. A good answer would be:

- Doing nothing gives the best NPV over 5 years but is likely to lead to stagnation or decline in the long term as PJC fails to generate top-line growth
- PrivateJet Co should invest for future growth
- It seems too early to replace a fleet of only 8 years old. Lear Jet's are designed to last far longer than that as along as their engines are maintained.
- Business jet charter customers are looking for prestige and this is often cosmetic; the experience needs to be luxury
- PJC should refurbishment what remains a relatively young fleet and should sweat their asset base.

**Creative viewpoints – additional points for discussion**

- A longer term view on NPV is important; 5 years is not enough for an asset with such a long lifetime
- A further alternative would be to lease newer planes
- Aircraft management services would give cheap access to newer planes
- PJC should consider market signalling to show that year of manufacture is not important – it is all about cabin luxury, safety records etc. Distract from the competition
- Rolling replacements would help to reduce NPV impact.

# Summary of the case

solon

## Case Question:

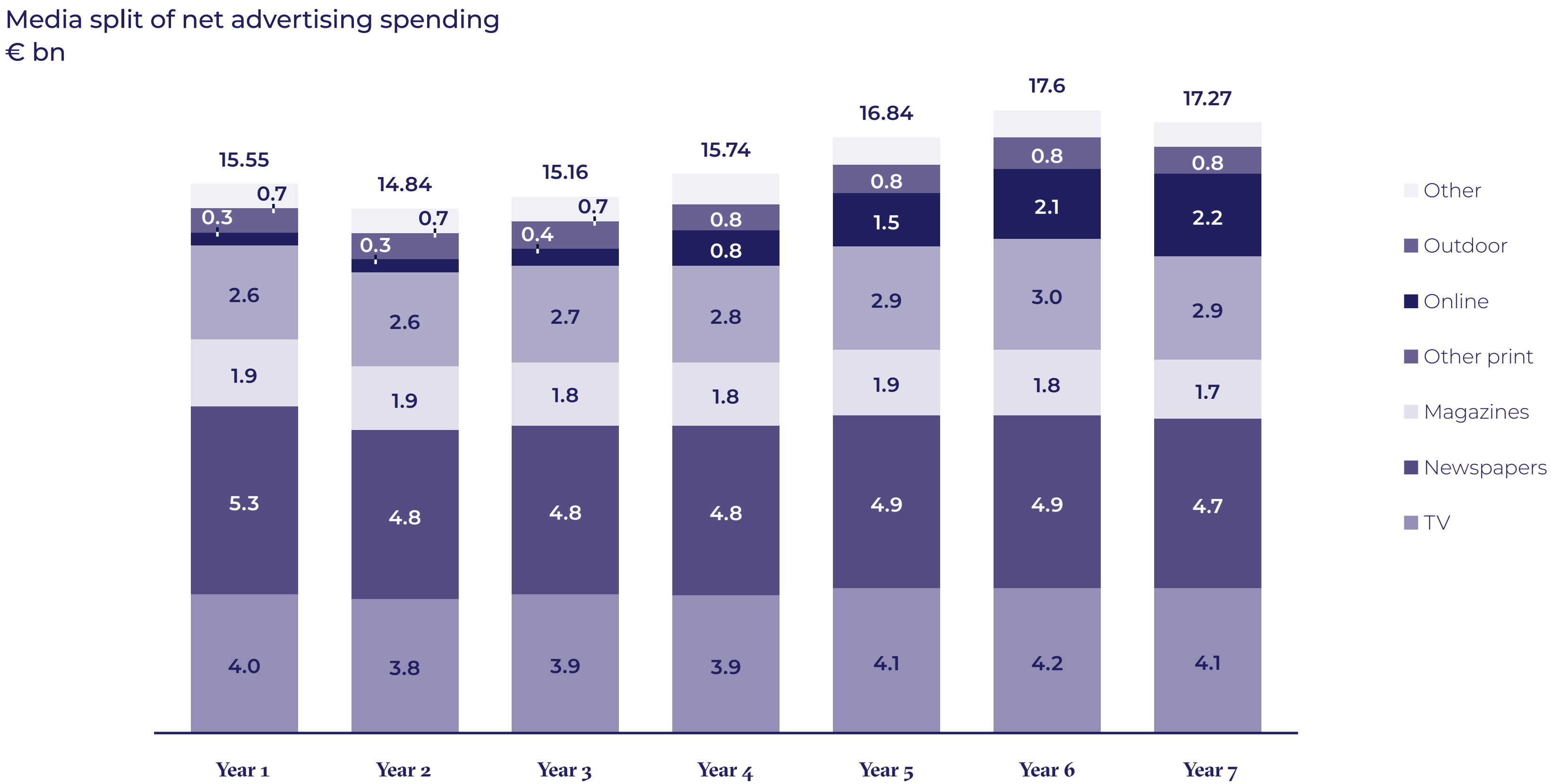
A free-to-air TV network is experiencing stagnating revenues. At the moment, a major shareholder is seeking to exit and is expecting management to create and deliver on a growth strategy for the group. You are supposed to support management in finding ways to grow revenues through diversification.

| Intro Facts<br>(share with the candidate if asked) | Key Insights<br>(do not share with the candidate) |
|---|---|
| **Q: What are the client's current revenue streams?**<br>A: More than 90% of revenues stem from TV advertising<br><br>**Q: How is the TV advertising market developing?**<br>A: In general, it follows the economy, but the share of TV in overall ad spending is stagnating / declining | - The core business TV advertising is stagnating. Additionally, winning market share from other free-to-air TV broadcasters is hard to achieve<br>- Client's main assets are promotional power, brand, and content<br>- These assets can be leveraged through platform variety, product variety, and innovative strength. |

### Case at a glance

| Understanding the problem: | Structuring the solution: | Quantifying one of the ideas |
|---|---|---|
| — The TV advertising market is stagnating<br>— Advertising budgets are being shifted to online<br>— Digitization has led to various new TV stations and increasing client's share of the advertising market is very hard to achieve. | — Ideas to leverage content<br>— Ideas to leverage brand<br>— Ideas to leverage promotional reach. | — Structure depending on the idea<br>Expectations:<br>— Structured approach, driven by volumes and prices<br>— Business sense: What assumptions are reasonable / achievable. |

# Handout


Media split of net advertising spending
€ bn
15.55
14.84
15.16
15.74
16.84
17.6
17.27
0.7
0.3
2.6
1.9
5.3
4.0
0.7
0.3
2.6
1.9
4.8
3.8
0.7
0.4
2.7
1.8
4.8
3.9
0.8
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1.9
4.9
4.1
0.8
2.1
3.0
1.8
4.9
4.2
0.8
2.2
2.9
1.7
4.7
4.1
Year 1
Year 2
Year 3
Year 4
Year 5
Year 6
Year 7
Other
Outdoor
Online
Other print
Magazines
Newspapers
TV

# Example for structuring the problem

**Shift in advertising budgets** ↓

**Shift in media usage** ↓

**Company Value** = **EBITDA** X **MULTIPLE**

↓

Optimise core business TV (not part of case)

X

Leverage
- brand
- content
- promotional power

and

strengthen independence from TV advertising.

Secure future growth through ...

**1 Platform variety**

Exhaustive sourcing and exploitation of video rights across all platforms

**2 Product variety**

Systematic brand extension into growing B2B and B2C markets

**3 Innovative strength**

Follow the target group through investments into disruptive media assets

→

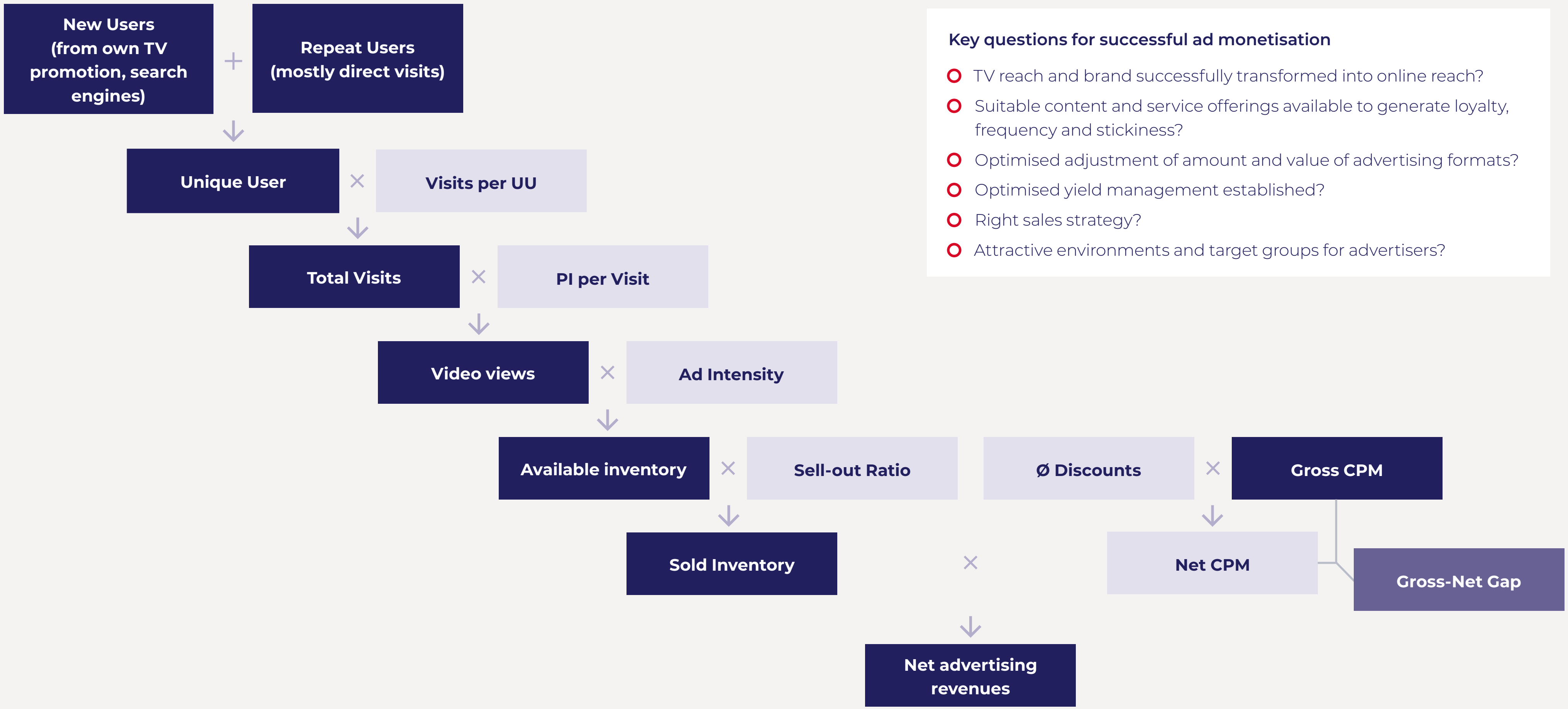
Exemplary diversification initiatives...

- Online Video
- Pay TV.

- Online
- Licensing / Sports
- Music.

- Online
- Games
- Mobile.

# Possible structure for calculating the monetization potential of online videos




**Key questions for successful ad monetisation**

- TV reach and brand successfully transformed into online reach?
- Suitable content and service offerings available to generate loyalty, frequency and stickiness?
- Optimised adjustment of amount and value of advertising formats?
- Optimised yield management established?
- Right sales strategy?
- Attractive environments and target groups for advertisers?

■ Key figures for website performance measurement

■ Reported / calculated data KPIs

# Rural broadband in the US

solon

## Case Question:

1 Ask the candidate to read the attached article from the FT. Ask them what the story is about and whether the proposed business venture is a good one

2 Ask the candidate to size the market for satellite broadband

3 Ask the candidate how to structure the product to improve its appeal beyond the target segment

| Intro Facts (tell the candidate if asked) | Key Insights (do not tell the candidate) |
|---|---|
| All of the required facts are in the article<br>Further assumptions to be provided by the interviewer | ○ The company invested $400m in launching a satellite<br>○ Theoretically the best way to assess whether this is a good business is to perform an NPV analysis. But that is too complicated for mental maths.<br>○ Main driver of NPV will be addressable market and market share<br>○ Addressable market is rural broadband which doesn't have access to DSL (as product is more expensive than DSL)<br>○ May be possible to adapt product to compete with DSL by using direct marketing to adjust prices down in DSL capable areas. |

### Case at a glance

| Is this a good business? | Market sizing | Product marketing |
|---|---|---|
| Identify the rural broadband market as the target segment (ok to identify other segments, eg. Air transport as upside)<br>Candidate should suggest calculating an NPV and explain how this shows that this is a good business<br>Candidate should notice that the product cannot compete against other technologies because of price | Start with US population<br>Convert to households<br>Make estimate about urban/rural split<br>Make further assumption about how much of this is already served by DSL<br>Identify that some households will never be addressable<br>Remainder = addressable market | Product is aimed at very specific segment, which is probably too small to sustain it<br>Ask candidate what could be changed to widen appeal of product. Key insight here is that the company should look for ways to market the product more widely without destroying the price premium it enjoys in its target markets |

# ViaSat launch targets rural US web demand (FT.com)

**By David Gelles in New York**

A newly launched $250m satellite will soon start transmitting broadband internet to rural US consumers the latest effort by telecommunications groups to satisfy skyrocketing demand for high speed residential data services.

The new satellite from ViaSat will give the Nasdaq-listed company, based in California, the ability to effectively compete with other non premium internet providers, which still are the only options for millions of US consumers.

Its bandwidth will also be used to power the in-flight wireless internet service for JetBlue, the US carrier.

The ViaSat launch is likely to be welcomed by the Federal Communications Commission, which is pushing for solutions to the digital divide, especially in rural areas. "If we have a really good service at a reasonable price, we can keep expanding the market," said Mark Dankberg, ViaSat's chief executive. "Satellite will be better for a lot of people than DSL, 3G or 4G."

While most satellites are primarily used for one-way broadcasting, ViaSat-1 will be able to handle the two-way transmission of data at 140 gigabytes per second. That is more bandwidth than the combined capacity of Intelsat and SES, ViaSat's two largest peers, Mr Dankberg said.

Intelsat, the worlds largest provider of fixed satellite services, recently outlined plans to invest $1.3bn in four new satellite launches by the end of 2012. ViaSat, in October successfully launched its new ViaSat-1, one of the highest capacity data satellites in the world. Launched with a Proton rocket in Kazakhstan, the satellite is now in geosynchronous orbit 22,500 miles above the earth. It is powered by 100 meter wide solar panels. Including launch costs and insurance, the satellite cost ViaSat $400m.

Mr Dankberg conceded that his industry faces an uphill battle. "Satellite doesn't have a good reputation for broadband service," he said. Moreover, WildBlue, the consumer facing service ViaSat acquired in 2009, has not upgraded its service, even as the use of data intensive services such as Netflix and Hulu has increased. "Wild Blue hasn't changed its service for six years," he said. "That isn't considered a good value anymore." ViaSat had revenues of $223m in the most recent quarter with net income of just $8m.

Shares in the company are up 16 per cent over the past month to about $47, giving it a market capitalisation of $2bn. Its Wild Blue service has about 400,000 customers in the US paying about $50 per month for satellite internet services. Mr Dankberg hopes to treble the number of subscribers in the coming year with capacity from the new satellite. The company also makes money by supplying components to other satellite makers, and selling services to companies and the US government.

One of ViaSat's customers is Dish Networks, the satellite TV provider, which resells its service to US consumers. Earlier this year Dish's parent company, EchoStar, acquired Hughes Communications, a ViaSat rival, a move that could see Dish drop ViaSat as a supplier.

# Performance guide (for review after the case interview)

| | ☆ Poor performance | ☆☆ Average performance | ☆☆☆ Superior performance |
|---|---|---|---|
| **Framing problem / prioritising issues** | Fails to identify the target market as being the rural market | Identifies rural market as target but fails to see service from consumer point of view | Correctly identifies rural market. Understands nature of consumer choice in this market and understands how central this is to proposition |
| **Identifying relevant information** | Does not correctly identify sum invested (which is written into the story). Fails to understand importance of rural target market for the product | Identifies amount invested and attempts to drill down into definition of rural, but stops short of a convincing reason why rural market is an important definition | Understands that consumer choice in rural markets vary different to other markets. E.g. No 3G and unlikely to be cable internet. Only choice is DSL. Probes to find out about DSL distance limits |
| **Running calculations / drawing conclusions from facts** | Does not size the market correctly – i.e. does not use estimates to drill down from US population to rural population. Sizes market on people not households | Is able to correctly size the market using appropriate assumptions / guided by the interviewer | Sizes the market and is able to relate size of market to likely market revenue using ARPU assumptions. Candidate then attempts to compare EBITDA potential against investment cost |
| **Identifying key implications and next steps; demonstrates creativity** | Does not realize how small the target market is compared to the investment cost | Sizes the market correctly, and is able to identify requirement for further upside (non rural markets, airline market) to justify investment cost | Sizes the market and proposes creative ways to expand the appeal of the product without compromising the price premium the product can command in its main market |

# Airline

strategy&
*Part of the PwC network*

## Case Situation

Our client is a budget airline considering entering a new market for business class flights. They are considering running an all business-class service within Europe. They want your advice on whether this is a good idea, and if so, how they should do it.

