



UNIVERSITY OF  
CAMBRIDGE

# Cracking the Case Interview

An employer-led skills session with ZS Associates

19<sup>th</sup> October, 2011

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# Agenda

## § Objectives

## § Introduction to ZS

## § How to approach case interviews

## § Applying to ZS

## § Q&A

## Questions we hope to answer in today's session

- § What is a case interview?
- § What are some possible case interview questions?
- § What makes students successful?
- § How can I prepare for a case interview?
- § How can I apply to ZS Associates?
- § Any other relevant questions you might want to ask – we will make time for these at the end...

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## Who are ZS Associates?

With more than **2,000 professionals** in **20 offices around the world**, ZS Associates is a global leader in sales and marketing consulting, with a strong focus on the pharmaceutical, biotech and medical products industry



BARCELONA • BOSTON • CHICAGO • EVANSTON • FRANKFURT • LONDON • LOS ANGELES • MILAN • NEW DELHI •  
NEW YORK • PARIS • PHILADELPHIA • PRINCETON • PUNE • SAN DIEGO • SAN FRANCISCO • SHANGHAI • TOKYO • TORONTO • ZURICH

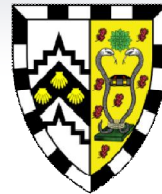
Our practice areas address a wide range of sales and marketing issues, combined with a complete and integrated range of services



## ZS Cambridge alumni presenting today...



**Paul Berg**  
Consultant  
London Office

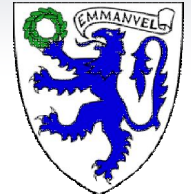


**Gonville & Caius College**  
BA, MSci, Natural Sciences (Chemistry)

- Joined ZS as a Business Analyst in 2005
- Conducted projects on a wide range of issues:
  - commercial organisation design
  - sales force sizing and alignment
  - customer targeting
  - incentive plan design
  - clinical development pipeline strategy
  - opportunity assessment
  - market research
- Has worked in a wide variety of therapeutic areas, including oncology, neurology, dermatology and rheumatology
- Has worked in a broad range of markets including Australia, China, South Africa, and many European and South American countries



**Raluca Cenușă**  
Business Analyst  
London Office



**Emmanuel College**  
BA, MEng, Biomedical Engineering

- Joined ZS as a Business Analyst in 2010
- Has employed both quantitative and qualitative analysis in a variety of projects including:
  - sales force sizing and alignment
  - hospital market access
  - commercial organisational design
  - market research
- Has worked in a range of industries including:
  - pharmaceuticals
  - medical devices
  - consumer products
- As a Spanish speaker, Raluca has spent time working in the ZS Barcelona office and has also undertaken projects in many other European countries.

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# Consulting interviews commonly fall into two categories

## Fit interview (behavioural)

- § Character match with the firm values
- § Ability to communicate in a clear and concise manner
- § Test for emotional intelligence and business acumen
- § Possession of self-confidence, team spirit and leadership attributes
- § Demonstration of dedication for the job and self motivation

## Case interview (analytic)

- § Evaluate basic consulting skills
  - Problem structuring, analysis and synthesis
  - Quantitative ability
  - Creativity and business judgment
- § Demonstrate “what we really do”
  - Ambiguous problems
  - Insufficient information and time
  - Pressure to quickly develop potential solutions

# Most consulting firms conduct a combination of fit and case interviews

## First Round

- One or two interviews
- Expect both fit and case questions
- First round decisions are generally made in the same day

## Second Round

- A series of interviews (at least one with a partner)
- Expect both fit and case questions
- An informational session with an analyst is also very common
- Most companies extend offers shortly after the second round
- This is a half day commitment might include lunch / dinner and possibly an overnight stay

## Third Round

(happens occasionally)

- Meet with one or more partners
- Possibly some further case exercises

If consulting seems like a good fit for you, spend the time to appropriately prepare for interviews

§ **Research the industry and companies** (demonstrate your focus)

- On-campus presentations
- Company websites
- Industry guides (Vault, WetFeet, etc.)
- Cambridge Careers centre

§ **Practice cases** (performance will improve exponentially)

- Company websites
- Vault Case and WetFeet Interview Guides
- Case Interview Books

**Prepare, Prepare, Prepare!**

- Form an interview case group with your friends (give and receive feedback)
- Have extra copies of your CV, transcript and test scores
- Be ready for the obvious behavioral interview questions
- Have stories ready that demonstrate important qualities
- Look your best with no exaggeration (details are important!)

Have some smart questions ready for your interviewers. Stay calm and think through your answers!

# Case Interviews vary between companies but have some general similarities

## § There are 4 main types of case interviews:

- Market Sizing
- In-tray (many consulting companies)
- Business Problem (many consulting companies)
- Brain Teasers

## § Case Interviews usually last between 30 – 45 minutes (excluding prep time)

- Occasionally, you are given “prep time” (45 – 60 minutes) to work on the case before meeting with an interviewer to discuss your thoughts (especially for in-tray cases)

## § The interview is an interactive dialogue between you and the interviewer

- Case interviews are designed so that you should continually be asking questions and “thinking aloud”
- The interviewer will often steer you in the direction they think you should go, and you should follow their lead

## § There is often time for you to ask questions following the interview

- Cases are often based on actual projects and you may be interested in knowing the outcome

The key to success in case interviews is to follow a structured pattern and identify issues



- Ensure complete understanding of the question at hand
- Develop an approach to solve the problem
- Identify the important issues
- Request information to test hypothesis
- Identify specific opportunities
- Make solid recommendations about the action that needs to be taken

