Ricardo plc

Annual Report & Accounts 2012

Delivering Value Through Innovation & Technology

What we do

Delivering:

- World class engineering and consulting development from concept to production, with prototype and niche manufacture

Innovation:

- Better, more effective products, processes, services and technologies that are feasible and delivered to production

Value:

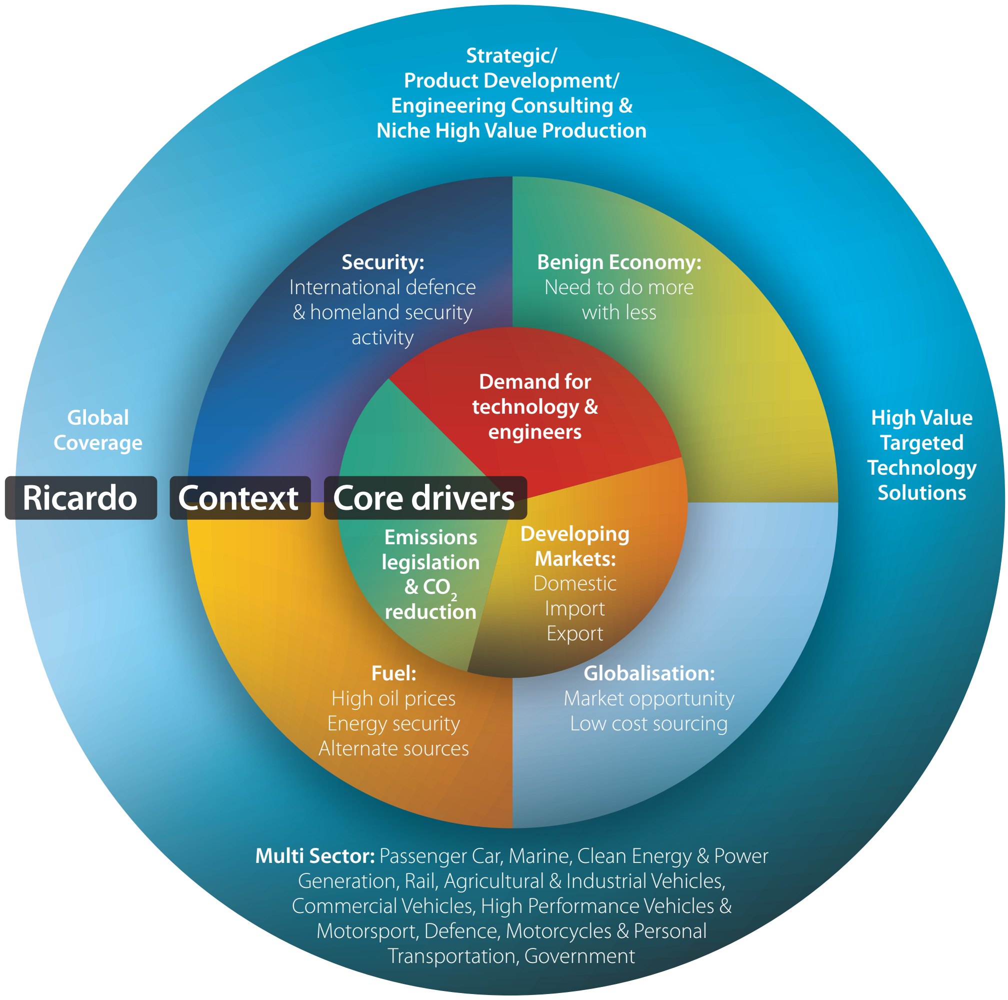
- Compressed timescales, on-budget and to specification with IP to enhance efficiency and minimise lifecycle cost. Outstanding people committed to client satisfaction and knowledge transfer through flexible business relationships

Technology:

- World class R&D dedicated to the efficient use of resources and a sustainable future

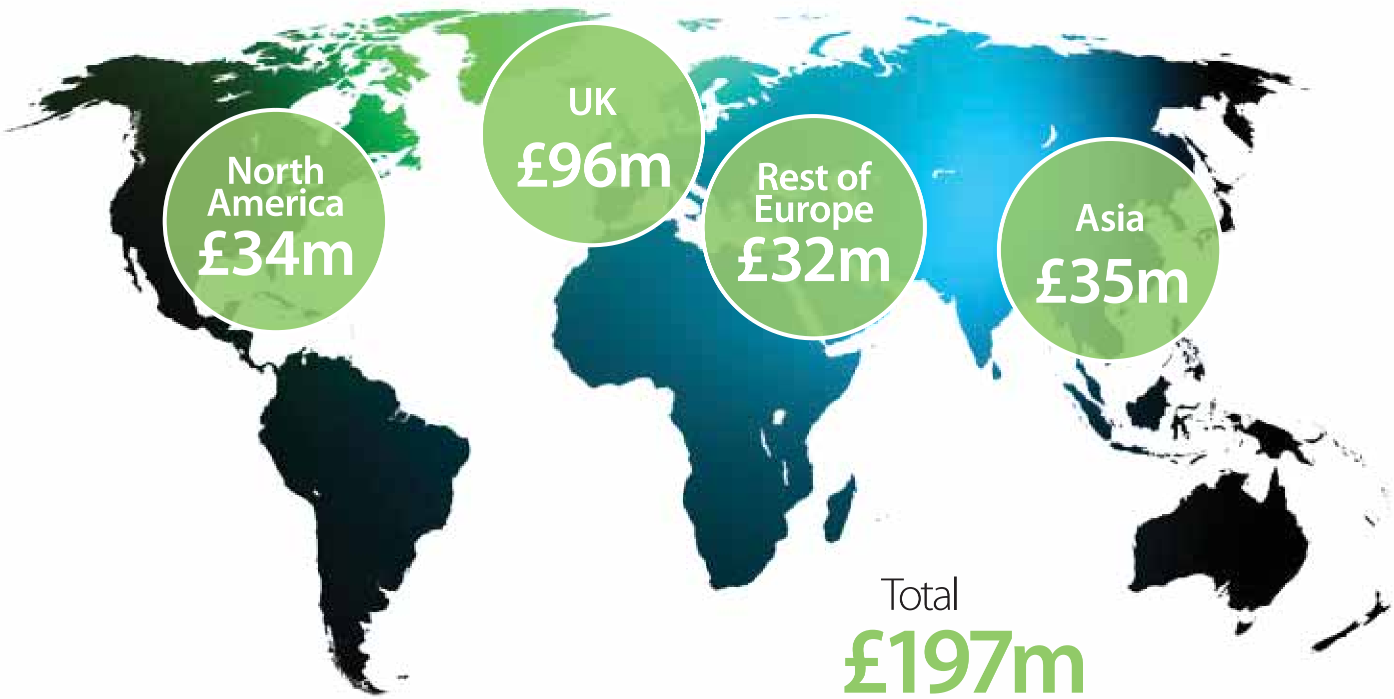
How we deliver

Focusing on our core drivers and acknowledging the global context in which we operate, our 'Market Sector' approach provides domain expertise and ensures relevance to the end client. Our 'Product Groups' provide the deep content technology and delivery via world class global engineering teams



Where we are

Revenue by customer location



What we believe in

Our values drive us forward as an organisation and bind us together as a community:

Respect

- Treating all others as we would like to be treated
- Being prepared to listen with an open mind and having the courage to change our position
- Accepting that the views, ideas and values of our clients, colleagues and other stakeholders are as important as our own

Integrity

- Being honest, ethical and above reproach with each other and with our stakeholders in all our business dealings
- Delivering on commitments as the foundation for building trusting relationships
- Achieving our individual and collective goals in a way that makes us proud

Creativity & Innovation

- Creating the environment that encourages each of us to ask the "what if?" question
- Making investment in our people and business to realise the most from our creative ideas
- Having the courage and determination to bring new ideas to reality

Passion

- Having a relentless desire individually and collectively to be the best in our business
- Where good enough is never good enough
- Celebrating individual and team success
- Being excited about who we are and what we do

Highlights for continuing operations

Revenue increased

£197.4m ↑

(year ended 30 June 2011: £196.5m)

Profit before tax up 14%

£17.6m ↑

(year ended 30 June 2011: £15.4m)

Net funds of

£7.9m ↑

(30 June 2011: £1.5m)

Basic earnings per share down 2%

29.3p ↓

(year ended 30 June 2011: 30.0p)

Dividends up 8%

12.4p ↑

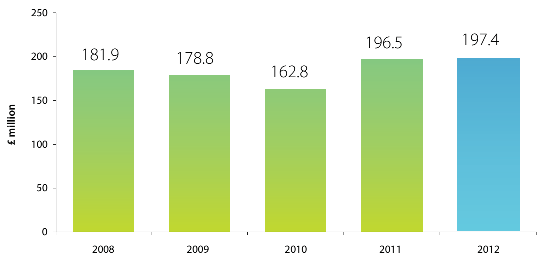
(year ended 30 June 2011: 11.5p)

Strong order book

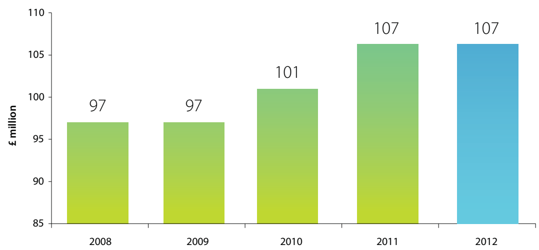
£107m =

(30 June 2011: £107m)

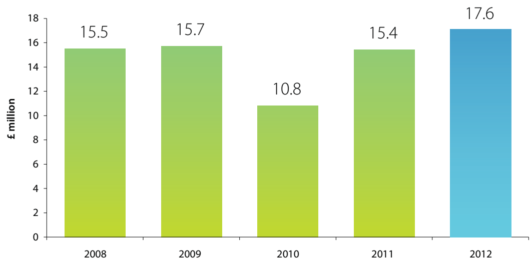
Revenue – continuing operations



Order book



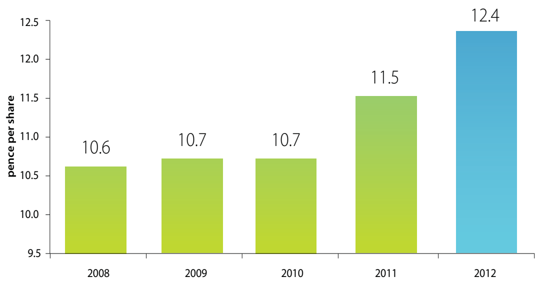
Profit before tax – continuing operations



Earnings per share – continuing operations

Net funds

Dividends per share (paid and proposed)



Chairman's statement

A year of operational and strategic progress

Performance

Over the past year the global economic backdrop has remained challenging with only a few areas of the world demonstrating good levels of sustainable growth. Despite this, the Ricardo strategy to diversify and broaden its business without moving beyond its core competence has again delivered a solid performance. Profit before tax grew by 14% to £17.6m (2011: £15.4m) with operating profit from continuing operations of £18.6m (2011: £18.0m). The Group continued to generate strong cash flows, with net funds increasing to £7.9m (2011: £1.5m). A strong closing order book was maintained at £107m (2011: £107m). Building on the prior year, business performance has therefore demonstrated a return to pre-recessionary levels following the global economic downturn.

The order intake continues to be well balanced by region, sector, customer and product, ensuring risk mitigation and a platform for growth. Our core automotive market has benefited from a good geographical balance and the newer sectors such as rail, marine and clean energy have added good additional levels of business. Our multi-year engineering and assembly programmes for high profile clients such as the UK Ministry of Defence (UK MOD), McLaren and Jaguar Land Rover have provided not only increased visibility but have enhanced the Brand globally.

The geographical and market sector-specific influences on the demand for our products and services have meant that performance has been variable across the Group with uneven demand. Our UK operations have benefited from the assembly and associated engineering demands related to the production of the Foxhound vehicle for the UK MOD with deliveries of the first batch well underway and vehicles supporting activities in Afghanistan. Our engine assembly facility continues to deliver engines for the McLaren super car and we continue our multi-year role as strategic supplier to Jaguar Land Rover, particularly in supporting this leading marque's growth in overseas markets.

The Asian region is experiencing higher rates of economic growth than other global markets and we continue to benefit from and invest in this region. In Japan we have seen increased business and in other fast-developing Asian regions the desire for technology has driven activity. In the year we have worked on programmes for Chinese, Korean, Indian, Malaysian and Japanese clients, in sectors ranging from passenger car, off-highway through to rail. We are increasing our local engineering presence in Asia to support these programmes.

Business conditions in Germany and mainland Europe have been difficult, with projects continuing to be adversely affected by the uncertainty within the Eurozone. We have new orders from key clients in Germany but business has been generally subdued. The US business experienced a slow start to the year and remained relatively flat throughout, until strong defence sector order intake late in the year. Our strategic consulting business has faced tough market conditions, with softer demand for discretionary strategic services with the clear customer focus on operations consulting.

Faced with the challenge of varying demand by geography, our ability to balance workload across the Group by sharing resources and people is extremely important. The development of technology for energy efficiency improvement, emissions reduction and new energy sources also solves many of the key challenges faced across the world by our clients. We continue to invest in these technologies and exploit the solutions developed in one region or sector to the benefit of clients in other regions and sectors. However we do respect the very individual needs of different markets and thus strive for the optimal balance of global and local solutions. We continue to invest in the tools and processes to make this possible including the roll out of our new SAP-based ERP system across many of our business units to ensure consistency of operation.

Employees

Our employees are crucial to the success of Ricardo and their continued energy, enthusiasm, innovation and commitment is of tremendous value. I would like to express my sincere thanks, together with those of the Board, to them all.

Diversity

Ricardo has for many years sought a diversity which reflects the nature of the Company and its objectives. Diversity in all its aspects, including gender diversity, continues to be important for the Company.

Dividend

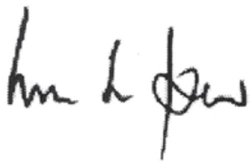
We are recommending a final dividend of 8.7p per ordinary share to deliver a total dividend of 12.4p, up by 8% on prior year. This reflects the Board's confidence in the prospects for the Company, the client relationships, the technology portfolio, the team and the positioning of the Company in the markets in which it operates.

Board Changes

There have been no changes to the Board during the year. The Nominations Committee regularly reviews the composition of the Board and will continue to do so.

The Future

While the economic outlook remains uncertain across many international markets, our strategy of diversification around our core competences – which has served Ricardo extremely well in recent years – remains central to our continued success. Crucial too have been our ability to attract, develop and retain the very best people, our understanding of the global market and the development of technology to meet future needs. On this solid base, and using our commercial agility, Ricardo's aim remains to maximise the value of our products and services to customers – and the return to our shareholders – regardless of the speed of recovery of individual markets.



Michael Harper

“Foxhound’s arrival in Afghanistan is great news for our soldiers. This Government has spent £270m on 300 of these hi-tech, British-built vehicles to help keep our troops properly protected. Our servicemen and women deserve the best protection we can get them.”

UK Defence Secretary Philip Hammond

Business review

The global market

An unsettled but dynamic outlook with opportunities for those with innovative vision

> *"Increasing fuel costs and fiscal policy drivers for better fuel economy are likely to significantly stimulate market demand for the type of efficient and clean technologies for which Ricardo has long been known"*
>
> **Dave Shemmans**, Chief Executive Officer

Four years since the collapse of Lehman Brothers marked the start of the widespread downturn of Western markets, the process of extremely slow and faltering economic recovery across the US and Europe seems to have become something of a new constant, at least in the medium-term outlook. Uncertainty continues to affect countries in North Africa and the Middle East; this unpredictability ranges from the emerging political settlement in Egypt and continued tensions over Iranian nuclear policy to civil war in Syria.

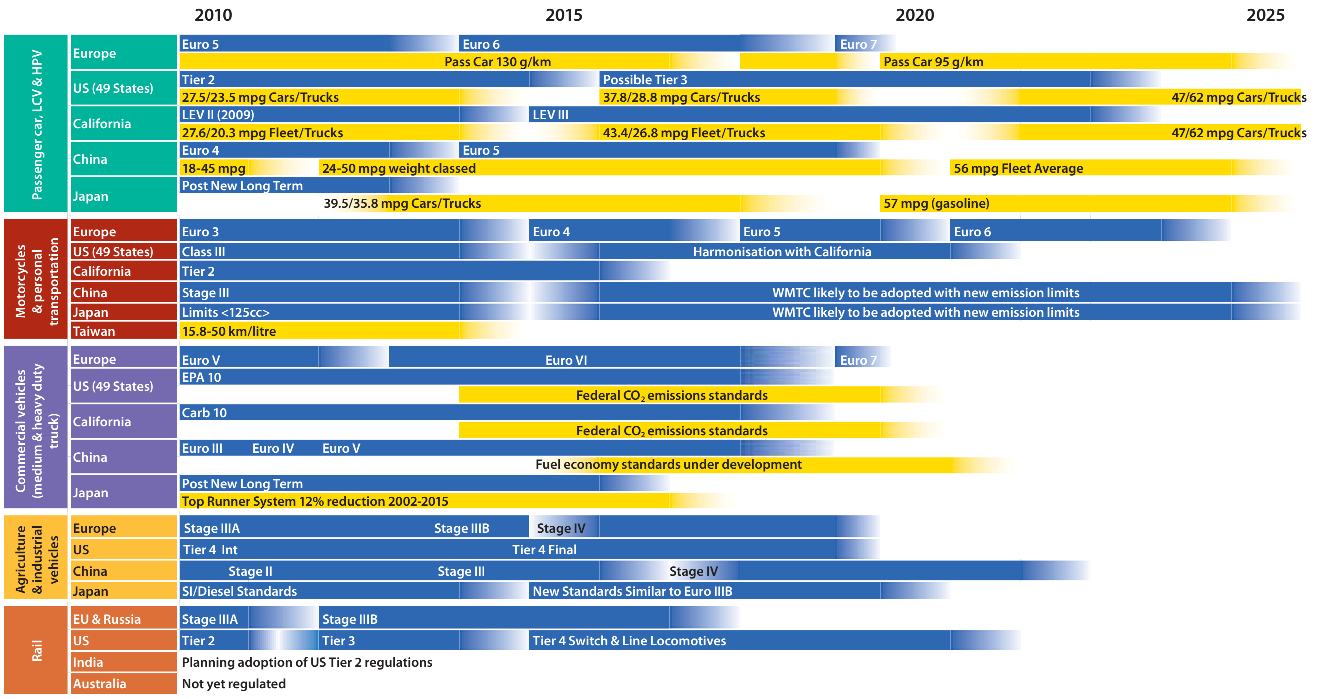
While growth continues in many of the developing markets of the Asia-Pacific region, most notably China, this growth is falling short of expectations, particularly local expectations. Economic uncertainty is perhaps at its most profound in the Eurozone, with many of the major economies already into double-dip recession. Governments, industries and far-sighted companies must therefore position themselves to be both resilient to potential threats and to be flexible, agile and innovative to make the best from the commercial opportunities that arise.

Within Ricardo's core automotive markets a mixed picture presents itself, a picture that reflects this extremely varied international economic context. In the US, passenger car and light truck sales have recovered modestly and profitability is returning, with significant proportions of the emergency government loans being repaid. The decision by Fiat to raise its stake in Chrysler can also be taken as a sign of increasing confidence. A similar picture is apparent in Europe, with automotive market recovery as yet not so affected by the marginal double-dip recession in the UK and the more profound downturn in some of the peripheral countries of the Eurozone. Here in Europe a more significant market development has been the comparatively buoyant nature of business for some of the luxury sector represented by the leading German brands as well as Tata-owned Jaguar Land Rover in the UK, which earlier this year announced major expansion plans based largely on its strong export sales to China.

The increasing international consumer preference for premium automotive products, as evidenced by the current fortunes of the European luxury automotive brands, is also signposting a potential emerging demand for 'halo' products from the mass-market automakers. The requirement to deliver premium performance and quality at low to medium production volumes is one that the product development and manufacturing organisations of such large-scale automakers are not necessarily well placed to deliver. An increasing demand for engineering support and specialist high performance manufacturing is therefore considered likely.

In the developing automotive markets of India, China and other Asia-Pacific region countries, significant growth in demand for

Emissions legislation by sector

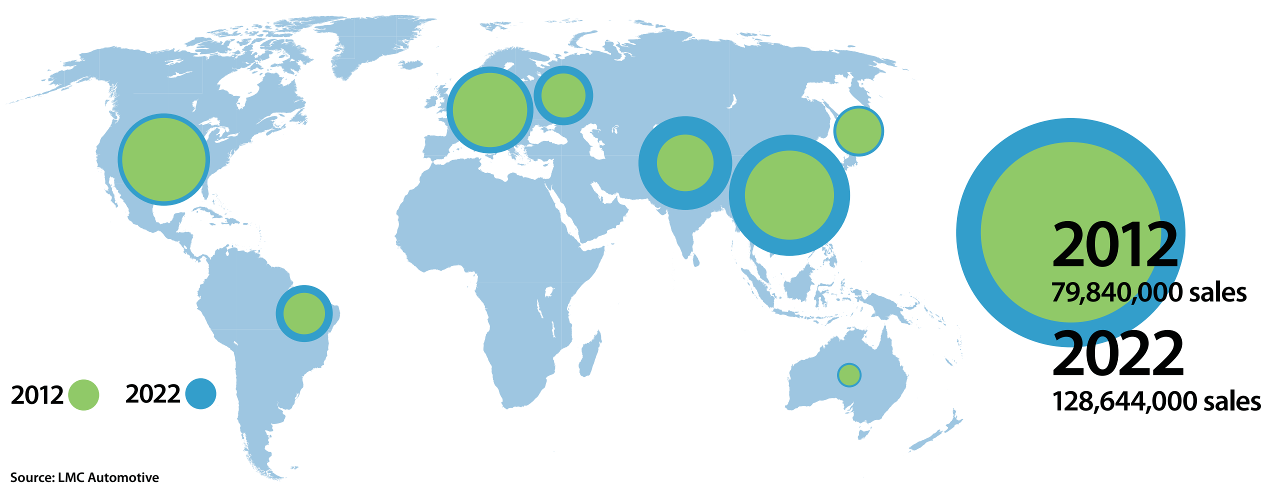


engineering support has been apparent from many domestic automakers and Tier 1 suppliers harbouring aspirations to expand in both their domestic and in international export markets. In China, in particular, a very long-term strategic vision is apparent on the part of both national and regional governments regarding the development of domestic industries, both state owned and privately held. It is a development that holds significant opportunity for companies such as Ricardo that are able to understand this very different business culture and that can both respect and respond to its needs.

In qualitative terms, all international automotive markets continue to be strongly influenced by increasingly strict emissions regulations, both in terms of noxious pollutants and carbon dioxide. While Europe has led the way in terms of the latter, expressed in terms of fleet averaged limits of carbon dioxide emissions per kilometre – likely to be confirmed at 95 grams for 2020 – the US Environmental Protection Agency and Department of

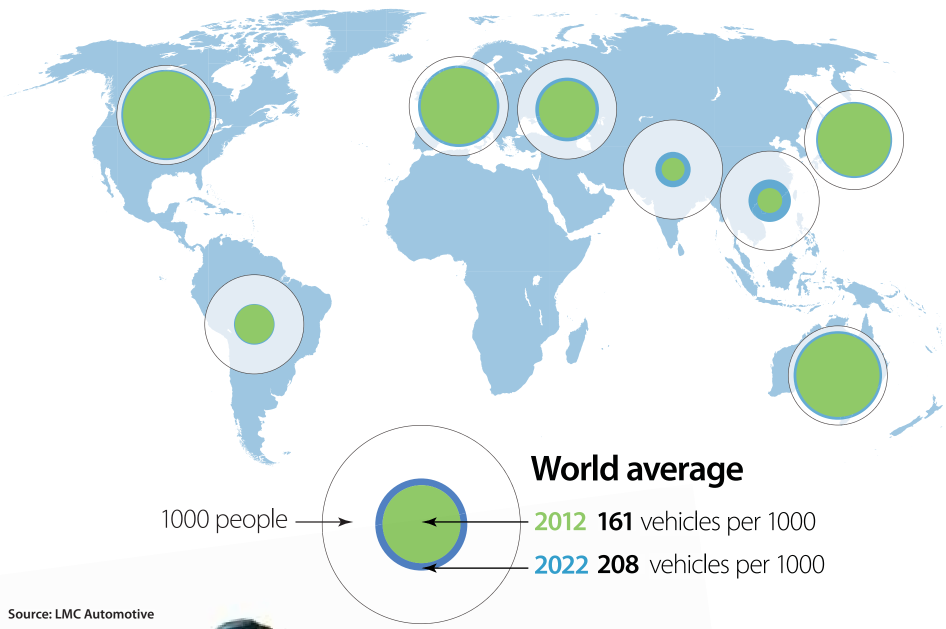
Emissions legislation (above) is becoming increasingly strict across all sectors and is likely to have the impact of significantly stimulating market demand for the type of clean and efficient technologies for which Ricardo has long been known.

World light vehicle sales forecasts



Source: LMC Automotive

World Personal Vehicle Density Forecasts
(Personal Vehicles Per '000 Driving Population)



Source: LMC Automotive

Ricardo GmbH partnered BMW to develop the highly acclaimed 6 cylinder engine of the 1600 GT and GTL motorcycles

Transport have proposed aggressive national fuel economy standards for passenger cars and light trucks for introduction between 2017 and 2025.

At the consumer level too, the continuation of oil prices at medium to high levels is spurring an increased taste for more fuel-efficient products. While recent history shows us that oil prices are extremely hard to predict beyond the very short-term and are subject to wide fluctuation, the implementation of tougher fuel economy and CO_2 regulations will help to protect market demand in the event that prices fall as renewed international recession acts to suppress industrial demand. Moreover, as the governments of Western nations struggle to reduce their budget deficits, policy is more likely to tilt in the direction of raising rather than reducing the taxation element of consumer fuel prices, thus cushioning at least part of any fall and maintaining demand for more fuel efficient vehicles.

As ever, when combined with an increasing financial cost of fuel to the consumer, such environmental and fiscal policy drivers for better fuel economy and reduced emissions are likely to have the impact of significantly stimulating market demand for the type of efficient and clean technologies for which Ricardo has long been known. From electric vehicle and hybrid product programmes, advanced clean combustion systems and aggressively downsized engines, to vehicle light-weighting and the incorporation of energy storage systems such as Ricardo Kinergy, Ricardo has a wealth of technologies, products and services ready to meet this demand whenever and wherever it occurs.

In terms of personal transportation, the market for two-wheelers continues to expand both in the premium sector, in particular within Europe and North America, and in value products within the Asian and Asia-Pacific markets. Within the premium sector, performance, brand characteristics and quality are paramount, whereas total cost of ownership tends to take precedence within the value sector. Both, as with all road vehicles, are increasingly subject to emissions regulations.

While the commercial vehicle sector has also long been the subject of aggressive emissions reduction regulations, the requirement for the off-highway sector to achieve US Tier 4 Final and EU Stage IV regulations in 2014 continues to be a major driver for new product development on both sides of the Atlantic, as well as for machinery intended for sale in these territories. Beyond these immediate imperatives, fuel efficiency and total cost of ownership continue to be the principal determinants of competition as owners and operators seek to extract the maximum value both from their capital equipment investment and the on-going revenue cost of fuel. This includes the rapidly developing distributed power systems market, where margins are predicated on the fuel cost of every kilowatt hour of electricity generated. On the railways too, where the equipment life of diesel propulsion systems can vastly exceed that of their heavy road-going truck equivalents, the potential for retrofit technology packages that can deliver improved fuel efficiency and reduced operator costs is also of significant interest alongside more extensive technology solutions for new-build rolling stock.

The marine sector is also now subject to increasingly strict regulations on fuels and emissions as mandated by the International Maritime Organization, both in terms of global requirements and more restrictive requirements set out for individual emissions control areas. As these regulations come into force, the market for clean technology, both in terms of remedial measures for existing fleets and for optimal solutions for new vessels, is set to further increase.

In the defence sector, though NATO governments are in the process of drawing down the level of combat forces stationed in Afghanistan, the mission is far from complete and there is an on-going requirement for next-generation highly agile, fuel efficient, robust and reliable vehicles offering the very highest standards of crew protection. Both this mission and the previous theatre of operations in Iraq have served to demonstrate the need for such new vehicle capabilities in response to the practical realities of asymmetric warfare that must now be considered a real and present threat. Moreover, in the new era of austerity being followed by many Western governments, defence planners need to secure the maximum value from their capital investments through smart and innovative procurement. This is leading to an increased customer market requirement to achieve contemporary standards of performance and crew protection through the redesign, refurbishment and renewal of existing defence vehicle fleets in parallel with new product developments.