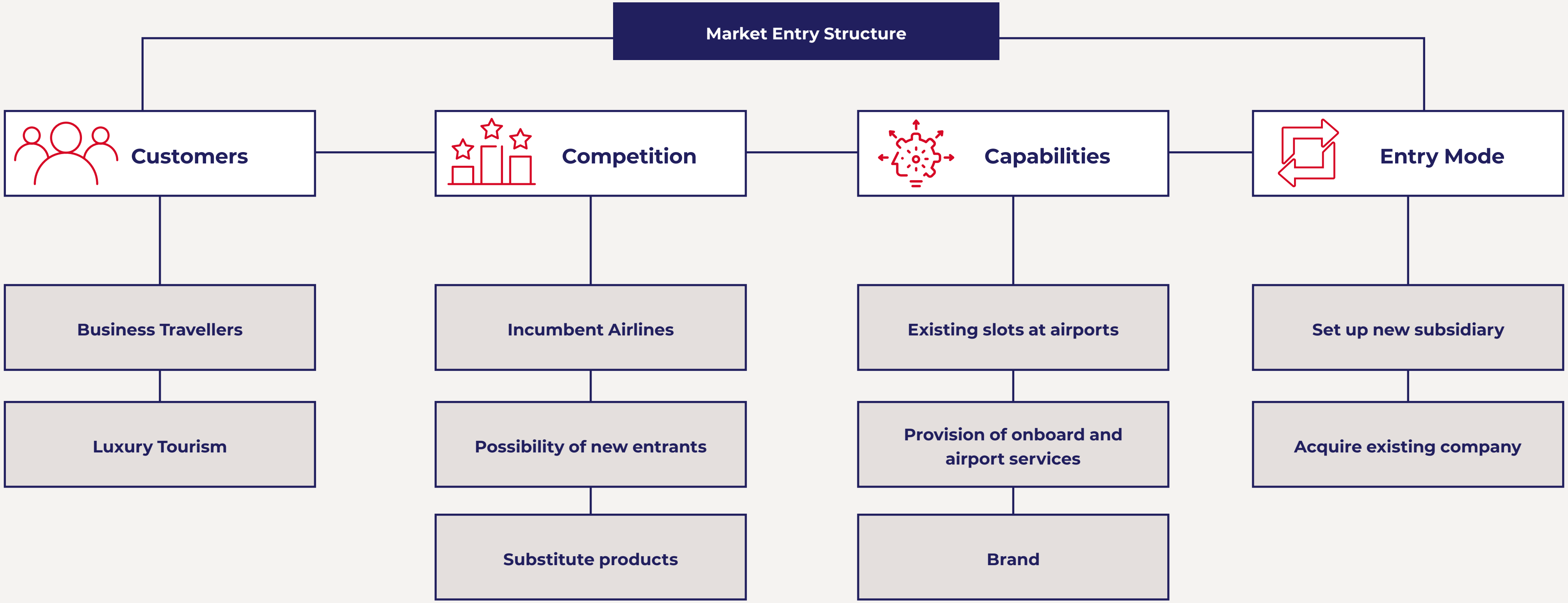
| Intro Facts (tell the candidate if asked) | Key Insights (do not tell the candidate) |
|---|---|
| **Q: What is the client's current business**<br>A: A range of cheap short haul flights from the UK to various European destinations<br>**Q: Do they offer any business class flights at the moment?**<br>A: No, but passengers can pay for various upgrades such as speedy boarding and greater legroom<br>**Q: How is their current brand perceived?**<br>A: Extremely cheap, but very low quality service | - Issues exist around the brand of a low cost airline, meaning the rebranding might be necessary<br>- Landing slots at hub airports are critical to business travel, and will be very hard to acquire<br>- They do not have the full set of capabilities required to deliver a business class service, so choice of partners will be critical. |

### Case at a glance

| Part A | Part B | Part C |
|---|---|---|
| Structure the case and discuss the challenges that will be involved in entering this market | Identify some innovative service offerings for the luxury tourism market | Work out the cost to break even on a flight to Vienna |

# Structure

Use a classic 4Cs market entry structure



# Structure

Examples of typical questions that the interviewer could ask around each of the four areas

## Customers

**Business travellers**

- How price sensitive are they?
- What is most important to them?

**Luxury tourists**

- Is there a likely market for this?
- How would it differ from the market for business travellers?

## Competition

- How will incumbent airlines react to this?
- Are alternatives such as train travel serious competition?
- Can they position themselves as competition to other airlines' economy offerings?

## Capabilities

- Will their budget brand be a limitation or an asset?
- What capabilities do they have as a budget airline that are particularly useful?
- What do they not currently do that they will need to be good at?
- Do they have access to landing slots?

## Entry Mode

- Can this simply be launched as another route with a different service?
- Whom could they partner with?
- Is an acquisition or partnership a viable option?
- Should they consider setting up a new company?

# Creativity

Here are some ideas for innovative services in this market

**Basic Ideas**

1. Fly a scheduled service to high end holiday resorts
2. Partner with luxury hotel chains and travel companies to offer packages
3. Fly from regional airports and include a chauffeur to get passengers there.

**More Innovative Ideas**

1. Charter to luxury cruise lines to offer passengers flights to the ship
2. Do not fly scheduled flights, but focus on one off flights to key European social events – Monaco Grand Prix, Paris Fashion Week, LBS winning MBAT
3. Offer packages including entry to these events
4. Run on board events, such as wine tastings
5. Offer 'experience flights' e.g. over the North Pole.

# Calculation

Our first destination will be Vienna. How much would we have to charge to break even with 25 / 32 seats filled?

**What are the main cost items that you would expect an airline such as this to face?**

**Costs**

| Fuel | Aircraft dry lease | Aircraft servicing | Aircrew costs | Other overheads | Airport charges – Landing, passenger use of facilities | Catering costs |
|---|---|---|---|---|---|---|
| 6000kg @ £0.5 / Kg | £2500 / flight | £600 / flight | 2 pilots @ £700 ph<br>3 crew @ £400 ph | £1500 / flight | £900 / flight | £1400 / flight |

- The figures in each cost item can be given to the interviewee, although they should expect to make a reasoned estimate where possible
- Any cost items the interviewee does not identify should be given to them
- The interviewee should then work through to the answer below

**Revenue** — **25 passengers** — **£12,500 costs** — **£500 per passenger**

Differentiation between poor, average and superior performance (for review after the case interview)

| | ☆ Poor performance | ☆☆ Average performance | ☆☆☆ Superior performance |
|---|---|---|---|
| **Framing problem / prioritizing issues** | Fails to offer a structure or to understand what is relevant within it | Uses a 4Cs structure well, and identifies some of the major challenges | Uses the structure to identify where the major challenges lie and has ideas about how they might be resolved |
| **Identifying relevant information** | Struggles to identify what the cost categories are, does not ask the right questions to get there | Identifies a number of the major cost categories, can make reasonable rule of thumb estimations | Identifies a number of the cost categories, understands what drives them and can make estimations |
| **Running calculations / drawing conclusions from facts** | Struggles with arithmetic, unable to work out a break even figure | Reaches an answer and shows the ability to sense check their numbers | Reaches an answer easily and demonstrates structure in their approach |
| **Identifying key implications and next steps; demonstrates creativity** | Thinks of only basic ideas for the airline service, probably things that are being done already | Comes up with 3-4 ideas for the airline service which are at least sensible | Comes up with a wide range of ideas, including innovative ones that may not have been heard before |

# Mobile Network Operator

strategy&
*Part of the PwC network*

## Case Situation

Our client is a mobile network operator in the UK. It has recently been suffering from high costs driven by increasing data usage, and this has led to a fall in profit. They want to explore options for increasing their revenue.

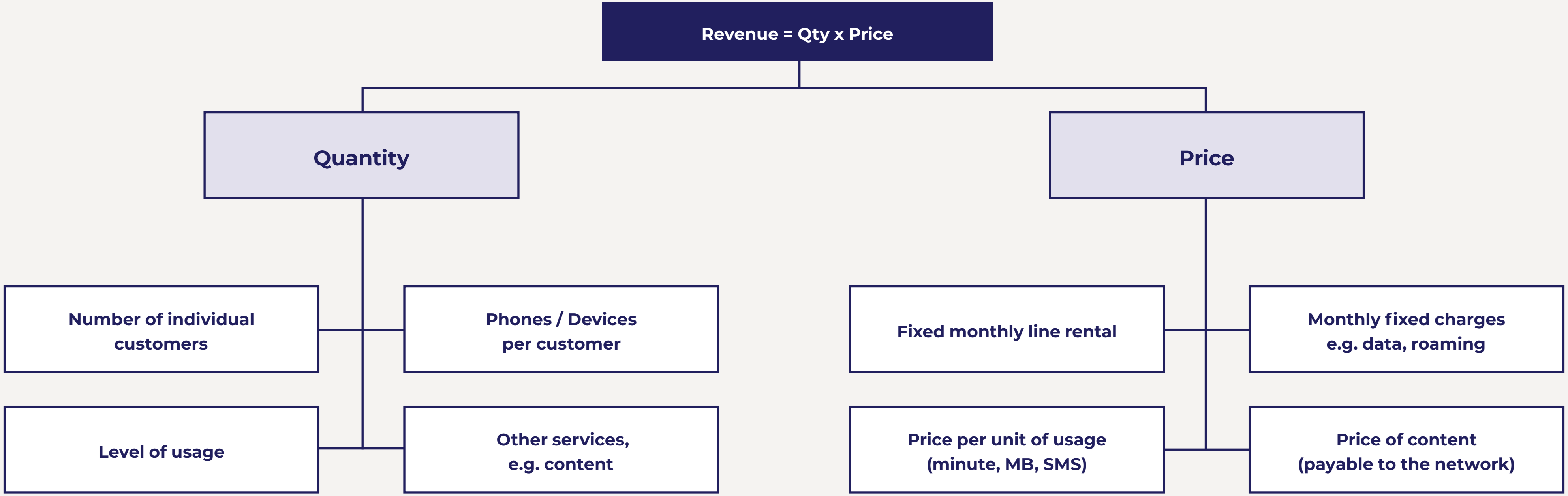
| Intro Facts (tell the candidate if asked) | Key Insights (do not tell the candidate) |
|---|---|
| **Q: Is it just data usage driving costs?**<br>A: Yes. Growth in data usage leads to the need for constant investment in the network infrastructure and higher running costs<br>**Q: Are we interested in reducing costs?**<br>A: Of course, but it's out of our scope<br>**Q: What is the charging structure?**<br>A: There is a monthly line rental, which includes some calls and SMSs, and beyond that calls are charged per minute, SMS per message, and data is unlimited on all tariffs for a £5 monthly fee | The market for mobile network operators is becoming commoditised – there is little to distinguish between networks and customers switch easily if prices are too high.<br>The money in mobile internet is made by those who control the content, not the flow of data. |

### Case at a glance

| Part A | Part B | Part C |
|---|---|---|
| What are the drivers of revenue for a mobile network operator and what improvement levers do we have? | Beyond the commodity business of transmitting data, in what other ways could a network operator generate revenue from the growth in the mobile internet? | A quantitative assessment of whether it would be better to charge customers per Mb of data used rather than a fixed fee, and a qualitative view on whether it is a good idea or not. |

# Structure

A particularly good structure for this case is one that really understands the breakdown of quantity and price



# Discussions around the structure

## Could involve some of the following

Possible Discussion Topics
Not Exhaustive

| | |
|---|---|
| **Number of Devices** | ○ Increase market share by winning customers from other networks<br>— How? If those customers also consume a lot of data, what will the impact on costs be?<br>○ Create new devices that people may sign up to in addition to their existing ones<br>— What sort of device? How will we charge for the data on it? |
| **Usage** | ○ Drive increased usage of those services where we are able to charge on a 'per-usage' basis<br>— Would we have to lower price to do that? Are there ways we could increase the value-add of our services?<br>○ Conversely we could try to discourage data usage if it is charged on a flat fee basis, to reduce costs rather than increase revenue<br>— How? Introduce limits? |
| **Pricing Models** | ○ Increase the fixed price we charge for data<br>— Could this make us uncompetitive?<br>○ Introduce a variable charge for data based on how much people use, e.g. a cost per Mb<br>— Would this scare off the high data users? Would that even be a bad thing?<br>○ Use a combination of the two, such as a range of different packages<br>— How might you segment your users? |

# Creativity

Transmitting data is becoming commoditised. How else might the network generate revenue from mobile internet?

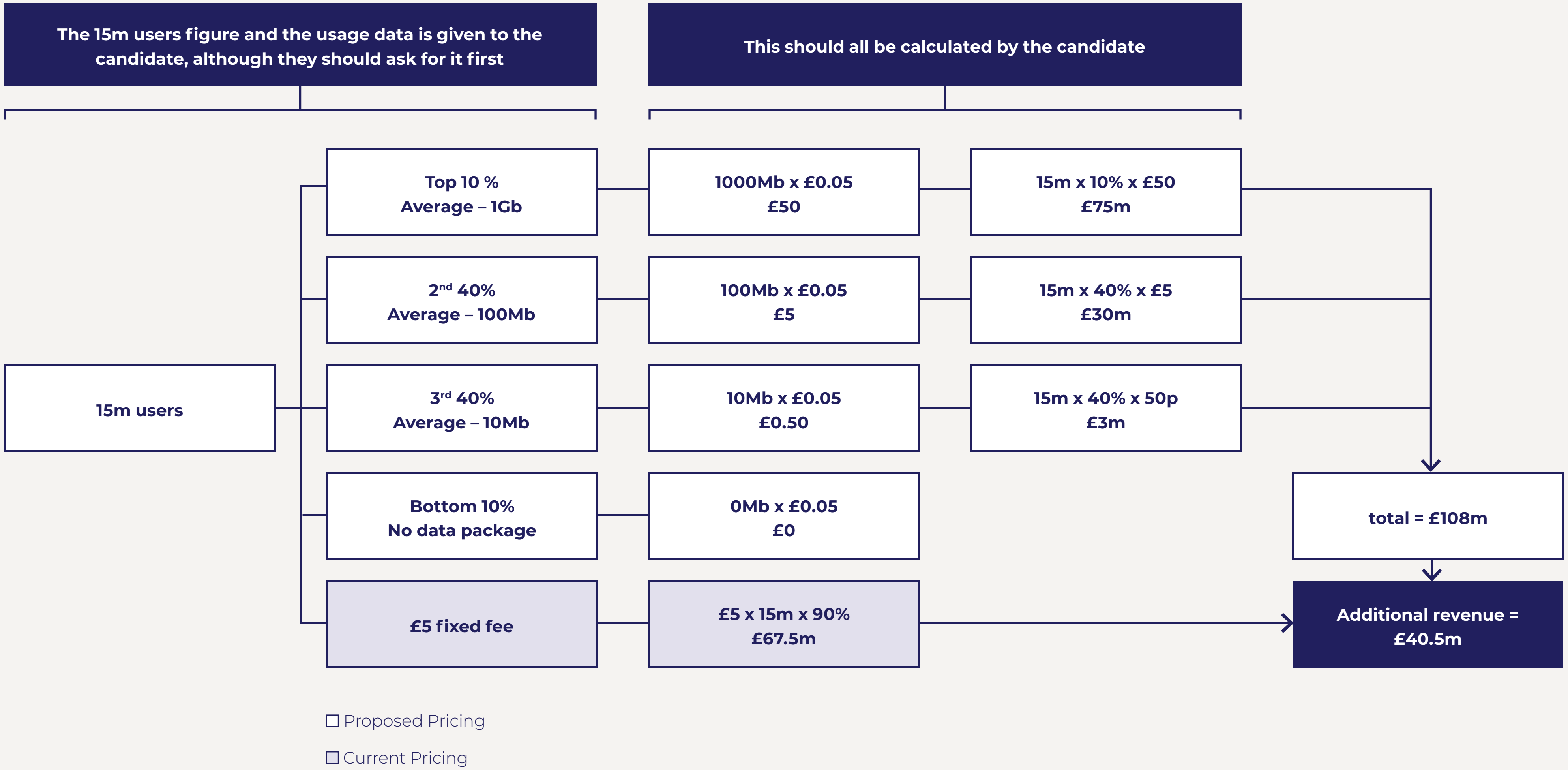
Possible Ways of Generating Revenue
Not Exhaustive

| | Positives | Negatives |
|---|---|---|
| **Create content and charge customers for it** | The network will get the full revenue for any content it creates. | Network operator likely to have no experience at generating content. |
| **Charge for hosting content, i.e. a web portal where content owners pay for their content to be included** | Can provide customers with a easy way of finding suitable content<br>Could be a distinguishing feature for the network, e.g. Apple Apps Store. | May be difficult to persuade content owners to provide content if they can offer it for free elsewhere. |
| **Introduce advertising to the network** | Generates easy revenue. | Likely to meet resistance from customers who are already paying. |
| **Other services e.g. credit card readers, stolen car trackers etc.** | Creates a new revenue stream for the networks. | Requires close involvement of device manufacturers and access to new markets. |

- A **strong** candidate will identify a number of ways of monetising content and creating further forms of usage, understand the positives and negatives of each and form a view on what the network has the capabilities to actually do. They may get to this stage without prompting
- An **average** candidate will identify some additional ways of generating revenue and understand which are more suitable than others
- A **poor** candidate will identify one or two additional options, but recommend those that are not likely to be suitable for a network operator to do

# Calculation

How much additional revenue could we generate if we charged users £0.05 per Mb rather than £5 monthly fixed fee? Would you recommend doing this?



Differentiation between poor, average and superior performance (for review after the case interview)

| | ☆ Poor performance | ☆☆ Average performance | ☆☆☆ Superior performance |
|---|---|---|---|
| **Framing problem / prioritizing issues** | Uses a standard profit framework and examines costs instead of revenues | A good structure that is able to break quantity and price down to at least 2 components within each | The ability to understand which measure of quantity is relevant depending on how the price is charged |
| **Identifying relevant information** | Does not understand that the fixed fee for data is the problem, and focusses on other factors instead | As a minimum identifies that charging for data with a fixed fee is the problem, and suggests alternatives | Would identify what is driving data usage, and then begin to discuss other ways of generating revenue from this |
| **Running calculations / drawing conclusions from facts** | Fails to account for the current revenues, or a simple average of data use across all customers | The right answer as a minimum, structured by each usage segment | An understanding of whether this is a good idea based on more than a comparison of numbers, showing good commercial sense |
| **Identifying key implications and next steps; demonstrates creativity** | Thinks in terms of pricing models only, fails to understand where the money is in mobile internet, suggests things that will also drive up costs | One or two good ideas around monetising content, and understanding of the pros and cons of each | As per an average candidate, but would show a real understanding of where money is being made in mobile internet and what the network has the capabilities to do |

# Packaging Coating Company

strategy&
*Part of the PwC network*

## Case Situation

Our client is a packaging coating company that produces coatings to protect beverage cans. They are experiencing a profit margin erosion and would like you to help them restore profitability without modifying their cost structure.

| Intro Facts (tell the candidate if asked) | Key Insights (do not tell the candidate) |
|---|---|
| **Q: Where and what is the company producing?**<br>A: They provide European fillers with coating for the inside of beverage cans<br>**Q: What explains the margin erosion & is competition facing the same challenge?**<br>A: The reason is macroeconomic: a slow economic recovery since the financial crisis & a raw material volatility have been affecting the entire market<br>**Q: What is the specific objective & what is the deadline?**<br>A: A 5% profit margin improvement is expected within 2 yrs | Without touching at the cost structure, volume, price & product mix are the key levers to improve margins.<br>The most effective margin lever is price, hence we shall focus on improving the pricing strategy. |

### Case at a glance

| Part A | Part B | Part C |
|---|---|---|
| **Let's review the main pricing strategies to fix prices.**<br>Discuss the main 3 pricing strategies: cost-based; value-based; competitive-based pricing strategies. | **Identify some innovative service. Look at a value-based pricing approach for their product: what could be the benefits that customer are looking for?**<br>Imagine potential customer benefits from product features and services offerings | **Let's estimate the price increase that could be realized thanks to a value-based pricing approach on their product.**<br>Based on the following 3 benefits – Technical Assistance; Coating Waste Reduction and Scratch Resistance – let's assess the potential price impact (total gain, gain per Kg and % price increase). |

## Example of structure

**Margin Levers (Excluding Cost)**
**Revenue = Price x Volume**

- **Maximising Pricing**
  - **Increase Average Selling Price of existing products (Elasticity)**
  - **Improve Product Mix by selling more high margin products (Positioning)**
- **Increasing Sales Volume**
  - **Increase Market Share at existing customers (more often, more per command, for longer, etc.)**
  - **Reach out to new customers (within the existing area or in new regions)**

## Structure

How do you set price and what are the main pricing strategies?

| Value / Benefits Driven | Raw Material / Cost Driven | Market / Competitor Driven |
|---|---|---|
| Base prices on product and service benefits to be shared between the customer and the supplier | Base prices on raw materials volatility to reduce margin exposure | Base prices on competitor prices, supply-curve, and supply/demand balances |
| ↓ | ↓ | ↓ |
| • Works better if product or service benefits are explicable to the customers – ideally quantifiable<br>• Works better if customer knows the next best alternative prices and features. | • Works better if raw materials are increasing and are expected to continue to do so<br>• Works better if price negotiation period is shorter than the purchasing period. | • Works better if competitor prices are known and collecting them is legal<br>• Works better if price elasticity is calculable. |

# Creativity

Let's now focus on value-based pricing: what could be the customer benefits of a coating product for the inside of cans of soda?

| Below Average: | Average: | Above Average: |
|---|---|---|
| Thinks about a couple of product features but does not manage to translate them into benefits for the customers | Suggests:<br>• Reduce down time to increase productivity<br>• Reduce product usage<br>• Reduce labour cost. | Same as before plus a couple of the following:<br>• Protect brand image (scratches, taste, customer claim)<br>• Provide local support<br>• Extend product life expectancy<br>• Fulfil legislation compliance<br>• Shift ordering responsibility to the supplier.<br>Comes up not only with product related but also service based benefits |

# Quantitative analytics

What is the potential price increase to be realized thanks to a value-based pricing strategy on a coating product for soda cans?