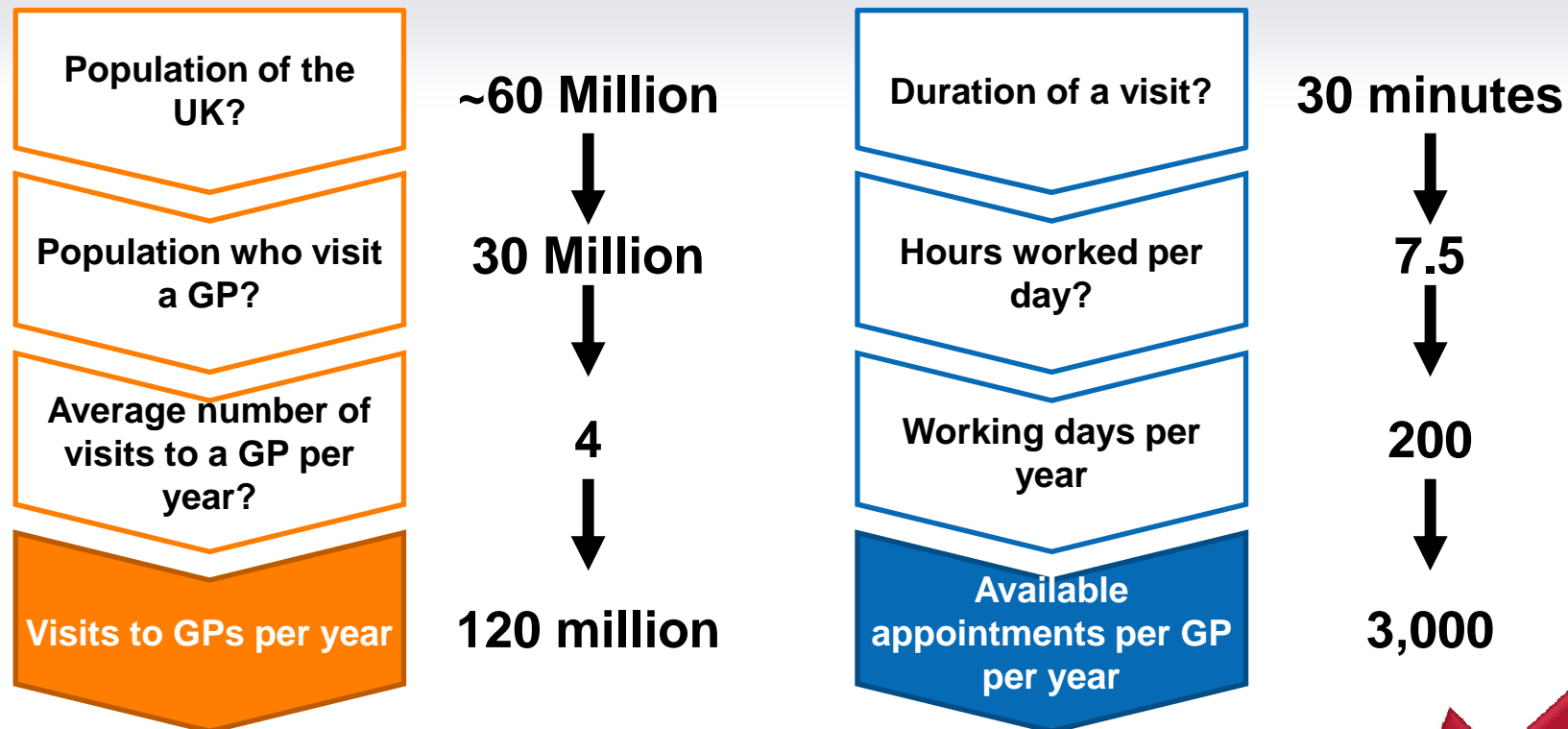
- **Do not jump to conclusions even if you think you know the answer!**
- **Walk the interviewer through your thought process**
- **For many case studies, there is no right or wrong answer to the questions. Your method of approaching complex issues is what matters the most**

# Market sizing example: How many GPs are there in the UK?

Here's one possible approach:

- § Propose a top-down methodology
- § Start with something you know
- § Filter down using reasonable assumptions

## How does this approach work in practice?



### Calculation:

- 30 million people x 4 visits per year = 120 million visits
- One GP can see 2 people per hour x 7.5 hours per day x 200 working days per year = 3,000 appointments per year
- 120 million / 3,000 = about 40,000 GPs

Actual number  
of GPs in the  
UK is about  
41,000

# Common mistakes when tackling market sizing questions...

## Not structuring the problem

- Ask clarifying questions if needed
- Tell the interviewer how you are going to approach the question before you begin

## Making the numbers difficult for yourself

- Try to use round(-ish) numbers if possible
- Do each operation one step at a time to eliminate the risk of mistakes

## Making unreasonable assumptions

- Don't pick a starting number that you are totally unable to verify
- Use your real-world judgement to make sure your assumptions and outcomes seem realistic

## Miscalculating

- Decimal points / orders of 10 can easily be mis-carried under interview pressure
- Feel free to use scientific notation to avoid simple errors

## Over-communicating / lacking confidence

- Having defined your approach, an interviewer wants to see you carry it through
- Don't look for affirmation from the interviewer at every step... but take hints if offered!





