The Association of Corporate Treasurers

Examiners Paper, Case Study, Solutions and Examiners Report

MCT ADVANCED DIPLOMA CASE EXAMINATION

Based on Alchemy plc

April 2015

QUESTION 1

Required:

a) Summarise the attractiveness of the industry to Alchemy plc and the strength of their position within it by selective use of what you consider to be the most appropriate non-financial tools of analysis. Justify your choice of analytical tool(s).

(9 marks)

b) Summarise the strengths and weaknesses of the geographical profile of Alchemy's business.

(4 marks)

(Total 13 marks)

QUESTION 2

Required:

a) Compare the Cash Flow Summaries for 2012 and 2014 and assess the overall strength and sustainability of each year's cash flow. Use the financial ratios provided in Section 5 of the case study to support your conclusions.

(9 marks)

b) Identify any implications for acquisition funding.

(2 marks)

(Total 11 marks)

QUESTION 3

Required:

If the Group realises its strategic aspirations for the development of the four business divisions over the next four and a half years to financial year-end 2019:

a) Quantify how much you believe each division might grow in terms of revenue and in geographic presence – indicate a "most likely level" and an "upper limit" and then aggregate for the Group.

(6 marks)

b) In order to support the Group's strategic aspirations identify which activities within corporate finance/treasury will be critical. Select the four which you consider to be most important and justify your choice.

(6 marks)

(Total 12 marks)

QUESTION 4

Required:

a) Alchemy plc does not currently have a credit rating. Assess what its credit rating might be and explain your reasoning.

(7 marks)

b) Set out why you think the company does not have a rating and whether it might ever need one in future.

(3 marks)

c) PPP/PFI debt constitutes 37% of total borrowings in the company's accounts. It is on-balance sheet but non-recourse. Discuss the implications of this for the company's credit rating.

Note: "PPP" (Public Private Partnership) and "PFI" (Private Finance Initiative) – refer to 2.4 case study background information for details.

(4 marks)

(Total 14 marks)

QUESTION 5

Based on the information provided, PPP/PFI assets constitute 19% of total assets.

Required:

a) Write a Board paper on the PPP/PFI projects, setting out how corporate finance/treasury can add value by management of the assets, their funding and associated risks.

(9 marks)

b) Identify the main threats to the profitability of Alchemy's PPP/PFI portfolio.

(5 marks)

(Total 14 marks)

QUESTION 6

Alchemy's 2014 Net Working Assets (stocks + debtors – creditors) as a percentage of sales is - 8.7% [ie (negative 8.7%)] as shown below.

	£m
STOCK	
Raw materials	7.7
Work in progress	0.2
Finished goods	1.5
	9.4

DEBTORS	£m	**CREDITORS**	£m
Trade receivables	94.5		
Impairments	(5.6)		
Trade receivables net	88.9	Trade payables	82.0
Accrued income	18.9	Accruals	72.9
Prepayments	15.7	Deferred revenue	18.9
Other	15.9	Other	30.5
	139.4		204.3

$$\text{NWA/Sales \%} = [9.4 + 139.4 – 204.3] / 636.4 = \frac{(55.5)}{636.4} = (8.7\%)$$

The trend over the past four years has been downwards.

Required:

a) **As Treasurer, identify and explain the potential risks associated with the above numbers.**

(5 marks)

b) **List the questions would you wish to ask Finance in order to clarify the potential risks identified in 6a.**

(3 marks)

(Total 8 marks)

QUESTION 7

Required:

a) Analyse and comment briefly on the composition of core debt (excluding PFI/PPP) at financial year-end 2014 in terms of:

- **(i) Types of instrument**
- **(ii) Mix of instrument**
- **(iii) Currency mix**
- **(iv) Interest rate basis**
- **(v) Maturity structure**
- **(vi) Headroom**

(6 marks)

b) Bearing in mind your response to Question 2 about Alchemy plc's acquisition funding and Question 3a about the future development of the business, draft a plan for the future funding (excluding PFI/PPP) required up to 2019 and beyond, covering items (i) to (vi) above.

(6 marks)

(Total 12 marks)

QUESTION 8

The Group's foreign exchange risk policy at 2014 is summarised thus:

"The Group is exposed to foreign exchange risk for movements between the Euro, Canadian Dollar and Sterling. The majority of the Group's subsidiaries conduct their business in their respective functional currencies. Hedging agreements, such as forward exchange contracts, are in place to minimise known currency transactional exposures. The Group does not hedge its foreign currency exposures on the translation of profits into Sterling. Assets denominated in Euros and Canadian Dollars are hedged by borrowings in the same currency to manage translational exposure."

Required:

a) Still bearing in mind your response to Question 3a, critically evaluate the future appropriateness of the above foreign exchange risk policy. Pay particular attention to transaction exposure, contingent/price list risk and translation exposure management.

(8 marks)

b) Based on your plan for future funding in Question 7b determine and justify an interest rate risk management policy.

(8 marks)

(Total 16 marks)

MCT ADVANCED DIPLOMA
CASE STUDY
BACKGROUND INFORMATION

Alchemy plc

April 2015

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1.0 INTRODUCTION

1.1 Group Overview

Alchemy Group plc is an international waste management company with 85 operating sites employing 3,500 employees in the UK, Benelux and Canada.

Summary Financials	2013 GBPm	2014 GBPm	2015 Interim GBPm
Turnover	614.6	636.4	
EBIT	4.8	23.7	
PAT	(35.2)	(28.2)	
Gross debt	353	412	
Net debt	277	307	
Shareholders' funds	314	274	
Average market cap.	347	385	

Originally a Scottish construction company, ownership of quarries led to waste landfill activities and the acquisition of landfill sites in England to develop this business stream. The break-up of a much larger international waste management company in 2000 provided the opportunity to acquire a subsidiary with operations in Holland, Luxembourg and Canada which had a much wider range of waste management activities. Subsequently the landfill operations were sold off in order to refocus on the more profitable but complex sustainable waste management segments of the sector where the challenge is to recycle safely and efficiently the maximum possible amount of waste.

Alchemy, a FTSE 250 company and unrated, is now headquartered in England with circa 75% of its revenues arising in Benelux. There are four divisions:

- solid waste
- hazardous waste
- organic waste
- UK Municipal, including PFI/PPP projects/contracts with UK Government agencies (see Section 2.4)

Business drivers include regulation and, critically, its enforcement and in some areas the general level of economic activity.

Major quoted competitors are Poubelles SA and Dechetteries SA (both French) and Trash PLC (UK): all three are also water utilities.

2.0 BUSINESS PROFILE & ANALYSIS

2.1 The Business

Extracts from the company's latest report and accounts:

We meet the growing need to manage waste without damaging the environment

Key facts and figures

Our solutions

- Reduce greenhouse gas emissions
- Produce green energy
- Treat contaminated waste
- Recycle commodities
- Provide highly specialised industrial cleaning
- Produce recovered fuel
- Reduce untreatable waste residues to a minimum

Our sustainable performance

82% recycling and recovery rate

19% reduction in our reportable accident rate[1]

1.26m tonnes of carbon avoided

70+ years of waste experience reinforced by blue chip industry leaders within our Group Executive Committee

Where we operate

Benelux
63 operating sites
Our operations in the Benelux comprise the Solid, Hazardous and Organics Divisions

UK
20 operating sites
Our Municipal Division provides recycling and waste management services to local authorities in the UK, creating fuel for green energy production

Canada
2 operating sites
We process organic waste using tunnel composting

Our people

890 Belgium

1,996 The Netherlands

585 UK

30 Canada

Financial highlights

Revenue[2]
£m

2014	636
2013	670
2012	750
2011	717
2010	684

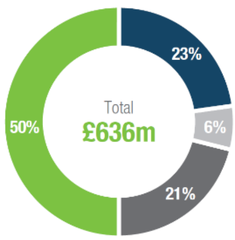
£636m revenue

Underlying profit before tax[2]
£m

2014	30.2
2013	26.5
2012	37.3
2011	35.2
2010	33.2

+14% increase in profit before tax

Revenue by division[3]
£m



- Solid Waste Benelux
- Hazardous Waste
- Organics
- UK Municipal

1. Accidents resulting in greater than three-day absence per 10,000 employees.
2. 2010-2013 results are as previously reported and include subsequently discontinued operations.
3. Continuing operations only.

OUR VISION

TO BE THE LEADING PROVIDER OF SUSTAINABLE WASTE MANAGEMENT SOLUTIONS IN OUR TARGET MARKETS

What it means

Our vision

Leading Provider

High market share and with clear competitive advantages

Sustainable

Providing effective alternatives to landfill and mass incineration

Waste Management

Combining proven technologies to make valuable products from waste

Target Markets

Markets with high sustainable growth drivers and potential for high recycling rates

We meet the growing need to manage waste without damaging the environment

We aim to achieve our goals by leveraging our unique position in the waste management cycle

Our core activities

	Input	Sort	Produce	Dispose
What is it?	Collect or receive waste	Sort waste into specific recyclates and streams for treatment	Produce valuable products from segregated waste streams	Dispose of remaining waste
Our activity	We will collect only when it is necessary to secure volume.	Mechanical, Chemical, Magnetic, Bulk, Manual, Filtration	Recycled plastics, Recycled paper, Organic fertiliser, Green energy, Recovered fuel, Recycled aggregates	5% Typically only 5% of what we collect goes into landfill.
Revenue stream	Customers pay us to take waste that they do not want.	Our sorting and processing facilities are an operating cost to Shanks Group.	We extract recyclates and make in-demand products from the waste we collect, which other customers pay us for.	Any waste we cannot recycle creates an operating cost.

Long-term market forces

There is an increasing need for cost-effective, sustainable waste management solutions

no.1 / no.2

Market leading position in all our core target markets

Macro market drivers

Growing awareness of the environmental damage caused by landfill, incineration and over-use of virgin raw material has led to a determination both by governments and wider society to champion sustainable waste management.

Economic pressures

Economic conditions have remained difficult and there is overcapacity in some parts of the market. With customers seeking out the most cost-effective solutions, this has led to increased competition and pressure on prices. A recovery is expected but timing is uncertain.

Legislation

Legislation continues to be enacted to encourage sustainable ways of managing waste. The Dutch Government, for example, is increasing recycling rates across the country. In the UK and Canada there are also an increasing number of policies aimed at diverting waste from landfill and incineration.

Social and business attitudes

The resource and carbon avoidance benefits of sustainable waste management are widely acknowledged but businesses have a challenge to engage with those living close to facilities where new processes and technologies are in use.

Our Consistent Strategy for Growth and Future Outlook

Our overarching strategy of 'making more from waste' remains consistent. The core pillars of this strategy are focused on generating profitable growth in each of our four distinct markets.

1. **Improve the profitability of Solid Waste Benelux.** Our Solid Waste business is now focused in the Benelux region where it is a clear market leader with the scale and position to win. Our strategy is focused on returning this business to previous profitability levels. We continue to improve efficiency through the structural cost programme, increasing route density, and delivering new procurement and continuous improvement initiatives. We are investing in optimising our commercial effectiveness to take advantage of market opportunities, and have also streamlined the portfolio to increase returns.

2. **Broaden the scope of our Hazardous Waste business.** Our Hazardous Waste business delivers superior returns through its symbiotic range of treatments and operational excellence. We are building on this profitable base by investing in more treatment capacity. In parallel, we will expand the range of waste inputs that we treat with our existing assets and will broaden our commercial coverage in international markets.