In the renewable energy sector, market demand is also increasing significantly, especially in relation to offshore developments. According to industry figures, the UK currently leads the world in offshore wind energy with as much capacity currently already installed as the rest of the world put together, with 16 offshore wind farms representing a capacity of 1,858 MW already operational. With a further 2,359 MW under construction, and more still in planning, the sector is expected to increase between five and six-fold over the coming years. In addition to offshore wind energy, UK waters are also the focus of many wave and tidal stream projects. The engineering development needs arising from this unprecedented expansion represents a potentially very significant market demand both for programme support and for innovative technology of the type that Ricardo is well placed to provide.

In summary, over the past year the development of the global market has once again provided a robust validation of our strategy, both medium and long-term. In the same year that diesel fumes were categorised as carcinogenic by the World Health Organization, for example, Ricardo was able to celebrate eighty years in the business of clean diesel innovation. Technologies such as our own twin vortex combustion system enable extremely low engine-out emissions, and, as applied by JCB, result in a power plant that can be claimed as the world's cleanest off-highway engine. In this and in many other highly lucrative sectors Ricardo continues to secure its position. With recovery faltering in the US, the UK economy in double-dip recession and the very significant risks faced by the Eurozone, Ricardo remains an extremely agile and innovative company, forward looking and technologically astute, and able to capitalise upon the commercial opportunities offered from a highly dynamic international market place.

The Foxhound – manufactured by Ricardo at Shoreham, UK – is now on deployment with British forces in Afghanistan (above); the commercial vehicle sector is subject to aggressive emissions reduction regulations (below)

Strategy

The principles, philosophy, values and route map for commercial success

Maintaining a commercial lead across multiple industries that span numerous functional and product specialisms – and over an expanding geographical base – requires a keen awareness of individual market needs, combined with a strategic discipline that facilitates corporate agility and focus. Ricardo achieves this extremely effectively through a strategic process built around four cornerstone principles that guide the Group's business model. These are augmented by an integrated framework of key operating themes in a strategic management process, a process which is subject to periodic review. While the core elements of this process have been described in previous years' reports, we summarise them again here as they are crucial to understanding the strategic management of the Group and its ability to maintain a strong order book, cash flow and balance sheet while providing a resilient and sustainable profit and dividend stream for our investors.

The four cornerstones on which Ricardo's strategy is based may be summarised as:

1. The avoidance of business cyclicality and external dependency, whether geographic, technical, industry sector or customer related
2. The promotion of sustainable growth in a targeted manner through the careful analysis and selection of key sectors, geographies, products and customers bearing in mind prevailing or impending legislation that will define the parameters of technological development and implementation
3. The provision of in-demand services offering a high value-added content and bringing maximum benefit to all customers, linked to enduring drivers such as legislation and energy efficiency
4. The maintenance of an optimised cost base through carefully co-ordinated global operations which maximise resource management and deployment.

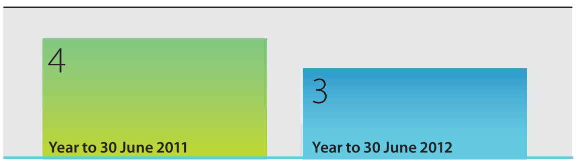
The strategy defined by the four cornerstones is delivered through the Group's integrated framework of key operating themes. At the top level these themes articulate the overall operational strategy of the business, and it is within them that various corporate initiatives are developed, implemented and measured.

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

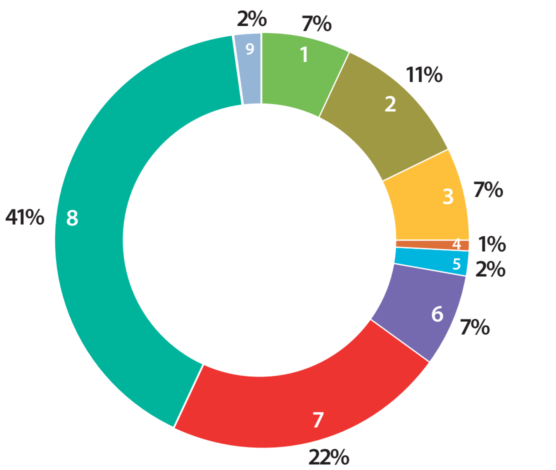
The Group's strategy and subsequent business plans are reviewed, adapted and measured annually by the Group Board via key performance indicators and strategy review events, and have been thoroughly

KPI for sector dependency

Number of sectors exceeding 10% of revenue
targeting a good balance across several sectors

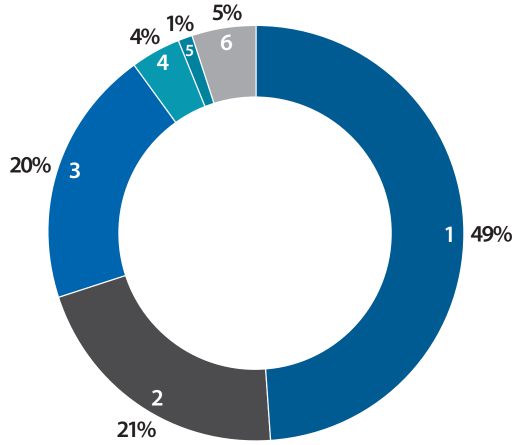


Order intake by Key Sector
Year ended 30 June 2012



1. Clean Energy & Power Generation
2. Defence
3. Agriculture & Industrial Vehicles
4. Rail
5. Marine
6. Commercial Vehicles
7. High Performance Vehicles & Motorsport - Motorcycles and Personal Transportation
8. Passenger Car
9. Government

Order intake by Product
Year ended 30 June 2012



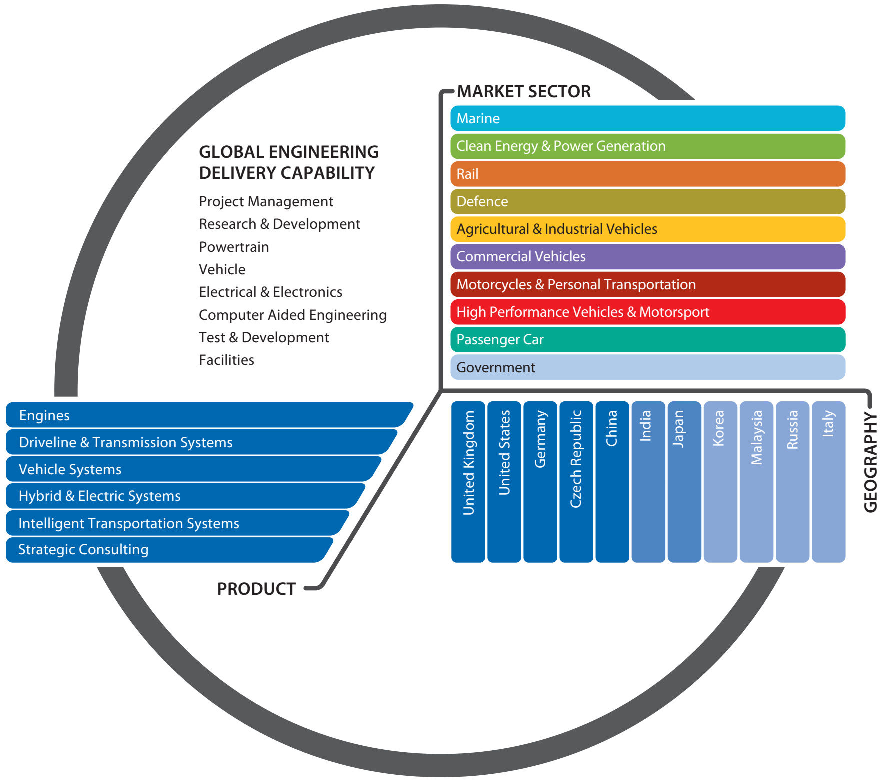
1. Engines
2. Driveline and Transmission Systems
3. Vehicle Systems
4. Hybrid & Electric Systems
5. Intelligent Transportation Systems
6. Strategic Consulting

documented in previous annual reports. To this end, this report will only summarise the latest strategic developments to our business.

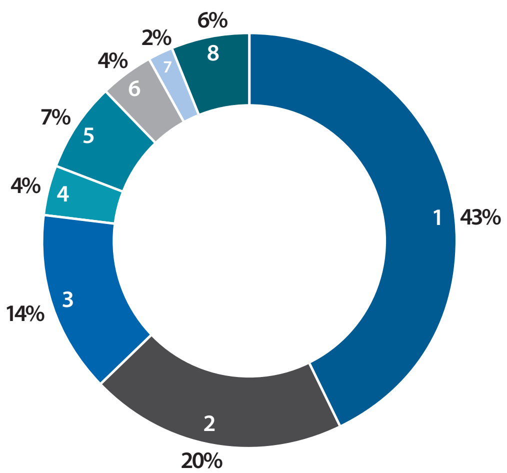
Global

Under the 'Global' theme we have expanded our operations in the Asia-Pacific region with the formation of Ricardo Asia. This new Ricardo geographical division is based on our very successful existing operations in China and is centred on our facility in Shanghai, but carries a remit to expand the reach of our business across the nations of the Asia-Pacific region. We have already been successful in gaining new business in Malaysia and are increasing our market penetration in both China and Korea. It is our firm expectation that this initiative will provide significant future opportunity for Ricardo in extending its reach within nations that are economically fast growing.

Our strategy of diversification in adjacent market sectors is also bearing the fruit of tangible commercial success. In renewable energy we have secured contracts with a number of leading players in the offshore wind energy sector in Europe, including a major project with David Brown Gear Systems to support its collaboration with Samsung Heavy Industries on the design and manufacture of an innovative 7 MW gearbox for a new range of high capacity offshore wind turbines. In the rail sector we have been able to announce our collaboration with Scomi Rail of Malaysia, providing support through our driveline design and development expertise to complement Scomi's capabilities in the design and manufacturing of monorails, light rail vehicles and metro systems. In the UK we have been proud to announce contracts with rail vehicle maintenance services provider LH Group to investigate the in-service upgrade potential of the power systems of diesel rail vehicles. At a

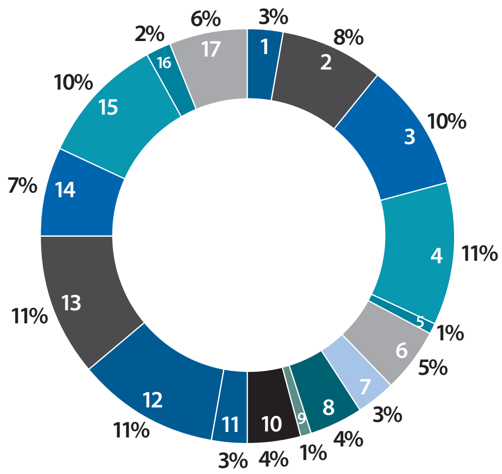


Order intake by Key Territory
Year ended 30 June 2012



1. UK
2. US
3. Germany
4. Rest of Europe
5. Japan
6. China
7. India
8. Rest of Asia

Order intake by Customer
Year ended 30 June 2012



1. Global Key Client 1
2. Global Key Client 2
3. Global Key Client 3
4. Key Client 1
5. Key Client 2
6. Key Client 3
7. Key Client 4
8. Key Client 5
9. Key Client 6
10. Key Client 7
11. Key Client 8
12. Rest of UK
13. Rest of Asia
14. Rest of Europe
15. Rest of US
16. UK Defence
17. US Defence

In 2011 Ricardo was selected by Jaguar Land Rover as one of its key strategic suppliers, as the UK's premium automaker embarks upon ambitious plans to develop new models and drive volume growth

more strategic level, Ricardo was contracted by the UK Government's Department for Transport to carry out a study to research the means by which improvements in diesel fuel efficiency could be realised within the rail network of mainland Great Britain. In defence, our collaboration with General Dynamics Land Systems – Force Protection, has resulted in a further significant order for the manufacture of an additional one hundred Foxhound vehicles for the British Army. This highly effective and versatile crew protected vehicle, originally designed as the Ocelot in collaboration with Ricardo, is already being deployed on active service operations in Afghanistan to great acclaim from the Ministry of Defence and, most importantly of all, from the service men and women who use it and whose lives it protects.

This neighbouring market diversification, guided by our 'Global' strategic theme, is thus successfully providing Ricardo with a path to growth, while bringing economies of scale to our internal R&D efforts and protecting the Group from the risks of excessive exposure to any single industry, customer or region.

Premium Brand

A premium brand position is extremely important to Ricardo as the Group seeks to grow in all three dimensions of its business model of product, market and global reach. The fact that McLaren very publicly partnered with Ricardo in the design of the M838T V8 engine that powers its new MP4-12C supercar,

and placed its trust in Ricardo to manufacture the production engines for this extreme premium product is testimony to the premium nature of our brand. Less than a year since its formal launch, our impressive facility has delivered over 1,500 engines to McLaren – a further validation of our brand and all that it stands for. Ricardo also continues to build the full transmission and driveline system for the Bugatti Veyron, an exclusive supercar that has remained much in demand throughout the current troubled economic times.

Our ability to enter new markets and to carry this reputation for innovation, service and quality with us is also apparent in our work for IAI on its Taxibot semi-autonomous aircraft taxiing system. Partnering this leading international aerospace manufacturer throughout this process, we have helped IAI to create a product that stands to revolutionise the future of civil aviation, providing substantial fuel savings and very significant reductions in airport carbon dioxide emissions.

To these examples many other leading brand names can be added, including Jaguar Land Rover and BMW. Through our investments in marketing and PR we aim to be as effective as possible at informing all our stakeholders of the interesting and varied work of the Group. In addition to publicising the commercial work of the Group we aim to communicate the research and development efforts we are engaged in, providing thought leadership and contributing informed long-term vision to the market sectors in which we are engaged. In this way the Ricardo brand stands as a beacon for its customers, providing an assurance of the character and quality of its service, and of its foresight in terms of emerging and future market trends and needs.

World Class Technology and Products

To maintain our premium brand proposition within both our core markets and those into which we are successfully seeking growth through diversification, it is essential for Ricardo to have a portfolio of available technologies that it can translate into high value product innovation. Wherever possible we seek to share the costs and risks of research through collaboration with lead customers for a new technology or through externally funded, pre-competitive consortia. The quality and depth of insight of our technical vision is also evidenced in our work on technology road mapping, as an input to policy formation, for industry bodies and governments around the world. This foresight further underscores the direction and focus of our research efforts and the value that these return to our customers and investors.

While our technology portfolio extends across all the specialist product, industrial market sectors and global regions that we serve, there are many examples that transcend such boundaries to provide even greater opportunities for commercial return than would otherwise be possible. Conceived initially from

Ricardo is supporting the on-going development of IAI's Taxibot system (seen under test – top) which aims to dramatically reduce emissions and noise from taxiing aircraft; a new two-year production order has been placed for the Ricardo-designed DCT of the Bugatti Veyron (above)

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Manufacture of Foxhound vehicles

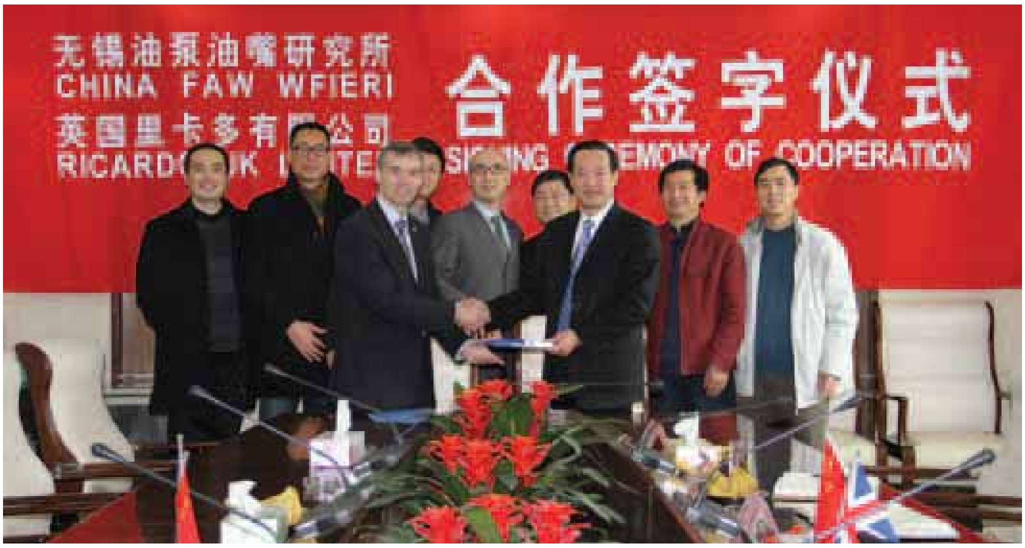
a requirement for motorsport, our Kinergy high-speed flywheel system shows potential for passenger car applications and is already being tested in prototype form on a medium-sized bus. In addition to this, its potential for application on railway rolling stock has also been recognised and we have recently announced a collaborative project with international train builder Bombardier and fluid power specialist Artemis Intelligent Power to explore its application on passenger rail vehicles.

In the automotive sector our work on vehicle electrification has seen us develop our own proprietary technology for electric vehicle battery management systems; this is already being deployed on customer product programmes. We are also combining our experience in this area in work with partners, including the Ford Motor Company, on our HyBoost project, to demonstrate a concept that we have termed intelligent electrification. This is based on a completely new type of powertrain architecture making use of technologies such as electric supercharging and turbo-compounding, a belt starter-generator to enable stop/start and regenerative braking, and super-capacitors and advanced lead-acid batteries for energy storage. By combining these highly cost-effective technologies that are already available or are close to market, Ricardo and its partners have broken through the existing barriers to engine downsizing and can now provide significant fuel savings without compromising performance.

"By combining highly cost-effective technologies that are already available or are close to market, Ricardo and its partners have broken through the existing barriers to engine downsizing and can now provide significant fuel savings without compromising performance"

World Class Infrastructure

To operate effectively as a global organisation it is essential that Ricardo functions on the basis of a standardised business system that can span its global operations. Ricardo has now effectively completed the roll-out of its SAP ERP system across all major trading divisions and the process has been completed extremely smoothly. The benefits of a single common business system are to enhance robustness and accessibility of relevant information to further drive business performance forward. Our highly skilled ERP users and support team are constantly looking at ways to enhance the value this new system can bring in a consulting environment, and this will continue to evolve over the coming years.



In addition Ricardo continues to commit capital funds to enhance our value-generating test and development facilities across the Group. In the last year Ricardo Germany has completed installation and commissioning of a state-of-the-art motorcycle chassis dynamometer, which supports our work in this sector and our German division as our global centre of excellence in motorcycle and small engine projects.

We have also recently opened a noise, vibration and harshness (NVH) test centre on the outskirts of Stuttgart to support passenger car and commercial vehicle clients, adding to the full turnkey capability already available. This facility enables us to test whole vehicles as well as separate powertrain systems: in particular it has recently been working to resolve the new challenges in achieving refined electric vehicle performance where the traditional combustion engine noise source has been completely removed. This necessitates an ability to measure much lower levels of noise than previously experienced and our team's performance has been highly acclaimed by our clients in this sector of the market.

Right Team, Right Culture

Ricardo's people are the Group's most important and valued asset. Our team underpins all that we do and is at the very core of our brand. We continue both to bring in the best and bring on the best through our internal talent management programme. This serves both to provide a sustainable business model for our existing businesses and also to supply a framework for our targeted sector diversifications and the expansion of our global reach. A major milestone in the past year was the formation of Ricardo Asia. This new strategic business entity is led by Gary Tan, who has a long and distinguished career encompassing senior leadership roles in the developing automotive markets of the Asia-Pacific region. The ability of Ricardo to attract the very best people for strategic roles, as well as to develop the highly valued skills and expertise within its existing team, is a key quality of Ricardo and is reinforced by the 'Right Team, Right Culture' strategic theme.

Ricardo signs co-operation agreement with China's Wuxi Fuel Injection Equipment Research Institute (top); acoustic test centre opened at Ricardo Germany (above)

KPI for client dependency

Number of clients generating revenue for Ricardo exceeding 10% of Group Revenue

targeting avoidance of over-dependency on a small number of clients

Ricardo driveline and transmission engineers on a visit to Mahindra, India

One Firm

The final element of the Ricardo strategic framework is our 'One Firm' theme. This focuses on delivering results beyond the sum of the Group's parts, as well as on maintaining our uncompromised standards for customers on a global basis.

> *"The quality and depth of insight of our technical vision is also evidenced in our work on technology road mapping to inform policy-making for industry bodies and governments around the world"*

It is essential to us that all of our customers can receive the same high standards of quality of service and delivery wherever they are located. In short, while we strive to provide expertise in all of the market sectors and specialist product areas in which we are active, and have a strong empathy with the national and corporate cultures of our customers, we must deliver our service through one firm and one Ricardo brand. At the operational level, we are able to add value for our customers and commercial returns to our investors through exploiting opportunities for sharing workload and expertise across the Group, in such a way that our resources are matched as effectively as possible with demand. This gives us operational effectiveness and efficiency through increased utilisation, timely deployment of the right resources and cross-sharing of technology.

To promote amongst our employees a shared value system and an understanding of what it means to be a member of the global Ricardo team, we actively encourage secondments and transfers where these can provide operational benefits to the Group as well as valuable career development opportunities to the individual. An example of this has been the launch this year of a global mentoring programme where recent graduates from across the organisation are paired to a more experienced staff member from another part of the Group. The strength of this cross-country pairing brings a wider perspective to both mentor and mentee that will over time increase the cross-cultural collaboration, mobility and global effectiveness of our organisation.

KPI for premium brand

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

Research & Development

Creating new opportunities through innovation

Regulation continues to be the key driver for new technologies in our core business areas. Although new targets for fuel efficiency and greenhouse gas reductions have attracted the most publicity, this has not been at the expense of air quality targets, effectively driving demand for new technologies across all combustion engines and associated systems. Ricardo has therefore focused on developing cost-effective solutions to meet new fuel efficiency regulations whilst also meeting the demands for cleaner air.

An important part of our research strategy is a very good understanding of the most likely timing and severity of new regulations. This enables us to define appropriate targets and potential solutions well in advance of our customers' needs. Ricardo continues to engage with government and regulatory agencies around the world, providing roadmaps and assessments of technology capabilities; this helps us to promote our strength in thought leadership. We are also actively engaged in developing collaborative programmes with our customers that attract R&D grants from government funding agencies. During the last year we have received funding from a range of agencies including the UK Technology Strategy Board, the European Commission and the Advanced Research Project Agency in the United States.

Engine downsizing

Whilst a great deal of publicity has been generated by electric vehicles, downsized advanced combustion engines and lower-carbon fuels are likely to provide the majority of reductions in greenhouse gas emissions for the next 10 to 20 years. When combined with varying levels of electrification, advanced combustion engines are likely to dominate the market for passenger cars and a range of on and off-road commercial vehicles during this period.

This year, we have successfully completed a research project that combines a downsized gasoline engine with what we term intelligent electrification, achieving a level of fuel efficiency that is competitive with much more expensive hybrid systems. The project, called HyBoost, combines a turbocharged 1-litre three-cylinder engine producing 140 hp with an electrically assisted boost system and a micro-hybrid energy recovery system. This combination, fitted to a donor Ford Focus vehicle, achieves the same level of performance as a conventional 2-litre variant but with drive cycle emissions of less than 99 g/km CO_2 or 66 mpg. The system engineering expertise we have developed for this demonstrator has proved exceptionally attractive to our customers and we expect to see a range of derivatives in production in the next five years.

The downsizing approach is equally applicable to high performance diesel

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

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The Syner-D project – a collaboration with Jaguar Land Rover, Valeo, SKF, Lontra and Shell – has targeted cost-effective innovations in a premium segment diesel vehicle, delivering a demonstrator offering approximately 30 per cent CO_2 reduction while meeting Euro 6 emissions with uncompromised driveability

engines and we have applied this approach to a premium vehicle. The programme target was to achieve the torque and driveability delivered by a current 3-litre diesel Jaguar XF vehicle but reduce CO_2 emissions by 30%. The project, named SynerD, embraces a range of cost-effective technologies, including the downsizing of the standard 3-litre V6 diesel to a 2.2 litre turbocharged and supercharged four-cylinder engine, with similar levels of performance. The lower internal losses of the smaller engine, combined with advanced thermal and aftertreatment systems, deliver a very cost-effective package. This approach directly targets the expressed need from our customers for cost-effective fuel efficiency solutions.

Next-generation combustion systems

The need for cost-effective fuel economy improvements is also driving further optimisation of gasoline engines. This year we completed a three year programme, in collaboration with Petronas, to design and develop a next-generation turbocharged spray-guided gasoline combustion system. This project has delivered some exceptionally good results, matching the efficiencies achievable with a best-in-class diesel engine but at significantly lower system cost. This has been an extensive programme based on a concept created by Ricardo coupled with a sophisticated optimisation process that we have also developed. It was necessary to optimise simultaneously over 40 independent variables in this combustion system, using our Design of Experiments (DoE) and objective optimisation suite. This involved over 3,000 hours of engine testing and over 15,000 individual test points to define optimum settings. The net result has been a very successful conclusion leading to direct customer projects to apply our combustion system.

Flywheel energy storage

Energy recovery during vehicle deceleration or in other applications such as off-road machinery or lifting is a key focus area to improve efficiency. The conventional approach to achieve this is through electric machines, working as a motor or generator and an electrical energy store such as a battery or capacitor. Another approach is to recover energy via a mechanical variable speed transmission into a high-speed flywheel. Ricardo has been developing an innovative high-speed flywheel energy storage system with a non-contacting magnetic transmission that allows the flywheel to be permanently sealed in a vacuum to minimise heating and drag losses. In the year we achieved a breakthrough in the efficiency of the magnetic gear, which now offers around half of the loss associated with a conventional mechanical gear operating at the same speed.

Battery management

A common need for all hybrid, plug-in hybrid and battery electric systems is a battery management system that maximises the performance, use and life of the battery. For this reason we have invested in the development of the Ricardo Universal Battery Management System (RU-BMS) to provide real-time electrical and thermal management of the cells that comprise electric and hybrid vehicle battery packs. RU-BMS manages individual cell parameters and performance while maintaining cells within safe and warranty-bounded operating limits and provides battery status information to the vehicle in terms of available capacity, power, battery health and a host of diagnostic capabilities.

The system is adaptable to customer specific requirements and is protected for future applications with its scalable architecture and adaptability to different cell chemistries. The system is especially suited to the demands of niche high-performance automotive applications.

These projects are just a handful of the highlights of our R&D programme. Through these efforts and the many other research activities we undertake, our aim is to provide value-enhancing solutions to our customers in all of the market sectors that we serve, ensuring that their future products are cleaner and more energy efficient than ever before. In doing so, we are also providing the crucial feedstock of future Ricardo profitability.

Performance review

Progress on all fronts

A solid operating performance resulted in further profit growth in the year. Our strategic client partnerships continue to flourish and the broadening of our sectors into neighbouring markets is starting to show growth, with particular interest forming in the areas of rail and clean energy. Our investment in Asia with the formation of a new leadership and business development team is expected to capture potential from one of the current key global growth areas. This provides further resilience against a currently challenging economic backdrop. We are pleased to have maintained a strong balance sheet with another year of strong cash inflow, closing with a positive net cash balance.

The closing order book remains strong at £107m (2011: £107m) and continues to contain good diversification across the traditional automotive and new market sectors. Revenue from continuing operations was £197.4m for the financial year to 30 June 2012, compared to £196.5m in the prior year. Gross profit improved by £8.8m to £82.3m in the year largely due to improved project delivery in the UK Technical Consulting division. Increases in administration expenses include costs to strengthen the business development teams as well as bonus and award incentives for a wider group of employees as part of our talent retention programme. In addition, we have carried out planned maintenance to some facilities. Operating profit grew by 3% to £18.6m (2011: £18.0m), resulting in an improved operating margin of 9.4% (2011: 9.2%).

After financing costs, profit before tax from continuing operations grew by 14% to £17.6m compared to £15.4m in the prior year. The tax charge for the year was £2.5m (2011: £nil).

The Group profit for the year was £15.1m compared to £15.2m in the prior year. The prior year included a loss of £0.2m in relation to discontinued activities.

