

**Ricardo plc** Annual Report & Accounts 2010





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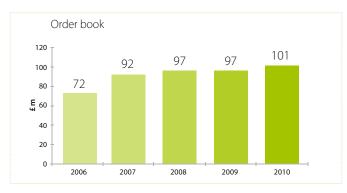
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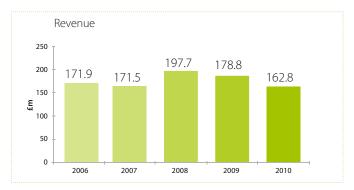
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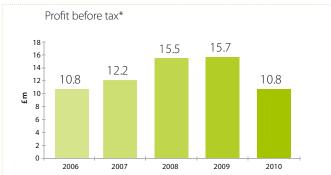


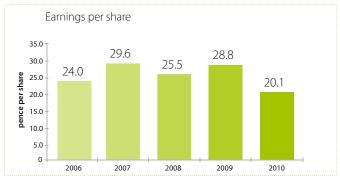
# **Financial highlights**

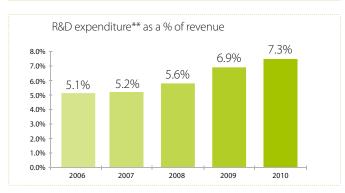
Holding our ground despite the global turbulence

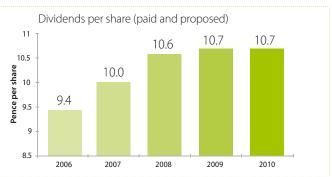


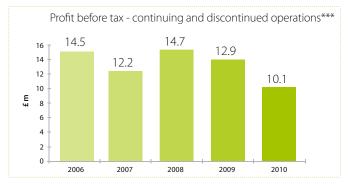












- Profit before tax for 2008, 2009 and 2010 excludes discontinued operations held for sale at 30 June 2010. PBT for 2006 excludes the effect of a pensions credit of £3.7m due to the capping of future increases in pensionable salaries to RPI.
- \*\* Research and development expenditure before deducting related government grant
- \*\* The German exhaust business was held for sale at 30 June 2010 and 30 June 2009 and has been reported under discontinued operations. It incurred a loss before tax of £0.7m (2009:£2.8m), before writing down assets held for sale by £2.9m (2009:£3.8m). Therefore for continuing and discontinued operations combined, the profit before tax and writing down assets held for sale was £10.1m (2009:£12.9m)

'We are well positioned to maximise our future success in the sectors where we operate'



## Chairman's statement

Stabilisation in turbulent times

#### **Board Changes**

It was a privilege to take over from Marcus Beresford as your Chairman at the 2009 AGM. As a result, David Hall was appointed Senior Independent Director and Chairman of the Remuneration Committee. Bill Jessup served as Interim Finance Director from 4 January to 30 June 2010, with Paula Bell returning from maternity leave at the end of this period. On 1 July 2010 Mark Garrett was redesignated as Chief Operating Officer, a title more accurately reflecting his project delivery responsibilities.

#### Market

The turbulent global economic climate continued through the year, with our traditional automotive customers focusing on recovery and limiting their external costs. On the other hand there were also encouraging signs of stabilisation through the second half of the year, with many automakers increasing development spend. Stringent CO<sub>2</sub> reduction legislation is on the horizon for the passenger car sector and will demand increased development investment in new models and technologies. Yet despite the turmoil there were some markets and economies which continued to perform strongly throughout the crisis: China and Korea, for example, continued to benefit from sustained high levels of domestic demand. Commercial vehicle manufacturers continued product development investment to meet impending emissions legislation and the defence and clean energy sectors remained active in new technology investment.

#### **Strategy and Performance**

The last few years have seen strong efforts to diversify globally into new geographic markets and, more recently, into adjacent market sectors where we can exploit our technologies, expertise and processes. The importance of our presence in India, China and other Asian regions has been well demonstrated during the year, as has our presence in the defence, commercial vehicle, motorcycle, motorsport and clean energy sectors. We continue to increase the speed and depth of penetration of these wider markets, as reflected in our research and development programme where we benefit from collaborative research grants from governments and organisations across the world.

Profit before tax from continuing operations was £10.8m (2009: £15.7m), with a closing orderbook of £101m (2009: £97m). We maintained a strong balance sheet and net debt closed at £7.8m (2009: £3.5m). Within the technical consulting division the UK business experienced a challenging year, with an uplift in order intake from traditional clients too late to benefit the financial year. Following restructuring of our North American business and the region's early entry into the recession, there has been a positive recovery largely driven by the defence and commercial vehicle sectors. In Germany, our regional management team reacted rapidly to the downturn in the market and we have now concluded the sale of the exhaust business to the benefit of all key stakeholders. Our Indian, Chinese and Japanese businesses delivered good levels of order intake. Our Strategic Consulting division performed well with increased profits on slightly lower revenues. Our defined benefit pension scheme, closed to new members for some time, has now been closed for all future accruals, with alternative arrangements available under our defined contribution scheme.