**Q: What is the price and volume sold of our product?**
A: We sold **500 tons** of *AquaCoat* at **€2.25 / Kg** to our only client

**Q: What is the next best alternative and what is its price?**
A: The closest competitive product is *Prime Coat* and costs **€2.00 / Kg**

**Q: What are the key differentiating benefits of our products?**
A: The main benefits are technical expertise, coating waste reduction and scratch resistance

| Benefits | Assumptions | Calculation | Total Saving & Price Impact / Kg |
|---|---|---|---|
| **Technical Assistance** | Technicians on site: 20 Days / Year<br>Cost of a technician: €150,000 / Year<br>Travelling Expenses: €400 / Day. | Days of Technician 20<br>x [Daily Cost €500 (150K / 300)<br>+ Travelling cost €400] | **€18,000 Total**<br>**€0.04 / Kg** |
| **Coating Waste Reduction** | 4% product saved<br>Cost of disposal: €250 / Ton. | Product Saved 4%<br>x Volume 500,000Kg<br>x [ASP €2.25 + Disposal €0.25] | **€50,000 Total**<br>**€0.10 / Kg** |
| **Scratch Resistance** | Reduce scratched cans by 4% of the overall production<br>2 grams of coating / Can<br>Filled can cost: €0.02 / Can. | Product Saved 4%<br>x Cans 250M (500,000 / 0.002)<br>x Can cost €0.02 | **€200,000 Total**<br>**€0.40 / Kg** |

**€143,000 total {268,000-[(2.25-2.00)*500,000]}**
**Potential Price Increase: €0.29 / Kg (0.54-0.25): +24% (2.79/2.25)**

**€268,000 Total**
**€0.54 / Kg**

Differentiation between poor, average and superior performance (for review after the case interview)

| | Poor performance | Average performance | Superior performance |
|---|---|---|---|
| **Framing problem / prioritizing issues** | Focusses on potential cost savings (off topic). | • Only one level tree<br>• Just mentions price & volume. | Draws at least a 2 level tree:<br>• Price from ASP & product mix<br>• Volume from new & existing customers.<br>Explains with case terminology. |
| **Identifying relevant information** | • Comes up with less than 2 pricing strategies<br>• Comes up with less than 3 product benefits. | • Understands the industry<br>• Figures out objectives<br>• Comes up with ideas to improve volume & price<br>• Lists 2 pricing strategies. | • Imagines 3-5 relevant potential customer benefits<br>• Refers to the filler's supply chain<br>• Finds all 3 pricing strategies. |
| **Running calculations / drawing conclusions from facts** | • No clue on how to assess the premium generated by each benefits<br>• Forgets to include the price difference vs. the competition in final outcome<br>• Mixes units (day vs. year or tons vs. Kg)<br>• Multiple calculation errors. | • Mixes units or makes a calculation error once<br>• Finds the potential financial gain of each benefits but does not put findings in perspective and does not do the "So What?" | • Perfect flow to come up with the numerical solution & proactive about assumptions<br>• Puts outcome in perspective: +24%<br>• Mentions next steps: Difficulty to pass it all to the customer. |
| **Identifying key implications and next steps; demonstrates creativity** | • Just thinks of increasing the price by the exact number estimated during the case. | • Articulates wrap up including clear answer to improve margins<br>• Understands the need to share the benefits with the customer. | As before plus:<br>• Thinks of a strategy to conduct the pricing negotiation<br>• Includes next steps in the wrap up. |

# Specialty Chemicals

## Case briefing:

BASF Management Consulting was approached by the head of one of BASF's businesses (the client) to help them analyze the reasons for the decline in profitability and recommend levers to maximize profitability.

The client is a specialty chemicals (e.g. catalysts, industrial paints, coatings) manufacturer headquartered in Germany with sales offices and production units worldwide. The business serves a large number of customer segments such as automotive (e.g. commercial vehicles), industrial applications (e.g. manufacturing industries).

The business operates in a challenging market environment with a fragmented end-user environment and intense competition due to low barriers of entry. In the last 3 years, it has seen a decline in profitability in the EMEA market.

Within the specialty chemicals business, there are four product segments mainly: Product A, Product B, Product C, and Product D.

### Guide to the Interviewer: Clarifying Questions (On Prompt)

**Geographic Scope:** EMEA (Europe, Middle-East, Africa) only.

**Competition:** There are no new entrants in the market.

**Customer:** No change expected in customer needs.

**Products:** Assume that the products are used for similar applications. However they differ from each other on their technology. The client has recommended not to focus on this part. Additionally, the main source of revenues is only the products themselves and they do not sell any services.

**Timeline:** The client would like to maximize profit as soon as possible.

# Question 1:

From Exhibit 1, what are your key observations on the client's specialty chemicals business?
What critical factors would you like to investigate further from this dataset? How would you structure them?

**Guide to Interviewer:**
Show the candidate Exhibit 1

### A good answer would include the following:

- Sales channel management of different products with a clear focus on direct sales and independent distribution
- Differences between the products in terms of geographical and production footprint
- Product C has the best EBIT margin compared to other products in the client's portfolio.

### An excellent answer would also include the following:

- The avg.net sales/customer (in order to drive towards customer segmentation, purchase patterns/criteria)
- Go to market strategy for each product seems different.

### Guide to Interviewer:

After sharing the observations, the candidate should develop overall structure to drive the discussion towards key focus areas. Prompt the candidate to do so, if needed.

Input for candidate (if prompted): The products are inter-related and to assess the business further, product portfolio must be considered.

### Guide to Interviewer:

After the candidate shares the structure and thought process, ask them to deep dive and focus on revenues and specifically on countries, customer segments and distribution strategies/ channels.

# Question 2:

The client would like to have a more country-level focus and would like to understand what criteria should be used to evaluate this?

### A good answer would include the following:

- Attractiveness of the specialty chemicals market in that country that includes factors such as market size and potential growth
- The client's existing market position that includes net sales, market share and profit margin.

### Guide to the Interviewer:

Show the candidate the following Exhibit 2 once they have shared their insights.

# Question 3:

What are your key observations from Exhibit 2? The client would like to also develop a country-level focus.
What approach would you take to decide this?

### A good answer would include the following:

- High market attractiveness and the client's strong position in Germany
- Relatively high market attractiveness of South Africa and Italy. Client also has a strong competitive position in South Africa and Italy
- Low market attractiveness and client's weak position in Turkey and Netherlands
- Competitive position in France is comparatively weaker, but the country represents a high market attractiveness.

### An excellent answer would follow a structured approach:

Clustering countries based on 1) Improve (France) 2) Invest/Fortify (Germany, South Africa) 3) Exit (Turkey and Netherlands) 4) Maintain (Italy).

### Guide to Interviewer:

Once the candidate observes the strong position in Germany, guide them to focus on that country further for the case. Show the candidate Exhibit 3.

# Question 4:

From Exhibit 3, what are key implications that can be derived about the customers?

### A good answer would include the following:

- There is no major dependency of the client's business in Germany on a single type of customer (it is well diversified)
- Majority of the customers prefer quality and variety as their #1 purchase criteria and they also contribute the highest margins. Sales force should either maintain or grow this customer segment
- Revenue share/customer of Image and Relationship customers is the highest, however margins represent the lowest across the customer types.

### An excellent answer would also include the following:

- Highlight possible ineffectiveness of the sales team in establishing sufficient price premium for image and relationship customers
- Establishing that for price-sensitive customers, current price levels are competitive in the market.

### Guide to the Interviewer:

Show the candidate Exhibit 4.

# Question 5:

In order to have a strong customer focus, the client further conducted customer mapping.
What implications would you derive for sales channel management?

### A good answer would be a structured one and would include the following:

- **Invest/Fortify**
  The cluster comprises the most promising customers – business relationship should be intensified through direct sales channels (i.e. dedicated sales personnel)
- **Develop**
  Customers with big business potential – should be developed systematically using the "split approach" e.g. direct sales only to high growth customers
- **Maintain**
  Customers in both these categories could be served either directly by sales personnel or indirectly through external distribution. For instance, strategic customers or global accounts that fall under this segment should definitely be catered directly
- **Exit/Skim**
  Customers with small future business potential and weak position – company resources should be freed up to be used for other clusters. Focus on these customers through distribution.

# Question 6:

The head of the specialty chemical business has now seen the team's analysis and would like to understand what steps they need to take to maximize profitability in EMEA.

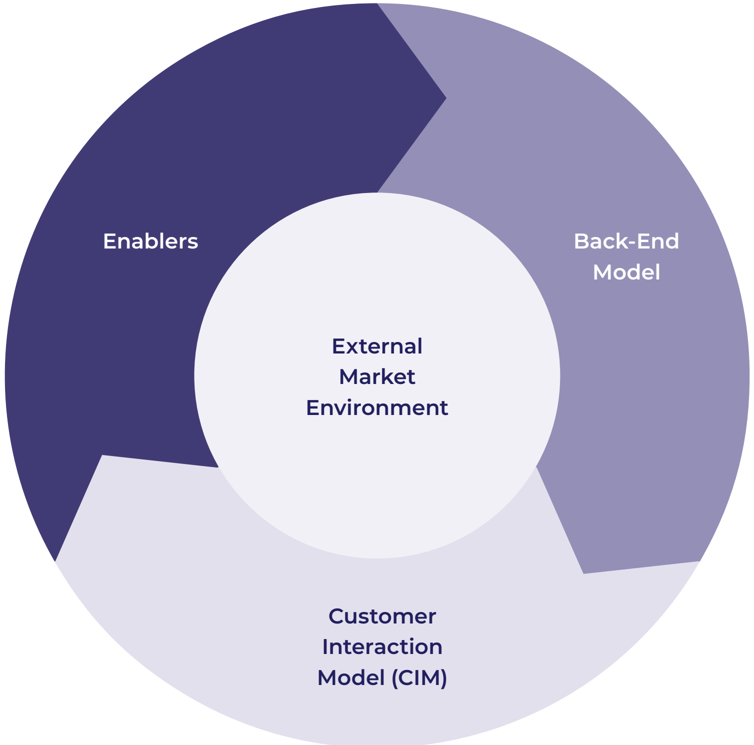
## A good answer would include the following:

- **Country Strategy**
  Recommendation should direct the client to focus on a select group of countries with a specific approach. For instance, the client's position should be strengthened in South Africa and Germany. The client also needs to exit Turkey and Netherlands and improve its competitive position in France
- **Customer Segmentation and Channel Management (Germany)**
  Since Germany is the biggest market, the sales team needs to increase pricing for customers who have a strong relationship and continue to maintain prices at the standard level for price-sensitive customers. The sales channel management should also be re-aligned in order to focus on the right customers where the client has a high future growth potential.

## An excellent answer would also include the following:

- **Risks associated**
  - Market forecasts in countries that have been selected could be lower than expected if macro-economic, industry growth dampens. Adoption of technological alternatives could also lead to lower growth of the industry
  - Shifting of business to competition by "Image and Relationship" customers due to price increase
- **Next Steps**
  - Focusing on cost optimization in order to understand which costs are impacting the profitability negatively
  - Improving customer-service with "Image and Relationship" customers in order to avoid switching to competition.

# Example Case Structure: The initial structure should include the following




- Market Dynamics
- Competitive landscape

- Products / services
- Channels
- Customer (Segments)
- Pricing

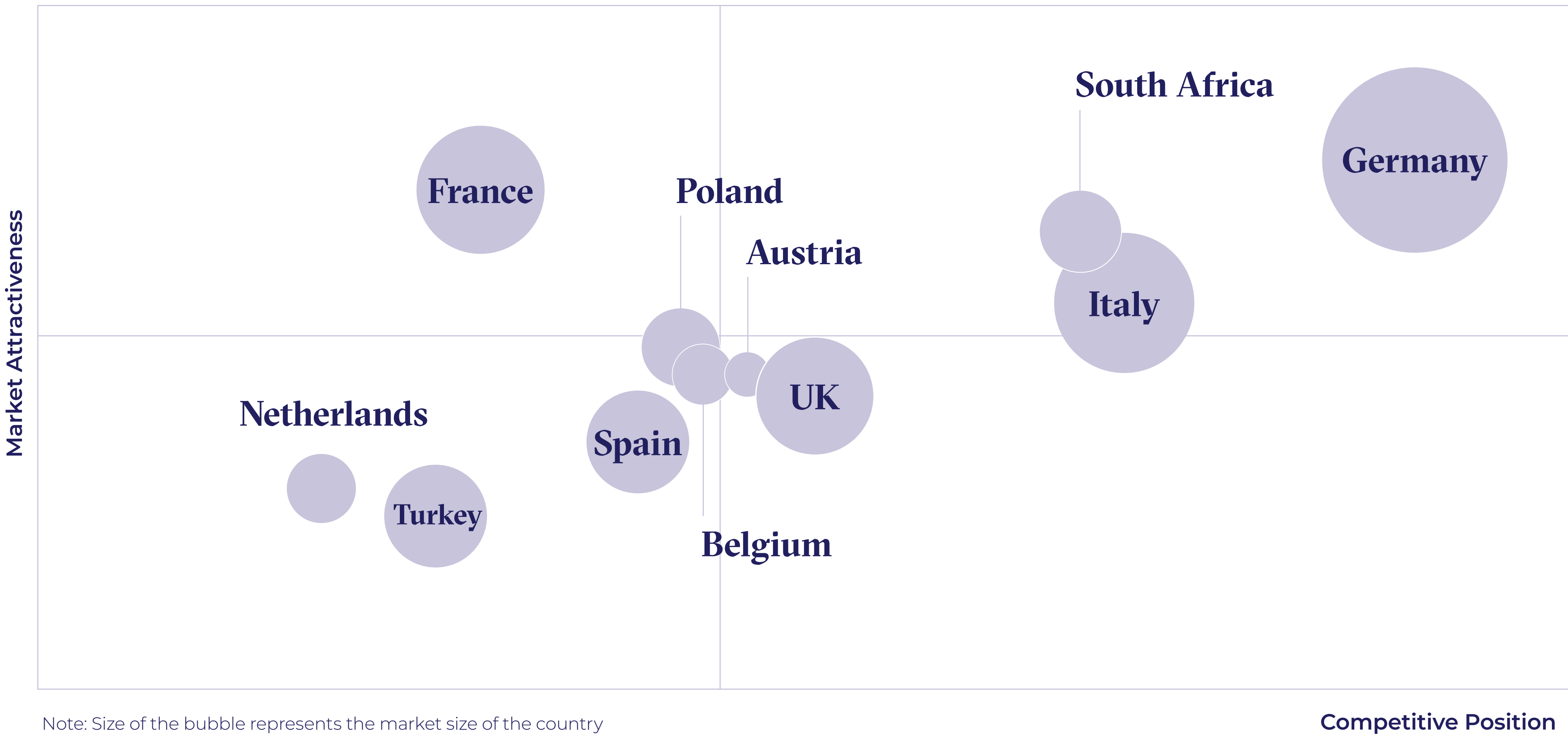
- Organization structure
- Skills and capabilities

- Strategic resources: Assets
- Suppliers, partners, coalitions

# Exhibit 1: Speciality Chemicals Business Overview by Product Line

| Product Line | A | B | C | D |
|---|---|---|---|---|
| **Headquarters** | City A | City B | City B | City B |
| **Production sites** | City A | City B | No Production / Merchandise only | City A |
| **Overall FTEs / Sales FTEs** | 50 / 25 | 50 / 25 | 20 / 15 | 4 / 3 |
| **Sales channels** | In-house distribution (40%)<br>Ext. Distribution (60%) | Direct sales (85%)<br>Ext. Distribution (15%) | Direct sales | Direct sales |
| **Key markets served** | EMEA | Germany | Germany, Czech Republic, Italy, Austria | Germany, Eastern Europe, Netherlands |
| **Key financials (2019)** | | | | |
| **Sales in K€** | 10,000 | 12,000 | 8,000 | 5,000 |
| **EBIT%** | 0% | -5.0% | 10.0% | -5.0% |
| **# customers** | 1,500 | 1,500 | 500 | 50 |