**Any questions about market sizing cases?**

In-tray cases provide the candidate with a large amount of information, requiring a quick assessment and analysis

### **Introduction** (sometimes)

- You will be provided with an overview of the business case situation and some supporting documents
- Sometimes, this will be done via one (or more) of the documents that make up the case, rather than face-to-face with the interviewer

### **Preparation** (on your own)

- Review the documents for their content and relevance
- Understand the business problem and how the case material can help
- Construct an approach to solve the problem
- Perform any analysis needed to address the problem
- Develop a recommendation

### **Debrief** (with the interviewer)

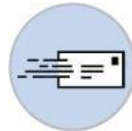
- Discuss the case issues with the interviewer
- Talk through the analysis you have performed
- Explain your recommendation
- Describe any next steps that could be done if more time were available

### **Closing** (sometimes)

- Sometimes, there will be some follow-ups – these can vary from consultancy to consultancy
- You might be asked to:
  - Update your analysis based on the debrief
  - Create some slides to communicate the recommendation
  - Present to other interviewers
  - ...

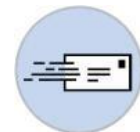
# In-tray example: Our company is opening a new office. How should we acquire the new office space?

To: interviewee@zsassociates  
From: Joy@zsassociates  
Re: Office options



Hi,  
I've sourced quotes for the long and short-term lease options on the office block at 25 North Street – they told me over the phone that the short-term lease is only available on the smaller unit. Also attached is the agreement in principle for the mortgage on 16 Oriel Place, information about building management charges and council rates. Can you please start working out our best option, and I'll come and discuss with you in 45 minutes?  
Thanks,  
Joy

To: Joy@zsassociates  
From: finance@OfficeSpace  
Re: Enquiry re: 25 North Street



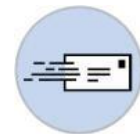
Dear Joy,  
Thank you for your enquiry. We have two units in our 25 North Street property: one at 1,000 m<sup>2</sup> on the third floor and one at 2,500 m<sup>2</sup> on the sixth floor. Both are available for £500 per m<sup>2</sup> per year under our standard rental terms of a 10 year lease. We should be able to arrange a short-term option for you of two years for a 10% premium. We require a deposit equivalent to a year's rent. Please let us know if you would like to proceed.  
Sincerely,  
Raluca

## In-tray example: Our company is opening a new office. How should we acquire the new office space?



To: Joy@zsassociates  
From: counciltax@londonboroughA  
Re: Rates for Oriel Place

Dear Joy,  
Thank you for your enquiry. The office property at 16 Oriel Place is currently liable for rates of £100 per m<sup>2</sup> per annum.  
Kind regards,  
Felicity

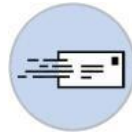


To: Joy@zsassociates  
From: taxman@councilB  
Re: Rates for North Street

Dear Joy,  
Our annual rates for new office properties in North Street are currently £12 per square foot. We expect this to rise to £14 next year.  
Kind regards,  
Andrew

# In-tray example: Our company is opening a new office. How should we acquire the new office space?

To: Joy@zsassociates  
From: Chris@zsassociates  
Re: Headcount plans

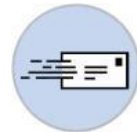


Hi Joy,  
Headcount plans for the next few years are as follows:

2011	2012	2013	2014	2015
70	75	80	95	110

Please use these assumptions for the office planning.  
Regards,  
Chris

To: Chris@zsassociates  
From: stephen@architectsanonymous  
Re: New office layout



Hi Chris,  
Further to our discussion about the office fixtures and fittings, the predominantly open plan solution would need about 110 square feet per person before it begins to feel cramped. If you want walled offices this rises to more like 200 sq ft per person.

Other features we discussed were:

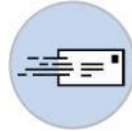
- A reception at 400 sq ft
- A large meeting room at 800 sq ft
- A small meeting room at 300 sq ft
- A kitchen at 150 sq ft
- A server room at 200 sq ft

Please get in touch if you have questions!

Regards,  
Stephen

# In-tray example: Our company is opening a new office. How should we acquire the new office space?

To: Chris@zsassociates  
From: Karine@VictoriaEstates  
Re: 16 Oriel Place



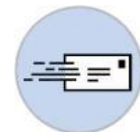
Dear Chris,

Thank you for meeting us earlier this week and visiting the property at Oriel Place. To confirm the building specifications, details are as follows:

- 35,000 sq ft of floor space on the 5<sup>th</sup> floor
- 24-hour manned ground-floor security
- The seller currently has this listed for £15 million, but it has been on the market for some time

Kind regards,  
Karine

To: Chris@zsassociates  
From: Natasha@bizmoney  
Re: Agreement in principle



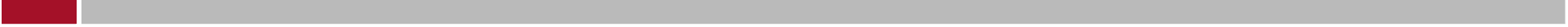
Hi Chris,

Thanks for submitting the mortgage forms for 16 Oriel Place.

We are pleased to confirm an agreement in principle for a business mortgage of £12,000,000 at 4% interest, providing this does not exceed 80% of the property value. Over an 8 year term, monthly payments would be £140,000.