Strong working capital management led to a closing positive net funds balance of £7.9m (2011: £1.5m). We continued to invest in R&D. The net expenditure after deducting government grant income was £6.1m (2011: £7.8m).

Technical Consulting results

The Technical Consulting results now include the strategic consulting business which was previously presented separately. The combined reporting better reflects the size of the business and is consistent with how the business is reviewed internally by the Chief Executive Officer. The 2011 segmental analysis has been restated for this change.

We continue to manage our Technical Consulting business as a global portfolio. Technical Consulting revenues were £149.6m compared to £155.6m in the prior year, mainly as a result of the challenging US environment, whilst operating profit improved to £14.7m from £14.3m in the prior year. The 2012 operating

"Operating margin improvements have been achieved through a strong mix of orders and improved project delivery and efficiency"

Paula Bell, Group Finance Director

KPI for liquidity

Net funds (£m)

margin improved to 9.8% (2011: 9.2%). Operating margin improvements have been achieved through a strong mix of orders and improved project delivery and efficiency primarily in the UK division. The US business experienced a challenging year; however, a large defence order received in June has boosted the year end order book providing improved momentum as we start the new financial year. Market challenges remain in Germany where we have experienced tight controls around client external spend, delays in order placement and reduced levels of test bed activity. During the year, we agreed the sale and leaseback of our offices in Germany.

Performance Products results

The Performance Products business produced a strong performance in the year, with revenues of £47.8m compared to £40.9m in 2011. Operating profit increased to £5.8m (2011: £5.2m), with a margin of 12.1% (2011: 12.7%). Performance was driven by on-going motorsport activity, the production of supercar engines and the production and delivery of defence vehicles.

Discontinued operations

In July 2010 an agreement was reached to sell the non-core German exhaust business to J. Eberspächer GmbH & Co. KG. The current year results have not been affected by this transaction, whereas the prior year included a charge of £0.2m.

Net finance costs

There has been a net finance cost in the year of £1.0m, compared to £2.6m in 2011. The charge includes the net finance charge for the defined benefit pension scheme of £0.9m (2011: £1.9m). The prior year charge includes interest charges resulting from the close-out of a cross-currency interest rate swap of £0.2m.

Tax

The tax charge for the year was £2.5m (2011: £nil). We continue to benefit from R&D tax credits in both the UK and the US and following a review in the prior year a further £1.6m of R&D tax credits were recognised in 2011.

Earnings per share

The growth in profit before tax was offset by the tax charge at 14% resulting in basic earnings per share from continuing operations of 29.3p. This compared to 30.0p in 2011 which included a £nil tax charge.

Dividend

The total (paid and proposed) dividend for the year has increased to 12.4p per ordinary share

The advanced 600 horsepower M838T 90 degree V8 twin-turbo engine – designed and developed by McLaren in collaboration with Ricardo for the MP4-12C high-performance sports car

Ricardo completed the build of the FED ALPHA vehicle as part of the Fuel Efficient Ground Vehicle Demonstrator (FED) programme for the US Army's Tank Automotive Research, Development and Engineering Center (TARDEC)

(2011: 11.5p). The proposed final dividend of 8.7p (2011: 8.1p) will be paid on 20 November 2012 to all shareholders on the register at the close of business on 19 October 2012, subject to approval at the Annual General Meeting on 15 November 2012.

Net assets

The 30 June 2012 net asset position remained consistent with the prior year at £89.8m (2011: £89.6m). At the end of the year our capital commitments were £0.5m (2011: £0.7m).

Net funds

The Group has continued to drive a number of working capital initiatives which have again helped to deliver strong operating cash inflows. The Group had closing net funds of £7.9m (2011: £1.5m) resulting from a net cash inflow in the year of £6.4m (2011: £9.3m).

At the end of the financial year the Group had £30m of committed borrowing facilities, of which £15m is committed until December 2012 and a further £15m until November 2015. A process is underway for renewing the December 2012 facility. In addition the Group had uncommitted facilities including overdrafts of £18.5m at the year end.

Exchange rates

The average value of sterling was 0.4% lower against the dollar and 1.4% higher against the euro during the year ended 30 June 2012 compared to the previous financial year. This volatility in exchange rates has not led to any significant overall impact on the profit before tax for the year. 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. The receivables arising on these contracts are hedged accordingly and hedge accounting is applied.

Pensions

The IAS 19 pension deficit at 30 June 2012 was £20.4m (2011: £13.4m). The increase in the deficit is principally a result of a decrease in the net discount rate from 5.65% in 2011 to 4.60% in 2012, offset by additional Company contributions of £3.3m. The last full actuarial valuation was carried out as at 5 April 2011 and completed in August 2012. Following this valuation a revised schedule of contributions was agreed, increasing annual payments from £3.3m to £4.3m commencing July 2012, which aims to eliminate the funding deficit by 2016.

"We are pleased to have maintained a strong balance sheet with another year of strong cash inflow"

KPI for the outlook

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

Technical Consulting

Solutions and insight based on innovation, skills and technology

"Using the breadth of our skills base we are able to take on work at the cutting edge of technology development and application"

Mark Garrett, Chief Operating Officer

Technical Consulting remains at the very core of Ricardo's business model. It ranges from collaborations with customers on advanced engineering, technology evaluations and market studies, through to large-scale commercial programmes encompassing multiple products and international markets. Using the breadth of our skills base we are able to take on work at the cutting edge of technology development and application. We are able to provide the technologically informed insights of our strategic consulting teams to customers requiring support in the optimisation of business processes as well as in product development and manufacturing strategy.

Increasingly, the imperatives of our customers are expressed in terms of the common themes of energy efficiency, reduced carbon emissions, regulatory controls, and the need to achieve ever higher value in terms of product performance, durability and reliability.

Passenger Car

Passenger cars remain one of the most significant market sectors for Ricardo's Technical Consulting business, with significant activity in the major automotive markets of India, China, Korea and Japan as well as in Europe, the UK and US. While recovery is modest within certain manufacturers focused primarily on western markets, Ricardo's passenger car business has benefited in particular from demand related to growth markets in the developing economies. As a strategic supplier we continue to support the global rise of Jaguar Land Rover and have been able to announce, for example, the results of successful product programmes with leading manufacturers including Chery of China and Mahindra of India.

Against a backdrop of increasing competition amongst global automakers, both the range and diversity of new product programmes is growing and providing further opportunities for Ricardo to take on outsourcing work. With fuel economy and CO_2 reduction taking precedence as both a global industry priority as well as in the minds of the car-buying public, and as hard-pressed consumers face further real-terms increases in the pump price of fuel, the foresight provided by Ricardo's R&D programme provides a tangible competitive advantage that is crucial to us in winning new business.

Our ability to demonstrate the results of our endeavours in vehicle efficiency – ranging from smart hybrid systems, to intelligent electrification, full battery-electric vehicles and the very latest concepts in clean and efficient production – is crucial in securing business relationships with those requiring deep technological content and solutions. Most of all, our global reach and our ability to provide the full range of the Ricardo organisation's capabilities – as well as training, technology transfer and best practice engineering, quality and manufacturing processes – offers a compelling proposition for customers in the passenger car sector in all parts of the world.

Ricardo was awarded 'Business of the Year' by the Motorsports Industry Association in recognition of its work for customers including Greaves Motorsport

High Performance Vehicles, Motorsport and Motorcycles

Hybridisation is becoming a clear trend in premium car markets as automakers strive to offer flagship products delivering uncompromised performance coupled with significant CO_2 reductions. In this growing and high-value niche market we are already assisting a number of manufacturers in both Europe and the US in the design and development of new hybrid supercars.

In motorsport we continue to work with teams, manufacturers and governing bodies at the highest level. This year the engine and new bespoke transmission for the McLaren MP4-12C GT3 were successfully raced by customers. We continue to supply Ricardo-designed transmission products to all the leading manufacturers in the Japanese Super-GT championship and many one-make race series such as World Series by Renault, Formula Nippon and Indy Lights.

We are also actively engaged in consultancy to the sport's regulating bodies, providing technical advice on advanced powertrain technologies mainly related to the new 2014 regulations. To support this and other activities, Ricardo has also developed a motorsport technology roadmap in conjunction with the UK's Motorsport Industry Association (MIA) in order to provide its members and the industry with the high-level strategic direction necessary to influence future investments in products and services. Ricardo's outstanding position within the motorsport sector was further underscored at the Business Excellence Awards dinner hosted by the MIA in January, at which the Company was announced as winner in the category 'Business of the Year' against strong competition from across the motorsports industry.

In the motorcycle sector the past year has seen the launch of the all-new BMW K1600 with a brand-new in-line six-cylinder engine and all-helical transmission designed, developed and validated in collaboration with Ricardo. The model has enjoyed great success and marks another milestone in the ongoing BMW Motorrad relationship. We have also seen project successes in the Far East and the US that confirm our unique position in this very dynamic market sector.

Agricultural and Industrial Vehicles & Commercial Vehicles

The Agricultural and Industrial Vehicles & Commercial Vehicles sectors continue to develop and have performed strongly across most of the regions in which we are engaged. The scope of our activity continues to grow across almost all product groups, but with particular focus on engine-related business. This arises as a result of the universal driver of

In 2011 Ricardo was selected by Jaguar Land Rover as one of its key strategic suppliers, as the UK's premium automaker embarks upon ambitious plans to develop new models and drive volume growth

"Wind power remains a major focus of our clean energy strategy and over the past year Ricardo has successfully secured new orders for the system analysis, design and development of drivetrains in Europe and the US"

ever-increasing regulatory and emissions compliance; we are currently engaged with both existing and new clients in this sphere of activity.

Business growth in developing markets continues, with China being the dominant territory both in terms of end user sales and local manufacture. This market presents unique challenges and opportunities and we are well positioned to take advantage of these.

The continuing drivers of efficiency, productivity and lifetime vehicle and machine costs are at the forefront of most manufacturers' plans, and most new and updated next-generation products follow this theme. To address these needs we are working on specific opportunities relating to urban duty type vehicles and machines on repetitive cyclic duty applications. These lend themselves to opportunities to employ hybrid systems and energy storage – technologies in which Ricardo has proven expertise – and our vehicle systems team is heavily engaged to address these elements on a whole vehicle basis.

Defence

Efforts to deepen our penetration within the defence markets have continued in the UK, US and in designated export markets. In the UK we have broadened our contact with the military customer base and have begun to exploit niche opportunities that are relevant to the market, particularly where we are able to offer intelligent solutions that can reduce costs and accelerate front-line benefits.

Our activities have been mainly focused on technical engineering services, strategic consulting and vehicle integration. We have expanded our strategic relationships with a number of the key prime contractors for programmes with relevance to the UK and international markets and, working with General Dynamics Land Systems – Force Protection, our vehicle engineering capabilities have taken the Foxhound vehicle into the production phase for the first 300 vehicles for the UK Ministry of Defence.

In the US we have continued to provide technical services for the defence research sector and have made substantial progress in this effort. Most recently, this was evidenced by the announcement that Ricardo has been selected by the United States Defense Advanced Research Projects Agency (DARPA) to stage the FANG Challenge, a series of three competitions designed to produce the Fast, Adaptable, Next-Generation Ground (FANG) vehicle – a new heavy, amphibious infantry fighting vehicle with functional requirements intended to mirror the U.S. Marine Corps'

The Ricardo Pinzgauer provides a highly cost-effective capability and life extension for this popular defence vehicle platform

The Mumbai monorail system – one of Scomi Rail's projects

Amphibious Combat Vehicle. Demand for engineering support services has continued to be strong, and other international market activities have also increased. Although market conditions are challenging, the global prospects continue to be robust as we continue our efforts to develop our presence in the defence sector.

Rail

Ricardo's rail business continues to grow as the railway industry comes to recognise the broad capability and technology that we can offer through our ability to work across transport modes and related sectors such as defence and power generation.

Reduction of both costs and CO_2 emissions are rail industry priorities. Ricardo has been able to help with both of these imperatives through our comprehensive study of the technologies available to reduce diesel rail vehicle fuel consumption on behalf of the UK Department for Transport, and through applying some of these technologies by working with key industry players. For example, we are working with the UK's leading rail powertrain overhaul provider, LH Group, to develop fuel consumption reduction initiatives. Separately we are also working with Artemis Intelligent Power Ltd and Bombardier Transportation under a UK Technology Strategy Board funded project to develop a waste energy capture system for Diesel Multiple Units, based on Ricardo's Kinergy high-speed flywheel system.

The popularity of monorail systems is increasing, particularly in the developing world, as they offer the possibility of incorporating a mass transit system into an existing city at modest cost and with minimal disruption. Ricardo is participating in this expanding market through collaboration with Scomi Rail, a leading system provider, to develop driveline technology.

Clean Energy and Power Generation

Despite the challenging global economic climate, clean energy remains high on the international agenda as a growth sector, which underscores its potential for Ricardo. Our Power Systems capability is expanding and covers not only conventional and renewable energy generation, but also enabling technologies such as energy storage to achieve optimised systems integration.

Wind power remains a major focus of our clean energy strategy and over the past year Ricardo has successfully secured new orders for the system analysis, design and development of drivetrains in Europe and the US, across a wide range of both geared and gearless drivetrain systems. In particular, our major offshore wind contract – with David Brown Gear Systems for support to the drivetrain development of Samsung's 7MW offshore wind turbine – confirms our position as a leader in the delivery of reliable, low-cost-of-energy offshore renewable solutions. This expertise extends to marine energy where we are also progressing activity in wave and tidal stream systems.

Power generation, and in particular the market for larger-scale generator sets, continues to be subject to pressure to achieve lower emissions levels defined by local legislation, as well as for cost optimisation and alternative fuels. Ricardo continues to collaborate successfully with a major generator set manufacturer and has secured further work this year. Additional business has also been secured with another major generator set manufacturer and assistance in the development of new and improved core technologies will be among the projects.

With respect to enabling technologies, Ricardo has also supported a range of clients across the electrical energy storage, fuel cell and hydrogen areas. The Company sees potential in the need for so-called Smart Energy Systems across electricity and heat networks and is well placed to target opportunities, given our wide expertise across conventional, renewables and energy storage technologies as well as in electrical vehicles and future transportation infrastructure requirements.

Marine

The marine industry – ranging from navies and merchant fleets to the rapidly expanding leisure cruising industry – is increasingly focused on the optimisation of operating costs and the reduction of emissions. Ricardo's business in this sector continues to expand, based upon a steadily increasing number of

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programmes featuring a high level of engineering content. As with our off-highway business, most of this activity is associated with propulsion engines. We have secured contracts with many European, North American and Asian manufacturers of large engines and we are exploring opportunities with further engine builders as well as with shipyards and fleet operators.

The overarching interest of our customers in this sector, as in so many others, is in innovative engineering that significantly reduces life-cycle running costs in areas including combustion, new common rail technology, engine management and exhaust aftertreatment. The results of Ricardo R&D efforts in areas such as cylinder-based combustion control and in intelligent transport systems are also providing us with interesting prospects for satellite communication systems linked to global engine database management of propulsion engine service and monitoring.

Government

The government sector in all parts of the world continues to provide demand for services related to the technological issues associated with future policy formation.

Ricardo provides high quality strategic advice to governments related to our key business drivers of fuel economy and carbon dioxide emissions across a number of our market sectors. These include a sophisticated model to predict the impact of new technologies on passenger car and light truck fuel consumption for the US Environmental Protection Agency and a comprehensive study on retrofit technologies to improve the fuel economy of existing rolling stock of passenger diesel multiple units (DMUs) and freight locomotives for the UK Department for Transport.

Strategic consulting

In response to the prevailing uncertain market environment, the strategic consulting business has focused in particular upon the further development of 'recession proof' value propositions including operations consulting, which is typically in higher demand in times of economic uncertainty. These operational offerings include our very successful Integrated Cost Reduction, Warranty and Quality Problem Resolution, and Critical Programme Recovery services, all of which provide very tangible value to our clients.

In addition to these service offerings, market, product and technology insight projects also continued to be in demand through the year. Key topical areas of interest for these included urban and e-mobility, vehicle connectivity and light weight technology, for all of which Ricardo is ideally placed to offer strategic insights backed with a deep knowledge of the underlying technologies.

With customers responding to the need to seek growth in new markets, we also supported the development of globalisation strategies of companies from the developed and developing markets alike. We also conducted a wide range of commercial due diligence assignments, mostly of mid-size companies active in the automotive space. Typically the clients for these assignments are renowned private equity firms, further underscoring the success of our diversification strategy.

Traditionally, we have a strong position with both passenger car and commercial vehicle clients; adding motorcycle and scooter manufacturers, automotive suppliers, off-highway manufacturers, energy companies, in addition to private equity firms and government agencies, has both complemented our client portfolio and reduced the risk of over-reliance on any sector or client.

Performance Products

Niche volume manufacture of exceptional Ricardo designs

A core aspect of the Ricardo business model is the low-volume production and delivery of high-quality, extreme performance products based on our own advanced designs. We have an enviable record in successfully delivering a range of products from motorsport transmissions and driveline systems through to defence vehicles and high-end supercar engines.

Our Performance Products business is proving to be very successful. The past delivery of high-quality products – and their satisfied repeat customers – provides the ultimate proof of the quality of our service, and we will continue to seek new opportunities to deploy our advanced manufacturing skills to help clients with the production of the high-performance products.

High Performance Vehicles

Our McLaren engine assembly facility is now fully operational with more than 1,500 engines delivered in less than a year since the formal dedication of the new building. The advanced nature of the manufacturing processes applied in this class-leading Ricardo facility, which draws upon the highest quality principles and practices of high volume production and implements them in a niche manufacturing context, were recognised in the facility's shortlisting for the prestigious Manufacturer of the Year awards 2011 in the innovation and design category. In addition to those engines for the original version of the car, production of the MP4-12C Spider engine has now commenced at this facility.

A strong reputation in motorsport, based on a long history of successful partnerships in the sector, ensures we are well placed to continue to grow our business and capabilities. Ricardo is extremely proud of its heritage and association with some of the leading brands across the industry, supporting teams such as Honda, Nissan and Toyota within the Japanese GT series. We continue to supply leading Formula 1 teams with transmission components as well as providing complete gearbox solutions to many other motorsport formulae. Our long-standing collaboration with Bugatti continues to bring success, with an extension of the contract for the production of the transmission build of the Veyron driveline system received during the past year.

Defence Vehicles

Following on from the success of WMIK Land Rovers designed and built by Ricardo for the British Army, our defence business has gone from strength to strength. Production is in full flow for the initial order of the 200 new Foxhound vehicles, with a follow-on order placed earlier in the new year for an additional 100 vehicles to be delivered by March 2013. The Foxhound is an agile and versatile vehicle that will be a mainstay of the British Army fleet for years to come. It has been specifically designed and built in the United Kingdom to protect against the threats military personnel face in conditions of asymmetric warfare such as those currently found in Afghanistan, and the vehicle is already being deployed to support British forces in this theatre. We continue to contribute to our highly successful WMIK programme in the provision of spares, whilst maintaining and developing our already strong relationships with the UK Ministry of Defence, and building new ties with leading defence industry organisations utilising our skills and expertise in this sector.

Risk management

Planning and foresight

This section addresses the principal risks, their management processes and the 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. The principal risks, their impact and mitigating actions are disclosed in the table below.

Risk management – governance and process

The Group has risk management processes in place for projects 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 non-contract risks are analysed and reviewed regularly and are recorded in the Group's risk register in liaison with the Group's Risk Manager, who has an independent reporting line to the Chairman of the Audit Committee. The Group's approach to risk management is to identify key risks early and to remove, control or minimise the impact of them before they occur. Risk appetite is managed by a number of internal controls via authority limits as well as setting excesses on insurances.

We comply with the UK Corporate Governance Code by:

- Classifying risks as either strategic or operational and as either internally or externally driven; they are evaluated on a gross and net risk basis
- The Chief Executive Officer reviewing higher-rated risks on the register with the Board twice each year
- Cross-functional risk reviews by Group functional heads and divisional managing directors
- Theme-based reviews with divisional leadership teams

The Group's internal audit function provides assurance regarding the systems of internal control and risk management and compliance with applicable legislation and regulations. This is complemented by the internal audits required as part of maintaining certifications to international standards for management systems. 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 62 to 65.

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.	**Impact** 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. As the market recovers, the precise timing of order receipt and rate of ramp-up of project workload delivering the subsequent revenue, profit and cash streams may give some volatility in our ability to forecast future performance. **Mitigation** These risks are mitigated by the strategy of broadening the base of the business to reduce exposure to any one specific market sector or client, and the success of this strategy is measured by the key performance indicators for sector dependency and client dependency shown on pages 10 and 15 respectively. 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 impact of insolvency risk is mitigated by robust working capital management and credit insurance where this is economically available.
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.	**Impact** 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. **Mitigation** We are focusing on a model of 'bringing in and bringing on' the best talent. We aim to ensure that we actively develop and manage staff to encourage their optimum contribution, encourage mobility, professional development and provide appropriate remuneration and working conditions. Employees as stakeholders are reviewed further on pages 30 to 32.

Contracts The majority of the Group's revenue arises from fixed price contracts for engineering services. The costs and liabilities to complete these contracts may be greater than initially estimated, thus impacting on margins and project timescales. In low-volume manufacturing there is a risk of dependency on specialist suppliers or product liability, recall or warranty claims.	**Impact** Onerous contract terms, failure to perform on contracts, the infringement of the rights of others, or a faulty product could potentially subject the business to a claim from a customer and loss of reputation or reduced opportunity for repeat business or increased costs. Failure of production process or product validation could lead to warranty or recall claims. Failure or poor performance of a supplier could disrupt delivery to clients and increase operating costs. **Mitigation** These risks are proactively managed by clearly defined lead qualification, 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 are subject to continued improvement focus with the central leadership of the Chief Operating Officer and the Director of Engineering and Programmes, and are core to our strategy. Procurement processes are in place to assess critical suppliers and selections are often made with the involvement of the client. In low-volume manufacturing there are rigorous quality assurance processes in place to reduce the risk of product liability, warranty and recall claims.
Technology The business is driven by changes in technology to meet the needs of markets, sectors and regulators on varying time scales.	**Impact** 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 dependent on new technology, the time taken to deliver returns from our R&D programmes may also increase. **Mitigation** 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. The direction of R&D is regularly reviewed by our Technology Steering Group, which is chaired by the Chief Technology & Innovation Officer. Further details of our R&D programmes are given on pages 17 and 18.
Compliance with laws and regulations The Group's operations are subject to a wide range of domestic and international laws, regulations and restrictions.	**Impact** 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. **Mitigation** To mitigate these risks the Group has a number of defined policies and operating procedures, and takes professional advice, where considered necessary, to ensure that employees and others act with the highest ethical standards and within local legal and regulatory requirements. Our Code of Conduct is published on www.ricardo.com to increase awareness and to provide availability to external stakeholders. Also, the Group's internal audit programme includes within its remit the review of compliance with applicable legislation and regulations and awareness of key policies. Policies are updated as regulations change and as our knowledge of best practice increases. We aim to anticipate the effects of working in new sectors, particularly defence, which adds to the range of regulations and laws with which we need to comply.
Defined benefit pension scheme The Group has a UK defined benefit pension scheme which currently has a funding deficit.	**Impact** Any decline in the value of the pension fund assets, improvement in the life expectancy, long periods of high inflation or future decreases in interest rates could increase the funding deficit and require additional funding contributions in excess of those currently expected. **Mitigation** The current UK funding plan was agreed on the basis of a valuation undertaken at 5 April 2011 and anticipates deficit recovery contributions being made until 2016. The Group, in agreement with the trustees, has moved part of the assets of the pension fund into lower risk investments, and also closed the pension fund to future accrual on 28 February 2010. In addition the Group regularly monitors the performance of the pension fund.
Financing The Group can be in a borrowing position, requiring some borrowing from its bankers.	**Impact** Given the ongoing uncertainty in the banking sector, globally there is a risk of the Group being unable to secure sufficient funds. **Mitigation** This risk is managed by robust cash management, regular improvement initiatives, 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 requirements, 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 22 to the financial statements.

Corporate social responsibility

A responsible and global corporate citizen

Members of the Defense National University (NDU) International Fellows Class of 2012 visiting the Ricardo Detroit Technical Center

"Inspiring the next generation of engineers is a passion and a responsibility"

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 of 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. A summary of these is communicated externally via our Code of Conduct. 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.

KPI for employee and knowledge retention

Employee turnover % pa
based on voluntary leavers, targeting a level of c10%

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 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. We rigorously uphold client confidentiality, which is embedded in our values. We regularly survey our clients' views on our performance to identify further opportunities to improve and learn.

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 as the market recovers.

Employees

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 continuous process, infrastructure and people developments. The Company maintains its belief that it will grow most successfully through the personal growth of its employees. The Company Values are clear standards against which employees and new joiners can align their identity with Ricardo and what the Company stands for. By valuing a respectful relationship with its employees, Ricardo has been privileged to continue to see a number of returnees and new hires from prestigious organisations.

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.

Throughout the year the Company continued to bring in fresh skills in line with the business diversification plans, particularly in Asia. Strong knowledge retention within the business is always key and the efforts between and across divisions to enhance collaborative working have had a positive impact for employees and customers.

At Ricardo we recognise that our people continue to excel in their commitment to meeting customer expectations. Employee fulfilment is 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.

Our talent management process continues to identify up-and-coming business leaders to take up the challenge of career development opportunities as we continue to expand our presence in existing geographical markets and new sectors. In particular, the ability to identify 'Top Talent' and high-potential employees on a

Ricardo engineers promoting engineering at a science fair – over 2,000 students attended (top); a Give and Gain team who redecorated a hostel common room in Brighton (above)

KPI for health and safety

Reportable accidents
based on unamended UK RIDDOR 1995 definitions, targeting zero accidents

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A Give and Gain team working in a local primary school – connecting engineering with the curriculum

global basis gives us a robust method to focus our development spend, in addition to normal development channels for all employees.

Ricardo has seen employee turnover increase since 2010 due to the effect of organisation changes which have taken place as well as the effect of a very competitive market place. To mitigate the market issues a number of initiatives have been put in place such as the Share Award offered during the year across the Group and salary sacrifice benefits in the UK. All of these initiatives are aimed at reducing employee turnover and bringing increased stability to the workforce.

Ricardo actively promotes the concept of 'thought diversity', which 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. Ricardo is committed to promoting equality of opportunity for all employees and job applicants free from all discrimination. Ricardo is an inclusive employer and values diversity in its employees and aims to recruit the best person for the role in all its positions Group-wide. The Board is fully supportive of the emphasis placed on diversity, in particular gender diversity, within the Code of Conduct and encourages women into the engineering profession and their subsequent progression.

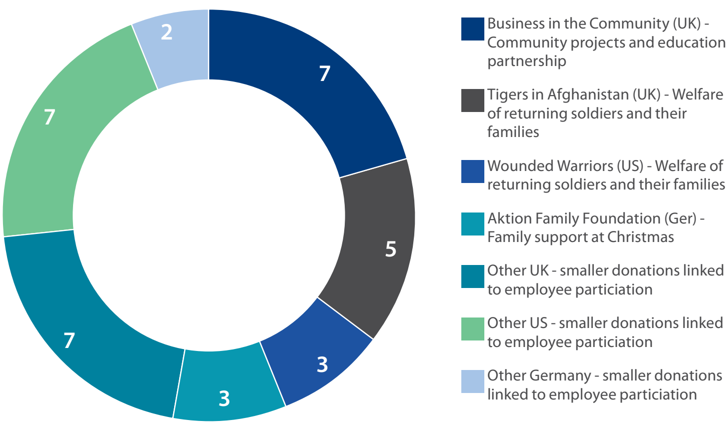
Suppliers

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. 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 whole 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 objective to make a positive contribution to all countries and communities in which we operate, particularly in the areas of education and child welfare local to our main sites. Most 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,

Charitable donations £'000




Martin Fausset, Ricardo UK MD, hosting Louise Goldsmith, Leader of West Sussex County Council, and her cabinet, local MPs and district council leaders

supporting the UK Science and Engineering Ambassadors scheme, active engagement in STEM (Science Technology Engineering and Maths) events across the education age range, and by employees acting as school and academy governors. In the past year we have increased our engagement via the Shoreham Technical Centre, joining Business in the Community (BITC), a business-led charity focused on responsible business.

We occasionally match staff donations to charitable activities, particularly where there is active staff participation in events.