3. **Expand the Organics footprint in target geographies.** Our strong market position and experience in the Netherlands, combined with our unique business model (design, build, own and operate), provides us with a distinct competitive edge which we will leverage to expand in target markets. We plan to expand our North American footprint selectively by delivering proven solutions that meet the emerging diversion requirements of that market. We will also ramp up new UK assets and develop co-processing with Dutch A-brand customers.

4. **Grow the UK Municipal long-term contract business.** We are well-placed to grow in the UK PFI/PPP market with established contracts, together with over £200m capital committed to projects in construction. We will deliver continued improvements with our operational contracts and will profitably ramp up newly commissioned assets. Our medium-term growth will be underpinned by the successful construction of significant new sustainable waste management infrastructure.

While we are increasingly clear about the actions needed to deliver growth in each division, we will continue to deliver value by leveraging our Group capabilities and scale. Our four divisional strategies therefore remain underpinned by two key Group strategies that span all our businesses.

5. **Develop world-class capabilities in a cohesive Group culture.** This strategy comprises the introduction of enhanced capabilities of commercial effectiveness, continuous improvement and talent development. It also includes leveraging of our many deep skills between divisions. For example, we are combining the skills of our Netherlands Organics and UK Municipal businesses to bid for contracts in Canada, while our Shanks Total Care initiative creates a unique commercial proposition in the Netherlands.

6. **Actively manage the Group's portfolio.** We are actively managing our portfolio of assets to improve the quality of our earnings and the return on capital employed. In particular, we have sold underperforming assets that lack the long-term capability to generate attractive returns. Overall, we are committed to deploying capital to deliver growth in areas where we are confident of sustainable advantage, attractive returns and higher growth.

Future outlook

Notwithstanding markets which are expected to continue to be challenging in the year ahead, the Board's expectations for 2014/15 remain unchanged. In the coming year, we expect to deliver growth in our Hazardous Waste and UK Municipal Divisions. Our Solid Waste Benelux Division is likely to deliver a broadly similar performance as the benefits of cost reduction will be offset by continued market headwinds. In the Organics Division the outlook is impacted by price pressure and our investment in bidding costs for Canadian expansion.

Longer term, the growth drivers in our business remain attractive. There is a clear and growing need for cost-effective and sustainable waste management which Shanks is uniquely placed to meet. Following our active portfolio management, we now have leadership positions in all our core markets with a clear strategy to deliver profitable growth and attractive returns in each division. Furthermore, by building a focused and lean business we are well positioned to benefit from operational gearing when markets recover.

OUR DIVISIONS AND STRATEGY

Our divisions	Markets	Revenue
Solid Waste 	The Solid Waste market addresses the collection, recycling and treatment of non-hazardous waste. The market can be divided into Industrial and Commercial (I&C), Construction and Demolition (C&D), and Municipal.	£324m
Hazardous Waste 	Our core markets in Hazardous Waste are the European contaminated soil, paints and solvents markets, and the Benelux waste water and industrial cleaning markets.	£148m
Organics 	The Organic Waste market comprises the collection and treatment of food waste, garden waste and other organic materials such as sludges. This avoids disposing of organic waste through landfill, which is particularly damaging to the environment.	£36m
UK Municipal 	The UK Municipal Division provides recycling and waste management services to local authorities in the UK and converts waste into fuel for green energy for cement manufacturers and power stations. The market is driven by the need for authorities to divert waste away from landfill, as set out in the EU Landfill Directive.	£137m

Divisional strategy

Improve the profitability of Solid Waste

We will continue to face challenging market conditions in Solid Waste and, as such, we will continue to optimise our organisation and operations as needed. We are also focusing our activities in regions and areas where we can be the lowest cost operator through local scale and productivity advantages. Our cost actions will be supplemented by commercial activity in both securing waste and the sale of our products.

Broaden the scope of Hazardous Waste

Our Hazardous Waste business delivers superior returns through its symbiotic range of treatments and operational excellence. We will build on this profitable base by investing in more treatment capacity. In parallel, we will expand the range of waste inputs that we treat with our existing assets and will broaden our commercial coverage.

Expand the Organics footprint

Our unique design, build, own and operate business model provides us with a distinct competitive edge which we will leverage to expand in target markets. This will include ramping up UK assets and developing co-processing with Dutch A-brand customers. We will also expand our Canadian footprint by delivering proven solutions that meet the emerging diversion requirements of that market.

Grow UK Municipal long-term contracts

We will deliver continued improvements in our operational contracts and will profitably ramp-up newly commissioned assets. Our medium-term growth will be underpinned by the successful construction of significant new sustainable waste management infrastructure. We expect this strategy to deliver profitable top-line growth.

KEY STRATEGIC OBJECTIVES THAT SPAN THE GROUP

In addition to our divisional strategies, we have two key strategic objectives that form the foundation of our overall Group strategy.

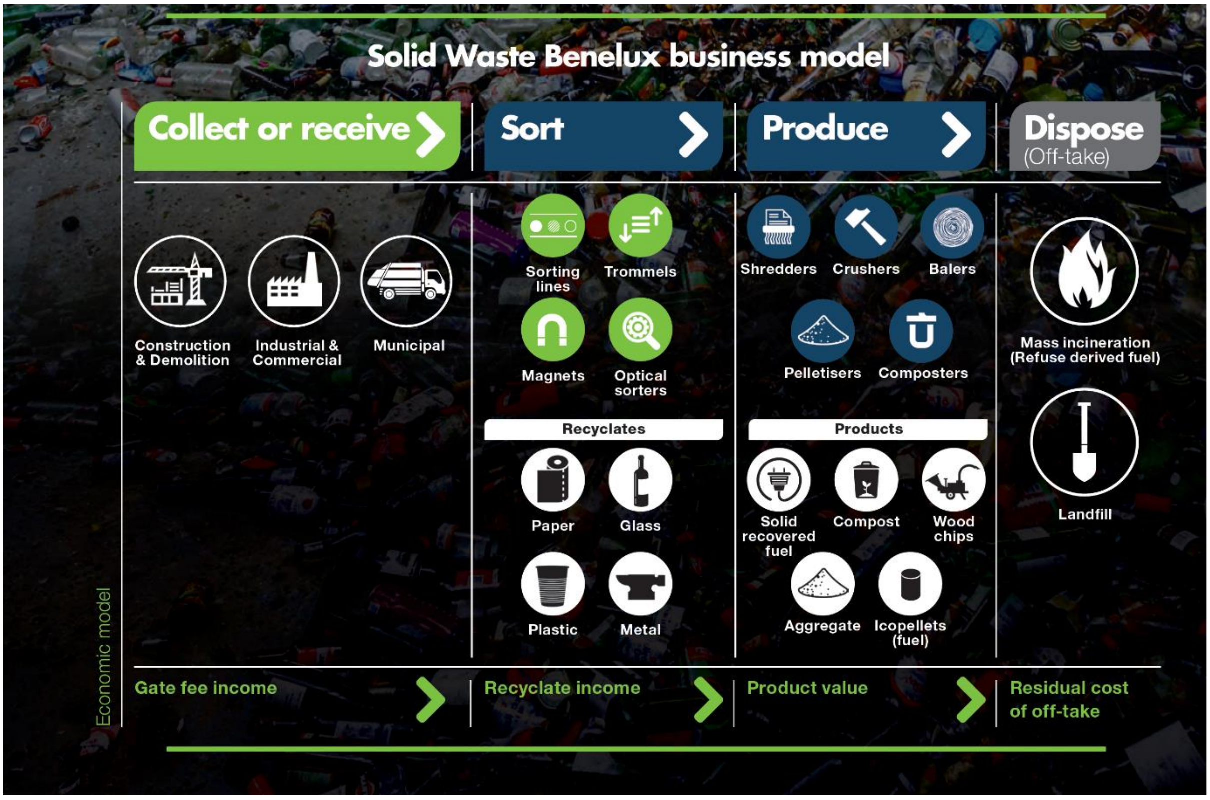
Develop world-class capabilities

We will further increase our focus on building Group capabilities and a cohesive Group culture. This will include the introduction of a formal continuous improvement function across the Group and an initiative to improve commercial effectiveness.

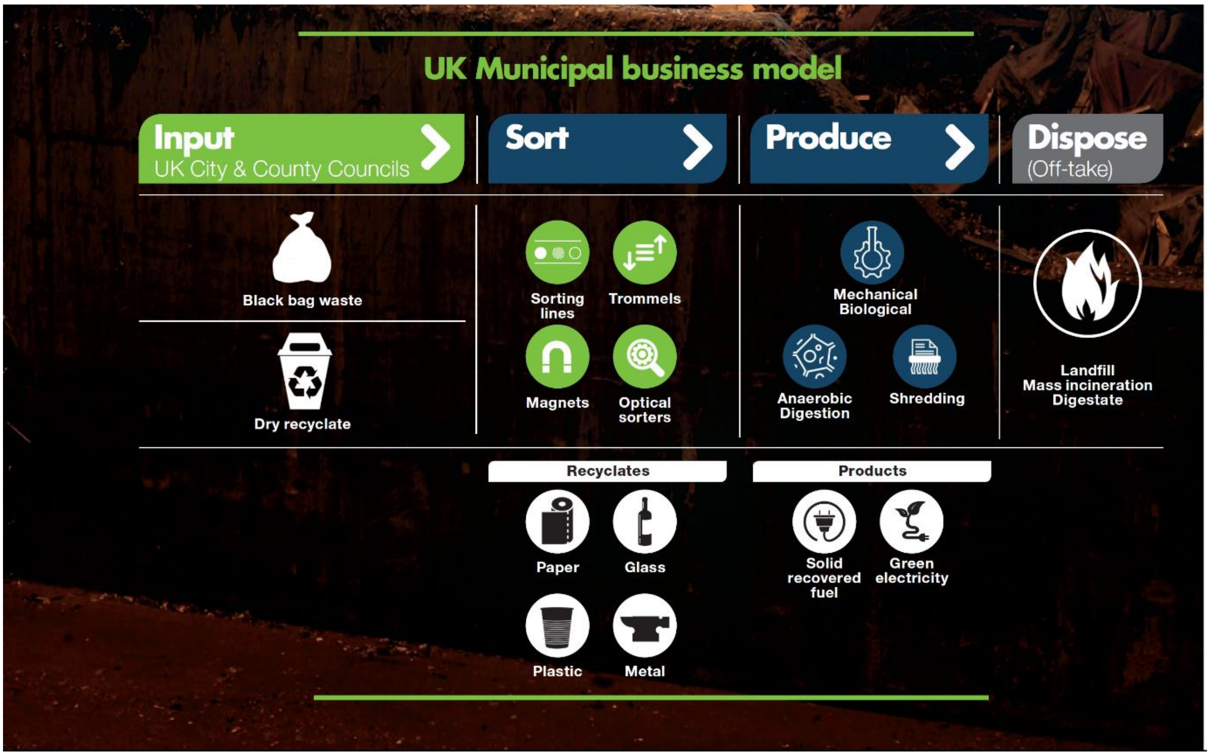
Actively manage the Group portfolio

We are actively managing our wide portfolio of assets to improve the quality of our earnings and the return on capital employed. We are focused on deploying capital in areas where we are confident of sustainable advantage and higher growth, including potential acquisitions.