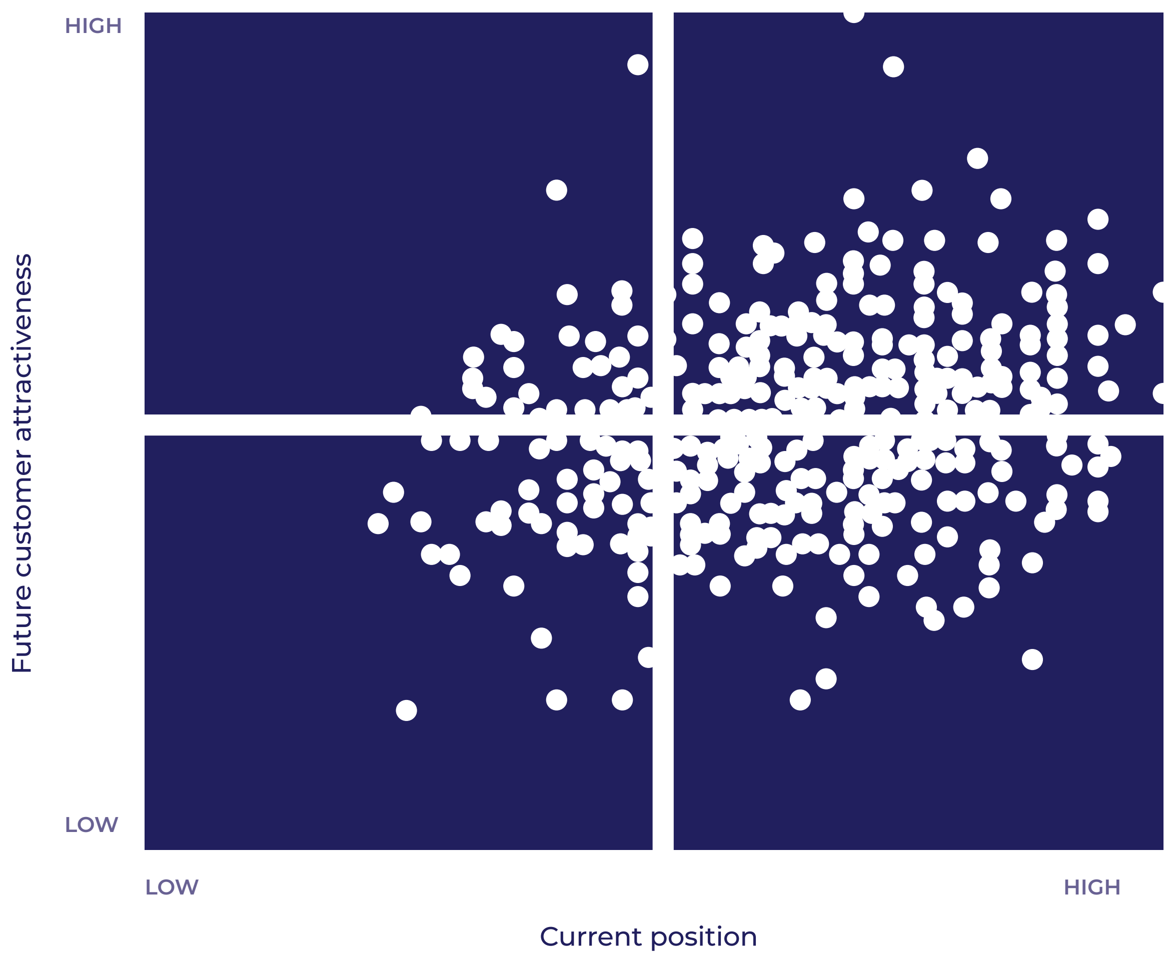
## Exhibit 2: Country Attractiveness Chart




Note: Size of the bubble represents the market size of the country

# Exhibit 3: Revenues and Margin by Customer Type – Germany [€ m]

# Exhibit 4: Customer Clustering – Germany



# Followers-of-Fashion Online Retail

## Share Exhibit 1 – F-O-F Financials with the candidate to start

### Key Question:

Ask the candidate what they make of the exhibit and what are their inferences.

The Exhibit should lead the candidate to ask relevant key questions to clarify the situation, complication and the key questions to be addressed in the case.

Please use the steps below to guide the case:

### Suggested Case Approach

| Step 1 | Step 2 | Step 3 | | Step 4 |
|---|---|---|---|---|
| Clarify Situation | Develop Structure | Ask and Listen | Analyse and think! | Recommend |
| Ask clarification questions to understand the situation | Develop a framework around which to focus the discussion | Ask for additional useful information based on the framework and listen carefully to responses | Consider the information provided, state any assumptions, synthesize and organize information | Propose the best possible solution(s) supported by evidence |

# Exhibit 1

Follower-of-Fashion (F-O-F) Financials

| Financials | 2013a | 2012a | 2011a | 2010a |
|---|---|---|---|---|
| Revenue | £85,243,238 | £42,792,582 | £21,287,967 | £7,212,799 |
| Costs | £93,886,598 | £51,852,761 | £30,657,667 | £16,838,233 |
| Profit | -£8,643,360 | -£9,033,179 | -£9,369,700 | -£9,625,433 |

# Additional information

Share with candidate only when requested

**For the interviewer:**
The following clarification information should **only** be given to candidates when they ask for it. It is up to the candidate to demonstrate the structure to the interviewer and investigate each angle:

**What is F-O-F:**

- F-O-F provide online presence for small fashion retailers.

**Why do small retailers sell through F-O-F?:**

- They lack necessarily market presence and customer reach
- F-O-F is open to customers across the globe
- F-O-F provides access to latest fashion items from all over the globe, creating a more appealing platform.

**What is sold (the products):**

- F-O-F's retailers sell unique and bespoke lines from the world's top brands in their stores and through F-O-F.

**How things work at F-O-F:**

- F-O-F's primary asset is their website. They are very careful to ensure the consistency of their website experience for all product lines
- When items are sold through F-O-F, F-O-F first purchases each item (at time of sale) from the retailer and then sells on to the end customer
- All of the unique items sold through F-O-F are shipped to Spain from their Retailers to be photographed and filmed and entered into the inventory management system as a new item
- Photography is a key activity for F-O-F
- In 2013, around 60,000 items went through this process each season
- F-O-F have installed an inventory management system in each of the retailers. The system eliminates the risk of discrepancy between advertised and available merchandise. Once an order is received through the inventory management system, the retailer is responsible for shipping the product to the customer.

**Who are the Customers:**

- The product lines sold by F-O-F's retailers are most appealing to Fashionistas from all over the world.

**How it works for customers:**

- **Experience:** Customers visit F-O-F's website and view products by category, by retailer or by designer. They make purchases through the website. Customers can buy products from multiple retailers in the same transaction and expect the same level of customer service
- **Pricing:** Customers pay shipping costs for products to be shipped directly from the retailer. There is a matrix based pricing system depending on from where to where shipping is from / to (Average price=£18). Returns are free to the customer.

**Competitors:**

- Traditional competitors include traditional brick and mortar stores and other web based retailers
- F-O-F's main online competitor, Finderskeepers.com have an attractive website and a rapidly growing business with an attractive "butler" delivering an expensive product to the recipients' office – mostly.

**Only provide if candidate specifically asks about business model for F-O-F or Finderskeepers. com:**

- F-O-F purchase items at retail. Finderskeepers.com wholesale all of their products.

# Key outcomes

Based on Exhibit 1 and answers to the questions, the candidate should uncover the current situation, complication and key question to be addressed by the case.

Key outcomes:

- Both revenues and costs are increasing over the period.
- The strongest candidates follow up from this exhibit to ask questions around:

— What the F-O-F business is

— What is the business model for F-O-F

— How customers and retailers experience F-O-F

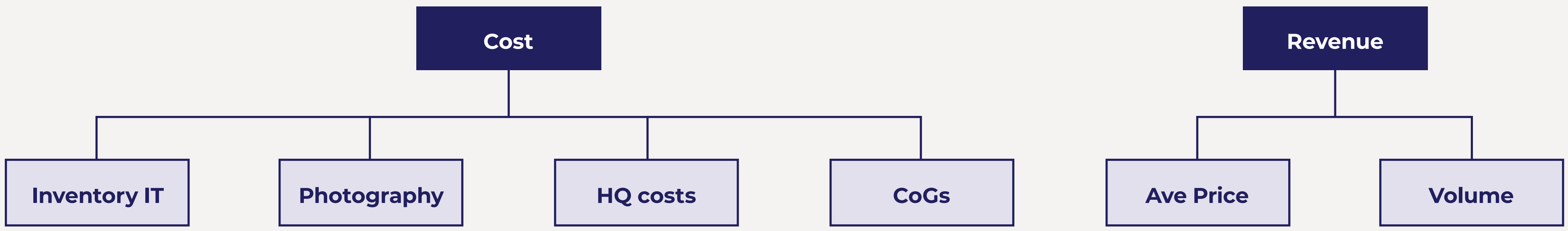
# Case prompt

**For the interviewer:**
Following from the clarification questions, give the following information to the candidate to proceed the case.

- **Situation:** Followers-of-fashion (F-O-F) operate an international website portal for small fashion retailers around the world. They provide a consistent, luxury website experience for consumers globally.
- **Complication:** F-O-F have experienced significant revenue growth over the past three years, however their profits have remained negative.
- **Key Question:** What measures should F-O-F adopt to maintain growth but also start making a profit? You will need to provide your recommendations to the CEO of F-O-F in 45 minutes.

Strong candidates will uncover the situation and complication by drawing inferences from Exhibit 1 and asking the right key clarification questions.

### Suggested Case Framework



# Data – to be read out to candidate

**For the interviewer:**
Ask candidate to list down the sources of costs and revenues before giving them the information.

**Cost**

- **Inventory IT**
  - The inventory management system cost is £25k per year per retailer
  - There are 221 retailers.
- **Photography**
  - A photo team costs £1,500 per day
  - Each team can photo and video approx. 40unique items per day
  - There are 60,000 items each season.
- **HQ costs**
  - 2013 HQ costs were £6.771m.
- **CoGs**
  - Cost of clothing is 90% of retail price
  - Average cost of shipping is£9
  - Average cost for returns is £9.

**Revenue**

- **Ave Price**
  - Average product retail price is £395 in 2013
  - Average shipping charge is £18.
- **Volume**
  - Volume sold to be derived by interviwee from revenue numbers in Exhibit 1.

# Calculations (to be initiated and done by candidate)

**Note for interviewer:**
Candidates should realise that profitability can be improved by making a difference to one or more of the seven drivers mentioned below. The case is written to allow candidate to explore multiple avenues and will allow the interviewer to test a number of key skills in each avenue, should time allow.

## Cost estimate for 2013

1 **Inventory IT**
The inventory management system cost is £25k per year per retailer, there are 221 retailers.

- Total inventory management system cost = £25,000 X 221 = £5,525k

2 **Photography**
A photo team costs £1,500 per day. Each team can photo and video approximately 40 unique items per day. There are 60,000 items per season.

- Cost / day = £1500
- No. of team days needed:
  — Items photographed in a day by 1 team = 40
  — No. of teams days needed = 60,000/40 = 1500
- No. of seasons / year = 2
- Total cost of photo shoot annually = £1500 X 1500 X 2 = **£4,500k**

3 **HQ costs**
Current HQ costs are **£6,771k**

4 **CoGS**
The cost of clothing is 90% of the retail price. Cost of shipping is £9 / item. 30% of purchases are returned and cost of shipping returns on average can be taken as £9 / item.

- Cost of clothing / item = 395 X 90% = £355.50
- Cost of shipping / item = £9 + £9 = £18
- Total CoGs = volume X cost = (85,243 / 413) X (£355.50 + 18) = **£77,090k**

**TOTAL COSTS per year = £93,886k in 2013**

## Revenues estimate for 2013

**Revenue per product:**
Average product price £395 and shipping average charge is £18.

5 **Retail price**
Average revenue per product
+

6 **Shipping charges**
= £395 + £18
**= £413**

7 **Volume**

- From Exhibit 1: Total revenue in 2013 = **£85,243k**
- Volume = total revenue / revenue per item = 85,243 / 413 = approx. **206.4k items**

**TOTAL REVENUE = £85,243k in 2013**

# Possible solutions – Reducing costs

| Current Cost Driver | Additional Information, if asked | Possible Solutions |
|---|---|---|
| 1 **Inventory IT**<br>The inventory management system cost is £25k per year per retailer, there are 221 retailers.<br>Total inventory management system cost<br>= £25,000 X 221 = £5,525k | All of the items sold through the website last season came from just 34 retailers (out of 221); in fact only 47 of the retailers have ever sold anything through F-O-F. | **Eliminating unpopular suppliers**<br>Get candidate to work out how much money is wasted on supporting retailers with the inventory management system which is of no benefit to F-O-F.<br>Let candidate recommend solutions to reduce this cost. Examples include:<br>- Eliminating suppliers.<br>- Renegotiating contracts by imposing hefty penalties on suppliers for not being able to sell a minimum volume on F-O-F.<br>Calculate how much cost would be reduced because of these assumptions. |
| 2 **Photography**<br>A photo team costs £1,500 per day. Each team can photo and video approximately 40 unique items per day. There are 60,000 items and the exercise needs to completed in one month.<br>- Items photographed in a day by 1 team = 40<br>- Items photographed in a month / team = 1,200<br>- No. of teams needed = 60,000 / 1,200 = 50<br>- No. of seasons / year = 2<br>- Total cost of photo shoot annually = £1500 X 50 X 30 X 2 = £4.500k. | Each season, of the 60,000 unique products, only 800 of these unique products ever get sold. | **Eliminating unpopular products**<br>Get candidate to work out how much money is wasted on videoing / photographing items which are of no benefit to F-O-F.<br>Let candidate make suitable assumptions on how many items to photographed. They should make assumptions based on how many suppliers they are also reducing.<br>Calculate how much cost would be reduced because of this assumption. |

# Possible solutions – Reducing costs (continued)

| Current Cost Driver | Additional Information, if asked | Possible Solutions |
|---|---|---|
| 3 **HQ costs**<br>Current HQ costs are £6,771k | Reaches an answer and shows the ability to sense check their number | Candidate might be able to recommend solutions like:<br>- Reducing real estate cost by moving to less prime area.<br>- Other ways of reducing HQ costs. |
| 4 **Cost of clothing:**<br>90% of retail price. Hence: Margins on retail are only 10%.<br>Cost of shipping is £9 / item. 30% of purchases are returned and cost of shipping returns on average can be taken as £9 / item.<br>- Cost of clothing / item = 395 X 90% = £355.50<br>- Cost of shipping / item = £9 + £9 = £18<br>- Total CoGs = volume X cost = (85,243 / 413) * (£355.50 + 18) = £77,090k<br>Average price / item exhibits no particular trend. It was £434 in 2012 and £387 in 2011. | Margin on an item bought at 'retail' have a 10% margin. Items at wholesale have a 50% margin.<br>(give this information only if asked) | Possible solutions:<br>1 **Increase margin on retail price**<br>Currently, F-O-F takes 10% of the revenue from a particular product. F-O-F could use its scale to change the %, thereby increasing revenue.<br>Market dynamics have changed; initially, F-O-F's model was built because they didn't have access to the designers due to scale and the designers' nervousness about diluting their brands by selling online.<br>2 **Buy items on a wholesale basis**<br>F-O-F sells all items of clothing through retailers, i.e. it buys an item at retail and doesn't take inventory risk. Now that the company is much bigger it can take some inventory risk (and be financially compensated), increasing margin from 10% to 50% for each item sold.<br>Optimal solution would be to select some of their (likely) high selling items and order inventory and build a distribution centre for those products. Again they would require a merchandising team.<br>They can also offer better shipping costs as they can move inventory around at bulk and ship from the customer's home country.<br>Candidates who present this balanced view score more highly. |

# Possible solutions – Reducing costs (continued)

| Current Cost Driver | Additional Information, if asked | Possible Solutions |
|---|---|---|
| 5 **Retail price = £395** | Candidate would want to know if the retail price of items sold through F-O-F can be changed.<br>Retail prices are set by designers for consistency and monitored carefully across the globe. | - Changing retail prices is not an option. |
| 6 **Shipping Model: 50% of shipping cost** | Shipping is confusing for consumers (it is not a flat rate) and is very variable – depending on a rough formula.<br>Most online retailers ship for free and their main competitor ships for £5 per item with free returns.<br>F-O-F also occasionally do free shipping days and sales nearly triple on those days. | - F-O-F might be able to use some of the cash from cost savings to reduce shipping costs or standardize them.<br>- Flat fees are likely to increase sales significantly and has an affect on driver 7. However reducing shipping costs are also likely to reduce overall margins due to average cost of shipping and returns shipping. |
| 7 **Volume**<br>- From Exhibit 1: Total revenue in 2013 = £85,243k<br>- Volume = total revenue / revenue per item = 85,243/413 = approx. 206.4k items | Social media / Google;<br>F-O-F currently has a SEO (Search Engine Optimisation) strategy. Their main rivals have bought the Adwords for all of the main brands at £0.60 per click for Burberry, McQueen, etc.<br>Share Exhibit 2. | Increase sales by increasing competitiveness of advertising. |

# Calculations – for interviewer only

| | Current 2013e | Scenario 1 | Scenario 2 | Scenario 3 |
|---|---|---|---|---|
| No. of Retailers | 221 | 50 | 100 | 150 |
| No. of items/retailer | 272 | 272 | 272 | 272 |
| Total No. of items to photograph | 60,112 | 13,600 | 27,200 | 40,800 |
| Cost/photography team/day | £1,500.00 | £1,500.00 | £1,500.00 | £1,500.00 |
| Items photographed/day | 40 | 40 | 40 | 40 |
| No. of team days (rounded) | 1500 | 340 | 680 | 1020 |
| No. of seasons/year | 2 | 2 | 2 | 2 |
| Total Cost of Photography | £4,500,000 | £1,020,000 | £2,040,000 | £3,060,000 |

# Recommendations

Ask the candidate to present their final set of recommendations to CEO of F-O-F.

## Key Question:

**What measures should F-O-F adopt to maintain growth but also start making a profit?**

- Candidates should present their recommendations in a structured manner
- Stronger candidates lead with their final recommendations and then talk through any supporting facts. Their response will also be structured according to key question asked initially
- Strongest candidates are able to talk through the operating model and implementation risks of moving from one model to the other. Who chooses the product, where is it stored, what are the effects on shipping.

## Suggested Answer

**Start making a profit:**

- Reduce costs across the various costs factors:
  - Eliminate unpopular suppliers to reduce inventory management costs
  - Eliminate unpopular products to reduce photography costs
  - Reduce HQ costs

*These alone are not sufficient to realise profits.*

- F-O-F also need to increase the margins they make on CoGS:
  - Increase margins on retail price to greater than 10%
  - Purchase items on wholesale basis to realise 50% margins
- Measures to maintain growth (revenues)
  - Increase volume of sales by:
    Improving competitiveness in online advertising.

# Telco

ERICSSON | STRATEGIC PROGRAMS PRACTICE

## Situation/background

Our client is the CEO of Westeros Communications, a large international telecom operator from an advanced economy in Asia with 100m inhabitants.

The telco market is growing, facing realities:

- Mobile traffic **is continuing to grow >40% p.a.**
- Current 4G networks is **reaching capacity ceiling**

5G is now seen as the solution to those challenges, requiring significant investments from operators such as Westeros Communication.

