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**Ricardo plc** Annual Report & Accounts 2009

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# CORPORATE PROFILE

Ricardo is a leading provider of product innovation, technology, engineering and strategic consulting. Our advanced and well-equipped technical centres in the US, Europe and Asia serve a wide and balanced customer base which includes the world's leading automakers, vehicle component and system manufacturers, government agencies and industry regulatory bodies. Ricardo has an enviable record for research-led product innovation and programme delivery expertise, which is deployed across a range of market sectors, including passenger car, motorcycle, commercial vehicle, off highway, marine, military, locomotive, and motorsport. We are also increasingly active in related markets such as renewable energy, power generation and transportation and infrastructure planning.

With a clear focus on delivering profit-enhancing clean-technology solutions, Ricardo addresses all the current core automotive industry drivers of international competition, globalisation and the developing power of the emerging economies, climate change, safety and maximisation of natural energy resources. Two key imperatives face the industry: the reduction of exhaust pollutants as regulators world-wide seek to improve air quality, and the improvement of vehicle fuel economy with the aim of both reducing global CO<sub>2</sub> emissions and making best use of the earth's

finite oil reserves. These, along with automotive safety, provide the greatest impetus for Ricardo's self-funded research programme. Along with our proven ability to attract the best of industry talent, it is this research programme that has enabled Ricardo to maintain its technical edge and provided us with crucial first mover advantage as the demand for high fuel-efficiency, clean-technology solutions has risen in response to the recent unprecedented increases in energy prices. The fruit of this consistent innovation may be seen in the leading worldwide brand position Ricardo now occupies in the development of advanced clean diesel technology, hybrid and electric vehicle systems, fuel efficient gasoline engines, efficient transmission systems – including dual clutch technology – and vehicle electronic systems integration.

Our commitment is to excellence and professionalism in all we do, and our industry leadership in technology and knowledge is primarily attributable to our most important asset – the Ricardo team of highly qualified professionals, multi-disciplined engineers, strategic consultants and technicians. Together, our vision is to be the first-choice partner for our clients in all sectors: and to deliver this we rely on the professional excellence and commitment of the entire Ricardo organisation.

# CONTENTS

## **2 Financial highlights**

## **3 Chairman's statement**

## **5 Business review**

- 6 The global market
- 10 Strategy
- 16 Research & development
- 18 Performance review
- 20 Technical Consulting
- 24 Strategic Consulting
- 25 Principal risks
- 27 Corporate social responsibility
- 31 Conclusion

## **33 Features**

- 34 BMW's "brilliant" engine
- 36 Clean energy
- 38 Hydrogen for transportation
- 40 Plugging into the future
- 42 Clean diesel technology

## **45 Governance**

- 46 Board members
- 48 Corporate governance in practice
- 52 Directors' remuneration report
- 60 Directors' report
- 63 Independent auditors' report

## **65 Financial statements**

- 66 Consolidated income statement
- 67 Statements of recognised income and expense
- 68 Balance sheets
- 69 Cash flow statements
- 70 Notes to the financial statements

## **96 Corporate information**

# FINANCIAL HIGHLIGHTS

*Holding our ground despite the turbulence in the global markets*

## Continuing operations:

Order book	level at	<b>7m</b>
Revenue	down <b>2%</b> to	<b>178.8m</b>
Profit before tax	up <b>1%</b> to	<b>£15.7m</b>
Earnings per share	up <b>13%</b> to	<b>28.8p</b>
Net debt	up <b>£3.2m</b> to	<b>£3.5m</b>
Dividends per share (paid and proposed)	up <b>1%</b> to	<b>10.7p</b>

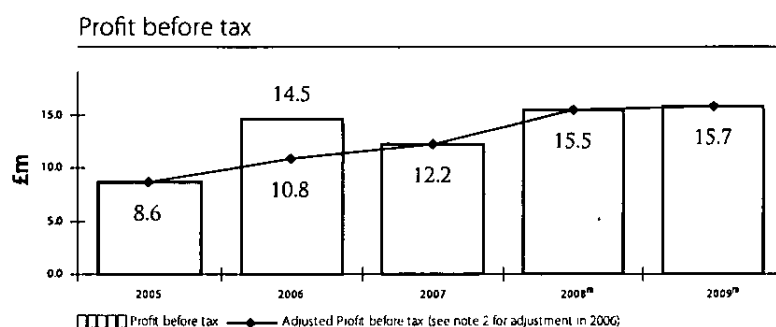
## Continuing and discontinued operations:

Profit before tax*	down <b>12%</b> to	<b>£12.9m</b>
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\* The German exhaust business was held for sale at 30 June 2009 and has been reported under discontinued operations. It incurred a loss before tax of £2.8m (before writing down assets held for sale by £3.8m to anticipated net sale proceeds). Therefore for continuing and discontinued operations combined, the profit before tax and writing down assets held for sale was £12.9m (2008: £14.7m).

## Five year performance record

	2005 £m	2006 £m	2007 £m	2008 £m	2009 £m
Revenue <sup>(1)</sup>	158.1	171.9	171.5	181.9	<b>178.8</b>
Profit before tax <sup>(1)</sup>	8.6	14.5 <sup>(2)</sup>	12.2	15.5	<b>15.7</b>
Net assets	36.7	50.1	61.7	67.1	<b>66.9</b>
	pence	pence	pence	pence	<b>pence</b>
Earnings per share <sup>(1)</sup>	14.8p	24.0p <sup>(2)</sup>	29.6p	25.5p	<b>28.8p</b>
Dividends per share (paid and proposed)	9.0p	9.4p	10.0p	10.6p	<b>10.7p</b>



<sup>(3)</sup> The results for 2008 and 2009 exclude discontinued operations held for sale at 30 June 2009.

<sup>(2)</sup> In 2006, a pensions credit of £3.7m due to the capping of future increases in pensionable salaries to RPI was included in profit before tax. The impact included in earnings per share was 5.2p.



*energy and commitment has  
remained undiminished*



## Chairman's statement

Marcus Beresford CBE

Our financial year to 30 June 2009 has been a period of unprecedented disruption in the world's motor industry, as demand has collapsed in most sectors of the market. I am pleased to say, however, that Ricardo has weathered the downturn better than many. The combination of our diversification strategy, early reductions in our cost base and robust cash management have enabled us to maintain profitability, keep net debt low and continue our key research and development programmes for the future.

Profit before tax from continuing operations was £15.7m, up 1% on the previous year, and earnings per share from continuing operations were 28.8p, up 13% due to a favourable movement in our tax charge. Profit before tax from continuing and discontinued operations was £12.9m, compared to £14.7m in the previous year, including a loss before tax of £2.8m (£0.8m in the prior year) from the German exhaust business which has been treated as discontinued operations. After deducting from this taxation and a £3.8m write down of assets held for sale, the profit for the year was £9.0m, against £12.4m in the previous year.

We have made further progress with our strategy and in particular, have continued to build our presence in our newer markets in China, India and Russia. Our R&D spend has increased despite the downturn and we have secured an important role in a number of UK government and EU sponsored programmes. We have also continued to invest in our people following through a major initiative in talent management across the Group. During the year, the Board decided that the specialist exhaust manufacturing business acquired with our German consultancy business should be sold.

It has been a difficult period for our technical and business teams but their energy and commitment has remained undiminished. My thanks and those of the Board go to them all.

### Board changes

There have been a number of changes to the Board since our last AGM. In November 2008, Ian Lee was appointed Chairman of the Audit Committee and in January, upon Paula Bell's return from maternity leave, Geoff Bicknell resigned as Interim Group Finance Director. Steve Parker resigned from the Board and Ricardo in July and we thank him for his commitment over the years to establishing Ricardo's strategic consultancy business. On 1 July 2009 we were delighted to welcome Professor Hans-Joachim

Schöpf to the Board of Directors as non-executive director. Professor Schöpf is one of the leading figures in the global, and in particular the German, automotive industry. His advisory input in all aspects from technology to market strategy and client approach will be a catalyst for the development of our business, introducing a respected international dimension to the Board.

After six stimulating years of chairing this exciting business, I have decided to retire from the Board and hand over the reins as Chairman at the forthcoming AGM in November. The Board has unanimously agreed that Michael Harper should be appointed Chairman from that meeting and that David Hall will take over his responsibility as Chairman of the Remuneration Committee and as Senior Independent Director. It has been both a pleasure and a privilege to have played a part in Ricardo's development and I would like to thank the Board, the Ricardo team and our shareholders for their unstinting support during my tenure. I wish them and the Group all the very best of success for the future.

### Looking ahead

We are recommending a final dividend of 7.5 pence per ordinary share, to maintain the final dividend at the same level as last year, making a total dividend for the year of 10.7 pence per share, compared to 10.6 pence last year.

It will be some time before the world's motor industry returns to more normal levels of output, and Ricardo's customers' development expenditure will continue to be constrained until recovery is firmly established. However, research and development priorities will continue to be those associated with the reduction of emissions and the improvement of fuel economy, both of which are key areas of Ricardo's expertise. Against this backdrop we remain committed to our strategy and confident for the future.

Marcus Beresford

*true to Ricardo's spirit of innovation,  
its commercial flexibility and  
flair for applied research and  
development ... we have already  
set in place the building blocks  
that will enable us to capitalise on  
the rapidly changing nature of our  
client base*

# BUSINESS REVIEW

- 6** The global market
- 10** Strategy
- 16** Research & development
- 18** Performance review
- 20** Technical Consulting
- 24** Strategic Consulting
- 25** Principal risks
- 27** Corporate social responsibility
- 31** Conclusion

*The Obama administration is pledging to put one million plug-in hybrid vehicles onto America's roads by 2015, and the UK government is setting out policy to encourage the take-up of these and electric vehicles.*

## The global market

New opportunities in challenging times

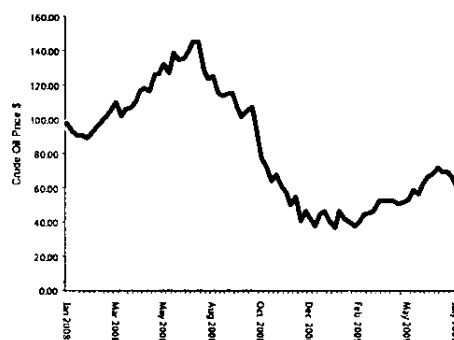
The twelve months that have unfolded since Wall Street bank Lehman Brothers collapsed on 15 September 2008 have seen the banking business turned upside down and the automotive industry affected far more than any other sector. The market for new vehicles has been caught in a perfect storm, first by the wild fluctuations in fuel prices which started in 2007 and then by the parallel and continuing instability of the international financial sector, a phenomenon which significantly reduced the availability of both business and consumer credit. In particular, the availability of auto purchase finance for millions of consumers has been seriously reduced. Also, consumer tastes are changing radically as fluctuating fuel prices and a growing awareness of climate change has led buyers to accelerate their shift away from high-consumption SUVs and light trucks and towards smaller, lower-emission models.

All this has taken place against the backdrop of an already low margin automotive industry, with margins put under increasing pressure by the simultaneous need to increase technical complexity to meet tightening CO<sub>2</sub> legislation and reduce showroom prices to compete in a market oversupplied with modern, competitive products. Left with increasing inventories of unsold vehicles, manufacturers have been forced to resort to costly short-term sales incentives and supply-side moves such as production cutbacks and temporary shutdowns. Governments too have acted to stimulate the market with scrappage schemes and other forms of state intervention.

As tangible signs of the impact on the industry, two of the US big three automakers have been through Chapter 11 bankruptcy protection as part of a process of radical restructuring, factories have been closed and workers across the globe have been placed on shorter hours, had their benefits cut back or been made redundant. It is likely that 2009 will come to be seen as the year when the twentieth

century thinking of a hundred year old industry began to give way to a fresh, modern approach marked by

Crude oil price \$



new opportunities for the technically innovative and the commercially bold.

If the history of previous downturns holds any lesson for us, it is that as an industry we must never lose sight of the importance of research, development and product innovation. These are the means by which the most successful automakers will emerge from recession stronger and better equipped to win the competitive battles of the future. The sheer depth and ferocity of the current downturn makes this lesson all the more poignant. Moreover, it is arguable that the current financial challenges are of a merely transitory significance compared with the over-arching issue of climate change and its probable man-made causes. The need to reduce CO<sub>2</sub> emissions will not be ended by an economic upturn - the need is a permanent one that will affect all sectors of the economy, none more so than the automotive industry.

For several years we have been seeing tightening global regulations on fuel economy and fleet average CO<sub>2</sub>. Now, public policy on both sides of the Atlantic is moving to link economic recovery with the fuel issue by making the emergency support packages for the auto industry conditional on measures to create a more sustainable future for transportation. A clear consensus on the need to increase the electrification of the transportation system

**Dave Shemmans**  
Chief Executive Officer

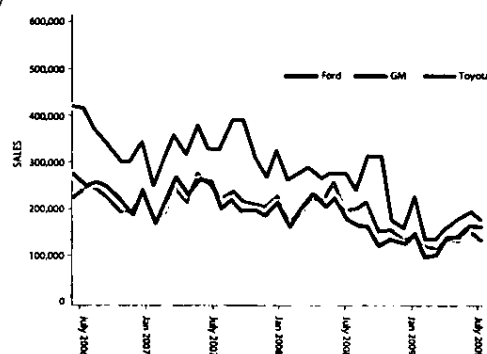


is emerging internationally. By increasing the proportion of hybrids, plug-in hybrids and electric vehicles in the new vehicle park, the efficiency of fossil-fuel powered vehicles can be dramatically improved and a proportion of the transportation energy demand can be switched to grid power. Here, arguably, the challenge of CO<sub>2</sub> emissions reductions can be met more practically through the implementation of new generating capacity using renewable technologies such as wind, wave and tidal energy (where Ricardo is also active) as well as clean coal and nuclear power.

The first production plug-in hybrids are due to appear in the showrooms by 2010. The Obama administration is pledging to put one million plug-in hybrid vehicles onto America's roads by 2015, and the UK government is setting out policy to encourage the take-up of these and electric vehicles.

True to our proactive stance on research and technology, we already have many of the technologies, products and services in place to meet this challenge and we continue to research into new areas that will pave the way for further innovation. For example, one of the key challenges in the development of plug-in hybrids is being able to create new products which offer customers a similar performance and cost proposition to that of today's vehicles. The battery system already represents a very significant proportion of the cost premium for today's hybrids. However the additional energy storage capacity required by a plug-in vehicle makes that premium considerably higher. The imperative to deliver

Comparing GM, Ford and Toyota corporate monthly sales



robust, cost-optimised and well engineered systems fully integrated with the vehicle and its control systems has been a key influence in our decision to invest in our Battery Systems Development Center (BSDC) at the Detroit Technology Campus. We are already using this facility in our research programmes, for example taking cell technologies from specialist suppliers, designing and developing battery systems mechanically and thermally, and applying the latest in control electronics in order to achieve both the required operational characteristics and to monitor cell health and state of charge.

It is unlikely that there will be a single silver-bullet technology that will deliver either the required reductions in CO<sub>2</sub> emissions in Europe, the US or elsewhere or the

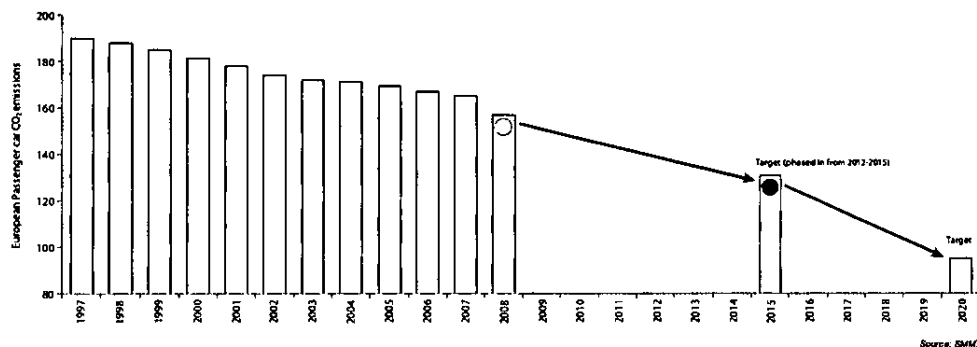
parallel and universally sought goal of energy security. In practice it is far more likely that there will be a wide range of innovative technical solutions appropriate to particular applications or regional needs.

In addition to its extremely active profile as an international leader in electric and hybrid vehicles, Ricardo continues to push the very limits of fuel efficiency of the conventional internal combustion engine, including the very latest thinking in diesel and spark-ignited power units. At Ricardo we are also actively researching some extremely promising flex-fuel and second-generation biofuel technologies such as our Ethanol Boosted Direct Injection engine concept – a development which offers the performance and fuel efficiency of a diesel at the cost of a gasoline engine, and which runs on ethanol, gasoline, or any blend of the two.

With many automakers fighting to regain profitability and preserve cash by temporarily realigning their R&D spending, some of the turmoil has inevitably spilled over into the market for engineering services. In consequence an element of variability was introduced into the immediate demand for engineering services. Some commercially stable and far-sighted automakers have however continued to invest strongly in research and development, together with those such as the many

new market entrants in China who wish to be ready to offer products based on leapfrog technologies when consumer demand returns. Moreover, downturns in the past have created post-recession growth for service industries as restructured companies look to outsourcing to balance corporate anxieties regarding any increase in their fixed cost base against the need to deliver their new product and technology plans.

In addition, demand from auto-related sectors such as defence appears to be increasing dramatically. Here the focus has shifted to the use of advanced technologies for fuel efficiency and crew protection. The new defence vehicles selected to replace the familiar vehicle types in the US and the UK will require fresh thinking and even greater innovation to face the challenges of unpredictable and hostile theatres of operation. Here too we are driving the agenda forward, offering the latest



thinking in hybrid and plug-in hybrid electric vehicle technology and vehicle engineering in order to create genuinely new concepts capable of addressing the defence needs of today and tomorrow.

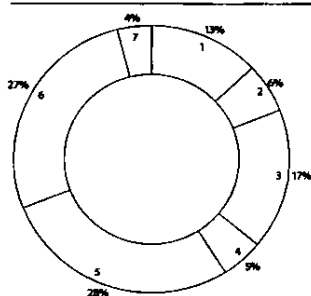
Outside the automotive industry the same drive to deliver a sustainable, low-carbon future is also having an impact on the international power generation sector. Ricardo has proactively developed its capabilities in renewable energy and is already assisting clients in the wind, solar and tidal power industries. Our clean energy teams are also active in areas such as combined heat and power systems and other clean energy technologies.

The period we are now in may be seen as a turning point in history, the moment when industries across the globe were forced to re-examine their business models and realise that past practices and products were no longer acceptable templates for the future. Blue-chip companies have struggled and governments of capitalist countries have stepped in to prevent the collapse of strategic industries. This is also a time when fundamental structural weaknesses on general issues such as corporate health care burdens and overcapacity were finally tackled, and when the basic dynamics of business and strong balance sheet management prevailed.

The current downturn is one of the most challenging commercial environments Ricardo has faced in the nearly

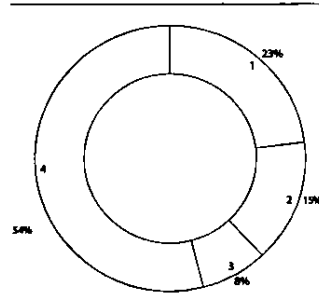
one hundred years that we have been serving these industries. However, true to Ricardo's spirit of innovation, its commercial flexibility and its flair for applied research and development, that have been Ricardo hallmarks throughout, we have already set in place the building blocks that will enable us to capitalise on the rapidly changing nature of our client base both in and outside the auto industry as these industries emerge stronger and more competitive for the challenges of the future.

Order intake by key territory  
year ended 30 June 2009



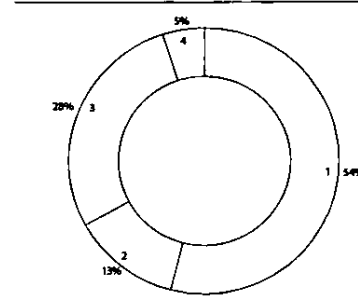
1. Rest of Asia  
2. Japan  
3. USA  
4. Rest of Europe  
5. UK  
6. Germany  
7. Italy

Order intake by key sector  
year ended 30 June 2009



1. Commercial Vehicle  
2. Defence  
3. Motorsport  
4. Passenger Car

Order intake by product  
year ended 30 June 2009



1. Engine  
2. Transmission  
3. Vehicle  
4. Strategic Consulting

## Strategy

Serving the world's leading automotive brands while exploiting new market sectors

The heart of the Ricardo strategy, which underpins our intention to remain the natural first choice for leading-edge technology and engineering expertise for the ever changing global automotive and related markets, has remained largely unchanged since its inception in 2005. It has been well documented in past Annual Reports and is reviewed, adapted and measured annually by the Group Board through the medium of key performance indicators<sup>1</sup> and annual strategy review events.

The strategy of the business is based around four cornerstones:

1. the avoidance of cyclical and dependency, whether that be geographic, technical, sectoral or customer related;
2. focused sustainable growth through careful analysis and selection of key sectors, geographies, products and customers;
3. the provision of in-demand services which offer a high value-added content and which bring the maximum benefit to the customer; and
4. low costs through a carefully co-ordinated global operation which maximises low cost resources worldwide wherever possible, and through increased efficiency derived from Group-based resource management.

The strategy has been designed for both high performance growth, in terms of scale and quality of earnings, and risk mitigation should a downturn in core markets occur. In past years the growth trajectory of the

<sup>1</sup> Key performance indicators ("KPIs") shown in this review relate to continuing operations only.

KPI for client dependency

**Number of clients generating revenue for Ricardo exceeding 10% of total revenue** targeting avoidance of over dependence on a small number of clients

1

Year to 30 June 2008

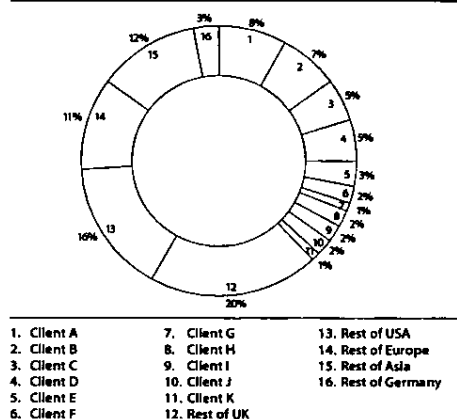
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Year to 30 June 2009

business and expansion was a tangible testament to the strategy. This year we have seen the importance of the risk mitigation element coming into play as the world economic environment collapsed and core customers withdrew programmes on an immediate basis, impacting our resource planning.

Clearly, having a strong order book and a solid balance sheet is an advantage when it comes to a recession. In preceding years as a matter of strategy, Ricardo has

Order intake by key customer  
year ended 30 June 2009



invested and strengthened in the good times, and this philosophy to "fix the roof when the sun is shining" has enabled an acceptable transition through the current year. In operational terms, when a recession occurs, decisive and proactive action is paramount and the positive support of the entire Ricardo team at all levels within the organisation is crucial. This support at Ricardo is built on the knowledge that the fundamental values of the company will continue to be applied in both good and difficult times.

A key part of our strategy of growth and risk mitigation is to diversify the geographic, customer and product portfolio around a common core competence. This has been demonstrated in preceding years with a significant expansion into the Asian regions and, more recently, Russia. During our 2009 strategic review, it was agreed that the timing was right to expand our market sector diversity further, building upon our recently increased focus on the defence and clean energy sectors. To this end, Ricardo will be exploring further the marine, rail and power generation sectors through the exploitation of our core business model, processes and technologies. This will protect us from a slower than expected recovery of

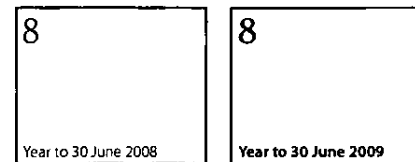
the automotive sector, or alternatively provide additional global growth opportunities if recovery takes place as predicted.

The four strategic cornerstones above are delivered through an integrated framework of key operating themes:

- Global
- Premium Brand
- World Class Technology and Products
- One Firm
- Right Team, Right Culture
- World Class Infrastructure

KPI for Premium Brand

**Customer satisfaction** using customer satisfaction ratings out of ten across a range of measures



**Global**

The Global theme focuses the company on ensuring an increasing diversity of geography, customer, product and sector. In recent years we have expanded our geographical footprint to include Asia in addition to the US and Europe, with investments and focus in China, Japan, India, South Korea and, most recently this year, Russia. These investments have included not only sales presence and front-end programme management but also engineering delivery capability, particularly this year in China. Our attention has now turned to sectoral diversity, with the aim of supplementing the core businesses of automotive (including passenger car, commercial vehicle and motorcycle) and the recently

introduced areas of defence and clean energy, which have advanced further this year. The new sectors to be targeted are currently under review but are likely to include rail, marine and power generation. These are areas where we can see an opportunity to exploit our core skills and technologies to the benefit of those large industries. In all cases we look to exploit our core competence and move into related markets in a way which mitigates the risks involved.

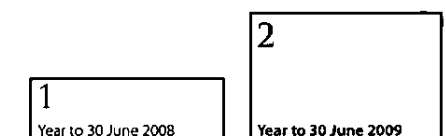
**Premium Brand**

The Ricardo brand is well established globally within the core automotive market and is becoming known in our newer markets. As a predominantly business-to-business services company, recognition of the Ricardo brand comes more from a history of delivery, excellence and experience and a portfolio of world-leading technology than from any consumer marketing campaigns. To this end it is essential that even in times of tougher markets, the company remains true to the values and investments that underpin the brand.

Ricardo has accordingly maintained its excellence in delivery as evidenced by high customer satisfaction scores. We have continued our increasing investment in R&D and upgraded our facilities to ensure the organisation is fit for the future. One such upgrade is that to the Shoreham site with the opening of the Sir Harry Ricardo Innovation and Sustainable Transport Centre by HRH the Duke of York. Other examples are the US Battery Systems and Development Center and the expanded German heavy duty test facilities. All this has been achieved whilst maintaining a firm focus on the policy of "bringing on the best and bringing in the best" of talent at all levels of the organisation. Naturally we have also maintained our marketing campaigns at industry shows (defence, automotive and clean energy)

KPI for geographical spread

**Number of continents for which Ricardo revenue exceeds 20%** targeting a good balance of revenue from Europe, the US and Asia



KPI for technology dependency

**Number of product groups exceeding £10m p.a. revenue** targeting an increase in major product groups

8	8
Year to 30 June 2008	Year to 30 June 2009

and through our quality quarterly journal. This year we have also actively supported governmental and industry initiatives on both sides of the Atlantic in the areas of future automotive industry strategy and CO<sub>2</sub> legislation. Ricardo is now recognised at the most senior levels as a respected independent advisor on a variety of subjects within the automotive industry and among governments. Ricardo is frequently invited to support such bodies and, earlier in 2009, our chief technology officer Professor Neville Jackson added to his list of responsibilities the chairmanship of the UK Low Carbon Vehicle Partnership.

### World Class Technology

Technology leadership is at the heart of the Ricardo value proposition and core to our business model. Investment in research has increased this year despite the economic environment, as the business must continue to invest in R&D to maintain a sustainable long-term leadership position in progressive core markets and regions. The increasing scope of the business represented by new customers, sectors and regions, together with new legislation such as tighter emissions and CO<sub>2</sub> legislation affecting our core markets, is driving and accelerating the pace of change of technology.

Selecting which technologies to invest in becomes an ever more critical and complex challenge, and to this end Ricardo maximises the use of self-generated, industry-validated technology roadmaps. In addition to guiding internal R&D investment, these roadmaps are internationally recognised by industry and governments alike as benchmark documents of influence in forming external policy and governmental research funding. In the year such roadmaps have been used in core contributions by Ricardo to the New Automotive Innovation and Growth Team (NAIGT) strategy report for the UK government and to the US National Highway Traffic Safety Administration (NHTSA) on the groundbreaking new Corporate Average Fuel Economy (CAFE) rules for fuel economy announced by President Obama.

Our technology investments in the year are detailed in the Research and development section of this review. In summary, these cover an array of technologies majoring on fuel economy improvement and the reduction of CO<sub>2</sub>. The core powertrain investments include advanced gasoline, clean diesel, multiple hybrid configurations and intelligent transmission technologies. Additional

investments are being made in intelligent transportation, in maximising the use of artificial horizon technologies and telematics, and in the development of tools and techniques to reduce the cost and time to market of new technologies. The research portfolio ranges from pure innovation, such as flywheel and magnetic coupling technologies for automotive and power generation markets, to demonstrator programmes both on the test bed and in vehicles. These include programmes such as our world-leading two-stroke four-stroke engine switching technology, the Sentience advanced telematics demonstrator vehicle and several low carbon hybrid vehicles.

This year has also seen an increase in collaboration with many industry and governmental organisations (such as in the defence, environment and transport sectors) wishing to advance and exploit our technology in order to bring it closer to production and thus make positive economic, societal and environmental impacts.

Ricardo is also proud to have had its products and programmes internationally recognised. In the past year such public and market recognition has ranged from the hybrid vehicles developed with Chery, which were used as part of the transportation fleet at the Beijing Olympics, to the very well received BMW K 1300 motorcycle range, our Ethanol Boosted Direct Injection technology in the US, and the launch of our groundbreaking WaveRT software product.

### One Firm

In times of growth, it is imperative to make the best possible use of the resource pool across the Group to meet demand. In the first quarter of the financial year, and against a backdrop of a tight supply of engineers across the world, our tools and processes were working well to meet the challenges that the industry drivers were generating.

In particular, the UK and German engineering businesses continued to work closely together, ensuring that opportunities were taken up even though in some instances the local delivery channel might on its own have been undersized for the task at the time. When the downturn occurred, these resource-sharing tools and processes were then used to make sure we were able to maximise utilisation at the same time as maintaining the integrity of the resources across the Group wherever possible.

The investment in these tools, processes and their supporting culture over previous years and the strategy of shared programme delivery between divisions have proved useful. They have allowed us the flexibility to manage the year's contrasting periods of extreme

demand and extreme downturn. This has helped us minimise employee sacrifice, with short-time working favoured over redundancies, which were only implemented when absolutely necessary. The culture and values of the company enabled its management team to move through the necessary actions swiftly and effectively to protect the business in a proactive way.

The focus on the One Ricardo strategy continues. Further investment in tools, processes and corporate culture is underway to ensure that a tightly knit organisation prevails through difficult times. This is doubly important in a professional services business.

### Right Team, Right Culture

The full value of having the right team and the right culture is often only truly realised under extreme circumstances when an organisation needs to pull together and take rapid and decisive proactive management action. We at Ricardo are proud of how the company met the challenges of the year and we are very appreciative of the wide variety of personal sacrifices that have been made by all present and past employees. Against an economic downturn without precedent in



living memory, these actions have enabled us to protect the business and ensure a continued high level of shareholder commitment as well as profitability, a strong balance sheet and a good order book.

To meet our strategic intent, during the course of the year we have maintained our philosophy of bringing on the best and bringing in the best of talent. From within the organisation, Global Engineering and Products Director Mark Garrett was promoted to the Ricardo plc Board, Patricia Ryan added the role of Company Secretary to her Group General Counsel role, and Dr Roger Thornton, an experienced consultant and hybrid expert, was promoted to lead Ricardo's Global Hybrid Product Group. Paula Bell, our Group Finance Director, won the prestigious First Women - Science and Technology award in June 2009, sponsored by the Confederation of British Industry to recognise trailblazing and pioneering women in business who also actively develop and attract talent within an organisation.

Representing talent brought in from the outside, Fred Payne, a former BAE Systems executive, joined as head of programme management, and Graeme Rumbol, also from BAE Systems, was appointed to take charge of Ricardo's defence activities; Dave Higbie joined from AVL to lead our software business, while Richard Jones, with over 20 years of wind industry experience with Vestas, BP and Garrad Hassan, was recruited to strengthen our clean energy business. These are just a few examples of the many top specialists joining Ricardo during the year.