Financial contributions to charities in the year to 30 June were £33,350 (2011: £34,441). The effectiveness of these policies is informally measured by feedback from the communities in which we engage.

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, 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. We recognise the level of reportable accidents as a key performance indicator. The number of accidents reduced from 2011: the level is still low overall and shows the success of our health and safety policies. We continue to focus on reducing accidents and near-misses as part of our commitment to continuous improvement.

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 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 internal audits and discussions between quality managers. 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 area is the core business of Technical Consulting for new or improved products across the sectors we serve; these products will have an impact on the levels of emissions, fuel consumption and

KPI for the environment

CO_2 tonnes per employee from gas and electricity use from all operations
calculated using factors from the United Nations Conference on Trade and Development, targeting an efficient use of resources

The Chevrolet BEAT with its Ricardo designed diesel engine – the smallest and most frugal power unit on the Indian market

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.

With many hundred projects conducted per year, the positive environmental impact far exceeds our energy use. This can only ever be estimated based on knowledge and experience. For example:

- We have estimated that recent work on the Volvo DRIVe vehicles alone will save over 50 times the annual CO_2 generated by Ricardo direct gas and electricity use across all its operations over the life time of the vehicle fleet based on a ten-year life and a five-year production run.
- The work described in the feature "Small Wonder" on page 51 alone has been estimated to save approximately 100 times the annual CO_2 generated by Ricardo direct gas and electricity use across all its operations over eight years' usage and a four-year production life compared with an equivalent gasoline vehicle.

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. This applies to both the Technical Consulting and Performance Products segments.

The third area of impact is our operations, particularly testing. Our testing for customer and research programmes uses fuels and electrical energy. Heating some of our buildings and some process plant uses gas. The resulting negative environmental impacts are substantially offset by the benefits of research into improving test methods and the downstream results of our engineering programmes 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 storage and distribution systems, have containment and inspection regimes which meet local legislative requirements. We focus on the underlying energy use (electricity and gas) to avoid the distortion from variable use of test fuels as project workloads change. We have no dominant waste stream.

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 grow as further investments are made. Our new buildings are as energy efficient as is economically viable. To test our environmental focus we measure energy usage in terms of the tonnes of CO_2 produced by the business from the gas and electricity use in our facilities. For ease of understanding this is expressed as a ratio to headcount. A continuous reduction in CO_2 tonnes per head is targeted. The indirect benefits to the environment from Ricardo's work are not measurable, but far outweigh any direct negative impacts – as can be clearly seen in the estimates above.

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 between Ricardo sites, and for some time we have been using video, audio and internet conferencing. The process used to identify these impact areas is derived from ISO14001, under which 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.

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. We are registered in the UK for the Carbon Reduction Commitment (CRC), but we do not engage in carbon trading as we are not large enough.

"Our projects deliver many times more CO_2 savings than the impact of the energy we use"

Conclusion

Ricardo has again delivered a solid result against an uncertain economic backdrop, helped not least by a strategy that maximises business potential in all of the markets that we serve. We have seen a good level of order inflow across multiple geographies and business segments and are continuing to benefit from repeat business in the form of high quality multi-year automotive, commercial and off-highway vehicle programmes across both engineering and assembly. We have also been able to bring in additional business from new sectors including rail and clean energy.

With profit before tax up 14 percent, a strong order book and a robust balance sheet, the platform for the future of the business remains very healthy. There is a good balance in both our product and service portfolio and our customer base, which provides for risk mitigation and offers continued growth potential. The multi-year programmes – both engineering and assembly – have increased the profile of Ricardo, enhancing the reputation and recognition our brand receives on a world-wide basis.

We are immensely proud of the public delivery of the Foxhound vehicles to support British forces in Afghanistan, as this demonstrates the heart of the Ricardo business model: able to take on the most difficult and important tasks for clients, deploying the very best people to deliver innovative solutions, often within a very compressed timescale.

Due to the forward-looking nature of our business and levels of confidentiality demanded by our clients, many of our programmes are not able to benefit from the same high-profile exposure as that received by our recent – and continuing – programmes for McLaren, Jaguar Land Rover and Foxhound. Nevertheless, such confidential programmes are of equal strategic importance to our clients.

Our work in leading-edge emissions control and fuel efficiency continues to be in high demand as global industries face ever tightening legislation and toughening demands for increased fuel efficiency. Despite an unpredictable world economy, we remain confident for the future. Our continued investment in the very best of talent and technology, a robust flexible model and a strong business offering of in-demand solutions to an increasing client base provides a good forward business platform.

Dave Shemmans	**Paula Bell**	**Mark Garrett**
(Chief Executive Officer)	(Group Finance Director)	(Chief Operating Officer)

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.

"I'm fiercely patriotic and we are desperately trying to communicate the importance of science and engineering for our country. We came to Ricardo because we had a firm belief in its capability, its science, experience and commitment to excellence"

Ron Dennis, Executive Chairman, McLaren Group

Features

WHEN EVERY DROP OF FUEL COUNTS

Ricardo is working with US forces to define state-of-the-art design processes for the smarter specification and procurement of ultra fuel-efficient military vehicles

The body structure of the FED ALPHA makes extensive use of aluminium, reflecting the requirement for both strength and extreme fuel efficiency

Ranking second only to water as the highest battlefield consumable supply, fuel is the life-blood of any modern military operation. The logistics activities required to deliver fuel into theatre can also be extremely expensive, both in financial terms as well as in the risks faced by those engaged in the delivery of a bulky commodity which is both volatile and vulnerable to attack. It is unsurprising therefore that, while crew protection is often cited as the top priority in next-generation defence vehicle design, fuel efficiency comes a very close second.

Responding to the need to ensure that the next-generation of military vehicles are both fit for purpose as well as fuel efficient as practically possible, the United States Army Tank Automotive Research, Development and Engineering Center (TARDEC) – the US Armed Forces' research and development facility for advanced technology in ground systems – initiated its Fuel Efficient Ground Vehicle Demonstrator (FED) project.

This high-profile initiative sought to combine the best available expertise from both government and industry to demonstrate the level of fuel efficiency that is achievable in hardware operating in a realistic military environment and at what cost. Two teams were formed with the objective of creating a state-of-the-art fuel-efficient tactical vehicle from a clean sheet of paper, the only design constraints being the requirement to achieve the maximum fuel efficiency possible. This was to be achieved against the performance and fuel consumption benchmark of the current M1114 High-Mobility Multipurpose Wheeled Vehicle (HMMWV) – the US Army's ubiquitous Humvee.

TARDEC engineers join the Ricardo team

Ricardo was contracted to join the FED ALPHA team to spearhead the vehicle engineering effort and introduce state-of-the-art processes, materials and practices from the automotive and high performance motorsport industries. To ensure the most effective transfer of skills for future vehicle programmes, five TARDEC engineers were embedded with the Ricardo FED ALPHA team, working on-site at the Ricardo Detroit Technology Campus. At the earliest stage of the project, TARDEC wanted to understand how vehicle specifications are developed by Ricardo, based on its intensive CAE simulation-led design process which ensures that the original design intent and vision are correctly interpreted in the final vehicle.

> ***"Having evaluated a range of possible concepts, TARDEC selected a Ricardo design targeted at providing a 70 percent fuel saving over the M1114 Humvee, exceeding by a considerable margin its original objective of 30 percent"***

One of the key aspects of this process was to develop a realistic drive cycle, reflecting a typical duty cycle for the front-line deployment of such a vehicle. The cycle was developed in four parts based on recorded data from existing vehicles in theatre, including highway/convoy operations, a simulated assault mission, off-road driving, and operation at idle for approximately 25 percent of the time in use. Using this data as the basis of simulation work, Ricardo was able to offer TARDEC a range of possible concepts that provided different cost and efficiency trade-offs. Having evaluated these, a design targeted at providing a 70 percent fuel saving over the M1114 Humvee – exceeding by a considerable margin TARDEC's original objective of 30 percent – was selected.

The body structure of the FED ALPHA vehicle, designed in conjunction with and fabricated by Alcoa Defense, made extensive use of aluminium, reflecting the requirement for both strength and extreme fuel efficiency. While FED ALPHA was designed to incorporate the latest armour systems, these were included merely as representative mass within the demonstrator; it is far better that real armour is put to use on the existing fleet in theatre, protecting lives. The vehicle features a Cummins I4 engine and Aisin six-speed transmission calibrated by Ricardo specifically

for tactical vehicle fuel efficiency. Low rolling resistance tyres were produced specifically for FED ALPHA by Goodyear, and a high-efficiency Kollmorgen 28-volt permanent magnet integrated starter-generator is fitted, enabling electric accessories and 20 kW of power for on-board equipment. There is provision for a remote weapon station and integral under-body blast shield, a driveline that utilises a unique carrier and a differential assembly including non-geared hubs and super-finished gears to reduce friction and increase fuel efficiency. Also included is accelerator pedal feedback and a fuel economy display to inform drivers how to operate the vehicle for maximum fuel economy.

Vehicle build, test and process validation

Construction of the FED ALPHA demonstrator took place at the Ricardo vehicle build facility at Detroit, with the completed vehicle displayed for two days in July 2011 in the centre courtyard of the Pentagon. Since that time it has been successfully completing government testing at the U.S. Army's Aberdeen Proving Grounds in Maryland.

With test data being used to cross-correlate with the original design simulations, FED ALPHA has proven itself not just as an extremely impressive demonstration vehicle capable of fulfilling or improving on the functional performance of existing vehicles but also delivering a 70 percent improvement in fuel economy. More than this, it has provided TARDEC with an extremely valuable template for future defence vehicle development based on Ricardo's state-of-the-art, simulation-led design processes. If successful, this template will facilitate the smart and cost-effective procurement of ultra fuel-efficient vehicles that enable US forces to fulfil their combat roles in the safest manner possible, while minimising the volume of fuel required for front line operations.


KRONE
VOLVO
V60

PLATOONING FOR SAFETY AND EFFICIENCY

Working with Volvo and other leading European automotive partners in a Ricardo-led project to create safe and effective road train technology

Drivers of vehicles in a SARTRE platoon can relax and do other things while the road train proceeds towards its long-haul destination.

With traffic congestion taking its place alongside road safety as one of the major concerns of highways operators worldwide, the future implementation of road trains or 'platooning' is being taken increasingly seriously by the auto industry. By allowing a lead vehicle to effectively take over the driving functions of those following it in a platoon, inter-vehicle distances can be dramatically reduced, so making better use of the available road space while also reducing the fuel consumption of participating vehicles. As the reaction response times of platooned vehicles are almost instantaneous, the technology can also allow smoother and safer driving patterns and lead to reduced journey times and fewer accidents, while also reducing the problem of the 'phantom tailbacks' that has become a regular rush-hour phenomenon on Europe's busiest routes. For drivers participating in such future road trains, the driving experience would also be improved: freed from the requirement to control their vehicle while in a platoon drivers would be able to read, eat, make phone calls, or use a smartphone to browse the internet, watch TV or catch up on work.

While such a vision may sound like science fiction, it is being actively researched by major automakers including Volvo Car Corporation. Modern cars already include many camera-based and radar-based sensor and detection systems for a wide range of functions ranging from lane departure warning and adaptive cruise control, to collision mitigation and avoidance systems. By bringing these and similar available sensor and actuator technologies together with an appropriate control architecture, the implementation of a platooning system must surely be a realistic goal within the next decade.

The vision of SARTRE

This was exactly the vision that lay behind the formation of the SARTRE (Safe Road Trains for the Environment) project. Part-funded by the European Commission under the Framework 7 programme, SARTRE is led by Ricardo UK Ltd and comprises a collaboration with Applus+ Idiada, Tecnalia Research & Innovation, Institut für Kraftfahrzeuge Aachen (IKA), SP Technical Research Institute of Sweden, Volvo Technology and Volvo Car Corporation. The three-year research initiative, due to complete in autumn 2012, has focused on the development of a comprehensive platooning system contained entirely within the participating vehicles and without the requirement for any external roadside infrastructure. This is a fundamental step forward from the many previous attempts at developing road train technologies going back over many decades: these past approaches have relied upon roadside modules for communication, location and control of platooned vehicles.

"Once in the platoon, drivers can relax and do other things while the platoon proceeds towards its long-haul destination"

The concept of platooning, as envisaged by the SARTRE project, involves a convoy of vehicles where a trained professional driver in a lead vehicle guides the platoon. The system is designed to be able to accommodate a range of different vehicle types including cars, trucks and long-distance coaches, and is intended to be able to operate on motorways within a mixed traffic environment alongside conventional vehicles.

Drivers of SARTRE-equipped vehicles would be able to reserve a slot in a platoon that is operating on part of the route that they are travelling on. The SARTRE system navigates them to the platoon, and once in close proximity, the dashboard interface co-ordinates the joining manoeuvre. Once control has been handed over to the platoon, the joining vehicle is driven autonomously under the supervision and control of the lead vehicle driver. Each car or truck within the platoon continuously

and automatically measures distance, speed and direction and adjusts to follow the trajectory of the vehicle at the front of the platoon. All vehicles are totally independent and can leave the procession at any time by resuming control. Once in the platoon, drivers can relax and do other things while the platoon proceeds towards its long-haul destination. The SARTRE system under development involves the use of existing production cameras, radar and lidar systems for relative position sensing, GPS for absolute positioning, and automotive standard 802.11p Wi-Fi modules for inter-vehicle communications. These are used with specially developed Ricardo software for the control of the automated vehicles.

Testing of the first multiple vehicle SARTRE platoon at the Volvo test track was announced in January 2012 – the first on-highway demonstration followed in May on a motorway in Spain

First demonstration on public highways

While the Volvo proving ground close to Gothenburg, Sweden, has been host to the initial tests of the SARTRE system, a major milestone was achieved in May 2012 with the first ever tests of a system of this type on a public highway. The road train – which comprised a Volvo XC60, a Volvo V60, a Volvo S60 and a Volvo FH truck automatically driving in convoy behind an additional Volvo FH truck operating as the lead vehicle – was driven on a motorway outside Barcelona, Spain.

"We covered 200 kilometres in one day and the test turned out well. We're really delighted," said Linda Wahlström, project manager for the SARTRE project at Volvo Car Corporation. "During our trials on the test circuit we tried out gaps from five to fifteen metres. We've learnt a whole lot during this period. People think that autonomous driving is science fiction, but the fact is that the technology is already here. From the purely conceptual viewpoint, it works fine and road trains will be around in one form or another in the future. We've focused really hard on changing as little as possible in existing systems. Everything should function without any infrastructure changes to the roads or expensive additional components in the cars. Apart from the software developed as part of the project, it is really only the wireless network installed between the cars that sets them apart from other cars available in showrooms today."

With numerous near-market spin-off applications to the constituent technologies deployed in SARTRE, the project provides commercially valuable learning opportunities for all participants.

By working with partners such as Volvo in this way, Ricardo ensures that it is in a position to meet the requirements of all of its clients in all parts of the world for the safer and more efficient automotive and intelligent transport systems of tomorrow, as well as those of today.

ON TRACK FOR IMPROVED RAIL FUEL EFFICIENCY

How Ricardo is working with government, UK rail stakeholders and leading international train builders to improve the fuel efficiency of diesel powered rail vehicles

Due to the patchwork nature of electrification of the UK rail network, many routes require diesel traction, thus making vehicle fuel efficiency a significant concern

By comparison with systems of its size in similarly developed nations, especially those of Western Europe, the mainline rail network of Great Britain has a relatively low level of electrification, extending to around a third of the network. While many regions have long been electrified, there remain significant parts – including some major intercity routes – beyond the current reach of overhead lines or conductor rails. A large proportion of regional and intercity passenger services as well as almost all freight movements therefore use diesel traction.

Over the last 15 years the UK rail network has experienced a significant increase in passenger and freight traffic, with demand in both sectors expected to continue to rise over the foreseeable future. Against this background of rising demand, the need to reduce fuel consumption and contribute to national carbon reduction targets is an increasing imperative for the UK Government's Department for Transport.

UK Department of Transport brings in Ricardo

In mid-2011 the Department placed a contract with Ricardo to investigate the practical and commercially attractive options that could be deployed in order to further improve diesel fuel efficiency on the railway network. The study was in particular intended to explore technologies from non-rail sectors that might be applied to diesel-powered rolling stock with the objective of improving fuel efficiency and reducing operating costs. The potential fuel-saving improvements investigated in the study focused on technologies available for retrofit to the existing rolling stock of passenger diesel multiple units and freight locomotives, as well as those suitable for incorporation into new rolling stock both to improve fuel economy and to meet the latest Stage IIIB emissions limits.

Key findings included a number of technically viable solutions, many of which are commercially attractive in terms of their projected return on investment. These were based on well-proven packages of powertrain technologies, drawing upon Ricardo's extensive experience in markets such as heavy duty trucks and off-highway, marine propulsion and power generation. Owing to the complex nature and age profile of the country's diesel rail vehicle fleet, the study showed that smaller, incremental changes applied to a large proportion of the engines would deliver significantly greater fuel saving benefits than more radical innovations applied to a smaller number of vehicles.

> ***"Ricardo is also collaborating on development of a future brake energy recovery system together with partners including Bombadier, one of the world's leading train builders, and Artemis Intelligent Power"***

With the study now completed, Ricardo is in the process of developing these opportunities with a range of key industry stakeholders including rolling stock leasing companies, train operating companies, fleet maintenance and overhaul firms and rail freight operators. The work was judged a success by the Department for Transport, whose spokesperson commented: "We have been extremely encouraged by the results and recommendations of this study. The rail industry has made significant improvements in fuel consumption at an operational level in recent years, but this report highlights further technology-led initiatives that could also be considered with the aim of reducing fuel costs as well as delivering environmental benefits in terms of reduced fuel consumption and carbon emissions."

Brake energy recovery

While the study carried out for the Department for Transport has focused on technology packages available for immediate implementation on new and existing vehicles, Ricardo is

also collaborating on development of a future brake energy recovery system together with partners including Bombardier, one of the world's leading train builders, and Artemis Intelligent Power Ltd, with co-funding from the UK government-backed Technology Strategy Board.

The system is based on the Artemis Digital Displacement® hydraulic pump-motor and Ricardo's Kinergy flywheel high energy density storage technology, and is expected to deliver fuel savings of between 10 and 20 percent on diesel commuter trains. To demonstrate the system on a complete rail driveline, it will be coupled to a wheel-set supplied by Bombardier and tested on a dynamometer rig. If successful, it is anticipated that a follow-up project will progress to installing and testing the system on an operating train. "As a global rail technology leader, Bombardier is continuously looking to challenge and improve the energy efficiency of its products," said Paul Roberts, Bombardier chief country representative for the UK & Ireland. "We are proud to announce the collaborative project with Artemis Intelligent Power and Ricardo that aims to deliver a cost-effective solution to recover and re-use energy normally lost through braking on diesel trains – an industry first."

Whether working at an industry level on the immediate needs of an operating railway or collaborating with international partners on future technology that offers even more substantial energy savings, Ricardo is emerging as the consultant of choice for railway powertrain and driveline systems on a worldwide basis.

SMALL WONDER

Ricardo helps leading global automaker GM design a compact turbo-diesel for the Indian market, offering world-class fuel economy and capable of localised manufacture

For some years now, improving economy and reducing emissions have been the principal focus of attention for automakers worldwide, resulting in a growing wave of products featuring ever-smaller engines. The new General Motors 1.0 XSDE SMARTECH three-cylinder diesel engine is one such example: developed initially for the new Chevrolet Beat, it is a hi-tech engine localised for the Indian market. Most importantly, it not only showcases the latest thinking in combustion engine design, but does so at a realistic price.

Ricardo's experience with highly downsized diesel engines goes back as far as 2000, when the company was advising leading automakers with small to mid-sized cars in their line-up that they would almost certainly need a sub 1-litre three-cylinder diesel in the near future. Customers took this idea very seriously and, from 2007, General Motors requested assistance in the design and development of its new XSDE engine. This product was to be designed as a new three-cylinder engine and optimised for localised manufacturing in India. Such an endeavour was no small challenge as it required moving away from a predominantly European supply base and identifying a wide spectrum of low-cost suppliers in the region, as well as ensuring that these suppliers were integrated into the development programme from the word go.

Loosely based on the previous four-cylinder engine, the new XSDE is a compelling blend of economical design and cutting-edge technology for the Indian market. As the first sub 1-litre three-cylinder diesel engine to meet India's BS 4 standard (the equivalent of EU 4), the block is made from conventional grey cast iron with a bore and stroke of 69.7 mm x 82 mm, giving a swept volume of 936 cm3. Common-rail fuel injection operates at an efficient 1600 bar, and vibration is kept in check by a balancer shaft. In terms of performance the engine's maximum power is 55 PS at 4000 rev/min – and the unit is flexible too, producing 140 Nm of torque at 1750 rev/min. Despite the impressive power output, fuel consumption is just 71.9mpg (3.9 lit/100 km) on the Bharat Stage 4 (BS4) drive cycle, and the Chevrolet BEAT is thus claimed as India's most fuel-efficient car.

The project was truly global, led by the GM engineering centre in Turin and supported by Ricardo working hand-in-hand with international GM engineering teams in Italy, India, Korea and Germany. A dedicated project office at Ricardo's Shoreham Technical Centre included engineers from GM and suppliers working alongside Ricardo staff. The Ricardo team was responsible for the design and analysis, the test programme, the functional and development testing, and the prototype manufacturing for the first three phases.

> ***"The project was truly global, led by the GM engineering centre in Turin and supported by Ricardo working hand-in-hand with international GM engineering teams in Italy, India, Korea and Germany"***

For these phases, Ricardo established a dedicated engine build shop on site, complete with its own procurement team: in the first instance, UK or European rapid prototype suppliers were used in order to get the first series of prototype engines underway.

Minimising parasitic losses is crucial to efficiency; overall friction was addressed by producing the engine with three cylinders instead of four, and by using coated pistons fitted with low-tension ring packs. A considerable effort also went into reducing crankcase pumping losses, with ventilation designed especially for the engine rather than copied from previous four-cylinder engines. The system removes oil vapour from the air within the engine, preventing contamination of the turbo compressor and intercooler; it also reduces the generation of hydrocarbon emissions.

Integration into the vehicle

Integrated within the Chevrolet Beat for the Indian market, the XSDE meets BS4 without the use of a diesel particulate filter, thus significantly reducing cost. While it is a small engine which has to work reasonably hard, it can run with a low-cost catalytic converter.

Ricardo worked with the GM integration team based at Russelsheim, with calibration and NVH work both carried out at Shoreham, while the control and electronics were developed at the Cambridge Technical Centre. On-the-road calibration, development and validation work was carried out in Spain, Sweden and Chile. The latter provides a high-altitude calibration environment coupled with good roads on which it is possible to drive at high loads for sustained periods. Once the core field work had been completed, final validation was carried out in India. This was essential in view of the high duty cycles demanded of small cars there, often carrying a full load of passengers plus luggage and even a trailer.

And there can be no doubt that the resulting XSDE engine installed in the Chevrolet Beat is a highly attractive product for the Indian market. It is the smallest and most frugal diesel engine in India and has wowed the press there. Autocar India described the fuel consumption as 'astounding' and said the Beat has 'a high level of refinement' and is 'remarkably quiet and smooth' at idle. Praise indeed for a power unit that sets new benchmarks in the economy class of one of the fastest growing markets in the world.

The XSDE turbo-diesel, designed in collaboration with Ricardo; this highly fuel-efficient power unit sets a new benchmark in the Indian market in the Chevrolet BEAT

VEHICLE ELECTRIFICATION

Ricardo's work in the Low Carbon Vehicle Technology Project is helping take range-extended electric vehicles from laboratory research to practical product innovation

Among the most serious obstacles to the widespread market acceptance of electric vehicles is so-called range anxiety – the fear of running out of power between battery charges. A practical solution to this is the use of an on-board auxiliary power unit (APU) such as an internal combustion engine and generator to provide electrical power when the battery has run out of charge. While there has been some interest worldwide in small top-up APUs that can provide a limp-home mode as an emergency measure, a much greater focus is being placed on the potential of larger APUs that allow the vehicle to be driven as normal, even when its batteries are depleted. Such range-extended electric vehicle (RE-EV) architectures provide a crucial enabling technology that will have a significant role in making vehicle electrification more acceptable to customers and more commercially attractive to automakers. Ricardo is at the forefront of both the development and the application of these technologies.

"The t-001 range-extended electic van has already attracted significant customer interest and is ready to start its final engineering integration stage, with full production planned to commerce in 2015"

Emerald Automotive

In 2010 a consortium led by the power technology company Intelligent Energy, along with its partner Revolve, sought Ricardo's expertise on a project, part funded by the Technology Strategy Board, to develop a lightweight, ultra-low emissions delivery van, using a range-extended electric powertrain. The resultant vehicle, the t-001, is driven by a 75kW electric motor with a 25kWh battery pack using a Ford 1.4 litre four-cylinder diesel engine as its APU. This is all packaged in a vehicle in the sub 3.5 tonnes GVW range. Ricardo was engaged to work on proof of concept, focusing on simulation, powertrain control and telematics.

In developing the control systems for the t-001, the focus throughout was on fuel economy and low carbon dioxide emissions. All vehicle systems, including thermal systems and electrical architectures, were considered as part of a holistic engineering approach adopted towards powertrain optimisation. Ricardo developed the vehicle control unit and incorporated key elements from its ground-breaking 'Sentience' research. This technology enables the electronic horizon of a vehicle to be extended through the application of intelligent mapping, navigation, telecommunication and telematics; in a previous demonstrator project the technique yielded an improvement in fuel consumption of 24 percent.

In developing component specifications, the consortium used well-established technologies and carry-over parts wherever possible, thereby keeping costs and risk down. Due consideration was also given to the need for flexibility in sourcing and supply, helping enhance the vehicle's potential for manufacture and operation in diverse markets. The practicality of the project was further assured by the input of large fleet operators such as the UK Royal Mail and DHL. These organisations provided data on duty cycles and discussed their particular requirements. The result at the end of the eighteen-month programme was two t-001 demonstrator vehicles, each offering an impressive total range of over 645 km before refuelling, a top speed of 130 km/h, carbon dioxide emissions of just 22 g/km (UNECE 101 methodology) and fuel consumption of just four litres over the first 200 km.

The t-001's powertrain is not purely experimental, but rather the fruit of a very practically focused development and demonstration project offering the potential for commercial realisation. Emerald Automotive, the company established by Intelligent Energy to commercialise the t-001, has already attracted significant customer interest and is ready to start its final engineering integration stage, with full production planned to commence in 2015.

The tool's control architecture includes key elements from Ricardo's ground-breaking 'Sentience' research, extending the vehicle's electronic horizon and enabling additonal fuel economy improvements

A bespoke APU based on the Fiat TwinAir engine

This t-001 project was one of several to benefit from Ricardo's involvement with the Low Carbon Vehicle Technology Project (LCVTP), a two-year research initiative launched by the UK government in early 2010 with £19 million funding from the European Regional Development Fund and the regional development agency Advantage West Midlands. In this multi-partner project, in which Ricardo joined with Jaguar Land Rover, MIRA, Tata Motors European Technical Centre, Zytek Automotive, Coventry University and the Warwick Manufacturing Group (WMG), a Land Rover Freelander SUV was converted into a highly efficient range-extended EV by coupling a Ricardo-designed electric machine with an APU based on the highly popular two-cylinder gasoline engine, the Fiat TwinAir. This choice of engine was made after taking into account issues of cost, weight, emissions and above all, ease of commercial application. It was also a path that entailed some substantial engineering challenges. Not least of these was the need for the electric machine to behave in exactly the same way as a standard flywheel; with the flywheel deleted for cost, weight and packaging reasons, the electric machine needed to smooth the engine and to act as a starter motor too.

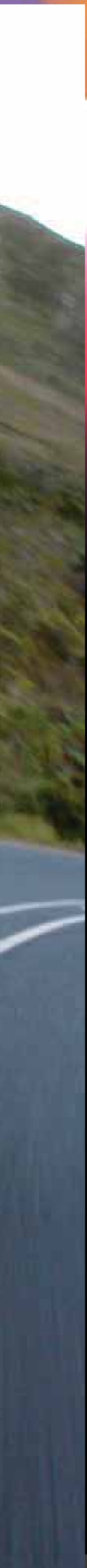
With these objectives already having been achieved, Ricardo engineers are continuing to evaluate the effectiveness of additional measures to improve fuel efficiency and emissions performance. These include systematic friction reduction, intelligent cooling and lubrication strategies, and the recovery of exhaust energy.