## Complication

- However, Average Revenue Per User (ARPU) is forecasted to decrease in the next years
- Operators will face flat revenues on traditional businesses and are pressed to invest to keep up with customer demand, having to find new revenue streams
- Data monetization appears as one of the key new potential revenue streams.

## Key question

**Which strategy should Westeros Communications choose to drive growth within data monetization?**

## What do we mean by data?

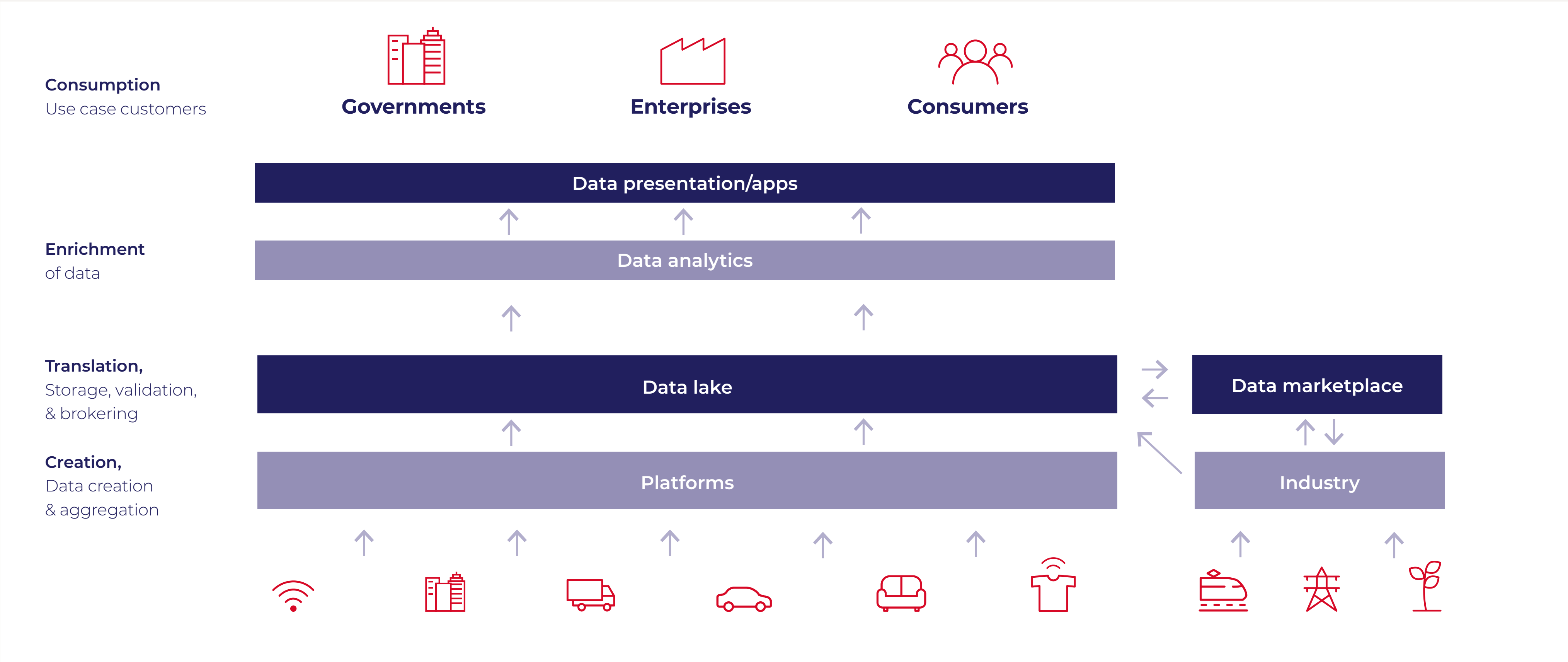
Show candidate upfront

By running cellular networks, Operators can have access to and/or own different sets of data. Those sets are either industry specific or across verticals, e.g.

| Category | Data cluster, e.g. | Example of components |
|---|---|---|
| **Across industries** | People position | People position (through handset), people stream data. |
| | Vehicle information | Vehicle location, vehicle performance, driving behavior. |
| | Consumer profiling | Consumer preferences, lifestyle, age group. |
| | Urban information | Video surveillance, traffic lights data. |
| **Industry specific** | Transport & logistics | Freight position, freight ID, fleet vehicle position, fleet vehicle behavior. |
| | Healthcare | Patient information, medical supply inventory. |
| | Manufacturing | Machine information, lead time, production quality. |
| | Retail | Consumption value, products bought. |

# Telco data monetization value chain

Show candidate upfront



# Definitions – If needed/asked by candidate

| Concept | Definition |
|---|---|
| **Data monetization** | Generating revenue stream(s) by capitalizing on accessible/sellable data – e.g. building application using data or selling raw data to third parties |
| **Telecom operator** | Service provider of telephony and data communication access – e.g. Vodafone, Orange, EE |
| **Connectivity platform** | Infrastructure enabling connection of SIM cards to networks (e.g. telecom, IT, internet) |
| **Data lake** | Common technical infrastructure to store all available data in standardized format |
| **Data marketplace** | Platform to sell anonymized raw or slightly enriched data to a third party |

# Sub-questions to drive case

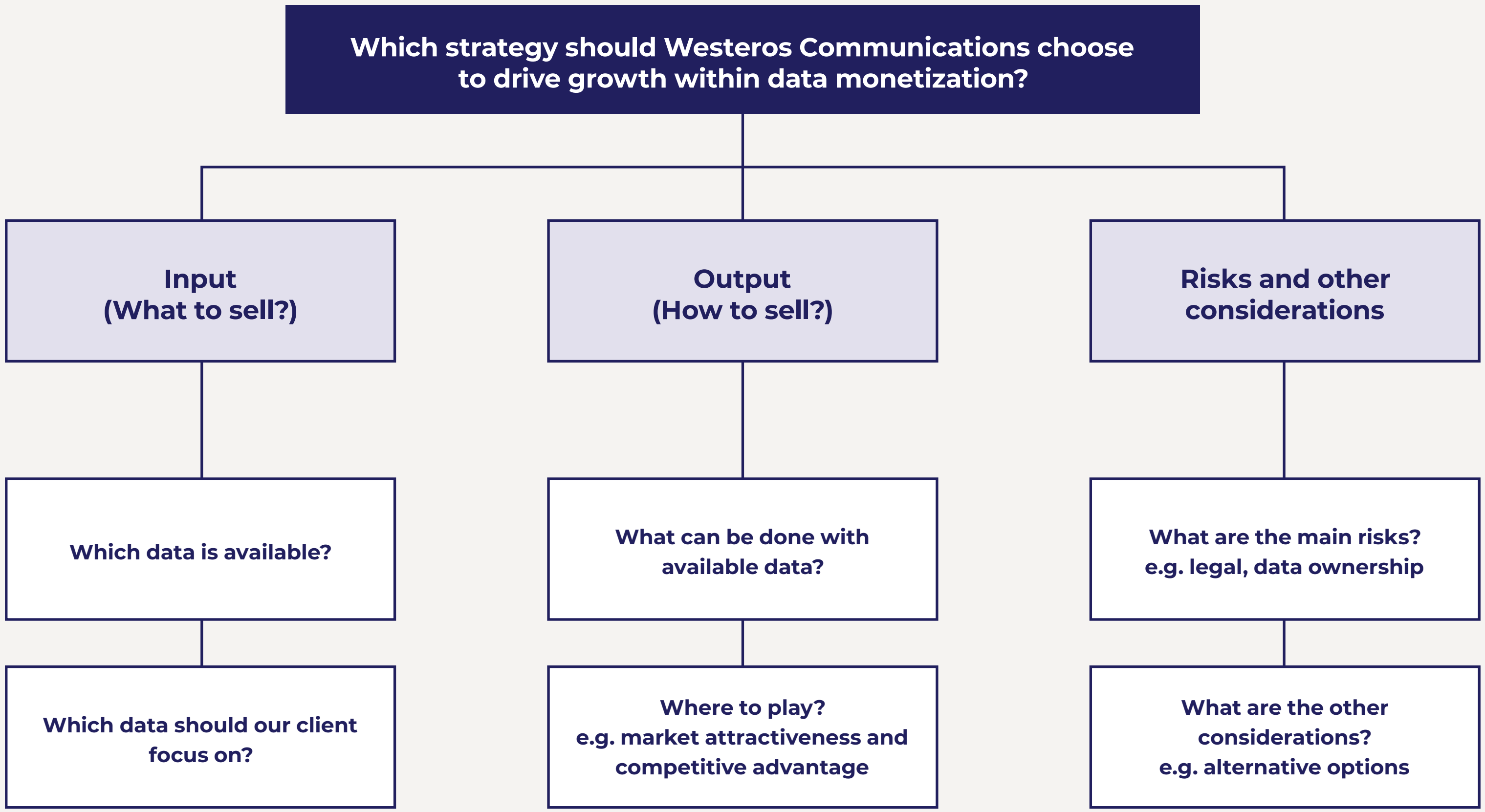
For interviewer only

| Question to be asked to candidate | Potential sub-questions and answers |
|---|---|
| **How would you approach the problem?** | **See proposed framework on following page – Do not show to candidate** |
| **What data should our client focus on?** | ○ Ensure candidate propose potential approach on how to select data prior showing Exhibit 1<br>○ Show Exhibit 1 – Ask: *"Which data cluster should our client focus on?"* Expected answer: focus on high value, ability to win and easy access, e.g. Consumer profiling and People position<br>○ Ask: *"What can industries use that data for?"* – Possible answer: targeted advertisement, etc.<br>○ Optional question: *"What would you recommend to do with urban information and Manufacturing data?"* – Possible answer: either sell it to customers or third-parties as data is easily available, valuable but limited differentiation possible for our client. |
| **How should our client monetize available data?** | ○ Ask: *"What are the potential ways to monetize available data set?"* – Show Exhibit 2 after candidate shared ideas<br>○ Ask (do not show Exhibit 3 at that stage): *"How would you assess which of the 3 options our client should chose?"*<br>○ Show Exhibit 3 and ask: *"With available information, where do you think our client could be positioned?"* – Expected answer: Sell data to industry either via direct access or packaged (guide if needed)<br>— Significant data value and good relation to industry vs. competitors<br>— Lack of capability to develop apps<br>○ Ask: *"How big is the opportunity in selling consumer profiling data to the advertising industry?"* – See guidance. |
| **What are other considerations and alternatives?** | ○ Key considerations – e.g. potential legal risks (per country and/or type of data), commercial restrictions in data sharing – Candidate should mention legal/data ownership risks<br>○ Potential alternatives – e.g. build/acquire capabilities in application building to increase value captured via acquisition of/ partnering with Telecom Plus. |
| **Can you summarize recommendation?** | ○ Ask candidate to summarize findings to client. |

# Framework proposed to answer the question

Potential structure – Do not show to candidate

For interviewer only



# Calculation guidance and proposed solution

## Example of elements to guide candidate through data value calculation – if needed by candidate

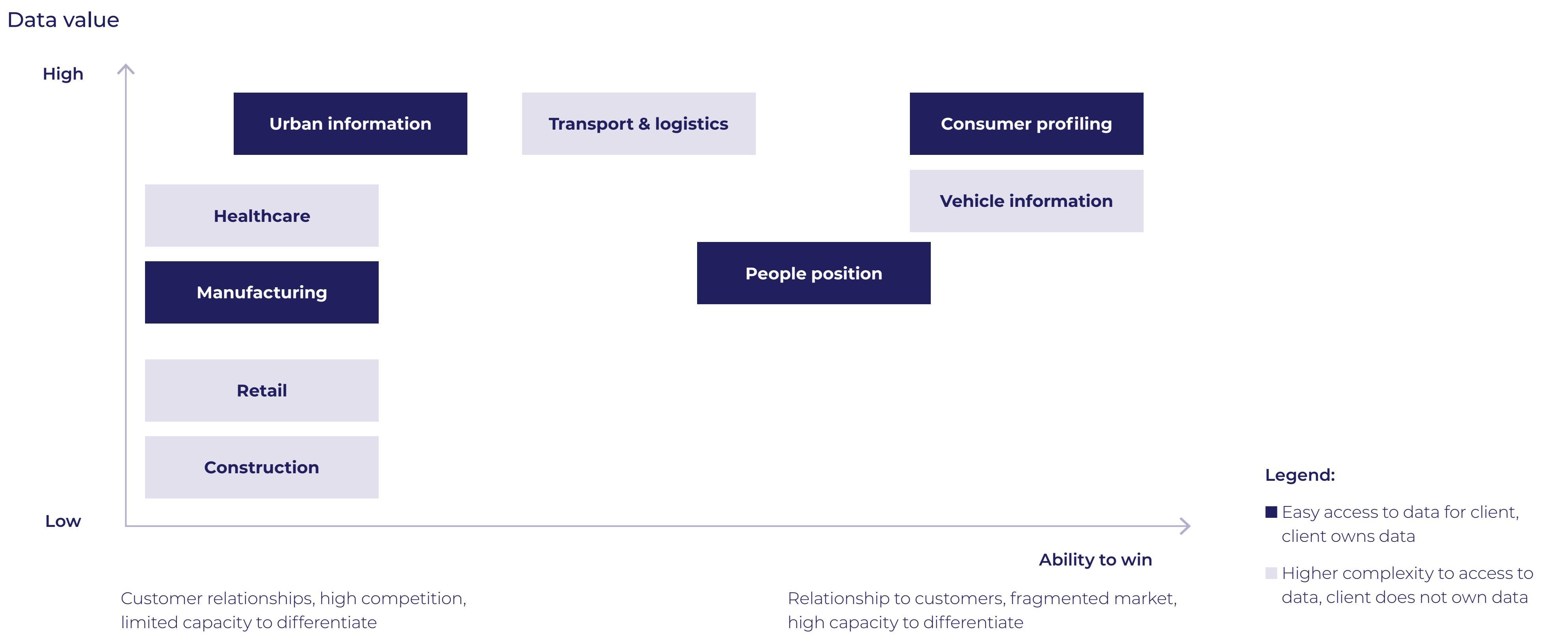
- Advertisement spend in the country generates annual revenues of $25 billion per year
- Customer profile acquisition represents 30% of advertisement spend
- Addressable market within customer profile acquisition by any operator's data estimated to be ~15%
- Reasonable to think that our client can gain at least 30% market share as 2 main competitors have less competitive advantages
- As a point of comparison, current revenue of client is $5b.

## Example of potential case solution summary – Do not share with candidate

- "To monetize its data, client could focus on brokering Consumer profiling and People position data to the advertising industry though a marketplace as:
  - The opportunity is estimated to be ~5% of current client revenue
  - Client can benefit easy access to this data, it is valuable and client can differentiate in that market
  - Client enjoy competitive advantage for this distribution channel
- Risks exist and should be investigated, especially legal restrictions in data ownership and data sharing
- Next steps are to investigate these risks, and explore alternatives".

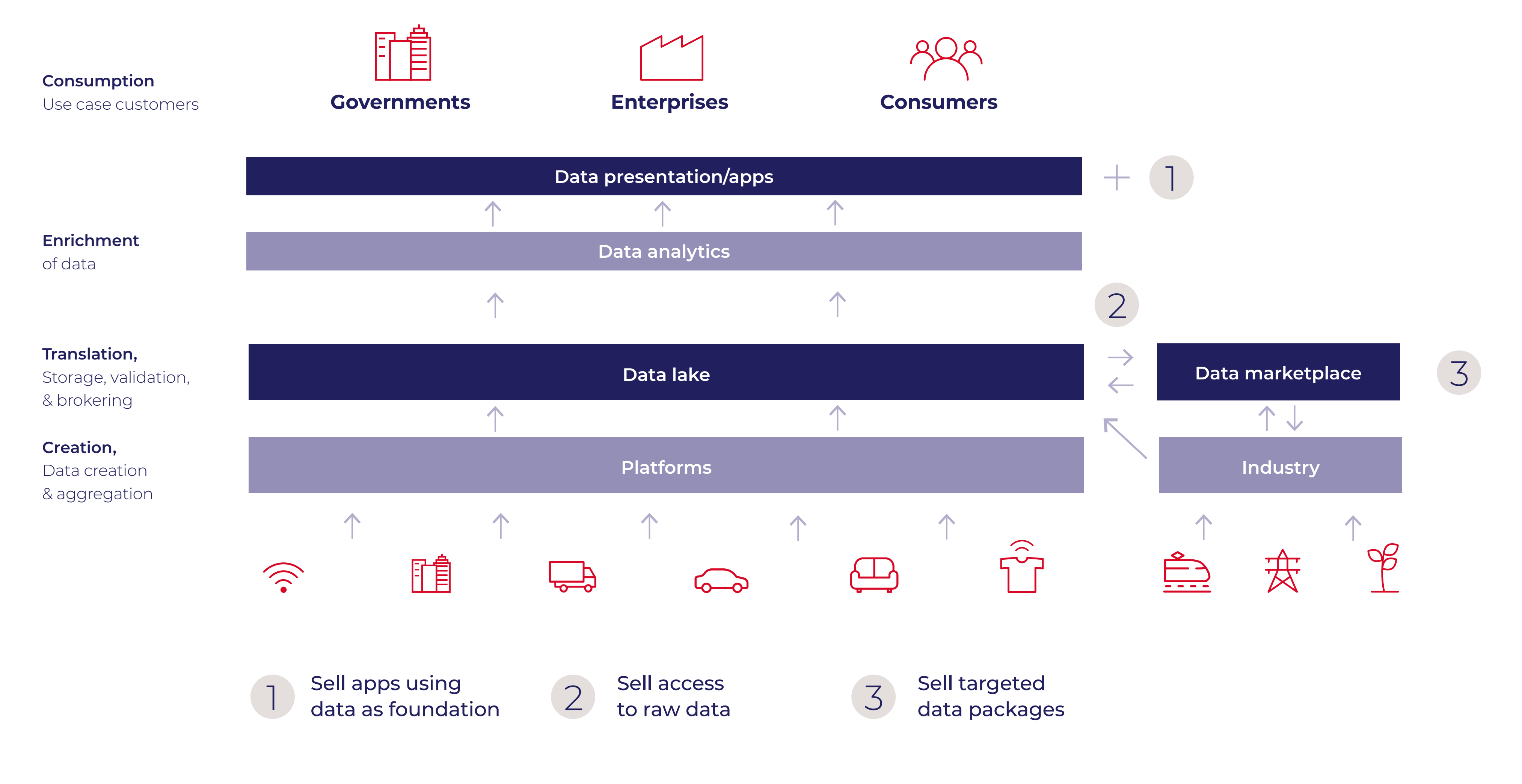
# Exhibit 1

Segmentation of data clusters for our client



# Exhibit 2

Looking ahead, three potential data plays for our client



# Exhibit 3

Competitiveness of our client vs. its two main competitors

| | Capability to develop and sell apps | Value of available data for relevant industry | Relationship with relevant industry |
|---|---|---|---|
| **Westeros Communications** | ◑ | ● | ◕ |
| **Telecom Plus** | ● | ◑ | ◔ |
| **SuperNetwork** | ◕ | ◕ | ◑ |

Legend

● Significant competitive advantage

◔ Likely to lack competitiveness

# Group Strategy

ZURICH

### Case Briefing:

Zurich's Group CEO is expected to present a new strategy for 2020. To kick things off, Zurich's CEO has asked a major investment bank to conduct an industry analysis and benchmark Zurich against its global peers. The report concludes that investors are sceptical about diversification strategies* within the insurance industry. Hence any valuation of diversified insurance players include a sizable conglomerate discount.