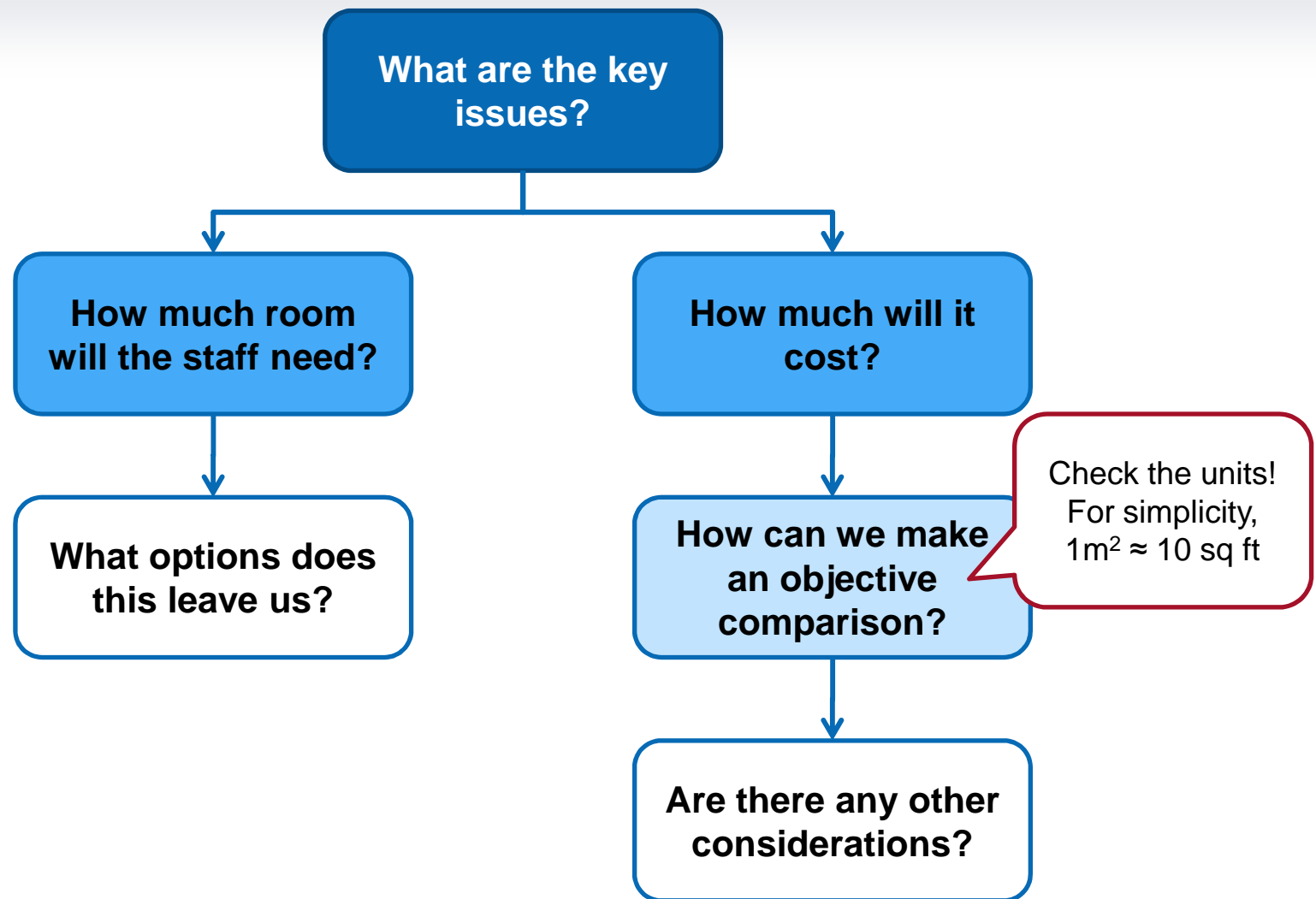
Yours sincerely,  
Natasha

In-tray example: Our company is opening a new office. How should we acquire the new office space?



**How would you approach this case?**

This is one approach...





How much space does each member of staff get in each option?

		North St small unit – short let	North St large unit – long let	North St both units – long let	Purchase Oriel Place
Total space (sq ft)		10,000	25,000	35,000	35,000
Fixed non-personal space		1,850	1,850	1,850	1,850
Personal space		8,150	23,150	33,150	33,150

Year	Headcount	Personal space per head (sq ft)			
2011	70	116	331	474	474
2012	75	109	309	442	442
2013	80	102	289	414	414
2014	95	86	244	349	349
2015	110	74	210	301	301

Take-away: There is no need to calculate the long-term lease on the small rental unit, as it will not meet space requirements

## How much do our available options cost?

	North St small unit – short let	North St large unit – long let	North St both units – long let	Purchase Oriel Place
Rent/area (sq ft)	55	50	50	-
Rates/area (sq ft)	14	14	14	10
Area (sq ft)	10,000	25,000	35,000	35,000
Annual rent	550,000	1,250,000	1,750,000	1,680,000
Annual rates	140,000	350,000	490,000	350,000
Annual total	690,000	1,600,000	2,240,000	2,030,000
One-off deposit	550,000	1,250,000	1,750,000	3,000,000

Note the conversion to directly comparable units – this table has converted all quantities to square feet