2.2 Business Profile Analysis

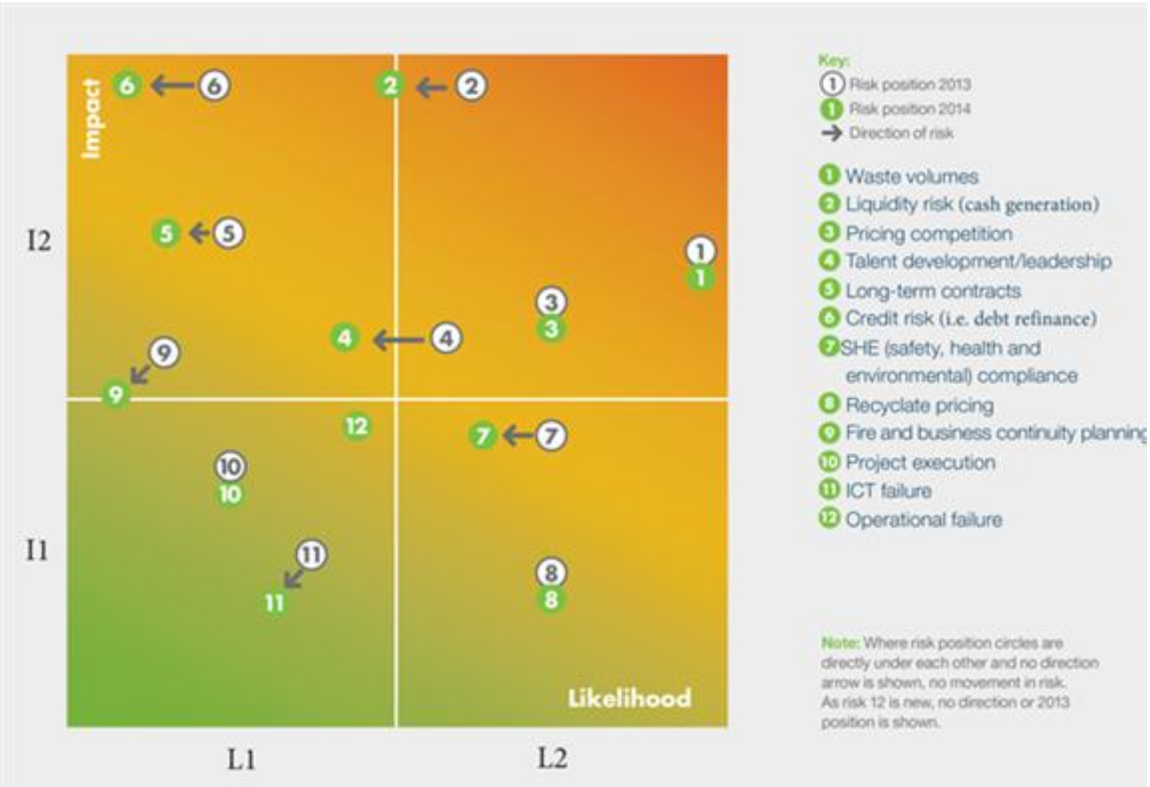



Hazardous Waste business model
Customer
Clean
Transport
Produce
Dispose
Heavy industry (Petrochemical)
REYM
Cleaning generates contaminated water
ATM
Bio water treatment
Clean water
Industry & Shipping
Contaminated water
Industry & Government
Paint & solvent waste
Gasification
Inert ash
Construction & Government
Contaminated soil
Thermal treatment
Clean soil
Growing regulation


UK Municipal business model
Input
UK City & County Councils
Sort
Produce
Dispose
(Off-take)
Black bag waste
Dry recyclate
Sorting lines
Trommels
Magnets
Optical sorters
Mechanical Biological
Anaerobic Digestion
Shredding
Landfill
Mass incineration
Digestate
Recyclates
Paper
Glass
Plastic
Metal
Products
Solid recovered fuel
Green electricity

ALCHEMY 4 DIVISIONS GEOGRAPHY at Y/E 03.2014				
DIVISION	REVEVUE £m	BENELUX Holland, Belgium	CANADA	UK
SOLID WASTE	324	*		
HAZARDOUS	148	*		
ORGANIC	36	*	*	*
MUNICIPAL	137			*
TOTAL	645			

2.3 Risks and Uncertainties – Company Mapping



2.4 A note on Public Private Partnership (PPP) and Private Finance Initiative (PFI)

PPP/PFI is a form of procurement where the public sector procures services over a prescribed concession period (frequently 20 years or more) in a manner which leaves the risk of ownership and efficient operation of the project facilities with a private sector supplier. It is a modern form of public sector procurement designed to achieve improved value for money through a focus on whole life costing and increased risk transfer to the private sector. PPP/PFI is not the same as privatisation as the public sector retains ultimate responsibility to the public for the service concerned. PPP/PFI has become a well-established concept and is adopted in many territories around the world.

Alchemy operates several long-term PPP and PFI contracts with local authorities through its UK Municipal Division with several more in the pipeline. The UK government has encouraged funding of such projects, and also projects in other sectors such as social housing and transport infrastructure, through PPP and PFI initiatives as it sought to move waste management from landfill to a more sustainable model. The overall goal of all PFI and PPP contracts is to maximise recycling and diversion from landfill. Each contract will involve a bespoke solution to meet the needs and preferences of the customer, with contracts being awarded via a long and expensive bidding process with its inherent dangers of over-bidding on either price or performance terms, which can result in “winner’s curse”. The UK PFI funding structure has now ended and any new projects for the remaining 25% of the market are now likely to be through shorter-term finance models.

Project contracts are typically for 20-25 years. The capital cost of the associated infrastructure is financed with non-recourse bank debt and, in the case of PFI, is supported by central government funding. Both PFI and PPP contracts benefit from guaranteed revenues and tonnages from the associated council. In a typical PFI or PPP solution a special purpose vehicle (SPV) is created to finance the construction of the treatment assets and Alchemy arranges for a club of banks to provide funding. Contracts are signed between Alchemy, the banks, the suppliers and the local councils at “Financial Close” when funding has been secured. The initial bank club funding may be re-financed at some later stage for a number of reasons, but often on more-favourable terms once the construction phase is completed. Broadly speaking lending margins tend to fall after construction then ultimately rise as banks wish to exit. Prior to the injection of subordinated debt bridge finance will be obtained but this is relatively expensive. Alchemy’s share of the ownership of the SPV can vary between 20% and 100%, the remaining share being held by construction or power generation groups. However the pure equity typically represents only 1% or less of the total investment.

Alchemy may or may not be the main contractor for the construction phase. On completion and commissioning of the assets Alchemy will generally inject up to 20% of the total invested capital of the SPV in the form of subordinated debt, which should earn a return of around 12% pre-tax. Once operational, there are two potential income streams from the project. The first is the income for treatment of the waste under the operating contract. The successful operation of this contract relies not only on excellent management of the contract and meeting the strict diversion and performance targets, but also on working closely with the customer to identify improved ways of managing the waste to a shared benefit. It is this latter focus on continuing improvement that has driven a sustained increase in the Group margin and a saving for councils. The operating contract offers the Group some protection from variations in re-cyclate prices, waste volumes and similar items that have caused challenges within the Solid Waste Division. If the Group underperforms, including failure to divert waste from landfill, the contract can be terminated before the end of the 25-year contract.

The second income stream is the interest on the subordinated debt and ultimately dividend stream from the SPV. Alchemy has historically sold the majority of its investments in its SPVs following commissioning, so this is now a minor part of its income. However, it maintains an open stance on ownership of current and future SPV stakes, which are low risk and offer scope for incremental value creation.

On its existing contracts Alchemy has, at times, seen some losses, new and more ambitious waste standards, operational challenges, onerous contract provisions and subsequent contract amendments. A current contract has received final planning permission following a successful appeal at the High Court. Incidentally the income for the last two years will now be at a lower rate and reduced profit to reflect changing circumstances. Off-take markets for residual fuels remain dynamic and, at times, challenging. Alchemy is exploring opportunities to further increase profitability and security in these markets. Overall it has succeeded in improving margins from 25% to 10% over the last five years.

The financial dimensions of Alchemy's PPP/PFI involvement at year-end 2014 can be summarised as follows:

- Financial assets relating to PPP/PFI contracts (non-current) – £187.4m
- Financial assets relating to PPP/PFI contracts (current) – £8.2m
- PPP/PFI non-recourse debt (non-current) - £149.5m
- PPP/PFI non-recourse debt (current) - £1.7m
- Interest receivable on PPP/PFI financial assets - £9.4m
- Interest payable on PPP/PFI non-recourse debt - £8.2m

3.0 COMPETITIVE ENVIRONMENT

3.1 Peer Group Competition

Alchemy's main peer group consists of waste companies generally owned by much bigger and diverse groups, one UK (Trash PLC) and two French (Poubelles SA and Dechetteries SA) for example are also involved in energy and water utilities. In addition there are two significant private equity owned competitors, UK based, namely Universal Waste and Green Goddess. Aside from the majors the waste industry is also characterised by lots of small, often family-owned companies who do not necessarily compete for business on normal commercial terms, plus some medium-sized regional companies, such as Van Winkel Groep in Holland. Alchemy has little involvement in waste collection which tends to be very competitive, particularly from the involvement of local and regional companies. In summary Alchemy focuses on midstream waste management plus specialist niche markets. This means that it is less exposed to structurally lower volumes than downstream (landfill and incineration where operational gearing is high) and to competitive pressure on upstream collection.

Alchemy is seen as the most likely to benefit from eventual cyclical upside as volumes and prices recover. Trash PLC business consists of only about 35% unregulated waste, with the majority of current earnings deriving from the sale of re-cyclate and landfill gas generation, and most up-side value deriving from its one-to-two year development pipeline of energy-from-waste facilities. In contrast re-cyclates contribute only about 5% to Alchemy's turnover although, unlike the European practice of sharing re-cyclate price volatility with customers, in the UK 100% hits Alchemy's bottom line. Prices of re-cyclates such as paper and metals fell dramatically a few years ago and have remained depressed. The two French companies are expected to benefit less from economic recovery since they have less than 40% of EBIT dependent on the economic cycle. This is because of their greater exposure to energy and water, also to local authority/municipal waste disposal which is generally under long-term contracts.

Conversely Alchemy's solid waste business is almost exclusively in the 'mid-stream' (sorting and processing) of the waste management value chain. It has very limited exposure to two key areas of structural decline that have exerted pressure on peers, namely landfill and incineration. This makes its top line largely driven by volumes and spot prices, including re-cyclate prices. Alchemy has lost volume from existing customers but has recovered this from new customers, gaining market share from competitors that are struggling in the current climate and more aggressive pricing.

Alchemy is market leader in Dutch hazardous waste at 30% market share. It has a competitive advantage in this niche market from the scale of operations, its Rotterdam port location, also from natural synergies because of its related activities of contaminated soil and wastewater treatment and industrial cleaning of petro-chemical plants. Recent investment has increased capacity and enhanced scale benefits. Its two main local rivals, both privately owned, do not benefit from these synergies or have the financial capacity to invest for growth and technical innovation.

Organics division generates income from waste collection, sale of processed fertiliser and power generation – another niche market. Alchemy has commissioned new facilities in Netherlands, UK and Canada which is expected to drive future growth in all these countries. It also operates in Belgium. Revenues have doubled in the last four years and this growth shows no sign of waning, driven by environmental concerns and regulation plus Alchemy's aggressive investment programme.

Industry consolidation is a continuing possibility in this sector with the largest companies looking for good–fit acquisitions. The sector has not seen any significant acquisitions since three leveraged buy-outs in 2007, one of which has subsequently been re-financed with the equity investors ceding control to the lenders. The majors like Alchemy are probably immune from bids and not of particular interest to private equity buyers following a failed private equity bid for Alchemy in 2009. Analysts argue that considerable economies of scale exist because of the large fixed-cost element in overheads. Strict capital discipline and careful cherry picking of only the best opportunities would, however, be vital if Alchemy were to consider any acquisitions. For example Alchemy has recently acquired a small Dutch hazardous waste treatment company for EUR 3.8m at 60% of net book value, which should deliver EUR 0.2m-0.3m in cost synergies.