#### **World Class Infrastructure**

With the Group developing through geographical expansion and increasing technological challenges driven by legislation, the infrastructure of the Group and the efficient use of resources is becoming ever more important. A key part of our strategy is to ensure the matching of our infrastructure to the development of the Group. Ricardo has thus continued to invest in processes, tools and personnel during the year, ensuring company development is not inhibited.

In support of our One Ricardo philosophy we have initiated a multi-year Group-wide upgrade of our business systems under the project name of ORION. The new systems will provide faster and more flexible financial data, whilst fully supporting global programme management. Further progress has been made with our programme management and implementation tools as we continually look for ways to improve our performance and maximise the benefit to the customer and to Ricardo. With our geographical expansion comes added tax and treasury complexity. We have therefore invested in additional support for our finance team specifically to address these issues.

These investments have already provided excellent returns. On the IT side we have extended video conferencing throughout the Group and are implementing its use to reduce our travel costs and maximise productive time. As new and tighter CO<sub>2</sub> emissions legislation drives new technologies, so our technical facilities must also change to keep pace. During the year we have invested in further upgrades and new test beds in Germany and across the Group. We have also created a Battery Systems Development Center at the Detroit Technology Campus. This comes on stream at a time when there is significant focus on hybrids and electric vehicles and is, we believe, the only such independent facility of its type and specification in the US. The centre has been commissioned and has already completed its first battery programmes.

Finally, as discussed under the Premium Brand heading above, we have added an impressive modern administration and visitor reception building to the Shoreham facilities. This brings Shoreham into line with the rest of the Group, something which has been noted and welcomed by customers and staff alike, and shows that even during a period of difficult economic conditions we have continued to invest in the present and future of Ricardo to ensure we maintain a position at the leading edge of our industries for many years to come.

## Research & development

The very core of Ricardo's competitiveness

During the financial year, regulatory pressure for improved passenger car fuel efficiency and corresponding reductions in CO<sub>2</sub> emissions increased substantially. European fleet average vehicle CO<sub>2</sub> emissions will need to be reduced to less than 130 g/km by 2015 and to less than 95 g/km by 2020. If the target is not met, non-compliance fines equivalent to €95 per gramme of excess CO<sub>2</sub> would also be levied on every vehicle a company sells.

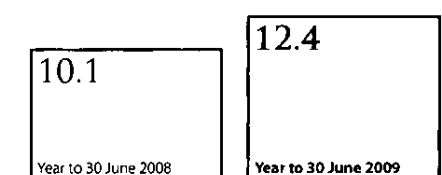
In the US, President Obama has also now announced an all-encompassing federal target of 35.5 miles per gallon (42.6 miles per imperial gallon or 6.6 litres/100km) for all passenger vehicles by 2016, a move which finally unifies regulatory efficiency targets for all of the United States. Similar measures in other countries and policy statements to extend fuel efficiency regulations to the commercial vehicle sector add up to a major global push. This is what drives much of the R&D portfolio at Ricardo.

The key challenge for fuel efficiency is to create new technologies and innovations that are both cost effective and, for passenger cars, attractive for consumers. It is especially critical to work closely with our customers to address the perception among consumers that fuel efficient vehicles are by definition dull and boring.

Most internally funded research at Ricardo now attracts

KPI for technology development

**Research spend (£m)** on research projects funded by Ricardo or part-funded by government grants, targeting development of Ricardo knowledge and innovation



collaborative support from automotive customers and frequently involves government funding from the United States, Europe or the UK. Ricardo engages at a high level in all of these markets to support work to define R&D priorities for government funding, identifying the needs for investment to solve generic technology challenges and enabling future products to be brought to market more effectively.

The Ricardo R&D portfolio has continued to grow in the last year, and included below are some of the highlights.

- We have recently completed the Roads2HyCom European project. Ricardo led this 29-member

consortium of organisations from a wide range of sectors including transport. This project was created to support planning of EU investment in future fuel cell and hydrogen applications, examining the technical and socio-economic issues associated with future market opportunities and growth. Ricardo has now defined a clear picture of when and where fuel cell and hydrogen markets may grow and what role Ricardo can play in the commercial exploitation of these markets.

- Our innovative switching two-stroke to four-stroke boosted gasoline engine concept has now moved into its third phase. Following on from an initial concept study and a second phase which delivered a proof of concept engine in a rig test, the latest phase seeks to demonstrate the fuel efficiency and performance potential of the engine in a Jaguar XF vehicle. This project is part funded by the UK Technology Strategy Board, with collaboration from Jaguar Land Rover, Denso UK and the University of Brighton.
- Interest in ethanol as an alternative fuel in the US continues to grow and Ricardo has been very active in designing and developing a high-performance boosted spark ignition engine that exploits the enhanced fuel properties of ethanol compared with gasoline. Thanks to direct injection, a high compression ratio and the use of exhaust gas recirculation under all conditions, the engine has delivered outstanding performance and fuel economy, with significant benefits compared to conventional gasoline engines converted to operate with flex-fuel capabilities.
- We have made significant progress in developing a practical mechanical kinetic energy recovery system (KERS) for road cars. This builds on some of the progress made with high-speed flywheels initially developed for Formula One KERS. Ricardo has created some innovative solutions to provide a cost-effective route to implement this technology in road vehicles, avoiding the need for high-speed mechanical seals and creating new low friction and long life high-speed bearing systems.
- Ricardo has also been very active in supporting the growth of electrification in transport, with a wide range of studies and investments. One of these has been the ReHEV (Range-extended Hybrid Electric Vehicle) project part-funded by the UK Technology Strategy Board and led by Jaguar Land Rover. Together with electricity utility E.ON, Ricardo has carried out a study to explore the impact of electric and plug-in hybrid vehicles on electricity demand in the UK. Further studies have defined the potential for a more intelligent charging infrastructure and the use of grid-connected electric vehicles to operate as a mass energy storage facility.

## KPI for the outlook

**Order book (£m)** being the value of contracts received but not yet taken into revenue targeting good forward visibility

97	97
30 June 2008	30 June 2009

## KPI for liquidity

**Net debt (£m)**

30 June 2008	30 June 2009
0.3	3.5

## Performance review

Surefooted performance that builds for the future

The results from continuing operations are now the primary performance measure for financial results used by Ricardo plc. The German exhaust business was held for sale at 30 June 2009 and has been reported under discontinued operations.

Despite the downturn in the economy and a financial year in which we have seen some £15m of project cancellations from automotive manufacturers, our diversification strategy has helped us weather the storm. Profit before tax for continuing operations was £15.7m (2008: £15.5m) and after a reduced tax charge of only 6% at £1.0m (2008: £2.4m), profit for the year for continuing operations was £14.7m (2008: £13.1m).

The results were impacted by £5.7m for the discontinuation of the exhaust business which included a trading loss of £2.8m, an asset write down of £3.8m and a positive tax effect of £0.9m. This resulted in a total profit of the year of £9.0m (2008: £12.4m).

Redundancy costs and the termination costs of two senior directors totalled £1.9m (2008: £0.6m). Including these costs, the operating margin was 8.4% (2008: 9.0%).

During the second half of the year we had a volatile order intake profile, with some extended contract negotiations being concluded in June. As a result, we finished with a particularly high level of order wins in the month and we closed the year with a strong order book of £97m (2008: £97m). The recent order wins do however have a longer delivery time horizon than normal, and consequently the proportion of the 30 June 2009 order book for delivery within the following half year is reduced compared to the position at 30 June 2008.

We are pleased to report that we have maintained a strong balance sheet with minimal gearing - net debt closed the year at £3.5m (2008: £0.3m). The filing of both Chrysler and GM for protection under Chapter 11 following severe turbulence in the US automotive market did not result in any amounts in our balance sheet being irrecoverable. This is a testament to the significant progress made with the diversification of client, sector and product implemented in recent years.

### Technical Consulting results

Technical Consulting delivered revenue of £168.1m, compared to £169.5m in the prior year, demonstrating resilience in a difficult market environment. The UK Technical Consulting business continued to secure good order wins from China and Russia throughout the year, and work continued to be passed across from Germany. Whilst Japan remains a strong market, work for Japanese clients reduced in the second half of the financial year. Overall for the UK, revenue was consistent year on year, whilst an increase in operating profit was delivered due to efficiencies implemented in project delivery and strong cost management.

Although gathering momentum, our Technical Consulting business in Germany still passed significant levels of work won locally back to the UK for delivery. It also concluded a high profile yet complex engineering project at a low operating margin. Looking ahead, the capability and infrastructure to support the German business with a growth agenda is now firmly in place.

The US Technical Consulting business has had a particularly difficult year with the collapse in the US automotive market resulting in project cancellations. Accordingly, revenue levels were reduced, yet profit contribution remained level as the result of implementing extremely effective cost reduction plans. In June, there was a change in leadership resulting in an exit cost and a new team is now in place to take the business forward with renewed market focus.

### Strategic Consulting results

Strategic Consulting revenue of £10.7m in the year was slightly down on £12.4m in the prior year. The Strategic Consulting division largely mitigated the decline in client orders for strategic and corporate transaction support by shifting emphasis towards turnaround and cost-reduction programmes, and by further sector diversification. Looking forward, the business intends to continue to grow its market offering and client base.

### Discontinued operations

Our German exhaust business had a difficult year as it was materially affected by the downturn in automotive

manufacturing volumes. This small business was held for sale at 30 June 2009 and consequently its results are shown as results from discontinued operations. The process for the sale of the business is under way. The Group's consolidated results for the year ended 30 June 2008 have been re-stated to separate the results of continuing and discontinued operations.

### Finance income and costs

There has been a net finance income in the year of £0.6m compared to a net finance cost in the previous year of £0.8m. We took advantage of the US dollar movement in the first half, and our US company, Ricardo Inc., repaid an inter-company loan to Ricardo plc, generating a £1.1m foreign exchange gain. We also benefited from interest income resulting from cross currency interest rate swaps in relation to our net investment hedging for our overseas assets. This income was mostly offset with bank interest payable and the financing cost in relation to the pension scheme.

### Tax

The tax charge for the year has reduced to £1.0m from £2.4m in the previous year. This is largely attributable to increased claims for R&D tax credits in the UK, notably in connection with the submission of additional claims in relation to short term employees.

### Earnings per share

As a result of both slightly increased profits and a reduced tax charge, earnings per share from continuing operations have increased to 28.8p from 25.5p in 2008.

### Dividend

The total dividend for the year (paid and proposed) is increased to 10.7p per ordinary share (2008: 10.6p). The dividend is covered 2.7 times (2008: 2.4 times) by the profit for the year from continuing operations. The proposed final dividend of 7.5p (2008: 7.5p) will be paid on 27 November 2009 to all shareholders on the register at the close of business on 30 October 2009, subject to approval at the Annual General Meeting on 19 November 2009.

### Net assets

Net assets at 30 June 2009 were £66.9m (2008: £67.1m). This movement was primarily driven by ordinary trading and the impact of exchange rates, offset by an increase in the pension deficit and a write down of the German exhaust business assets held for sale.

Capital expenditure in the year was £10.2m (2008: £10.8m), including £3.5m for investment in new test beds in Germany which have been highly utilised, £0.7m completing the Battery Systems Development Center in Detroit and £0.5m completing the upgrade to the Shoreham main reception building. The balance of the expenditure was necessary to maintain our engineering and testing facilities. At the end of the year our capital commitments were £0.8m (2008: £0.8m).

We continue to invest in our infrastructure and have commenced a project to install new business systems across the Group to move them to one common platform facilitating management of multi-site programmes, in

KPI for pension commitments

**Pension deficit (£m)** valued in accordance with IAS 19, targeting elimination of the deficit

30 June 2008	30 June 2009
19.9	29.4

support of plans for expansion of the business and its facilities across the globe.

### Net debt

Despite the economic downturn, we managed to reduce our net trade receivables by £5.3m, resulting in our debtor days reducing by 10 days to 47 days. We also managed to reduce our other amounts recoverable on contracts. However we saw a £10.8m reduction in payments received in advance as we experienced a reduction in new contracts from Asia. Overall working capital levels increased by £5.9m (2008: a decrease of £6.8m) and we maintained a strong balance sheet position, with net debt closing at £3.5m compared to £0.3m at 30 June 2008.

At the end of the financial year the Group had borrowing facilities of £43m, including £23m of committed facilities, the majority of which were committed for more than one year.

### Exchange rates

Despite a reduction in the value of sterling of 7% against the euro and 17% against the US dollar during the year ended 30 June 2009, overall there has been no significant impact on profit before tax from volatility in exchange rates. We have an exposure to the euro/sterling exchange rate arising from some of the work carried out in the UK for European customers which is contracted in euros, which is hedged accordingly and hedge accounting is applied. Following a review of our policy of hedging the translation of profits from overseas businesses, for which hedge accounting cannot be applied, we have stopped this element of the policy with effect from the start of the current financial year.

### Pensions

The deficit in our defined benefit pension scheme measured in accordance with IAS19 'Employee benefits' increased in the year from £19.9m to £29.4m. Principally as a result of poor investment returns during the recent turmoil in the economy, the value of the assets in the scheme has reduced from £65.6m to £58.7m.

The triennial valuation for funding purposes concluded in the year and the deficit valuation of £20.8m at 5 April 2008 was agreed with the trustees. We continue with the same level of additional cash payments to eliminate the deficit as agreed in our nine year plan which commenced in 2006 following the previous triennial valuation. As a result of the latest triennial agreement, the plan has only slightly changed, principally by extending the payments for 12 months after making allowance for an assumed transition from return seeking assets towards a higher proportion of matching assets.

### Divisional results for continuing operations

	Revenue earned		Operating profit / (loss)	
	2009 £m	2008 £m	2009 £m	2008 £m
<b>Technical Consulting</b>				
UK <sup>1</sup>	117.1	116.0	12.7	12.3
Germany	16.1	14.1	(1.2)	(0.1)
US <sup>2</sup>	34.9	39.4	2.3	2.3
	168.1	169.5	13.8	14.5
<b>Strategic Consulting</b>	10.7	12.4	1.3	1.8
	178.8	181.9	15.1	16.3

<sup>1</sup> UK includes facilities primarily supporting the UK.

<sup>2</sup> US includes software, which is managed from the US.

## Technical Consulting

Providing advanced technology and innovative solutions

### UK

The UK Technical Consulting division has continued to make a strong profit contribution, despite the costs of headcount reductions to maintain an efficient cost base at a time of market volatility. The business has benefited from its sector and geographic diversity within the markets that it serves both directly and in collaboration with the other divisions of Ricardo. While the second half of the year was particularly challenging in the passenger car business, with many customers reviewing their product plans in the light of an unprecedented downturn in sales, the negative effect of this was offset in part by strong growth in our defence vehicle work over the same period. Our work in the commercial vehicle sector also remained strong, due largely to Ricardo's presence in a number of territories in which demand for new commercial vehicles held up despite the economic downturn. Similarly in the motorsport sector, demand for our services remained strong.

Our engine business continues to benefit from significant external commercial and legislative pressures that translate into opportunities for new projects. In gasoline engines we are seeing significant interest in our services as customers increasingly look for higher technology products, in particular at the high performance premium vehicle end of the market. In diesel engines there has been a reduction in demand in the light duty sector but an increase in the heavy duty sector, largely associated with commercial vehicle and off-highway applications.

The control and electronics business has continued to benefit from external technological developments which are placing an ever greater requirement on the electronic systems and content of new vehicles. With the continuing pressure to reduce CO<sub>2</sub> emissions and

improve fuel economy, the development of hybrid vehicles has become a key focus for both the passenger car and commercial vehicle sectors.

The transmissions engineering business has continued to benefit from demand for its key expertise and proprietary technology in dual clutch transmissions, torque vectoring, automated manual transmissions and advanced conventional automatics. The business has remained stable during the year as a result of a number of longer term contracts. Towards the end of the year we saw an improvement in orders, with some significant contracts placed. Our global reach is also important, with new customers in Russia, China and India seeking our external expertise to help them develop and improve their product line-ups.

The motorsport transmissions business has had a good year and was largely unaffected by the economic downturn. Ricardo enjoyed several significant race wins during the year including a spectacular one-two finish at the Le Mans 24 Hours for the diesel-powered 908 HDi FAP cars of Team Peugeot Total with their Ricardo designed and manufactured transmissions.

Despite the protection provided to the business by virtue of our sector and geographical diversification, it was important to move quickly when demand in the passenger car sector fell. Action was taken to reduce the cost base through tight control of expenditure, and by optimising the size of the UK team for the reduced level of demand. This was achieved through reductions in both sub-contract and permanent staff and encouraging employees to apply for voluntary sabbatical leave and short time working. In this way the reduction in permanent staff was kept to the minimum required to

'right size' the business, while at the same time retaining the critical skills that will help position the division to maximise the benefit from the upturn as the automotive industry recovers.

#### Germany

The engineering service business of Ricardo Deutschland has continued to develop its strength in servicing clients in the German market place and now enjoys a very credible presence there. We are able to deliver turn-key programmes to customers using German-speaking engineers and well equipped, locally based technical facilities. Talent development has been critical to create a very strong first-line leadership team covering the key functions of the business. We are now working to extend this to lower supervisory levels.

Major facility expansions for the engineering service business during the year included the increased engineering resource in Aachen, which we are developing as a centre of excellence in control and electronics. Reflecting the growth of our heavy duty diesel and motorcycle engine business activity, we have invested €4 million in an extension to our Schechingen test centre, which was formally opened in early July. The new facility is well specified for the type of emissions reduction challenges currently facing the heavy duty and off-highway markets, and we have already secured a significant Tier 4 engine development programme for a major German client which will use the new test centre.

Despite some smaller project cancellations in the second half of the year as a result of the economic downturn, our strategy has served us well in Germany and we have ended the year with an increased order book for larger, longer-term programmes. Trading performance steadily

improved during the year as the engineering capability strengthened. We delivered a complex yet high profile contract at low margin which affected the operating profit in the year.

The exhaust prototype manufacturing business was significantly affected by the economic downturn at an early stage, as series production of key products was temporarily halted and the demand for prototype work reduced. As a result there was a trading loss in the period. This business no longer forms part of our overall core strategy and will be discontinued by way of sale, allowing management to focus on the engineering service business.

## **US**

The US Technical Consulting division was materially affected in the year by the turmoil in the automotive sector but nevertheless managed to achieve a commendable result considering the rate and degree of deterioration in the market. The impact of the recession on the Detroit Three automakers (GM, Ford and Chrysler) took its toll late in the financial year, driving two of the three into Chapter 11 along with some of their major Tier 1 suppliers. Nearly \$12 million of previously secured order cover was lost in the second quarter. The impact of this was partially mitigated as a result of a strategy initiated nearly two years ago to diversify into the alternative energy, on- and off-highway, government and military sectors. However, as a result of the market events, the closing order book was disappointing. Nonetheless, this strategy, coupled with disciplined cost management, has positioned the division favourably to exploit new opportunities when the industry recovers.

As proof of our commitment to grow in new key markets and sectors, a \$1.5 million capital project to build the first independent Battery Systems Development Center ("BSDC") was completed in June, with its first commercial project delivered later in the same month. The operation sets new standards for reliable operation, safety and capability and has been benchmarked by other parties interested in establishing similar facilities. The launch stimulated great customer interest and it is anticipated that the BSDC will support the development work that is expected as the growth in hybrids and electric vehicles begins to accelerate. This market shift is a virtual certainty with new federal CAFE regulations mandating an average fleet fuel economy of 35.5 miles per gallon (42.6 miles per imperial gallon or 6.6 litres/100km) for passenger vehicles by 2016.

In parallel with the clear impetus in the US for moves towards increasing vehicle electrification, significant opportunities exist for further evolution of the internal combustion engine. Here, we are developing renewable energy applications that support President Obama's energy independence agenda. As an example, the Ricardo Ethanol Boosted Direct Injection ("EBDI") engine project addresses the efficiency/cost dichotomy of diesel and gasoline engines. It has the performance of the former while approaching the cost of the latter, and runs on ethanol, gasoline, or a blend of both. EBDI solves many of the challenges faced by flex-fuel engines because it is optimised for both alternative fuels and gasoline. The technology has moved past theoretical discussion and has been developed and proven in the real world.

With the added strategic advantage of its light duty diesel knowledge, the Ricardo US organisation is in an enviable position to take advantage of its technology portfolio and the current regulatory environment. A recovery of the automotive sector would represent an upside to the past year, and the US administration's commitment to ensuring the sector returns to prosperity has been clearly evidenced by its actions.



## Asia

Our business in India continues to develop. We have a number of engine projects which will reach production in the next one to two years, as well as a new transmission design project for a major Indian client. There is interest in hybrid and clean automotive technology projects thanks to the Indian government's decision to make funds available to demonstrate Indian engineering capability at the Commonwealth Games in Delhi in October 2010.

During the year, South Korea withstood the global economic downturn better than most countries and we have seen growth in our order book from clients there. This can be attributed to our strategy of increased diversification into new markets such as construction equipment, where we are now engaged with one of the world's leading manufacturers on both strategic and technical consulting projects. Similarly, in the marine sector we are engaged in a large marine diesel upgrade programme and in the defence sector we are providing a new concept transmission and driveline and developing strategy for military hybrid platforms for one of South Korea's leading military equipment manufacturers. We are also currently entering the South Korean renewable energy market.

In Japan, we maintained the performance of the previous very successful year in the first half of the year, with orders in the region of £7 million from some of Japan's leading automotive companies. However, our Japanese customers have been severely hit by the global economic crisis, especially in the US, and outsourcing was significantly reduced in the second half of the year. Ricardo Japan took rapid action to control local costs and to minimise the financial impact of this reduction in outsourcing.

Expansion of Ricardo China has continued in line with growing domestic customer demand over the past year. The local business development organisation has been strengthened, enabling improved focus on key opportunities. Our core technology offerings in transmissions and hybrid systems continue to be well aligned to industry needs and increased emphasis has been placed on marketing these product sectors with

positive results. The next step in our strategy as an active and visible partner in the development of the Chinese automotive industry has also been taken following the initiation of government-level dialogue regarding future strategic technology development initiatives.

The growing team in China is now well established in our new engineering centre in Shanghai and we have welcomed our first customer engineers to our dedicated project office facilities. Recruitment in many technical areas has continued through the year, boosted by a successful graduate recruitment campaign covering the top Chinese universities. Local project work has covered gasoline and diesel passenger car, transmissions and hybrid development programmes, thus providing a solid foundation for cost-effective local project delivery.

## Russia

A good level of order intake was received from Russia with no experience of project delays or cancellations. The continued and substantial growth of Ricardo's business won from Russia was recognised in March 2009 by the award of 'best newcomer to the country's automotive industry' at the Adam Smith Conference's annual forum on the Russian automotive industry.

## Strategic Consulting

Objective, practical and technologically informed guidance

In the light of the global economic slowdown, many of our traditional automotive clients have cut back significantly on consulting spend. This cutback was especially pronounced in the second half of the financial year, a period in which many vehicle manufacturers and suppliers operated in a severely cash-constrained environment, in several cases resulting in bankruptcy. The impact of this was felt equally by our strategic consulting teams across Europe, America and Asia.

In this rapidly changing market, the emphasis shifted from previously important service offerings such as general market studies, merger and acquisition support and process improvement programmes, to turnaround and cost-reduction assignments, with clients demanding a rapid and high return on consulting spend. Given the changes in legislation and customer demand, strategy projects related to CO<sub>2</sub> reduction were also highly relevant. We responded swiftly to this change in market demand and implemented a significant reorientation of our take-to-market approach.

While maintaining our traditional automotive presence, albeit at reduced levels, we have diversified into new sectors such as aerospace, transportation and clean energy. We are also now working with a number of government departments and agencies across the world. This diversification has helped to offset partially the slowdown in automotive consulting demand already mentioned, and has been important in maintaining profitability at reasonable margins whilst also providing a broader and more diversified future client base.

In anticipation of a tough six to twelve months for management consulting in the automotive sector, we will continue our diversification drive and recruitment will focus on these new sectors and service offerings.

# Principal risks

## Planning, foresight and preparedness

This section addresses the principal risks and uncertainties to which the Group is exposed and which could have a significant impact on the Group's business, its performance or its financial condition.

### Customers and markets

The Group is largely dependent on a dynamic marketplace which is exposed to many external pressures, competition and structural change caused by global economic, cost-base, environmental and capacity concerns. This could cause changes in client product plans, leading to delays in the placement of orders, the redirection, delay or curtailment of contracts or slippage in payments. At worst, this could cause the insolvency of a customer and the curtailment or pause in all programmes for that customer. These impacts could lead to significant reductions in revenue and headcount and the business delivering reduced performance or suffering from bad debts.

These risks are mitigated by the strategy of broadening the base of the business to reduce exposure to any one specific client, territory or market sector, and the success of this strategy is measured by the key performance indicators for client dependency, geographic spread and technology dependency shown on pages 10 to 13. In the event of a sudden downturn, contingency plans are quickly deployed to minimise the short term performance effects and preserve cash whilst protecting the long term needs of the stakeholders. The insolvency risk is mitigated by robust working capital management and credit insurance where available.

### US market recovery

The US market has been in recession and the impact of the restructuring of the US auto industry and the effect and timing of stimulus packages flowing through the clients is uncertain. As a result, we have reduced visibility of our clients' plans to clear a backlog of much needed work to achieve accelerated legislation targets.

The US leadership team is focusing on diversification as well as maintaining key relationships where funding could start to flow again.

### Contracts

The majority of the Group's revenue arises from fixed price contracts for engineering services. The risks in these contracts are that more work than estimated is required to deliver the projects, thus impacting on margins. Failure

to perform on a contract or the infringement of the rights of others could also potentially subject the business to a claim from a customer.

These risks are managed by clearly-defined bidding and project management processes, whereby projects are categorised according to their risk level, which in turn dictates the level of approval or review required. Internal procedures are in place to ensure that the technical content of our output is of good quality and meets client requirements without infringing the rights of others. These processes have increased focus with the central leadership of Mark Garrett and Fred Payne and are core to our strategy. Furthermore, the spreading of client, territory and sector risks has led to no single contract with a client or supplier being essential to the business of the Group.

### People

Ricardo is a business that is knowledge driven and people-led, with a focus on attracting and retaining the best talent. Recruiting, developing and retaining talent and knowledge are essential. The failure to recruit, develop or retain the very best talent would restrict growth and the execution of the strategy and have an impact on delivery and client relationships.

We are focusing on a model of 'bringing in and bringing on' the best talent. We aim to ensure that we actively develop staff, encourage mobility and professional development and provide appropriate remuneration and working conditions. Employees as stakeholders are reviewed further on pages 27 and 28.

### Technology

The business is driven by changes in technology to meet the needs of markets and regulators on varying time scales. If the Group invests in the wrong technologies it could lose marketplace advantage and business levels

could reduce. If there are delays in the implementation of new regulations, which in turn delay client programmes dependant on new technology, the time taken to deliver returns from our R&D programmes could be increased.

Our R&D programmes are developed in consultation with clients and many programmes are collaborative. We use established and proven road mapping processes to produce these plans. This creates stronger links to the market and reduces the risk of sudden curtailment. Further details of our R&D investments are given on pages 16 and 17.

#### **Compliance with laws and regulations**

The Group's operations are subject to a wide range of domestic and international laws, regulations and restrictions. Non-compliance with these laws, regulations and restrictions could expose the Group to fines, penalties or loss of reputation, or result in trading restrictions which could have a material adverse effect on the business.

To mitigate these risks the Group has a number of defined policies and operating procedures, and takes advice where considered necessary, to ensure that employees and others act with the highest ethical standards and within local legal and regulatory requirements. Also, the Group's internal audit programme includes within its remit the review of compliance with applicable legislation and regulations. Policies are updated as regulations change and as our knowledge of best practice increases.

#### **Defined benefit pension scheme**

In the UK, Ricardo has a defined benefit pension scheme with a deficit. The rate of cash contributions required to eliminate the deficit may vary according to the valuation assumptions used and the schedule of contributions. Changes in the assumptions used in the valuation in accordance with IAS 19 'Employee benefits' can cause

movements in the net assets of the Group. Changes required to the schedule of contributions may vary the additional cash contributions per annum or the time taken to eliminate the deficit.

The scheme is closed to new entrants and future increases in pensionable salaries are capped to inflation. During the year ended 30 June 2009, the schedule of contributions arising from the latest triennial valuation has been agreed and as a result the period over which additional cash payments are being made has been extended for 12 months, and assumes a transition from return seeking assets towards a higher proportion of matching assets.

#### **Financing**

Although the Group currently maintains a near zero gearing position, it still requires banking facilities to operate. Given the recent turmoil in the banking sector, globally there has been an increase in the risk of companies being unable to secure sufficient funds. The Group is normally in a net borrowing position, requiring some borrowing from its bankers.

This risk is managed by robust cash management, monitoring forecast and actual cash flows, maintaining good relationships with the Group's bankers and ensuring sufficient borrowing facilities are in place at all times to support the Group's requirement, with additional headroom available to meet possible downside scenarios. The Group has ample facility and covenant headroom. Further details of the Group's borrowing facilities and other financial risks can be found in note 20 to the financial statements.

#### **Other risks and risk management**

Additional risks and uncertainties currently unknown to the Group, or which the Group currently deems not to be principal risks, may also have an adverse effect on the financial condition or business of the Group.

The Group has risk management processes in place for contract, foreign exchange and other business risks. Contract risks are managed through a project management process, which is closely linked to financial performance measurement. Non-contract risks are controlled by the leaders of global product groups, Group functions and divisional managing directors. These risks are analysed and reviewed regularly and are recorded in the Group's risk register in liaison with the Group's Risk Manager and Head of Internal Audit, who has an independent reporting line to the Audit Committee. The Group's internal audit function provides assurance regarding the systems of internal control and risk management and, as stated above, compliance with applicable legislation and regulations. This is complemented by the internal audits required as part of maintaining certifications to international standards. These risk management and internal audit processes and their effectiveness are reviewed annually by the Audit Committee. Further information on risk management processes is given on pages 49 to 52.

# Corporate social responsibility

A responsible and global corporate citizen

## Commitment to stakeholders

Ricardo aims to manage its relationships with its stakeholders and to communicate with them professionally and responsibly. The Board recognises its principal stakeholders as shareholders, clients, employees, suppliers and local communities and also recognises its responsibility to the environment. Responsibility to the Board for relations with all our stakeholders lies with the Chief Executive Officer. The Board as a whole reviews the key elements of corporate social responsibility annually. To underline the importance of integrity in all relationships between employees and stakeholders, we have ethics, fraud prevention and whistle-blowing policies which are communicated to all employees. Under our ethics policy we do not permit bribery, anti-competitive or corrupt business practices in any dealings. Under our fraud prevention policy we do not allow intentional acts by one or more individuals within the business to use deception or theft to gain unjust or illegal advantage. Under our whistle-blowing policy we provide a procedure for any employee to raise any malpractice concerns in an appropriate manner, with protection to the whistle-blower.

## Shareholders

Ricardo is fully committed to achieving a sustainable increase in the value of the business for its shareholders, and recognises the importance of demonstrating progress in this objective in terms of business performance, dividends and clear communications with shareholders. We recognise that good relationships with other stakeholders are key to achieving a sustainable increase in the value of the business, and conversely that a sustainable increase in the value of the business ultimately protects the long-term interests of all appropriate stakeholders. We also recognise that our shareholders give us an independence which enables us to reassure our clients of our integrity.

## Clients

Our commitment to our clients is fundamental to the future success of the business. We work hard to understand our clients, anticipate their needs and deliver outstanding solutions that give client satisfaction and improve client performance. We care about our clients, enjoy working with them, and want them to enjoy working with us. We aim to be quick and flexible in our response and easy to work with and we rigorously uphold client confidentiality, which is embedded in

our values. We regularly survey our clients' views on our performance.