For Ricardo, the challenge of vehicle electrification is to design and implement control strategies that enable the most effective power delivery for the lowest emissions and fuel consumption. The worldwide context, meanwhile, is one where the electrification imperatives of fuel economy and emissions reduction are abundantly clear. California, a cradle of innovation and often a barometer of legislative trends, has just introduced a set of standards for APUs as part of its latest, ultra-stringent, emissions regulations. For its part, Ricardo, through its advanced research and commercial projects for clients in the area of electric range-extended powertrains, has once again positioned itself ahead of the game.

“Just a silky delivery of power unlike any four-cylinder rival, with immense strength, too. It’s enormously satisfying, especially as the bike powers forward so rapidly when you spin the motor close to its 8,500 rev/min red line.”

The Telegraph

Ricardo GmbH partnered BMW to develop the highly acclaimed six-cylinder engine of the 1600 GT and GTL motorcycles



Governance

Board members

David Shemmans *BEng*
(Chief Executive Officer)

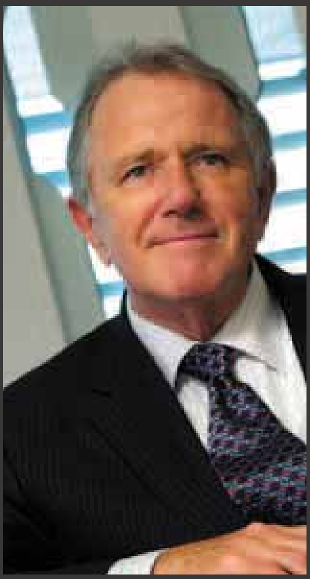
Dave Shemmans, aged 46, joined Ricardo in 1999 as Senior Business Development Manager for Ricardo Consulting Engineers ("RCE"). In 2002 he was appointed Business Development Director for the Ricardo Group and in December 2003, Managing Director of RCE. He was appointed to the Board as Chief Executive 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.

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

Paula Bell joined Ricardo plc as Group Finance Director in November 2006. She is 45 years old and joined Ricardo from BAA plc where she was the Finance and Property Director for Gatwick Airport. She was previously the Director of Finance for Anglian Water Group (AWG) plc and over a ten year period at Rolls-Royce plc, Paula was Finance Director for various large scale engineering and manufacturing divisions before becoming the Business Development Director for their international energy Transmission and Distribution group, where she led on strategy, sales and marketing and their global merger and acquisition programme. Paula is currently a non-executive director and Chairman of the Audit Committee of Laird plc. Paula is a Fellow of the Chartered Institute of Management Accountants.

Mark Garrett *CEng, FIMechE*
(Chief Operating Officer)

Mark Garrett was appointed as Group Engineering and Products Director on 1 July 2008 and on 1 July 2010 he was designated Chief Operating Officer. He is 49 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



Michael Harper *MSc, CCMI, FRAeS*
(Chairman)

Michael Harper was appointed a non-executive director on 24 June 2003 and was appointed Chairman on 18 November 2009. He was the Senior Independent Director until 18 November 2009. He is 67 years old. He was Chief Executive of Kidde plc until he retired from that position in March 2005. He is also currently Chairman of BBA Aviation plc and a non-executive director of QinetiQ Group plc.

David Hall *CBE, MA, MSc*
(Non-Executive Director, Senior Independent Director)

David Hall was appointed a non-executive director on 21 February 2006 and was appointed as the Senior Independent Director on 18 November 2009. He is 65 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. He was also Chairman of the Financial Services Compensation Scheme, retiring from that appointment in April 2012. David was awarded Commander of the Order of the British Empire in the 2012 New Year's Honours' List for his services to the financial services industry.

Hans-Joachim Schöpf
(Non-Executive Director)

Hans-Joachim Schöpf was appointed non-executive director on 1 July 2009. He is 70 years old. He was formerly executive vice president at 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 in Finland and is 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-Joachim is non-executive director of Ricardo's Technology Steering Group.

Peter Gilchrist *CB*
(Non-Executive Director)

Peter Gilchrist was appointed non-executive director on 1 December 2010. He is 60 years old. His military career spanned almost four decades in the British Army and involved him in senior positions in operations as well as in defence diplomacy, strategic management and procurement. Following a tour in Afghanistan, his last appointment was at the British Embassy in Washington DC where he was responsible for liaison with key bodies and senior figures in the Pentagon, National Security Council and State Department. Earlier, for 4½ years he had been Master General of the Ordnance on the Army Board and an executive director in the Defence Procurement Agency. Peter is currently Chairman of Push Technology Limited, and the Board of Trustees, Tank Museum. He is also a director of Synergie Business Limited.

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 65 years old. He is a former senior partner of Ernst & Young LLP in Glasgow. 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 was a non-executive director and chairman of the audit committee of Clyde Process Solutions plc from 2007 to 2011 and is currently a non-executive director, Vice Chair and member of the audit committee of NHS Greater Glasgow and Clyde Board and in 2011 was appointed as independent external member of the audit committee of the Student Loans Company.

Corporate governance in practice

The Combined Code on Corporate Governance

The Company is committed to maintaining high standards of corporate governance and has applied the principles set out in the UK Corporate Governance Code issued by the Financial Reporting Council in June 2010 ("the Code"). This statement, together with the Directors' Remuneration Report set out on pages 66 to 72, explains how the Company applied the Code's principles throughout the year ended 30 June 2012.

Board of Directors

The Board, which is headed by the non-executive Chairman, Michael Harper, also included four other non-executive directors as at 30 June 2012. The Senior Independent Director is David Hall.

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. From the Nominations Committee it receives recommendations regarding Board appointments. The Board agrees the policy for executive directors' remuneration with the Remuneration Committee. The full list of 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 to allow proper consideration of the matters tabled. 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 the Company's agreed 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 and setting its agenda. The Chief Executive has direct responsibility for 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 chairs the Executive Committee which meets formally at least three times each year and includes the Executive Directors of the Board. The Executive Committee is primarily responsible for developing corporate strategy. The Chief Executive also chairs the Ricardo Operating Board which deals with operational issues and delivers corporate strategy. It formally meets quarterly and includes the Managing Directors of principal businesses and other senior executives. The minutes of the meetings of both the Ricardo Operating Board and the Executive Committee are considered by the Board.

Performance Monitoring

The performance of the Board is evaluated internally 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 director, including the Chairman. This information is used by the Chairman as part of his evaluation of the directors and in discussing their personal development. The results of the questionnaire are analysed and reviewed by the Board and appropriate improvements agreed and implemented.

For the year ended 30 June 2012 the Board set itself objectives including supporting the executive in achieving budget performance plans, improving quality of earnings and shareholder value, maintaining focus on talent management and succession planning, reviewing key advisory relationships with brokers and focusing on key risks and mitigations plans.

In support of these objectives various strategy review days have been held during the year. Updates on talent management have been provided to the Board and the programme is progressing to plan. Risk management improvements have been made including improved monitoring processes and identification of risks to the business both before and after related mitigating controls and actions.

Each director is appraised annually through an 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 information 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 with monthly performance packs and by means of Board presentations on matters including insurance, pensions, social, 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

Attendance at meetings

	Board meetings	Committee meetings		
		Audit	Remuneration	Nomination
Number of meetings in the year	8	3	5	2
Number attended by each member				
Michael Harper	8	3	5	2
Hans-Joachim Schöpf	8	3	5	2
David Hall	8	3	5	2
Ian Lee	8	3	5	2
Peter Gilchrist	8	3	5	2
Dave Shemmans	8	–	–	2
Paula Bell	8	–	–	–
Mark Garrett	7	–	–	–

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 maintains 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.

Independence

The non-executive directors including the Chairman are considered by the Board to be independent of management and are free to exercise independence of judgment. 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.

Procedures have been put in place by the Company to deal with conflicts of interest and the Company believes that the procedures are operated appropriately, in accordance with the Company's Articles of Association and applicable legislation. The procedures allow for the imposition of limits or conditions by the Board when authorising any conflict, if they think this is appropriate. No conflicts have been reported during the year under review.

Attendance at Meetings

The Board met regularly throughout the year 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.

Directors are subject to election at the Annual General Meeting following their appointment and to annual re-election.

The Chairman met during the year with the other non-executives and without the executive directors being present. David Hall is the Senior Independent Director who is available to shareholders if contact through normal channels is inappropriate or has failed to resolve an issue.

Internal Control and Risk Management

The Board is responsible for the Group's system of internal controls and risk management systems and for reviewing their effectiveness. 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. Procedures are in place to ensure that effective control and risk management is embedded in the Group and that the Group is in a position to react as appropriate as new risks arise. The Board confirms that there are ongoing processes for identifying, evaluating and mitigating the significant risks faced by the Group. The processes have been in place during the year under review and up to the date of approval of the Annual Report and Accounts.

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 forecasting and reporting of trading results, balance sheets and cash flows, with regular review by management of variances from budget;
- Reporting on compliance with internal financial controls and procedures by Group internal audit; and
- Review of reports issued by the external auditors.

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 UK Corporate Governance Code.

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. He is a former senior partner of Ernst & Young LLP in Glasgow. 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 was a non-executive director and chairman of the audit committee of Clyde Process Solutions plc from 2007 to 2011, is currently a non-executive director, vice-chair and member of the audit committee of NHS Greater Glasgow and Clyde Board and in 2011 was appointed as independent external member of the audit committee of the Student Loans Company. He therefore has recent and relevant financial experience.

The other members of the Audit Committee: Michael Harper, David Hall, Hans-Joachim Schöpf and Peter Gilchrist are independent non-executive directors and 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, the Group Finance Director and the Chief Operating Officer where the Chairman of the Audit Committee considers it appropriate.

Meetings of the Audit Committee were held three times in the year and include the review of the scope of the external and internal audit, ensuring compliance with regulatory requirements in the Company's overseas subsidiaries, receiving observations arising from work in relation to internal control and the effectiveness of the external audit, and to review and provide recommendations to the Board in relation to half-year and year-end financial statements. The external auditors are invited to all meetings and meet with the Audit Committee without management being present at least once a year. The Audit Committee meeting in September carries out a full review of the year-end financial statements and of the audit, using as a basis reports prepared by the Group 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 internal control and risk management. 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 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. Where relevant, external specialists are used to supplement internal resources where specialist knowledge is required. 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.

As part of the annual process the Audit Committee's review includes:

- The internal audit process, the audit plan and resources;
- The internal audit reports and management's response to the findings and recommendations;
- Meetings with the Head of Internal Audit without management being present and the Head of Internal Audit is invited to attend audit committees where considered appropriate.

The Audit Committee considers that the internal audit process is an effective tool in the overall context of the Company's risk management system.

Internal audit scope includes a review of compliance with Group policies, including on established whistle-blowing, ethics (including Bribery Act related matters) and fraud prevention policies. The whistle-blowing 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. There are no matters to disclose during the year under review.

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 percent 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 2012 and information on the nature of non-audit fees appear in note 4 to the accounts.

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 review of the 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 on the performance of the auditors completed by senior and relevant Finance staff. In addition, the Audit Committee considers the risks associated with the audit firm withdrawing from the market, the proposed fee structure and the audit engagement terms for the forthcoming year. The Audit Committee has recommended to the Board that the reappointment of the external auditors be proposed to shareholders at the 2012 Annual General Meeting.

The Remuneration Committee

The Remuneration Committee, which is chaired by David Hall, comprises the non-executive directors including the Chairman and is described in the Directors' remuneration report on pages 66 to 72, which is the subject of a vote by shareholders at the 2012 Annual General Meeting.

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 Michael Harper (Chairman), the other non-executive directors (Ian Lee, Hans-Joachim Schöpf, David Hall and Peter Gilchrist) and Dave Shemmans (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, Michael Harper, except when a new Chairman of the Board is being sought, when it is the Senior Independent Director, David Hall. 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.

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 both 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 2011 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 at 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 directors have assessed the future funding requirements of the Company and compared it to the level of long-term debt and committed bank facilities. Further details can be found in note 22 of the Financial Statements.

After completing this work, the directors have confidence that the Company and the Group have adequate resources to continue in operational existence for the foreseeable future. For this reason they continue to adopt the going concern basis in preparing the Report and Accounts.

Compliance Statement

The Board confirms that it complied throughout the year ended 30 June 2012 with all relevant provisions contained in the UK Corporate Governance Code.

On behalf of the Board

Michael Harper
Chairman
19 September 2012

Ian Lee
Chairman of the Audit Committee

Directors' remuneration report

Introduction by David Hall, Chairman of the Remuneration Committee

During the year ending 30 June 2012, Ricardo delivered solid trading performance and profit before tax of £17.6m against the backdrop of a challenging operating environment, particularly in some of our overseas locations. The Company saw a good level of order intake in many markets and across all our key divisions and our order book remains solid at £107m. Our focus on working capital management has continued and we have maintained a strong balance sheet. At the year end, the Company had a positive cash balance, with net funds of £7.9m.

Save for the changes that were discussed with institutional investors last year and subsequently approved by shareholders at the Annual General Meeting on 17 November 2011, no changes have been made to our remuneration framework this year and the decisions we have taken within the terms of our existing policies have been designed to strike an appropriate balance between rewarding superior performance that benefits shareholders and focusing management on delivering the agreed business strategy.

The following report gives further details of the Company's current principles and policies relating to the remuneration of the senior management team. It also sets out details of the pay earned by the Group's executive directors during the year. For example, it discloses that the annual bonus payments of these individuals for the year ranged between 58% and 62% of maximum, reflecting the Group's strong profit and cash flow performance.

Finally, it is worth noting that, as shareholders would expect, the Remuneration Committee has closely followed the public debate that is ongoing in relation to executive remuneration. We will continue to monitor emerging developments in regulation and best practice and, where appropriate, engage with shareholders and consider whether any changes should be made to the Company's arrangements in order to ensure they are appropriately aligned with our shareholders' interests, supportive of our overall corporate objectives and remain competitive.

We welcome questions and feedback from all shareholders on both the content and style of the directors' remuneration report.

This report describes the Group's remuneration policy as it applies to directors and more generally to senior executives. The report explains how the Group has applied the principles of the UK Corporate Governance Code in relation to the remuneration of directors. It 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 71 to 72. The Company will seek the approval of this report by shareholders at the forthcoming Annual General Meeting on 15 November 2012.

The Remuneration Committee

During the year under review the Remuneration Committee (the "Committee") was chaired by David Hall. The Committee also comprised all of the other non-executive directors – Michael Harper, Ian Lee, Hans-Joachim Schöpf and Peter Gilchrist. 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 60 and 61, details of attendance at the meetings of the Committee during the year ended 30 June 2012 are shown on page 63, and directors' shareholdings are shown on page 72.

The Committee's primary purpose is to make recommendations to the Board on the Group's framework or broad policy for executive remuneration. The Board has also delegated responsibility to the Committee for determining the remuneration, benefits and contractual arrangements of the Chairman and the executive directors.

The Committee has written terms of reference, which are available at 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, including their individual annual remuneration and pension arrangements, and reviewing such provisions for senior management;
- Agreeing the measures and targets for any performance-related bonus and share schemes;
- Agreeing the remuneration of the Chairman of the Board;
- 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.

No individual is involved in deciding his or her own remuneration.

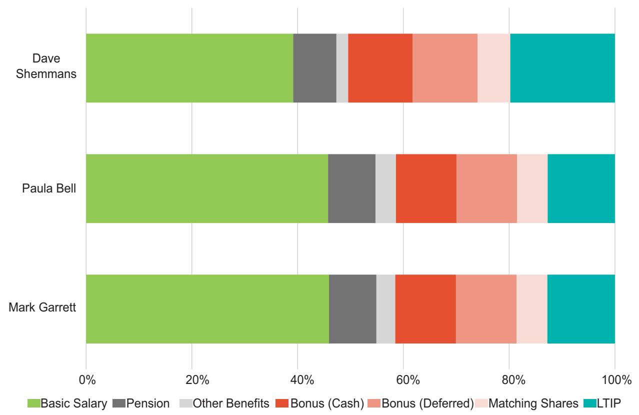
Towers Watson's appointment as independent remuneration advisor to the Committee was renewed during the year after a competitive tendering exercise. The original appointment date was effective from April 2009. The Committee is also supported by the Group HR Director, the Group Head of Reward and the Company Secretary. During the year under review, Towers Watson also provided services in connection with Ricardo's benefits and pension plan. The cost of each of these services was £92,334 for remuneration services and £699,824 for pension services. The pension related costs include fees for the defined benefit scheme of £479,329 (which includes the cost of the triennial actuarial valuation) and the defined contribution scheme of £220,495. Towers Watson is a member of the Remuneration Consultants' Group and complies with the Code of Conduct in relation to executive remuneration consulting in the UK. The Remuneration Committee is satisfied that the advice provided on executive remuneration is objective and impartial and that no conflict of interest arises as a result of other services which are provided to the trustees of the pension scheme and by separate teams of consultants.

Executive remuneration policy

The objective of Ricardo's executive remuneration policy is to provide remuneration packages that will reward and thereby retain talented people in the business and enable the recruitment of appropriately skilled and experienced newcomers. Therefore, the executive remuneration policy is to set levels of base salary that are competitive and to provide other remuneration package elements, namely the annual bonus plan and long-term incentive schemes, that give the senior management team the opportunity to receive upper quartile earnings for superior performance, compared with relevant companies of similar size and complexity to Ricardo.

The chart below illustrates the relative importance of each of the elements of remuneration package for executive directors, and shows target levels of bonus and the expected values of matching share and LTIP awards.

The elements of executive directors' remuneration



The above policy also seeks to ensure that the long-term interests of executive directors are appropriately aligned with those of shareholders. This is achieved through participation in the Company's share incentive schemes and the operation of the share retention policy (see page 69).

The remuneration packages for each executive director and their fixed and variable elements are reviewed annually. This process takes into account a number of factors, including:

- individual and business performance;
- pay arrangements for similar roles in other companies and consultancy organisations of Ricardo's size, complexity and international reach;
- risk management;
- pay and employment conditions of employees of the Group; and
- as necessary, the views of the Company's principal shareholders (which are sought by the Committee's Chairman).

As explained in last year's report, important amendments were made to the Group's share-based arrangements effective from 1 July 2011. The Committee has decided that there should be no significant changes to policy effective 1 July 2012.

Base salary

The annual review for base salaries is undertaken in January each year. A number of factors are taken into account when salaries are reviewed: principally market levels of total pay for comparable roles in companies of similar size, complexity and sector, as well as the individual director's experience, scope of responsibilities and performance and the salary increases for employees across the Group. In relation to the latter in particular, the Committee consulted with the Group HR Director to ensure that any increases in executive directors' salaries were broadly in line with those which applied to the wider employee populace. The increases for the executive directors were, for the CEO, 3.5% and, for the Finance Director, 3.5%. The increase for the Chief Operating Officer was 10% - this was viewed necessary by the Committee to move his salary progressively towards alignment with external market comparators as his experience, responsibilities and performance levels in the role have increased over time.

Annual performance related bonus

The annual performance related bonus for the year to 30 June 2012 was based on achievement against the financial measures of Group profit before tax and Group cash balance at year end and individual objectives.

The following table shows, for each of the executive directors, the maximum bonus potential for the year (as a % of salary), and the proportion of this maximum that was attributable to each of the above measures. The nature of the individual objectives is discussed further below.

Annual bonus maximum and weighting

			% of maximum bonus attributable to:		
	Basic[1] salary £'000	Maximum bonus (as a % of salary)	Group profit before tax measure	Group cash balance measure	Individual objectives
Dave Shemmans	415	125%	60%	15%	25%
Paula Bell	251	100%	60%	20%	20%
Mark Garrett	220	100%	60%	20%	20%

[1] Basic salary as of 1 January 2012 review

The choice of these measures, and their respective weightings for each individual, reflected the Committee's belief that any incentive compensation should be tied both to the overall performance of the Group and to those areas of the business that the relevant individual can directly influence.

The performance of the Company over the year included a 14% increase in profit before tax of continuing operations to £17.6m (2011: £15.4m) and an overall cash inflow in the year of £6.4m compared to a £9.3m inflow in the prior year. Ricardo's PBT performance was at target and cash performance achieved maximum.

Individual objectives included the development and implementation of the strategic plan, developing the business in emerging markets, identifying opportunities for inorganic growth, succession planning and the implementation of a Business Enterprise and Resource Planning system. The Committee judged that individual objectives were achieved at a level of 80% for the CEO, 95% for the Chief Operating Officer and 80% for the Group Finance Director.

In light of the above performance against all three targets, the Committee concluded that bonus payment should be made. The total bonus was 58% of maximum bonus for the CEO, 62% for the Chief Operating Officer and 59% for the Group Finance Director. This represents a bonus of 73%, 62% and 59% of base salary, respectively.

For the year commencing 1 July 2012, the Committee has determined that the overall structure of the annual performance-related bonus arrangement (including the maximum individual bonus potentials, the overall form of the performance targets and the relative weightings between each of those measures) will remain the same as summarised above.

Bonus deferral

Bonus payouts are subject to compulsory deferral into ordinary shares, the release of which is normally subject to continued employment for a three-year period from the award date. The Committee retains the discretion to reduce or 'claw back' the number of shares to be released in the event of significant misstatement of the Company's financial results in respect of the financial year to which the bonus relates.

As highlighted in last year's report and in the circular issued to shareholders at the time of the 2011 Annual General Meeting, 50% of any bonus paid to an executive director in respect of the financial year ending 30 June 2012 (and later years) will be deferred in this way.

The principal purpose of this bonus deferral mechanism is to:

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

Long-term incentives

Deferred bonus matching shares

In connection with the deferral of bonuses awarded in respect of the financial year ending 30 June 2012, the executive directors will be granted a "matching award" over further shares (up to a maximum of 1 for 1). The vesting of these awards will be subject to both continued employment and the extent to which performance conditions measured over a specified three year period are met. These matching awards will be granted pursuant to the rules of the Ricardo plc 2011 Deferred Bonus Plan (the "2011 DBP"), for which shareholder approval was given at the 2011 Annual General Meeting.

The performance conditions applicable to the above matching awards will be identical to those that will be applied to the awards to be made under the terms of the 2006 Long Term Incentive Plan (the "2006 LTIP") in the year ending 30 June 2013. These are described in more detail below.

The Remuneration Committee believes that the Deferred Bonus Plan both encourages share ownership and links short-term and long-term performance.

LTIP

Since 2006, the main form of long-term incentive for executive directors has been annual grants of performance shares, awarded under the terms of the 2006 LTIP. Awards under the 2006 LTIP (as well as matching awards under the 2011 DBP) are intended to focus motivation on the long-term performance of the Group in order to incentivise shareholder value creation. The maximum 2006 LTIP award that can be made to any executive is a face value of 100% of basic salary each year. Consistent with grants in November 2011, the face value of future awards is anticipated to be at a level of 55% of salary for the Group Finance Director and Chief Operating Officer and 100% of salary for the CEO.

All awards under the 2006 LTIP which were either granted or in existence during the year to 30 June 2012 (i.e. those granted in the financial years ending 30 June 2009, 2010, 2011 and 2012) are subject to the following performance conditions:

- 50% of any award vests according to Ricardo's total shareholder return (share price movement plus dividends reinvested – "TSR") performance relative to the constituents of the FTSE Small Cap Index (excluding financial services companies and investment trusts) over the 3 years from grant; and
- 50% of any award vests according to Ricardo's growth in normalised earnings per ordinary share ("EPS") relative to RPI over a period of 3 consecutive financial years.

The extent to which LTIP awards made during the financial years ending 30 June 2009, 2010, 2011 and 2012 vest in accordance with the above conditions can be summarised as follows:

Relative TSR portion (50%)		EPS growth portion (50%)	
Relative TSR performance against the FTSE Small Cap (excl financial services companies)	**Vesting level**	**EPS growth performance**	**Vesting level**
Below median	Nil	Less than RPI + 4% p.a.	Nil
Median	25%	RPI + 4% p.a.	30%
Upper quartile (or above)	100%	RPI + 11%[1] p.a.	100%
Between median and upper quartile	Straight-line basis	Between RPI + 4% and RPI + 11%[1] p.a.	Straight-line basis

[1] In the case of awards made during the financial year ending 30 June 2011, EPS growth of RPI + 12% p.a. is required for 100% vesting of the EPS growth portion.

The Committee believes that TSR and EPS are appropriate measures for the LTIP as they are strongly aligned to shareholder value creation. In particular, the normalised EPS performance targets are considered by the Committee to be suitably stretching, taking into account the economic/market outlook, the business plan and investor expectations at the time of each award.

In the case of awards to be granted under the 2006 LTIP (and matching awards to be made under the 2011 DBP) in the year ending 30 June 2013, the overall performance condition structure described above will be maintained, save that the performance level required for maximum vesting of the EPS growth portion will be adjusted from RPI +11% p.a. to RPI +10% p.a. This change is intended to ensure that the EPS growth condition is appropriately stretching in light of current business forecasts and the prevailing global economic uncertainty. The vesting of these awards in respect of the relative TSR condition will be unchanged from previous years. The targets applicable for any subsequent awards to be made in future years will be reviewed at the time they are made, taking account of prevailing conditions at the time.

For the LTIP award that vested in October 2011 (granted in October 2008), the extent to which each of the EPS and TSR targets were reached was 32.4% and 60.1%, respectively - giving an overall vesting level of 46.25%. The number and value of shares which vested in each of the executive directors was as follows:

Name of executive director	Number of shares in respect of which October 2008 LTIP awards vested	Value of shares vested (£'000)[1]
Dave Shemmans	62,929	224
Paula Bell	29,760	106
Mark Garrett	7,866	28

[1] Based on a share price on 24 October 2011 of £3.565

Further details of the above vestings can be found on page 71.

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 executive director 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. The directors' interests in the Company's shares can be found on page 72.

Executive share options

The diversity of the Company's business in terms of geography and sector also requires the flexibility to grant share awards or 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 cases, and in other circumstances in order to create greater alignment with shareholders and to incentivise further business growth. The maximum level of award that can be made to any executive under this plan is 100% of basic salary per annum. However, the Committee's policy in recent years has been only to make annual grants to the executive directors under the 2006 LTIP. As a consequence, no share option grants have been made during the year ending 30 June 2012 to directors (or indeed any Ricardo employees).

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 share option ("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 and, in the year ended 30 June 2012, offered an award of 281 shares to all UK based employees (with overseas employees being provided with a broadly equivalent benefit via a cash based "notional" share arrangement). The latter shares (and the cash equivalent awards) will normally vest on the third anniversary of grant, subject to continued employment.

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 5.34% of which 3.60% related to discretionary employee share plans.

The Company operates an employee benefit trust ("EBT") which has principally been used to facilitate the operation of the 2006 LTIP and deferred bonus arrangement. To date, all shares required to satisfy deferred bonus awards have been purchased in the market by the EBT, whereas 2006 LTIP grants have involved the issue of new shares to the trust. Any such new issue shares are, however, included in the dilution limits noted above.

Pensions

The Company operates a Defined Contribution Scheme, the Ricardo International Pension Scheme (RIPS).

The policy for executive directors continues to be a pension contribution of 20% of base salary over the Lower Earnings Limit for the year to 30 June 2012. Pension is calculated on basic salary only. The actual pension contribution for the Chief Executive Officer is 21.2% as a result of the protected company contribution level from the former defined benefit scheme, which is now closed to further accruals. Contributions are made to maximise the annual allowance limit and the rest paid in cash in lieu of pension.

The death in service benefit is a protected term as carry-over from the Defined Benefit arrangement such that Dave Shemmans is entitled to 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). Under the transition arrangements to the Direct Contribution Scheme, this benefit ends in 2014 and will become standard with that for the other executive directors, described below.

On death in service, all executive directors, subject to the medical requirements of the insurance company, are entitled to a lump sum of four times annual salary at date of death.

Early retirement is available with the consent of the Company and the trustees if the individual is over 55 or retiring due to ill health.

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 £17,500 p.a. and for Paula Bell and Mark Garrett is £12,000 p.a.

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
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. The Committee, when determining what compensation, if any, should be paid to the departing director, will consider this. In the case of the contracts for the executive directors, specific mitigation provisions are included to satisfy 'claw-back' provision. No compensation is paid for summary dismissal.

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 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 60 and 61. 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 that will attract individuals with the necessary experience and ability to make a significant contribution to the Group's affairs. The 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 (including the Chairman) are not present at meetings for any discussion or decision about their own remuneration. The fees are reviewed each January. The aggregate limit for fees paid to non-executive directors is laid down in the Articles of Association.