Based on this valuation, Zurich's CEO has asked iCON to develop the 2020 Group strategy, which should address investors concern. The strategy will be presented at the next investors day in six months time. How would you go about this?

### Interviewer:

Ask candidate for a structure that outlines all relevant areas of synergies and incremental costs.

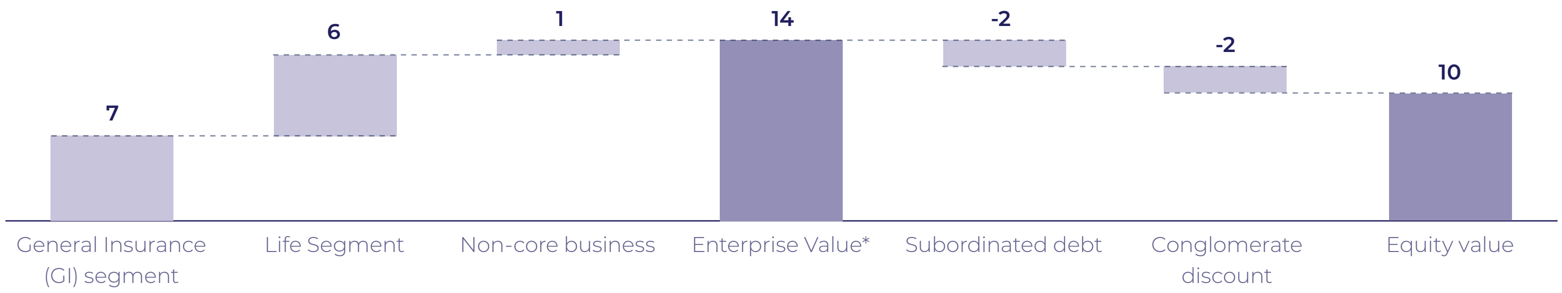
Bonus: Probe the candidate to present an initial hypothesis and structure for a winning strategy as a diversified insurer. Discuss several examples on how to generate synergies between segments to test the candidates business acumen.

* "Diversified" in the sense that an insurance company operates both, a General Insurance (GI) and a Life Insurance segment, under one umbrella.

# Group Strategy

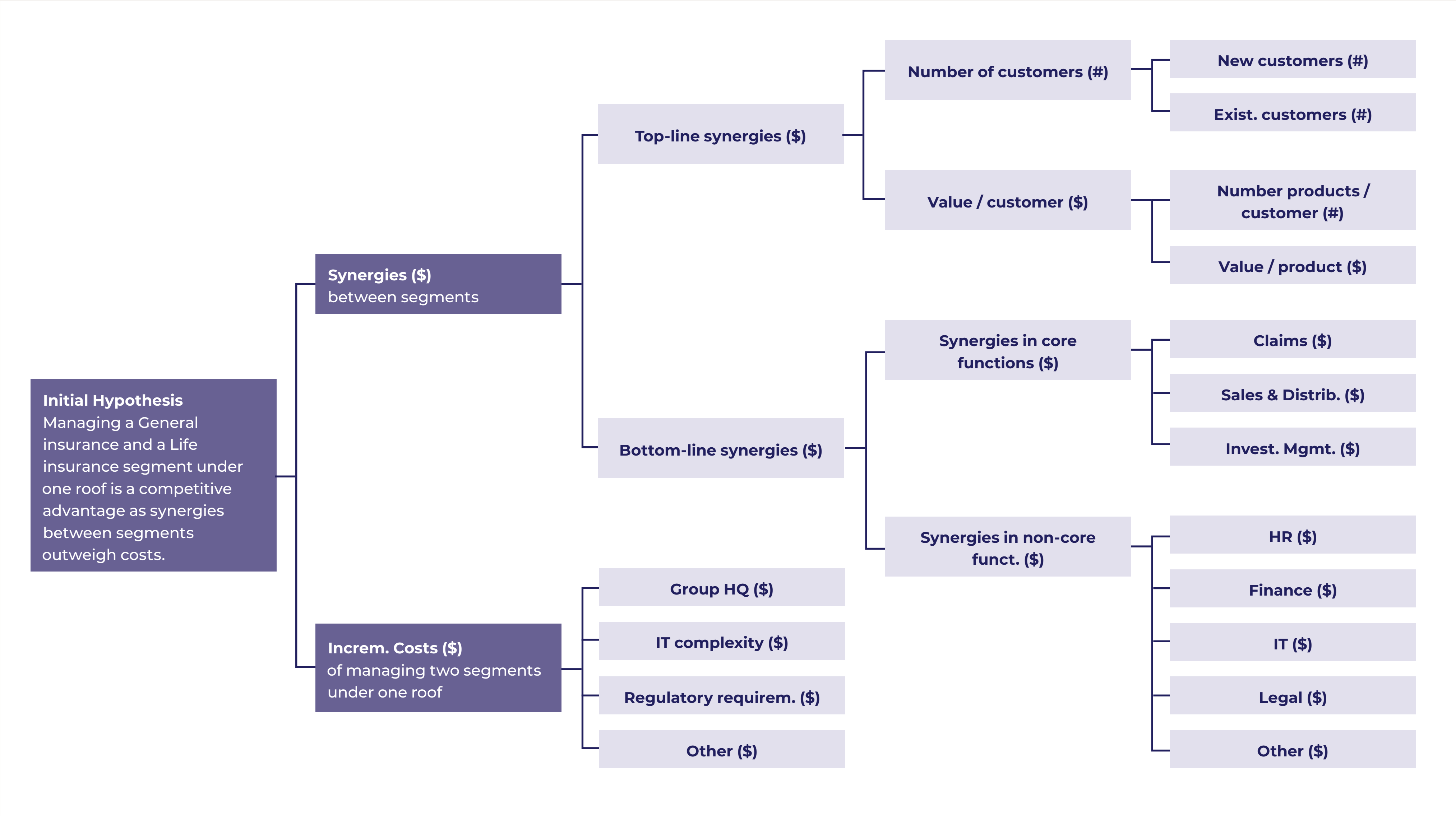
GRAPH FOR CANDIDATE

Fair value assessment of Zurich Insurance Group [bUSD] *




* All figures and data used in this case are fictitious.

# Example Structure



### Briefing: Part II

The team has identified cross-selling as a top priority for future growth based on a conglomerate strategy.

First estimates for required investments requirement is in IT infrastructure and organizational capabilities to enable a large-scale cross-selling strategy totalling at USD 1.2bn.

The Group Executive Committee sets a minimum return on this investment at 60% for a 3-year period. Your team has been asked to deliver the following three insights:

1. What metric would you look at to determine success in cross-selling? (wait for answer before reading 2)
2. Calculate the current percentage of Zurich's total customers, which are «shared customers»*
3. Determine by how much this percentage needs to increase to justify the investments and deliver a ROI of 60% over 3 years*.

Note: For ease of calculation neglect any compounding and discounting.

### Data available

| | |
|---|---|
| Total Zurich customers | 28,231,147 |
| Life active policies | 7,511,654 |
| Life estimated product density** | 1.52 |
| GI active policies | 50,456,657 |
| GI estimated product density** | 2.01 |

| | |
|---|---|
| Investments required | USD 1.2bn |
| Required ROI over 3 years | 60% |
| Amortization period | 3 years |
| Profit per single segment customer p.a. | USD 100 |
| Profit per shared customer p.a. | USD 250 |
| Retention rate over 3 yrs | 80% |
| Increase in loyalty per add. product over 3 yrs | 50% |

*For ease of calculation focus on profits of customers, who are becoming shared customers in year 1 only.

** Defined as average amount of products owned by one customer.

## 1 Solution

A straightforward metric that indicates a company's success in cross-selling is the percentage of customers that own products in both the General Insurance and Life Insurance segments, defined as:
**Number of shared customers / Total number of customers**

## 2 Solution

**Calculation – conceptual**

A Percentage of shared customers = Number of shared customers / Total number of customers

B Number of shared customers = (Life + GI customers) – Total customers

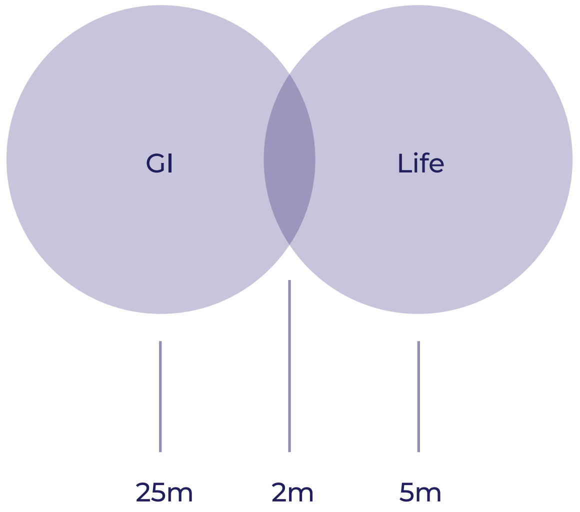
C Customers per segment = Active polices / Product density

**Calculation – numerical**

C 50m / 2.0 = 25m
7.5m / 1.5 = 5m

B (25m + 5m) – 28m = 2m

A 2m / 28m = ~7%



## 3 Solution

**Calculation (conceptual)**

A Increase in shared customers (%)
= Increase in shared customers (#) / Total customers (#)

B Increase in shared customers (%)
= Investments X required ROI ($) / (Profit / customer ($)) ↓Year 1–3

C Profit per customer for year 1-3 (USD)
= Years (#) x Increase in profit per customer p.a. (USD) x Increased retention rate (%)

**Calculation (numerical)**

C 3yrs x (USD250 - USD100) = USD450
(USD450 x (0.8 + (0.2 x 0.5)))/ USD400

B USD 1.2bn X (1 + 60%) / USD 400 = 4.8m

A 4.8m / 28m = 17%

## Briefing: Part III

The Group Executive Committee decides to further develop the strategic initiative on cross-selling. Your team spans across three workstreams according to Zurich's customer groups:

You are assigned to lead the global analysis for the Corporate group. How do you decide in which countries you would invest resources to capture the maximum cross-selling potential?

## Proposed approach:

As we are trying to maximize synergies between the General Insurance (GI) segment and the Life segment, the candidate should look for countries, where the gap between segments in terms of number of customer relationships is most significant.

These countries provide the biggest opportunity to leverage the customer relationships of one segment for the other.

To reduce the list of countries to a feasible number for entry, it is advisable to go in a three-step approach from a long- to a target-list.

### Long-list

Exclude countries:

- Countries under international sanctions
- Countries with safety-concerns (e.g. due to war, terrorism).

### Short-list

Split countries by presence into four buckets:

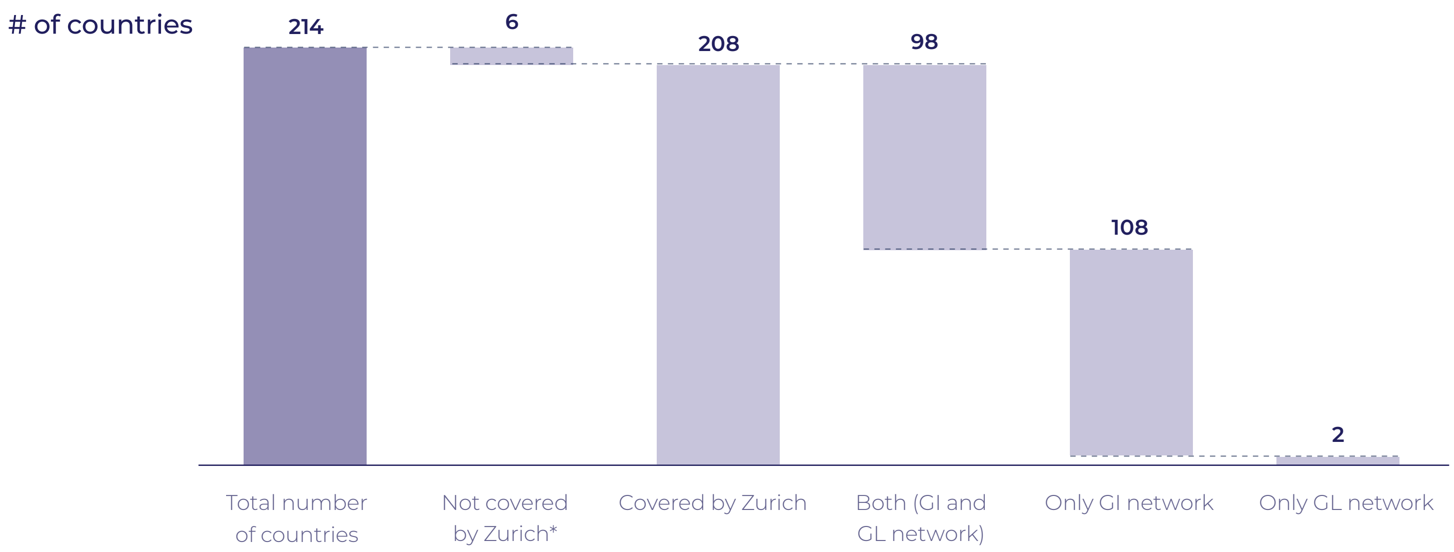
1 GI presence only
2 Life presence only
3 Presence of both segments and
4 No Zurich presence

### Target-list

Prioritize top countries with largest delta in number of customer relationships.

Show candidate

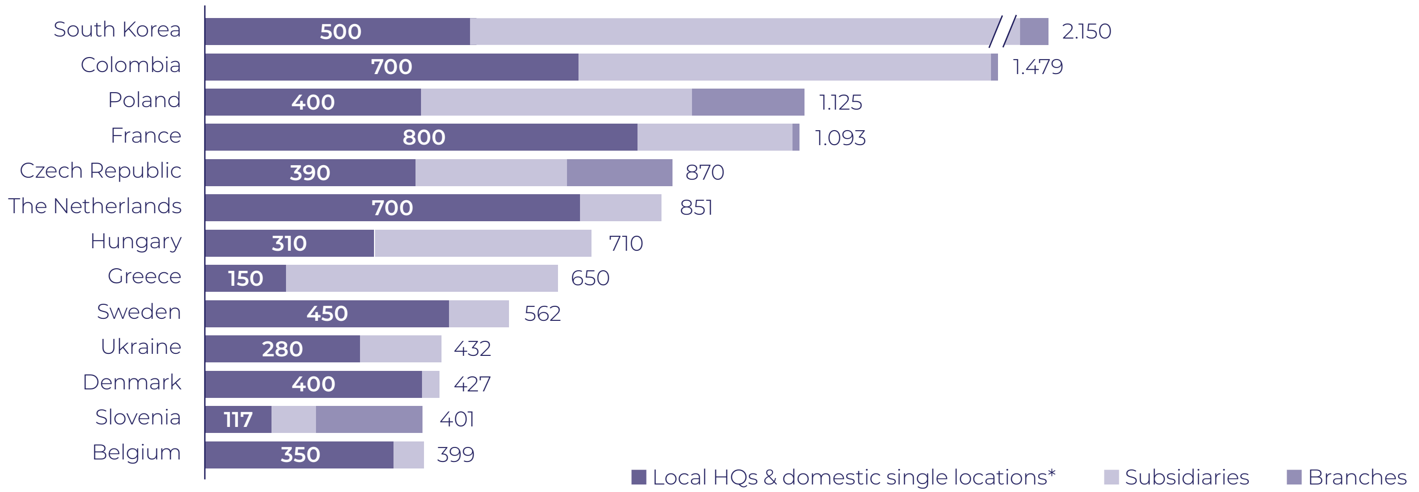
Break-down of countries by segment presence




* Zurich is not present in the following countries: Bhutan, Guam, Iran, Dem. Rep. of Korea, Turk. Rep. of Norther Cyprus, and Zimbabwe

Show candidate

Number of Zurich Corporate GI customers within respective country

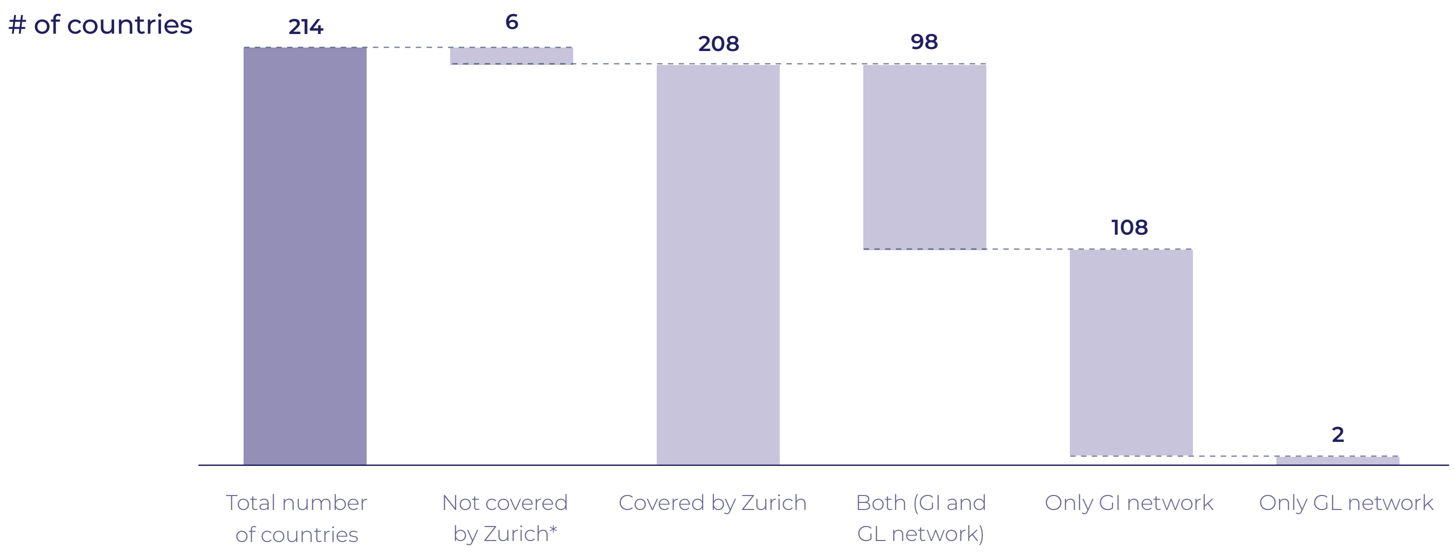



*Local HQ and single locations includes parent company headquarters and parent company single locations
All figures are fictitious