## Employees

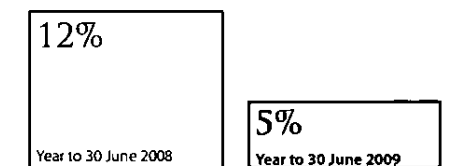
Ricardo is proud to have deep engagement with its clients globally, forming strong collaborative teams for knowledge sharing and skills transfer. This has been a very powerful benefit to the business as we have understood and worked alongside our clients to fulfil their needs during the market downturn. Respecting both the prestige and diversity of our employees and clients, we aim for Ricardo to be as leading-edge in our people practices as we are in our technical prowess.

Progress in line with this aim is evident through process, infrastructure and people developments. The company maintains its belief that it will grow most successfully through the personal growth of its employees. This may ultimately mean that not all aspects of an individual's career trajectory can be accommodated within this organisation and that experience needs to be sought elsewhere. By valuing a respectful relationship with its employees, Ricardo has been privileged to see a number of returnees who, having gained different experience, have brought this back to further strengthen our business.

The dynamics of the market are such that we ensure we make regular and rigorous reviews of our skill base, proactively managing the balance between attrition and refreshing or enhancing the skill set through carefully targeted recruitment.

KPI for employee and knowledge retention

**Employee turnover p.a.** based on voluntary leavers, targeting a level of c. 10%



The changes in the market during the year have had an impact on the level of voluntary employee turnover. This has reduced to 5% from 12% in the previous year, enabling strong knowledge retention within the business.

At Ricardo we are cognisant that our people have excelled in their commitment to meet customer expectations within the dynamic business environment experienced this year. Employee engagement is ever more vital and the management teams are focused on creating an environment where people are respected for their contribution, where integrity is demonstrated in all that we do, where we provide exciting work which allows innovation and creativity to flourish and where our passion is tangible.

During the year Ricardo has maintained its philosophy of attracting new talent at all levels of the organisation, continuously anticipating and driving for opportunities in business diversity and growth. This is particularly the case in the defence and clean energy sectors.

Our talent management process has also identified up-and-coming business leaders to take up the challenge of career development opportunities, particularly as we expand our presence in new geographical markets. In particular, the identification of high-potential employees on a global basis gives us a robust method to focus our development spend in addition to normal development channels for all employees.

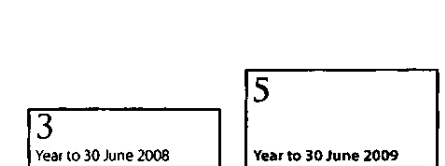
Moreover, engendering the right cultural balance in which people can excel throughout the matrix is a challenge that we at Ricardo are actively addressing both through local policy and practice as well as through our over-arching global philosophy and protocol for senior leadership development, performance management and employee engagement mechanisms.

Ricardo promotes the concept of 'thought diversity' as it encompasses all the life experiences and culturally varied aspects that people represent in their work. It plays to our ability to be agile, innovative and creative, and to understand our clients' perspective more deeply. All this helps improve the success of the Company. It also avoids becoming over focused on diversity measures that, in themselves, provide little business value.

Through the implementation of the approaches described above, we believe that we are significantly

KPI for health and safety

**Reportable accidents** based on UK RIDDOR definitions, targeting zero accidents



improving both the quality and efficiency of our recruitment and development efforts, with substantial advantages to the management and operation of our business. In the year ahead we aim to connect the global organisation more strongly through a determined enactment of its core values and a drive for greater trust and collaboration to enable it to become an increasingly adaptive organisation.

**Health and safety**

Ricardo is committed to compliance with local health and safety legislation, a safe working environment and a very low level of reportable accidents. We fully support training in health and safety awareness, impending changes in relevant legislation and other specialist health and safety subjects.

Health and safety activities are verified by regular internal audits and inspections and certification to OHSAS18001 in our technical centres in the UK, the US, Germany and Prague. This is a demonstration of our commitment to good governance and to being an employer of choice. Good relationships are maintained with local regulators in the main territories in which we operate. The effects of an increasingly wide geographic base and the need for increased staff flexibility and travel have led to further updates of policy and employee support when away from home.

We recognise the level of reportable accidents as a key performance indicator. Whilst we aim for even lower levels, the already low level of accidents reflects the success of our health and safety policies. Whilst there was a small increase in the number of reportable accidents in the last financial year, we are proud to report that there were no major accidents (having had one in the previous financial year). We aim to continue this good record.

**Environment**

The Board is committed to keeping the environmental impact of the Group's facilities and activities to a minimum. The Board's commitment is embodied in the Ricardo environmental policy, which is widely available via notice boards and the intranet and to the public via the [www.ricardo.com](http://www.ricardo.com) website. The drivers for the policy are the need for continuous improvement and the desire to be responsible members of the local communities in which Ricardo operates.

Many of Ricardo's clients require certification to the environmental management system standard ISO 14001 for their key suppliers. We are accredited to this standard in our technical centres in the UK, the US, Germany and Prague. The application of the policy is defined by appropriate processes and procedures as part of the quality system in each division. Many of these are closely linked to both quality and health and safety procedures. Business processes within the ISO 9001 certifications are used to ensure the appropriate staff members are appraised, objectives are set and training needs are identified. Best practice is shared between divisions by discussions between quality managers and internal audits. The suite of certifications and the supporting internal and external audit programmes are used to check policy effectiveness and identify improvement opportunities.

Ricardo has three principal areas of environmental impact, the first two of which are indirect impacts, as the impact is seen in the resulting products of our customers. The first area is the core business of technical consulting for new automotive and clean energy sector products, which will have an impact on the levels of emissions, fuel consumption and noise. This includes Ricardo-funded and client-funded engineering projects where technology is developed to provide low emissions and high-efficiency technologies for incorporation in products in all parts of the world.

Material selection is the second key area of impact. Ricardo supports the European Union End of Life Directive through close co-operation with its clients in selecting and testing materials for products it designs and develops. These decisions are normally led by client corporate standards for materials and manufacturing processes.

The third area of impact is our testing operations, which is the area of the business where the majority of the risks of direct impact on the environment exist. Our testing for customer and research programmes uses fuels and electrical energy. The resulting negative environmental impacts are offset by research into improving test methods. Also it should be noted that, indirectly, most of these testing programmes lead to a positive environmental impact, as more fuel efficient and lower emission vehicles are developed and released into the marketplace by our clients.

Other impacts include the conventional waste streams, which are monitored to identify potential improvement opportunities and to ensure legislative compliance. Higher-risk parts of the facilities, such as fuel stores, have containment and inspection regimes which meet local legislative requirements. We have no dominant waste stream.

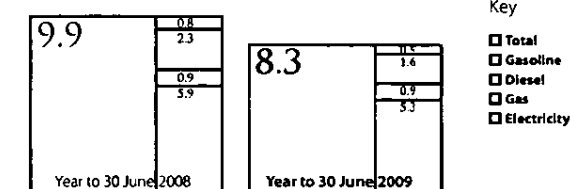
In order to support our customers and develop relationships where some face-to-face contact is essential, we travel to customers' and other sites when necessary. The decisions on airline routing and how many staff should travel are generally based on cost and timetable availability, with direct flights and modern aircraft being preferred. However we aim to minimise travel, particularly travel between Ricardo sites, by the use of video, audio and internet conferencing, and we have upgraded our investment in video conferencing in the year.

The process used to identify these impact areas is derived from ISO14001, where we are required to identify areas with potential for significant negative environmental impact. These impacts are reviewed during internal and external audits and subjected to specialist risk assessments.

Projects to reduce energy consumption are actively encouraged and have become more important as unit fuel costs have increased. Regenerative dynamometers enable the re-use of electricity generated by testing operations and thereby lead to savings and environmental benefits which include lower water usage. The proportion of regenerative dynamometers in the UK, the US and Germany has been increased and will continue to improve further with investments such as the recently opened extension to our German

#### KPI for the environment

**CO<sub>2</sub> tonnes per employee** calculated using factors from the United Nations Conference on Trade and Development, targeting an efficient use of resources



test facilities. Load-sensitive coolant pump drives have also been installed in some test houses to reduce electricity consumption. Our new buildings are as energy efficient as is economically viable and the new offices at Shoreham are delivering lower running costs.

To test our environmental focus we measure energy usage in terms of the tonnes of CO<sub>2</sub> produced by the business from the use of diesel and gasoline fuels for testing, and from gas and energy use in our facilities. For ease of understanding this is expressed as a ratio to headcount. Whilst a continuous reduction in CO<sub>2</sub> tonnes per head is targeted, this is not at the expense of taking on testing business that inevitably uses fuels. Only the energy used directly by the Group is measured. The indirect benefits to the environment from Ricardo's work are not measurable, but almost certainly far outweigh any direct negative impacts.

Good relationships are maintained with national and local regulatory organisations such as the Environment Agency and Environmental Health Departments in the UK and the Environmental Protection Agency and Michigan Department of Environmental Quality in the US. Processes are in place to keep up to date on regulatory issues and are the subject of regular audits. Staff training in health, safety and environmental matters is a priority and is reviewed annually as part of normal appraisal processes.

### **Suppliers**

Relations with the supplier community are regarded as an essential ingredient in achieving client and shareholder satisfaction. Our policy is that key suppliers should be certified to ISO 9001 and ISO 14001, and all suppliers are encouraged to obtain these certifications. It should be noted that in the case of some projects, suppliers are nominated by clients in accordance with normal industry practice. Where a choice between suppliers is possible, various procurement methods are used depending on the type of product or service being procured. For service

functions for our main sites, local suppliers are used where commercially practical.

There are no significant supply contracts which are essential to the business of the Group, and we are not tied to any suppliers in such a manner as to jeopardise the independence of the business. Initiatives being managed by our Head of Global Procurement are delivering a number of savings by consolidating the supply base and in some cases by securing better rates for longer term contracts.

### **Local communities**

It is our policy to aim to make a positive contribution to all countries and communities in which we operate, particularly in the areas of education and children local to our main sites. All Ricardo offices support local community activity and give charitable donations, particularly where employees participate in community or charitable fund-raising activities.

The focus is on creating sustainable links and on improving the image and understanding of the business and the engineering profession in the community. Examples in education include the provision of work experience placements for local schools, supporting Greenpower, the UK Science and Engineering Ambassadors scheme, and by employees acting as school governors. Support is provided to promote women in engineering in the UK via WISE (Women In Science and Engineering), ANKe in Germany and the Society of Women Engineers in the US. The Midlands Technical Centre also supports a local athlete with Olympic potential, Sarah McGreavey and the Shoreham Technical Centre supports Peter Mitchell, a sprint cyclist.

We often allow the use of facilities for charitable activities free of charge and we engage with local economic regeneration organisations. Financial contributions to charities in the year to 30 June were £22,000, and included a contribution of £5,000 to assist with repairs to a footbridge adjoining the Shoreham Technical Centre. The effectiveness of these policies is informally measured by feedback from the communities in which we engage.



## Conclusion

### A sound investment for the future

Despite turbulence in the global markets we serve, the business has performed well in the last financial year, thanks to our diversification strategy, investment in facilities and research and development, a strong order book, robust working capital management and our resilient and talented team of employees.

Whilst many of our customers are still cautious and we expect the economic environment to remain a challenge for some time, our key business drivers of tightening emissions and CO<sub>2</sub> legislation remain and we are pressing ahead with our strategy to increase customer and sector spread supported by investment in research, facilities and our people.

Against this backdrop, we expect trading in the first half of the current year to be substantially lower than the previous first half. However, due to the size and profile of our order book and an anticipated market recovery we expect a stronger second half. With the strength of our balance sheet we remain committed to our strategy and are confident for the future.



**Dave Shemmans**  
(Chief Executive Officer)



**Paula Bell**  
(Group Finance Director)

#### Cautionary statement

This business review and certain other sections of this annual report contain forward-looking statements that have been made by the directors in good faith based on the information available to them up to the time of their approval of this report. However they should be treated with caution due to the inherent uncertainties, including both economic and business risk factors, underlying any such forward-looking information.

*Ricardo prides itself on  
serving the world's leading  
brands, taking on some  
of the most difficult  
technological challenges,  
and delivering practical,  
profitable and sustainable  
solutions for our customers*

*ricardo.com*

## FEATURES

- 34** BMW's "brilliant" engine
- 36** Clean energy
- 38** Hydrogen for transportation
- 40** Plugging into the future
- 42** Clean diesel technology

## BMW's "brilliant" engine

### Engineering support for one of the world's premium brands

In October 2008 BMW launched its K 1300 range of motorcycles, attracting a rapturous reception from the media and enthusiasts alike. One of the key new features of the K 1300 was its new engine, the result of a comprehensive redesign programme carried out in close collaboration with Ricardo.

Ricardo has been active in motorcycle projects throughout its history, with recent work in this highly specialised area ranging from scooters and tuk-tuks for companies in the developing nations to projects undertaken for the premium two-wheel brands of Europe, North America and Japan. Like many of the company's leading-edge motorcycle engineering programmes, Ricardo's involvement in the BMW K 1300 project was led by the company's global centre of excellence for motorcycles and small engines at the Schwäbisch Gmünd Technical Centre in Southern Germany. Additional supporting expertise was drawn from the Ricardo sites in the UK and the Czech Republic. The project – a thoroughgoing upgrade of the existing K 1200 engine – was commissioned by BMW early in 2006, with work starting in May of that year. The thirty-

For BMW, an ambitious new product strategy dictated that additional engineering resources were necessary. To outsource a major project like the K 1300 upgrade was, however, a new departure for the company. BMW's requirement was for skilled engineers knowledgeable in the unique requirements of motorcycle development, who were capable of integrating seamlessly into the rigorous BMW product development process: Ricardo was judged to possess both the facilities and expertise to meet the challenge. BMW particularly valued the fact that Ricardo could deliver a complete package in-house, including transmission and exhaust development, from a technical centre which could provide motorcycle-specific engineering expertise close to BMW's own Munich based operations.

Ricardo's brief was to remodel the existing four cylinder K 1200 engine, while retaining the same major castings and as many other

*The results of this harmonious and highly productive partnership are some of the motorcycle world's most sought-after products.*

common components as possible. Within these parameters, the challenge was to effect some major improvements to the specification and performance. An increase in the cylinder bore and stroke, taking the capacity of the engine from 1157 cc to 1293 cc, necessitated a complete design revision of the crankshaft, connecting rods, pistons and combustion system. Improved refinement and shift quality were also requested by BMW; part of Ricardo's solution was a new two-stage driveshaft. The exhaust system was completely redesigned to meet global noise regulations – while maintaining the kind of compelling engine sound quality that riders demand – and the engine management system was thoroughly recalibrated.

Ricardo's state-of-the-art suite of engine modelling software products, including VALDYN, WAVE and VECTIS, were used extensively; this saved time by limiting the physical testing and design changes needed later on in the development cycle. The reliability of the CAD and computer aided engineering work was underscored when the results of the driveline dynamic models correlated extremely

closely with the completed prototypes. All prototyping work followed BMW's extensive and rigorous programme of validation and testing: this required a very high work rate, with fresh engines being made at each prototyping stage. At each iteration there were power and torque targets to be met, production variability to be considered, and breather and oil systems to revalidate. In addition, Ricardo provided full calibration support to BMW right through until the final sign-off of the new product range.

A key performance target set by BMW was to improve the stability of the engine's combustion under light loads, a common weakness of high performance motorbikes. Here, Ricardo's extensive experience in combustion modelling was of key value, and the company's WAVE and VECTIS software was crucial in identifying the changes to the valve timings which, along with a new inlet port design, would solve the problem. Ricardo's work in eliminating this unwanted characteristic was considered a particular success by BMW.

All project milestones were met to BMW's satisfaction, due in no small part to the dedication and product focus of the engineers of Ricardo's motorcycle and small engines centre of excellence. To quote just one example: to achieve one early programme target – the delivery of 15 prototypes early in 2007 – the team at Schwäbisch Gmünd worked through the 2006 Christmas holiday. Ricardo worked to BMW project standards throughout, and was given complete access to BMW CAD systems to modify drawings and specifications. In effect, Ricardo became an extension of the BMW engineering team.

The results of this harmonious and highly productive partnership are some of the motorcycle world's most sought-after products that have justifiably garnered great praise. In addition to the tag of 'brilliant' engine bestowed on the K 1300 by Motorcycle News, the complete range was hailed as 'a genuine leap forward' by Superbike magazine, with performance described as 'simply staggering'.

# Clean energy

## Ricardo helps accelerate the pace of innovation in renewable power

Ricardo has long been associated with the development and application of clean low-carbon technologies and products in the automotive industry. Some of the most recent examples are advanced low-emissions combustion concepts and the latest developments in hybrid, plug-in hybrid and electric vehicles. The company's leading position in these areas arises not least from its highly informed awareness of emerging technologies and its thorough understanding of the requirements for creating robust and well engineered products that will be both commercially successful and satisfy customer needs and expectations.

In recent years the Ricardo organisation has extended its operations into clean energy markets such as those for renewable power generation, combined heat and power, fuel cells, hydrogen systems, and energy storage including both battery-based and mechanical system concepts. The company's dedicated clean energy team brings core skills from outside the automotive industry – such as in wind power – while also benefiting from access to the full range of Ricardo expertise and technology in key specialist areas such as electronics and control system design, computer-aided engineering and robust design and manufacturing process knowledge, crucial to ensuring minimal warranty issues.

Given the global imperative of reducing carbon emissions from grid power supplies, it is understandable that renewable power is experiencing major growth worldwide. Reliability is a key issue for wind turbine systems due to the significant cost of both the hardware and the resources required for in-service repair and maintenance, particularly for wind farms located off-shore or in areas of poor accessibility. This is compounded both by the very ambitious projected international increases in the number of installed turbines as well as the general progression towards higher capacity machines of in the region of 3 MW today and up to 10 MW in the near future. The need for improved reliability to be built in at the design stage is thus increasingly important and Ricardo's clean energy team finds its services, based upon the company's world-class design and manufacturing process expertise, to be very much in demand.

A particular area of focus for Ricardo is the design of wind turbine gearboxes that are required to increase the rotational speed of the turbine rotor – typically less than 20 rev/min – up to a generator input speed of around 2000 rev/min, while also accommodating the variability of wind-loading on the turbine blades that is typical for this application. While this challenge is in itself not insurmountable, wind farm operators are reporting a high

incidence of failure in the first five years of operation of units, which are typically designed for a twenty-year life.

With its experience in developing gearboxes for the transportation industries, Ricardo is well placed to assist wind energy equipment manufacturers and wind farm operators in the design of robust gearbox systems and in the investigation and resolution of in-service failures. Each of the gearbox components that experience and transmit load can be analysed in detail both in isolation and collectively, including their interfaces, and assessments can thus be made of durability and of noise and vibration. Techniques such as structural optimisation, design for manufacture and assembly, gear geometry optimisation, failure mode and effect analysis and tolerance stack-up analyses are all part of the standard process for automotive product design and are being applied by Ricardo successfully in the resolution of wind energy gearbox and drivetrain issues.

Building on its successful work in this area, Ricardo has been asked to assist the US National Renewable Energy Laboratory (NREL) as part of a consortium investigating the mechanisms of failure found in wind energy gearbox systems. This group comprises many stakeholder groups including turbine manufacturers, government laboratories, wind

farm operators and service providers. As a part of the programme two 750 kW gearboxes have been extensively instrumented and are currently undergoing dynamometer testing prior to field data collection in a wind farm environment. As one of the analytical partners in the programme Ricardo is modelling the gearboxes using its suite of CAE tools such as the SABR shaft, gear and bearing design package. While this programme is focusing on a single design of wind turbine gearbox, it represents one of the most in-depth studies on a gearbox of this size and should provide highly valuable validation data for future analytical modelling. Internally, Ricardo is exploiting the lessons learned from this programme with the development of concept designs for a 1-3 MW gearbox and high durability bearings, both of which have generated significant interest from clean energy clients.

While the wind energy sector leads the way in the renewable energy market in terms of the sheer scale of installed capacity, other highly promising technologies which are likely to form part of the future renewable energy mix are also actively being pursued. While most renewable energy sources, including solar, wave and wind power, are inherently intermittent and hence dependent upon prevailing conditions, one technology – tidal energy – is predictable to an extremely high

degree. The movement of tides is governed by the gravitational pull of the moon and sun on the oceans and seas of the world, creating an ebb and flow movement as the Earth rotates. While this gravitational effect applies to all parts of the world, the shape of the sea bed and coastline acts to amplify these tidal streams. Given that water is around 800 times the density of air, the energy content of tidal streams can be considerable.

Over the past two years Ricardo has been actively supporting Irish energy technology company, OpenHydro, in the design of its tidal generator systems. OpenHydro was the first company to complete the connection of an embedded tidal turbine generator to an electricity distribution system in the UK, with an 11 kV seabed generator in the Orkney Islands off Scotland. It has also secured tidal projects in France, Canada and the US. The company's technology is based on its seabed mounted 'Open-Centre Turbine' units which, being free-flow devices, do not disrupt tidal

flows in the manner of a barrage but instead harness the energy of the stream passing through the turbine. They can be used either individually or in the form of a tidal generator cluster in a similar manner to land-based wind farms. The efficiency and robustness of these systems is of crucial importance to OpenHydro, and the company has sought assistance from Ricardo in the computational fluid dynamics (CFD) simulation of its 6 metre and 10 metre diameter turbines. The analysis was used to predict turbine rotational speed and available driving generator torque under a range of tidal stream velocities and flow directions. Using this information Ricardo was thus able to provide design recommendations to OpenHydro on a number of key design details for its seabed generator systems.

These are just some examples of the work of Ricardo's clean energy team, demonstrating the potential synergies available between the advanced technologies and robust, high quality design processes and skills of the automotive sector, and the needs of this rapidly expanding market. With the increasing importance of clean technologies both for the global environment as well as the worldwide economy, Ricardo's proactive stance in this highly important future industrial sector may prove to have given the company a crucial first-mover advantage.

# Hydrogen for transportation

## Helping ExxonMobil develop vehicle based hydrogen generation technology

A widely accepted technological and commercial obstacle to the use of hydrogen as a transportation fuel is the challenge of storing a sufficient quantity of hydrogen on the vehicle to provide an acceptable driving range within a practical tank volume. Many of the fuel cell demonstrator vehicles shown in recent years have sought to approach an acceptable solution by storing the hydrogen gas at extremely high pressures in highly complex and expensive pressure vessels. In addition to the high cost of this approach, it also requires large inputs of energy to pressurise the hydrogen, which further decreases the overall efficiency of the fuel chain. One solution, long proposed but now once again attracting interest in the light of the very practical problems of hydrogen storage, is the on-board generation of hydrogen from familiar liquid fuel sources including fossil fuels and sustainably produced biofuels.

Most current production of hydrogen used in industrial applications takes place using steam reformation of natural gas. Known as Steam Methane Reforming (SMR), this process is based on the reaction of natural gas and steam in the presence of a catalyst. The 'syngas' resulting from this endothermic reaction contains hydrogen together with significant amounts of carbon monoxide. The carbon monoxide

can be used to produce additional hydrogen in a separate reaction process called Water-Gas Shift. The final production step uses a process called Pressure Swing Absorption (PSA) to remove any remaining carbon monoxide or other by-products of the SMR process to produce pure hydrogen. As the SMR process requires heat, some of the methane must be burned to provide the required energy input to the steam reforming reaction, and not all of this heat can be effectively utilised by the process. Typical refinery-scale efficiencies are thus in the region of 70 to 75 per cent.

ExxonMobil Research and Engineering Company (EMRE) has patented an improved system of hydrogen production known as Pressure Swing Reforming (PSR). There are two key advantages of PSR for vehicle applications versus alternative hydrogen production methods such as SMR. The first is the ability to reform readily available transportation fuels such as gasoline or diesel. The second is the higher efficiency of the PSR process. As with SMR, PSR requires that a fuel be combusted to provide the heat required for the reforming reaction. However, with PSR, a greater percentage of this heat is utilized for reforming and less waste heat is emitted by the process. With careful design of the reactor and associated systems, ExxonMobil



*ExxonMobil selected Ricardo  
"because of its design skills,  
specifically in engine valve  
technology, and its ability to  
make prototypes rapidly"*

– Jim Kegerreis, senior engineering  
advisor, ExxonMobil Research & Engineering

estimates that this PSR technology can deliver significantly higher hydrogen generation efficiencies. A key feature of PSR that enables higher efficiencies is that the fuel combustion process and the reforming reaction take place in the same reactor. In order to control the periodic switching of gases needed to allow two processes to take place in one reactor, a valve system is required.

ExxonMobil turned to Ricardo Strategic Consulting for advice on the possible adaptation of this technology for light duty vehicle applications. Ricardo recommended that PSR, being potentially more efficient than current reformation technologies as well as avoiding the difficulties of high pressure on-board storage, could offer a viable means of on-board vehicle hydrogen production to fuel a wide range of automotive fuel cell applications. After careful consideration of technical feasibilities and the likely commercial appeal, the prototype application recommended by Ricardo was a forklift truck fleet operating in a large distribution centre. In this scenario, the enclosed environment makes an electric fleet the most obvious choice despite the requirement for recharging and consequent adverse implications for vehicle availability and hence productivity. These issues are avoided by the use of an on-board hydrogen

reformer and hydrogen fuel cells to generate electrical power, a combination which could also result in lower NOx emissions than an internal combustion engine running on the same fuel. The choice of this targeted niche application to test the technology would also give ExxonMobil an opportunity to assess the wider possibilities of the technology.

For the first prototype unit, a smooth, constant flow of hydrogen was required capable of providing a maximum power level of 25 kW. This is typical of the requirements of the targeted forklift truck application but would also potentially be an appropriate size for a fuel cell hybrid powertrain application for a small car.

Ricardo's expertise was used in designing and developing a solution that delivers even flow to multiple reforming reactors. Under this arrangement, three reformer beds are arranged around a central axis, each operating on a cycle of reforming, combusting, purging and pressurisation – similar to the familiar four strokes of an internal combustion engine. The prototype used an electromagnetic system for valve operation, employing solenoid actuators; it was controlled by Ricardo's rCube rapid prototyping system. Jim Kegerreis, senior engineering advisor at ExxonMobil Research &

Engineering, reveals that, in selecting its project partner, ExxonMobil "chose Ricardo because of its design skills, specifically in engine valve technology, and its ability to make prototypes rapidly."

Perhaps the biggest engineering challenge of the project lay in devising sealing systems able to cope with the unique requirements of a high temperature and pressure, hydrogen-rich environment in which many materials are susceptible to the problem of hydrogen embrittlement, a process which can lead to the weakening and failure of components.

The prototype designed and manufactured by Ricardo is currently undergoing testing at the facilities of fellow contractor, Plug Power, in the Netherlands. ExxonMobil believes that in the future, light vehicles using this technology could achieve up to 80 per cent better fuel economy and emit 45 per cent less carbon dioxide than today's typical US road vehicles. While further research and refinement will be needed, this PSR implementation has shown its potential as a pragmatic and practical route to the commercial implementation of the hydrogen fuel cell in automotive applications. Ricardo is proud to have played a significant part in the development of this very promising technology.

# Plugging into the future

## Creating the next generation of plug-in hybrid and electric vehicles

In a speech delivered in March at the Electric Vehicle Technical Center of Southern California Edison, President Barack Obama set out his vision of how the United States will build a clean energy economy that will be key to the nation's competitiveness in the 21st century. The President's vision included the ambitious target of putting one million plug-in hybrid vehicles on America's roads by 2015. During his visit to Edison, President Obama was able to preview a new concept of hybrid utility vehicle intended to offer substantial reductions in fuel consumption and emissions. This initiative was co-ordinated by the Electric Power Research Institute (EPRI), involving the Ford Motor Company and Eaton Corporation, assisted by Ricardo Inc.

Until now, most advanced plug-in hybrid electric vehicle (PHEV) concepts, vehicle demonstrators and product prototypes developed by Ricardo and others have been aimed at the consumer automotive market. This project instead focuses on a utility vehicle application: that of the so-called 'trouble trucks' used by electricity distribution companies to install and maintain overhead power lines in the United States. Typically, the vehicles use

boom-and-bucket or cherry picker equipment to reach the lines, operating on hydraulic systems powered by stationary operation of the vehicle's diesel engine. In the plug-in hybrid demonstrator to which Ricardo contributed, stationary operation was to be achieved almost entirely from battery power.

For the study, known as the EPRI Medium Duty Trouble Truck PHEV project, the base vehicle chosen was a Ford F-550 truck. To its standard six-litre V8 engine was added the existing production parallel hybrid system produced by Eaton, in which an AC motor is mounted on the input shaft of the automated manual transmission. The fuel economy benefits of Eaton's production hybrid system are already well established and have led to it being adopted in the fleets of many major companies including Fed-Ex, Coca-Cola, Pepsi and Wal-Mart. Given the large mass and hence substantial inertia of the vehicles involved, the Eaton system is designed to make extensive use of regenerative braking to recapture energy that would otherwise be lost.

Ricardo was engaged by Eaton to develop the electrical and control systems for the PHEV

version of the trouble truck. The first challenge successfully met by the Ricardo team – based at the Detroit Technology Campus – was to integrate the battery pack. For the trouble truck application, in which sufficient charge is needed for continuous electric-only operation for up to six hours, the battery selected was a high-power bespoke unit; this required considerable interface work to ensure its full function with the Eaton hybrid system. Ricardo's work then moved to meeting the plug-in charging requirements of the enlarged battery pack, from standard 120/240v mains. Safety – for example in ensuring the isolation of high voltage systems during stationary charging – was a paramount consideration.

Finally, Ricardo developed the control architecture and algorithms to maximise the efficiency of the truck's operation in plug-in hybrid mode. For this application, the heaviest use of the battery power is made when the vehicle is stationary at its work site. This is an entirely different usage pattern to PHEV operation in a passenger car, in which grid power is stored for use primarily in traction. A key operational and safety requirement was that the boom and bucket be capable of

*"we will put one million  
plug-in hybrid vehicles on  
America's roads by 2015"*

– President Barack Obama

uninterrupted use at its work site: the system therefore starts the diesel engine when the battery charge falls below a certain point, and runs the engine at an efficient, higher load, with the excess power generated used in battery recharge.

Eaton's baseline hybrid system has been certified as offering 30 per cent fuel savings; in this trouble truck application, efficiency gains as high as 70 per cent are anticipated over the equivalent conventionally powered vehicle. There are considerable noise reduction benefits to stationary battery power operation with these vehicles too – an important consideration given that power line maintenance work is necessarily a round-the-clock operation and must frequently be carried out in residential areas and at night.

Ricardo and Eaton handed the completed demonstrator vehicle over to Southern California Edison in March, just ahead of President Obama's visit and keynote speech. EPRI, Eaton and Ford are developing the trouble truck PHEV concept further, and its evaluation in the field by utility companies will take place in the near future. Given the large

fleet size of vehicles of this type in the United States – in addition to their use by power utility companies, they are also employed by the many fixed-line telecoms operators and highways authorities throughout the country – the future product potential is considerable.

Ricardo's vision in creating the engineering organisation and infrastructure for the future is to focus on the development of extremely high fuel efficiency, low-CO<sub>2</sub> vehicles that offer at least the same vehicle range as today while providing clean, low carbon products and technologies which reduce dependence on oil. The company's leadership in hybrid, plug-in hybrid and electric vehicle development is due in no small part to this vision and strategy.

The battery system of a current production hybrid represents a very significant proportion of the cost premium, but in a PHEV the additional energy storage capacity renders this extra cost considerably higher. The imperative to deliver robust, cost-optimised and well engineered systems fully integrated with the vehicle and its control systems has been a key influence in Ricardo's decision to invest in the new Battery Systems Development Center

(BSDC) at Detroit. This facility is already being used in research programmes, for example taking cell technologies from specialist suppliers, designing and developing battery systems mechanically and thermally, and applying the latest in control electronics both in order to achieve the required operational characteristics and for monitoring cell health and state of charge. As the BSDC is a fully integrated part of the company, Ricardo is also ideally placed to handle the integration of these systems into vehicles. The company can thus offer a comprehensive hybrid, PHEV, and electric vehicle engineering service covering all aspects of the powertrain and vehicle engineering including the entire cycle of the battery system.