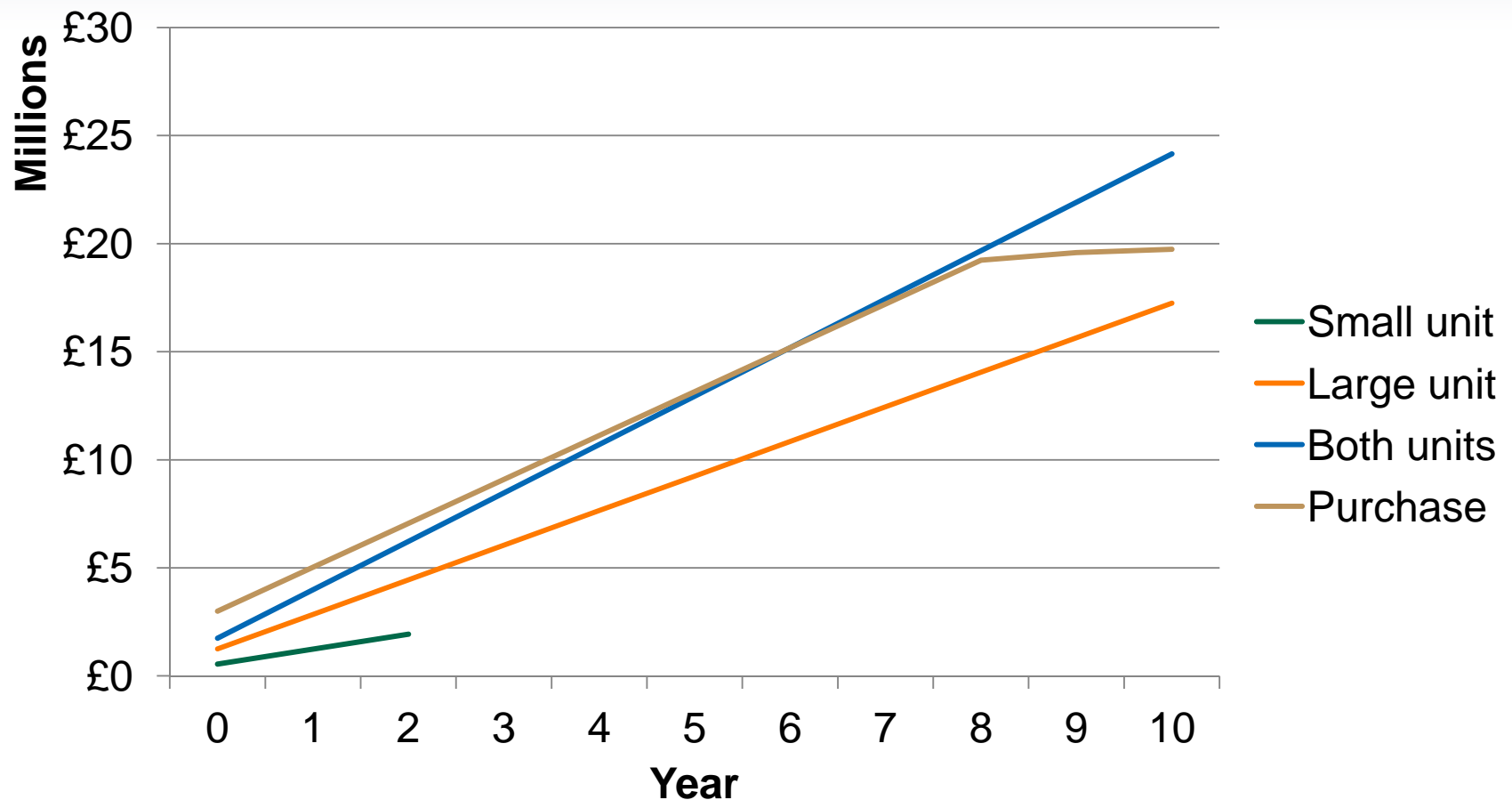
## What's the cumulative cost year-on-year?

Numbers of years	North St small unit – short let	North St large unit – long let	North St both units – long let	Purchase Oriel Place
0	550,000	1,250,000	1,750,000	3,000,000
1	1,240,000	2,850,000	3,990,000	5,030,000
2	1,930,000	4,450,000	6,230,000	7,060,000
3		6,050,000	8,470,000	9,090,000
4		7,650,000	10,710,000	11,120,000
5		9,250,000	12,950,000	13,150,000
6		10,850,000	15,190,000	15,180,000
7		12,450,000	17,430,000	17,210,000
8		14,050,000	19,670,000	19,240,000
9		15,650,000	21,910,000	19,590,000
10		17,250,000	24,150,000	19,740,000

Graphing this would be an easy way to see where the cheapest cost option changes

Mortgage is paid off after 8 years, so only need to add rates...

Drawing a graph is a good way of clearly visualising your analysis



In many case studies, there might be questions that data analysis can't definitively answer – raise these with your interviewer!

§ You have an incomplete set of information

- Joy's introductory email mentions building management charges, but none of the other documents set out what these will cost
- Are there any other costs that haven't been considered? Utilities, etc.
- Would considering inflation affect the outcome?

§ How will the headcount plan evolve after 2015?

- The available space per person falls considerably as headcount rises – if the plan is for headcount to continue to rise, this unit might become too small
- If the headcount does not rise, there is the option to let a part of the space in Oriel Place

§ We could consider renting both the large and small units

- What happens to the office dynamic if we place personnel on different floors of the same building?

§ At 6 years, the cumulative cost of renting both units is comparable to the purchase option

- How long does the company intend to stay in this office?
- Does the company have £3 million available for the deposit?
- What is the difference in locations between the two offices? How does this affect hiring and retention?

§ Further qualitative reasons might make the purchase option more attractive

- The building will have some resale value once the loan is paid off, whereas rental costs cannot be recouped
- The estate agent's email mentions the building has been on the market for a while – could we negotiate the cost down?

§ There may be other factors we haven't thought of!

# Common mistakes when tackling in-tray cases...

## **Not assimilating all the information**

- You will usually need to refer to all the documents to solve the case
- There might be some red herrings, but it's rare for any material to be completely irrelevant – you need to read them all before you can discard any

## **Not organising yourself**

- Some documents may be more useful than others – it's fine to prioritise these, but you need to be sure you've picked the right ones

## **Failing to define the business problem**

- The materials won't always spell out the issues for you
- As with the market sizing, you need to structure your approach
- The in-tray showcases your ability to create a problem solving method

## **Failing to do any quantitative analysis**

- In-tray exercises allow a lot of prep time, so often involve numbers
- If you haven't done any maths or drawn at least one graph, you've probably missed something!