### Interviewer Note

Candidate should identify the bucket of «Only GI network» as an obvious opportunity to capture synergy potential as a diversified insurer by cross-selling Life products to GI customers

## Break-down of countries by segment presence

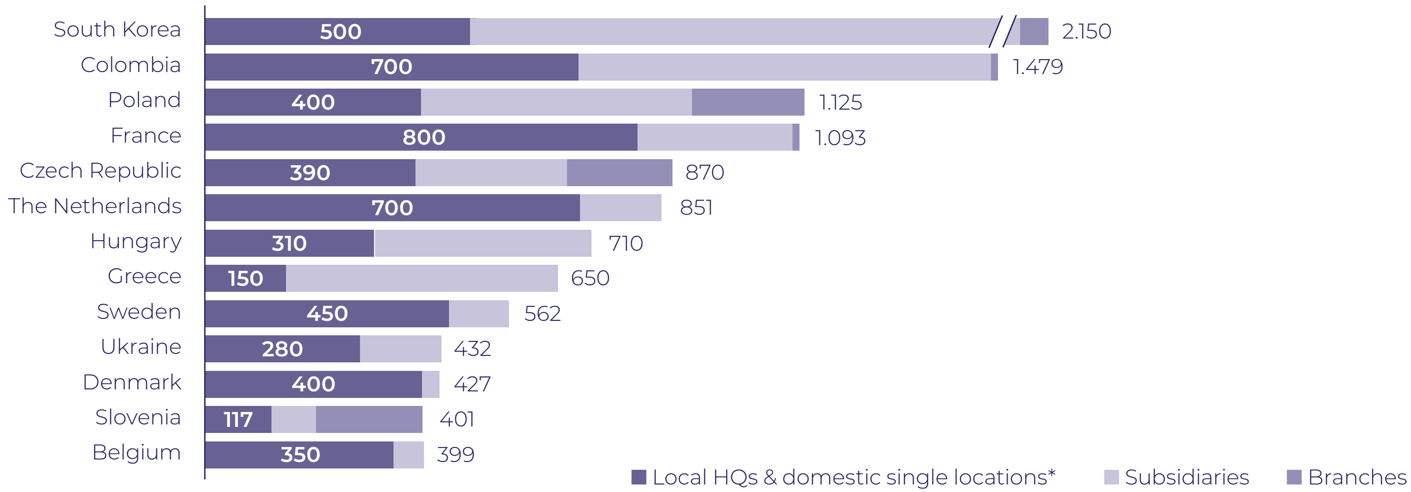



* Zurich is not present in the following countries: Bhutan, Guam, Iran, Dem. Rep. of Korea, Turk. Rep. of Norther Cyprus, and Zimbabwe

### Interviewer Note

Candidate should identify priority countries according to the number of headquarters and domestic single locations, as buying decisions are made there.

Number of Zurich Corporate GI customers within respective country




*Local HQ and single locations includes parent company headquarters and parent company single locations
All figures are fictitious

# Challenge to the candidate:

Do you see any risks or obstacles for implementation in pursuing a cross-selling strategy? If so, which ones?

**Examples:**

- **Assumptions do not turn out as anticipated** (e.g. due to an economic downturn, strong competitors in the market, customer loyalty)
- **Procurement** of General Insurance (GI) and Life products **is conducted by different people within the customers' organization** (GI products, typically used as risk-hedging instruments, are often within the area of the CFO or the Chief Risk Officer, while Life products, used within Employee Benefits schemes, are often in the area of responsibility of the HR department)
- **Customers deliberately diversify procurement**, i.e. purchase General Insurance (GI) and Life products from different suppliers as part of their risk management strategy
- **Cultural differences** between Zurich's two segments result in insufficient coordination
- **Increase in organizational complexity** (which key account manager is responsible for which customers?); requires increased alignment between both segments
- **Marketing risks**: Can you effectively communicate the added value of a holistic product suite (including GI and Life products) to customers
- **Whole Customer View (rather than segment-specific view)**: An overall profitable customer with policies from both, the GI and the Life segment, might be loss-making for one of the segments. Incentives/profits need to be appropriately set to enable collaboration between the two segments
- Other...

# Challenge to the candidate:

You meet the CEO on your way to the cafeteria. He recognizes you as part of the project team and asks you where you stand with your project.

### Example recommendation

Based on our initial analysis, we understand that Zurich needs to extract more value from managing a GI and a Life segment under one roof. Among the levers identified, we prioritized cross-selling as first deep dive. For Corporate customer group, we should focus on the markets of France, Columbia and the Netherlands for the following three reasons:

1. These countries have currently no shared customers as there is an established GI, but no Life operation
2. They have the highest number of GI customers with HQ locations and therefore decision makers in the respective markets
3. From our analysis, none of these countries exhibits any major showstoppers that would render an entry of Life operations infeasible.

### Next steps:

1. Set up meetings with executives of both segments to gain their buy-in for the initiative (Bonus: Prepare storyline on why GI should support Life in selling products to their customers)
2. Identify target GI customers in prioritized markets to approach for Life cross-sell
3. Set up road-map for first pilots.

## Performance Assessment

| | Poor performance | Average performance | Superior performance |
|---|---|---|---|
| **Issue framing & structure (Part I)** | • Suggests generic framework based on growth and cost improvement levers with no direct link to the question of how to generate additional value as a "diversified group"<br>• Structure contains several overlaps and does not frame the issue exhaustively. | • Develops a structure, recognizing the relevance of leveraging synergies between segments. Candidate is able to name several concrete examples of such synergies<br>• Presents structure in a MECE format. | • Uses hypothesis to develop a clear and logical structure, explaining that a diversified set-up only creates value, if synergies between segments outweigh additional costs of managing a more complex organization<br>• Pro-actively discusses and prioritizes sub-branches<br>• Presents structure in a MECE format. |
| **Calculation & numeracy (Part II)** | • Candidate dives right into the calculations without having full understanding of data presented, nor having outlined an approach<br>• Unable to compute share of common customers without help<br>• Makes several calculation mistakes. | • Performs calculations with adequate accuracy (recognizes minor mistakes when prompted) and speed (rounds numbers reasonably)<br>• Comments on/ sense-checks results immediately. | • Outlines calculation conceptually upfront Performs calculation without mistakes and without losing the interviewer along the way<br>• Conducts sense check on results and puts them in perspective. |
| **Conducting analysis (Part III)** | • Suggests generic market attractiveness analysis, which is not directly related to the question of how to capture synergies between segments through cross-selling<br>• Has troubles to distill "so what's" from graphs autonomously<br>• Does not pro-actively link findings back to analysis. | • Develops analysis approach that helps to identify synergy potential between segments<br>• Understands graphs without help (excl. questions on terminology), identifies "so what's" and links findings back to the case question asked. | • Candidate develops clear and logic analysis approach, outlining key pieces of data needed to reach target list of countries<br>• Distills key implications of data presented and links them back to initial hypothesis<br>• Exudes enthusiasm and drives analysis pro-actively. |

## Performance Assessment (continued)

| | Poor performance | Average performance | Superior performance |
|---|---|---|---|
| **Syntheses & Recommendation** | • Jumps between analysis parts without syntheses<br>• Has trouble integrating analysis insights into bigger picture<br>• Presents (chronological process of analysis rather than "top-down" recommendation, i.e. action-statement, supported by key insights from analysis. | • Regularly synthesizes finding at appropriate times in the case (e.g. before switching from one analysis to the next)<br>• Presents action-driven recommendation, supported by key insights from target market prioritization. | • Pro-actively uses syntheses to transition from one analysis part to the next, linking analysis findings back to hypothesis and outlining next steps<br>• Presents action-driven recommendation in top-down fashion, starting with big picture of initial case question, explaining how the country prioritization fits in and naming key insights. |

## Appendix: Terminology

| Term | Explanation |
|---|---|
| **Cross-Selling** | The action or practice of selling an additional product or service to an existing customer. |
| **General Insurance (GI)** | General insurance or non-life insurance policies, including automobile and homeowners policies, provide payments depending on the loss from a particular financial event. General insurance is typically defined as any insurance that is not determined to be life insurance. It is called property and casualty insurance in the U.S. and Canada and Non-Life Insurance in Continental Europe. |
| **Life Insurance** | Life insurance (or commonly life assurance) is a contract between an insured and an insurer, where the insurer promises to pay a designated beneficiary a sum of money (the "benefits") in exchange for a premium, upon the death of the insured person. Depending on the contract, other events such as terminal illness or critical illness may also trigger payment. The policy holder typically pays a premium, either regularly or as a lump sum. Other expenses (such as funeral expenses) are also sometimes included in the benefits. On top of "Risk" products, the Life insurance segment also markets pension products. |
| **MECE** | Mutually exclusive (no overlaps between parts of a structure), collectively exhaustive (cover all possible aspects of the solution space). |
| **80/20** | Pareto principle: Roughly 80% of the effects come from 20% of the causes, i.e. if done right, approx. 20% of the effort delivers 80% of the impact. |

# EMEA Trocar Business Case

Johnson & Johnson

**It was the end of the week; Paul Marcun was shutting down for the day, no closer to resolving his dilemma. As Vice President for Ethicon Endo Surgery (EES) in EMEA, he had been working on the business plan for the next financial year when his attention was drawn to the data on the trocar business. It was clear that something was going on in the market and that he needed to quickly get to the bottom of it.**

EES is one of the Johnson & Johnson's medical devices businesses, specialising in products used for open and minimal access surgery as well as advanced energy devices. The business has grown from start-up in 1992 to a $4.7B1 global business. With headquarters in Cincinnati Ohio, its business extends across all regions.

EES led the adoption of laparoscopic surgery globally through innovation in product design, high quality products, professional education and excellent support teams across the world. This contributed to the increase in lap surgery adoption from inception in 1990 to estimated 40% in 2010.

The EES product range for laparoscopic surgery includes access devices (trocars), stapling devices, ligating devices, surgical instruments and advanced energy devices. See video for an example of a laparoscopic gall bladder removal and the use of some of the devices.

# A new way of performing surgery[2]

In 1988, Dr. J. Barry McKernan, after making only a 10mm incision, inserted a laparoscope (or miniature camera) into a patient's abdomen and removed a gall bladder. The patient recovered in days, rather than weeks or months. This was the first laparoscopic cholecystectomy performed in the U.S. and the beginning of the minimally invasive movement in surgery.

Since then, minimally invasive procedures have been changing the way people think about surgery. Patients who choose these innovative procedures over conventional surgery usually have shorter hospital stays and quicker recovery. This means getting back sooner to the things that are important in life.

## How Minimally Invasive Procedures Work

Minimally Invasive Procedures (MIP), which include laparoscopic surgery, use state-of-the-art technology to reduce the trauma to human tissue when performing surgery. For example, in most procedures, a surgeon makes several small ¾ inch incisions and inserts thin tubes called trocars. Carbon dioxide gas may be used to inflate the area, creating a space between the internal organs and the skin. Then a miniature camera (usually a laparoscope or endoscope) is placed through one of the trocars so the surgical team can view the procedure as a magnified image on video monitors in the operating room. Then, specialized instruments are placed through the other trocars to perform the procedures. In some cases, such as minimally invasive colon surgery, a slightly larger incision may be needed.

[See videos provided for examples of basic laparoscopic procedures.]

## Benefits of minimally invasive procedures

Not only do these procedures usually provide equivalent outcomes to traditional "open" surgery (which sometimes require a large incision), but minimally invasive procedures (using small incisions) may offer significant benefits as well:

- **Quicker Recovery**
  Since a minimally invasive procedure requires smaller incisions than conventional surgery, the body may heal much faster.
- **Shorter Hospital Stays**
  Minimally invasive procedures help get patients out of the hospital and back to life sooner than conventional surgery.
- **Less pain**
  Because these procedures are less invasive than conventional surgery, there is typically less pain involved.
- **Less scarring**
  Most incisions are so small that it's hard to even notice them after the incisions have healed.

## Two categories of laparoscopic surgical procedures

- **Basic laparoscopy**
  These are broadly basic procedures that require basic to intermediate laparoscopic skill levels. These include cholecystectomy (gall bladder removal), appendectomy (appendix removal) and a number of basic gynaecological procedures. These procedures are usually completed in less than an hour with relatively few instrument exchanges and often non-cancer cases.
- **Advanced laparoscopy**
  These comprise more advanced procedures requiring advanced laparoscopic surgery skills. These include colorectal (removal of large intestine segments), bariatrics (obesity surgery), thoracic (removal of lung tissue) and advanced gynaecology procedures. These are often cancer related procedures that require longer than one hour to complete and involve relatively larger numbers of instrument exchanges[3].

[2]Information about laparoscopic surgery: http://www.smarterpatient.com/patient/learnmore/minimallyinvasivesurgery

[3]This means that the procedure requires more instances of passing instruments through the trocars and thus the quality of the trocar can have a direct impact on procedure duration.

# The Trocar Market Overview

**Trocars are placed through abdominal incisions to allow laparoscopes and other instruments to enter a patient's body. Because they are used in all laparoscopic procedures, trocar unit (or volume) sale growth will closely correlate to surgical procedure volume growth.**

Trocars are available in EMEA in either disposable or reusable versions:

- **Disposable trocars**
  Consisting of bladeless, bladed, and blunt-tip trocars, will continue to represent the majority of the revenues earned in the trocar market over the next several years. These devices are generally seen as more convenient and safer than reusable devices because they do not carry a risk of biological cross-contamination. Because these devices can only be used once, they generate higher revenues per procedure, which supports market revenues
- **Reusable trocars**
  Cost-conscious hospitals continue to show a preference for reusable trocars, which offer a lower cost per procedure despite a higher upfront price and can be used many times before damage. The preference for reusable trocars is particularly strong in Germany, which typically has a high reuse rate for many medical devices for developed markets, and is also evident in the emerging markets. Manufacturers of disposable devices, however, are responding to this tendency by aggressively marketing the advantages of disposable products. On average, the basic laparoscopic procedures use 3 trocars per case whereas advanced laparoscopic procedures use 5 – 6 trocars per procedure.

The EMEA trocar market, comprising reusable and disposable devices generated revenues of over $452 million in 2010. The continued increase in laparoscopic procedures will lead to steady growth through 2018 (Table 1). Furthermore, as a result of sterilization concerns, there is a strong preference for disposable trocars, which generate higher per-procedure revenues and contribute to greater market growth. By 2018, the EMEA trocar market will be valued at over $575 million, representing a CAGR of approximately 2.98%.

EES and the other leading players in the trocar market are primarily in the disposable market. This market at $335 million in 2010 is growing at 3.65% compared to 0.9% growth in the reusable market.

There are however significant variations in the market between the developed and emerging markets as shown in Table 1.1 & Table 1.2.

# The Trocar Market Overview

Table 1
EMEA Trocar Market Estimates

| Value Market in MUSD | | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | CAGR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total market (Reusable & Disposable)** | $ ' M | $414.46 | $434.72 | $454.82 | $467.16 | $477.61 | $491.40 | $505.63 | $520.78 | $537.09 | $555.71 | $575.11 | 3.01% |
| **Reusable market** | $ ' M | $109.38 | $114.61 | $119.05 | $119.56 | $120.04 | $120.83 | $121.74 | $122.70 | $124.15 | $126.06 | $127.89 | 0.97% |
| **Disposable new market** | $ ' M | $305.08 | $320.11 | $335.77 | $347.60 | $357.57 | $370.56 | $383.88 | $398.08 | $412.94 | $429.66 | $447.23 | 3.67% |
| **EES Sales** | $ ' M | $176.12 | $187.48 | $202.54 | $212.26 | $220.05 | $229.13 | $238.86 | $249.12 | $260.03 | $272.12 | $284.80 | 4.29% |
| **Non-EES Sales** | $ ' M | $128.96 | $132.64 | $133.22 | $135.35 | $137.53 | $141.43 | $145.03 | $148.96 | $152.90 | $157.54 | $162.43 | 2.64% |
| **Total market growth rate** | | | 4.89% | 4.62% | 2.71% | 2.24% | 2.89% | 2.90% | 3.00% | 3.13% | 3.47% | 3.49% | |

Source: Internal Estimates

Table 1.1
Developed Market Trocar Market Estimates

| Value Market in MUSD | | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | CAGR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total market (Reusable & Disposable)** | $ ' M | $324.09 | $334.59 | $349.60 | $358.01 | $364.52 | $373.51 | $382.59 | $391.85 | $401.98 | $412.80 | $423.51 | 2.43% |
| **Reusable market** | $ ' M | $58.32 | $60.13 | $62.93 | $63.53 | $64.12 | $64.84 | $65.61 | $66.30 | $67.28 | $68.21 | $69.18 | 1.23% |
| **Disposable new market** | $ ' M | $265.77 | $274.46 | $286.67 | $294.49 | $300.40 | $308.66 | $316.98 | $325.55 | $334.70 | $344.58 | $354.33 | 2.68% |
| **EES Sales** | $ ' M | $158.16 | $166.09 | $178.95 | $186.21 | $191.42 | $197.42 | $203.77 | $210.16 | $217.08 | $224.27 | $231.49 | 3.16% |
| **Non-EES Sales** | $ ' M | $107.61 | $108.37 | $107.72 | $108.27 | $108.98 | $111.25 | $113.21 | $115.39 | $117.63 | $120.31 | $122.84 | 1.82% |
| **Total market growth rate** | | | 3.24% | 4.49% | 2.41% | 1.82% | 2.47% | 2.43% | 2.42% | 2.59% | 2.69% | 2.59% | |