Non-executive director fees for the year ended 30 June 2012 are as follows:

	£'000
Chairman's total fees	124
Other non-executive fees:	
Basic fee	40
Additional fee for Audit and Remuneration Committee Chairmen	7
Additional fee for the Senior Independent Director	6

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 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 as at 30 June 2012 are:

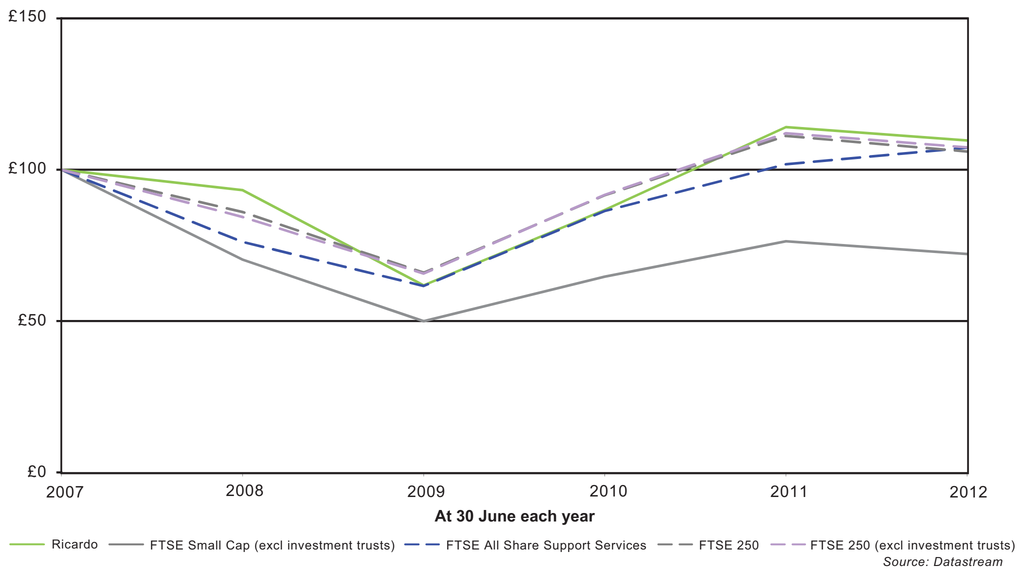
Michael Harper	12 months
David Hall	36 months
Ian Lee	25 months
Hans-Joachim Schöpf [1]	36 months
Peter Gilchrist	17 months

[1] Non-Executive member of the Technical Steering Group for which he receives a fee of €16,000 pa.

Performance graph

The chart below 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 1 July 2007 to 30 June 2012



Auditable part

The auditable part of the directors' remuneration report is set out below on pages 71 to 72.

Directors' emoluments for the year ended 30 June 2012:

	Basic salary and fees £'000	Performance related bonus as cash (50%) £'000	Performance related bonus as deferred shares (50%) £'000	Other benefits(a) £'000	Total 2012 £'000	Total 2011 £'000
Executive Directors						
Dave Shemmans (b)	408	150	150	99	807	874
Paula Bell (c)	247	74	74	28	423	452
Mark Garrett (d)	210	68	68	40	386	381
Non-executive Directors						
Hans-Joachim Schöpf	39	–	–	18	57	42
Michael Harper	122	–	–	3	125	123
David Hall	51	–	–	2	53	49
Ian Lee	45	–	–	6	51	47
Peter Gilchrist	39	–	–	3	42	24

Notes
(a) Other benefits include payments in lieu of pension provision for UK earnings over the notional earnings cap and other benefits (such as company car, private fuel, private medical insurance and life assurance). Other benefits also include the compensatory cash payments described in note 4 below in relation to the 2006 Long Term Incentive Plan and note 3 on page 72 in relation to the Deferred Bonus Plan.
(b) to (d) reflect the way in which the pension contribution described on page 69 was derived, as part payment to the DC scheme up to the Annual Allowance Limit and the remainder as cash
(b) In respect of Dave Shemmans, a cash benefit amount of £68,229 was paid in lieu of pension provision for UK earnings over the Lower Earnings Limit
(c) In respect of Paula Bell, a cash benefit amount of £3,080 was paid in lieu of pension provision for UK earnings over the Lower Earnings Limit
(d) In respect of Mark Garrett, a cash benefit amount of £21,981 was paid in lieu of pension provision for UK earnings over the Lower Earnings Limit

Directors' pensions

(a) With respect to defined benefit pension

The defined benefit scheme is closed and there are no active members of it. During the year ended 30 June 2012, the transfer value increased, primarily as a result of investment market conditions. This has affected the benefit level of the Chief Executive Officer as a deferred pensioner; the transfer value at 30 June 2012 was £283,000, an increase of £52,000 from prior year.

(b) With respect to defined contribution pension schemes

Employer contributions payable in the year	£'000
Dave Shemmans	17
Paula Bell	57
Mark Garrett	20

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

	Cycle Ending	Award Date (1)	Share price at award date in pence	At 1 July 2011	Allocated	Dividend roll up (2)(4)	Lapsed (2)	Vested (2)	At 30 June 2012 (3)	Vesting Date
Dave Shemmans	2011	Oct 08	299.90	120,040	–	16,025	73,136	62,929	–	24.10.11
	2012	Oct 09	246.60	124,188	–	–	–	–	124,188	21.10.12
	2013	Oct 10	301.70	126,483	–	–	–	–	126,483	25.10.13
	2014	Nov 11	368.80	–	108,644	–	–	–	108,644	03.11.14
Paula Bell	2011	Oct 08	299.90	56,769	–	7,578	34,587	29,760	–	24.10.11
	2012	Oct 09	246.40	69,094	–	–	–	–	69,094	21.10.12
	2013	Oct 10	301.70	58,687	–	–	–	–	58,687	25.10.13
	2014	Nov 11	368.80	–	36,263	–	–	–	36,263	03.11.14
Mark Garrett	2011	Oct 08	299.90	15,005	–	2,004	9,143	7,866	–	24.10.11
	2012	Oct 09	246.40	53,267	–	–	–	–	53,267	21.10.12
	2013	Oct 10	301.70	43,503	–	–	–	–	43,503	25.10.13
	2014	Nov 11	368.80	–	29,826	–	–	–	29,826	03.11.14

(1) Awards made under the 2006 LTIP: performance conditions as outlined on page 68.
(2) Awards granted under the 2006 LTIP during or prior to October 2008 benefited from dividend roll up entitlements, however awards granted thereafter did not.
(3) The mid-market closing price of the Company's shares on 30 June 2012 was 342.00p (2011: 406.00p).
(4) Due to a technical timing issue, the awards granted under the 2006 LTIP that vested in October 2011 (and which had been granted with the benefit of dividend roll up entitlements) did not receive any benefit from the November 2011 final dividend, notwithstanding the fact that the relevant record date fell prior to the date of vesting. As a consequence, an additional compensatory cash payment was made to relevant participants in the 2006 LTIP, including the executive directors (Dave Shemmans: £5,097.25; Paula Bell: £2,410.56; Mark Garrett: £637.15).

The value of shares vested under the October 2008 awards was £224,000 for Dave Shemmans, £106,000 for Paula Bell and £28,000 for Mark Garrett. The market price per share of these shares that vested on 24 October 2011 was 356.50p.

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 1 July 2011	Awarded	Dividend shares(1)(3)	Vested(2)	At 30 June 2012
Dave Shemmans	Oct 08	3 yrs	299.90	23,188	–	–	23,188	–
	Oct 10	3 yrs	301.70	8,094	–	267	–	8,361
	Nov 11	3 yrs	368.80	–	35,128	1,159	–	36,287
Paula Bell	Oct 08	3 yrs	299.90	13,241	–	–	13,241	–
	Oct 10	3 yrs	301.70	3,247	–	107	–	3,354
	Nov 11	3 yrs	368.80	–	17,230	568	–	17,798
Mark Garrett	Oct 08	3 yrs	299.90	5,621	–	–	5,621	–
	Oct 10	3 yrs	301.70	2,676	–	88	–	2,764
	Nov 11	3 yrs	368.80	–	13,738	453	–	14,191

(1) Amounts allocated include shares equivalent to dividends on provisional shares.
(2) The market price per share of the shares that vested on 24 October 2011 was 356.50p.
(3) Due to a technical timing issue, the awards granted under the DBP that vested in October 2011 (and which had been granted with the benefit of dividend roll up entitlements) did not receive any benefit from the November 2011 final dividend, notwithstanding the fact that the relevant record date fell prior to the date of vesting. As a consequence, an additional compensatory cash payment was made to relevant participants in the DBP, including the executive directors (Dave Shemmans: £1,878.23; Paula Bell: £1,072.52; Mark Garrett: £455.30). In addition, a minor amendment was made to the plan rules to prevent this issue arising in the future.

The 2004 Executive Share Option Plan

	At 1 July 2011	Granted	Exercised	Lapsed	At 30 June 2012	Exercise price in pence	Date from which exercisable	Expiry date
Dave Shemmans	80,000	–	–	–	80,000	267.50	22.02.08(1)	21.02.15
Paula Bell	25,000	–	–	–	25,000	300.00	20.10.09(1)	19.10.16
Mark Garrett	16,672	–	–	9,604	7,068	305.00	22.10.11(1)	21.10.18

(1) The ability to exercise the above options was originally subject to certain EPS related performance conditions which have now been satisfied. Further details of these conditions can found on page 56 of the Ricardo plc Annual Report & Accounts 2011 which is available on the Company's website.

The closing mid-market price of the Company's shares on 29 June 2012 was 342.00p pence. The highest closing price during the year was 410.00p and the lowest closing price during the year was 304.50p.

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 2012	Number of shares At 30 June 2011
Dave Shemmans	139,218	97,883
Paula Bell	51,859	31,220
Mark Garrett	13,098	6,625
Michael Harper	30,000	30,000
David Hall	20,000	20,000
Ian Lee	10,000	10,000
Hans-Joachim Schöpf	10,000	10,000
Peter Gilchrist	4,150	2,650

At 19 September 2012, the interests in shares of the directors who were still in office were unchanged from those at 30 June 2012.

David S. Hall

David Hall
Chairman of the Remuneration Committee
19 September 2012

Directors' report

Patricia Ryan, Company Secretary and Group General Counsel

The directors present their report and the audited consolidated financial statements for the year ended 30 June 2012.

Principal Activities and Business Review

The principal activities of the Group are the provision of technical and strategic consulting, and manufacturing, assembly, software sales and related services to industry, commerce and other agencies. The directors have prepared a Business Review which is set out on pages 6 to 35 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.

A segmental analysis is given in note 2 to the financial statements, and financial risks and policies are given in note 22 to the financial statements with the principal risks outlined in the Risk Management report on pages 28 to 29. The Corporate Governance statement is described from pages 62 to 65.

All information detailed in these pages is incorporated by reference into this report and is deemed to form part of this report.

Board of Directors

The following directors served on the Board during the year ended 30 June 2012 and up until the date of this report:

Non-executive directors:

- Michael Harper, MSc, CCMI, FRAeS
- David Hall, CBE, MA, MSc
- Ian Lee, BA, CA, CPA
- Hans-Joachim Schöpf
- Peter Gilchrist, CB

Executive directors:

- Dave Shemmans, BEng
- Paula Bell, FCMA, CGMA
- Mark Garrett, CEng, FIMechE

Details of directors' remuneration and service contracts are set out in the Directors' remuneration report on pages 66 to 72.

Qualifying third party indemnity

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.

Directors' interests

At no time in 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.

Appointment and retirement of directors

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. In accordance with the UK Corporate Governance Code and the Company's Articles of Association, all directors will retire at the Annual General Meeting in November 2012 and, being eligible, will offer themselves for re-election. In addition to powers of removal of a director conferred by legislation from time to time, the Company's Articles of Association also allow shareholders to remove a director from office by ordinary resolution of which special notice has been given.

Directors' responsibilities

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 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 (Chairman); Michael Harper; David Hall; Hans-Joachim Schöpf and Peter Gilchrist;

Remuneration Committee: David Hall (Chairman); Ian Lee, Michael Harper; Hans-Joachim Schöpf and Peter Gilchrist;

Nomination Committee: Michael Harper (Chairman); David Hall; Ian Lee; Hans-Joachim Schöpf; Peter Gilchrist and Dave Shemmans.

Details of the roles of the Board of Directors and Board Committees can be found on pages 62 to 65 and of the role of the Remuneration Committee on page 66.

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 prepared 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 year.

In preparing those financial statements, the directors are required to select suitable accounting policies and then apply them consistently, make judgements and estimates that are reasonable and prudent, state whether the financial statements comply with IFRSs as adopted by the European Union, and prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Group will continue in business. The directors confirm that they have complied with these requirements in preparing the financial statements.

The directors are responsible for keeping proper 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 to 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 corporate and financial information included on 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, whose names and functions are listed on pages 60 and 61 confirm that, to the best of their knowledge that:

- 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, contained in pages 6 to 35, 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.

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 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 Company for the year ended 30 June 2012 were 32 days (2011: 37 days).

Donations

During the year the Group made various charitable donations which are summarised in the Corporate social responsibility report on page 32. The Group made no political donations during the year to 30 June 2012.

Disclosure of information

So far as the directors in service at the date of approval of this report are aware, there is no information that would be needed by the Company's auditors in connection with preparing their report of which the Company's auditors are not aware. 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.

Employment of people with disabilities

People with disabilities have equal opportunities when applying for vacancies. In addition to complying with legislative requirements, procedures are in place to ensure that disabled employees are treated fairly and that their training and career development needs are managed carefully. The policies are considered by the Board to operate effectively. For those employees who become disabled during the course of their employment, the Group will provide support, whether through re-training or re- deployment, so that they will continue to be employed, wherever practicable, in the same job, or if this is not practicable, every effort will be made to find suitable alternative employment.

Diversity

The Group is committed to promoting equality of opportunity for all employees and job applicants free from all forms of discrimination. Ricardo is an inclusive employer and values diversity in its employees and aims to recruit the best person for the role in all its positions Group-wide.

Women make up approximately 13 percent of the workforce in the Group worldwide, an increase on the previous year, and the average percentage of women represented on the boards of the Group companies is 24 percent and of the Company board itself is 12.5 percent.

	Number of Shares at 30 June 2012	% of issued share capital	Number of Shares at 3 September 2012	% of issued share capital
Delta Lloyd Asset Management	7,022,339	13.54	7,022,339	13.54
Artemis Fund Managers	5,193,588	10.02	4,996,619	9.64
Baillie Gifford & Co	3,509,208	6.77	3,184,620	6.14
J P Morgan Asset Management	3,417,510	6.59	3,417,510	6.59
Legal & General Investment Management	3,288,596	6.34	3,260,537	6.29
Montanaro Investment Management	3,074,800	5.93	3,074,800	5.93
Schroder Investment Management	2,750,496	5.31	2,751,589	5.31
BlackRock Investment Management	1,852,426	3.57	1,940,562	3.74

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, such as commercial contracts, bank facility 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 Capital – 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 Company's 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 2011 Annual General Meeting shareholder resolutions were passed authorising the directors to allot relevant securities of the Company up to a maximum nominal amount of £4,241,177. In addition, at the same meeting shareholders authorised the Company to make market purchases of its own ordinary shares up to a maximum of 5,140,820 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.

Share Capital – voting and other rights

As at 19 September 2012 the Company's share capital is divided solely into 51,846,929 ordinary shares of 25 pence each, all of which are fully paid. The ordinary shares are listed on the London Stock Exchange. 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. There are no restrictions on voting rights and no securities carry special voting rights with regard to the control of the Company.

Substantial shareholders

The Company is informed pursuant to the Disclosure and Transparency Rules that, as at 30 June 2012 and 3 September 2012, the above are holders of more than 3 percent of the Company's issued share capital, all of which are non-beneficial interests.

Annual General Meeting

The 2012 Annual General Meeting of the Company will take place at 10.00 a.m. on 15 November 2012 at Queen Elizabeth II Conference Centre, Broad Sanctuary, Westminster, London SW1P 3EE. A separate notice of meeting will be sent to shareholders.

Dividend (resolution 3)

The directors propose a final dividend of 8.7 pence (2011: 8.1 pence) per share, amounting to £4,510,682 (2011: £4,164,064) payable on 20 November 2012 to shareholders on the register at close of business on 19 October 2012. The final dividend proposed will make a total of 12.4 pence (2011: 11.5 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 12)

The following directors offer themselves for re-election:

- Peter Gilchrist be re-elected as a director of the Company.
- Michael Harper be re-elected as a director of the Company.
- Ian Lee be re-elected as a director of the Company.
- David Hall be re-elected as a director of the Company.
- Hans-Joachim Schöpf be re-elected as a director of the Company.
- Dave Shemmans be re-elected as a director of the Company.
- Paula Bell be re-elected as a director of the Company.
- Mark Garrett be re-elected as a director of the Company.

Biographical details of these directors and the other directors in office at 30 June 2012 are shown on pages 60 and 61.

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 13 and 14)

The directors will seek to renew 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 (as would otherwise be required by Section 561 of the Act), 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 £4,277,371, which represents 33 percent 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 2013 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 £648,086, equivalent to 5 percent 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 percent 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 15)

The directors will seek authority for the purposes of section 701 of the Act to make market purchases of up to 10 percent 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 16)

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 clear days provided that the Company offers the facility to members to vote by electronic means.

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.

By order of the Board

Patricia Ryan

Patricia Ryan
Company Secretary and Group General Counsel
19 September 2012

Independent auditors' report

to the members of Ricardo plc

We have audited the financial statements of Ricardo plc for the year ended 30 June 2012 from pages 80 to 111 which comprise the Consolidated Income Statement, Consolidated Statement of Comprehensive Income, the Group and Parent Company Statements of Changes in Equity, the Group and Parent Company Statements of Financial Position, the Consolidated and Parent Company Statements of Cash Flow 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 Statement of Directors' Responsibilities set out on page 74, 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 and express an opinion on 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 Chapter 3 of Part 16 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. In addition, we read all the financial and non-financial information in the financial statements to identify material inconsistencies with the audited financial statements. If we become aware of any apparent material misstatements or inconsistencies we consider the implications for our report.

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 2012 and of the Group's profit and 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 Directors' Report for the financial year for which the financial statements are prepared is consistent with the financial statements; and
- the information given in the Corporate Governance in Practice Statement with respect to internal control and risk management systems and about share capital structures 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; or
- a corporate governance statement has not been prepared by the Parent Company.

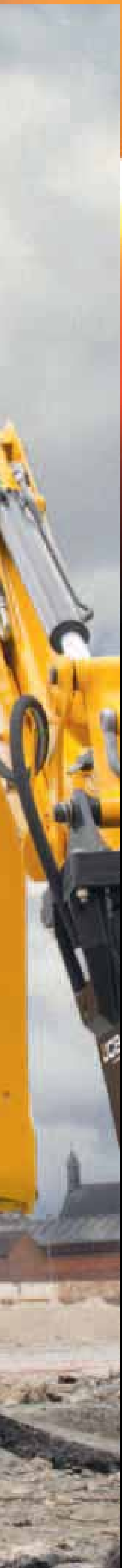
Under the Listing Rules we are required to review:

- the directors' statement, set out on page 65, in relation to going concern;
- the parts of the Corporate Governance Statement relating to the company's compliance with the nine provisions of the UK Corporate Governance Code specified for our review; and
- certain elements of the report to shareholders by the Board on directors' remuneration.

Graham Lambert.

Graham Lambert (Senior Statutory Auditor)
for and on behalf of PricewaterhouseCoopers LLP
Chartered Accountants and Statutory Auditors
Gatwick
19 September 2012

The JCB Ecomax engine uses the Ricardo Twin Vortex Combustion System



Financial statements

Consolidated income statement
for the year ended 30 June 2012

	Notes	Year ended 30 June 2012 £m	Year ended 30 June 2011 £m
Revenue	2 & 3	**197.4**	196.5
Cost of sales		**(115.1)**	(123.0)
Gross profit		**82.3**	73.5
Administration expenses		**(64.2)**	(55.7)
Other income		**0.5**	0.2
Operating profit	2 & 4	**18.6**	18.0
Finance income	6	**0.3**	0.2
Finance costs	6	**(1.3)**	(2.8)
Profit before taxation		**17.6**	15.4
Taxation	7	**(2.5)**	–
Profit for the year from continuing operations		**15.1**	15.4
Loss for the year from discontinued operations	9	**–**	(0.2)
Profit for the year		**15.1**	15.2
Earnings per ordinary share			
From continuing operations			
Basic	10	**29.3p**	30.0p
Diluted	10	**29.0p**	29.7p
From continuing and discontinued operations			
Basic	10	**29.3p**	29.6p
Diluted	10	**29.0p**	29.3p

Consolidated statement of comprehensive income

for the year ended 30 June 2012

	Notes	Year ended 30 June 2012 £m	Year ended 30 June 2011 £m
Profit for the year		**15.1**	15.2
Other comprehensive income			
Currency translation on foreign currency net investments	*29*	**(2.0)**	1.2
Fair value gain on foreign currency net investment hedges	*29*	**–**	0.3
Fair value loss on foreign currency cash flow hedges	*29*	**–**	(0.1)
Actuarial (losses)/gains on defined benefit scheme	*23*	**(10.0)**	19.1
Tax on items taken directly to equity	*24*	**2.6**	(5.5)
Total other comprehensive (loss)/income for the year (net of tax)		**(9.4)**	15.0
Total comprehensive income for the year		**5.7**	30.2

Statements of changes in equity

for the year ended 30 June 2012

Group	Notes	Share capital £m	Share premium £m	Other reserves £m	Retained earnings £m	Total equity £m
At 1 July 2011		12.9	13.8	6.4	56.5	89.6
Total comprehensive income for the year		–	–	(1.7)	7.4	5.7
Share-based payments	*27*	–	–	–	0.4	0.4
Proceeds from shares issued		0.1	0.1	–	–	0.2
Ordinary share dividends	*8*	–	–	–	(6.1)	(6.1)
At 30 June 2012		**13.0**	**13.9**	**4.7**	**58.2**	**89.8**
At 1 July 2010		12.9	13.8	5.2	32.9	64.8
Total comprehensive income for the year		–	–	1.2	29.0	30.2
Share-based payments	*27*	–	–	–	0.2	0.2
Ordinary share dividends	*8*	–	–	–	(5.6)	(5.6)
At 30 June 2011		12.9	13.8	6.4	56.5	89.6

Company	Notes	Share capital £m	Share premium £m	Other reserves £m	Retained earnings £m	Total equity £m
At 1 July 2011		12.9	13.8	–	39.5	66.2
Total comprehensive income for the year		–	–	–	5.7	5.7
Share-based payments	*27*	–	–	–	0.4	0.4
Proceeds from shares issued		0.1	0.1	–	–	0.2
Ordinary share dividends	*8*	–	–	–	(6.1)	(6.1)
At 30 June 2012		**13.0**	**13.9**	**–**	**39.5**	**66.4**
At 1 July 2010		12.9	13.8	–	18.5	45.2
Total comprehensive income for the year		–	–	–	26.4	26.4
Share-based payments	*27*	–	–	–	0.2	0.2
Ordinary share dividends	*8*	–	–	–	(5.6)	(5.6)
At 30 June 2011		12.9	13.8	–	39.5	66.2

Consolidated and parent company statements of financial position

as at 30 June 2012

		Group		Company	
		30 June 2012	30 June 2011	**30 June 2012**	30 June 2011
	Notes	**£m**	£m	**£m**	£m
Assets					
Non-current assets					
Goodwill	*11*	**15.3**	16.7	**–**	–
Other intangible assets	*12*	**6.8**	5.6	**5.0**	4.1
Property, plant and equipment	*13*	**45.6**	45.8	**8.2**	8.5
Investment property	*14*	**–**	1.9	**–**	–
Investments	*15*	**–**	–	**49.8**	48.5
Trade and other receivables	*17*	**0.1**	1.2	**–**	–
Deferred tax assets	*24*	**15.4**	15.6	**6.4**	4.1
		83.2	86.8	**69.4**	65.2
Current assets					
Inventories	*16*	**8.0**	5.2	**–**	–
Trade and other receivables	*17*	**62.9**	61.9	**31.5**	31.2
Derivative financial assets		**–**	0.2	**–**	0.1
Current tax assets		**1.7**	0.7	**–**	–
Cash and cash equivalents	*32*	**10.2**	9.9	**0.8**	0.2
		82.8	77.9	**32.3**	31.5
Total assets		**166.0**	164.7	**101.7**	96.7
Liabilities					
Current liabilities					
Bank loans and overdrafts	*20*	**(2.3)**	(8.2)	**–**	(5.5)
Trade and other payables	*19*	**(48.2)**	(48.8)	**(13.3)**	(10.0)
Derivative financial liabilities		**(0.2)**	–	**(0.1)**	–
Current tax liabilities		**(2.7)**	(2.8)	**(0.8)**	(0.9)
Provisions	*25*	**(1.7)**	(1.0)	**–**	–
		(55.1)	(60.8)	**(14.2)**	(16.4)
Net current assets		**27.7**	17.1	**18.1**	15.1
Non-current liabilities					
Bank loans		**–**	(0.2)	**–**	–
Retirement benefit obligations	*23*	**(20.4)**	(13.4)	**(20.4)**	(13.4)
Deferred tax liabilities	*24*	**(0.7)**	(0.7)	**(0.7)**	(0.7)
		(21.1)	(14.3)	**(21.1)**	(14.1)
Total liabilities		**(76.2)**	(75.1)	**(35.3)**	(30.5)
Net assets		**89.8**	89.6	**66.4**	66.2
Shareholders' equity					
Share capital	*26*	**13.0**	12.9	**13.0**	12.9
Share premium	*28*	**13.9**	13.8	**13.9**	13.8
Other reserves	*29*	**4.7**	6.4	**–**	–
Retained earnings	*30*	**58.2**	56.5	**39.5**	39.5
Total equity		**89.8**	89.6	**66.4**	66.2

The financial statements of Ricardo plc (registered number 222915) on pages 80 to 111 were approved by the Board of Directors on 19 September 2012 and signed on its behalf by:

Dave Shemmans
(Chief Executive Officer)

Paula Bell
(Group Finance Director)

Consolidated and parent company statements of cash flow

for the year ended 30 June 2012

	Notes	Group Year ended 30 June 2012 £m	Group Year ended 30 June 2011 £m	Company Year ended 30 June 2012 £m	Company Year ended 30 June 2011 £m
Cash flows from operating activities					
Cash generated/(used) by operations	31	**24.3**	28.3	**0.4**	(0.3)
Interest received		**0.3**	0.2	**0.6**	0.8
Interest paid		**(0.4)**	(0.9)	**(0.3)**	(0.6)
Defined benefit pension scheme financing costs		**(0.9)**	(1.9)	**(0.9)**	–
Tax paid		**(0.9)**	(2.1)	**–**	–
Net cash generated/(used) by operating activities		**22.4**	23.6	**(0.2)**	(0.1)
Cash flows from investing activities					
Net proceeds on disposal of discontinued operations		**–**	1.4	**–**	–
Purchase of intangible assets		**(2.5)**	(2.6)	**(1.4)**	(1.9)
Purchase of property, plant and equipment		**(8.5)**	(6.5)	**(0.1)**	(0.1)
Purchase of investments in subsidiary undertakings		**–**	–	**(1.3)**	–
Net cash used by investing activities		**(11.0)**	(7.7)	**(2.8)**	(2.0)
Cash flows from financing activities					
Net proceeds from issue of ordinary share capital		**0.2**	–	**0.2**	–
Net proceeds from issue of new bank loan		**–**	16.1	**–**	14.5
Repayment of borrowings		**(0.8)**	(25.9)	**–**	(23.5)
Dividends paid to shareholders	8	**(6.1)**	(5.6)	**(6.1)**	(5.6)
Dividends received from subsidiaries		**–**	–	**15.0**	13.2
Net cash (used)/generated by financing activities		**(6.7)**	(15.4)	**9.1**	(1.4)
Effect of exchange rate changes		**0.7**	(0.8)	**–**	–
Net increase/(decrease) in cash and cash equivalents		**5.4**	(0.3)	**6.1**	(3.5)
Cash and cash equivalents at 1 July		**4.4**	4.7	**(5.3)**	(1.8)
Net cash and cash equivalents at 30 June		**9.8**	4.4	**0.8**	(5.3)
At 1 July					
Cash and cash equivalents	32	**9.9**	7.8	**0.2**	0.1
Bank overdrafts	32	**(5.5)**	(3.1)	**(5.5)**	(1.9)
	32	**4.4**	4.7	**(5.3)**	(1.8)
At 30 June					
Cash and cash equivalents	32	**10.2**	9.9	**0.8**	0.2
Bank overdrafts	32	**(0.4)**	(5.5)	**–**	(5.5)
	32	**9.8**	4.4	**0.8**	(5.3)

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 2011 and 30 June 2012. Ricardo plc is incorporated and domiciled in the UK.