There is little doubt that the mood in the United States and elsewhere has shifted decisively in the direction of clean transportation and that increasing vehicle electrification will be a key part of this process. With its proactive investment in research and facilities such as the BSDC, Ricardo looks forward to delivering practical engineering solutions that will see this technology implemented across a wide range of future vehicle applications.

# Clean diesel technology

## Cutting-edge research helps open new markets

Diesel, once considered the poor relation to gasoline in light duty vehicle applications, is fast becoming the major powertrain force in world markets. The globalisation of diesel vehicles is highlighted by a huge increase in the number of the products OEMs have in the pipeline, a situation reflected in the recent record of growth of Ricardo's diesel engineering teams. To provide competitive services in this very demanding market sector requires the very latest in diesel technology.

Ricardo aims to deliver class leading durability, performance, robustness, fuel economy and low emissions across the full range of diesel applications – from small engines to power generation and marine and locomotive propulsion. For light duty products in particular, the company's aim is to engineer solutions that can compete with gasoline on both emissions and performance anywhere in the world, including both mature and developing markets, while fundamentally out-performing gasoline in terms of fuel economy and CO<sub>2</sub> emissions.

In its near-zero emissions diesel (NZED)

research programme, first results of which were announced in late 2008, Ricardo has focused on the optimisation of air and exhaust handling systems based on a production two-litre diesel engine. The NZED engine has a two-stage sequential variable turbocharger arrangement combined with an advanced exhaust gas recirculation (EGR) system. With sophisticated control this system gives good transient response coupled with low emissions and high efficiency. Extremely low NO<sub>x</sub> emissions are achieved through Ricardo's highly pre-mixed cool combustion technology. As ever, Ricardo software played a major part in the development of the NZED engine, a six-month WAVE study being undertaken before the project started. This modelled the air system and EGR, while VECTIS was used to analyse combustion.

With this approach, the two-litre Ricardo NZED engine delivers 160 horsepower and 400 Nm torque, yet produces staggeringly low emissions of 90 per cent less than the Euro 4 base engine; in effect bypassing Euro 5 and meeting the requirements of Euro 6 regulations. Moreover, it achieves a fuel

economy improvement of between 5 and 10 per cent, countering the received wisdom of so many years that emissions reduction must be paid for in fuel efficiency. While the technologies demonstrated on the NZED engine represent some added costs, the benefit of extremely low engine-out emissions may be attractive in reducing the requirement in some applications for expensive NO<sub>x</sub> aftertreatment technologies demanding the use of precious metals. The Ricardo diesel team sees NZED as a demonstration of technologies that can be mixed and adapted according to individual product application and market needs. As such, together with next-generation fuel injection and aftertreatment systems, the technologies demonstrated offer a portfolio which, when configured according to each individual product's requirements, is capable of delivering the ultra-low emissions diesels demanded in the US in the decade ahead, as well as solutions focused on CO<sub>2</sub> for Euro 6 and beyond in Europe.

Alongside the NZED programme, related Ricardo diesel research work has focused on the development of new fuel injection and

*In Russia, Ricardo is also building its diesel presence, serving customers including the GAZ Group, the country's largest manufacturer of light commercial vehicles, trucks, buses, cars, diesel engines, powertrain components and road construction equipment.*

combustion system strategies for low engine-out particulate emissions. This has offered an attractive means of minimising cost while improving fuel economy for more cost-focused applications. As such, in addition to serving the sophisticated product needs of Europe and North America, the technology portfolio of the Ricardo diesel team is also being exploited in the development of products for price sensitive emerging markets.

In India, for example, Ricardo is working on a number of smaller capacity engines for that country's burgeoning market for small two, three and four wheeled vehicles, as well as larger units for passenger car, heavy duty, locomotive and stationary applications. One such collaboration is with Cooper Corporation, in which Ricardo is assisting in the design of a state-of-the-art family of engines to meet both existing and planned emissions regulations. The products will be available in natural gas as well as diesel variants, with power ratings from 26 to 340 horsepower, and are intended to find application worldwide in areas as diverse as generator sets, agriculture, construction equipment and marine propulsion. In addition

to this, the engine design is intended for automotive applications including the planned production by Cooper of its own commercial and passenger vehicle products.

Cooper Corporation is a highly respected manufacturing organisation and has a long history of working with Ricardo dating back over forty years. Key customer objectives for this project were that the engines would meet the targeted emissions regulations and performance while also offering ease of manufacture and low costs. The programme demonstrated the international dimension of the Ricardo organisation, with work being carried out both at the Ricardo technical centres in the UK and Prague as well as on-site in India.

In Russia, Ricardo is also building its diesel presence, serving customers including the GAZ Group, the country's largest manufacturer of light commercial vehicles, trucks, buses, cars, diesel engines, powertrain components and road construction equipment. On this programme Ricardo has been engaged to design and develop an upgrade to the existing

650 truck engine for GAZ Group subsidiary YaMZ. This truck engine is derived from a former Renault product licensed by GAZ which required updating to Euro 4 emissions levels. In this market, Ricardo's track record of previous international success can be as important as the new technology the company can offer. According to Igor Kulgan, director of GAZ Group's Powertrain Division, a major consideration for Ricardo's selection for this programme was its prior knowledge of the engine: "For the 650 engine Ricardo made a very good proposal – it knows the engine well as it worked on it for Renault." For the new version of the engine – the 651 – Ricardo has designed and procured a new EGR system and carried out performance development and engine calibration based on a new Bosch 1600 bar common rail fuel injection system.

These are just some of the diesel projects being carried out by Ricardo, demonstrating the company's ability to develop the very latest low emissions, high fuel efficiency and clean diesel technologies, and to apply them in a manner appropriate to the specific needs of its customers in all parts of the world.

*We aim to bring in the  
very best skills, expertise  
and knowledge to the  
boardroom in order  
to provide exceptional  
business performance  
and best value to our  
shareholders*

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## GOVERNANCE

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- 46** Board members
- 48** Corporate governance in practice
- 52** Directors' remuneration report
- 60** Directors' report
- 63** Independent auditors' report

# Board members

## **Michael Harper MSc, CCMI, FRAeS**

**(Non-executive Deputy  
Chairman)**

Michael Harper was appointed a non-executive director on 24 June 2003 and he is the Senior Independent Director. He is 64 years old. He was Chief Executive of Kdd plc until he retired from that position in March 2005. He is currently Chairman of BBA Aviation plc, Chairman of The Vitac Group plc, and a non-executive director and Senior Independent Director of Catlin plc.

## **Marcus Beresford CBE, MA Mech.Sc., FIET**

**(Chairman)**

Marcus Beresford was appointed a non-executive director on 1 October 2003 and Chairman on 1 January 2004. He is 67 years old. He has had a long and distinguished career in the engineering industry, principally with Smiths Industries, Siemens and GKN. He joined the Board of GKN plc in 1992 and was Chief Executive from August 2001 until he retired in December 2002. He is currently a non-executive director of Cobham plc. He is a fellow of the Institution of Engineering and Technology. Outside industry he has held various posts, including being a member of the Advisory Committee on Business and the Environment, a member of the Engineering Technology Board and a Council Member of the Open University.

## **Ian Lee BA, CA, CPA**

**(Non-executive Director)**

Ian Lee was appointed as non-executive director on 1 August 2008 and Chairman of the Audit Committee on 18 November 2008. Ian is 62 years old. Ian is a former senior partner of Ernst & Young LLP in Glasgow, where he was primarily involved in leading and coordinating audits of listed companies and international groups. He was a member of the Ernst & Young governing Council for six years, and was a member of the firm's audit committee. He was the Convener of the Institute of Chartered Accountants of Scotland Audit and Assurance Committee. Ian is a non-executive director of Clyde Process Solutions plc and is responsible for chairing that Group's Audit and AIM committees. Ian is also a non-executive member and a member of the audit committee of the NHS Greater Glasgow and Clyde Board.

## **Patricia Ryan LLB**

**(Hons)**

**(Company Secretary)**

Patricia Ryan is 44 years old and is a qualified solicitor. Patricia joined Ricardo's Legal Department in 2002 and was appointed Group General Counsel in 2005 and Company Secretary in November 2008. Patricia holds an honours degree in law from University of Westminster and is a member of the Law Society.

## **Stephen Parker**

**(Executive Director)**

Stephen Parker joined Ricardo on 1 August 2002 as the Managing Director of Ricardo Strategic Consulting. He resigned from the board and Ricardo on 23 July 2009.

**(Not pictured)**



**David Hall MA, MSc  
(Non-executive Director)**

David Hall was appointed a non-executive director on 21 February 2006. He is 62 years old. He was formerly at the Boston Consulting Group, the international strategic and management consulting firm, where he started and built up the financial services practice, served on the worldwide Executive Committee, was Chairman of BCG's ten global practice groups and had global responsibility for HR. David is also Chairman of the Financial Services Compensation Scheme and a consultant to the Board of Hoare & Co, a private bank.

**David Shemmans BEng  
(Chief Executive Officer)**

Dave Shemmans, aged 43, joined Ricardo in 1999 as Senior Business Development Manager for Ricardo Consulting Engineers (RCE). In 2002 he was appointed Business Development Director for the Ricardo Group and in December 2003, Managing Director of RCE. He was appointed to the Board as Chief Executive Officer Designate and Managing Director International Operations in February 2005, and became the Chief Executive Officer of Ricardo plc on 4 November 2005. Prior to joining Ricardo he was Operations Director and co-founder of Wavedriver Limited (a subsidiary of PowerGen plc). He has also gained consulting and management experience in both listed and private companies. He holds a degree in electronics from UMIST and is a graduate of the Harvard Business School. Dave is a board member of the Electronic Leadership Council and Member of the steering group for the New Automotive Innovation Growth Team. Both organisations created in support of the UK Government industry strategy setting.

**Hans-Joachim Schöpf  
Dipl.-Ing., Dr.-Ing.,  
Hon.-Prof., Hon.-Sen.  
(Non-executive Director)**

Hans-Joachim Schöpf was appointed non-executive director on 1 July 2009. He is 67 years old. He was formerly executive vice president to DaimlerChrysler AG, head of Mercedes R&D and member of the board of Mercedes Car Group. Since retiring from DaimlerChrysler in 2004, Professor Schöpf has been appointed to directorships of BEHR, and TK Bilstein in Germany, Valmet Automotive, Finland and as a member of the advisory board of Mahle. In addition Professor Schöpf was a director of Ballard Power Systems in Canada until the end of 2007. He has also worked as an Independent automotive consultant and is an Honorary Professor of the Technical University of Vienna and Honorary Senator of the Technical College of Esslingen. Hans is also adviser to Ricardo's Technology Strategy Group.

**Mark Garrett BSc  
(Hons), FIMechE, CEng  
(Executive Director)**

Mark Garrett was appointed as Group Engineering and Products Director on 1 July 2008. He is 46 years old. Mark joined Ricardo in August 1998 as Manager – Gasoline Engines, coming from the position of Small Car Powertrain Manager at Rover Group. Since joining Ricardo he has performed a number of key roles, including Global Product Group Director for Gasoline Engines and head of Ricardo 2010 Consultants Ltd. Mark holds an honours degree in mechanical engineering from Bristol University, is a Chartered Engineer and a Fellow of the Institution of Mechanical Engineers.

**Paula Bell FCMA  
(Group Finance Director)**

Paula Bell joined Ricardo plc and took up the position of Group Finance Director in November 2006. She is 42 years old. Paula joined Ricardo from BAA plc where she was the Finance and Property Director for Gatwick Airport. She was previously the Director of Finance for AWG plc and over a ten year period at Rolls-Royce plc, Paula was Finance Director for various divisions before becoming the Business Development Director for their international Transmission and Distribution division leading on strategy, sales and marketing and a global merger and acquisition programme. Paula is a fellow of the Chartered Institute of Management Accountants. Paula was awarded the prestigious First Women Award for Science and Technology 2009, sponsored by the CBI, which recognises trailblazing and pioneering women in business.

# Corporate governance in practice

## The Combined Code on Corporate Governance

The Company has applied the principles set out in Section 1 of the Combined Code on Corporate Governance issued by the Financial Reporting Council in June 2008 ("the Code"). Section 1 of the Code applies to companies and this statement, together with the Directors' Remuneration Report set out on pages 52 to 59, explains how the Company applied its principles throughout the year ended 30 June 2009.

## The Board of directors

The Board, which is headed by the non-executive Chairman, Marcus Beresford, also included three other non-executive directors and four executive directors as at 30 June 2009. During the year, Mark Garrett was appointed executive director on 1 July 2008 and Ian Lee was appointed non-executive director on 1 August 2008. Ian Percy retired from the board on 18 November 2008 whereupon Michael Harper was appointed Deputy Chairman and Senior Independent Director and Ian Lee was appointed Chairman of the Audit Committee. As announced on 13 January 2009, Interim Group Finance Director Geoff Bicknell resigned from the Company upon the return of Paula Bell from maternity leave. Subsequent appointments and resignations to the Board are reported in the Directors' Report on page 62.

The role of the Board is to provide entrepreneurial leadership of the Company within a framework of effective controls which enables risk to be assessed and managed. The Board sets strategic aims, reviews management performance and ensures that the necessary financial and human resources are in place to meet its objectives and its obligations to its shareholders and others. The Board has agreed a schedule of matters reserved for the Board, which includes oversight of risk, approval of the Group's strategy, acquisitions and disposals of businesses, the annual financial budgets, major capital expenditure, major proposals and certain key policies. The Board approves interim dividends and recommends final dividends. It receives recommendations from the Audit Committee in relation to the appointment, re-appointment or removal of auditors, their remuneration and the policy relating to non-audit services and from the Nomination Committee it receives recommendations regarding Board appointments. The Board agrees the policy for executive directors' remuneration with the Remuneration Committee. The executive directors determine the remuneration of the non-executive directors other than the Chairman, whose remuneration is determined by the Remuneration Committee. The matters reserved for the Board and the terms of reference of its sub-committees are available on the Company's website. Board papers are circulated before Board meetings in sufficient time. The Board delegates to management, through the Chief Executive Officer, the implementation of strategy, the overall performance of the Group and the management of the business in a fit and proper manner in keeping with its values and policies.

The division of responsibilities between the Chairman and the Chief Executive Officer is clearly defined and has been approved by the Board. The Chairman's primary responsibility is ensuring the effectiveness of the Board, setting its agenda and ensuring that the directors receive accurate, timely and clear information. Under the direction of the Chairman, the Company Secretary is responsible for ensuring good information flows within the Board and its committees and between senior management

and non-executive directors, facilitating induction and assisting with personal development. In addition, the Company Secretary is responsible for advising the Board, through the Chairman, on all governance matters. The Chief Executive has direct charge of the Group on a day to day basis and is accountable to the Board for the financial and operational performance of the Group. The Chief Executive also chairs the Ricardo Operating Board which deals with operational issues. It usually meets quarterly and includes the Managing Directors of subsidiary companies and other senior executives. The Chief Executive also chairs the Executive Committee which meets at least three times each year and includes the Executive Directors of the Board. The minutes of the meetings of both the Ricardo Operating Board and the Executive Committee are circulated to the Board.

The performance of the Board is evaluated each year by a rigorous process based around a detailed questionnaire which each director completes. The areas covered include: the quality of leadership and the setting of strategy and values; the Board's setting of its own objectives and review of its progress against those objectives; the composition of the Board, the appropriateness of its skill level and mix of experience and the effectiveness of the various roles, how well the Board members work and communicate together and with others; the appropriateness of Board and senior management succession planning and the induction and training of Board members; the way Board meetings are conducted, the content of those meetings and related processes; the effectiveness of the various committees; and the appropriateness of its risk and control frameworks. The questionnaire also reviews the performance of each individual non-executive director including the Chairman. The results of the questionnaire are analysed and reviewed by the Board and appropriate improvements agreed and implemented.

For the year ended 30 June 2009 the Board set itself objectives in relation to the frequency and conduct of board meetings, the appointment of a further executive director and a non-executive director to replace Ian Percy and a review of shareholder communications.

Each director is appraised annually through the normal appraisal process. The Chief Executive Officer is appraised by the Chairman, the other executive Board members are appraised by the Chief Executive Officer, and the non-executive Board members other than the Chairman are appraised by the Chairman. Under the leadership of the senior independent director, having consulted with the executive directors, the non-executive Board members hold a meeting without the Chairman being present to appraise the Chairman's performance.

A new director, on appointment, is briefed on the activities of the Company, and receives a full, formal and tailored induction. Non-executive directors including the Chairman are briefed on issues arising at Board meetings if required and non-executive directors have access to the Chairman and the executive directors at any time. Ongoing training is provided as needed including presentations by the operating units on specific aspects of the business, supplemented by visits to key locations and meetings with key senior executives. Directors are updated continually on the Group's business and by means of Board presentations on matters including insurance, pensions, social,

	Board meetings	Committee meetings		
		Audit	Remuneration	Nomination
Number of meetings in the year	8	3	6	5
Number attended by each member				
Marcus Beresford*	8	2	6	4
Ian Percy (retired 18 November 2008)	4	1	2	2
Michael Harper	8	3	6	5
David Hall	8	3	6	3
Ian Lee (appointed 1 August 2008)	7	3	5	4
Dave Shemmans	8	-	-	5
Geoff Bicknell (resigned 13 January 2009)	3	-	-	-
Paula Bell (returned from maternity leave 2 January 2009)	5	-	-	-
Steve Parker	8	-	-	-
Mark Garrett	8	-	-	-

\* Marcus Beresford was appointed a member of the Audit Committee on 17 November 2008

ethical, environmental and health and safety issues. In the furtherance of their duties or in relation to acts carried out by the Board or the Company, each director has been informed that they are entitled to seek independent professional advice at the expense of the Company. In accordance with the Company's Articles of Association, directors are granted an indemnity from the Company in respect of liabilities incurred as a result of their office, to the extent permitted by law. In respect of those liabilities for which the directors may not be indemnified, the Company maintained a directors' and officers' liability insurance policy throughout the year. Although their defence costs may be met, neither the Company's indemnity nor insurance provides cover in the event that the director is proved to have acted fraudulently or dishonestly. Each director has access to the services of the Company Secretary if required.

Each of the non-executive directors including the Chairman are considered by the Board to be independent of management and are free to exercise independence of judgement. They have never been employees of the Company nor have they participated in any of the Company's share schemes, pension schemes or bonus arrangements. They receive no other remuneration from the Company other than the directors' fees disclosed and travel expenses. In relation to Hans-Joachim Schöpf, the Board has noted that he also holds the position of advisor to the Technology Steering Group, but the Board has determined that this does not affect his independence. The Board has determined that the non-executive directors who served during the year fulfilled the requirement of independence set out in the Code. The letters of appointment for the non-executive directors are available for inspection upon written application to the Company Secretary.

From 1 October 2008, there has been a requirement that directors must avoid a situation where they have, or can have, a direct or indirect interest that conflicts, or possibly may conflict, with the Company's interests. Directors of public companies may authorise conflicts and potential conflicts, where appropriate, if a company's articles of association permit and shareholders have approved appropriate amendments.

Procedures have been put in place for the disclosure by directors of any such conflicts and also for the consideration and authorisation of these conflicts by the Board. The procedures allow for the imposition of limits or conditions by the Board when authorising any conflict, if they think this is appropriate. These procedures were duly followed to approve appropriate conflicts immediately prior to the enactment of the conflict provisions in October 2008 and are now included as a regular standing item for consideration by the Board at its meetings.

During the year, no executive director held a non-executive directorship in a FTSE 100 company or chairmanship of such a company.

Directors are subject to election at the Annual General Meeting following their appointment and to re-election at least every three years.

The Chairman met during the year with the other non-executives and without the executive directors being present. The non-executive Deputy Chairman, Michael Harper, is the senior independent director who is available to shareholders if contact through normal channels is inappropriate or has failed to resolve an issue.

The Board met regularly throughout the year, of which one meeting was a three-day strategy session, with ad hoc meetings also being held. The table above shows the number of scheduled Board meetings (excluding those held to deal with minor administrative or time-critical matters) and Audit, Remuneration and Nomination Committee meetings held during the year and the attendance of each director.

Where directors have concerns which cannot be resolved about the running of the Company or a proposed action, they can ensure that their concerns are recorded in the Board minutes.

### The Audit Committee

The Audit Committee is established by and is responsible to the Board. It has written terms of reference. Its main responsibilities are:

- to monitor and be satisfied with the truth and fairness of the Company's financial statements before submission to the Board for approval, ensuring their compliance with the appropriate accounting standards, the law and the Listing Rules of the UK Listing Authority;
- to review the Company's internal financial controls and internal control and risk management systems, and to review the effectiveness of the internal audit function and ensure that it is adequately resourced;
- to make recommendations to the Board in relation to the appointment and re-appointment of the external auditors and their remuneration, before appointment or re-appointment by the shareholders in general meeting, and to review the scope and planning of the audit and be satisfied with the auditors' independence, objectivity and effectiveness on an ongoing basis; and
- to implement the policy relating to any non-audit services performed by the external auditors.

Ian Lee was appointed as non-executive director on 1 August 2008 and Chairman of the Audit Committee on 18 November 2008. Ian is 62 years old and he is a former senior partner of Ernst & Young LLP in Glasgow, where he was primarily involved in leading and coordinating audits of listed companies and international groups. He was a member of the Ernst & Young governing Council for six years and a member of the firm's Audit Committee. He was the Convener of the Institute of Chartered Accountants of Scotland Audit and Assurance Committee. Ian is a non-executive director of Clyde Process Solutions plc and is responsible for chairing that Group's Audit and AIM committees. Ian is also a non-executive member and a member of the Audit Committee of the NHS Greater Glasgow and Clyde Board. He therefore has recent and relevant experience. The other members of the Audit Committee, Michael Harper, David Hall and Marcus Beresford (appointed 17 November 2008) all independent non-executive directors, have gained wide experience in regulatory and risk issues. Appointments to the Audit Committee are made by the Board on the recommendation of the Nomination Committee which takes into account the particular skills and attributes required to fulfil particular roles. The Audit Committee is authorised by the Board to seek and obtain any information it requires from any officer or employee of the Company and to obtain external legal or other independent professional advice as is deemed necessary by it. Audit Committee meetings are attended by the Chief Executive Officer and the Group Finance Director, where the Chairman of the Audit Committee considers it appropriate.

Meetings of the Audit Committee are held at least three times a year. The Committee reviews the scope of the external and internal audit, reviews compliance with regulatory requirements in the Company's overseas subsidiaries and reviews the work of internal audit, the effectiveness of the external audit and the financial statements in September and February each year. The external auditors are invited to all meetings and meet with the Audit Committee without management being present at least once a year. At the Audit Committee meeting in September it carries out a full review of the year end financial statements and of the audit, using as a basis reports prepared by the Finance Director and the external auditors and taking into account any significant accounting policies, any changes to them and any significant estimates or judgements. Questions are asked of management of any significant or unusual transactions where the accounting treatment could be open to different interpretations. A similar but less detailed review is carried out in February when the Interim Report is considered.

The Audit Committee receives reports from management and internal audit on the effectiveness of the system of internal controls and risk management systems. The Chairman of the Audit Committee meets regularly with the Head of Internal Audit and executive management on matters of risk. The Committee also receives from the external auditors a report of matters arising during the course of the audit which the auditors deem to be of significance for the Audit Committee's attention.

The external auditors are required to give the Audit Committee information about policies and processes for maintaining their independence and compliance with requirements regarding the rotation of audit partners and staff. The Audit Committee considers all relationships between the external auditors and the Company to ensure that they do not compromise the auditors' judgement or independence particularly with the provision of non-audit services where a policy relating to these has been agreed by the Board. Essentially the external auditors would be excluded from carrying out non-audit services if they are put in the position of auditing their own work, making management decisions for the Company, if a mutual interest between the Company

and the auditors is created or if the auditors take on the role of an advocate for the Company. If the external auditors carry out non-audit services and the cost of these services is estimated to exceed £50,000 or, in aggregate, more than 100% of the audit fees, prior approval by the Audit Committee is required. The split between audit and non-audit fees for the year ended 30 June 2009 and information on the nature of non-audit fees appears in note 4 to the financial statements.

Both the board and the external auditors have for many years had safeguards in place to avoid the possibility that the auditors' objectivity and independence could be compromised. Our policy in respect of services provided by the external auditors is as follows:

- Audit related services – the external auditors are invited to provide services which, in their position as auditors, they must or are best placed to undertake. This includes interim results and any other review of the accounts for regulatory purposes; assurance work related to compliance and corporate governance, including high level controls; work in connection with listing particulars and prospectuses (if required); regulatory reviews or reviews commissioned by the audit committee; and accounting advice and reviews of accounting standards.
- Tax consulting – in cases where they are best suited, we use the external auditors provided that such advice does not conflict with the external auditors statutory responsibilities and ethical guidance.
- General consulting – there may be occasions when the external auditor is best placed to undertake other accounting, advisory and consultancy work on behalf of the Company due to their in depth knowledge of the Company.

However, the following are specifically prohibited:

- work related to accounting records and financial statements that will ultimately be subject to external audit;
- management of, or significant involvement in, internal audit services;
- secondments to management positions that involve any decision-making;
- any work where a mutuality of interest is created that could compromise the independence of the external auditor; and
- any other work which is prohibited by UK ethical guidance.

The Audit Committee has considered the effectiveness of the external auditors which included obtaining a report on the audit firm's own internal quality control procedures, consideration of the audit firm's annual transparency report and review of an internal questionnaire completed by senior and relevant Finance staff, and the risks associated with the audit firm withdrawing from the market. As a result, the Audit Committee has recommended to the Board that the reappointment of the external auditors be proposed to shareholders at the 2009 AGM.

During the year under review the Audit Committee reviewed its terms of reference and the Company's policies for non-audit services and employment of former employees of the external auditor.

The internal audit function is centrally managed. Internal audits are led by suitably skilled staff from head office or parts of the business independent from the business or function being audited, and are resourced by staff from around the Group with suitable skills, experience and independence for the area they are auditing. This approach not only ensures independence in the process but also the relevance of the recommendations and the sharing of best practice around the Group. During the year a review of the internal audit process was carried out. The audit plan for the year was reviewed as was the staffing to carry out

the audits. The resources were considered adequate. The internal audit reports were reviewed, as was management's response to the findings and recommendations. The Audit Committee considers that the internal audit process is an effective tool in the overall context of the Company's risk management system. The Audit Committee meets annually with the Head of Internal Audit without the management being present and the Head of Internal Audit is invited to attend audit committees where considered appropriate. Internal audit scope includes a review of compliance with Group policies, including the ethics and fraud prevention policies.

The 1998 Public Interest Disclosure Act ("the Act") aims to promote greater openness in the workplace and ensure that "whistle-blowers" are protected. The Company maintains a whistle-blowing policy in accordance with the Act, which allows employees to raise concerns on a confidential basis with certain nominated individuals if they have reasonable grounds for believing that there is serious malpractice within the Company. The policy is designed to deal with concerns, which must be raised without malice and in good faith, in relation to specific issues which are in the public interest and which fall outside the scope of other Company policies and procedures. The whistle-blowing policy is overseen by the Chairman of the Audit Committee, has been reviewed during the year and is promoted via the staff briefing process and the Company's intranet site.

#### **The Remuneration Committee**

The Remuneration Committee, which is chaired by Michael Harper, comprises the non-executive directors including the Chairman and is described in the Directors' remuneration report on pages 52 and 53, which is the subject of a vote by shareholders at the 2009 AGM.

#### **The Nomination Committee**

The Nomination Committee, having evaluated the balance of skills, knowledge and experience on the Board, makes recommendations to the Board of executive and non-executive appointments. Before such recommendations are made, descriptions of the roles and skills required in fulfilling these roles are prepared for particular appointments. To attract suitable candidates, appropriate external advice is taken and interviews conducted by at least two members of the Nomination Committee to ensure a balanced view. When an appointment of a non-executive director is made, a formal letter is sent setting out clearly what is expected regarding time commitment, committee membership and involvement outside Board meetings. The chosen candidate is required to disclose to the Board any other significant commitments before the appointment can be ratified. The Committee has written terms of reference, and comprises Marcus Beresford (Chairman), the other non-executive directors (Ian Lee, Michael Harper and David Hall) and Dave Shermans (Chief Executive Officer) and meets at least once a year and at other times as appropriate. The Chairman of the Committee is the Chairman of the Board, Marcus Beresford, except when a new Chairman of the Board is being sought, when it is the senior independent director, Michael Harper. The leadership needs and succession planning of the Company are regularly monitored, as are the size and structure of the Board, with consideration being given to the training needs of the executive and non-executive members. Non-executive directors including the Chairman are subject to rigorous review when they are continuing to serve on the Board for any term beyond six years.

Hans-Joachim Schöpf was appointed to the Board on 1 July 2009 and the Audit, Remuneration and Nomination Committees as a non-executive director and his biographical details are given on page 47.

Also from the conclusion of the Annual General Meeting, Marcus Beresford will retire from the Board and Michael Harper shall be appointed Chairman. David Hall shall be appointed Chairman of the Remuneration Committee and Senior Independent Director.

#### **Boards of subsidiary companies**

The Group has a policy of appointing industry experts to participate in its local operating boards, thus bringing broader global experience to the Group. Sivert Hiljemark, formerly at Volvo Cars (UK), Walter Aspatore of Amherst Partners, LLC, Dr. David Cole, the chairman of the Center for Automotive Research (CAR) and Akira Kijima, formerly at Mitsubishi Motor Corporation, have been members of the UK, US, German and Japanese local operating boards respectively throughout the year ended 30 June 2009.

#### **Shareholder communications**

The Chief Executive Officer and the Group Finance Director regularly meet with institutional shareholders to foster a mutual understanding of objectives. Additionally, the Chairman communicates with key shareholders at least once per annum and the Chairman, the Senior Independent Director and the Chairman of the Audit Committee are available for discussions with major shareholders if required. Surveys of shareholder opinion are normally carried out following announcements of results and are circulated to the Board.

The Annual General Meeting ("AGM") in November 2008 was attended by all directors in office at the time of the meeting. The directors encourage the participation of all shareholders, including private investors, at the AGM and as a matter of policy the level of proxy votes (for, against and vote withheld) lodged on each resolution is declared at the meeting and displayed on the Company's website. The Annual Report and Accounts is mailed to shareholders and others who request it and is published on the Company's website [www.ricardo.com](http://www.ricardo.com).

#### **Liquidity and going concern**

The Company's policy on funding capacity is to ensure that it always has sufficient long term funding and committed bank facilities in place to meet foreseeable peak borrowing requirements. The Company also has a number of uncommitted facilities including overdraft lines at its disposal.

The directors have assessed the future funding requirements of the Company and compared it to the level of long term debt and committed bank facilities. Details can be found in note 20 to the financial statements. Having undertaken this review, the directors are of the opinion that the Company and the Group have adequate resources to fund their operations for the foreseeable future and so determine that it is appropriate to prepare the accounts on a going concern basis.

#### **Internal control and risk management**

The Board is responsible for the Group's systems of internal controls and risk management and for reviewing their effectiveness. Together with a strategy based on the avoidance of cyclicity and dependency as set out on page 10, such systems are designed to manage rather than eliminate the risk of failure to achieve business objectives and can only provide reasonable and not absolute assurance against material misstatement or loss.

Each part of the Group highlights potential financial and non-financial risks which may impact on the business as part of the monthly management reporting procedures. The Board receives these monthly management reports and monitors the position at Board meetings.

As part of the risk management process, directors and senior managers

are required to certify on a bi-annual basis that they have established effective controls to manage risk and to comply with legislation and Group procedures. The Board confirms that there is an ongoing process for identifying, evaluating and managing the significant risks faced by the Group. This process, which was in place for the year under review and up to the date of approval of the Annual Report and Accounts, is reviewed in accordance with the guidance for directors on internal control issued by the Turnbull Committee.