Source: Internal Estimates

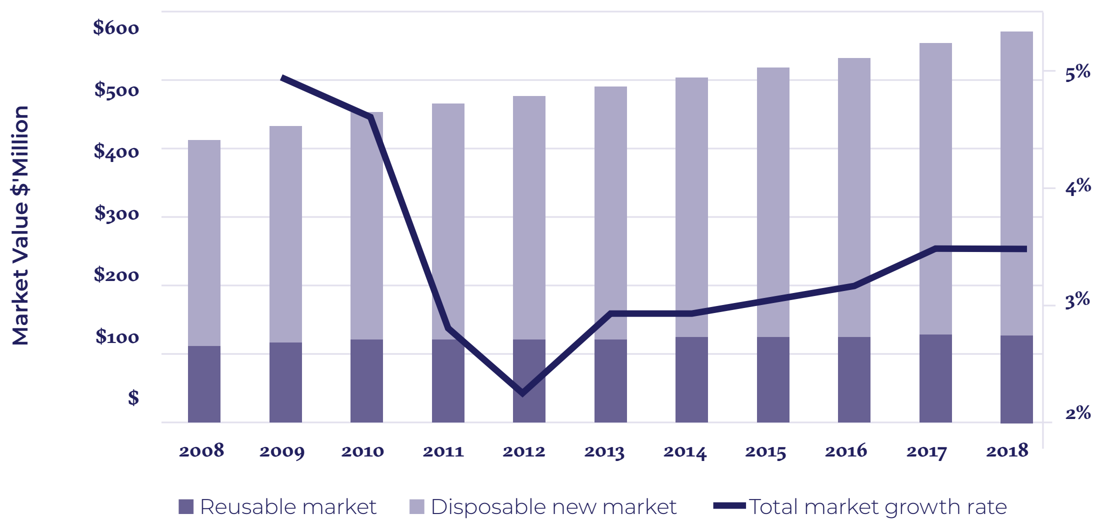
# The Trocar Market Overview (continued)

Table 1.2
Emerging Market Trocar Market Estimates

| Value Market in MUSD | | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | CAGR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total market (Reusable & Disposable) | $ ' M | $90.37 | $100.14 | $105.21 | $109.15 | $113.09 | $117.89 | $123.04 | $128.94 | $135.11 | $142.92 | $151.61 | 4.81% |
| Reusable market | $ ' M | $51.06 | $54.48 | $56.12 | $56.04 | $55.92 | $55.99 | $56.13 | $56.41 | $56.87 | $57.84 | $58.71 | 0.67% |
| Disposable new market | $ ' M | $39.32 | $45.65 | $49.10 | $53.11 | $57.18 | $61.90 | $66.91 | $72.53 | $78.23 | $85.08 | $92.90 | 8.31% |
| EES Sales | $ ' M | $17.96 | $21.39 | $23.59 | $26.04 | $28.63 | $31.72 | $35.08 | $38.96 | $42.96 | $47.85 | $53.31 | 10.78% |
| Non-EES Sales | $ ' M | $21.35 | $24.27 | $25.51 | $27.07 | $28.55 | $30.18 | $31.82 | $33.57 | $35.27 | $37.23 | $39.59 | 5.58% |
| Total market growth rate | | | 10.80% | 5.07% | 3.74% | 3.61% | 4.24% | 4.37% | 4.79% | 4.78% | 5.78% | 6.08% | |

Source: Internal Estimates

EMEA Trocar Market Estimates



## Competitive Landscape[4]

In 2010, Ethicon Endo-Surgery led the European market for trocars with the ENDOPATH XCEL trocar range, followed closely by Covidien. ENDOPATH XCEL is seen as the premium top performing trocar in the market. Both of these firms were successful by holding strong positions in the disposable segment, which generates about 3 times the revenue of the reusable segment (about 5 times in developed markets). Furthermore, both of these companies are well-known international firms with high-quality devices and wide product ranges.

Both of these companies are well positioned to remain leaders in the trocar market through 2015.

Applied Medical held the third-leading position in the disposable trocar market in 2010, and has been rapidly gaining market share in Europe over the last few years, particularly in the UK, Germany, and France. Applied Medical competes in this market by offering its products at a much lower price than Ethicon Endo-Surgery and Covidien, which allows it to secure contracts among cost-conscious hospitals. Applied Medical is also expanding its reach into the emerging markets of EMEA with its low cost offering being very attractive to those markets.

Hospitals in developed markets will typically sign an annual supply contract with a trocar manufacturer so that switching between suppliers during a year is uncommon. However, emerging markets are often tender driven for quarterly purchases.

In the much smaller reusable trocar segment, KARL STORZ is the market leader, followed by Olympus. A few other competitors were also active in the European trocar market, including Richard Wolf, Aesculap (a B. Braun company), and CONMED. See Table 2 for market share estimates. Also see Table 3 for estimated relative pricing.

[4]Source – Millennium Research Group

# Exhibits – Trocar Market Share and Pricing

Table 2
2010 Trocar Market Share Estimates

| | Disposable | Reusable |
|---|---|---|
| EES | 43.4% | |
| Covidien | 42.3% | |
| Applied Medical | 13.2% | |
| KARL STORZ | | 40.6% |
| Richard Wolf | | 20.1% |
| Olyreusables/Gyrus-ACMI | | 19.8% |
| Aesculap (a B. Braun company) | | 7.3% |
| Other | 1.1% | 12.2% |
| | 100.0% | 100.0% |

Source: Internal Estimates

Table 3
2010 Disposable Trocar Relative Prices

| | |
|---|---|
| EES | 100 |
| Covidien | 70 |
| Applied Medical | 50 |

Source: Internal Estimates

# Significant trends

Reports from the market have highlighted the following key trends in the markets:

- **Growing Minimal Invasive Procedure Adoption**
  Countries all across the EMEA region are increasingly adopting laparoscopy with MIP penetration rate of 37% overall. For basic procedures in developed markets, the penetration rates are over 70% while emerging countries are still below 50%. The MIP penetration rates are expected to increase into 2018, mostly in the advanced laparoscopy segment aided by improved physician skills and acceptance by health technology assessment bodies of laparoscopy as recommended over open procedures[5]. See Table 4 for procedure volume forecasts into 2018
- **Global economic performance**
  The recent recession and current sovereign debt crisis across much of Europe has led to cuts in government spending across the region. In developed markets, government healthcare spending is declining by up to 10% in some countries. In emerging markets, the reverse has occurred where countries are posting good GDP growth and increasing healthcare spend
- **Increasing power of non-clinical stakeholders**
  The role of the physicians as the primary decision maker in the selection of medical consumables has been changing over several years to a point where hospital administration staff now have equal or greater roles in product selection. This has increased the role of price in purchase decisions for hospitals across the region
- **Growth of low cost competitors**
  There are increasing numbers of low cost manufacturers entering the trocar market, targeting customers in both the developed and emerging markets. Whereas the quality and performance of the low cost competitor products are usually 30% – 50% below the levels for the premium products[6], the quality is perceived to be improving especially for basic laparoscopic procedures
- **Reuse of trocars**
  Disposable trocars are often re-sterilised and reused in the emerging markets of the region. Given infection risks, the trend is not observed in the developed markets but it is estimated that trocars are used approximately 1.8 times in the emerging markets. The main identified motivation for reuse is cost reduction as the price of a trocar is spread across multiple uses. However improving patient awareness and regulatory environment in the emerging markets may reduce level of reuse
- **Single port laparoscopy**
  In Europe, there is considerable interest in the use of single-port laparoscopy devices, which are generally priced at a premium. Whereas adoption rates are still very low (less than 1% of laparoscopic procedures), industry sources expect that the use of these devices will increase over the forecast period, driven by improved physician training, favourable results from clinical studies, and patient demand for the single-port technique[7]. EES piloted a Single Site Laparoscopy (SSL) port in 2009 but has not executed a full launch.

[5]See https://www.nice.org.uk/guidance/ta105 for a recent National Institute for Health and Clinical Excellence review of laparoscopic colorectal surgery.

[6]This is an internal estimate based on comparative performance in ease of entry, maintenance of gas pressure and trocar retention.

[7]http://en.wikipedia.org/wiki/Single_port_laparoscopy

# Exhibits – Procedure Volume Forecasts

Table 4
EMEA Procedure Volume Estimates

| | | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | CAGR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Basic Procedures (Colecystectomy/ Appendectomy) | All | 2,282,935 | 2,303,834 | 2,326,732 | 2,352,441 | 2,378,569 | 2,406,448 | 2,437,089 | 2,468,000 | 2,501,276 | 2,537,792 | 2,572,539 | 1.3% |
| Advanced (C/R, Upper GI Bariatrics, Thoracic, GYN) | All | 4,135,559 | 4,185,850 | 4,244,855 | 4,311,092 | 4,382,959 | 4,460,659 | 4,545,794 | 4,638,349 | 4,738,215 | 4,846,028 | 4,962,955 | 2.0% |
| **Total** | **All** | **6,418,494** | **6,489,684** | **6,571,588** | **6,663,533** | **6,761,528** | **6,867,106** | **6,982,883** | **7,106,349** | **7,239,491** | **7,383,821** | **7,535,494** | **1.8%** |
| Basic Procedures (Colecystectomy/ Appendectomy) | MIP | 1,246,869 | 1,280,670 | 1,316,508 | 1,350,742 | 1,384,296 | 1,421,170 | 1,458,320 | 1,498,339 | 1,538,319 | 1,580,051 | 1,619,553 | 2.6% |
| Advanced (C/R, Upper GI Bariatrics, Thoracic, GYN) | MIP | 1,007,550 | 1,055,464 | 1,112,072 | 1,170,441 | 1,230,685 | 1,296,067 | 1,368,130 | 1,446,420 | 1,533,931 | 1,631,512 | 1,730,457 | 5.7% |
| **Total** | **MIP** | **2,254,419** | **2,336,134** | **2,428,580** | **2,521,183** | **2,614,981** | **2,717,237** | **2,826,450** | **2,944,759** | **3,072,250** | **3,211,563** | **3,350,010** | **4.1%** |
| Basic Procedures (Colecystectomy/ Appendectomy) | Open | 1,036,066 | 1,023,164 | 1,010,225 | 1,001,698 | 994,273 | 985,278 | 978,769 | 969,661 | 962,957 | 957,742 | 952,986 | -0.7% |
| Advanced (C/R, Upper GI Bariatrics, Thoracic, GYN) | Open | 3,128,009 | 3,130,387 | 3,132,783 | 3,140,652 | 3,152,274 | 3,164,592 | 3,177,665 | 3,191,929 | 3,204,284 | 3,214,516 | 3,232,499 | 0.4% |
| **Total** | **Open** | **4,164,075** | **4,153,550** | **4,143,008** | **4,142,350** | **4,146,547** | **4,149,870** | **4,156,434** | **4,161,590** | **4,167,241** | **4,172,257** | **4,185,485** | **0.1%** |
| MIP adoption rate | All | 35.1% | 36.0% | 37.0% | 37.8% | 38.7% | 39.6% | 40.5% | 41.4% | 42.4% | 43.5% | 44.5% | |
| MIP adoption rate | Basic | 54.6% | 55.6% | 56.6% | 57.4% | 58.2% | 59.1% | 59.8% | 60.7% | 61.5% | 62.3% | 63.0% | |
| MIP adoption rate | Advanced | 24.4% | 25.2% | 26.2% | 27.1% | 28.1% | 29.1% | 30.1% | 31.2% | 32.4% | 33.7% | 34.9% | |

Source: Internal Estimates

# Exhibits – Procedure Volume Forecasts (continued)

Table 4.1
Developed Market Procedure Volume Estimates

| | | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | CAGR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Basic Procedures (Colecystectomy/ Appendectomy) | All | 1,209,328 | 1,212,049 | 1,214,937 | 1,217,996 | 1,221,216 | 1,224,605 | 1,228,157 | 1,231,872 | 1,235,756 | 1,239,807 | 1,244,000 | 0.3% |
| Advanced (C/R, Upper GI Bariatrics, Thoracic, GYN) | All | 1,996,229 | 2,023,605 | 2,054,721 | 2,089,054 | 2,126,429 | 2,167,315 | 2,212,570 | 2,261,866 | 2,315,776 | 2,374,163 | 2,437,496 | 2.2% |
| **Total** | **All** | **3,205,558** | **3,235,654** | **3,269,658** | **3,307,050** | **3,347,645** | **3,391,920** | **3,440,727** | **3,493,738** | **3,551,533** | **3,613,971** | **3,681,496** | **1.5%** |
| Basic Procedures (Colecystectomy/ Appendectomy) | MIP | 828,433 | 847,506 | 865,529 | 880,659 | 895,404 | 910,254 | 925,320 | 940,611 | 956,129 | 969,854 | 982,406 | 1.6% |
| Advanced (C/R, Upper GI Bariatrics, Thoracic, GYN) | MIP | 661,447 | 698,497 | 740,114 | 783,019 | 825,315 | 871,344 | 921,507 | 974,670 | 1,033,657 | 1,096,465 | 1,158,590 | 5.8% |
| **Total** | **MIP** | **1,489,880** | **1,546,003** | **1,605,643** | **1,663,678** | **1,720,719** | **1,781,598** | **1,846,827** | **1,915,282** | **1,989,786** | **2,066,318** | **2,140,997** | **3.7%** |
| Basic Procedures (Colecystectomy/ Appendectomy) | Open | 380,895 | 364,543 | 349,407 | 337,337 | 325,812 | 314,351 | 302,838 | 291,260 | 279,628 | 269,954 | 261,593 | -3.6% |
| Advanced (C/R, Upper GI Bariatrics, Thoracic, GYN) | Open | 1,334,783 | 1,325,108 | 1,314,608 | 1,306,034 | 1,301,114 | 1,295,970 | 1,291,063 | 1,287,196 | 1,282,119 | 1,277,698 | 1,278,906 | -0.3% |
| **Total** | **Open** | **1,715,678** | **1,689,651** | **1,664,015** | **1,643,372** | **1,626,926** | **1,610,321** | **1,593,900** | **1,578,456** | **1,561,747** | **1,547,652** | **1,540,499** | **-0.9%** |
| MIP adoption rate | All | 46.5% | 47.8% | 49.1% | 50.3% | 51.4% | 52.5% | 53.7% | 54.8% | 56.0% | 57.2% | 58.2% | |
| MIP adoption rate | Basic | 68.5% | 69.9% | 71.2% | 72.3% | 73.3% | 74.3% | 75.3% | 76.4% | 77.4% | 78.2% | 79.0% | |
| MIP adoption rate | Advanced | 33.1% | 34.5% | 36.0% | 37.5% | 38.8% | 40.2% | 41.6% | 43.1% | 44.6% | 46.2% | 47.5% | |

Source: Internal Estimates

# Exhibits – Procedure Volume Forecasts (continued)

Table 4.2
Emerging Market Procedure Volume Estimates

| | | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | CAGR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Basic Procedures (Colecystectomy/ Appendectomy) | All | 1,073,606 | 1,091,785 | 1,111,796 | 1,134,445 | 1,157,353 | 1,181,842 | 1,208,932 | 1,236,128 | 1,265,520 | 1,297,985 | 1,328,539 | 2.3% |
| Advanced (C/R, Upper GI Bariatrics, Thoracic, GYN) | All | 2,139,330 | 2,162,245 | 2,190,134 | 2,222,039 | 2,256,530 | 2,293,344 | 2,333,225 | 2,376,483 | 2,422,439 | 2,471,865 | 2,525,459 | 1.8% |
| **Total** | **All** | **3,212,936** | **3,254,030** | **3,301,930** | **3,356,484** | **3,413,883** | **3,475,186** | **3,542,156** | **3,612,611** | **3,687,958** | **3,769,850** | **3,853,999** | **2.0%** |
| Basic Procedures (Colecystectomy/ Appendectomy) | MIP | 418,435 | 433,164 | 450,978 | 470,083 | 488,892 | 510,915 | 533,000 | 557,728 | 582,190 | 610,197 | 637,147 | 4.4% |
| Advanced (C/R, Upper GI Bariatrics, Thoracic, GYN) | MIP | 346,103 | 356,967 | 371,958 | 387,422 | 405,370 | 424,723 | 446,623 | 471,749 | 500,274 | 535,048 | 571,866 | 5.7% |
| **Total** | **MIP** | **764,539** | **790,131** | **822,936** | **857,505** | **894,262** | **935,638** | **979,623** | **1,029,477** | **1,082,464** | **1,145,245** | **1,209,013** | **5.0%** |
| Basic Procedures (Colecystectomy/ Appendectomy) | Open | 655,171 | 658,621 | 660,818 | 664,361 | 668,461 | 670,927 | 675,931 | 678,400 | 683,329 | 687,788 | 691,392 | 0.6% |
| Advanced (C/R, Upper GI Bariatrics, Thoracic, GYN) | Open | 1,793,226 | 1,805,279 | 1,818,176 | 1,834,617 | 1,851,160 | 1,868,621 | 1,886,602 | 1,904,733 | 1,922,165 | 1,936,817 | 1,953,593 | 0.9% |
| **Total** | **Open** | **2,448,397** | **2,463,899** | **2,478,993** | **2,498,979** | **2,519,621** | **2,539,548** | **2,562,533** | **2,583,134** | **2,605,494** | **2,624,605** | **2,644,985** | **0.8%** |
| MIP adoption rate | All | 23.8% | 24.3% | 24.9% | 25.5% | 26.2% | 26.9% | 27.7% | 28.5% | 29.4% | 30.4% | 31.4% | |
| MIP adoption rate | Basic | 39.0% | 39.7% | 40.6% | 41.4% | 42.2% | 43.2% | 44.1% | 45.1% | 46.0% | 47.0% | 48.0% | |
| MIP adoption rate | Advanced | 16.2% | 16.5% | 17.0% | 17.4% | 18.0% | 18.5% | 19.1% | 19.9% | 20.7% | 21.6% | 22.6% | |

Source: Internal Estimates

# Paul's dilemma

The data from the field was showing increasing price pressure in the trocar business with more customers considering the lower cost trocars as a way to reduce procedure input costs. It increasingly looks like the ENDOPATH XCEL will struggle to maintain its market share at the current price point. A number of marketing teams from countries in the region are considering price changes to respond to the growing low cost competition. This will have significant implications on the business plan numbers for next year and into the strategic planning horizon. He also has two projects to consider in deciding a plan for the trocar business.

### ENDOPATH XCEL trocar upgrade

There has been very limited innovation in the trocar product space. The product technology has largely remained the same over the last 20 years with only limited enhancements made by the leading competitors. However, EES has been working on some significant enhancements to the ENDOPATH XCEL range which would significantly improve its performance by addressing some of the key concerns reported by physicians in performing laparoscopic surgery.

### The BASX project

EES has developed a new range of trocars called BASX. These trocars are suitable for basic laparoscopic procedures but not considered ideal for advanced procedures[8]. There is the possibility to launch this product. The manufacturing and distribution costs of the BASX will be similar to the ENDOPATH XCEL so that there will be gross margin variation with ENDOPATH XCEL based on the relative price decided.

[8]The BASX performance is estimated at 30% - 40% below XCEL performance.

# Your challenge

Paul needs to make some decisions and has scheduled a meeting with EES President to discuss his plans and requires your advice.

Questions to answer:

1. As Paul, would you recommend the launch of BASX and at what segment / market should it be positioned? If decided to launch, at what price relative to the ENDOPATH XCEL range?
2. What change (if any) would you make to the positioning of the XCEL trocars range? What will be the revenue impact?
3. What (if any) wider strategic recommendation would you make to the Company President regarding the trocar portfolio in EMEA?
4. What steps and/or other considerations would you propose for implementing your recommendations?

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