Cross-sector comparison of European waste Management

	Alchemy	Poubelles SA	Dechetteries SA	Tash PLC	Green Goddess	Universal Waste
Assets/Operations						
Landfill		x	x	x		x
Incineration -Netherlands			x			
Incineration - UK		x	x	x		x
UK municipal contracts	x	x	x	x		x
Recyclate price exposure %	5%	?>0	?>0	15%%	12%	?>0
Geography	Benelux/UK/Canada	Europe/Global	Europe/Global	UK	Europe	UK

3.2 Divisional Strategies and Growth Prospects

Divisional Strategies

Division	Shanks Position	Growth Strategy	FY15 Profit	Future Profit
Solid 	• Market leader in Benelux • Linked to NL construction • Strong commercial presence	• Lowest cost and leading productivity • Commercial effectiveness • High quality innovative products	↘	↗
Hazardous 	• Market leader in EU thermal soil treatment • Advantaged water technology • Integrated & synergistic model	• Fast-tracked waterside expansion • Broader range of treatment inputs • Increased regional presence	→	↗
Organics 	• Market leader in Netherlands • Differentiated operating model • Growth footprint in Canada	• Ramp-up EU assets profitably • Canada growth leveraging NL/UK • Co-processing with EU A-brands	↘	↗
UK Municipal 	• Market leader in UK MBT • Proven operational excellence • New infrastructure being built	• Sustain operational contract delivery • Commission BDR, Wakefield & Derby • New volumes to utilise capacity	↗	↗

Actively managing business portfolio

4.0 FINANCE AND TREASURY

4.1 Funding and Instruments

ALCHEMY FUNDING at Y/E 03.2014 £m										
estimated	Current < 1 yr	1 - 2 yr	+	3 - 5 yr	=	1 - 5 yr	> 5 yr	Non-Current	TOTAL
SENIOR NOTES				32.90		32.90		32.90	32.90
RETAIL BONDS		82.15				82.15	82.15	164.30	164.30
BANK LOANS	0.40			53.20		53.20		53.20	53.60
FINANCIAL LEASING	3.30	*2.65*		*2.65*		5.30	1.20	6.50	9.80
CORE BORROWINGS	3.70	*84.80*		*88.75*		*173.55*	83.35	256.90	260.60
PFI/PPP NON-REC NET DEBT	1.70	*35.40*		*41.15*		*76.55*	*72.95*	149.50	151.20
TOTAL	5.40	120.20		129.90		250.10	156.30	406.40	411.80
CASH									51.00
SHORT TERM DEPOS									53.60
									104.60

ALCHEMY FUNDING INSTRUMENTS at Y/E 03.2014 £m	TYPE	CURRENCY	AMOUNT	%	ISSUE	TERM Yrs	MATURITY	DRAWN
SENIOR NOTE	PRICOA Priv Place	EUR m	40.0	5.025	04 2011	7	04 2018	40
RETAIL BOND	LSE ORB	EUR m	100.0	5.000	10 2010	5	10 2015	100
RETAIL BOND	LSE ORB	EUR m	100.0	4.230	10 2013	6	10 2019	100
BANK LOAN	RMCF	GBP m	148.8		01 2014	5	01 2019	51.7
	Rev Multi Curr Facil	EUR m	180.0					62.5

4.2 Alchemy's Recent Performance

Bullet points from Alchemy's presentation of Interim results 2014/2015 together with brokers' commentary.

- Revenue down 1%, underlying PBT down 35%
- Benelux Solid Waste – lower market volumes, intense competition, adverse pricing, mix and recyclate values.
- Hazardous waste on track for strong H2, following capacity investment.
- UK Municipal 13% increase in trading profit.
- Organics –in line with expectations.
- Continued challenging macro situation, especially Benelux and Eurozone generally.
- Dutch construction activity at a 60-year low – volumes flat overall, declines in rubble, glass, wood and landfill.
- Commercial and infrastructure activity in Netherlands still low, with industry over-capacity.
- Intense competitive situation, with smaller players struggling or up for sale.

Analysts generally see Alchemy as under-valued compared with its peers, having been over-punished for recent under-performance. Alchemy is seen as having more potential profit leverage from a general economic recovery than its peers. Cash flow is strong, especially since the company's legacy assets are depreciated and maintenance capex is generally accepted as being between 70% and 75% of depreciation because of the heavy front-end depreciation on major solid-waste contract assets. Replacement capex, however, can be abnormally "lumpy", varying between 48% and 80% from one year to the next. Replacement requirements are for trucks, machinery etc., rather than the big-ticket items of plant.

Increasingly, supportive regulation bolsters growth in the sector e.g. new ship de-gassing regulation, restoration of the land-fill tax and introduction of an incineration tax in the Netherlands. Canada is introducing new legislation on land-fill diversion. Canada offers considerable opportunities for Alchemy in terms of new contracts as it seeks a long-term solution to reduce landfill. Canada will also probably adopt a financing format along the lines of PPP in the UK, with 25% grant from the government at the end of construction. The UK, Ireland and Southern Europe countries are most dependent on land-fill for their waste disposal and new EU directives will hit these in 2018, possibly leading to another PFI-type surge. The EU is also focused on restricting "regulation-dodging" hazardous waste exports of tar and asphalt particularly. However, local interpretation and enforcement of EU directives tends to fall away somewhat in Southern Europe. France relies overwhelmingly on incineration to dispose of waste and thereby generate electricity.

Economically waste is a typically a late-cycle sector and the deterioration in the economic backcloth seems to be stabilising or improving, even in the Eurozone.

5.0 FINANCIALS

Equity Analysis Model
Alchemy Group plc
Income Statement

		Historical Data					Interim
Month	*Accounts date*	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
March	*Currency / units*	**GBP mill**	**GBP mill**	**GBP mill**	**GBP mill**	**GBP mill**	**GBP mill**
	Audit / man / fcst	**audited**	**audited**	**audited**	**audited**	**audited**	**unaudited**
	Number of months	**12**	**12**	**12**	**12**	**12**	**6**
Sales Revenue		**683.5**	**717.3**	**750.1**	**614.6**	**636.4**	**304.8**
a	(Cost of Sales)	(573.5)	(605.8)	(626.6)	(523.3)	(535.7)	(259.5)
a	**Gross Profit**	**110.0**	**111.5**	**123.5**	**91.3**	**100.7**	**45.3**
a	(Administrative Expenses)	(62.8)	(61.8)	(70.1)	(46.5)	(54.8)	(29.7)
a	Exceptionals etc. +/-	(11.4)	(8.2)	(6.6)	(40.3)	(22.5)	(17.4)
Other Expenditure Details (for information)							
b	(Personnel Costs)	(175.8)	(171.6)	(184.6)	(160.7)	(162.1)	
b	(Depreciation & Impairment of Tangible Assets)	(50.1)	(48.8)	(50.5)	(63.2)	(46.2)	(18.8)
b	(Amortisation & Impairment of Goodwill)	-	(11.9)	(2.5)	(18.9)	(14.9)	(13.4)
b	(Amortisation & Impairment of Intangibles)	(5.9)	(5.3)	(4.8)	(6.1)	(6.0)	(1.3)
b	Exceptionals etc. +/-						
Operating Profit		**35.8**	**41.5**	**46.8**	**4.5**	**23.4**	**(1.8)**
Investment Income Income							
	Income from Investments, Participations etc		-	0.1	0.3	0.3	0.3
EBIT		**35.8**	**41.5**	**46.9**	**4.8**	**23.7**	**(1.5)**
Interest Received & Paid							
	Other Financial Income & Expenditure	1.7					
	Interest Received	11.4	9.8	6.4	6.3	10.4	6.9
	(Gross Interest Paid)	(29.3)	(30.1)	(21.9)	(21.2)	(26.4)	(14.0)
Profit before Tax		**19.6**	**21.2**	**31.4**	**(10.1)**	**7.7**	**(8.6)**
	(Tax charge)	(1.5)	0.7	(4.6)	(1.0)	(5.9)	(1.1)
Profit after Tax		**18.1**	**21.9**	**26.8**	**(11.1)**	**1.8**	**(9.7)**
	Extraordinaries, Discontinued Operations etc				(24.1)	(30.0)	(0.1)
Profit / (Loss) for the Year		**18.1**	**21.9**	**26.8**	**(35.2)**	**(28.2)**	**(9.8)**
	Attributable to Non-controlling Interests				0.1	0.1	-
	Attributable to Owners of Company	**18.1**	**21.9**	**26.8**	**(35.3)**	**(28.3)**	**(9.8)**
	(Preference Dividends)						
	(Ordinary Dividends)	(11.9)	(12.9)	(13.7)	(13.7)	(13.7)	(4.4)
Retained Profit for Year		**6.2**	**9.0**	**13.1**	**(49.0)**	**(42.0)**	**(14.2)**
	Statement of Gains and Losses	5.0	1.5	(41.0)	(8.7)	0.5	(24.8)
Total Comprehensive Income		23.1	23.4	(14.2)	(43.9)	(27.7)	(34.6)

	2010	2011	2012	2013	2014	2015
EBITA (before Exceptionals & all Amortisation)	**53.1**	**66.9**	**60.8**	**70.1**	**67.1**	**30.6**
EBITDA (before Exceps. Deprn, & all Amortisation)	**103.2**	**115.7**	**111.3**	**133.3**	**113.3**	**49.4**
Cash Earnings (Before Goodwill, Exceps.& Extraords)	**29.5**	**42.0**	**35.9**	**48.0**	**39.1**	**21.1**
Cash Retained Profit (Before Goodwill, Exceps & Extraords)	**17.6**	**29.1**	**22.2**	**34.3**	**25.4**	**16.7**