(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 on a going concern basis under the historical cost convention, as modified by financial assets and financial liabilities (including derivative instruments) which are measured at fair value.

The preparation of financial statements in conformity with IFRS requires the use of certain critical accounting estimates. It requires management to exercise its judgement in the process of applying the Group's accounting policies, as described in note 1(c).

In the year, the Group adopted the following amendments and interpretations to published standards: May 2010 Annual Improvements to IFRSs, IAS 24 Related Party Disclosure, IFRS 7 Financial Instruments: Disclosures, and IFRIC 14 Prepayments of a minimum funding requirement.

None of the amended or revised standards have had any significant impact on the financial statements. New, revised or amended standards and interpretations that are not yet effective have not been early adopted and are disclosed in note 1(w).

(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 year. Businesses acquired are accounted for as acquisitions with effect from the date control passes. Those disposed of are accounted for up until control passes at the date of disposal. All intra-group transactions and balances are eliminated on consolidation. Where necessary, adjustments are made to the financial statements of subsidiaries to bring the accounting policies used into line with those used by the Group.

(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.

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 18.

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 and the accrual of future benefits for active members ceased at the end of February 2010. 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 23.

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 net of any taxation liability credits relating to research and development having taken appropriate professional advice. Determination of an agreed amount of taxation payable may take several years, and the final amount 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. Further details of these are given in note 24.

Goodwill

The Group carries out an impairment review on Goodwill on an annual basis. This requires estimation of the value in use of the cash generating units to which the goodwill is allocated. Estimating the value in use requires the Group to make an estimate of the expected future cash flows from the cash generating units and also to choose a suitable discount rate in order to calculate the present value of those cash flows. Further details are given in note 11.

Warranty provisions

A provision is required when the Group has a present legal or constructive obligation at the reporting 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.

(d) Segmental reporting

An operating segment is identified by IFRS 8 as a component of an entity that engages in business activities from which it may earn revenues and incur expenses, including revenues and expenses relating to transactions with other components of the same entity; whose operating results are reviewed regularly by the entity's Chief Operating Decision Maker in order to allocate resources and assess its performance; and for which discrete financial information is available.

(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

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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 when it becomes probable that the contract cost 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 sale of software licences 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 received from customers for services not yet recognised as revenue are initially classified as payments received in advance on contracts within trade and other payables.

Supply of products
Revenue from the sale of goods is measured at the fair value of the consideration. Revenue from the sale of goods is recognised when the Group has transferred the significant risks and rewards of ownership of the goods to the buyer, when the amount of revenue can be measured reliably and when it is probable that the economic benefits associated with the transaction will flow to the Group, typically on delivery of goods.

The Group's revenue from the sale of tangible goods is principally derived from the sale of high-performance products produced in the Group's assembly operations. In practice, revenue is typically recognised for such sales on delivery to the customer.

A small proportion of products 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
Research and development expenditure is recognised as an expense in the income statement in the period in which it is incurred as disclosed in note 4, other than where the activity is performed for customers or when development expenditure meets the criteria for recognition as an intangible asset as described in note 1(o), 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 received in advance on contracts.

(h) Retirement benefit costs
The Group operates one defined benefit and several defined contribution schemes. Payments to defined contribution schemes are charged as an expense as they fall due. Differences between contributions payable in the year and contributions actually paid are shown as either accruals or prepayments in the statement of financial position. 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 reporting date. Actuarial gains and losses are recognised in the consolidated statement of comprehensive income 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 statement of financial position 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.

The expected return on the schemes' assets and the increase during the year in the present value of the schemes' liabilities arising from the passage of time are included in finance costs.

(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. The amount expensed is adjusted over the vesting period for changes in the estimate of the number of shares that will eventually vest, save for changes resulting from any market-related performance conditions.

Cash-settled share-based payments are measured at fair value at the date of grant and expensed over the period until the vesting date with the recognition of a corresponding liability. The liability is remeasured to fair value at each reporting date up to and including the settlement date, with changes in fair value recognised in profit or loss for the year. The amount expensed is adjusted over the vesting period for changes in the estimate of the number of shares that will eventually vest.

Fair value is measured by using the Monte Carlo model as explained in note 27. The expected life used in the model is adjusted for the effects of exercise restrictions and behavioural considerations.

(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 reporting date, monetary assets and liabilities denominated in foreign currencies are retranslated at the rates prevailing on the reporting 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 year.

Consolidation

On consolidation, the assets and liabilities of foreign operations, including goodwill and fair value adjustments are translated at exchange rates prevailing on the reporting date. Income and expense items are translated at the average exchange rates of the year 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

Income tax on the profit or loss for the year comprises current and deferred tax. Income tax is recognised in the income statement except to the extent that it relates to items recognised directly in equity, in which case it is recognised in equity.

Current tax is the expected tax payable on the taxable income for the year, using rates enacted or substantively enacted at the reporting date, and any adjustment to tax payable in respect of previous years.

Deferred tax is provided in full, using the liability method, on temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. The following temporary differences are not provided for: goodwill not deductible for tax purposes, the initial recognition of assets or liabilities that affect neither accounting nor taxable profit, and differences relating to investments in subsidiaries to the extent that they will probably not reverse in the foreseeable future. The amount of deferred tax provided is based on the expected manner of realisation or settlement of the carrying amount of assets and liabilities, using tax rates enacted or substantively enacted at the reporting date. A deferred tax asset is recognised only to the extent that it is probable that future taxable profits will be available against which the asset can be utilised. Deferred tax assets are reduced to the extent that it is no longer probable that the related tax benefit will be realised.

(m) Dividends

Dividends are recognised as a liability in the year 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 reporting date.

Goodwill is recognised as an asset, and is carried at cost less accumulated impairment losses. It is not subject to amortisation, but is reviewed for impairment at least annually. The recoverable amount is evaluated as the higher of the net realisable value and the value in use. Estimating the value in use requires the Group to make an estimate of the expected future cash flows from the cash generating unit and also to choose a suitable discount rate in order to calculate the present value of those cash flows. Cash generating units are typically business units which are separately managed, for which financial results are individually reported and which generate cash flows that are largely independent. 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 plus 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 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 on a straight-line basis over estimated useful lives as follows:

– Purchased software	Between 2 and 10 years
– Capitalised development costs	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
– 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	

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at the end of each reporting period.

(q) Investment properties

Investment properties are properties held to earn rentals and/or for capital appreciation. The Group measures investment property at its cost less accumulated depreciation and accumulated impairment losses.

Depreciation is provided to write off the depreciable amount of freehold investment properties on a straight-line basis over its estimated useful life of between 25 and 50 years. The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at each balance sheet date.

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

(s) 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.

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.

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.

(t) Inventories
Inventories are stated at the lower of cost, including attributable overheads, and net realisable value. Cost is calculated using the weighted average method in the Technical Consulting segment and using the first-in, first-out method in the Performance Products segment. 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. In the statements of cash flow, cash and cash equivalents comprise cash balances and deposits with maturities of three months or less at inception and bank overdrafts repayable on demand. In the statements of financial position, bank overdrafts are shown within bank loans and overdrafts in current liabilities.

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 and subsequently 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.

Derivative financial instruments and hedge accounting
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, including 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. 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 the time remains in equity and is recognised when the forecast transaction is ultimately recognised 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 2012, the International Accounting Standards Board and IFRIC had issued the standards and interpretations, shown below, that subject to adoption by the EU, are effective after the current year end and have not been early adopted by the Group.

Issued standards and interpretations not yet effective	Effective date (periods commencing)	Endorsed by EU
International Financial Reporting Standards		
IFRS 10 Consolidated Financial Statements	01-Jan-13	No
IFRS 11 Joint Arrangements	01-Jan-13	No
IFRS 12 Disclosure of Interests in Other Entities	01-Jan-13	No
IFRS 13 Fair Value Measurement	01-Jan-13	No
IFRS 9 Financial Instruments	01-Jan-15	No
Amendments to International Financial Reporting Standards		
IAS 12 Income Taxes	01-Jan-12	No
IAS 1 Presentation of Financial Statements	01-Jul-12	Yes
2011 Annual Improvements to IFRSs	01-Jan-13	No
IAS 19 Employee Benefits	01-Jan-13	Yes
IAS 27 Separate Financial Statements	01-Jan-13	No
IAS 28 Investments in Associates and Joint Ventures	01-Jan-13	No
IFRS 1 First Time Adoption	01-Jan-13	No
IFRS 7 Financial Instruments: Disclosures	01-Jan-13	No
IAS 32 Financial Instruments: Presentation	01-Jan-14	No
International Financial Reporting Interpretations		
IFRIC 20 Stripping Costs in the Production Phase of a Surface Mine	01-Jan-13	No

It is not expected that the implementation of these standards and interpretations will have a significant impact on the Group's accounting or disclosures.

2 Segmental reporting

The Group's operating segments are being reported based on the financial information provided to the Chief Operating Decision Maker who is the Chief Executive Officer. The reportable segments for continuing operations are Technical Consulting and Performance Products. These were identified by evaluating the following factors; products and services, processes, types of customers and delivery methods.

- Technical Consulting provides services in relation to the development and implementation of engineering projects and in relation to management and operational consultancy.
- Performance Products generates income from manufacturing, assembly, software sales and related services.

The Technical Consulting results now include the strategic consulting business as well as the UK, US and Germany Technical Consulting businesses, all of which were previously presented separately. The combined reporting better reflects the size and nature of the business, which now operates on a standard platform of common processes and IT to maximise efficiency from our global engineering resource, and is consistent with how the business is reviewed internally by the Chief Executive Officer. Prior year comparatives have been restated to reflect this.

Inter-segment revenue is eliminated on consolidation. Transactions are entered into on an arm's length basis in a manner similar to transactions with third parties.

As described above, the strategic consulting business has now been included within Technical Consulting to form the reportable operating segments. Management monitors the operating results of its strategic business units separately for the purpose of making decisions about allocating resources and assessing performance. Segment performance is measured based on operating profit. Included within the Head Office and consolidation adjustments column in the tables below are functions managed by a central division (including the costs of running the public company).

Year ended 30 June 2012

	Technical Consulting £m	Performance Products £m	Head Office and consolidation adjustments £m	Total £m
Revenue from external customers	149.2	48.2	–	197.4
Inter-segment revenues	0.5	0.1	–	0.6
Total revenues	149.7	48.3	–	198.0
Revenues carried out by other segments	(0.1)	(0.5)	–	(0.6)
Revenue earned	149.6	47.8	–	197.4
Operating profit from continuing operations	14.7	5.8	(1.9)	18.6
Finance income	0.2	–	0.1	0.3
Finance costs	(0.2)	–	(1.1)	(1.3)
Profit before taxation from continuing operations	14.7	5.8	(2.9)	17.6
Total assets per financial statements	122.8	22.1	21.1	166.0
Total liabilities per financial statements	(40.1)	(7.3)	(28.8)	(76.2)
Depreciation and Amortisation	5.9	1.0	0.9	7.8
Capital expenditure – Intangible assets	1.0	0.1	1.4	2.5
Capital expenditure – Property, plant and equipment	8.3	0.7	–	9.0

Year ended 30 June 2011

	Technical Consulting (Restated) £m	Performance Products £m	Head Office and consolidation adjustments (Restated) £m	Total £m
Revenue from external customers	155.5	41.0	–	196.5
Inter-segment revenues	0.2	0.1	–	0.3
Total revenues	155.7	41.1	–	196.8
Revenues carried out by other segments	(0.1)	(0.2)	–	(0.3)
Revenue earned	**155.6**	**40.9**	**–**	**196.5**
Operating profit from continuing operations	14.3	5.2	(1.5)	18.0
Finance income	–	–	0.2	0.2
Finance costs	(2.3)	–	(0.5)	(2.8)
Profit before taxation from continuing operations	**12.0**	**5.2**	**(1.8)**	**15.4**
Total assets per financial statements	**127.8**	**19.2**	**17.7**	**164.7**
Total liabilities per financial statements	**(39.5)**	**(8.3)**	**(27.3)**	**(75.1)**
Depreciation and amortisation	6.7	0.8	0.4	7.9
Capital expenditure – Intangible assets	0.5	0.1	2.0	2.6
Capital expenditure – Property, plant and equipment	4.8	1.6	0.1	6.5

The segmental results for the year ended 30 June 2011 have been restated in relation to certain intercompany foreign exchange gains and losses in the Technical Consulting segment, which are now all managed and accounted for under Head Office and Consolidation adjustments. Group operating profit and profit before tax remain unchanged.

Revenues from one customer of the Technical Consulting segment represent approximately £31.4m of the Group's external revenue. In the prior year revenues from this customer represented approximately £21.6m, of which £21.4m was reported in the Technical Consulting segment and £0.2m in the Performance Products segment. Revenues from another customer represent approximately £26.8m (2011: £11.2m) of the Group's external revenue, of which £4.3m is reported in the Technical Consulting segment and £22.5m in the Performance Products segment. In the prior year revenues from another customer represented approximately £22.3m of the Group's external revenue, of which £0.6m was reported in the Technical Consulting segment and £21.7m in the Performance Products segment.

Non-Current Assets by geographical location

Asset location	**2012 £m**	2011 £m
UK	**38.8**	38.1
US	**7.5**	7.0
Germany	**20.6**	25.6
Rest of the World	**0.8**	0.5
	67.7	71.2

3 Revenue

a) Revenue by category

Continuing Operations	**2012 £m**	2011 £m
Rendering of services	**153.7**	159.4
Sale of goods	**43.7**	37.1
	197.4	196.5
Discontinued Operations		
Sale of goods	**–**	0.9
Total revenue	**197.4**	197.4

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b) Revenue by customer location

External Revenue – continuing operations	2012 £m	2011 £m
UK	**96.1**	70.0
Germany	**22.0**	23.7
Rest of Europe	**9.6**	16.8
Europe Total	**127.7**	110.5
US	**34.0**	47.8
China	**8.6**	8.0
Japan	**14.5**	13.8
Malaysia	**4.3**	9.6
Rest of Asia	**7.7**	6.5
Asia Total	**35.1**	37.9
Rest of the World	**0.6**	0.3
	197.4	196.5

4 Operating profit

	2012 £m	2011 £m
The following items have been charged/(credited) in arriving at operating profit:		
Amortisation of intangible assets (note 12)	**1.2**	0.7
Depreciation of property, plant and equipment (note 13)	**6.6**	7.2
Cost of inventories recognised as expense	**21.5**	19.9
Operating lease rentals payable	**4.2**	3.7
Repairs and maintenance on property, plant and equipment	**2.9**	2.7
Other income – rental	**(0.5)**	(0.2)
Redundancy and termination costs	**0.2**	1.2
(Profit)/loss on disposal of fixed assets	**(0.3)**	0.1
Trade receivables impairment	**0.7**	0.7
Foreign exchange losses	**–**	0.4

	2012 £m	2011 £m
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 year	**9.5**	13.3
Government grant income received in respect of part of this expenditure	**(3.4)**	(5.5)
	6.1	7.8

	2012 £m	2011 £m
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	**0.2**	0.2
	0.5	0.5

Fees payable to the company's auditors for other services comprise £42,000 (2011: £49,000) for the interim review, £66,000 (2011: £49,000) for advisory services in relation to project assurance, £nil (2011: £30,000) for advisory services in relation to the effect of future IFRS developments, £8,000 (2011: £6,000) for taxation advisory services, £22,000 (2011: £22,000) for the statutory audit of the Group's German subsidiaries and £25,000 (2011: £9,000) for other services.

5 Employees

Staff costs	2012 £m	2011 £m
Wages and salaries	**82.3**	73.7
Social security costs	**9.3**	9.6
Other pension costs (note 23)	**3.0**	3.0
Share-based payments (note 27)	**1.3**	0.2
	95.9	86.5

Average number of employees (including executive directors) during the year	2012 Number	2011 Number
Production and engineering staff	**1,351**	1,220
Management, administration and sales	**328**	292
	1,679	1,512

Key management compensation	2012 £m	2011 £m
Salaries and short-term employee benefits	**2.9**	3.2
Share-based payments	**0.7**	0.3
Post-employment benefits	**0.2**	0.2
	3.8	3.7

The key management personnel are the Board of Directors and the Managing Directors within the UK, US, Germany and Asia.

6 Finance income and costs

	2012 £m	2011 £m
Finance income		
Bank interest receivable	**0.2**	0.2
Interest on other financial assets	**0.1**	–
	0.3	0.2
Finance costs		
Interest payable on bank borrowings	**0.4**	0.7
Defined benefit pension financing costs (note 23)	**0.9**	1.9
Interest on other financial liabilities	**–**	0.2
	1.3	2.8

7 Taxation

	2012 £m	2011 £m
Current tax		
UK corporation tax at 25.5% (2011: 27.5%)	–	–
Adjustment in respect of prior years	–	–
Total UK tax	–	–
Foreign corporation tax	–	1.2
Total current tax	–	1.2
Deferred tax		
Charge/(credit) for year relating to temporary differences	1.9	(1.5)
Adjustment in respect of prior years	0.6	0.3
Total deferred tax	2.5	(1.2)
Taxation	**2.5**	–
Tax on items recognised directly in equity	(2.6)	5.5

Finance Act 2011 included legislation to reduce the main rate of UK corporation tax from 26% to 24% with effect from 1 April 2012. Closing deferred tax balances in the UK have therefore been valued at 24%.

The March 2012 Budget Statement also included proposals for additional reductions of the main rate of corporation tax by 1% per year to 22% on 1 April 2014. These changes had not been substantively enacted at the reporting date and, therefore, the effects of these are not included in these financial statements.

The tax charge for the year is lower (2011: lower) than the standard rate of corporation tax in the UK. The differences are set out below.

	2012 £m	2011 £m
Profit for the year before tax	17.6	15.4
Profit for the year multiplied by rate of corporation tax in the UK of 25.5% (2011: 27.5%)	4.5	4.2
Effects of:		
Expenses not deductible for tax purposes	0.2	0.2
Government tax incentives [1]	(3.0)	(5.4)
Irrecoverable overseas tax [2]	0.4	0.8
Adjustments to taxation in respect of prior years	0.4	(0.7)
Other differences in tax rate/other	–	0.9
Total taxation	**2.5**	–

(1) Mainly relates to R&D tax credits
(2) Mainly relates to withholding taxes

8 Dividends

	2012 £m	2011 £m
Final paid 8.1p per share (2011 : 7.5p)	4.2	3.9
Interim paid 3.7p per share (2011 : 3.4p)	1.9	1.7
Equity dividends paid	**6.1**	5.6

The directors are proposing a final dividend in respect of the financial year ended 30 June 2012 of 8.7p per share which will absorb £4.5m of retained profits. It will be paid on 20 November 2012 to shareholders who are on the register of members at the close of business on 19 October 2012, subject to approval at the Annual General Meeting on 15 November 2012.

9 Discontinued operations

At 30 June 2010, the Group's exhaust business in Germany was classified as held for sale, and as a discontinued business.

The sale agreement for the transfer of the business, plant and equipment and inventories for cash consideration of €2.0m was signed on the 28 July 2010.

Results of discontinued operations	2012 £m	2011 £m
Revenue	–	0.9
Operating costs	–	(1.1)
Loss before tax	–	(0.2)
Attributable tax credit	–	–
Net loss attributable to discontinued operations	**–**	(0.2)

There were no assets or liabilities classified as held for sale at 30 June 2012 or 30 June 2011 and there is no net expense recognised directly in equity contained in the consolidated statement of comprehensive income relating to discontinued operations (2011: £nil).

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 and by the Share Incentive Plan for the free share scheme 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 at year end.

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

	2012 £m	2011 £m
Earnings attributable to equity shareholders	**15.1**	15.2
Adjustments to exclude loss for the year from discontinued operations	**–**	0.2
Earnings from continuing operations	**15.1**	15.4

	Number of shares millions	Number of shares millions
Basic average number of shares in issue	**51.5**	51.4
Effect of dilutive potential shares	**0.6**	0.4
Diluted average number of shares in issue	**52.1**	51.8

	Per share amount pence	Per share amount pence
Earnings per share		
From continuing operations		
Basic	**29.3**	30.0
Diluted	**29.0**	29.7
From continuing and discontinued operations		
Basic	**29.3**	29.6
Diluted	**29.0**	29.3
From discontinued operations		
Basic	**–**	(0.4)
Diluted	**–**	(0.4)

11 Goodwill

Group	£m
At 1 July 2010	15.4
Exchange adjustments	1.3
At 30 June 2011	16.7
Exchange adjustments	(1.4)
At 30 June 2012	**15.3**

At the reporting date £12.6m of the net book amount relates to the German Technical Consulting business (2011: £14.0m) and £2.7m (2011: £2.7m) of the net book amount relates to two businesses which have been fully integrated into Ricardo UK Limited (Gemini and Tarragon).

The recoverable amounts were evaluated based on the value in use calculations. The key assumptions for the value in use calculations are those regarding the discount rates, growth rates and operating cashflow projections.

These calculations use pre-tax cash flow projections based on financial budgets approved by management covering a five year period. Management estimate discount rates using pre-tax rates that reflect current market assessments of the Group's time value of money and the risks specific to the cash generating unit ("CGU"). The growth rate assumed after this five year period is 3%, based on long-term GDP projections for the market that the CGUs operate within. The pre-tax discount rate used to discount the German and the UK cashflows were 7.7% (2011: 9.7%), and 7.2% (2011: 9.6%) respectively.

The recoverable amounts of both the UK and German Technical Consulting businesses (CGUs) are in excess of the carrying values, and so no impairment has arisen in the year (2011: £nil). In considering sensitivities, no reasonable change in any of the above key assumptions would cause the recoverable amount to fall below the carrying value of the CGUs.

12 Other intangible assets

Group	Purchased software £m	Development costs £m	Total £m
Cost			
At 1 July 2010	10.7	0.6	11.3
Additions	2.5	0.1	2.6
Disposals	(0.2)	–	(0.2)
Transfer from held for sale	0.3	–	0.3
Exchange rate adjustments	0.1	–	0.1
At 30 June 2011	13.4	0.7	14.1
Additions	2.0	0.5	2.5
Disposals	(0.1)	–	(0.1)
Exchange rate adjustments	(0.2)	–	(0.2)
At 30 June 2012	**15.1**	**1.2**	**16.3**
Accumulated amortisation			
At 1 July 2010	7.5	0.1	7.6
Charge for the year	0.6	0.1	0.7
Disposals	(0.2)	–	(0.2)
Transfer from held for sale	0.3	–	0.3
Exchange rate adjustments	0.1	–	0.1
At 30 June 2011	8.3	0.2	8.5
Charge for the year	1.1	0.1	1.2
Exchange rate adjustments	(0.2)	–	(0.2)
At 30 June 2012	**9.2**	**0.3**	**9.5**
Net book amounts			
At 30 June 2012	**5.9**	**0.9**	**6.8**
At 30 June 2011	5.1	0.5	5.6
At 30 June 2010	3.2	0.5	3.7

Company	Purchased software £m
Cost	
At 1 July 2010	2.4
Additions	1.9
At 30 June 2011	4.3
Additions	1.4
At 30 June 2012	**5.7**
Accumulated amortisation	
At 1 July 2010	0.1
Charge for the year	0.1
At 30 June 2011	0.2
Charge for the year	0.5
At 30 June 2012	**0.7**
Net book amounts	
At 30 June 2012	**5.0**
At 30 June 2011	4.1
At 30 June 2010	2.3

Purchased software for both Group and the Company comprises external purchase costs and internal costs that have been capitalised in respect of a new ERP system. Purchased software for both the Group and the Company includes £0.4m (2011: £3.2m) in respect of assets under construction, which are not being amortised.

13 Property, plant and equipment

Group	Land and buildings Freehold £m	Short leasehold £m	Plant and machinery £m	Fixtures, fittings and equipment £m	Total £m
Cost					
At 1 July 2010	20.5	7.7	92.7	14.5	135.4
Additions	0.1	0.1	4.5	1.8	6.5
Disposals	–	–	(1.2)	(0.4)	(1.6)
Reclassifications	0.5	(0.3)	0.1	(0.3)	–
Transfer to Investment property	(3.1)	–	–	–	(3.1)
Exchange rate adjustments	0.8	(0.1)	(0.9)	–	(0.2)
At 30 June 2011	18.8	7.4	95.2	15.6	137.0
Additions	0.9	0.2	5.8	2.1	9.0
Disposals	(3.1)	–	(0.4)	(1.1)	(4.6)
Exchange rate adjustments	(0.5)	–	(0.4)	(0.3)	(1.2)
At 30 June 2012	**16.1**	**7.6**	**100.2**	**16.3**	**140.2**
Accumulated depreciation					
At 1 July 2010	3.8	3.0	69.5	11.4	87.7
Charge for the year	0.4	0.3	5.1	1.2	7.0
Disposals	–	–	(1.1)	(0.4)	(1.5)
Reclassifications	0.3	(0.3)	–	–	–
Transfer to Investment property	(1.1)	–	–	–	(1.1)
Exchange rate adjustments	0.2	(0.1)	(0.9)	(0.1)	(0.9)
At 30 June 2011	3.6	2.9	72.6	12.1	91.2
Charge for the year	0.6	0.3	4.5	1.2	6.6
Disposals	(1.3)	–	(0.4)	(1.1)	(2.8)
Exchange rate adjustments	(0.1)	–	(0.1)	(0.2)	(0.4)
At 30 June 2012	**2.8**	**3.2**	**76.6**	**12.0**	**94.6**
Net book amounts					
At 30 June 2012	**13.3**	**4.4**	**23.6**	**4.3**	**45.6**
At 30 June 2011	15.2	4.5	22.6	3.5	45.8
At 30 June 2010	16.7	4.7	23.2	3.1	47.7

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The carrying value of assets under construction included in property, plant and equipment amounts to £3.0m (2011: £1.1m).

At 30 June 2012, contracts had been placed for future capital expenditure, which have not been provided for in the financial statements, amounting to £0.5m (2011: £0.7m).

Company	Land and buildings Freehold £m	Short leasehold £m	Fixtures, fittings and equipment £m	Total £m
Cost				
At 1 July 2010	5.6	6.1	–	11.7
Additions	–	–	0.1	0.1
At 30 June 2011	5.6	6.1	0.1	11.8
Additions	–	–	0.1	0.1
At 30 June 2012	**5.6**	**6.1**	**0.2**	**11.9**
Accumulated depreciation				
At 1 July 2010	1.2	1.8	–	3.0
Charge for the year	0.1	0.2	–	0.3
At 30 June 2011	1.3	2.0	–	3.3
Charge for the year	0.1	0.3	–	0.4
At 30 June 2012	**1.4**	**2.3**	**–**	**3.7**
Net book amounts				
At 30 June 2012	**4.2**	**3.8**	**0.2**	**8.2**
At 30 June 2011	4.3	4.1	0.1	8.5
At 30 June 2010	4.4	4.3	–	8.7

14 Investment property

Group	Investment property £m
Cost	
At 30 June 2010	–
Transfer from Property, plant and equipment	3.1
Exchange rate adjustments	0.1
At 30 June 2011	3.2
Disposals	(3.0)
Exchange rate adjustments	(0.2)
At 30 June 2012	**–**
Accumulated depreciation	
At 30 June 2010	–
Transfer from Property, plant and equipment	1.1
Charge for the year	0.2
At 30 June 2011	1.3
Disposals	(1.2)
Exchange rate adjustments	(0.1)
At 30 June 2012	**–**
Net book amounts	
At 30 June 2012	**–**
At 30 June 2011	1.9
At 30 June 2010	–

Rental income from investment properties was £0.3m (2011: £0.2m). During the year the investment property was disposed of and the profit on disposal amounted to £0.2m.