The Group's internal control and monitoring procedures include:

- clear responsibility on the part of line and financial management for the maintenance of good financial controls and the production of accurate and timely management information;
- the control of key financial risks through clearly laid down authorisation levels and appropriate segregation of accounting duties, the control of key project risks through project delivery and review systems and the control of other key business risks via a number of processes and activities recorded in the Group's risk register;
- detailed monthly reporting of trading results, balance sheets and cash flows, with regular review by management of variances from budget and of forecasts;
- reporting on compliance with internal financial controls and procedures by Group internal audit; and
- review of reports issued by the external auditors.

The Audit Committee, on behalf of the Board, reviews reports from both the internal and external auditors together with management's response regarding proposed actions. In this manner they have

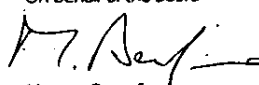
reviewed the effectiveness of the system of internal controls for the period covered by the Accounts.

In the Board's view, the information it received was sufficient to enable it to review the effectiveness of the Company's system of internal control in accordance with the 'Internal Control Revised Guidance for Directors' in the Combined Code (Turnbull).

#### Compliance with the Code

The Board confirms that it complied throughout the year ended 30 June 2009 with all relevant provisions contained in section 1 of the Code.

On behalf of the Board



Marcus Beresford  
Chairman

21 September 2009



Ian Lee  
Chairman of the Audit Committee

## Directors' remuneration report

### Introduction

This report describes the Group's remuneration policy as it applies both to directors and more generally to senior executives. Detailed disclosures in relation to directors' remuneration are provided. The report explains how the Group has applied the principles of the Combined Code on Corporate Governance in relation to the remuneration of directors and has been prepared in accordance with Regulation 11 and Schedule 8 of the Large and Medium-Sized Companies and Groups (Accounts and Reports) Regulations 2008. These regulations require that part of the information is subject to audit, and this information is set out on pages 57 to 59.

The Company will seek the approval of this report by shareholders at the forthcoming Annual General Meeting on 19 November 2009.

### The Remuneration Committee

The Board of Directors is responsible for executive remuneration policy. During the year under review the Remuneration Committee was chaired by Michael Harper and further comprised the other non-executive directors – Marcus Beresford, David Hall and Ian Percy, transitioning to Ian Lee upon Ian Percy's retirement. The non-executive directors have no personal financial interest other than as shareholders in matters to be decided, no potential conflicts of interest arising from cross directorships and no day-to-day involvement in running the business. Biographical

details of the members of the committee are shown on pages 46 and 47, details of attendance at the meetings of the committee during the year ended 30 June 2009 are shown on page 49, and directors' shareholdings are shown on page 59. The Remuneration Committee has written terms of reference, which are available at [www.ricardo.com](http://www.ricardo.com), and its responsibilities include:

- recommending to and agreeing with the Board the policy for executive and senior management remuneration,
- agreeing the terms and conditions of employment for executive directors and senior management, including their individual annual remuneration and pension arrangements,
- agreeing the targets for any performance related bonus and share schemes,
- agreeing the remuneration of the Chairman of the Board (which is done in his absence),
- ensuring that on termination, contractual terms and payments made are fair both to the Company and the individual so that failure is not rewarded and the duty to mitigate loss is recognised wherever possible, and
- agreeing the terms of reference of any remuneration consultants it appoints for the purpose of giving advice.

Basic annual salary and bonus	For the year ended 30 June 2009			From 1 July 2009	
	Basic salary £'000	Maximum bonus potential	Actual bonus	Basic salary £'000	Maximum bonus potential
Dave Shemmans	360	100%	-	360	100%
Paula Bell	227	80%	-	227	80%
Steve Parker	355	200%	-	-	-
Mark Garrett <sup>1</sup>	150	70%	-	175	80%

<sup>1</sup>Mark Garrett's terms were reviewed having successfully completed his first year as an active member of the Board. His base salary has increased to £175,000, his maximum bonus potential becomes 80%, his pension award has increased to 20% of base salary and his notice period has changed to six months from the employee to the Company and twelve months from the Company to the employee.

Watson Wyatt Limited has been appointed as independent remuneration advisor to the Remuneration Committee taking over from Deloitte & Touche LLP in April 2009. The Group Human Resources Director, Sarah Murphy, and the Company Secretary, Patricia Ryan, support the Committee internally. During the year under review Deloitte also provided services in relation to expatriate employee and overseas corporate tax advice. Watson Wyatt also provided actuarial services in connection with Ricardo pension funds. The Committee considers that the provision of these services did not affect the independence of the advice that it received in connection with executive remuneration.

### Executive remuneration policy

The objective of Ricardo's executive remuneration policy is to provide remuneration packages that will retain talented people in the business and enable the recruitment of appropriately skilled and experienced newcomers. The executive remuneration policy is to set levels of base salary that are broadly median and other remuneration package elements giving upper quartile earnings for superior performance. Consideration is given to what is appropriately competitive relative to similar roles in other companies and consultancy organisations of Ricardo's size, complexity and international reach. No director is involved in deciding their own remuneration.

Remuneration packages for each executive director and their fixed and variable elements are reviewed annually. A significant element of potential remuneration is performance linked, both through the annual bonus scheme and through participation in share incentive schemes. The proportion of fixed pay in the total remuneration package is typically around 60%.

Share incentive plans, coupled with the share retention policy, ensure that the interests of executive directors are aligned with shareholders' interests. Through its Chairman, the Remuneration Committee maintains contact with and seeks the views of the Company's principal shareholders as necessary.

During the year the Committee reviewed remuneration arrangements and concluded that remuneration and its various component parts remain appropriate. Within this review, pay and employment conditions of employees of the Group were taken into account when determining directors' remuneration for the year commencing 1 July 2009. A number of relatively minor adjustments to the future operation of the policy are detailed below.

### Basic salary

Basic salaries are normally reviewed annually on 1 July, and are based on a number of factors, principally market rates in companies of similar size, complexity and sector, as well as the individual director's experience, scope of responsibilities, and performance. In view of the current

uncertain market dynamics no increase in base salary has been made as at 1 July. Instead, a review will take place by the end of the calendar year with awards to be made 1 January 2010. Such awards will be reported in next year's Annual Report and Accounts. One exception is that of Mark Garrett, whose overall package has been reviewed as reported above.

### Annual performance related bonus

For the Chief Executive Officer, the Group Finance Director and the Group Engineering and Products Director the bonus plan for the year ending 30 June 2009 was based on achievement against profit before tax and cash targets. In the light of the actual performance against these targets, the Remuneration Committee concluded that no bonus should be paid.

The bonus of Steve Parker, Managing Director of Ricardo Strategic Consulting for the six months to December 2008, comprised two profit-before-tax elements: Group profit before tax (30% of the bonus) and profit before tax for the Ricardo Strategic Consulting division (70% of the bonus). For the year ending 30 June 2009 no bonus was earned based on performance against targets.

For the year ending 30 June 2010 the Chief Executive Officer's maximum bonus potential will remain at 100% of base salary. Maximum bonus potentials for the Group Engineering and Products Director will change to the same as that for the Group Finance Director, 80% of base salary.

Annual performance related bonus for the year commencing 1 July 2009 is based on achievement against profit before tax, cash and personal targets.

Salaries and bonus payouts for the year ended 30 June 2009 are summarised in the table above, together with the currently intended forward policy on these remuneration elements.

### Bonus deferral

Bonus payouts are subject to a policy of compulsory deferral into shares. For the Chief Executive Officer, Group Finance Director and the Group Engineering and Products Director one third of all bonus earned is deferred into shares. The purpose of bonus deferral is to:

- provide for further alignment of executives' and shareholders' interests;
- provide an enhanced retention element; and
- facilitate attainment of a target shareholding to a value of at least basic annual salary within five years of appointment.

No matching awards are provided in relation to bonus deferrals. Release of deferred bonuses is normally subject to continued employment for a three-year period from the award date.

### Long term incentives

The Remuneration Committee's policy is that the main form of long term incentive is performance shares, awarded under the terms of the 2006 Long Term Incentive Plan ("2006 LTIP").

The diversity of the Company's business in terms of geography and sector also requires the flexibility to grant share options from time to time under the terms of the 2004 Executive Approved/Unapproved Share Option Plan ("2004 ESOP"). Such grants may be made in key recruitment, retention and promotion circumstances, and in other circumstances in order to create further alignment with shareholders and to incentivise further business growth.

2006 LTIP and 2004 ESOP awards are intended to focus motivation on the long-term performance of the Group in order to incentivise shareholder value creation.

The maximum 2006 LTIP and 2004 ESOP awards that can be made to any executive are 100% of basic salary each year under each plan, although it is normal remuneration policy not to award both in the same year.

2006 LTIP awards are subject to the following performance conditions:

- 50% of any award vests according to Total Shareholder Return (share price movement plus dividends reinvested – "TSR") relative to the FTSE Small Cap Index (excluding financial services companies and investment trusts); and
- 50% of any award vests according to normalised earnings per ordinary share ("EPS") growth performance.

The Committee believes that TSR and EPS are appropriate measures for the LTIP as they are strongly aligned to shareholder value creation.

The Committee currently intends that the TSR performance condition will remain unchanged from year to year, although this will be kept under review.

The Committee sets, for each plan cycle, scaled normalised EPS performance targets, which are suitably stretching, taking into account the economic/market outlook, the business plan and investor expectations at the time of each award.

#### 2006 LTIP awards – TSR performance condition

Vesting level	TSR performance compared to FTSE Small Cap Index
Nil vesting of that element of award subject to TSR	Below median
25% vesting of that element of award subject to TSR	At median
100% vesting of that element of award subject to TSR	At upper quartile
Straight line basis	Between median and upper quartile

#### 2006 LTIP awards – EPS growth performance condition

Vesting level	Awards made during financial year ending 30 June 2009	Current intention for all awards made during financial year ending 30 June 2010
Nil vesting of that element of award subject to EPS	Less than RPI plus 4% per annum	Less than RPI plus 4% per annum
30% vesting of that element of award subject to EPS	RPI plus 4% per annum	RPI plus 4% per annum
100% vesting of that element of award subject to EPS	RPI plus 11% per annum	RPI plus 11% per annum
Straight line basis	Between RPI plus 4% and plus 11% per annum	Between RPI plus 4% and RPI plus 11% per annum

The Remuneration Committee reviewed the EPS growth target range for awards for the year ending 30 June 2010 and believe they will be appropriately stretching, taking account of current business forecasts and plans. 2006 LTIP performance targets will be reviewed for any subsequent awards taking account of prevailing conditions at the time.

Planned and subsisting LTIP awards under plan cycles not yet complete and including awards made under the terms of the previous LTIP are as follows:

Maximum awards in relation to basic salary at time of award (actual amounts vesting will depend on performance)	Plan cycle ending 30 June 2009	Plan cycle ending 30 June 2010	Plan cycle ending 30 June 2011	Plan cycle ending 30 June 2012
Dave Shemmans	85%	85%	100%	100%
Paula Bell	50%	50%	75%	75%
Mark Garrett	-	-	30%	75%

### Executive share options

Share options granted under the terms of the 2004 ESOP are subject to scaled EPS growth performance conditions, although it is recognised that in most circumstances the key performance driver for such grants is share price growth.

The EPS growth performance condition is again subject to review at the time of any grant. Share option grants have been made during the year ending 30 June 2009 to one executive director as part of promotional arrangements to the Ricardo Plc Board. All grants made under the terms of the 2004 ESOP have been as follows:



2004 ESOP grants – EPS growth performance condition

Vesting level	EPS growth over three years for grants made in the year ended 30 June 2005	EPS growth over three years for grants made in the years ended 30 June 2006 to 2009
Nil vesting	Less than RPI plus 3% pa	Less than RPI plus 3% pa
30% of grant vesting	RPI plus 3% pa	RPI plus 3% pa
100% of grant vesting	RPI plus 6% or more pa	RPI plus 10% or more pa
Straight line basis	Between RPI plus 3% and RPI plus 6%	Between RPI plus 3% and RPI plus 10%

All-employee share plans

For its UK employees the Company operates from time to time HMRC-approved Share Incentive Plan ("SIP") and Save As You Earn ("SAYE") arrangements, which are intended to encourage share ownership and wider interest in the performance of the Company's shares. Executive directors are eligible to participate in these arrangements.

The SIP provides for partnership, matching and free shares, either by delivery of market purchased or newly issued shares. The Company has to date offered partnership shares only.

The SAYE is an all-employee savings contract scheme. No SAYE options have been granted since October 2002.

The tax-approved status of the SIP and SAYE only applies to UK employees and therefore neither of these arrangements nor any approximate equivalents currently apply to Ricardo's overseas employees, although this position is reviewed from time to time.

Dilution limits

The number of shares that may be issued under all Ricardo employee share plans in any ten year rolling period will be restricted to 10% of the issued ordinary share capital of the Company and 5% of the issued ordinary share capital of the Company for discretionary employee share plans.

At the end of the year under review, the Company's overall dilution was 5.1%, of which 3.3% related to discretionary employee share plans.

Pensions

The table below outlines the key pension arrangements for executive directors:

	Pension Scheme	Membership	Pension award	Supplementary pension/award in lieu of pension
Dave Shemmans	Defined Benefit: Ricardo Group Pension Fund ("RGPF")	Active: notional cap applied to £123,600	Up to two thirds of basic salary (up to the cap) on retirement at age 65 after 25 or more years' service. Retirement before 65 is subject to actuarial reduction. Member contributions are based on an age-related scale and are currently required at the rate of 6.35% of pensionable earnings.	During the year to 30 June 2009 payment in lieu of pension provision for UK earnings over the notional cap was made at the rate of 20% in line with UK market practice for chief executives of companies of Ricardo's size and complexity.
Steve Parker	Defined Benefit: RGPF	Active up to 30 June 2009 Deferred as at July 2009	Up to two thirds of basic salary up to the cap on retirement at age 62 after 20 or more years' service. Retirement before 60 is subject to actuarial reduction. Member contributions are required at the rate of 8% of pensionable earnings.	A defined contribution basis to the value of £125,000 total company cost minus the funding of the RGPF company contributions.
Paula Bell	Defined Contribution: Ricardo International Pension Scheme ("RIPS")	Employer's contributions were made at the rate of 20% of basic salary over the Lower Earnings Limit for the period to 30 June 2009		
Mark Garrett	Defined Contribution: RIPS	Employer's contributions were made at the rate of 10% of basic salary over the Lower Earnings Limit and up to the notional cap for the period to 30 June 2009		From 1 July 2009 the Company pays 20% of full base salary above LEL as a cash allowance, less a contribution which the Company pays into RIPS of 10% of basic salary over the Lower Earnings Limit up to the notional cap.

On death in service, Dave Shemmans is entitled, subject to the medical requirements of the insurance company, to a lump sum of four times annual salary at date of death, together with a spouse's pension of 35% of annual salary and a pension per child of 12.5% of annual salary, subject to a maximum limit of 25%, until the child attains the age of 18 (or 21 if in full time education). Early retirement is available with the consent of the Company and the Trustees if the individual is over 50 or retiring due to ill health.

On death in service, Paula Bell and Mark Garrett, subject to the medical requirements of the insurance company, are entitled to a lump sum of four times annual salary at date of death.

### Other benefits

The Company provides other cash benefits and benefits in kind in line with market practice. These include a company car or cash alternative, private fuel, private medical insurance and life assurance. The car allowance for Dave Shemmans is increased from £12,000 p.a. to £15,000 p.a. at 1 July 2009. This benefit provision had not been reviewed for 4 years and is in line with external comparators.

Steve Parker had a contractual entitlement to between 40,000 and 50,000 share options subject to a performance condition that prior year growth in Ricardo Strategic Consulting was greater than 10%. Following his move away from leading Ricardo Strategic Consulting, this contractual term was withdrawn during the year upon payment of a cash sum of £20,000. The quantum of cash was derived by Deloitte & Touche LLP using the Black-Scholes method.

The Company also pays or reimburses non-executive directors in respect of taxable travel expenses.

### Service agreements

The Board's policy on setting notice periods for directors is that these should not exceed one year. It recognises, however, that it may be necessary in the case of new executive appointments to offer an initial longer notice period, which would subsequently reduce to one year after the expiry of that period. All future appointments to the Board will comply with this requirement.

All current executive directors have rolling service agreements terminable on one year's notice. The dates of the service contracts of the executive directors are as follows:

	Date of service contract
Dave Shemmans	7 April 2005
Paula Bell	9 October 2006
Steve Parker	2 November 2005
Mark Garrett	1 July 2008

The contractual termination provision is payment in lieu of notice equal to one year's basic salary and benefits or if termination is part way through the notice period the amount of any unexpired notice and any accrued bonus to the date of termination. There is an obligation on directors to mitigate any loss which they may suffer if the Company terminates their service contract and this will be taken into account by the Remuneration Committee when determining what compensation, if any, should be paid to the departing director. In the case of the contracts for Dave Shemmans, Paula Bell and Mark Garrett, specific mitigation provisions are included. No compensation is paid for summary dismissal.

### Share retention policy

The Board operates a share retention policy for the executive directors. Subsequent to the adoption of the policy in November 2004, it is the intention that each will own shares in the Company with a value at least equal to one times basic annual salary within five years of the date of the executive's appointment. Executive directors are not required to purchase shares to fulfil this requirement but are expected to retain all shares earned under various share plans, less an allowance for income tax and national insurance, until the requirement is met.

### External appointments

The Board recognises the benefit that Ricardo can obtain if executive directors of Ricardo serve as non-executive directors of other companies. Subject to review in each case, the Remuneration Committee's general policy is that executive directors may accept one non-executive directorship with another company, so long as there is no conflict of interest and their effectiveness is not impaired. Non-executive appointments in other companies are summarised in the Directors' biographies on pages 46 and 47. Directors may retain any fees in respect of such appointments.

### Non-executive directors

The fees for non-executive directors are set in line with prevailing market conditions and at a level which will attract individuals with the necessary experience and ability to make a significant contribution to the Group's affairs. The Remuneration Committee determines the Chairman's fees. The Chairman and the executive directors determine the fees paid to the other non-executive directors. Non-executive directors are not present at meetings for any discussion or decision about their own remuneration. The aggregate limit for fees paid to non-executive directors is laid down in the Articles of Association.

The fees were reviewed during the year and no adjustment was needed to reflect prevailing market practice. Non-executive director fees for the year ended 30 June 2009 and from 1 July 2009 are as follows:

	£'000
Chairman's total fees	120
Other non-executive fees:	
Basic fee	37
Additional fee for Audit and Remuneration Committee Chairmen	5
Additional fee for the Senior Independent Director	5

The non-executive directors do not participate in any of the Company's share schemes, pension schemes or bonus arrangements nor do they have service agreements. They are appointed for a period of two or three years by letter of appointment and are entitled to one month's notice of early termination for which no compensation is payable. The unexpired terms of the non-executive directors at 30 June 2009 are:

Marcus Beresford	15 months
Michael Harper	12 months
David Hall	4 months
Ian Lee <sup>1</sup>	25 months
Hans Schöpf <sup>2</sup>	36 months

<sup>1</sup>Ian Lee was appointed Director on 1 August 2008 and replaced Ian Percy as chairman of the Audit Committee on his retirement on 18 November 2008.

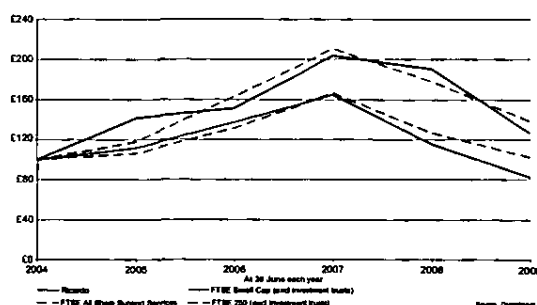
<sup>2</sup>Professor Hans Schöpf was appointed Director on 1 July 2009 under the same fee structure in the table above. He remains advisor to the Technical Steering Group for which he receives a fee of £16,000 pa.

**Performance graph**

The chart right shows, for a notional amount invested of £100, the Company's Total Shareholder Return ("TSR") over the last five financial years compared to the performance of three indices, using the average data for the three months prior to each data point.

In the directors' opinion, the FTSE Small Cap index (excluding investment trusts) represents an appropriate index against which the Company should be compared when considering the Company's size. Other indices are shown for information.

TSR chart for the 5 years to 30 June 2009

**Auditable part**

The auditable part of the directors' remuneration report is set out below on pages 57 to 59.

**Directors' emoluments**

For the year ended 30 June 2009:

	Basic salary and fees	Performance related bonus as cash	Performance related bonus as deferred shares (1/3 <sup>rd</sup> )	Other benefits <sup>(a)</sup>	Termination benefits	Total 2009	Total 2008
	£'000	£'000	£'000	£'000	£'000	£'000	£'000
<b>Executive directors</b>							
Dave Shemmans (b)	360	-	-	69	-	429	567
Paula Bell	227	-	-	12	-	239	333
Steve Parker (c)	355	-	-	49	545	949	690
Mark Garrett	150	-	-	17	-	167	-
Geoff Bicknell (d)	118	-	-	-	-	118	-
<b>Non-executive directors</b>							
Marcus Beresford	120	-	-	10	-	130	128
Michael Harper	42	-	-	1	-	43	37
David Hall	37	-	-	-	-	37	34
Ian Lee	37	-	-	2	-	39	-
Ian Percy	18	-	-	2	-	20	46

(a) Other benefits include payments in lieu of pension provision for UK earnings over the notional HMRC cap and other benefits as described in the section under that heading on page 56.

(b) In respect of Dave Shemmans, a cash benefit amount of £48,600 was paid in lieu of pension provision for UK earnings over the notional cap, as reported on page 55.

(c) Steve Parker left the Board and the Company on 23 July 2009 under the terms of a compromise agreement with the principal terms of 12 months' base salary and benefits including pension and excluding bonus, totalling £545,000. Share options and deferred shares were prorated for performance and time according to plan rules. There was no mitigation clause in the contract.

(d) Geoff Bicknell fulfilled his six month interim role covering the Group Finance Director maternity leave.

**Directors' pensions**

(a) With respect to defined benefit pension schemes

	Additional accrued pension benefits earned in the year	Additional pension benefits earned in the year (excluding inflation)	Accrued pension entitlement	Transfer value at 30 June 2009	Transfer value at 30 June 2008	Increase in transfer value less members' contributions	Transfer value of additional accrued pension (excluding inflation)
	£'000	£'000	£'000	£'000	£'000	£'000	£'000
Dave Shemmans	4	4	21	120	55	65	21
Steve Parker	9	8	33	388	219	169	98

## Directors' remuneration report

The benefits, as at 30 June 2009, shown in respect of Steve Parker include the additional 12 months' service that he has been granted as part of his compromise agreement.

The increase in the accrued pension entitlement is the difference between the accrued benefit at 30 June 2009 and that at 30 June 2008. All transfer values have been calculated on the funds transfer value basis. The increase in the transfer value less directors' contributions is the increase in the value of accrued benefits during the year after deducting the director's personal contributions. The transfer value of the increase in accrued benefits, required by the Listing Rules, discloses the current value of the increase in accrued benefits that the director has earned in the period, whereas the change in his transfer value, required by the

Companies Act, discloses the absolute increase or decrease in his transfer value and includes the change in value of the accrued benefits that results from market volatility affecting the transfer value at the beginning of the year, as well as the additional value earned in the year.

(b) With respect to defined contribution pension schemes

Employer contributions payable in the year	£'000
Paula Bell	45
Steve Parker	63
Mark Garrett	12

### Directors' interests in shares provisionally awarded under the Long Term Incentive Plan

	Cycle ending	Award date	Share price at award date in pence	Number of provisional shares				Value of shares vested £'000	Vesting date
				At 1 July 2008	Allocated	Lapsed	At 30 June 2009		
Dave Shemmans	2009	Oct 06 <sup>1</sup>	303.3	85,801	-	30,888	54,913	-	30.6.09
	2010	Oct 07 <sup>2</sup>	283.6	98,906	-	-	98,906	-	30.6.10
	2011	Oct 08 <sup>2</sup>	299.9	-	120,040	-	120,040	-	30.6.11
Paula Bell	2009	Oct 06 <sup>1</sup>	303.3	30,283	-	10,931	19,352	41	30.6.09
	2010	Oct 07 <sup>2</sup>	283.6	37,376	-	-	37,376	-	30.6.10
	2011	Oct 08 <sup>2</sup>	299.9	-	56,769	-	56,769	-	30.6.11
Mark Garrett	2011	Oct 08 <sup>2</sup>	299.9	-	15,005	-	15,005	-	30.6.11

<sup>1</sup> Awards made under the 1996 LTIP: these awards vest based on Ricardo plc's TSR performance against FTSE 250 companies (excluding investment trusts and financial service companies). Awards lapse at performance below median, 25% of the award vests for median performance. Awards vest in full for upper quartile performance. For levels of performance between median and upper quartile, there is partial vesting on a sliding scale. 64% of the shares vested in respect of the cycle ending in 2009.

<sup>2</sup> Awards made under the 2006 LTIP: performance conditions as outlined on page 54.

The mid-market closing price of the Company's shares on 30 June 2009 was 210p (2008: 320p)

### Directors' interests in shares provisionally awarded under the Deferred Share Bonus Plan

	Award date	Deferral period	Share price at award date in pence	Number of provisional shares				At 30 June 2009
				At 1 July 2008	Awarded	Dividend shares	Vested	
Dave Shemmans	Oct 07	3 yrs	283.6	19,659	-	987	-	20,646
	Oct 08	3 yrs	299.9	-	20,457	1,027	-	21,484
Paula Bell	Oct 07	3 yrs	283.6	7,662	-	384	-	8,046
	Oct 08	3 yrs	299.9	-	11,682	586	-	12,268
Steve Parker	Sep 06	2 yrs	297.2	80,241	-	-	80,241	-
	Oct 08	3 yrs	299.9	-	34,253	1,719	-	35,972
Mark Garrett	Oct 07	3 yrs	283.6	2,803	-	140	-	2,943
	Oct 08	3 yrs	299.9	-	4,959	249	-	5,208

Amounts allocated include shares equivalent to dividends on provisional shares.

*Directors' interests in share options*  
The 1994 Executive Share Option Scheme

	Number of options				Exercise price in pence	Date from which exercisable	Expiry date
	At 1 July 2008	Granted	Exercised	Lapsed			
Steve Parker	50,000	-	-	-	50,000	186.5	21.9.07

The performance conditions for the above options granted under the 1994 Scheme require that the Group's normalised EPS must increase on average by at least RPI plus 7.5% per annum over the three year period from the financial year before the grant date, before the options may be exercised. If the Group's adjusted EPS performance fails to meet this target, the period over which performance is measured is extended to four years and if necessary again to five years, in both cases still requiring the average growth in adjusted EPS over the period to exceed 7.5% per annum (adjusted for inflation). The performance conditions were met over the initial three year period.

The 2004 Executive Share Option Plan

	Number of options				Exercise price in pence	Date from which exercisable	Expiry date
	At 1 July 2008	Granted	Exercised	Lapsed			
Dave Shemmans	80,000	-	-	-	80,000	267.5	22.2.08
Paula Bell	25,000	-	-	-	25,000	300.0	20.10.09
Steve Parker	60,000	-	-	-	60,000	267.5	22.2.08
	50,000	-	-	-	50,000	300.0	20.10.09
Mark Garrett	-	16,672	-	-	16,672	305.0	22.10.11

The performance conditions are outlined on page 55 of the Remuneration Report.

*Directors' interests in shares*

The interests of directors and their connected persons in ordinary shares, excluding any interests in share options and shares provisionally awarded under the Long Term Incentive Plan and Deferred Bonus Plan, are all beneficial interests and are as follows:

	Number of shares at 30 June 2009	Number of shares at 30 June 2008
Dave Shemmans	35,508	16,185
Paula Bell	8,333	3,333
Steve Parker	120,978	74,339
Mark Garrett	5,125	3,926*
Marcus Beresford	20,000	20,000
Michael Harper	20,000	20,000
David Hall	20,000	15,000
Ian Lee	10,000	-

\*at date of appointment

At 21 September 2009, the interests in shares of the directors who were still in office were unchanged from those at 30 June 2009, and Hans Schöpf had no interests in any ordinary shares.

On behalf of the Board



**Michael Harper**  
Chairman of the Remuneration Committee  
21 September 2009

# Directors' report

The directors present their report and the financial statements for the year ended 30 June 2009.

## Business review

The principal activities of the Group are the provision of technical and strategic consulting to industry, commerce and other agencies. The directors have prepared a Business review which is set out on pages 5 to 31 and amongst other things covers:

- a review of the Group's marketplace, strategy, research and development and principal risks;
- business operations, performance and prospects;
- employee involvement and diversity; and
- corporate social responsibility.

In addition a segmental analysis is given in note 2 to the financial statements, and financial risks and policies are given in note 20 to the financial statements.

## Directors

The directors who served on the Board during the year were:

### Non-executive directors:

- Marcus Beresford, CBE, MA, MSc, FIET, Chairman
- Michael Harper, MSc, CCM, FRAeS Deputy Chairman
- Professor Ian Percy, CBE, LLD, CA, (retired 18 November 2008)
- David Hall, MA, MSc
- Ian Lee BA, CA, CPA (appointed 1 August 2008)

### Executive directors:

- Dave Shemmans, BEng
- Paula Bell, FCMA
- Mark Garrett, BSc (Hons), FIMechE, CEng
- Geoff Bicknell (Interim Group Finance Director resigned 13 January 2009)
- Steve Parker (resigned 23 July 2009)

Pursuant to the Company's Articles of Association, shareholders have the right to appoint directors by ordinary resolution, either to fill a vacancy or as an additional member of the Board. In addition, the Board has the power to appoint new directors, but a director appointed in this way may only then hold office until the conclusion of the next Annual General Meeting following their appointment unless they are re-appointed by shareholders during the course of that meeting. At each Annual General Meeting (subject to certain additional requirements) one third of the directors must retire from office and may, if they so wish, offer themselves for re-appointment by shareholders. In addition to powers of removal of a director conferred by legislation from time to time, the Articles of Association also allow shareholders to remove a director from office by ordinary resolution of which special notice has been given.

The directors are responsible for the management of the business of the Company, and they may (subject to specific restrictions as may be imposed by law and the Memorandum and Articles of Association of the Company) exercise all powers of the Company whether relating to the management of the business or not. The Board is specifically empowered to delegate any of its powers and authorities to directors holding executive offices and to committees, local management and agents, in each case on such terms as it thinks fit.

## Board Committees

The directors who served on Board Committees during the year were:

Audit Committee: Ian Lee (appointed 1 August 2008 and appointed Chairman 18 November 2008); Ian Percy (Chairman until retirement on 18 November 2008); Michael Harper; David Hall; Marcus Beresford (appointed 17 November 2008);

Remuneration: Michael Harper (Chairman); Marcus Beresford; Ian Percy (retired 18 November 2008); David Hall; Ian Lee (appointed 1 August 2008);

Nomination: Marcus Beresford (Chairman); Ian Percy (retired 18 November 2008); Michael Harper; David Hall; Ian Lee (appointed 1 August 2008); Dave Shemmans.

Details of the roles of the Board of Directors and Board Committees and corporate governance arrangements can be found on pages 48 to 52 and of the role of the Remuneration Committee on page 52.

## Statement of directors' responsibilities in respect of the Annual report, the Directors' remuneration report and the financial statements

The directors are responsible for preparing the Annual report, the Directors' remuneration report and the financial statements in accordance with applicable law and regulations.

Company law requires the directors to prepare financial statements for each financial year. Under that law the directors have elected to prepare the Group and Parent Company financial statements in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union. Under company law, the directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the Group and the Company and of the profit or loss of the Group for that period.

In preparing these financial statements, the directors are required to select suitable accounting policies and then apply them consistently, make judgements and accounting estimates that are reasonable and prudent, state whether applicable IFRSs as adopted by the European Union have been followed, subject to any material departures disclosed and explained in the financial statements, and prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Company will continue in business.

The directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Company's transactions and disclose with reasonable accuracy at any time the financial position of the Company and the Group and enable them to ensure that the financial statements and the Directors' remuneration report comply with the Companies Act 2006 ("the Act") and, as regards the group financial statements, Article 4 of the IAS Regulation. They are also responsible for safeguarding the assets of the Company and the Group and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The directors are responsible for the maintenance and integrity of the Company's website. Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

Each of the directors in service at the date of approval of this report, whose names and functions are listed on pages 46 and 47, confirm that to the best of their knowledge the Group financial statements, which have been prepared in accordance with IFRSs as adopted by the EU, give a true and fair view of the assets, liabilities, financial position and profit of the Group, and the Business review on pages 5 to 31 includes a fair review of the development and performance of the business and the position of the Group, together with a description of the principal risks and uncertainties that it faces.

#### Directors' interests and indemnity arrangements

At no time during the year did any director hold a material interest in any contract of significance with the Company or any of its subsidiary undertakings other than a third party indemnity provision between each director and the Company and service contracts between each executive director and the Company.

The Company has purchased and maintained throughout the year Directors' and Officers' liability insurance in respect of itself and its directors. The directors also have the benefit of the indemnity provisions in the Company's Articles of Association. The Company has entered into letter agreements for the benefit of the directors of the Company in respect of liabilities which may attach to them in their capacity as directors of the Company or associated companies. These provisions are qualifying third party indemnity provisions as defined in section 234 of the Companies Act 2006.

Details of directors' remuneration, service contracts and interests in the shares of the Company are set out in the Directors' remuneration report on pages 52 to 59.

#### Supplier payment policy

In view of the international nature of the Group's operations there is no specific group-wide policy in respect of payments to suppliers. Relationships with suppliers are, however, governed by the group's policy commitment to long-term relationships founded on trust and mutual advantage. Within this overall policy, individual operating companies are responsible for agreeing terms and conditions for their business transactions and ensuring that suppliers are aware of the terms of payment. Creditor days for the year ended 30 June 2009 were 29 days (2008: 31 days).

#### Political and charitable contributions

No political donations were made by the Company or group companies to political parties or organisations during the year. Details of charitable donations made in excess of £2,000 can be found in the Business review on page 30.

#### Employees with disabilities

It is the Company's policy that people with disabilities should have full and fair consideration for all vacancies. During the year, we continued to demonstrate our commitment to interviewing those people with disabilities who fulfil the minimum criteria for employment, and endeavouring to retain employees in the workforce if they become disabled during employment. We will actively retrain and adjust their environment where possible to allow them to maximise their potential.

#### Communications

In a global business, strong internal communication is essential. Some examples of our communications channels are Ricardo's public website ([www.ricardo.com](http://www.ricardo.com)), the "R-World" intranet site, a monthly Group

newsletter, briefing presentations at operating company level, a "State of the Nation" briefing from the Chief Executive Officer and/or divisional Managing Director every six months and the publication of the Ricardo Quarterly ("RQ") newsletter.

#### Disclosure of information

So far as each of the directors in service at the date of approval of this report are aware, there is no information needed by the Company's auditors in connection with preparing their report of which the Company's auditors are unaware. The directors have taken all the steps that they ought to have taken as directors in order to make themselves aware of any relevant audit information and to establish that the Company's auditors are aware of that information.

#### Change of control provisions

There are a number of agreements that take effect, alter or terminate upon a change of control of the Company following a takeover bid, such as commercial contracts, bank loan agreements, property lease arrangements and employees' share plans. None of these are considered to be significant in terms of their likely impact on the business of the Group as a whole.

#### Share transfers and dealings

On a transfer of shares, the directors may only refuse to register the transfer concerned in certain limited and standard circumstances, including where the share concerned is not fully paid or where the form of transfer has not been properly stamped (where required).

There are no general requirements in existence for shareholders to obtain the approval of either the Company or other shareholders for a transfer of the Company's securities. However, in accordance with the Listing Rules, the Company operates a share dealings code, which restricts the ability of directors and certain other employees from dealing in the Company's securities. In particular, the code requires that restricted persons must not deal in any securities of the Company without obtaining clearance in advance.

Subject to such specific authorities as are required by companies legislation, the Articles of Association give the Board general and unconditional authority to allot, grant options over and otherwise deal with or dispose of shares in the Company. At the 2008 Annual General Meeting, shareholder resolutions were passed authorising the directors to allot relevant securities of the Company up to a maximum nominal amount of £4,211,260. In addition, at the same meeting shareholders authorised the Company to make market purchases of its own ordinary shares up to a maximum of 5,104,557 shares (although as at the date hereof this authority has not been used). As described below, it is proposed that both of these authorities be renewed at the forthcoming Annual General Meeting.

#### Annual General Meeting

The 2009 Annual General Meeting of the Company will take place at 10.00 a.m. on 19 November 2009 at the offices of Royal Bank of Scotland, 250 Bishopsgate, London. A separate notice of meeting will be sent to shareholders.

#### Dividend (resolution 3)

The directors propose a final dividend of 7.5 pence (2008: 7.5 pence) per share, amounting to £3,836,606 (2008: £3,828,418) payable on 27 November 2009 to shareholders on the register at close of business on 30 October 2009. The final dividend proposed will make a total of 10.7 pence (2008: 10.6 pence) per share for the year.

**Auditors (resolution 4)**

The directors propose that PricewaterhouseCoopers LLP be reappointed as auditors of the Company, and a resolution to that effect will be proposed at the Annual General Meeting.

**Election and re-election of directors (resolutions 5 to 8)**

Hans Joachim Schöpf has been appointed as a director since the previous Annual General Meeting and will therefore be submitted for election. The Board believes that the election of this individual will be in the best interests of the Company.

David Hall, Dave Shemmans and Michael Harper will be subject to retirement by rotation at the Annual General Meeting and will be proposed for re-election.

Biographical details of these directors and the other directors in office at 30 June 2009 are shown on pages 46 and 47.

All the directors and the Board as a whole are subject to rigorous performance evaluation. All the directors continue to be effective and are committed to their roles. All directors are planning to be present at the Annual General Meeting and welcome that opportunity to meet with shareholders.

**Sections 551 and 561 authorities (resolutions 9 and 10)**

The directors will seek authorities under sections 551 and 561 of the Act at the Annual General Meeting, empowering them respectively to allot shares and to allot shares for cash other than pro rata to existing shareholders, in both cases subject to specified limits and periods as stated in the notice. The authority to allot shares will, if passed, be in respect of ordinary shares with a maximum nominal value of £4,220,266, which represents 33% of the issued ordinary share capital at the date hereof and will expire 15 months following the date of passing of the resolution or, if earlier, at the conclusion of the 2010 Annual General Meeting. The directors have no present intention to exercise this authority, but would then have the flexibility to issue new shares up to this limit should they decide that it would be in the interests of the Company to do so.

The maximum nominal value of shares which may be allotted for cash otherwise than pro rata to existing shareholders would be £639,434, equivalent to 5% of the issued ordinary share capital at the date hereof.

No issue will be made which would effectively alter the control of the Company, or the nature of its business, without the prior approval of the shareholders in general meeting. In addition, in accordance with institutional investor guidelines, the Company would not seek to issue shares equivalent to more than 7.5% of its issued ordinary share capital in any rolling three year period without suitable advance consultation and explanation, other than to existing shareholders on a pro rata basis.

**Purchase of own shares (resolution 11)**

The directors will seek authority for the purposes of section 701 of the Act to make market purchases of up to 10% of the Company's issued shares. The authority has not been exercised since the previous Annual General Meeting and the directors will exercise it only if circumstances arise in which they consider such purchases to be in the interests of shareholders generally and earnings per share ("EPS") can be improved further. Performance targets based on EPS attaching to employee incentive schemes will be adjusted accordingly if the authority is exercised.

The Company can either cancel shares which have been purchased or hold them as treasury shares or a combination of both. Treasury shares are shares which have been repurchased by the Company and which the Company is allowed to hold pending either reselling them for cash, cancelling them or using them for the purposes of employee share plans. The directors believe that it is desirable for the Company to have that choice. The Company holds no treasury shares at the date hereof.

**Calling of general meetings (resolution 12)**

The directors will seek authority that a general meeting other than an annual general meeting may be called by notice of not less than 14 days provided that the Company offers the facility to members to vote by electronic means.

**Amendment to Articles of Association (resolution 13)**

The directors are asking shareholders to approve amendments to the Articles of Association to take account of certain provisions of the Companies Act 2006 which came into force on 3 August 2009 or which come into force on 1 October 2009. An explanation of the changes between the proposed and the existing articles is contained in an appendix to the Notice of Annual General Meeting.

**Voting and other rights**

The Company's share capital is divided into ordinary shares of 25 pence each. All ordinary shares rank equally for all dividends and distributions that may be declared on such shares. At general meetings of the Company, each member who is present (in person, by proxy or by representative) is entitled to one vote on a show of hands and, on a poll, to one vote per share. With respect to shares held on behalf of participants in the all employee Share Incentive Plan, the trustees are required to vote as the participants direct them to do so in respect of their plan shares.

**Electronic voting**

This year the Company is again offering those members who wish to do so the choice of recording a proxy vote electronically. Details of how to do this are to be found in the notice of the Annual General Meeting and on the proxy form. Recording a proxy vote, either electronically or by filling in the form by hand, does not preclude members from attending and voting at the meeting should they so wish.

**Substantial shareholders**

The Company is informed pursuant to the Disclosure and Transparency Rules that, at 21 September 2009, being a date not more than one month prior to the date of the notice of Annual General Meeting, the following are holders of more than 3% of the Company's issued share capital, all of which are non-beneficial interests:

Legal & General Investment Management	4,239,130	8.3
Delta Lloyd Asset Management	4,103,555	8.0
Scottish Widows Investment Partnership	3,024,549	5.9
Montanaro Investment Management	2,758,410	5.4
Standard Life Investments	2,628,186	5.1
Schroder Investment Management	2,558,267	5.0
Impax Asset Management	2,078,067	4.1
Insight Investment	1,844,652	3.6
Jupiter Asset Management	1,767,013	3.5
Highclere Investors	1,626,309	3.2

By order of the Board



**Patricia Ryan**  
Group General Counsel and Company Secretary  
21 September 2009



# Independent auditors' report

to the members of Ricardo plc

We have audited the financial statements of Ricardo Plc for the year ended 30 June 2009 which comprise the Consolidated income statement, the Group and parent company Statements of recognised income and expense, the Group and parent company Balance sheets, the Group and parent company Cash flow statements and the related notes. The financial reporting framework that has been applied in their preparation is applicable law and International Financial Reporting Standards (IFRSs) as adopted by the European Union and, as regards the parent company financial statements, as applied in accordance with the provisions of the Companies Act 2006.

## Respective responsibilities of directors and auditors

As explained more fully in the Directors' report, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view. Our responsibility is to audit the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland). Those standards require us to comply with the Auditing Practices Board's Ethical Standards for Auditors.

This report, including the opinions, has been prepared for and only for the Company's members as a body in accordance with Sections 495 to 497 of the Companies Act 2006 and for no other purpose. We do not, in giving these opinions, accept or assume responsibility for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

## Scope of the audit of the financial statements

An audit involves obtaining evidence about the amounts and disclosures in the financial statements sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. This includes an assessment of: whether the accounting policies are appropriate to the Group's and the parent company's circumstances and have been consistently applied and adequately disclosed; the reasonableness of significant accounting estimates made by the directors; and the overall presentation of the financial statements.

## Opinion on financial statements

In our opinion:

- the financial statements give a true and fair view of the state of the Group's and of the parent company's affairs as at 30 June 2009 and of the Group's profit and the Group's and parent company's cash flows for the year then ended;
- the Group financial statements have been properly prepared in accordance with IFRSs as adopted by the European Union;
- the parent company financial statements have been properly prepared in accordance with IFRSs as adopted by the European Union and as applied in accordance with the provisions of the Companies Act 2006; and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006 and, as regards the Group financial statements, Article 4 of the IAS Regulation.

## Opinion on other matters prescribed by the Companies Act 2006

In our opinion:

- the part of the Directors' remuneration report to be audited has been properly prepared in accordance with the Companies Act 2006;
- the information given in the Corporate governance in practice statement with respect to Rules 7.2.5 and 7.2.6 of the Disclosure and Transparency Rules issued by the Financial Services Authority is consistent with the financial statements; and
- the information given in the Directors' report for the financial year for which the financial statements are prepared is consistent with the financial statements.

## Matters on which we are required to report by exception

We have nothing to report in respect of the following:

Under the Companies Act 2006 we are required to report to you if, in our opinion:

- adequate accounting records have not been kept by the parent company, or returns adequate for our audit have not been received from branches not visited by us; or
- the parent company financial statements and the part of the Directors' remuneration report to be audited are not in agreement with the accounting records and returns; or
- certain disclosures of directors' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

Under the Listing Rules we are required to review:

- the directors' statement in relation to going concern; and
- the parts of the corporate governance statement relating to the company's compliance with the nine provisions of the June 2008 Combined Code specified for our review.

*Graham Lambert*

Graham Lambert (Senior Statutory Auditor)  
for and on behalf of PricewaterhouseCoopers LLP  
Chartered Accountants and Statutory Auditors  
Gatwick

21 September 2009

*We expect the economic environment to remain a challenge for some time, . . . However with the strength of our balance sheet we remain committed to our strategy and confident for the future*

*John J. McQuinn*

## FINANCIAL STATEMENTS

- 66** Consolidated income statement
- 67** Statements of recognised income and expense
- 68** Balance sheets
- 69** Cash flow statements
- 70** Notes to the financial statements

## Consolidated income statement for the year ended 30 June 2009

	Notes	2009 £m	2008 £m
<b>Continuing operations</b>			
Revenue	2	178.8	181.9
Cost of sales		(109.2)	(115.0)
Gross profit		69.6	66.9
Administration expenses		(54.5)	(50.6)
Operating profit	4	15.1	16.3
Finance income	6	4.0	1.9
Finance costs	6	(3.4)	(2.7)
<b>Profit before taxation</b>		15.7	15.5
Taxation	7	(1.0)	(2.4)
<b>Profit for the year from continuing operations</b>		14.7	13.1
<b>Discontinued operations</b>			
Loss for the year from discontinued operations	9	(5.7)	(0.7)
<b>Profit for the year</b>		9.0	12.4
Profit attributable to minority interest	29	–	0.1
Profit attributable to equity shareholders		9.0	12.3
<b>Earnings per ordinary share</b>	10		
From continuing operations			
Basic		28.8p	25.5p
Diluted		28.6p	25.3p

## Statements of recognised income and expense for the year ended 30 June 2009

	Notes	Group		Company	
		2009 £m	2008 £m	2009 £m	2008 £m
Currency translation differences on net investment in foreign operations	27	4.9	3.8	–	1.1
Fair value loss on net investment hedges	27	(0.3)	(2.0)	(0.1)	–
Cash flow hedges:					
– net fair value losses	27	(0.5)	(1.5)	–	–
– recycled and reported in net profit	27	1.2	1.1	–	–
Actuarial losses on the defined benefit pension scheme	28	(11.6)	(5.7)	(11.6)	(5.7)
Tax on items recognised directly in equity	7	2.3	1.8	3.2	1.7
<b>Net expense recognised directly in equity</b>		<b>(4.0)</b>	<b>(2.5)</b>	<b>(8.5)</b>	<b>(2.9)</b>
Profit for the year		9.0	12.4	7.5	5.1
<b>Total recognised income and expense for the year</b>		<b>5.0</b>	<b>9.9</b>	<b>(1.0)</b>	<b>2.2</b>
Attributable to minority interest		–	0.1	–	–
Attributable to equity shareholders		5.0	9.8	(1.0)	2.2

## Balance sheets as at 30 June 2009

		Group	Company		
	Notes	2009 £m	2008 £m	2009 £m	2008 £m
<b>Assets</b>					
<b>Non current assets</b>					
Goodwill	11	16.0	17.9	-	-
Other intangible assets	12	2.5	2.1	0.6	0.1
Property, plant and equipment	13	47.3	48.0	9.1	9.4
Investments	14	-	-	35.5	21.7
Derivative financial instruments		1.3	-	1.1	-
Deferred tax assets	22	14.4	12.2	8.8	6.3
		81.5	80.2	55.1	37.5
<b>Current assets</b>					
Inventories	15	5.1	9.1	-	-
Trade and other receivables	16	44.8	54.2	42.8	55.7
Current taxation		0.5	1.1	-	0.3
Cash and cash equivalents		16.8	37.3	4.2	20.3
Assets held for sale	9	7.5	-	-	-
		74.7	101.7	47.0	76.3
<b>Total assets</b>		<b>156.2</b>	<b>181.9</b>	<b>102.1</b>	<b>113.8</b>
<b>Liabilities</b>					
<b>Current liabilities</b>					
Bank loans and overdrafts	18	(16.4)	(27.7)	(9.9)	(18.7)
Trade and other payables	17	(34.3)	(49.7)	(11.3)	(16.6)
Current tax liabilities		(2.6)	(2.9)	(0.8)	(0.4)
Provisions	23	(0.8)	(0.8)	-	-
Liabilities directly associated with assets held for sale	9	(0.8)	-	-	-
		(54.9)	(81.1)	(22.0)	(35.7)
<b>Net current assets</b>		<b>19.8</b>	<b>20.6</b>	<b>25.0</b>	<b>40.6</b>
<b>Non current liabilities</b>					
Bank loans	18	(3.9)	(9.9)	(2.6)	(4.8)
Retirement benefit obligations	21	(29.4)	(19.9)	(29.4)	(19.9)
Derivative financial instruments		(0.3)	-	(0.3)	-
Deferred tax liabilities	22	(0.8)	(3.9)	(0.8)	(0.8)
		(34.4)	(33.7)	(33.1)	(25.5)
<b>Total liabilities</b>		<b>(89.3)</b>	<b>(114.8)</b>	<b>(55.1)</b>	<b>(61.2)</b>
<b>Net assets</b>		<b>66.9</b>	<b>67.1</b>	<b>47.0</b>	<b>52.6</b>
<b>Shareholders' equity</b>					
Share capital	24	12.9	12.9	12.9	12.9
Share premium	26	13.7	13.7	13.7	13.7
Other reserves	27	5.2	0.9	-	-
Retained earnings	28	35.1	39.2	20.4	26.0
Total shareholders' equity		66.9	66.7	47.0	52.6
Minority interest in equity	29	-	0.4	-	-
<b>Total equity</b>		<b>66.9</b>	<b>67.1</b>	<b>47.0</b>	<b>52.6</b>

The financial statements on pages 65 to 95 were approved by the Board of Directors on 21 September 2009 and signed on its behalf by:

  
**Dave Shemmans**  
 (Chief Executive Officer)

  
**Paula Bell**  
 (Group Finance Director)

## Cash flow statements for the year ended 30 June 2009

		Group		Company	
	Notes	2009 £m	2008 £m	2009 £m	2008 £m
<b>Cash flows from operating activities</b>					
Cash generated by operations	30	15.2	29.3	8.1	8.9
Interest received		2.1	1.6	3.0	2.2
Interest paid		(3.4)	(2.8)	(2.5)	(1.2)
Tax paid		(1.8)	(2.0)	(0.1)	(0.1)
Net cash generated by operating activities		12.1	26.1	8.5	9.8
<b>Cash flows from investing activities</b>					
Proceeds of sale of property, plant and equipment		0.1	0.1	–	–
Disposal of subsidiary	29	(0.1)	–	5.8	–
Purchase of intangible assets		(1.2)	(1.0)	(0.6)	(0.1)
Purchase of property, plant and equipment		(9.0)	(9.8)	–	–
Purchase of investments in subsidiary undertakings		–	–	(19.6)	(3.7)
Net cash used by investing activities		(10.2)	(10.7)	(14.4)	(3.8)
<b>Cash flows from financing activities</b>					
Net proceeds from issue of ordinary share capital		–	0.5	–	0.5
Net proceeds from issue of new bank loan		0.3	1.1	–	–
Repayment of bank loans		(9.8)	(2.4)	(1.5)	(2.0)
Dividends paid to shareholders	8	(5.5)	(5.2)	(5.5)	(5.2)
Dividends paid to minority interests	29	–	(0.2)	–	–
Dividends received from subsidiaries		–	–	5.1	5.0
Net cash used by financing activities		(15.0)	(6.2)	(1.9)	(1.7)
Effect of exchange rate changes		1.6	(0.5)	1.2	2.2
Net (decrease)/increase in cash and cash equivalents		(11.5)	8.7	(6.6)	6.5
Cash, cash equivalents and bank overdrafts at 1 July		21.4	12.7	10.3	3.8
<b>Cash, cash equivalents and bank overdrafts at 30 June</b>		<b>9.9</b>	<b>21.4</b>	<b>3.7</b>	<b>10.3</b>
<b>At 1 July</b>					
Cash and cash equivalents		37.3	15.4	20.3	3.8
Bank overdrafts		(15.9)	(2.7)	(10.0)	–
	20	21.4	12.7	10.3	3.8
<b>At 30 June</b>					
Cash and cash equivalents		16.8	37.3	4.2	20.3
Bank overdrafts	18	(6.9)	(15.9)	(0.5)	(10.0)
	20	9.9	21.4	3.7	10.3

## Notes to the financial statements

### 1 Accounting policies

The principal accounting policies adopted in the preparation of these financial statements are set out below. These policies have been consistently applied to the years ended 30 June 2008 and 30 June 2009.

#### (a) Basis of preparation

These financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) and International Financial Reporting Interpretations Committee (IFRIC) interpretations adopted by the European Union (EU) and with those parts of the Companies Act 2006 applicable to companies reporting under IFRS.

The financial statements have been prepared under the historical cost convention, with the following exceptions: assets held for sale, equity-settled share-based payments, derivative financial instruments and defined benefit pension assets are measured at fair value; and defined benefit pension liabilities are measured at present value, adjusted for unrecognised past service cost.

In the year, the Group adopted IFRIC 12 'Service Concession Arrangements', IFRIC 13 'Customer Loyalty Programmes' and IFRIC 14 'IAS 19 – The Limit on a Defined Benefit Asset, Minimum Funding Requirements' which have had no effect in the Group's reported results and equity.

#### (b) Basis of consolidation

The consolidated financial statements comprise the financial statements of Ricardo plc (the Company) and all of its subsidiaries (together the Group) made up to the end of the financial period. Businesses acquired are accounted for as acquisitions with effect from the date the power to control passes. Those disposed of are accounted for up until the power to control passes at the date of disposal. All intra group transactions and balances are eliminated on consolidation. Minority interests are presented in the consolidated balance sheet within equity, separately from the parent shareholders' equity. Minority interests in the profit or loss of the Group are also separately disclosed.

#### (c) Management judgements and key accounting estimates

In preparing the financial statements, management is required to exercise judgement in making estimates and assumptions that affect reported amounts and disclosures. Actual results could differ from those estimates. The following accounting policies have been identified as being particularly sensitive to complex or subjective judgements or estimates.

##### *Retirement benefit costs*

The Group operates a defined benefit pension scheme that provides benefits to a number of current and former employees. This scheme is closed to new entrants. The value of the deficit is particularly sensitive to the market value of the scheme's assets, discount rates and actuarial assumptions related to mortality. Further details are given in note 21.

##### *Revenue recognition for fixed price contracts*

The Group derives revenue from the supply of professional services under contracts, most of which are normally fixed price contracts that may extend for a significant period of time. While fixed price contracts are in progress, revenue is recognised based on their expected profitability and extent of completion. Profit is

only taken once the outcome of the contract can be estimated reliably, however unforeseen future events may adversely impact the accuracy of those estimates. Further details are given in note 15.

##### *Current and deferred taxation*

Legislation related to taxation is complex and its impact on the Group may be uncertain. In preparing the Group's financial statements management estimates its taxation liability having taken appropriate professional advice. Determination of an agreed amount of taxation payable may take several years, and the final amounts paid may differ from the liabilities recorded in these financial statements.

The recognition of assets and liabilities related to deferred taxation also requires the exercise of management judgement, in particular the extent to which assets should be recognised.

##### *Goodwill*

Goodwill arising on the acquisition of subsidiaries is not amortised but is tested annually for impairment. The impairment test employs estimates related to the future ability of the acquired business to generate cash. Further details are given in note 11.

##### *Discontinued operations and assets held for sale*

The classification of the assets as held for sale and the associated trading as discontinued, is dependant on managements expectation that the sale will be completed within one year of the date of classification. The carrying value is measured at the lower of carrying amount and fair value less costs to sell, which requires an estimate of the fair value to sell.

#### (d) Segmental reporting

The Group considers its primary reporting format for segmental reporting should be reporting by business segments, and considers the relevant segments to be Technical Consulting and Strategic Consulting. Inter-segmental revenue is charged at prevailing market prices. The Group considers its geographical segments by location of assets to be the United Kingdom, North America, Germany and Rest of the World, and its geographical segments by location of customer to be Europe, North America, Asia and Rest of the World. A business segment is a group of assets and operations engaged in providing products or services that are subject to risks and returns that are different from those of other business segments. A geographical segment is engaged in providing products or services within a particular economic environment that are subject to risks and returns which are different from those of segments operating in other economic environments.

#### (e) Revenue

The Group earns revenue through the supply of professional services and products to customers. Revenue is stated net of value added and other sales taxes.

##### *Professional services*

The majority of the Group's revenue is earned from contracts for professional services. The mix of fixed price and time and materials projects varies as projects close and new orders are received.

Where the outcome can be estimated reliably, contract revenue recognition is based on the extent to which the services have been performed. For fixed price contracts, performance is measured based on costs incurred to date as a percentage of total expected costs. For contracts awarded on a time and materials



basis, performance is measured based on the expected sales value of the time worked and costs incurred to date.

Profit is not recognised on a contract, and revenue is not recognised in excess of recoverable costs, unless its outcome can be estimated reliably. A loss on a contract is recognised immediately it becomes probable that the contract costs will exceed the total contract revenue.

Revenue from contract variations closely linked to underlying fixed price contracts is recognised based on performance under the contract as a whole, but only to the extent that it can be reliably measured and it is probable that the customer will approve both the variation and the amount of additional revenue. Contract variations not closely linked to underlying contracts are treated as separate contracts.

Revenue derived from leasing of software and supply of related services is recognised on a straight line basis over the period during which the service is supplied.

Assets arising from the recognition of revenue are recorded in trade and other receivables, initially as amounts recoverable on contracts and transferred to trade receivables when invoiced. Amounts receivable from customers not yet recognised as revenue are initially classified as payments in advance within trade and other payables, and transferred to revenue as the related revenue is recognised.

#### *Supply of products*

Revenue is recognised when control and all the significant risks and rewards of ownership of the assets have been transferred to the customer, when the amount of revenue and costs can be measured reliably, and when it is probable that the Group will receive the economic benefits associated with the sale.

The Group's product revenue is principally derived from the outright sale of tangible goods, developed and managed within the Technical Consulting business based on contractually determined prices, such as high-performance transmissions and exhaust systems. In practice, revenue is recognised for such sales when the goods have been delivered to the customer because, except for normal warranty terms on some products, no substantive obligations exist and there are no substantive return risks after that point in time.

A small proportion of product revenue is derived from the sale of software licences. The Group's software products are standard version controlled products available for general sale. Normally there are no substantive obligations to fulfil following sale and revenue is recognised on delivery.

#### **(f) Research and development**

Expenditure on research and development is recognised as an expense in the period in which it is incurred, except when development expenditure meets the criteria for recognition as an intangible asset.

Research and development expenditure expensed in the income statement is disclosed in note 4, other than where the activity is performed for customers, and includes all directly attributable costs. The expenditure relates both to research expenditure and to development expenditure for which either there is no identifiable and separable intangible asset, or the way in which the output is expected to be used is such that it is not possible to demonstrate

satisfactorily the existence of a market for the intangible asset's output.

#### **(g) Government grants**

The Group receives income-related grants from various national and supranational government agencies, principally as part funding of research and development projects. A grant is not recognised in the income statement until there is reasonable assurance that the Group will comply with its conditions and that the grant will be received. Grants are presented in the income statement as a deduction from the related expenses.

Grants are not normally received until after qualification conditions have been met and the related expenditure has been incurred. Where this is not the case, they are recorded within trade and other payables as a payment in advance.

#### **(h) Retirement benefit costs**

The Group operates one defined benefit and several defined contribution retirement benefit schemes. Payments to defined contribution schemes are charged as an expense as they fall due. Payments to state-managed schemes are dealt with as payments to defined contribution schemes as the Group's obligations under the schemes are similar in nature.

For the defined benefit retirement benefit scheme, the cost of providing benefits is determined using the Projected Unit Credit method, with actuarial valuations being carried out at each balance sheet date. Actuarial gains and losses are recognised in full in the period in which they occur. Gains and losses are reported in the statement of recognised income and expense except where they result from settlements or curtailments, in which case they are reported in the income statement.

Past service cost is recognised immediately to the extent that the benefits are already vested, and otherwise is amortised on a straight line basis over the average period until the benefits become vested. The retirement benefit obligations recognised in the balance sheet represent the present value of the defined benefit obligations as adjusted for unrecognised past service cost, and as reduced by the fair value of scheme assets. Any asset resulting from this calculation is limited to past service cost, plus the present value of available refunds and reductions in future contributions to the plan.

#### **(i) Share-based payments**

Equity settled share-based payments are measured at fair value at the date of grant. The fair value determined at the grant date is expensed on a straight line basis over the vesting period, based on the Group's estimate of participants eligible to receive shares at the point of vesting.

Fair value is measured by use of a Black Scholes model for share options, and a Monte Carlo model for the Long Term Incentive Plans (LTIP). The expected life used in the model is adjusted for the effects of exercise restrictions and behavioural considerations. The Group has elected not to apply this accounting policy to options granted before 7 November 2002, and no cost has been recognised in the income statement for those options.

#### **(j) Leases**

The costs of operating leases and amortisation of operating lease incentives are charged to the income statement on a straight line basis over the period of the lease.

**(k) Foreign currency***Transactions*

The functional currency of the Company and the presentational currency of the Group is pounds sterling. The functional currency of each subsidiary is determined by its individual circumstances. Transactions in currencies other than the functional currency are recorded at the rates of exchange prevailing on the dates of the transactions. At each balance sheet date, monetary assets and liabilities denominated in foreign currencies are retranslated at the rates prevailing on the balance sheet date. Non-monetary assets and liabilities denominated in foreign currencies are translated at the rates prevailing at the date when the transaction occurred. Gains and losses arising on retranslation and settlements are included in the income statement for the period.

*Consolidation*

On consolidation, the assets and liabilities of foreign operations, including goodwill and fair value adjustments are translated at exchange rates prevailing on the balance sheet date. Income and expense items are translated at the average exchange rates of the period unless exchange rates fluctuate significantly. Exchange differences arising from 1 July 2004, the date of transition to IFRS, are classified as equity and recognised in the translation reserve. Exchange differences arising before that date are not separately reported. On disposal of an operation or part thereof, the related cumulative translation differences are recognised in the income statement as a component of the gain or loss arising on disposal.

**(l) Taxation**

The tax expense represents the sum of the tax currently payable and deferred tax.

The tax currently payable is based on taxable profit for the year. Taxable profit differs from net profit as reported in the income statement because it excludes items of income or expense that are taxable or deductible in other years and it further excludes items that are never taxable or deductible. The Group's liability for current tax is calculated using tax rates that have been enacted or substantively enacted by the balance sheet date.

Deferred tax is the tax expected to be payable or recoverable on differences between the carrying amounts of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable profit, and is accounted for using the balance sheet liability method. Deferred tax liabilities are generally recognised for all taxable temporary differences and deferred tax assets are recognised to the extent that it is probable that taxable profits will be available against which deductible temporary differences can be utilised. Such assets and liabilities are not recognised if the temporary difference arises from goodwill or from the initial recognition (other than in a business combination) of other assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit.