Equity Analysis Model
Alchemy Group plc
Balance Sheet

	Historical Data					
Accounts date	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
Currency / units	**GBP mill**	**GBP mill**	**GBP mill**	**GBP mill**	**GBP mill**	**GBP mill**
Goodwill	256.0	246.0	232.3	216.7	189.8	186.5
Other Intangible Fixed Assets	43.7	43.6	39.1	35.1	22.9	
Property, Land & Buildings & Capital Work	202.1	204.1	193.5	186.0	157.3	143.1
Plant, Equipment & Vehicles - net	181.7	193.4	197.4	189.3	169.8	165.0
Financial Investments, Tax & Pension Assets & Deriv.	24.4	27.4	22.6	139.1	206.0	238.5
Medium-term Trade-related Assets	170.8	53.4	66.7	5.9	2.5	2.2
Total Fixed Assets	**878.7**	**767.9**	**751.6**	**772.1**	**748.3**	**735.3**
Stocks, Inventories, Work in Progress	9.9	9.9	10.5	11.0	9.4	8.8
Trade and Other Receivables	166.1	179.5	160.3	147.8	139.4	130.1
Other financial assets & investments						
Cash and Short-term Investments	51.3	54.5	59.8	75.4	104.6	89.9
Tax Assets, Derivatives, Assets for Sale & Other		0.2	3.0	13.1	13.3	31.9
Total Current Assets	**227.3**	**244.1**	**233.6**	**247.3**	**266.7**	**260.7**
Total Assets	**1,106.0**	**1,012.0**	**985.2**	**1,019.4**	**1,015.0**	**996.0**
Short-term Debt	9.5	39.3	12.2	30.8	5.4	62.0
Trade and Other Payables	195.6	225.4	214.1	202.2	204.3	202.1
Corporation Tax Payable	2.4	4.7	8.0	6.8	10.7	8.9
Provisions, Derivatives & Other Current Liabilities	3.9	7.0	4.4	21.7	12.6	9.2
Total Current Liabilities	**211.4**	**276.4**	**238.7**	**261.5**	**233.0**	**282.2**
Medium & Long-term Debt	380.2	222.6	253.8	322.0	406.4	370.9
Medium-term Trade Payables	20.4	18.7	5.4	2.3	1.2	0.3
Tax, Pension & Other Long-term Provisions	108.8	96.9	116.7	119.9	100.9	112.4
Total Non-current Liabilities	**509.4**	**338.2**	**375.9**	**444.2**	**508.5**	**483.6**
Issued Share Capital	39.7	39.7	39.7	39.7	39.8	39.8
Share Premium Account, Treasury Shares	99.3	99.4	99.4	99.8	99.9	100.0
Revaluation Reserve						
Other Reserves	57.8	55.6	36.0	41.4	36.6	24.4
Revenue Reserves	188.4	202.7	195.5	132.7	97.4	66.7
Total Capital and Reserves	**385.2**	**397.4**	**370.6**	**313.6**	**273.7**	**230.9**
Non-controlling Interests		-	-	0.1	(0.2)	(0.7)
Total Shareholders' Funds	**385.2**	**397.4**	**370.6**	**313.7**	**273.5**	**230.2**
Balance Check	**-**	**-**	**-**	**-**	**-**	**-**
Accumulated depreciation	434.4	438.1	443.3	488.2	478.8	470.0

Equity Analysis Model

Alchemy Group plc

UK-Style Cash Flow Statement

	Historical Data					
Accounts date	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
Currency / units	**GBP mill**	**GBP mill**	**GBP mill**	**GBP mill**	**GBP mill**	**GBP mill**
Number of months	**12**	**12**	**12**	**12**	**12**	**6**
CASH FLOW FROM OPERATING ACTIVITIES						
Operating Profit	35.8	41.5	46.8	4.5	23.4	(1.8)
Tangible Asset Depreciation	50.1	48.8	50.5	63.2	46.2	18.8
Dec(Inc) in Stock / Inventories	-	(0.1)	(0.8)	(0.5)	1.2	0.1
Dec(Inc) in Debtors / Receivables	(5.1)	(19.7)	14.3	7.4	8.7	2.1
Inc(Dec) in Creditors / Payables & Advance Payments	9.9	26.3	(11.5)	(6.0)	4.5	1.1
All other non-cash adjustments & Exceptionals	5.0	2.6	10.6	(0.9)	(10.8)	10.7
Cash Generated from Operations	**95.7**	**99.4**	**109.9**	**67.7**	**73.2**	**31.0**
Dividends Received from Associates						
(Tax Paid)	(7.2)	(4.1)	(7.1)	1.9	(1.6)	(1.6)
Net Cash from Operating Activities	**88.5**	**95.3**	**102.8**	**69.6**	**71.6**	**29.4**
CASH FLOW FROM INVESTING ACTIVITIES						
Income Received from Investments	11.0	8.4	4.0	4.2	4.2	
Interest Received				6.1	4.9	2.3
(Purchase of Tangible Fixed Assets)	(59.1)	(70.9)	(78.8)	(53.1)	(36.6)	(19.2)
Disposal of Tangible Fixed Assets	2.3	4.4	5.4	7.2	12.4	0.6
(Purchase of Subs, Intang., Financial & Forestry Assets)	(33.8)	(31.4)	(25.0)	(73.8)	(71.9)	(39.4)
Disposal of Subsidiaries, Intangibles & Financial Assets	38.2	33.1	4.0	6.2	16.1	3.1
Net Cash from Investing Activities	**(41.4)**	**(56.4)**	**(90.4)**	**(103.2)**	**(70.9)**	**(52.6)**
CASH FLOW FROM FINANCING ACTIVITIES						
(Interest Paid)	(28.8)	(17.7)	(17.4)	(17.6)	(18.3)	(8.6)
New Shares Issued	67.0	0.1		0.4	0.2	0.1
(Repurchase / Redemption of Shares)						
(Costs of Issuing / Redeeming Equity)						
Total Increase in Debt		104.5	44.5	88.8	146.3	39.1
(Total Decrease in Debt)	(56.6)	(110.5)	(25.3)	(3.7)	(84.1)	(10.7)
(Dividends Paid on Ordinary Shares)	(4.0)	(11.9)	(13.3)	(13.7)	(13.7)	(9.3)
(Preference and Minority Dividends Paid)						
Miscell. Financing Costs e.g. derivatives, bank fees						
Net Cash from Financing Activities	**(22.4)**	**(35.5)**	**(11.5)**	**54.2**	**30.4**	**10.6**
Net Increase/(Decrease) in Cash & Equivalents	24.7	3.4	0.9	20.6	31.1	(12.6)
Balance check	-	0.0	0.0	-	0.0	-
Change in Cash	24.3	3.2	5.3	15.6	29.2	(14.7)
Change in Overdraft	0.4	0.2	(4.4)	5.0	1.9	2.1

Equity Analysis Model

Alchemy Group plc

Cash Flow Analysis

	Historical Data					Interim
Accounts date	2010	2011	2012	2013	2014	2015
Currency / units	GBP mill	GBP mill	GBP mill	GBP mill	GBP mill	GBP mill
Cash Flow Summary	audited	audited	audited	audited	audited	unaudited
Number of months	12	12	12	12	12	6
CASH FLOW FROM OPERATIONS						
Operating Profit	36	42	47	5	23	(2)
Other Non-cash & Exceptional Items	5	3	11	(1)	(11)	11
Investment Income	11	8	4	4	4	
"Cash Profit"	**52**	**53**	**61**	**8**	**17**	**9**
(Increase) / Decrease in Net Working Assets	5	7	2	1	14	3
Tangible Asset Depreciation	50	49	51	63	46	19
Net Capital Expenditure	(57)	(67)	(73)	(46)	(24)	(19)
(Tax Paid	(7)	(4)	(7)	2	(2)	(2)
(Dividends Paid)	(4)	(12)	(13)	(14)	(14)	(9)
Free Cash Flow before Interest	**39**	**25**	**20**	**14**	**38**	**2**
(Net Interest Paid)	(29)	(18)	(17)	(12)	(13)	(6)
Internal Cash Flow	**10**	**8**	**3**	**3**	**25**	**(5)**
ACQUISITION & FINANCING CASH FLOWS						
(Acquisitions),Disposals,(Investments)	4	2	(21)	(68)	(56)	(36)
Increase / (Decrease) in Share Capital	67	0		0	0	0
Increase / (Decrease) in Debt	(57)	(6)	24	80	60	26
(Increase) / Decrease in Cash	(24)	(3)	(5)	(16)	(29)	15
Net Financing Cash Flow	**(10)**	**(8)**	**(3)**	**(3)**	**(25)**	**5**

Equity Analysis Model

Alchemy Group plc

Share Price Data

	Historical Data					
Accounts date	2010	2011	2012	2013	2014	2015
Currency / units	GBP mill	GBP mill	GBP mill	GBP mill	GBP mill	GBP mill
	12	12	12	12	12	6
Number of Shares & Eps						
Basic Earnings per Share (pence)	4.8	5.5	6.7	(8.9)	(7.1)	**(2.5)**
Underlying Earnings per Share (pence or equiv.)	**6.5**	**6.5**	**7.2**	**5.0**	**4.8**	**2.1**
Interim Dividend Per Share (pence)	1.0	1.00	1.10	1.10	1.10	1.10
Final Dividend Per Share (pence)	2.0	2.35	2.35	2.35	2.35	
Total Dividends Per Share (pence)	**3.0**	**3.4**	**3.45**	**3.45**	**3.45**	**1.10**
Average number of common shares	374.400	396.8	396.8	397.1	397.6	397.8
Share Prices						
Common Share Price - Low (£)	0.573	0.909	0.895	0.733	0.725	0.845
Common Share Price - High (£)	1.368	1.270	1.315	1.016	1.210	1.200
Common Share Price - Average (£)	0.97	1.09	1.11	0.87	0.97	1.02
Risk rating						
Variability %	47	48	47	50	45	47
Beta (actual or estimate)	1.50	1.50	1.55	1.36	1.39	1.42
Assumed Market Risk premium	**4.19**	**4.19**	**4.19**	**4.19**	**4.19**	**4.19**
UK 5-year Gilt Yield	**2.28**	**1.96**	**0.72**	**0.85**	**1.87**	**2.42**
3-month LIBOR or equivalent	0.61	0.76	1.08	0.52	0.55	0.55
Market Capitalisation						
Market Capitalisation - Common Stock	363	432	438	347	385	407
Market Capitalisation - Preference Stock	-	-	-	-	-	-
Market Capitalisation - Total	363	432	438	347	385	407
Minorities	-	-	-	0	(0)	(1)
Net Debt	338	207	206	277	307	343
Enterprise value [EV]	**702**	**640**	**645**	**625**	**692**	**749**

Equity Analysis

Equity Ratios						
Underlying Eps Growth %	(37.5%)		10.8%	(30.6%)	(4.0%)	
P/E Ratio	14.9	16.8	15.3	17.5	20.2	24.3
Market / Book Ratio of Equity	0.94	1.09	1.18	1.11	1.41	1.76
Dividend Cover	2.2	1.9	2.1	1.4	1.4	1.9
Dividend Yield %	3.1%	3.1%	3.1%	3.9%	3.6%	2.2%
Total Return to Shareholders %		15.7%	4.6%	(17.8%)	14.6%	13.6%
EV Valuation Multiples						
EV / Sales	1.03	0.89	0.86	1.02	1.09	1.23
EV / Book Capital Employed	0.97	1.06	1.12	1.06	1.19	1.31
EV / EBITA	13.2	9.6	10.6	8.9	10.3	12.2
EV / EBITDA	6.80	5.53	5.79	4.69	6.10	7.58
EV / Staff Costs	4.0	3.7	3.5	3.9	4.3	