#### **Employees**

In the context of these challenging times, the energy, innovative flair, commitment and enthusiasm of Ricardo managers and all their teams across the Group have been of immense value to the Company. For this my thanks – and those of the entire Board – go to them all.

#### Dividend

We are recommending a final dividend of 7.5p per ordinary share to deliver a total dividend for the year of 10.7p, unchanged from the previous year. This reflects the Board's confidence in the prospects of the Company, based on the improving market conditions and the work that has been undertaken to prepare the Company to take advantage of them.

#### **Looking Ahead**

Our strategy reflects an expectation of cautious recovery in world markets during the year ahead, and aims to deliver the maximum advantage from this: we have made strategic investments in facilities, systems and people; we have retained a strong balance sheet despite one of the worst recessions in living memory.

We are focussed on developing a worldclass portfolio of skills and are commercially agile, flexible and resilient across our key target market sectors and, crucially, we have a strong portfolio of technologies and a talented team in place. With the strategic advantages that these qualities bring to Ricardo, we are well positioned to maximise our future success in the various market sectors where we operate – to the benefit of all our stakeholders.

Michael Harper

'Ricardo is ready
to move quickly
to exploit the
opportunities that
arise as recovery
takes hold'





## Business review

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## The global market

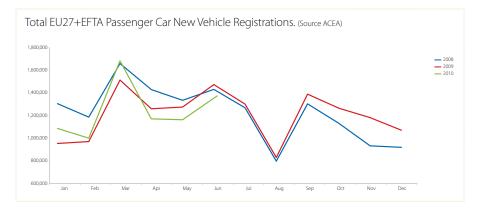
Emerging stronger, more agile – and smarter – for the challenges of tomorrow

A year ago we looked back over one of the worst global economic downturns in living memory. Despite the unprecedented levels of market volatility and the weakness of automotive R&D activity, we were able to point with some satisfaction to the proactive strategy that Ricardo had already put in place well before the recession hit.

That strategy enabled us to survive the worst effects of the dramatic and immediate downturn in better shape than many other companies with a large exposure to the automotive sector. It also succeeded in putting us in an excellent competitive position with new technologies, products and services that will be required when the industry recovers into a new period of growth and has to face the technical and commercial challenges of the more sustainable low-carbon future which is being demanded by governments and consumers worldwide.

#### **Automotive sector**

It is clear that while the economic climate remains extremely turbulent, there are some encouraging signs that the world economy and the automotive industry globally are beginning to stabilise. Through the very worst of the recession, public sector stimulus spending in



North America and Europe acted to temporarily boost demand through initiatives such as scrappage schemes and other direct support measures. These had the effect of stabilising the large automakers that represent a significant part of our traditional customer base. Such stimulus spending was not solely restricted to support for the retail market: there have been many R&D initiatives too. One example is low-carbon technology development, where Ricardo has benefited directly as a participant in US, UK and European government funded programmes.

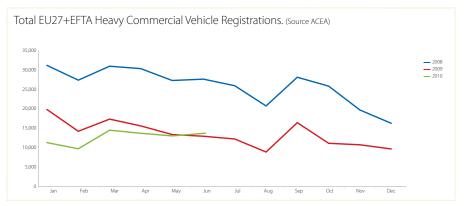
Government programmes involving Ricardo have not just been limited to the automotive

sector. In renewable power generation, for example, we have benefited in the UK from support for R & D programmes aimed at improving wind turbine systems and the design of facilities to test such technologies.

However, as the very first signs of economic recovery begin to become evident, governments in many parts of the world are now starting to turn their attention to reducing their national budget deficits and their levels of indebtedness. This has particularly been the case within the Eurozone as the member states have moved to stabilise and support the common currency, and also in the UK where the new government has set a clear and



The Bugatti Veyron Super Sport – officially the world's fastest production car – benefits from an advanced Ricardo dual clutch transmission engineered in partnership between Ricardo and Bugatti and manufactured at the Ricardo Leamington, UK, facility.





immediate strategy of deficit reduction.

The developing climate of caution and austerity in these regions means that the benefits of the recent public sector stimulus are beginning to taper off just as the major automakers are beginning to return to profit. In these nervous and risk-averse conditions it is unsurprising that there has been no rapid return of R&D spending: customers are tending to focus primarily on tangible and immediate requirements. A clear example is the commercial vehicle sector, where the need to meet new emissions regulations for 2010 and beyond has demanded continued R&D spend through the

recession, irrespective of sales volumes.