Deferred tax liabilities are recognised for taxable temporary differences arising on investments in subsidiaries, except where the Group is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future.

The carrying amount of deferred tax assets is reviewed at each balance sheet date and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Deferred tax is calculated at the tax rates that are expected to apply in the period when the liability is settled or the asset is realised. Deferred tax is charged or credited in the income statement, except when it relates to items charged or credited directly to equity, in which case the deferred tax is also dealt with in equity.

**(m) Dividends**

Dividends are recognised as a liability in the period in which they are fully authorised, or in the case of interim dividends when paid.

**(n) Goodwill**

Goodwill arising on consolidation represents the excess of the cost of acquisition over the Group's interest in the fair value of the identifiable assets and liabilities acquired. As permitted by IFRS, goodwill arising on acquisitions prior to 1 July 2004 has not been restated, but is retranslated using exchange rates prevailing at each balance sheet date.

Goodwill is recognised as an asset, and is not subject to amortisation, but is reviewed for impairment at least annually. Any impairment is recognised immediately in the income statement and is not subsequently reversed. On disposal of an operation, the attributable amount of goodwill is included in the determination of the gain or loss on disposal.

**(o) Other intangible assets**

The cost of a purchased intangible asset is the purchase price and any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended.

Certain directly attributable costs which are incurred in the development of an intangible asset are capitalised. These costs are recognised as an asset once the Group has determined that it has the intention and the necessary resources to complete the relevant project, it is probable that the resulting asset will generate economic benefits for the Group and the attributable expenditure can be measured reliably. These criteria have been met for the development costs of certain software products, which have finite useful lives.

Amortisation is provided to write off the amortisable amount (being cost less residual value estimated at the latest balance sheet date) of intangible assets over estimated useful lives as follows:

- |                                    |                        |
|------------------------------------|------------------------|
| - Purchased software               | Between 2 and 10 years |
| - Capitalised software development | Between 2 and 5 years  |

**(p) Property, plant and equipment**

The gross carrying amounts of property, plant and equipment are measured using a historic cost basis.

The cost of an item of property, plant and equipment is the purchase price and any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended.

Depreciation is provided to write off the depreciable amount (being cost less residual value estimated at the latest balance sheet date) of items of property, plant and equipment on a straight line basis over estimated useful lives as follows:

- Freehold buildings Between 25 and 50 years
- Long and short leasehold property Over the term of the lease
- Plant and machinery Between 4 and 10 years
- Fixtures, fittings and equipment Between 2 and 10 years
- Freehold land is not depreciated.

**(q) Investments**

Investments in subsidiaries are stated at cost less any impairment in value.

**(r) Impairment of non-current assets**

Goodwill arising is allocated to the cash-generating units expected to benefit from the business combination. Its carrying value is tested annually, regardless of whether there is any indication of impairment, as part of the impairment testing of the cash-generating unit to which it belongs.

Other intangible assets with finite useful lives and items of property, plant and equipment are tested whenever there is an indication that its carrying value may exceed its recoverable amount. The Group assesses at each reporting date whether there is any indication of impairment or reversal of impairments recognised in prior years. Where assets do not generate cash flows independently from other assets, the Group estimates the recoverable amount of the cash-generating unit to which the asset belongs. The recoverable amount is the higher of fair value less costs to sell and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted. If the recoverable amount of an asset or cash-generating unit is estimated to be less than its carrying amount, the carrying amount of the asset or cash-generating unit is reduced to its recoverable amount.

Impairment losses arising on goodwill are not reversed. Where an impairment loss on other assets subsequently reverses, the carrying amount of the asset is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognised in prior years.

**(s) Non-current assets held for sale**

Non-current assets, and disposal groups classified as held for sale are measured at the lower of carrying amount and fair value less costs to sell. Non-current assets and disposal groups are classified as held for sale if their carrying amount will be recovered through a sale transaction rather than through continuing use.

The condition is regarded as met only when the sale is highly probable and expected to be completed within a year from the classification. In addition, the asset (or disposal group) is to be available for immediate sale in its present condition and is actively being marketed at a price that is reasonable in relation to its current fair value.

**(t) Inventories**

Inventories are stated at the lower of cost, including attributable overheads, and net realisable value. Work in progress is stated at cost, including attributable overheads, less any foreseeable losses and progress payments received and receivable.

**(u) Financial instruments***Non-derivative financial instruments*

The group's non-derivative financial instruments comprise trade receivables, trade payables, cash and cash equivalents and bank loans. Cash and cash equivalents comprise cash balances and deposits with maturities of three months or less at inception and bank overdrafts repayable on demand.

Trade receivables and payables are measured initially at fair value, and subsequently at amortised cost. Trade receivables are stated net of allowances for irrecoverable amounts.

Bank loans are recognised initially at fair value less directly attributable transaction costs. Subsequently bank loans are recorded at amortised cost using the effective rate method. Differences between initial value and redemption value are recorded in the income statement over the period of the loan.

The fair values of non-derivative financial instruments other than loans due for repayment after more than one year are approximately equal to their book values. The fair value of loans due for repayment after more than one year is estimated by discounting the future contractual cash flows at the current market interest rate available to the Group for similar financial instruments.

The Group has financed its net investment in Germany using a Euro loan. Hedge accounting has been applied to the exchange differences arising on this loan.

*Derivative financial instruments*

Derivative financial instruments are initially recognised and measured at fair value on the date a derivative contract is entered into and subsequently measured at fair value. The gain or loss on re-measurement is taken to the income statement except where the derivative is designated as a cash flow or net investment hedging instrument as described below.

The Group employs derivative financial instruments, generally forward foreign exchange contracts, to mitigate currency exposures on trading transactions. The Group does not hedge forecast transactions that will result in the recognition of a non-financial asset or liability. The Group has hedged part of its net investment in the US and Germany through cross currency interest rate swaps. Fair values of derivative financial instruments are based on the market values of similar instruments at the balance sheet date.

*Hedge accounting*

Gains or losses on cash flow hedges that are highly effective instruments for hedging the hedged items are recognised in equity. When the hedged item is recognised in the financial statements, the accumulated gains and losses recognised in equity are recycled to the income statement.

Gains or losses on retranslation of net investment hedges are recognised in equity until the foreign operation is disposed of, at which point accumulated gains and losses are recycled to the income statement.

The ineffective portion of any hedges is recognised immediately in the income statement. Where a hedge no longer meets the effectiveness criteria, any gains or losses previously deferred in equity are only transferred to the income statement when the committed or forecasted transaction is recognised in the income statement.

Where hedge accounting has been applied to a cash flow hedge for a forecasted or committed transaction that is no longer expected to occur, then the cumulative gain or loss that has been recorded in equity is transferred to the income statement. When a hedging instrument expires or is sold, any cumulative gain or loss existing in equity at that time remains in equity and is recognised when the forecast transaction is ultimately recognised in the income statement.

*Embedded derivatives*

Derivatives embedded in non-derivative host contracts are recognised separately as derivative financial instruments where their risks and characteristics are not closely related to those of the host contract. Changes in the fair value of separately-recognised embedded derivatives are reported in the income statement.

**(v) Provisions**

A provision is required when the Group has a present legal or constructive obligation at the balance sheet date as a result of a past event, and it is probable that settlement will be required of an amount that can be reliably estimated. Provisions for warranty costs are recognised at the date of sale of the relevant products, at the directors' best estimate of the expenditure required to settle the Group's liability.

**(w) New standards and interpretations**

At 30 June 2009, the International Accounting Standards Board and IFRIC had issued the standards and interpretations, shown below, that subject to adoption by the EU, are effective, for accounting periods commencing on or after 1 July 2009.

The directors anticipate that the adoption of these Standards and Interpretations in future periods will have no material impact on the financial statements of the Group except for additional segment disclosure when IFRS 8 comes into effect for periods commencing on or after 1 January 2009.

<i>Issued standards and interpretations not yet effective</i>		<i>Effective date (periods commencing)</i>	<i>Adopted by the EU</i>
<i>International Financial Reporting Standards</i>			
	May 2008 Annual Improvements to IFRSs	01-Jan-09	Yes
	April 2009 Annual Improvements to IFRSs	01-Jan-10	No
IFRS 8	Operating Segments	01-Jan-09	Yes
<i>Amendments to International Financial Reporting Standards</i>			
IFRS 1	First-time Adoption of International Financial Report Standards	01-Jul-09	Yes
IFRS 1	First-time Adoption of International Financial Report Standards	01-Jan-10	No
IFRS 2	Share-based payments	01-Jan-09	Yes
IFRS 2	Share-based payments	01-Jan-10	No
IFRS 3	Business Combinations	01-Jul-09	Yes
IFRS 7	Financial Instruments: Disclosures	01-Jan-09	Yes
IAS 1	Presentation of Financial information	01-Jan-09	Yes
IAS 23	Borrowing Costs	01-Jan-09	Yes
IAS 27	Consolidated and Separate Financial Statements	01-Jul-09	Yes
IAS 32	Financial Instruments: Presentation	01-Jan-09	Yes
IAS 39	Financial Instruments: Recognition and Measurement	01-Jul-09	No
<i>International Financial Reporting Interpretations</i>			
IFRIC 15	Agreements for the Construction of Real Estate	01-Jan-09	
IFRIC 16	Hedges of a Net Investment in a Foreign Operation	01-Oct-08	
IFRIC 17	Distributions of Non-cash Assets to Owners	01-Jul-09	
IFRIC 18	Transfers of Assets from Customers	01-Jul-09	

## 2 Segmental reporting

**Business segments**

Continuing operations – revenue and results	Technical Consulting		Strategic Consulting		Total	
	2009 £m	2008 £m	2009 £m	2008 £m	2009 £m	2008 £m
Revenue earned	168.1	169.5	10.7	12.4	178.8	181.9
Adjustment for inter-segmental revenue	(2.2)	(0.3)	2.2	0.3	–	–
Revenue from third parties	165.9	169.2	12.9	12.7	178.8	181.9
Operating profit	13.8	14.5	1.3	1.8	15.1	16.3
Finance income					4.0	1.9
Finance costs					(3.4)	(2.7)
Profit before tax					15.7	15.5
Tax					(1.0)	(2.4)
<b>Profit for the year</b>					<b>14.7</b>	<b>13.1</b>

Continuing operations – assets & liabilities	Technical Consulting		Strategic Consulting		Total	
	2009 £m	2008 £m	2009 £m	2008 £m	2009 £m	2008 £m
Segment assets	123.3	154.9	10.5	13.7	133.8	168.6
Unallocated assets					14.9	13.3
Consolidated total assets					148.7	181.9
Segment liabilities	80.9	100.2	4.2	7.8	85.1	108.0
Unallocated liabilities					3.4	6.8
Consolidated total liabilities					88.5	114.8
Capital expenditure – Intangible assets	1.2	1.0	–	–	1.2	1.0
Capital expenditure – Property, plant and equipment	9.0	9.8	–	–	9.0	9.8
Depreciation and amortisation	8.7	8.5	–	–	8.7	8.5

Unallocated assets and liabilities related to deferred and current tax balances.

**Geographical Segments**

Continuing operations by location of customer	Revenue	
	2009 £m	2008 £m
Europe	105.1	110.6
North America	31.9	34.8
Asia	41.1	36.2
Rest of the World	0.7	0.3
	178.8	181.9

Continuing operations by location of assets	Capital Spend		Assets	
	2009 £m	2008 £m	2009 £m	2008 £m
UK	4.2	7.7	85.3	102.5
North America	1.5	1.3	14.6	21.0
Germany	4.1	1.5	30.6	41.9
Rest of the World	0.4	0.3	3.3	3.2
	10.2	10.8	133.8	168.6
Unallocated assets			14.9	13.3
			148.7	181.9

3 Revenue

	2009 £m	2008 £m
<b>Continuing Operations</b>		
Rendering of services	162.5	165.2
Sale of goods	16.3	16.7
	<b>178.8</b>	<b>181.9</b>
<b>Discontinued operations</b>		
Sale of goods (note 9)	10.5	15.8
<b>Total revenue</b>	<b>189.3</b>	<b>197.7</b>

4 Operating profit

	2009 £m	2008 £m
The following items have been charged in arriving at operating profit:		
Amortisation of intangible assets recognised as expense	0.9	0.8
Depreciation of property, plant and equipment	7.8	7.7
Inventories consumed and recognised as expense	19.1	18.7
Other operating lease rentals payable		
– plant and machinery	0.4	0.7
– property	3.4	2.7
Repairs and maintenance on property, plant and equipment	2.9	2.5
Redundancy and termination	1.9	0.6
Trade receivables impairment	-	1.2
Foreign exchange losses	1.2	0.4
	<b>2009 £m</b>	<b>2008 £m</b>
With respect to the Group research and development activities the following items have been charged/(credited) in arriving at operating profit:		
Research and development expenditure in the period	12.4	10.1
Government grant income received in respect of part of this expenditure	(1.2)	(1.0)
	<b>11.2</b>	<b>9.1</b>
	<b>2009 £m</b>	<b>2008 £m</b>
During the year the Group obtained the following services from the Group's auditors and network firms:		
Fees payable to parent company auditor for the audit of the parent and consolidated financial statements	0.3	0.3
Fees payable to the company's auditor and its associates for other services	0.1	0.1
	<b>0.4</b>	<b>0.4</b>

5 Employees

	2009 £m	2008 £m
<b>Staff costs</b>		
Wages and salaries	71.9	67.0
Social security costs	9.8	8.6
Other pension costs	3.2	3.1
Share-based payments	0.7	0.3
	<b>85.6</b>	<b>79.0</b>
	<b>2009 Number</b>	<b>2008 Number</b>
Average number of employees (including executive directors) during the year		
Production and engineering staff	1,359	1,404
Management, administration and sales	271	290
	<b>1,630</b>	<b>1,694</b>

	2009 £m	2008 £m
Key management compensation		
Salaries and short-term employee benefits	2.1	2.5
Post-employment benefits	0.2	0.3
Termination benefits	0.8	–
Share-based payments	0.4	0.5
	3.5	3.3

The key management personnel are the Board of Directors and the Managing Directors of the UK, US and German businesses. Details of the directors' remuneration, pension contributions and share-based payments are provided in the Directors' remuneration report.

## 6 Finance income and costs

	2009 £m	2008 £m
<b>Finance income</b>		
Bank interest receivable	1.3	1.5
Foreign exchange gain on financing activities	1.1	–
Interest on other financial assets	1.6	0.4
	4.0	1.9
<b>Finance costs</b>		
Interest payable on bank borrowings	2.3	2.2
Defined benefit pension scheme net finance costs (note 21)	1.1	0.5
	3.4	2.7

## 7 Taxation

	2009 £m	2008 £m
Current tax		
UK corporation tax at 28%	0.1	0.1
Adjustment in respect of prior years	–	(0.5)
Total UK tax	0.1	(0.4)
Foreign corporation tax	2.0	2.8
Total current tax	2.1	2.4
Deferred tax		
Charge for year relating to temporary differences	0.6	1.3
Adjustment in respect of prior years	(1.7)	(1.3)
Total deferred tax	(1.1)	–
<b>Taxation</b>	1.0	2.4
Tax on items recognised directly in equity	(2.3)	(1.8)
Total current tax charge	2.1	2.4
Total deferred tax credit	(3.4)	(1.8)

The tax charge for the year is lower (2008: lower) than the standard rate of corporation tax in the UK. The differences are set out below.

	2009		2008	
	%	£m	%	£m
Profit for the year before tax		15.7		15.5
Profit for the year multiplied by rate of corporation tax in the UK	28.0	4.4	28.0	4.3
Effects of:				
Losses not recognised	–	–	–	–
Expenses not deductible for tax purposes	1.9	3.6	3.6	3.6
Research and development tax credits	(19.8)	(13.7)	(13.7)	(13.7)
Irrecoverable overseas tax	5.7	8.2	8.2	8.2
Adjustments to taxation in respect of prior years <sup>(1)</sup>	(14.1)	(12.2)	(12.2)	(12.2)
Change in corporation tax rates	–	0.2	0.2	0.2
Other differences in tax rate/other	4.4	1.4	1.4	1.4
<b>Charged to the income statement</b>	6.1	1.0	15.5	2.4

<sup>(1)</sup> Including 27% regarding £4.2m of retrospective R&D tax credits (2008: 18% regarding £2.8m)

## 8 Dividends

	2009 £m	2008 £m
Final paid 7.5p per share (2008: 7.1 p)	3.8	3.6
Interim paid 3.2p per share (2008: 3.1 p)	1.7	1.6
Equity dividends paid	5.5	5.2
Dividend paid to minority shareholders	–	0.2
<b>Total dividend paid</b>	<b>5.5</b>	<b>5.4</b>

In addition, the directors are proposing a final dividend in respect of the financial year ended 30 June 2009 of 7.5p per share which will absorb £3.8m of retained profits. It will be paid on 27 November 2009 to shareholders who are on the register of members at the close of business on 30 October 2009, subject to approval at the Annual General Meeting on 19 November 2009.

## 9 Discontinued operations

At 30 June 2009 the Group's exhaust business in Germany was classified as held for sale in accordance with the conditions in note 1(s).

	2009 £m	2008 £m
Results of discontinued operations		
Revenue	10.5	15.8
Operating costs	(12.4)	(16.2)
Finance costs	(0.9)	(0.4)
Loss before tax	(2.8)	(0.8)
Attributable tax expense	0.7	0.1
Write down of assets held for sale	(3.8)	–
Tax effect of write down of assets held for sale	0.2	–
<b>Net loss attributable to discontinued operations</b>	<b>(5.7)</b>	<b>(0.7)</b>

	2009 £m
Assets and liabilities of operations classified as held for sale, after write down	
Property, plant and equipment	3.0
Inventories	2.7
Trade and other receivables	1.8
Total assets classified as held for sale	7.5
Trade and other payables	(0.8)
Total liabilities associated with assets classified as held for sale	(0.8)
<b>Net assets classified as held for sale</b>	<b>6.7</b>

	2009 £m	2008 £m
Cash flows of discontinued operations		
Net cash generated by operating activities	0.2	0.3
Net cash used by investing activities	(0.2)	(0.3)
<b>Net movement in cash and cash equivalents</b>	<b>–</b>	<b>–</b>

There is no (2008: £nil) net expense recognised directly in equity contained in the statement of recognised income and expense relating to discontinued operations.



## 10 Earnings per share

Basic earnings per share is calculated by dividing the earnings attributable to ordinary shareholders by the weighted average number of shares outstanding during the year, excluding those held by an employee benefit trust for the LTIP which are treated as cancelled for the purposes of the calculation.

For diluted earnings per share, the weighted average number of ordinary shares in issue is adjusted to assume conversion of all dilutive potential ordinary shares. These include potential awards of LTIP shares and options granted to employees where the exercise price is less than the market price of the Company's ordinary shares during the year.

Reconciliations of the earnings and the weighted average number of shares used in the calculations are set out below.

	2009 £m	2008 £m
Earnings attributable to equity shareholders	9.0	12.3
Adjustments to exclude loss for the year from discontinued operations	5.7	0.7
<b>Earnings from continuing operations</b>	<b>14.7</b>	<b>13.0</b>
	<b>Number of shares millions</b>	<b>Number of shares millions</b>
Basic average number of shares in issue	51.1	50.9
Effect of dilutive potential shares	0.3	0.5
<b>Diluted average number of shares in issue</b>	<b>51.4</b>	<b>51.4</b>
	<b>pence</b>	<b>pence</b>
Earnings per share		
From continuing operations		
Basic	28.8	25.5
Diluted	28.6	25.3
From continuing and discontinued operations		
Basic	17.6	24.2
Diluted	17.5	23.9
Impact of discontinued operations		
Basic	(11.2)	(1.3)
Diluted	(11.1)	(1.4)

## 11 Goodwill

Group	£m
Deemed cost at 1 July 2007	15.6
Exchange adjustments	2.3
At 30 June 2008	17.9
Reclassified as held for sale	(3.0)
Exchange adjustments	1.1
<b>At 30 June 2009</b>	<b>16.0</b>

At the balance sheet date, £13.3m of the net book amount relates to the German engineering business (2008: £15.2m relates to the GmbH engineering and exhausts businesses) and £2.7m (2008: £2.7m) of the net book amount relates to two businesses which have been fully integrated into Ricardo UK Ltd (Gemini and Tarragon).

The recoverable amounts were based on value-in-use calculations. These calculations use pre-tax cash flow projections based on financial budgets approved by management covering a five year period. The pre-tax discount rates assumed were 10.6% (2008: 10.8%) for the German and UK businesses after assessing current market conditions and the time value of money. A growth rate of 3% (2008: 3%) has been applied to years six and beyond based on the estimated nominal Gross Domestic Product growth for the markets in which the German and UK businesses operate.

For all three elements of goodwill, the recoverable amounts exceeded their carrying amounts, and no reasonable changes in the key assumptions used for these businesses have been identified that would cause the carrying book amounts to exceed their recoverable amounts.

## 12 Other intangible assets

Group	Purchased software £m	Capitalised software development £m	Total £m
<b>Cost</b>			
At 1 July 2007	7.5	0.4	7.9
Additions	1.0	–	1.0
Disposals	(0.1)	–	(0.1)
Exchange rate adjustments	0.2	–	0.2
At 30 June 2008	8.6	0.4	9.0
Additions	1.0	0.2	1.2
Disposals	(0.4)	–	(0.4)
Reclassified as held for sale	(0.3)	–	(0.3)
Exchange rate adjustments	0.3	–	0.3
<b>At 30 June 2009</b>	<b>9.2</b>	<b>0.6</b>	<b>9.8</b>
<b>Amortisation</b>			
At 1 July 2007	6.0	–	6.0
Charge for the year	0.8	–	0.8
Disposals	(0.1)	–	(0.1)
Exchange rate adjustments	0.2	–	0.2
At 30 June 2008	6.9	–	6.9
Charge for the year	0.8	0.1	0.9
Disposals	(0.4)	–	(0.4)
Reclassified as held for sale	(0.3)	–	(0.3)
Exchange rate adjustments	0.2	–	0.2
<b>At 30 June 2009</b>	<b>7.2</b>	<b>0.1</b>	<b>7.3</b>
<b>Net book amounts</b>			
<b>At 30 June 2009</b>	<b>2.0</b>	<b>0.5</b>	<b>2.5</b>
At 30 June 2008	1.7	0.4	2.1
At 30 June 2007	1.5	0.4	1.9

Company	Purchased software £m
<b>Cost</b>	
At 1 July 2007	–
Additions	0.1
At 30 June 2008	0.1
Additions	0.6
Disposals	–
<b>At 30 June 2009</b>	<b>0.7</b>
<b>Amortisation</b>	
At 1 July 2007 & 30 June 2008	–
Charge for the year	0.1
<b>At 30 June 2009</b>	<b>0.1</b>
<b>Net book amounts</b>	
<b>At 30 June 2009</b>	<b>0.6</b>
At 30 June 2008	0.1
At 30 June 2007	–

## 13 Property, plant and equipment

Group	Land and buildings		Plant and machinery	Fixtures fittings and equipment	Total
	Freehold £m	Short leasehold £m			
<b>Cost</b>					
At 1 July 2007	13.3	7.1	82.0	13.3	115.7
Additions	3.0	0.1	5.4	1.3	9.8
Disposals	–	–	(0.7)	(0.2)	(0.9)
Exchange rate adjustments	1.1	–	0.9	0.6	2.6
At 30 June 2008	17.4	7.2	87.6	15.0	127.2
Additions	1.0	0.1	6.0	1.9	9.0
Disposals	–	–	(3.4)	(1.0)	(4.4)
Reclassifications	0.8	–	(0.8)	–	–
Reclassified as held for sale	(3.5)	–	(2.0)	(1.1)	(6.6)
Exchange rate adjustments	0.6	0.2	4.2	0.8	5.8
At 30 June 2009	16.3	7.5	91.6	15.6	131.0
<b>Depreciation</b>					
At 1 July 2007	2.0	1.9	56.9	10.4	71.2
Charge for the year	0.3	0.2	6.0	1.5	8.0
Disposals	–	–	(0.7)	(0.2)	(0.9)
Exchange rate adjustments	0.2	–	0.3	0.4	0.9
At 30 June 2008	2.5	2.1	62.5	12.1	79.2
Charge for the year	0.5	0.4	5.6	1.6	8.1
Disposals	–	–	(3.4)	(0.9)	(4.3)
Reclassified as held for sale	(0.9)	–	(1.2)	(1.0)	(3.1)
Exchange rate adjustments	0.1	0.1	2.9	0.7	3.8
At 30 June 2009	2.2	2.6	66.4	12.5	83.7
<b>Net book amounts</b>					
At 30 June 2009	14.1	4.9	25.2	3.1	47.3
At 30 June 2008	14.9	5.1	25.1	2.9	48.0
At 30 June 2007	11.3	5.2	25.1	2.9	44.5

The additions within freehold land and buildings include £nil (2008: £3.0m) in respect of assets under construction.

£0.3m (2008: £0.3m) of depreciation relates to the discontinued operations.

At 30 June 2009, contracts had been placed for future capital expenditure, which have not been provided for in the financial statements, amounting to £0.8m (2008: £0.8m).

Company	Land and buildings		Total
	Freehold £m	Short leasehold £m	
<b>Cost</b>			
At 1 July 2007, 30 June 2008 and 30 June 2009	5.6	6.1	11.7
<b>Depreciation</b>			
At 1 July 2007	1.0	1.2	2.2
Charge for the year	–	0.1	0.1
At 30 June 2008	1.0	1.3	2.3
Charge for the year	0.1	0.2	0.3
At 30 June 2009	1.1	1.5	2.6
<b>Net book amounts</b>			
At 30 June 2009	4.5	4.6	9.1
At 30 June 2008	4.6	4.8	9.4
At 30 June 2007	4.6	4.9	9.5

#### 14 Investments

Company	Shares in subsidiaries £m
Cost at 1 July 2007	33.4
Additions	3.7
Cost at 30 June 2008	37.1
Additions	19.6
Disposals	(5.8)
<b>Cost at 30 June 2009</b>	<b>50.9</b>
<b>Provisions at 1 July 2007, 30 June 2008 and 30 June 2009</b>	<b>15.4</b>
<b>Net book amounts</b>	
<b>At 30 June 2009</b>	<b>35.5</b>
At 30 June 2008	21.7
At 30 June 2007	18.0

Additions in the year include £19.5m relating to a conversion of debt to equity and additional equity for Ricardo GmbH.

Disposals in the year relate to the liquidation of dormant subsidiaries.

#### 15 Inventories

Group	2009 £m	2008 £m
Raw materials and consumables	3.8	4.3
Work in progress	1.3	4.8
	<b>5.1</b>	<b>9.1</b>

In respect of contracts in progress at the year end the aggregate amount of costs incurred and recognised profits (less recognised losses) to date was £218.3m (2008: £193.9m). Progress billings in respect of this amount to £211.5m (2008: £194.9m). Contract revenue in the year for contracts designated under IAS 11 'Construction Contracts' as construction contracts amounted to £157.4m (2008: £159.5m).

## 16 Trade and other receivables

	Group		Company	
	2009	2008	2009	2008
	£m	£m	£m	£m
Trade receivables	23.6	29.7	–	–
Less : provision for impairment of receivables	(0.7)	(1.5)	–	–
Trade receivables – net	22.9	28.2	–	–
Amounts recoverable on contracts	17.4	20.5	–	–
Amounts owed by Group undertakings	–	–	41.9	55.4
Prepayments and accrued income	2.2	2.4	0.5	0.2
Other receivables	2.3	3.1	0.4	0.1
	44.8	54.2	42.8	55.7
Provision for doubtful debts:				
At 1 July	(1.5)	(0.2)	–	–
Income statement charge	–	(1.2)	–	–
Amounts utilised	0.7	–	–	–
Reclassified as assets held for sale	0.1	–	–	–
Exchange rate adjustments	–	(0.1)	–	–
At 30 June	(0.7)	(1.5)	–	–

In respect of the Company, amounts owed by Group undertakings are interest-bearing at normal commercial rates.

The provision for doubtful debts has been calculated in relation to specific risks with particular customers.

## 17 Trade and other payables

	Group		Company	
	2009	2008	2009	2008
	£m	£m	£m	£m
Trade payables	4.7	6.5	0.5	–
Other tax and social security payable	2.5	0.3	0.1	–
Amounts owed to Group undertakings	–	–	5.3	13.3
Accruals	11.5	15.9	3.0	0.9
Payments received in advance	11.6	22.4	–	–
Other payables	4.0	4.6	2.4	2.4
	34.3	49.7	11.3	16.6

In respect of the Company, amounts owed to Group undertakings are interest-free.

## 18 Bank loans and overdrafts

	Group		Company	
	2009	2008	2009	2008
	£m	£m	£m	£m
Current:				
Bank overdrafts	6.9	15.9	0.5	10.0
Current bank loans	9.5	11.8	9.4	8.7
<b>Total current borrowings</b>	<b>16.4</b>	<b>27.7</b>	<b>9.9</b>	<b>18.7</b>
Non current:	2009	2008	2009	2008
	£m	£m	£m	£m
Maturity of non current debt (bank loans):				
Between one and two years	3.5	4.2	2.6	2.4
Between two and five years	0.4	5.4	–	2.4
In five years or more	–	0.3	–	–
<b>Total non-current borrowings</b>	<b>3.9</b>	<b>9.9</b>	<b>2.6</b>	<b>4.8</b>

The bank loans are denominated in sterling, euros and swiss francs. The sterling loan is variable rate. There are both variable and fixed rate euro loans. The swiss franc loan is at a fixed rate. The variable interest rates vary from 0.8% above Euribor to 0.85% above LIBOR. There are also two euro loans which attract interest at a variable rate, which are normally fixed monthly, and at 30th June 2009, the rates were around 1.5% and 2%. There are fixed rate loans which are denominated both in euros and swiss francs. Interest rates on these loans vary from 2.3% to 5.9%. Loan balances include £0.8m (2008: £3.1m) of loans in respect of Ricardo GmbH which are secured on buildings belonging to the company.

The Group has banking facilities for its UK companies which together have a net overdraft limit. The balances are shown gross in the financial statements as cash and cash equivalents and bank overdrafts.

## 19 Fair value of financial assets and liabilities

The fair values of financial assets and liabilities approximate to their carrying values as follows:

	Group		Company	
	2009	2008	2009	2008
	£m	£m	£m	£m
Cash at bank and in hand	16.8	37.3	4.2	20.3
Bank overdrafts	(6.9)	(15.9)	(0.5)	(10.0)
Loans repayable within one year	(9.5)	(11.8)	(9.4)	(8.7)
Loans repayable after more than one year	(3.9)	(9.9)	(2.6)	(4.8)
Trade receivables	22.9	28.2	–	–
Trade payables	(4.7)	(6.5)	(0.5)	–
Amounts owed by Group undertakings	–	–	41.9	55.4
Amounts owed to Group undertakings	–	–	(5.3)	(13.3)
Accrued interest receivable	0.3	–	0.3	–
Accrued interest payable	(0.3)	(0.1)	(0.3)	–
Derivative financial assets	1.8	0.1	1.2	–
Derivative financial liabilities	(0.6)	(0.4)	(0.3)	–
	<b>15.9</b>	<b>21.0</b>	<b>28.7</b>	<b>38.9</b>

## Summary of methods and assumptions

## Short term borrowing and deposits –

The fair value of short term deposits, loans and overdrafts approximates to the carrying amount because of the short maturity of these instruments.

## Long term borrowings –

The fair value of bank loans approximates to the carrying value in the balance sheet as they are mainly floating rate loans where payments are reset to market rates at regular intervals.

	2009	2008
	£m	£m
Net exchange gains / (losses)		
Profit/(loss)		
On loans and receivables	(0.2)	(0.1)
On other financial assets and liabilities	0.1	(0.3)
	<b>(0.1)</b>	<b>(0.4)</b>
Equity		
On loans and receivables	1.9	1.8
On other hedging instruments	0.4	2.4
	<b>2.3</b>	<b>4.2</b>

## 20 Financial risks

## (a) Objectives, policies and strategies

The financial risks faced by the Group, and the Company, comprise capital risk, liquidity risk, credit risk and market risk, comprising interest rate risk and foreign exchange risk. The Board reviews and agrees policies for managing each of these risks. The Group and the Company have no material exposure to commodity price fluctuations, and this situation is not expected to change in the foreseeable future.