Equity Analysis Model
Alchemy Group plc

Financial Profile

	Historical Data					Interim
Accounts date	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
Number of months	***12***	***12***	***12***	***12***	***12***	***6***
Annual % Growth Rates						
Sales Growth	(0.2%)	4.9%	4.6%	(18.1%)	3.5%	(4.2%)
Margins and Cost Structure						
Cost of Sales % sales	(83.9%)	(84.5%)	(83.5%)	(85.1%)	(84.2%)	(85.1%)
Gross Profit % Sales	16.1%	15.5%	16.5%	14.9%	15.8%	14.9%
Administrative Expenses % Sales	(9.2%)	(8.6%)	(9.3%)	(7.6%)	(8.6%)	(9.7%)
Personnel Costs % Sales	(25.7%)	(23.9%)	(24.6%)	(26.1%)	(25.5%)	
Depreciation % Sales	(7.3%)	(6.8%)	(6.7%)	(10.3%)	(7.3%)	(6.2%)
Total Amortisation % Sales	(0.9%)	(2.4%)	(1.0%)	(4.1%)	(3.3%)	(4.8%)
Total Exceptional Items % Sales (+/-)	(1.7%)	(1.1%)	(0.9%)	(6.6%)	(3.5%)	(6.1%)
EBITA% Sales	7.8%	9.3%	8.1%	11.4%	10.5%	10.0%
EBIT % Sales	5.2%	5.8%	6.3%	0.8%	3.7%	(0.5%)
Profitability / Return on Capital Employed						
EBITA % Capital Employed (pre-exceptionals)	7.3%	11.1%	10.5%	11.9%	11.6%	10.7%
Pre-tax Target Rate of Return 0n Book Value	10.8%	13.2%	12.4%	10.0%	12.7%	14.6%
EBITA % Market Enterprise Value	7.6%	10.5%	9.4%	11.2%	9.7%	8.2%
Pre-tax Target Rate of Return on Market Value	11.2%	12.5%	11.1%	9.5%	10.7%	11.2%
Asset Utilisation / Capital Intensity						
Sales / Total Assets	0.62	0.71	0.76	0.60	0.63	0.61
Stocks % Sales	1.4%	1.4%	1.4%	1.8%	1.5%	1.4%
Debtors % Sales	49.3%	32.5%	30.3%	25.0%	22.3%	21.7%
Creditors & Advance Payments % Sales	31.6%	34.0%	29.3%	33.3%	32.3%	33.2%
Net Working Assets % Sales	19.1%	(0.2%)	2.4%	(6.5%)	(8.5%)	(10.1%)
Intangibles % Sales	44%	40%	36%	41%	33%	30.6%
Tangible Fixed Assets % Sales	56%	55%	52%	61%	51%	51%
Depreciable Assets % Sales	27%	27%	26%	31%	27%	27%
Net Capex % Annual Depreciation	113%	136%	145%	73%	52%	99%
Average Age of Depreciable Assets (years)	8.7	9.0	8.8	7.7	10.4	12.5
Tax Ratios						
Effective Interest Rate [P&L] %	7.5%	9.2%	8.3%	6.9%	6.9%	7.1%
Effective Tax Rate [P&L] %	7.7%	(3.3%)	14.6%	(9.9%)	76.6%	(12.8%)
Cash Tax Rate [Cash Flow] %	36.7%	19.3%	22.6%	18.8%	20.8%	(18.6%)

Capital Structure & Credit

Balance Sheet Gearing & Leverage						
Leverage: (Net Debt % Capital Employed)	47%	34%	36%	47%	53%	60%
Net Debt % Enterprise Value	48%	32%	32%	44%	44%	46%
Interest Cover Ratios						
Interest Cover: (EBITA / Net Interest Paid)	3.0	3.3	3.9	4.7	4.2	4.3
Interest Cover: (EBITDA / Net Interest Paid)	5.8	5.7	7.2	8.9	7.1	7.0
Cash Flow before Interest / Cash Net Interest	1.3	1.4	1.2	1.2	2.8	0.2
Income Leverage (Debt Repayment Ability)						
Gross Debt / Cash Retained Profit (years to repay)	22.1	9.0	12.0	10.3	16.2	12.9
Net Debt / EBITDA	3.3	1.8	1.9	2.1	2.7	3.5

ADVANCED DIPLOMA

CASE STUDY EXAMINATION - NOTE FORM ANSWERS

APRIL 2015 – (Final Draft)

QUESTION 1 **[23.4 mins, 13 marks]**

I have a lot of points but candidates only expected to cover the models selectively.

Q1.a. **[16.2 mins, 9 marks]**
[Marking scheme: ⅓ mark for each good point].

STEP – chosen because of the dominance of macro factors driving the sector.

Social (positive) –backcloth of environmental concerns & initiatives, throw-away society
Technical (positive) – technology-based processes, technically-innovative/adoptive company, investing in technology.

PPP/PFI expertise important in some countries. Economic (negative turning positive) – level of economic activity in key sectors & municipals, recently adverse especially Holland, more cyclical in parts but low to medium growth in GDP (solid waste slowest to hazardous fastest).

Some shelter via long-term contracts. Economies of scale but high fixed costs.
Political (positive) – regulation increasing in many areas – creates new opportunities, increases business demand. Favours co versus competitors, favours established, bigger, tech-based companies. PPP/PFI in UK now ended.

Porter's 5 Forces – chosen because at heart of competitive/profitability analysis.

Supplier power (neutral) – big utilities & companies.
Crucial port & plant locations (planning/environmental concerns). Otherwise labour, equipment, construction work.

Customer Power (positive) – Big customers, public & private – must dispose/ re-cycle big volumes of waste and need security of off-take, avoid environmental/reputation risks (long-term contracts).

New Entrants (positive) – Low risk of big, new entrants or new combinations – capital intensive, technology-intensive and regulated, entrenched positions. Small new entrants not a threat but an acquisition opportunity.
New products (neutral) – company not at forefront of development but an adopter.
Industry competition (negative) very competitive (4 large, lots of medium/small competitors).

Respective areas of dominance but company not land-fill or incineration – the way forwards!

<u>Environments Matrix</u> – good summary of portfolio strategic positions.

Hazardous and organic – Specialist
Solid and UK Municipal – between Stalemate and Volume

<u>Competitive Strength / Industry Attractiveness Matrix</u> - good summary of portfolio strategic positions.

Hazardous – Star
Organic – Question Mark
UK Municipal – Cash Cow?
Solid Waste – maybe just a Dog?
Overall – in the middle tending positive.

Product/Market Life Cycle – a mix of Mature and Growth.

Q1.b. [7.2 mins, 4 marks]
[Marking scheme: ⅓ mark for each good point].

<u>Strengths</u>
Strong market share Benelux & UK.

Ireland very favourable environment.
European concentration is a strength.
EU regulation stronger, more favourable & developing
Politically & economically stable base.

<u>Weaknesses</u>
Too dependent on Benelux & not easy to diversify globally.
Canada next best opportunity, but small, separated outlier.
Southern Europe close but not attractive for business development.
Big GBP/EUR exposure.
Plants require heavy capital investment locally – not easy to re-deploy, reduces strategic flexibility.
Bulky waste, costly to transport – local operation essential – again inflexibility strategically.
Not in developing markets at all – big growth potential being missed.

QUESTION 2 **[19.8 mins, 12 marks]**

N.B. I have given a very full answer for teaching purposes.

Q2.a. **[16.2 mins, 9 marks]**
[Marking scheme: ⅓ mark for each good point].

<u>2012</u>
Operating profit and profit margin the best of the five years – and highest sales
Cash profit (61m) better than operating profit because of 1m non-cash charges added back.
Change in working capital adds only 2m despite NWA% change from minus 0.2% to plus 2.4% (creditors down). Stable.
Capex / depreciation high at 1.43, "costing" 22m or 36% of cash profit.
If replacement capex = 75% of depreciation (over-depreciation in the early years of big, costly plants) the additional spend for growth is 73m - 0(.75 x 51) = 36m.
Tax and dividends take 20m or 33% of cash profit (tax rate seems OK).
Interest took a similar amount- 17m or 28% of cash profit.
Minimal ICF surplus of 3m, so not much interest cover.
Acquisitions of 21m all funded by net debt (34% of cash profit).

Conclusion:
Strong cash flow based on strong profit and providing for strong investment in growth. With replacement capex surplus would be about 39m (64% cash profit). This pattern of cash flow is sustainable given this level of profit and, on the back of it, a 21m debt-funded acquisition is also sustainable (less than 10% of balance sheet debt).

<u>2014</u>
Profit has halved and operating margin drastically reduced, though EBITDA margin higher because of higher amortisation etc.
Cash profit (now 17m) down even more through deduction of 11m non-cash credits to profit.
NWA contributed 14m through a big reduction in debtors.
Biggest change is reduction of capex to 24m (52% of depreciation) so 10m below replacement level. But now 141% of cash profit.
Tax is very low, tax and dividends stable but now 94% of cash profit.
Interest paid is down but still 76% cash profit.
The big acquisition of 56m was 55% debt funded.

Conclusion:
Weak cash generation but a net surplus was achieved by squeezing debtors and drastically reducing capex.
This is not sustainable – normal working capital would have contributed 10m less and capex consumed 10m more, still leaving a surplus of 5m. But the acquisition would be virtually all debt funded putting pressure on the balance sheet debt.

Q2.b. [3.6 mins, 2 marks]
[Marking scheme: ⅓ mark for each good point].

On a sustainable basis over the last three years cash generated was only 3m to 5m each year. Acquisitions averaged 48m per year, so would need to be largely funded by debt or shares. Gearing has increased on virtually all measures so cannot carry on rising at this rate. A share issue would be new territory.

QUESTION 3 **Future Development of the Business & Treasury**
[21.6 mins, 12 marks]

[Marking Scheme: Up to 1.25 mark for quantification of each Division, based on credibility, and 1 mark for aggregation]

Q3.a. Business Growth Aspiration (10.8 mins, 6 marks)

The table below shows the likely and optimistic growth assumptions of three students and the corresponding sales by division and in total. It also shows the examiners assumptions as well as one of the equity analysts aggregate sales estimates to 2017.

SAMPLE of STUDENTS | **EXAMINER**

2014 SALES GBP m				**to 2019 LIKELY % pa**	**to 2019 UPPER % pa**		**2019 LIKELY GBP m**	**2019 UPPER GBP m**	**EXAMINER to 2019 LIKELY % pa**		**EXAMINER 2019 UPPER GBP m**
SOLIDS	324	**#1**		2	3		358	376			
		#2		-2	1		293	341	2		358
		#3		0	1		324	341			
HAZARDOUS	148	**#1**		10	15		249	298			
		#2		3.5	5		176	189	7		207
		#3		2	3		163	172			
ORGANIC	36	**#1**		20	25		90	110			
		#2		5	10		46	61	10		58
		#3		2	3		40	42			
MUNICIPAL	137	**#1**		2	3		151	159			
		#2		0	2		137	151	2		151
		#3		1	2		144	151			
2014 TOTAL GBP m				**to 2019 CAGR LIKELY**	**to 2019 CAGR UPPER**		**2019 TOTAL LIKELY**	**2019 TOTAL UPPER**	**to 2019 CAGR LIKELY**		**2019 TOTAL LIKELY**
	645	**#1**		5.63	7.89		848	943			
	645	**#2**		0.22	2.84		652	742	3.71		774
	645	**#3**		0.79	1.82		671	706			

EQUITY ANALYST	**to 2017**	**2.73**

Note: this level of detail for explanation, not required in the exam.
The bases for the growth assumptions by division are:

- Solids: in line with GDP, no appetite to grow this Division

- Hazardous: niche area increasing capacity, so should grow in current geographic region of activity

- Organic: niche area so appetite to grow, expand in North America, Benelux and UK

- UK Municipal: in line with GDP, appetite for growth uncertain given it is heavily influenced by Government policy.

Q3.b. Following on from Q3.a. priority future corporate finance/treasury activities (10.8 mins, 6 mins)

[Marking Scheme: Up to 1.5 marks for each activity identified, based on credibility and quality of justification]

- **Examiners' choice:**

  - Funding:
    Capital intensive business needing to refinance and grow, with relatively flat performance

  - PFI bidding modelling and metrics:
    PFI/PPP projects are often long-term, complex and subject to government short term whim so need careful evaluation

  - Strengthened central treasury unit if growth is significant:
    growth and more diversity might overstretch this rather small treasury

  - Fx risk management if growth is significant and geographic diversity increases:
    Currently 75% Benelux/EUR so if growth is not Eurozone, Fx will become more significaHelping with financial impact evaluation of new technology as a business differentiating factor:
    Competitive, capital intensive and get locked in to a cost structure once you invest. So important to ensure you are investing at the frontier of technology.