## **Poor communication during the debrief**

- One half of consulting is creating the right answer; the other half is explaining it to the client – the debrief is your chance to prove you can do both
- If the case is structured with follow-up time, listen carefully to instructions from the interviewer



# **Any questions about in-tray cases?**

Business problem cases typically give you a situation overview and ask you to structure an approach to tackling the problem

- § I run a small coffee shop that has been in my family for over 30 years
- § Recently, I learned that Starbucks has bought the lease on a unit just around the corner
- § Starbucks will be opening in 3 months' time
- § I'm worried about what this means for my business, and want your advice

**How would you approach this issue?**



# What information might you need to solve this case?

§ Where is the coffee store?

Are there other coffee stores nearby already?

§ What does the store serve?

§ How do prices compare to Starbucks?

Can a family store afford a price war with Starbucks?

§ How many customers does the store get at the moment?

§ What is the minimum number of customers needed to break even?

How could you break this down if the “owner” doesn’t know the answer?

§ What are the store’s costs and overheads?

How much control would the “owner” have over these?

# Common mistakes when tackling business situation cases...

## **Assuming the answer**

- The interviewer is unlikely to have given you all of the information in one go
- Ask some questions; make sure you know as much as you reasonably can

## **Not tackling the problem**

- It is possible to ask too many questions!
- As soon as you believe you have the core information, begin proposing an approach – you can always ask “top-up” questions later in the conversation

## **Lack of creativity**

- Often, these types of cases are open-ended – there is probably more than one way forward
- Poor candidates often get their first “good” idea and stick with it throughout, instead of exploring the issues some more

## **Over-confidence**

- Interviewers will probably probe and challenge your answers
- Justify your approach, but don't get defensive – show a willingness to be flexible and consider other options



**Any questions about business  
problem cases?**

## Recap: What can you do to prepare?

### § Use the resources available at the Careers Service

- Discussions with Careers Advisers
- Example case study questions

### § Research company websites before you go to interview

- Understand as best as possible the type of work they do
- Some companies have sample case studies on their careers sites

### § Recommended reading:

- The Vault Guide to the Case Interview – Mark Asher and Eric Chung
- Ace Your Case series of WetFeet Insider Guides – WetFeet.com
- Great Answers to Tough Interview Questions – Martin Yate

### § Approach case interviews with the right mind-set

- Ask questions
- Structure the problem
- Be open-minded and creative
- Expect to do some maths!