The Group's financial instruments comprise fixed and floating rate borrowings, the main purpose of which is to raise finance for the Group's operations and forward foreign exchange contracts used to manage currency risks. The Company's financial instruments comprise floating rate borrowings.

## (b) Capital risk

The objectives when managing capital are to safeguard the ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

Capital is monitored on the basis of the gearing ratio. This ratio is calculated as net debt divided by total capital. Net debt is calculated as bank loans less cash and cash equivalents. Total capital is calculated as total equity as shown in the balance sheet plus net debt.

The net debt and gearing ratios at 30 June 2009 and 2008 were as follows:

Notes	Group		Company	
	2009 £m	2008 £m	2009 £m	2008 £m
Cash and cash equivalents (current assets)	(16.8)	(37.3)	(4.2)	(20.3)
Bank overdrafts (current liabilities)	18 6.9	15.9	0.5	10.0
Cash, cash equivalents and bank overdrafts	(9.9)	(21.4)	(3.7)	(10.3)
Bank loans (current liabilities)	18 9.5	11.8	9.4	8.7
Bank loans (non current liabilities)	18 3.9	9.9	2.6	4.8
<b>Net debt</b>	<b>3.5</b>	<b>0.3</b>	<b>8.3</b>	<b>3.2</b>
Total equity	66.9	67.1	47.0	52.6
<b>Total capital</b>	<b>70.4</b>	<b>67.4</b>	<b>55.3</b>	<b>55.8</b>
Gearing ratio	5%	0%	15%	6%
			2009 £m	2008 £m
Movements in net debt				
Net debt at 1 July			(0.3)	(7.2)
Net (decrease)/increase in cash and cash equivalents			(11.5)	8.7
Add back net repayment of bank loans			9.5	1.3
Disposal of subsidiary (note 29)			0.3	–
Effect of exchange rate changes on bank loans			(1.5)	(3.1)
<b>Net debt at 30 June</b>			<b>(3.5)</b>	<b>(0.3)</b>

## (c) Liquidity risk

The Group and Company policy towards managing their liquidity risks is to maintain a mix of short and medium term borrowing facilities with their bankers. Short term flexibility is provided by bank overdraft facilities. In addition, the Group and Company maintain term borrowing facilities in order to provide the appropriate level of finance to support current and future requirements.

At the year end, the group held total facilities of £42.9m (2008: £41.0m). This included committed facilities of £22.7m (2008: £16.9m), of which one facility for £10m was undrawn (2008: £nil). The undrawn facility was granted during the year and is available for the period to March 2011. A committed facility for £2.6m matured in July 2009. No other significant debt facility maturities until March 2010. In addition the group had uncommitted facilities of £20.2m (2008: £24.1m) at 30 June, none of which mature until December 2009.

Maturity of bank loans	Group		Company	
	2009 £m	2008 £m	2009 £m	2008 £m
Maturing:				
Within 1 month	(2.6)	(4.4)	(2.6)	(2.4)
After 1 month and within 3 months	–	(0.1)	–	–
After 3 months and within 12 months	(6.9)	(7.3)	(6.8)	(6.3)
After 12 months and within 5 years	(3.9)	(9.6)	(2.6)	(4.8)
After 5 years	–	(0.3)	–	–
	(13.4)	(21.7)	(12.0)	(13.5)

Property, plant and equipment with a value of £2.5m (2008: £3.5m) held by Ricardo Deutschland GmbH is pledged as security for loans to that company.

## Notes to the financial statements

### (d) Credit risk

The Group is exposed to credit risk in respect of its trade receivables, which are stated net of provision for estimated doubtful receivables. Exposure to this risk is mitigated by careful evaluation of the granting of credit and the use of credit insurance where practicable.

Concentrations of credit risk with respect to trade receivables are limited due to the Group's customer base being large and unrelated. Due to this, the directors believe there is no further credit risk provision required in excess of any normal provision for doubtful receivables.

	2009 £m	2008 £m
Ageing of trade receivables		
Not overdue	12.7	15.7
Overdue but not impaired:		
0 – 90 days overdue	8.6	10.9
91 – 180 days overdue	0.9	0.9
Over 180 days overdue	0.7	0.7
	22.9	28.2

	Group		Company	
	2009 £m	2008 £m	2009 £m	2008 £m
Maximum exposure to bank counterparty risk				
Cash at bank and in hand	16.8	37.3	4.2	20.3
Accrued interest receivable	0.3	–	0.3	–
Derivative financial assets	1.8	0.1	1.2	–
	18.9	37.4	5.7	20.3

In addition, the Group is exposed to bank credit risk in respect of money held on deposit and certain derivative hedging transactions entered into with banks. Exposure to this form of risk is mitigated as material transactions are only undertaken with bank counterparties that have high credit ratings assigned by international credit-rating agencies. The Group further limits risk in this area by setting an overall credit limit for all transactions with each bank counterparty in accordance the institution's credit standing.

The Company's exposure to credit risk comprises receivables from related parties, as disclosed in note 19, and money held on deposit and certain derivative hedging transactions entered into with banks. Exposure to this form of risk is mitigated as material transactions are only undertaken with bank counterparties that have high credit ratings assigned by international credit-rating agencies. The Company further limits risk in this area by setting an overall credit limit for all transactions with each bank counterparty in accordance the institution's credit standing.

### (e) Market risk

#### Interest rate risk

The Group and Company borrowings and cash balances are principally at floating interest rates and are therefore exposed to cash flow interest rate risk. The exposure to interest rate movements is not currently hedged, either by the Group or the Company, as its exposures are relatively small, although the policy is reviewed on an ongoing basis.

	Group		Company	
	2009 £m	2008 £m	2009 £m	2008 £m
Financial assets and liabilities by interest type				
Floating rate financial liabilities	(19.5)	(36.2)	(12.5)	(23.5)
No interest financial liabilities	(5.6)	(6.9)	(6.4)	(13.3)
Fixed rate financial liabilities	(0.8)	(1.4)	–	–
Floating rate financial assets	14.8	37.3	45.7	75.7
No interest financial assets	27.0	28.2	1.9	–
	15.9	21.0	28.7	38.9

#### Foreign exchange risk

The Group faces currency exposures on trading transactions undertaken by its subsidiaries in foreign currencies and balances arising therefrom, and on the translation of profits earned in and net assets of overseas subsidiaries, primarily in the US and in Germany.

The carrying amounts of the Group's foreign currency denominated monetary assets and liabilities are:

	Assets		Liabilities	
	2009 £m	2008 £m	2009 £m	2008 £m
US Dollar	7.1	11.9	(0.9)	(1.7)
Euro	8.3	20.6	(20.2)	(29.1)



The Group hedges transactional exposures relating to its foreign currency exposures on contracts by taking out forward foreign exchange contracts or other derivative financial instruments. The Group hedges all significant forecast profits from its overseas businesses by taking out forward foreign exchange contracts or other derivative financial instruments.

The Group has financed its net investment in the German business using euro denominated borrowings to which hedge accounting has been applied.

It is the Group's policy not to undertake any speculative currency transactions using derivatives.

The Company faces currency risk on its euro denominated borrowings and its euro and dollar denominated receivables from related parties.

#### *Embedded Derivatives*

In accordance with IAS 39 'Financial Instruments: Recognition and Measurement', management have reviewed all contracts for embedded derivatives that are required to be separately accounted for if they do not meet certain requirements set out in the standard. There are some contracts within Ricardo UK Ltd denominated in euros which fail to meet the requirements outlined by IAS 39, and so the derivative related to the contract currency is accounted for separately to the rest of the contract. As at 30 June 2009, the fair value of this embedded derivative was an asset of £nil (2008: £0.1m). This derivative is recorded at fair value based on discounted future cash flows with gains and losses passing through the income statement. A loss of £0.1m (2008: gain of £0.1m) is recorded in the income statement.

(f) Analysis of sensitivity of financial instruments to market risk

#### *Exchange rate sensitivity*

The table below shows the sensitivity of financial instruments at the period end to foreign exchange rates, where the financial instruments are not in the functional currency of the entity that holds them.

	Group		Company	
	2009 £m	2008 £m	2009 £m	2008 £m
<b>Impact on profit for the year</b>				
10% weakening of the US dollar	(0.1)	(0.1)	(0.1)	(0.1)
10% weakening of the euro	0.3	(0.2)	0.1	(0.3)
<b>Impact on equity</b>				
10% weakening of the US dollar	(0.1)	-	(0.1)	-
10% weakening of the euro	1.0	0.5	0.8	0.5

A 10% strengthening of these currencies against sterling would have an equal and opposite effect.

#### *Interest rate sensitivity*

The table below shows the sensitivity of the Group's floating rate financial instruments at the period end to interest rates. Debt with a maturity or interest re-setting within one year is floating rate for this calculation. The Group's main exposure is to the euro interest rate.

	Group		Company	
	2009 £m	2008 £m	2009 £m	2008 £m
<b>Impact on profit for the year and equity</b>				
1% increase in euro interest rates	(0.1)	-	(0.1)	(0.1)

(g) Hedges and hedge accounting

	2009 £m	2008 £m
<b>Fair values of hedging instruments at 30 June</b>		
Hedges of net investment in foreign operations	(11.1)	(13.5)
Cash flow hedges	0.3	(0.4)
	<b>(10.8)</b>	<b>(13.9)</b>

#### *Hedge of net investment in foreign operation*

At the reporting date the Group held €14m (2008: €17m) of loans and a cross currency interest rate swap for €7m, which combined hedge the first €21m of the net investment in Ricardo's German subsidiaries, and a cross currency interest rate swap for \$21.4m which hedges the net investment in Ricardo's US Subsidiary. All of these hedge the risk in the change of the euro/sterling or US dollar/sterling spot rate that affects the value of the net investment.

*Cash flow hedges*

The Group uses forward sales of foreign currencies designated as cash flow hedges to hedge the exposure arising from orders in foreign currencies that could affect the income statement. The risk being hedged is the euro/sterling and the US dollar/sterling spot and interest rate differential exchange rate risk arising from orders in foreign currencies. The spot and interest rate differential component of the forward contracts taken out is designated as a hedge of the change in fair value of the cash flows on the firm orders in foreign currencies that are attributable to movements in the euro/sterling and US dollar/sterling spot and interest rates. Provided the hedge is effective, changes in the fair value of the hedging instrument are initially recognised in the hedging reserve in equity. They are recycled to the income statement and included within administration expenses when the hedged transaction affects profit or loss. The ineffective portion of the change in the fair value of the instrument (if any) is recognised directly in profit or loss.

	2009 £m	2008 £m
Amounts relating to cash flow hedges in the period		
Recognised in equity	0.5	(1.5)
Removed from equity and included in profit and loss	(1.2)	1.1
	2009 £m	2008 £m
Cash flows expected to occur and affect profit and loss		
Within 3 months	3.0	3.3
After 3 months and within 12 months	7.9	7.7
After 1 and within 3 years	5.0	2.4
	15.9	13.4

## 21 Retirement benefit obligations

**Group and Company**

The Group operates various defined contribution pension schemes, the assets of which are held in separately administered funds. The Group also operates a defined benefit pension scheme, the Ricardo Group Pension Fund ("RGPF"). The scheme is closed to new entrants. The pension costs relating to the RGPF are assessed in accordance with the advice of Watson Wyatt Limited, qualified actuaries, using the Projected Unit Credit method.

The last completed triennial valuation of the RGPF was at 5 April 2008. At that date, the assets of the fund had a market value of £66.1 million and were sufficient to cover 76% of the benefits that had accrued to members, after allowing for expected future increases in earnings. Contributions expected to be paid to the plan during the year ending 30 June 2010 are £4.3m.

IAS 19 'Employee Benefits' valuations were completed as at 30 June 2008 and 30 June 2009 by Watson Wyatt Limited, qualified actuaries. The post-retirement mortality assumptions used in both years are the standard "00" series tables published by the Continuous Mortality Investigation ("CMI"), projected using medium cohort improvement rate with reference to each individual's year of birth. Under these mortality assumptions, the expected future lifetime after retirement is:

	2009		2008	
Age	Males	Females	Males	Females
45	22.9	25.0	22.9	25.0
65	21.7	24.0	21.7	24.0
			At 30 June 2009	At 30 June 2008
Other principal assumptions				
Discount rate			6.2%	6.7%
Expected return on plan assets			7.0%	7.6%
Inflation			3.5%	4.1%
Rate of increase in pensionable salaries			3.5%	4.1%
Rate of increase in pensions in payment				
Pre 1 July 2002 accrual			3.5%	4.1%
Post 1 July 2002 accrual			3.5%	4.1%
Rate of increase in pension in deferment			3.5%	4.1%
Percentage of pension to be commuted for a lump sum at retirement			15.0%	15.0%

The expected return on plan assets is based on market expectation at the beginning of the period for returns over the entire life of the benefit obligation, and the return assumption is a net rate after expenses.

Assets of the scheme and the expected rate of return	Long term rate of return expected at 30 June 09	Value at 30 June 2009 £m	Long term rate of return expected at 30 June 08	Value at 30 June 2008 £m
Equities	8.4%	33.2	8.9%	37.3
Bonds	4.9%	21.0	5.6%	22.9
Property	6.7%	3.6	7.2%	4.6
Cash	4.0%	0.9	5.1%	0.8
<b>Total assets</b>	<b>7.0%</b>	<b>58.7</b>	<b>7.6%</b>	<b>65.6</b>

The expected rate of return on the assets of the scheme is the weighted average of the long term rate of return expected on the individual asset classes. The actual loss in value of the plan assets was £8.1m (2008: £2.9m). Movements in the fair value of scheme assets and in the present value of defined benefit obligations were as follows:

	Assets £m	2009 Obligations £m	Net Total £m	Assets £m	2008 Obligations £m	Net Total £m
At 1 July	65.6	(85.5)	(19.9)	67.0	(83.7)	(16.7)
Current service cost	-	(1.2)	(1.2)	-	(1.3)	(1.3)
Expected return/(interest cost)	4.5	(5.6)	(1.1)	4.2	(4.7)	(0.5)
Credit/(charge) to the income statement	4.5	(6.8)	(2.3)	4.2	(6.0)	(1.8)
Actuarial (losses)/gains charged/credited to the statement of recognised income and expense	(12.6)	1.0	(11.6)	(7.1)	1.4	(5.7)
Contributions from sponsoring companies	4.4	-	4.4	4.3	-	4.3
Benefits paid	(3.2)	3.2	-	(2.8)	2.8	-
<b>Total movements</b>	<b>(6.9)</b>	<b>(2.6)</b>	<b>(9.5)</b>	<b>(1.4)</b>	<b>(1.8)</b>	<b>(3.2)</b>
<b>At 30 June</b>	<b>58.7</b>	<b>(88.1)</b>	<b>(29.4)</b>	<b>65.6</b>	<b>(85.5)</b>	<b>(19.9)</b>

	At 30 June 2009 £m	At 30 June 2008 £m
Cumulative actuarial gains and losses recognised in equity		
At 1 July	(2.7)	3.0
Net actuarial losses recognised in the year	(11.6)	(5.7)
<b>At 30 June</b>	<b>(14.3)</b>	<b>(2.7)</b>

History of experience gains and losses	2009	2008	2007	2006	2005
Present value of defined benefit obligations (£m)	(88.1)	(85.5)	(83.7)	(81.1)	(84.1)
Fair value of scheme assets (£m)	58.7	65.6	67.0	57.5	49.4
Deficit in the scheme (£m)	(29.4)	(19.9)	(16.7)	(23.6)	(34.7)
Experience adjustments on scheme liabilities (£m)	1.0	1.4	0.1	2.8	(11.8)
Percentage of scheme liabilities (%)	1%	2%	-	3%	(14)%
Experience adjustments on scheme assets (£m)	(12.6)	(7.1)	4.1	3.9	3.9
Percentage of scheme assets (%)	(21)%	(11)%	6%	7%	8%

Amounts charged in the income statement in respect of pensions	2009 £m	2008 £m
In respect of defined contribution schemes	2.0	1.9
In respect of defined benefit schemes	2.3	1.8
	<b>4.3</b>	<b>3.7</b>
Included within:		
Staff costs	3.2	3.2
Finance costs	1.1	0.5
	<b>4.3</b>	<b>3.7</b>

## 22 Deferred tax

## (a) Deferred tax analysis by balance sheet category

	Group		Company	
	2009 £m	2008 £m	2009 £m	2008 £m
Non-current deferred tax assets	14.4	12.2	8.8	6.3
Non-current deferred tax liabilities	(0.8)	(3.9)	(0.8)	(0.8)
<b>Net deferred tax asset</b>	<b>13.6</b>	<b>8.3</b>	<b>8.0</b>	<b>5.5</b>

## (b) Movements in net deferred tax assets and liabilities

Group	Accelerated capital allowances £m	Retirement benefit obligations £m	Tax losses and credits £m	Unrealised capital gains £m	Other £m	Total £m
At 1 July 2007	(4.3)	4.9	5.2	(0.7)	1.4	6.5
Credited/(charged) to the income statement	0.9	(0.8)	(0.6)	–	0.5	–
Credited to statement of recognised income and expense	–	1.6	–	–	0.2	1.8
At 30 June 2008	(3.4)	5.7	4.6	(0.7)	2.1	8.3
Credited/(charged) to the income statement	0.6	(0.7)	1.4	–	0.7	2.0
Credited/(charged) to statement of recognised income and expense	–	3.3	–	–	(1.0)	2.3
Exchange rate adjustments	(0.1)	–	0.9	–	0.2	1.0
<b>At 30 June 2009</b>	<b>(2.9)</b>	<b>8.3</b>	<b>6.9</b>	<b>(0.7)</b>	<b>2.0</b>	<b>13.6</b>

The change in UK Corporation Tax rates from April 2008 from 30% to 28% has resulted in a charge of £nil (2008: charge £0.2m) to the income statement and £nil (2008: £nil) to the statement of recognised income and expense.

At the balance sheet date there were no temporary differences associated with undistributed earnings of subsidiaries for which deferred tax liabilities has been recognised (2008: £nil). No liability would be recognised in respect of these differences because the Group is in a position to control the timing of the reversal of the temporary differences and it is probable that such differences will not reverse in the foreseeable future.

Company	Retirement benefit obligations £m	Tax losses and credits £m	Unrealised capital gains £m	Other £m	Total £m
At 1 July 2007	4.8	0.4	(0.7)	0.6	5.1
Charged to the income statement	(0.7)	(0.4)	–	(0.2)	(1.3)
Credited to statement of recognised income and expense	1.6	–	–	0.1	1.7
At 30 June 2008	5.7	–	(0.7)	0.5	5.5
Charged to the income statement	(0.7)	–	–	–	(0.7)
Credited/charged to statement of recognised income and expense	3.3	–	–	(0.1)	3.2
<b>At 30 June 2009</b>	<b>8.3</b>	<b>–</b>	<b>(0.7)</b>	<b>0.4</b>	<b>8.0</b>

Deferred tax assets are recognised to the extent that realisation of the related tax benefit is probable on the basis of the Group's current expectations of future taxable profits derived from the most recent financial budgets approved by management.

## 23 Provisions

Group	Short term warranty provision £m
At 1 July 2008	0.8
Charged to income statement	0.5
Utilised in year	(0.5)
<b>At 30 June 2009</b>	<b>0.8</b>

The warranty provision reflects the directors' best estimate of the cost needed to fulfil the Group's warranty obligations within a number of contracts. This is expected to unwind over the life of the products to which they relate, which is expected to be a period of less than five years.

## 24 Called up share capital

Group and Company	2009 Number	2008 Number	2009 £m	2008 £m
<b>Authorised</b>				
Ordinary shares of 25p each	80,000,000	80,000,000	20.0	20.0
<b>Allotted, called up and fully paid</b>				
At 1 July	51,045,579	50,698,733	12.9	12.7
Allotted under share option schemes	7,143	178,542	-	0.1
Allotted under LTIP scheme	102,023	168,304	-	0.1
<b>At 30 June</b>	<b>51,154,745</b>	<b>51,045,579</b>	<b>12.9</b>	<b>12.9</b>

The consideration received for shares allotted under the share option schemes and LTIP during the year ended 30 June 2009 was £nil (2008: £0.4m).

Dividends were paid at the reduced rate of 0.01p per share for interim and final dividends in respect of shares held by an employee benefit trust in relation to the LTIP. There were 1,379 such shares at 30 June 2009 (1,379 at 30 June 2008).

## 25 Share-based payments

The Group operates the following share-based schemes: 2004 Ricardo plc Executive Share Option Plan (the "2004 Plan") and 1994 Share Option Scheme (the "1994 Scheme"), together the equity-settled Executive Share Options; Deferred Share Bonus Plan; Equity-settled Long Term Incentive Plan ("LTIP"); and Ricardo PLC 2000 Savings Related Share Option Scheme (the "SAYE Scheme").

The general terms and conditions, including vesting requirements and performance conditions, for the 2004 Plan, the 1994 Scheme, Deferred Share Bonus Plan and LTIP are described in the Directors remuneration report.

The Equity-settled Executive Share Options and the LTIP require shareholder approval for the issue of shares, whereas the Deferred Share Bonus Plan acquires shares in the market to settle the obligation.

No options have been granted under the SAYE Scheme since 7 November 2002, and therefore no charge is required under IFRS 2.

*Equity-settled Executive Share Options*

	2009 Number	2009 Weighted average exercise price	2008 Number	2008 Weighted average exercise price
Outstanding at 1 July	418,171	285p	437,761	260p
Granted	76,692	305p	75,410	305p
Lapsed / Forfeited	(3,162)	327p	(45,000)	185p
Exercised	-	-	(50,000)	300p
<b>Outstanding at 30 June</b>	<b>491,701</b>	<b>288p</b>	<b>418,171</b>	<b>285p</b>
Exercisable at the end of the year	217,761	254p	190,000	246p

The outstanding options had a weighted average contractual life of 7.1 years (2008: 7.7 years)

For those options granted after 7 November 2002 for which the performance criteria are expected to be met, the black scholes model has been used to calculate the charge to the income statement. The inputs into the model are as follows:

	2009	2008
Number of employees	14	6
Shares under option	491,701	418,171
Weighted average option price	nil	nil
Weighted average exercise price	288p	285p
Expected volatility	37%	32%
Expected life from date of grant	5yrs	5yrs
Risk free rate	4.0%	5.0%
Dividend yield	3.0%	3.1%
Possibility of ceasing employment before vesting	nil	nil
Expectations of meeting performance criteria	81%	89%
Weighted average fair value per option	65p	64p

## Notes to the financial statements

Expected volatility was determined by calculating the historical volatility of the Company's share price over the five years preceding the date of grant. The expected life used in the model is based on management's best estimate, taking into account the effects of non-transferability, exercise restrictions, and behavioural considerations

### Equity-settled Long Term Incentive Plan ("LTIP")

The current LTIP is described in the Directors' remuneration report. Awards are forfeited if the employee leaves the Group before the awards are given.

	2009 Number	2008 Number
Outstanding at 1 July	388,324	486,758
Provisionally awarded	315,918	228,415
Lapsed / Forfeited	(31,954)	(102,617)
Expired	(57,567)	(119,762)
Vested	(102,342)	(104,470)
<b>Outstanding at 30 June</b>	<b>512,379</b>	<b>388,324</b>

Shares allocated and vested in the year of 102,342 were for the cycle ended 30 June 2009, for which shares were not yet issued at 30 June 2009. For the LTIP plan cycles outstanding at the start of the year where the performance criteria are based on the Group's Total Shareholder Return ("TSR") performance relative to the comparator group, as the TSR is dependent on the future market price of shares, the charge to the income statement has been calculated using the Monte Carlo model, using the following assumptions for the plan cycles commencing in these years:

	2009	2008
Number of employees	15	8
Number of shares provisionally awarded	315,918	228,415
Weighted average share price at date of award	300p	290p
Expected volatility	23%	30%
Expected life	2.5yrs	2.5yrs
Risk free rate	4.0%	5.2%
Dividend yield	3.0%	3.1%
Possibility of ceasing employment before vesting	10%	10%
Fair value per LTIP as a percentage of a share at date of award	55%	64%

Expected volatility was determined by calculating the historical volatility of the Company's share price over the three financial years preceeding the date of award.

### Deferred Share Bonus Plan

The Deferred Share Bonus Plan is described in the Directors remuneration report.

	2009 Number	2008 Number
Outstanding at 1 July	268,361	177,992
Provisionally awarded	237,442	81,929
Forfeited	(7,470)	-
Dividend shares awarded in the year	20,076	8,440
Vested	(80,255)	-
<b>Outstanding at 30 June</b>	<b>438,154</b>	<b>268,361</b>

## 26 Share premium account

	Group and Company £m
At 1 July 2007	13.3
Arising on shares issued in 2008	0.4
<b>At 30 June 2008 and 2009</b>	<b>13.7</b>

## 27 Other reserves

Group	Merger reserve £m	Translation reserve £m	Hedging reserve £m	Total £m
At 1 July 2007	1.0	(1.5)	–	(0.5)
Change in fair value of hedges	–	–	(3.5)	(3.5)
Recycled to P&L	–	–	1.1	1.1
Exchange rate adjustments	–	3.8	–	3.8
At 30 June 2008	1.0	2.3	(2.4)	0.9
Change in fair value of hedges	–	–	(0.8)	(0.8)
Recycled to P&L	–	–	1.2	1.2
Exchange rate adjustments	–	4.9	–	4.9
Tax on items recognised directly in equity	–	(0.9)	(0.1)	(1.0)
<b>At 30 June 2009</b>	<b>1.0</b>	<b>6.3</b>	<b>(2.1)</b>	<b>5.2</b>

The hedging reserve movement is the fair value gain/(loss) on cash flow hedges and a net investment hedge and is shown in the statement of recognised income and expense.

Company	Translation reserve £m	Hedging reserve £m	Total £m
At 1 July 2007	(1.1)	–	(1.1)
Movement in year	1.1	–	1.1
<b>At 30 June 2008 and 2009</b>	<b>–</b>	<b>–</b>	<b>–</b>

## 28 Retained earnings

	Group £m	Company £m
At 1 July 2007	35.7	29.8
Profit for the year	12.3	5.1
Actuarial gains on the defined benefit pension scheme	(5.7)	(5.7)
Tax on items recognised directly in equity	1.8	1.7
Dividends paid	(5.2)	(5.2)
Value of employee service	0.3	0.3
At 30 June 2008	39.2	26.0
Profit for the year	9.0	7.5
Actuarial losses on the defined benefit pension scheme	(11.6)	(11.6)
Tax on items recognised directly in equity	3.3	3.2
Dividends paid	(5.5)	(5.4)
Value of employee service	0.7	0.7
<b>At 30 June 2009</b>	<b>35.1</b>	<b>20.4</b>

The company has not presented its own income statement as permitted by Section 408 of the Companies Act 2006.

## 29 Minority interests

Group	£m
At 1 July 2007	0.5
Share of profit for the year	0.1
Dividend paid to minority shareholding	(0.2)
At 30 June 2008	0.4
Disposal of minority interest	(0.4)
<b>At 30 June 2009</b>	<b>–</b>

In September 2008, the Group disposed of its 55% share in Ricardo MEDA Technical Services, LLC (MEDA) for £0.6m. The group's share of Meda's net assets was £0.5m, and the groups profit on sale was £0.1m. At the date of sale, Meda's balance sheet included cash of £0.7m and loans of £0.3m.

## 30 Cash generated by operations

	Group		Company	
	2009	2008	2009	2008
	£m	£m	£m	£m
<b>Continuing and discontinued operations</b>				
Profit from operations	13.2	15.9	2.4	0.7
Adjustments for:				
Share-based payments	0.7	0.3	0.7	0.3
Cash flow hedges	0.4	-	-	-
Net investment hedges	-	-	(0.8)	-
Profit on sale of subsidiary	(0.1)	-	-	-
Depreciation and amortisation	9.0	8.8	0.4	0.1
Operating cash flows before movements in working capital	23.2	25.0	2.7	1.1
Decrease/(increase) in inventory	1.1	(1.1)	-	-
Decrease/(increase) in trade and other receivables	8.6	3.0	(0.6)	0.2
Decrease in inter company balances	-	-	5.4	10.7
(Decrease)/increase in payables	(15.6)	4.6	2.7	(0.6)
Increase in provisions	-	0.3	-	-
Pension payments in excess of pension costs	(2.1)	(2.5)	(2.1)	(2.5)
<b>Cash generated by operations</b>	<b>15.2</b>	<b>29.3</b>	<b>8.1</b>	<b>8.9</b>

## 31 Operating leases

By date of commitments	2009	2008
Group	£m	£m
Total commitments under non-cancellable operating leases expiring:		
Within one year	2.5	3.4
Between one and five years	8.9	7.3
After five years	15.6	16.5
	<b>27.0</b>	<b>27.2</b>
By nature of commitments	2009	2008
Group	£m	£m
Total commitments under non-cancellable operating leases:		
Land and buildings	26.3	26.6
Other	0.7	0.6
	<b>27.0</b>	<b>27.2</b>

## 32 Contingent liabilities

The Group is involved in various disputes or litigation in the normal course of business. Whilst the result of such disputes cannot be predicted with certainty, the directors of the Company believe that the ultimate resolution of these disputes will not have a material effect on the Group's financial position or results.

## 33 Related party transactions

	2009	2008
	£m	£m
The Company had the following transactions with Group undertakings:		
Sale of services	8.5	3.8
Finance income	1.3	1.0
Dividend income	5.1	5.0
The Company had the following year end balances with related parties:		
Amounts owed by Group undertakings	41.9	55.4
Amounts owed to Group undertakings	(5.3)	(13.3)

During the year the Company paid administration expenses of £0.4m (2008: £0.3m) on behalf of the Group's pension schemes.

The group's profit on disposal of Meda is disclosed in note 29. There were no other material related party transactions with Meda during the year.



## 34 Principal operating subsidiaries

The Company owns directly(\*), or indirectly, 100% of the issued share capital of the following principal operating subsidiaries which are included in the consolidated accounts:

Subsidiary	Principal activities	Country of incorporation
Ricardo UK Limited*	Technology and strategic consulting	Great Britain (and registered in England and Wales)
Ricardo Tarragon Limited*	Technology consulting	Great Britain (and registered in England and Wales)
Ricardo, Inc.*	Technology and strategic consulting	USA
Ricardo Deutschland GmbH	Technology consulting and exhausts manufacturing	Germany
Ricardo Strategic Consulting GmbH	Strategic consulting	Germany
Ricardo Prague S.R.O.	Technology consulting	Czech Republic
Ricardo Japan K.K.*	Business development	Japan
Ricardo Shanghai Company Limited*	Technology and strategic consulting	China
Ricardo India Private Limited*	Business development	India

# CORPORATE INFORMATION

**Ricardo plc** is incorporated in England and Wales, company number 222915, and domiciled in the United Kingdom

**Group General Counsel and Company Secretary**  
Patricia Ryan

**Registered Office**  
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**Auditors**  
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**Stockbrokers**  
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A pdf version of this Report and Accounts can be downloaded from the Investors page of our website.

## Key Dates

Final Dividend Record Date	30 October 2009
Annual General Meeting	19 November 2009
Final Dividend Payment Date	27 November 2009

## Shareholder Services

Capita Registrars provide a share portal service, which allows shareholders to access a variety of services online, including viewing shareholdings, buying and selling shares online, registering change of address details and bank mandates to have dividends paid directly into your bank account. Any shareholder who wishes to register with Capita to take advantage of this service should visit [www.capitaregistrars.com/shareholders](http://www.capitaregistrars.com/shareholders).

## Shareholder enquiries

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## Financial Advisers

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