- **Students' choice – mentions as % of total mentions:**

- Funding	20%
- Fx risk	16%
- Liquidity management	16%
- Project investment appraisal	12%
- Acquisition appraisal	12%

	76%
- Miscellaneous	<u>24%</u>
	<u>100%</u>

- **Conclusion:**

  There was considerable congruence between the examiners' and students' choices. The main difference was the examiner's slightly different emphasis by including an organisational issue – strengthening central treasury – and a strategic-competitive issue – looking to innovative technology to get a step ahead.

QUESTION 4 **[25.2 mins, 14 marks]**

Q4.a. **(12.6 mins, 7 marks)**
[Marking scheme: ⅓ mark for each good point].

Arguably about BB

<u>Financials</u>

<u>Key Ratios at 2014</u>.
Return on capital 3.5% (post exceptionals) - very poor because of exceptional items but never very good. Rating CCC or worse.
Total debt % capitalisation 60%, increasing and too high. Rating B.
EBIT / Interest Coverage 4.2, improving but weak. Rating BB
Free OP. Cash Flow / Total Debt 9%, improving OK. Rating BBB

<u>Credit Metrics at Interim 2015</u>
Net Debt % EV rising since 2012 – now 46%, high.
EBITDA / Net Interest 7.0, better in last 3 years, good.
Net Debt / EBITDA 3.5, increasing, high enough
Net Debt / Cash Retained Profit, now at 12.9
But looks much better if PPP/PFI debt is excluded.

Basic pattern of cash flows is stable, as discussed in Q2

<u>Non-financials</u>

Share-price risk metrics are high – (all 2014) variability 45%, Beta 1.39 (specific risk therefore 32%). So high on both specific risk and systemic market risk.

As discussed in Q1, a mix of positive, negative and neutral factors – dependent on GDP growth, (especially construction) strong positions in Holland and Europe, regulation, hazardous waste, capital intensive business, environmental issues generally, lots of small, private (largely regulated) competitors etc. On balance confirm BB rating

Q4.b. **(5.4 mins, 3 marks)**
[Marking scheme: ⅓ mark for each good point].

Why not?
PPP/PFI debt is provided by specialist project-finance lenders independent of the company, but rating agencies would include it in company risk assessment. Debt is leasing, bank loans (24%), senior notes (13%), retail bonds (63%) – well tried and tested sources of finance, no rating required and has provided ample funding in past. Senior notes are "intermediate" between bank loans and bonds.
- gives some diversification and flexibility.

Rating process is costly, with onerous initial and continuing costs and obligations plus requiring extensive disclosures.
Tighter internal financial discipline is required.

Why?
Might be needed in future for access to deeper funding e.g. for acquisitions.
Senior note market might lose appetite for company debt.
Bonds might be cheaper than current relatively-expensive debt
Diversifying funding sources.

Q4.c. PPP/PFI **(7.2 mins, 4 marks)**
[Marking scheme: ⅓ mark for each good point].

Rating agencies include it in assessing the size of overall debt – taking the worst possible view. But acknowledge the difference. Does indicate the total debt for which the company is "responsible"/has generated. Many companies would assume a moral obligation or at least a concern about reputational risk if the debt defaulted. Banks and other lenders would probably not share the rating agencies views.

But strictly non-recourse and secured only on PPP/PFI project assets – "ring-fenced" – no claim on "parent company" assets or revenues and serviced from project cash flows – essentially cash flow lending. These investments were set up as non-recourse with a clear intention not to support them under all circumstances, this differs hugely from the typical plc and their 100% (or near) subsidiaries.

Banks providing the debt usually benefit also from non-guarantee comforts from parent via contractual obligationCompany can also sell their PPP/PFI equity and so lose the off B/S debt (Alchemy has done so with most of its projects).

Company claims that its history of re-financing project debt proves the no-recourse, no credit risk, nature of the debt.

Treasurers have to argue the case for such debt not impinging on their credit rating.

Small print of loan agreements is absolutely crucial. A particular concern might be cross default clauses in parent company debt which reference debt in any group company.

N.B. PPP debt/assets = 151.2 / 195.6 = 80% ie highly leveraged [14] therefore would harm Alchemy's credit rating.

PPP interest receivable/payable = 9.4 / 8.2 = 1.12 [15] ie thin cover – also reduces credit rating. [16]

Funding mix and terms. Bank club – fx fixed/floating, tenor etc
Management of initial large cash balances - investment returns

QUESTION 5 [25.2 mins, 14 marks]

Q5.a. (16.2 mins, 9 marks)
[Marking scheme: ⅓ mark for each good point].

Board Paper Style

<u>Notes</u>

- Since such projects are big, highly leveraged and can be seen as exposed to risks different to Alchemy's normal business risks – diversification of assets, funding sources and counterparties is crucial – hence risk diversification

- Contract-dominated businesses, including special finance contracts, therefore specialist treasury-type expertise on contract review, monitoring and management (financial/legal /risk expertise)

- Understanding the principles and variations of subordinated debt and the highly-leveraged pure equity – essential risk-returns focus

- Portfolio review and restructuring especially given long time scales – of operating contract and financial investment especially disposal or enhancement of equity stakes as appropriate

- Oversight of bidding process costs (when to dip out) and success rate

- Counterparty risk assessment – not just or especially the financiers.

- Evaluation of NPV/IRR returns (can be conditional on many factors and very complex depending on contract conditions) during the bidding process and later

- Ensuring non-recourse conditions are met and maintained

- Re-financing especially at lower rates after construction phase and associated higher risks. But also in relation to changing bank strategies

- Minimising the need for and duration of expensive bridge finance
- Monitoring return on operating contracts if terms renegotiated
- Monitoring operating targets as well and as strictly as financial covenants
- Monitoring/forecasting re-cycle process
- Dividend policy /decision of SPVs
- Understanding, reviewing and re-phasing the capex cycle by investment

Q5.b. Risks to PPP/PFI (9.0 mins, 5 marks)
[Marking scheme: ⅓ mark for each good point].

- Tough or onerous contract terms
- Operating risks of contract assets - mechanical, labour, efficiency/throughput costs
- Energy costs and prices. Unprotected recyclate prices (paper, glass/plastics, metals)
- Changing local authority or EU policies, recycling targets, reputations, etc.
- Delayed or refused planning permission
- Construction delays cost over-runs
- Non-guaranteed, inadequate volumes/under-utilised capacity
- Plant failures, higher maintenance, technical updates
- Counterparty risk, especially private sector ones
- Environmental pollution issues
- Local resident objections /protests – PR failures
- Health and safety generally
- Changing waste mix less profitable

QUESTION 6

Net Working Assets Evaluation [14.4 mins, 8 marks]

[Marking Scheme: demonstrate understanding of NWAs by identifying three unusual features which could have an adverse impact – for a pass]

Q6.a. Potential risks associated with NWAs

(9.0 mins, 5 marks)

- NWA = Stock + Debtors – Creditors

- NWAs / Sales % = $\frac{(55.5)}{636.4}$ = (8.7%) ie <u>NEGATIVE</u>

  This means that for every £100 of revenue, NWAs <u>generates</u> £8.70.

  Negative NWAs are unusual because growth normally requires a build-up of stock/W.I.P. and debtors which in aggregate normally exceed creditors.

  The commonest example of negative NWAs is retail, especially retail chains, where there are zero or minimal debtors; and big retail chains can also usually exert buyer power to stretch creditors. Typical value would be (6%).

  So Alchemy is unusual – and lucky – to generate cash as it expands . . . . unless the NWA structure is distorted by some temporary circumstance which when corrected will create a significant cash outflow which will need to be financed; a sharp fall in revenues could have the same adverse impact.

  The other unusual thing about Alchemy's NWAs is that the debtors and the creditors elements are each relatively large - the creditors has been consistently so – and stable – since 2010 while the debtors has steadily decreased from a staggering 49% of sales in 2010 to 22% in 2014, 'though that is still relatively large.

  Examples of NWA/Sales % from past Case Exams are:

Global Spirits (10.2012)	30%
Global Gases (04.2014)	27%
TIC Global (10.2014)	9%

  So a swing in NWA/Sales % from (8.7%) to say, 8.7% positive would represent a cash drain of £111m (£637 x 17.4%).

  Just taking the conventional £ items ie

Stock	=	9.4
Trade Receivables	=	94.5
Trade Payables	=	<u>(82.0)</u>

NWA		<u>21.9</u>
NWA/Sales %	=	[21.9 / 637] = 3.4%

A swing to 3.4% represents 12.1% Sales = £77m cash.

So any items other than the conventional three above might be queried for clarification and assessment as to stability. In particular the level of accruals in payables is very high – this is services used but not yet billed. Is this realistic at 1.5% of sales. Could there be some window dressing?

Q6.b. Questions to help in assessing risks to stability of NWAs
(5.4 mins, 3 marks)
[Marking Scheme: 3 questions which would help assess the risks to pass]

It would be good to have a breakdown of NWAs by Division from 2010. Also:

- What are the drivers of NWA elements (PFI?)
- Rules for accruals, both sides of B/S
- Debtor impairments?
- Stress test: what distortions are known to exist that we should model

And at bottom, is the current very favourable number sustainable or the result of a persistent management squeeze?

QUESTION 7 [21.6 mins, 12 marks]

Q7.a. Comment on the current composition of debt (excluding PFI/PPP)
(10.8 mins, 6 marks)
[Marking Scheme: Up to 1 mark per feature, for understanding shown]

(i) Types: Although this firm is not rated, about 75% of core debt is capital market, ie a private placement and two retail bond issues. The rest is bank debt, half of which is a multi-currency revolving facility.

The retail bond market (LSE ORB) is the biggest component. ORB is good for a company like Alchemy. The business is easy to understand and the purpose is fashionable, ie environmentally positive, so potentially attractive to a retail investor. ORB retail is not as credit sensitive as the main market and it is also international.

(ii) Mix: If there is substantial growth, Alchemy might need to access the public bond market where a rating would be necessary and investors will be more discerning about risk-return. There may be some scope for project-asset related finance in the banking sector, given the high capital intensity of the business and developments in Hazardous, Organic and Municipals Division.

(iii) Currency mix: Three-quarters of the firm's business is in Benelux and almost all the funding is EUR or multi-currency, so the match is good.

(iv) Interest rate basis: the capital markets elements are all fixed at issue, so unlike floating rate borrowers which have swapped a part to fixed, Alchemy does not have large MTM collateral call obligations. If they had swapped to floating they would be the other way round and have credit risk exposure on their derivative banks. Alchemy already has revolving bank debt as a source of floating.

(v) Maturity structure: Core debt is spread out evenly: 1-2 years = £85m, 3-5 years = £89m and over 5 years = £83m.

(vi) Headroom: On aggregate figures, £412m (including leasing) is drawn and facilities (excluding leasing) is a total of £569m, so headroom is £157m. On core debt of £260m, there appears to be headroom on the EUR RMCB facility of about £85m [180/1.3 – 53]. So headroom looks adequate as long as covenants are complied with and a drawdown notice can be signed, or any drawdown might cause an immediate breach of a covenant.

None of the above discusses the possibility of acquisitions which would not be easy to fund with debt. On the other hand, shareholders might be able to monetise any potential future value if Alchemy was acquired by a competitor.

Q7.b. Future funding plan and composition (10.8 mins, 6 marks)
[Marking Scheme: looking for evidence that student has understood both the key *business* drivers and amount of funding required and the constraints of *accessing* what is required]

We have not got detail on the financial profiles of each division, so for purposes of exposition some of the comments below assume that the group financial profile data (Case p 24) is typical of each division.