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§ Objectives

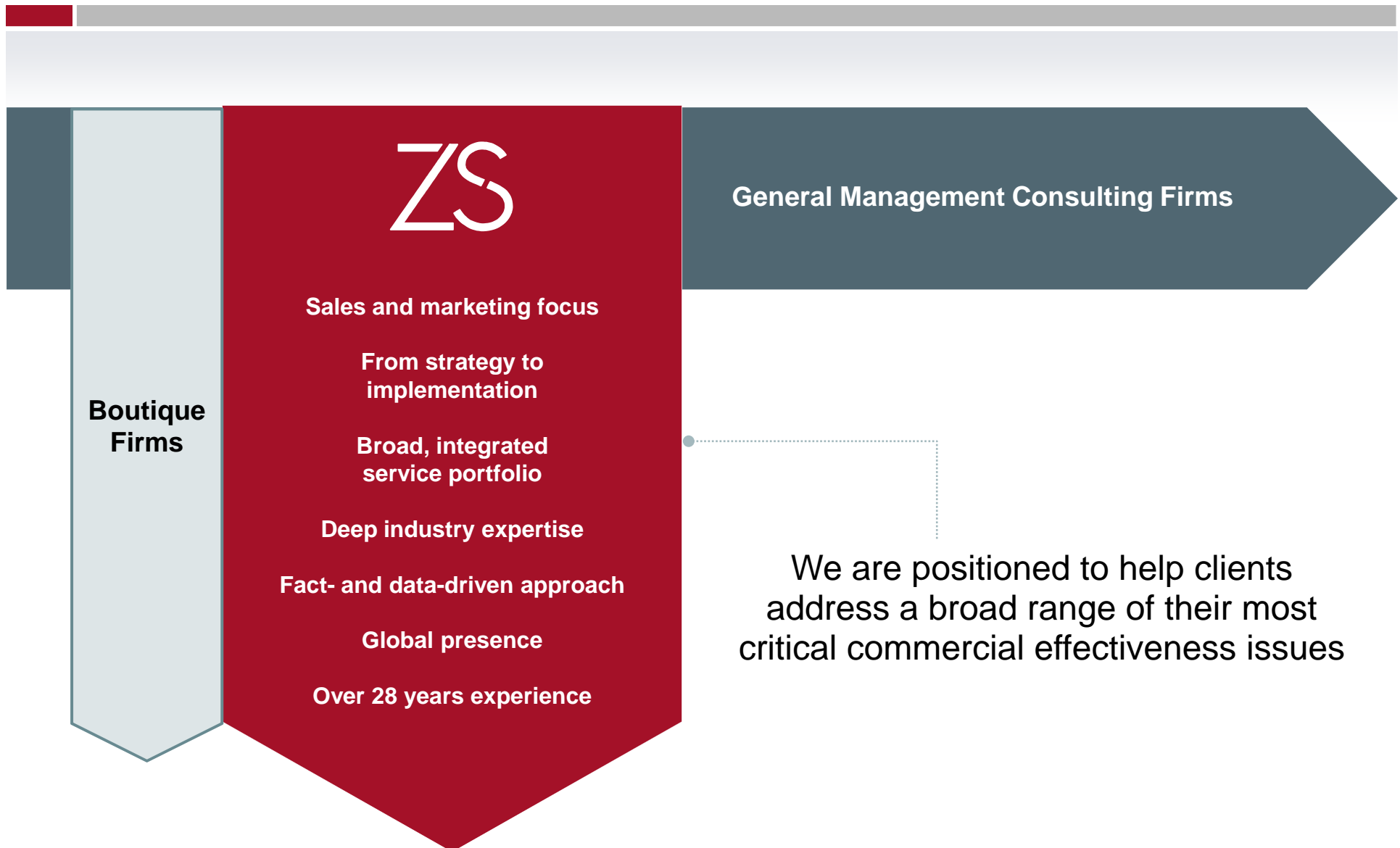
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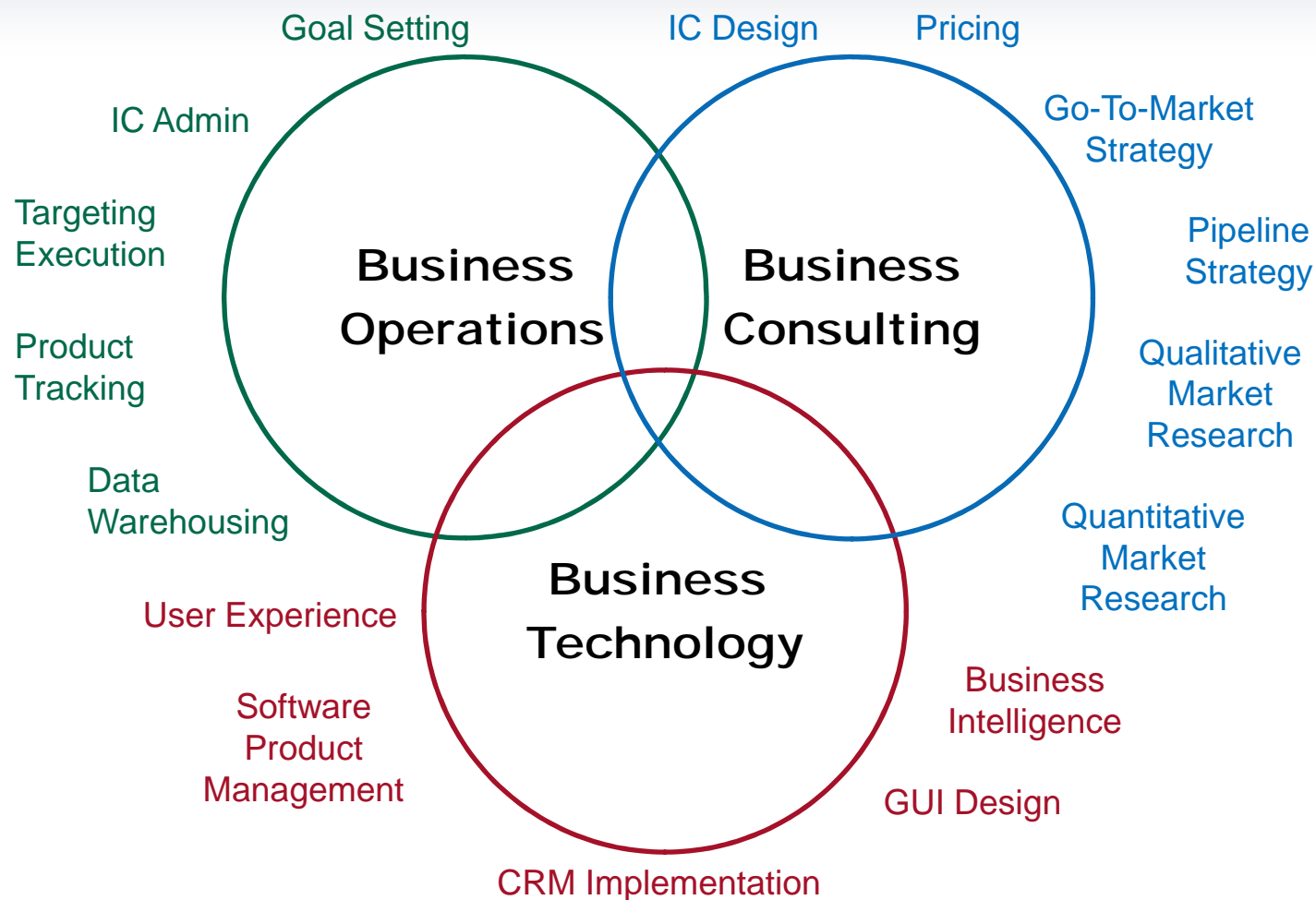
§ Applying to ZS

§ Q&A

ZS provides greater depth of expertise than general management consulting firms, and more breadth and capacity than boutique firms



We seek associates with core analytic skills, yet define several client-facing career tracks



You should apply for the position at ZS Associates that capitalises on your current skills

Tracks	Business Associate (BA)	Business Analytics Associate (BAA)
Special focus	<ul style="list-style-type: none"> <li>Advanced ability to gather, synthesise and apply insights to business issues</li> </ul>	<ul style="list-style-type: none"> <li>Advanced analytics (e.g. optimisation, simulation)</li> </ul>
Qualifications	<ul style="list-style-type: none"> <li>Quantitative or research-based coursework</li> <li>Empathy, adaptability and strong personal impact</li> </ul>	<ul style="list-style-type: none"> <li>Significant analytic and quantitative coursework</li> </ul>
Degree disciplines	<p><b>We recruit from a wide range of degree disciplines, including:</b></p> <ul style="list-style-type: none"> <li>§ Life sciences</li> <li>§ Physical sciences</li> <li>§ Engineering</li> <li>§ Business and economics</li> <li>§ Arts</li> </ul>	
Mindset	<p>Problem-solving orientation (structured and unstructured)  Extremely flexible to adapt to changing client needs  Project mentality (start and stop)  Focus on the <b>"finding the answer"</b></p>	