15 Investments

Company	Shares in subsidiaries £m
At 1 July 2010	51.7
Additions	12.2
At 30 June 2011	63.9
Additions	1.3
At 30 June 2012	**65.2**
Provisions for impairment at 1 July 2010, 30 June 2011 and 30 June 2012	**15.4**
Net book amounts	
At 30 June 2012	**49.8**
At 30 June 2011	48.5
At 30 June 2010	36.3

Additions relate to increasing the investment in Ricardo Shanghai Company Limited by £1.3m. Details of the principal operating subsidiaries are shown in note 36.

The directors consider that the fair value of investments is not less than the carrying value.

16 Inventories

Group	**2012 £m**	2011 £m
Raw materials and consumables	**6.2**	4.3
Work in progress	**1.8**	0.9
	8.0	5.2

17 Trade and other receivables

	Group		Company	
	2012 £m	2011 £m	**2012 £m**	2011 £m
Trade receivables	**42.2**	39.2	**–**	–
Less : provision for impairment of receivables	**(0.3)**	(0.7)	**–**	–
Trade receivables – net	**41.9**	38.5	**–**	–
Amounts recoverable on contracts (note 18)	**15.2**	17.9	**–**	–
Amounts owed by Group undertakings	**–**	–	**30.8**	30.6
Prepayments and accrued income	**3.6**	4.4	**0.6**	0.6
Other receivables	**2.3**	2.3	**0.1**	–
	63.0	63.1	**31.5**	31.2
Trade and other receivables analysis by category:				
Non-current assets	**0.1**	1.2	**–**	–
Current assets	**62.9**	61.9	**31.5**	31.2
	63.0	63.1	**31.5**	31.2
Provision for doubtful debts:				
At 1 July	**(0.7)**	(0.8)	**–**	–
Income statement charge	**(0.7)**	(0.7)	**–**	–
Amounts utilised	**1.1**	0.8	**–**	–
At 30 June	**(0.3)**	(0.7)	**–**	–

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

The provision for doubtful debts has been calculated based on past experience and is in relation to specific customers.

18 Contracts in progress

Group	2012 £m	2011 £m
Amounts due from customers:		
Amounts expected to be recovered within 12 months	**15.2**	17.9
Amounts due to contract customers:		
Amounts expected to be worked within 12 months	**(20.5)**	(15.6)
Net amounts due (to)/from contract customers	**(5.3)**	2.3
Analysed as:		
Contract costs incurred plus recognised profits less recognised losses to date	**262.1**	238.4
Less: progress billings	**(267.4)**	(236.1)
Contracts in progress at reporting date	**(5.3)**	2.3
IAS 11 contract revenue	**149.0**	150.8

19 Trade and other payables

	Group		Company	
	2012 £m	2011 £m	**2012 £m**	2011 £m
Trade payables	**5.3**	6.5	**0.6**	0.7
Tax and social security payable	**3.3**	4.1	**0.3**	0.3
Amounts owed to Group undertakings	**–**	–	**6.5**	3.1
Accruals and deferred income	**15.4**	18.5	**4.2**	3.9
Payments received in advance on contracts (note 18)	**20.5**	15.6	**–**	–
Other payables	**3.7**	4.1	**1.7**	2.0
	48.2	48.8	**13.3**	10.0

In respect of the Company, amounts owed to Group undertakings are interest-free, have no fixed repayment date and no security has been given.

20 Bank loans and overdrafts

	Group		Company	
	2012 £m	2011 £m	**2012 £m**	2011 £m
Bank overdrafts	**0.4**	5.5	**–**	5.5
Current bank loans	**1.9**	2.7	**–**	–
Total current borrowings	**2.3**	8.2	**–**	5.5

The current bank loans mature within one year of the reporting date and are denominated in Euros (in 2011 there were also loans denominated in US dollars). All current loans have variable rates of interest. The variable interest rates range from 0.9% to 1.25% above Euribor.

The Group has banking facilities for its UK companies which together have a net overdraft limit.

21 Fair value of financial assets and liabilities

There are no differences between the fair value of financial assets and liabilities and their carrying value.

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 statement of financial position as they are mainly floating rate loans where payments are reset to market rates at regular intervals.

Derivatives – 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. Fair value is estimated by discounting expected future contractual cashflows using prevailing interest rate curves. Amounts denominated in foreign currencies are valued at the exchange rate prevailing at the reporting date (Level 2 as defined by IFRS 7 Financial instruments: Disclosures).

During the year the following net foreign exchange gains and losses were recognised:

Net exchange gains/(losses)	**2012 £m**	2011 £m
Profit/(loss):		
On loans and receivables	**(1.4)**	0.3
On other financial assets and liabilities	**1.4**	(1.4)
	–	(1.1)
Equity:		
On other hedging instruments	**–**	0.2
	–	0.2

22 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 equity as shown in the balance sheet plus net debt.

	Group		Company	
Gearing ratio	**2012 £m**	2011 £m	**2012 £m**	2011 £m
Net (funds)/debt (note 32)	**(7.9)**	(1.5)	**(0.8)**	5.3
Total equity	**89.8**	89.6	**66.4**	66.2
Total capital	**81.9**	88.1	**65.6**	71.5
Gearing ratio	**–**	–	**–**	7.4%

(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 the current and future requirements.

At the year end, the Group held total facilities of £48.5m (2011: £50.6m). These comprise committed facilities of £30.0m (2011: £30.0m) and uncommitted facilities of £18.5m (2011: £20.6m). No committed facilities were drawn at 30 June 2012 or 30 June 2011. A £15m facility is available for the period to November 2015 and a further committed facility of £15m is available until December 2012. The uncommitted facilities mature throughout the year to June 2013 with the exception of one uncommitted facility in Germany for £0.2m which matures in September 2013. The uncommitted facilities are renewable annually, with the exception of two uncommitted facilities in Germany, which are renewable monthly.

	Group		Company	
Maturity of bank loans	**2012 £m**	2011 £m	**2012 £m**	2011 £m
Maturing				
Within 1 month	**(1.7)**	(1.9)	**–**	–
After 1 month and within 3 months	**(0.1)**	(0.7)	**–**	–
After 3 months and within 12 months	**(0.1)**	(0.1)	**–**	–
After 12 months and within 5 years	**–**	(0.2)	**–**	–
	(1.9)	(2.9)	**–**	–

	Group		Company	
Maturity of trade payables	**2012 £m**	2011 £m	**2012 £m**	2011 £m
Maturing				
Within 1 month	**(4.3)**	(4.5)	**(0.6)**	(0.7)
After 1 month and within 3 months	**(0.7)**	(1.5)	**–**	–
After 3 months and within 12 months	**(0.3)**	(0.5)	**–**	–
	(5.3)	(6.5)	**(0.6)**	(0.7)

(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.

Ageing of trade receivables	**2012 £m**	2011 £m
Not overdue	**29.9**	25.2
Overdue but not impaired:		
0 – 90 days overdue	**8.2**	11.5
91 – 180 days overdue	**2.8**	1.1
Over 180 days overdue	**1.0**	0.7
	41.9	38.5

	Group		Company	
Maximum exposure to bank counterparty risk	**2012 £m**	2011 £m	**2012 £m**	2011 £m
Cash at bank and in hand	**10.2**	9.9	**0.8**	0.2
Derivative financial assets	**–**	0.2	**–**	0.1
	10.2	10.1	**0.8**	0.3

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 with the institution's credit standing.

The Company's exposure to credit risk comprises receivables from related parties, 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 with the institution's credit standing.

(e) Market risk

Interest rate risk

The Group and Company borrowings and cash balances at floating interest rates are exposed to cash flow interest rate risk. This 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	
Financial assets and liabilities by interest type	**2012 £m**	2011 £m	**2012 £m**	2011 £m
Floating rate financial liabilities	**(2.3)**	(8.4)	**–**	(5.5)
No interest financial liabilities	**(5.5)**	(6.5)	**(7.1)**	(3.7)
Floating rate financial assets	**4.8**	4.9	**30.3**	30.5
No interest financial assets	**47.3**	43.7	**0.8**	0.4
	44.3	33.7	**24.0**	21.7

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	
	2012 £m	2011 £m	**2012 £m**	2011 £m
US Dollar	**8.3**	12.5	**(0.6)**	(1.6)
Euro	**10.4**	6.7	**(3.4)**	(3.0)

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

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

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

Exchange rate sensitivity

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

	Group		Company	
	2012 £m	2011 £m	**2012 £m**	2011 £m
Impact on profit for the year				
10% weakening of the US dollar	**(0.1)**	–	**–**	–
10% weakening of the euro	**–**	(0.1)	**–**	–
Impact on equity				
10% weakening of the US dollar	**(0.1)**	–	**–**	–
10% weakening of the euro	**–**	(0.1)	**–**	–

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 year 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, US dollar and sterling interest rates.

	Group		Company	
	2012 £m	2011 £m	**2012 £m**	2011 £m
Impact on profit for the year and equity				
1% increase in euro, US dollar and sterling interest rates	**–**	–	**–**	–

(g) Hedges and hedge accounting

Fair values of hedging instrument at 30 June	**2012 £m**	2011 £m
Cash flow hedges	**(0.2)**	0.2
Total	**(0.2)**	0.2

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.

Amounts relating to cash flow hedges in the year	**2012 £m**	2011 £m
Recognised in equity	**–**	–
Removed from equity and included in profit and loss	**–**	0.1

Cash flows expected to occur and affect profit and loss	**2012 £m**	2011 £m
Within 3 months	**18.3**	18.0
After 3 months and within 12 months	**0.7**	1.6
	19.0	19.6

23 Retirement benefit obligations

Group and Company

Defined contribution and benefit schemes

The Group operates various defined contribution pension schemes, the assets of which are held in separately administered funds. The Group also operates a funded defined benefit pension scheme, the Ricardo Group Pension Fund ("RGPF"), which closed to future accrual on 28 February 2010. The pension costs relating to the RGPF are assessed in accordance with the advice of Towers Watson, qualified actuaries, using the Projected Unit Credit method.

The last completed triennial valuation of the RGPF was at 5 April 2011. At that date, the assets of the fund had a market value of £75.8 million and were sufficient to cover 81% 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 ended 30 June 2013 are £4.3m. The next triennial valuation is due as at 5 April 2014.

IAS 19 'Employee Benefits' valuations were completed as at 30 June 2012 and 30 June 2011 by Towers Watson, qualified actuaries. The post-retirement mortality assumptions used in both years are the standard SAPS Normal series tables with 100% multiplier for males and 97% multiplier for females, and with future improvements in line with the Continuous Mortality Investigation ("CMI") core projection model with 1.25% long-term trend (based upon each member's year of birth). Under these mortality assumptions the expected future lifetime from age 65 is:

	2012		2011	
Age	**Males**	**Females**	Males	Females
65 in 15 years	**23.8**	**26.2**	23.7	26.2
65	**22.5**	**24.7**	22.4	24.7

The other major assumptions made were:

	At 30 June 2012	At 30 June 2011
Discount rate	**4.60%**	5.65%
Expected return on plan assets	**4.95%**	6.10%
Inflation	**2.80%**	3.50%
Rate of increase in pensionable salaries	**2.80%**	3.50%
Rate of increase in pensions in payment		
Pre 1 July 2002 accrual	**3.20%**	3.50%
Post 1 July 2002 accrual	**2.75%**	3.40%
Rate of increase in pension in deferment	**1.80%**	2.50%
Percentage of pension to be commuted for a lump sum at retirement	**25.00%**	25.00%

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

The assets of the scheme and the expected rate of return were:

	Long-term rate of return expected at 30 June 2012	**Value at 30 June 2012 £m**	Long-term rate of return expected at 30 June 2011	Value at 30 June 2011 £m
Equities	**6.70%**	**20.3**	7.60%	19.1
Bonds	**3.45%**	**41.4**	4.70%	37.6
Cash	**2.80%**	**0.3**	3.50%	0.1
Property	**5.70%**	**4.7**	6.60%	4.6
Diversified Growth Funds	**6.70%**	**14.4**	7.60%	15.2
Total assets	**4.95%**	**81.1**	6.10%	76.6

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 return on the scheme assets was £4.8m (2011: £8.8m). Movements in the fair value of scheme assets and present value of defined benefit obligations were as follows:

	2012			2011		
	Assets £m	**Obligations £m**	**Net Total £m**	Assets £m	Obligations £m	Net Total £m
At 1 July	**76.6**	**(90.0)**	**(13.4)**	68.4	(102.8)	(34.4)
Current service cost	**–**	**–**	**–**	–	–	–
Expected return/(interest cost)	**4.7**	**(5.0)**	**(0.3)**	3.9	(5.3)	(1.4)
Credit/(charge) to the income statement	**4.7**	**(5.0)**	**(0.3)**	3.9	(5.3)	(1.4)
Actuarial (losses)/gains	**0.1**	**(10.1)**	**(10.0)**	4.9	14.2	19.1
Contributions from sponsoring companies	**3.3**	**–**	**3.3**	3.3	–	3.3
Benefits paid	**(3.6)**	**3.6**	**–**	(3.9)	3.9	–
Total movements	**4.5**	**(11.5)**	**(7.0)**	8.2	12.8	21.0
At 30 June	**81.1**	**(101.5)**	**(20.4)**	76.6	(90.0)	(13.4)

Cumulative actuarial gains and losses recognised in equity	**At 30 June 2012 £m**	At 30 June 2011 £m
At 1 July	**(2.4)**	(21.5)
Net actuarial (losses)/gains recognised in the year	**(10.0)**	19.1
At 30 June	**(12.4)**	(2.4)

History of experience gains and losses	**2012 £m**	2011 £m	2010 £m	2009 £m	2008 £m
Present value of defined benefit obligations	**(101.5)**	(90.0)	(102.8)	(88.1)	(85.5)
Fair value of scheme assets	**81.1**	76.6	68.4	58.7	65.6
Deficit in the scheme	**(20.4)**	(13.4)	(34.4)	(29.4)	(19.9)
Experience adjustments on scheme liabilities					
Amount (£m)	**10.1**	(14.2)	(12.4)	1.0	1.4
Percentage of scheme liabilities (%)	**10%**	(16)%	(12)%	1%	2%
Experience adjustments on scheme assets					
Amount (£m)	**0.1**	4.9	5.2	(12.6)	(7.1)
Percentage of scheme assets (%)	**0%**	6%	8%	(21)%	(11)%

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The assumptions in relation to discount rate, price inflation and mortality have a significant effect on the measurement of scheme liabilities. A reduction in the discount rate of 0.25% would increase the scheme liabilities by £4.4m. An increase in price inflation of 0.25% would increase the scheme liabilities by £2.9m. If each scheme member were expected to live for an additional year then scheme liabilities would increase by £2.9m.

Amounts charged in the income statement in respect of pensions	**2012 £m**	2011 £m
In respect of defined contribution schemes	**3.0**	3.0
In respect of defined benefit schemes	**0.9**	1.9
	3.9	4.9
Included within:		
Staff costs	**3.0**	3.0
Finance costs	**0.9**	1.9
	3.9	4.9

24 Deferred tax

(a) Deferred tax analysis by category

	Group		Company	
	2012 £m	2011 £m	**2012 £m**	2011 £m
Non-current deferred tax assets	**15.4**	15.6	**6.4**	4.1
Non-current deferred tax liabilities	**(0.7)**	(0.7)	**(0.7)**	(0.7)
Net deferred tax asset	**14.7**	14.9	**5.7**	3.4

(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 2010	(3.1)	9.7	11.2	(0.7)	2.0	19.1
Credited/(charged) to the income statement	0.4	(0.9)	2.5	–	(0.8)	1.2
Charged to statement of comprehensive income	–	(5.3)	–	–	(0.2)	(5.5)
Exchange rate adjustments	0.1	–	0.3	–	(0.3)	0.1
At 30 June 2011	(2.6)	3.5	14.0	(0.7)	0.7	14.9
Credited/(charged) to the income statement	(0.8)	(0.9)	(1.0)	–	0.2	(2.5)
Credited to statement of comprehensive income	–	2.3	–	–	0.3	2.6
Exchange rate adjustments	–	–	(0.3)	–	–	(0.3)
At 30 June 2012	**(3.4)**	**4.9**	**12.7**	**(0.7)**	**1.2**	**14.7**

At 30 June 2012 and 30 June 2011 there were no temporary differences associated with undistributed earnings of subsidiaries for which deferred tax liabilities have been recognised. 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 2010	9.7	–	(0.7)	0.4	9.4
(Charged)/credited to the income statement	(0.9)	0.1	–	0.1	(0.7)
Charged to statement of comprehensive income	(5.3)	–	–	–	(5.3)
At 30 June 2011	3.5	0.1	(0.7)	0.5	3.4
(Charged)/credited to the income statement	(0.9)	0.8	–	0.1	–
Credited to statement of comprehensive income	2.3	–	–	–	2.3
At 30 June 2012	**4.9**	**0.9**	**(0.7)**	**0.6**	**5.7**

25 Provisions

Group	Warranty provision £m
At 1 July 2010	0.5
Charged to income statement	0.8
Utilised in year	(0.3)
At 30 June 2011	1.0
Charged to income statement	1.2
Released in year	(0.5)
At 30 June 2012	**1.7**

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.

26 Called up share capital

Group and Company	**2012 Number**	2011 Number	**2012 £m**	2011 £m
Authorised				
Ordinary shares of 25p each	**80,000,000**	80,000,000	**20.0**	20.0
Allotted, called up and fully paid				
At 1 July	**51,408,202**	51,324,730	**12.9**	12.9
Allotted under share option schemes	**33,415**	4,379	**–**	–
Allotted under LTIP scheme	**170,115**	79,093	**–**	–
Allotted under Share Incentive Plan	**235,197**	–	**0.1**	–
At 30 June	**51,846,929**	51,408,202	**13.0**	12.9

The consideration received for shares allotted under the share option schemes, LTIP and Share Incentive Plan during the year ended 30 June 2012 was £0.1m (2011: £nil).

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 3,224 such shares at 30 June 2012 (4,703 at 30 June 2011).

27 Share-based payments

The Group operates the following share-based schemes: 2004 Ricardo plc Executive Share Option Plan (the "2004 Plan"), together with the equity-settled Executive Share Options; Deferred Share Bonus Plan; Equity-settled Long Term Incentive Plan ("LTIP"); Equity-settled Share Incentive Plan ("SIP"); Cash-settled International Notional Share Plan ("INSP"); 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, Deferred Share Bonus Plan, LTIP and the All Employee Share Plans ("SIP" and "INSP") are described in the Directors' Remuneration Report.

The Equity-settled Executive Share Options, the LTIP and the SIP 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

	2012		2011	
	Weighted average share Number	**Weighted price**	Weighted average share Number	Weighted price
Outstanding at 1 July	**192,781**	**288p**	274,228	294p
Lapsed / Forfeited	**(38,817)**	**300p**	(81,447)	305p
Exercised	**(33,415)**	**306p**	–	–
Outstanding at 30 June	**120,549**	**278p**	192,781	288p
Exercisable at the end of the year	**120,549**	**278p**	132,129	282p

The outstanding options had a weighted average contractual life of 3.5 years (2011: 5.2 years). The remaining options are exercisable between 268p and 300p.

During the year ended 30 June 2012 and 30 June 2011, no equity-settled executive share options were awarded.

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.

	2012 Shares Allocated(1)	2011 Shares Allocated(1)
Outstanding at 1 July	**1,056,316**	904,010
Awarded	**286,095**	361,300
Lapsed / Forfeited	**(231,995)**	(138,700)
Vested	**(132,602)**	(70,294)
Outstanding at 30 June	**977,814**	1,056,316

(1) Shares allocated excludes dividend roll up

The outstanding LTIP awards had a weighted average contractual life of 1.2 years (2011: 1.4 years). The weighted average exercise price in both 2012 and 2011 was £nil.

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:

	2012	2011
Weighted average share price of date of award	**372p**	301p
Expected volatility	**33.9%**	34.5%
Expected life	**3 yrs**	3 yrs
Risk free rate	**1%**	1%
Dividend yield	**4%**	4%
Possibility of ceasing employment before vesting	**10%**	10%
Weighted average fair value per LTIP as a % of a share at date of award	**64.5%**	61.4%

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

Deferred Share Bonus Plan

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

	2012 Number of deferred shares	2011 Number of deferred shares
Outstanding at 1 July	**196,792**	258,833
Awarded	**161,821**	16,159
Lapsed / Forfeited	**(7,746)**	(14,553)
Dividend shares awarded in the year	**5,886**	7,879
Vested	**(180,808)**	(71,526)
Outstanding at 30 June	**175,945**	196,792

The outstanding deferred bonus plans had a weighted average contractual life of 2.2 years (2011: 0.5 years). The weighted average exercise price in both 2012 and 2011 was £nil.

Equity-settled Share Incentive Plan

The Share Incentive Plan is described in the Directors' remuneration report.

	2012 Number of deferred shares
Outstanding at 1 July	–
Awarded	**235,197**
Lapsed / Forfeited	**(9,835)**
Dividend shares awarded in the year	**7,218**
Vested	–
Outstanding at 30 June	**232,580**

The outstanding share incentive plan had a weighted average contractual life of 2.3 years. The weighted average exercise price was £nil.

Cash-settled International Notional Share Plan

The International Notional Share Plan is described in the Directors' remuneration report.

	2012 Number of deferred shares
Outstanding at 1 July	–
Awarded	193,890
Lapsed / Forfeited	(9,273)
Dividend shares awarded in the year	5,913
Vested	–
Outstanding at 30 June	**190,530**

The outstanding international notional share plan had a weighted average contractual life of 2.3 years. The weighted average exercise price was £nil.

28 Share premium

	Group and Company £m
At 1 July 2010 and at 30 June 2011	13.8
Arising on shares issued in 2012	0.1
At 30 June 2012	**13.9**

29 Other reserves

Group	Merger reserve £m	Translation reserve £m	Hedging reserve £m	Total £m
At 1 July 2010	1.0	6.9	(2.7)	5.2
Movement in year	–	–	0.3	0.3
Recycled to income statement	–	–	(0.1)	(0.1)
Exchange rate adjustments	–	1.2	–	1.2
Tax on items recognised directly in equity	–	–	(0.2)	(0.2)
At 30 June 2011	1.0	8.1	(2.7)	6.4
Exchange rate adjustments	–	(2.0)	–	(2.0)
Tax on items recognised directly in equity	–	–	0.3	0.3
At 30 June 2012	**1.0**	**6.1**	**(2.4)**	**4.7**

The merger reserve represents the amount by which the fair value of the shares issued as consideration for acquisitions exceeded their nominal value, offset by the goodwill on these acquisitions. The translation reserve comprises foreign currency differences arising from the translation of financial statements of foreign operations. The hedging reserve movement is the fair value gain on cash flow hedges and a net investment hedge and is shown in the statement of comprehensive income.

30 Retained earnings

	Group £m	Company £m
At 1 July 2010	32.9	18.5
Profit for the year	15.2	12.6
Actuarial gains on the defined benefit pension scheme	19.1	19.1
Tax on items recognised directly in equity	(5.3)	(5.3)
Dividends paid	(5.6)	(5.6)
Share-based payments	0.2	0.2
At 30 June 2011	56.5	39.5
Profit for the year	15.1	13.4
Actuarial losses on the defined benefit pension scheme	(10.0)	(10.0)
Tax on items recognised directly in equity	2.3	2.3
Dividends paid	(6.1)	(6.1)
Share-based payments	0.4	0.4
At 30 June 2012	**58.2**	**39.5**

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

31 Cash generated/(used) by operations

	Group		Company	
	2012	2011	2012	2011
Continuing operations	£m	£m	£m	£m
Operating profit	18.6	18.0	(3.1)	(0.1)
Adjustments for:				
Share-based payments	0.4	0.2	0.4	0.2
Cash flow hedges	0.3	0.2	0.2	(0.3)
Profit of sale of subsidiary	–	–	–	(12.2)
(Profit)/loss on disposal of property, plant and equipment	(0.3)	0.1	–	–
Depreciation and amortisation	7.8	7.9	0.9	0.4
Operating cash flows before movements in working capital	26.8	26.4	(1.6)	(12.0)
(Increase)/decrease in inventories	(2.8)	2.5	–	–
Decrease/(increase) in trade and other receivables	3.3	(9.2)	(0.1)	0.2
Decrease in intercompany balances	–	–	3.2	11.9
(Decrease)/increase in payables	(0.7)	10.3	(0.1)	1.5
Increase in provisions	0.7	0.5	–	–
Pension payments in excess of pension costs	(3.0)	(1.9)	(1.0)	(1.9)
Cash generated/(used) by continuing operations	24.3	28.6	0.4	(0.3)
Discontinued operations				
Loss from operations	–	(0.2)	–	–
Operating cash flows before movements in working capital	–	(0.2)	–	–
Decrease in trade and other receivables	–	1.5	–	–
Decrease in payables	–	(1.6)	–	–
Cash used by discontinued operations	–	(0.3)	–	–
Cash generated/(used) by operations	24.3	28.3	0.4	(0.3)

32 Net funds/(debt)

Net funds/(debt) is defined by the Group as net cash and cash equivalents less bank loans.

	Group		Company	
	2012	2011	2012	2011
At year end	£m	£m	£m	£m
Cash and cash equivalents (current assets)	10.2	9.9	0.8	0.2
Bank overdrafts (current liabilities)	(0.4)	(5.5)	–	(5.5)
Net cash and cash equivalents	9.8	4.4	0.8	(5.3)
Bank loans maturing within one year	(1.9)	(2.7)	–	–
Bank loans maturing after one year	–	(0.2)	–	–
Net funds/(debt)	7.9	1.5	0.8	(5.3)

	Group		Company	
	2012	2011	2012	2011
Movements in year	£m	£m	£m	£m
Net funds/(debt) at start of year	1.5	(7.8)	(5.3)	(10.8)
Net increase/(decrease) in cash and cash equivalents	5.4	(0.3)	6.1	(3.5)
Add back net repayment of bank loans	0.8	9.8	–	9.0
Effect of exchange rate changes on bank loans	0.2	(0.2)	–	–
Net funds/(debt) at end of year	7.9	1.5	0.8	(5.3)

Cash and cash equivalents (current assets) includes the following:

	Group		Company	
	2012	2011	2012	2011
	£m	£m	£m	£m
Cash at bank and on hand	5.4	5.0	0.8	0.2
Short-term bank deposits	4.8	4.9	–	–
	10.2	9.9	0.8	0.2

33 Operating leases

By date of commitments:

Group	2012 £m	2011 £m
Future aggregate minimum lease payments under non-cancellable operating leases falling due:		
Within one year	**3.9**	3.5
Between one and five years	**11.4**	10.8
After five years	**13.6**	12.1
	28.9	26.4

By nature of commitments:

Group	2012 £m	2011 £m
Future aggregate minimum lease payments under non-cancellable operating leases:		
Land and buildings	**27.8**	25.1
Other	**1.1**	1.3
	28.9	26.4

34 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.

It is intended that a guarantee will be provided to the Ricardo Group Pension Fund of up to £3.6m in respect of certain contingent liabilities that may arise. In the directors' opinion, after taking appropriate legal advice, the outcome of this legal matter is not expected to give rise to any material cost to the Group.

35 Related party transactions

	2012 £m	2011 £m
The Company had the following transactions with Group undertakings:		
Sale of services	**11.2**	9.6
Finance income	**0.4**	–
Finance costs	**(0.1)**	–
Dividend income	**15.0**	13.2
The Company had the following year end balances with related parties:		
Amounts owed by Group undertakings	**30.8**	30.6
Amounts owed to Group undertakings	**(6.5)**	(3.1)

All transactions with Group undertakings, which are disclosed in note 36, occurred on an arm's length basis.

36 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 financial statements:

Subsidiary	Nature of business	Country of incorporation
Ricardo UK Limited*	Technical, Strategic Consulting and Performance Products	Great Britain (and registered in England and Wales)
Ricardo, Inc.*	Technical, Strategic Consulting and Performance Products	USA
Ricardo Deutschland GmbH	Technical Consulting	Germany
Ricardo Strategic Consulting GmbH	Strategic Consulting	Germany
Ricardo Prague S.R.O.*	Technical Consulting	Czech Republic
Ricardo Shanghai Company Limited*	Technical, Strategic Consulting and Business Development	China
Ricardo Japan K.K*	Technical Consulting and Business Development	Japan
Ricardo India Private Limited*	Technical Consulting and Business Development	India
Ricardo Asia Limited* (formerly Ricardo Tarragon Limited)	Technical Consulting	Great Britain (and registered in England and Wales)

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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	19 October 2012
Annual General Meeting	15 November 2012
Final Dividend Payment Date	20 November 2012

Shareholder Services
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