An estimate of future funding requirements needs to take account of:

• re-financing – about two thirds of core borrowings (GBP 175m) is due for refinance over the next five years to 2019.

• capex to make good asset depreciation – for the past few years capex as a % of depreciation has been well below replacement cost.

• growth – assuming divisional growth rates adding up to a CAGR of 3.71% between 2014 and 2019 (see Q3.a. solution), growth will be GBP 129m (GBP 774 - 645), requiring aggregate working capital and fixed capital investment of about GBP 30m (Financial Profile NWAs (8.9%) sales and fixed assets of 33% of sales = 24.1% sales, ie GBP 31m)

- working capital
- fixed capital
- profit
- dividend

Looking at the most significant in a bit more detail:

Refinancing.

REFINANCING CORE BORROWINGS

< 1 YR GBP m	1 - 2 YR GBP m	3 - 5 YR GBP m	> 5 YR GBP m	TOTAL GBP m
3.7	84.8	88.75	83.35	260.6
1%	33%	34%	32%	100%

Refinancing is the most significant item, given that growth is relatively low. About half is EUR retail bonds and the balance is bank debt and the senior note/private placement. If Alchemy's performance was stronger, it could be contemplating a credit rating and a public bond issue. As that is not yet the case, retail bonds and private placements are worth pursuing again, so the company needs to be creating investor interest now.

Replacement capex

Depreciation is running at about GBP 50m pa. In 2013 and 2014 capex as a % of depreciation fell to 73% and 52%, though it looked like recovering in H1 2015.

Growth

Sales growth of GBP 129m will require financing additional fixed assets of 33% of marginal sales (GBP 43m), offset by the positive cashflow effect of negative NWAs of (8.9%) of marginal sales (GBP 11m), netting out to GBP 31m.

Conclusion

Given that projected growth is relatively low, that significant geographic diversification is not on the cards at present and that the mix of current debt and headroom is acceptable, refinancing by rolling over existing facilities looks like a suitable plan. The main focus needs to be on restoring profitability. If that fails, then refinancing could become a challenge, headroom could soon become exhausted and the company could become a takeover target.

QUESTION 8
Fx & Interest Rate Risk Management Policies

[28.8mins, 16 marks]

Context

At present, Alchemy is relatively easy to understand in terms of currency risk. The businesses are generally self-contained country by country, with relatively little intragroup trading, exports or imports. Revenue is 75% EUR, 20% GBP and 5% CAD, with the currency of debt in roughly corresponding proportions. About 60 % of debt is fixed rate bonds with the balance floating rate bank debt. This balance may, of course, change as debt is refinanced and the businesses expand.

However, unless there is an acquisition/merger, the broad profile of the business as described above is almost certain to persist. The main changes will be an increase in Hazardous revenue of about GBP 50m in EUR and in Organic of GBP 20m probably in CAD. The debt to be re-financed is mainly EUR and there is no reason to suppose that it cannot be rolled over in the same currency.

Q8.a. Future appropriateness of current fx risk management policies.
(14.4 mins, 8 marks)

[Marking Scheme: looking for (i) understanding of the current features of Alchemy's FX risk, (ii) the fit with the current policy and (iii) how if at all the next five years will change things]

Current policy:
- Transaction risk – hedge known risks as they arise using forwards.
- Translation risk – structural hedge through with matching debt.

Referring back to Q3.a. and Q7.b. the main changes foreseen up to 2019 are an increase in Hazardous revenue of about GBP 50m in EUR and in Organic of GBP 20m probably in CAD. The debt to be re-financed is mainly EUR and there is no reason to suppose that it cannot be rolled over in the same currency

The company's reported sensitivity to changes in FX rates is shown in the table below for 2013 and 2014. It is negligible for income but rising for equity.
Conclusion: no need to change policy just now but monitor; be aware that some equity investors may desire currency exposure

	2014		2013	
	Income Sensitivity GBP	**Equity Sensitivity GBP**	Income Sensitivity GBP	Equity Sensitivity GBP
10% increase in FX rates against GBP				
EUR	**-0.4**	**18.1**	-0.2	5.7
CAD	**-0.1**	**0.2**	-0.1	0.2
	-0.5	**18.3**	-0.3	5.9

Q8.b. Future interest rate risk management policy

(14.4 mins, 8 marks)

[Marking Scheme: along the same lines as part (a), ie understanding of how existing interest rate risk is managed, whether that is sensible and whether the changes planned for the coming five years will require a different approach]

The company's core borrowings (non-PFI) are largely fixed EUR plus a little floating bank debt.

The Municipal PFI/PPP debt is bank floating rate GBP.

PFI/PPP contracts are long term controlled revenue activities, ie increased costs cannot be passed on freely to customers. So it is customary to fix as many costs as possible, including interest.

In fact, the company has hedged all its floating rate debt, arguing that rates are at an all-time low.
Interest rate sensitivity is shown in the tables below.

	2014		2013	
	Income Sensitivity GBP	**Equity Sensitivity GBP**	Income Sensitivity GBP	Equity Sensitivity GBP
1% Increase in interest rates				
Derivatives	**1.8**	**42.1**	1.2	47.2
Non-derivs.	**-1.2**	**-1.2**	-1.3	-1.3
	0.6	**40.9**	-0.1	45.9

	2014		2013	
	Income Sensitivity GBP	**Equity Sensitivity GBP**	Income Sensitivity GBP	Equity Sensitivity GBP
1% decrease in interest rates				
Derivatives	**-1.8**	**-26.8**	-1.2	-30.3
Non-derivatives	**1.2**	**1.2**	1.3	1.3
	-0.6	**-25.6**	0.1	-29

So if rates are fixed, interest rate income sensitivity will be very low.
However, there is "equity" sensitivity – the mark-to-market on a pay-fixed/reeive-floating swap goes against you if interest rates fall even further, as they have done in recent years. However, if the company can manage the MTM collateral calls, eg by providing some asset security, then locking in low rates for five to ten years is probably worth doing to protect already low profitability.

Examiner's Report   Advanced Diploma - April 2015

OVERALL SUMMARY OF PERFORMANCE

	General Exam	Case Exam	Combined
Marks	36.7%	48.5%	42.5%
Questions	7	8	16
Students	6	6	12
Passes # @50%	0	3	3
Passes # @45%	0	4	4
Pass % (50%)	0%	50%	25%
Pass % (45%)	0%	67%	33%

Range of marks   31.2% to 42.6%   40.0% to 56.1%

OVERVIEW

This exam consisted 100% of re-sit candidates with two re-taking both papers. This was a disappointing set of results on all metrics, typified by the overall average mark of 42.5% with only three passes at the 50% pass-mark level.

The quality of work on the General exam was poor as it was on the Corporate Finance and Funding questions across the two papers (average mark 26%, no passes. Performance on the Risk and Treasury Management questions was better (average mark 49%, 5 passes at 45%, 2 at 50%). The detailed figures below show that an average score of 50% or more was achieved on six out of the total of fifteen questions.

General exam	**marks available**	**passes out of 6**	**average mark**
Q1	21	0	28%
Q2	16	2	28%
Q3	17	0	22%
Q4	10	2	43%
Q5	12	2	45%
Q6	12	5	57%
Q7	12	4	51%
Case exam	**marks available**	**passes out of 6**	**average mark**
Q1	13	6	71%
Q2	11	3	56%
Q3	12	5	61%
Q4	14	4	47%
Q5	14	0	33%
Q6	8	2	33%
Q7	12	3	52%
Q8	16	2	36%

Examiner's Report - Case Study Examination

Question1 Use of non-financial analysis tools to assess industry attractiveness and implications of the company's geographical profile.

Overall the marks were very good with 100% pass rate.

Question 2 Analysis of cash flows, assessment of cash-flow sustainability and implications for financing acquisitions.

Some very good work again by some candidates. Weaker candidates did not get into all the detail of the key cash-flow items and were poor on understanding and assessing sustainability, despite this being a key topic that invariably comes up somewhere or other in the exams.

Question 3 To achieve corporate growth aspirations, how much must each of the four divisions grow in revenue and geographic presence, Part (a) and what does this imply for treasury priorities, Part (b)?

Five of six passed at 50%, five of six at 45%, average mark 61%. This evergreen Question provoked the highest scoring responses for the Risk and Treasury Management questions. The level of quantification in Part (a) was pleasing, with very good analyses from all but one student. Part (b) was also thoroughly executed and all passed. The most mentioned future treasury priorities were funding, fx risk management, project appraisal and acquisition appraisal, which conforms well with the suggested Solution. However no one mentioned strengthening the central treasury unit if growth is significant, which seems a likely requirement.

Question 4 Assessment of credit rating, the reasons for having/not having a rating plus the credit implications of PPP/PFI debt.

The first two parts were well generally answered but the less-familiar question on PPP/PFI, which was well explained in the background material, was not well answered by anyone.

<u>Question 5</u> How corporate finance and treasury can add value via PPP/PFI assets and liabilities, and identify threats to PPP/PFI profitability.

This required a bit of lateral thinking – applying the principles of good finance and treasury skills to an unfamiliar area of business – and there was plenty to go at. Zero passes reflected the zero imagination of candidates. What about portfolio diversification, contract/documentation negotiation, counter-party assessment, understanding structured finance, cash-flow forecasting and monitoring complex IRR/NPV calculations, financing and re-financing, monitoring covenants and performance targets, monitoring/forecasting re-cyclate prices, dividend and other SPV policies, managing the capex cycle etc? What we got was interest-rate risk, FX risk and the conventional corporate treasury stuff.

<u>Question 6</u> What are the potential risks suggested by Alchemy's Net Working Asset (NWA) profile, Part (a) and what Questions would you wish to ask Finance to clarify the situation, Part (b)?

2/6 passed at 50% and 2/6 at 45%, average mark 33%. In contrast to Question 3, this was a very weak performance for a relatively straightforward Question. It seemed that most students did not really understand the business and some had a very weak grasp of what the components of NWA mean. For instance one student thought that negative working assets meant that the firm was funding its customers whereas it is the firm's creditors which are; another thought that debtors of £139m over revenue of £630m (22% or 81 days) is very good. Students who didn't understand the nature of the NWAs in Part (a) naturally struggled in Part (b). Overall there were two average passes and four bad fails.

<u>Question 7</u> Analyse the composition of core debt, excluding PFI**, Part (a) and draft a plan for future funding, Part (b).**

3/6 passed at 50%, 4/6 at 45%, average mark 52%. The answers to this Question drew on responses to Q2 (acquisition finance) and to Q3.a, (future growth). Part (a) was very well or well answered apart from one who just scraped in at 45% - listing the elements of debt in the Question probably helped students to structure their responses. However in Part (b) the responses polarised into three very strong and three very weak. This Question was a good discriminator.

__Question 8__ **Looking ahead to the medium term, critically evaluate the appropriateness of Alchemy's fx risk management policies, Part (a) and also in light of your response to Q7 suggest an appropriate interest rate risk management policy**.

2/6 passed at 50%, 2/6 passed at 45%, average mark 36%. In currency terms Alchemy is relatively easy to understand. The businesses are generally self-contained country by country, with relatively little intragroup trading, exports or imports. Revenue is 75% EUR, 20% GBP and 5% CAD, with the currency of debt in roughly corresponding proportions. About 60 % of debt is fixed rate bonds with the balance floating rate bank debt. This balance may, of course, change as debt is refinanced and the businesses expand. As with Q7, responses to both parts of this Question were polarised, with two competent responses and four very weak ones.