Most associates in Europe fall into Business Consulting – details of other capability groups are available on our website



Please make a note of how to submit your application

§ ZS applications:

- [www.zsassociates.com/campus](http://www.zsassociates.com/campus)
- Please submit your CV, covering letter and transcripts online

§ Cambridge deadline

- **Wednesday, October 26<sup>th</sup>, 2011**

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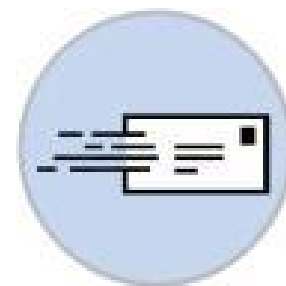


ZS ASSOCIATES

Accelerating Business Performance Through  
Sales & Marketing Excellence

# APPENDIX

Supporting material for in-tray case example



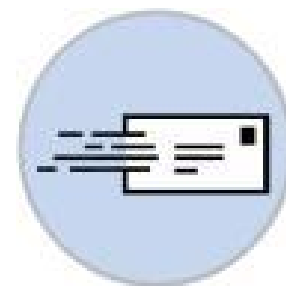
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Thanks,

Joy



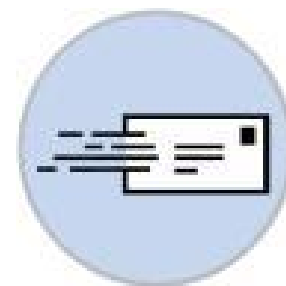
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Sincerely,

Raluca



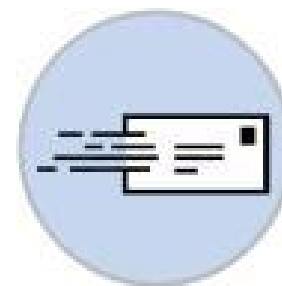
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From: counciltax@londonboroughA  
Re: Rates for Oriel Place

Dear Joy,

Thank you for your enquiry. The office property at 16 Oriel Place is currently liable for rates of £100 per m<sup>2</sup> per annum.

Kind regards,

Felicity



To: Joy@zsassociates  
From: taxman@councilB  
Re: Rates for North Street

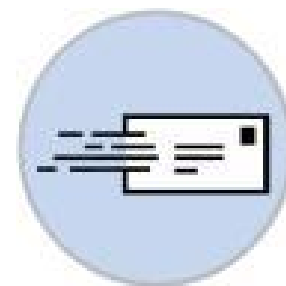
Dear Joy,

Our annual rates for new office properties in North Street are currently £12 per square foot. We expect this to rise to £14 next year.

Kind regards,

Andrew





To: Joy@zsassociates  
From: Chris@zsassociates  
Re: Headcount plans

Hi Joy,

Headcount plans for the next few years are as follows:

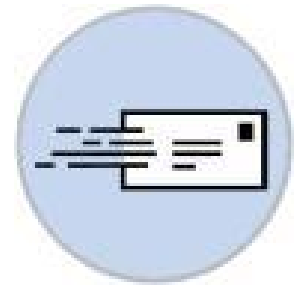
2011	2012	2013	2014	2015
70	75	80	95	110

Please use these assumptions for the office planning.

Regards,

Chris

To: Chris@zsassociates  
From: stephen@architectsanonymous  
Re: New office layout



Hi Chris,

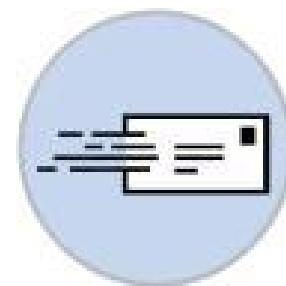
Further to our discussion about the office fixtures and fittings, the predominantly open plan solution would need about 110 square feet per person before it begins to feel cramped. If you want walled offices this rises to more like 200 sq ft per person.

Other features we discussed were:

- A reception at 400 sq ft
- A large meeting room at 800 sq ft
- A small meeting room at 300 sq ft
- A kitchen at 150 sq ft
- A server room at 200 sq ft

Please get in touch if you have questions!

Regards,  
Stephen



To: Chris@zsassociates  
From: Karine@VictoriaEstates  
Re: 16 Oriel Place

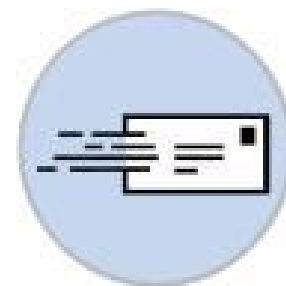
Dear Chris,

Thank you for meeting us earlier this week and visiting the property at Oriel Place. To confirm the building specifications, details are as follows:

- 35,000 sq ft of floor space on the 5<sup>th</sup> floor
- 24-hour manned ground-floor security
- The seller currently has this listed for £15 million, but it has been on the market for some time

Kind regards,

Karine



To: Chris@zsassociates  
From: Natasha@bizmoney  
Re: Agreement in principle

Hi Chris,

Thanks for submitting the mortgage forms for 16 Oriel Place.

We are pleased to confirm an agreement in principle for a business mortgage of £12,000,000 at 4% interest, providing this does not exceed 80% of the property value. Over an 8 year term, monthly payments would be £140,000.

Yours sincerely,

Natasha