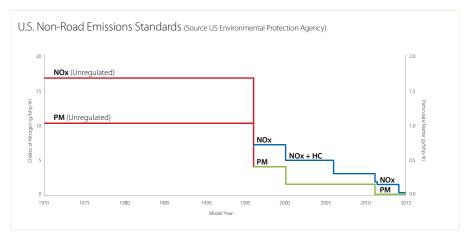
While the timing of a more general upturn in spending remains an open question, the fundamental need for R&D investment is unavoidable for automakers as they have met stringent CO<sub>2</sub> or fuel economy legislation now in place in most key markets that would generate significant fines for non-compliance over the next two to five years. In previous economic downturns the start of the cycle of recovery has typically been marked by a rapid increase in outsourcing as automakers wish to develop new products without taking on significant risk. Due to the depth of the current recession, many

automakers lack the internal resource to meet their product development needs. Indeed, until recovery is certain, automakers are unlikely to wish to reverse this position.

While the current recession has been deeper and more severe than those in recent memory, we are already seeing strong signs that this model of recovery will again be followed. In consequence our strategy must be to manage our business on a sustainable basis in the medium term, based on the current subdued level of activity, but to be ready to move quickly to exploit the opportunities that arise as recovery takes hold.













#### Markets still thriving

Outside Europe and North America, however, there are markets and industries where product development is continuing and where investment spend is still increasing. Across many regions we have seen a resurgence of R&D activity in the two-wheeler sector, ranging from high-efficiency scooter concepts to luxury motorcycles. In the automotive sector the Chinese market in particular remains one of the strongest globally in growth terms, boosted by strong and rapidly developing domestic demand. The Indian market is similarly buoyed by domestic demand for personal transportation and commercial vehicles. In each of these important geographical markets we are ideally placed to deliver an appropriate mix of value-added services to a broad spectrum of customers ranging from those wishing to offer high-quality cost-optimised products to an intensely price-sensitive domestic consumer base, to those wishing to develop technology and feature-rich products for export markets.

Within the automotive and personal transportation space, a new sub-sector is beginning to emerge, defined by electric vehicles and other forms of high-efficiency personal transport. We are already seeing the

emergence of completely new automotive industry customers within this area, as well as the launching of new business units from the established international automakers. Secure in its leading position as a developer of hybrid and electric vehicle technologies and with its strong track record in the very latest hybrid and electric vehicle and systems research, Ricardo is well positioned to benefit from this rapidly developing market. A further lucrative niche market is that for high-efficiency supercars, not least driven by an emerging highly affluent class of consumer in the rapidly developing economies of countries such as China. Ricardo already has a long-standing reputation in transmission and driveline in this niche market and is extending this expertise into engine development and low volume production.

#### Regulation – a key investment driver

Regulation remains a key driver for markets and industries around the world, with impending automotive industry legislation standing firm against recessionary pressures from sectional interests. We have seen a continued level of interest in emissions-related business from our international commercial vehicle customers as they strive to meet the regulations due to

come into force in the European and North American markets. In the global marine, rail, power generation and off-highway sectors, impending legislation on exhaust emissions is likely to drive many new and existing customers to seek assistance in this area as sector-specific regulation is enforced along similar lines.

As the international economic climate improves we expect that the spotlight will once again return to the pressing need to address the global issue of CO<sub>2</sub> reduction, with significant investment being targeted towards the achievement of this aim. In parallel, fuel efficiency is also likely to be an increasing driver for product development across almost all industries and markets. While fuel prices today may appear high to the individual consumer, this must be seen in the context of a situation of depressed international demand. When the recovery fully takes hold, a likely consequence is an increased level of competition for energy resources: this will elevate prices still further – indeed, in the medium term, it may well be the case that today's prices come to be viewed in retrospect as comparatively very low.

Taken in parallel with the low-carbon legislative frameworks and fiscal incentives put in place by governments around the world, the



Current and future light protected patrol vehicles (left) developed by Ricardo





pull from a market driven by high energy prices is likely to strongly reinforce this demand for increased efficiency and thus greater investment in R&D. With industries from transport to power generation actively seeking such solutions, Ricardo is extremely well placed to play a role at the very heart of the transition to a global low-carbon economy, providing a compelling mix of value-added engineering services and enabling

technologies.

The attractiveness of our service provision is further enhanced by the technological change that will enable the move to lower carbon products, particularly in the automotive sector. The importance of building in quality and managing warranty processes effectively has recently been brought into sharp focus with a number of highly publicised product recalls. For conventional vehicles the costs and associated risks of such remedial actions can be prohibitive and can potentially threaten the very existence of weaker players. This situation is likely to be further compounded with the increasing complexity of vehicle architectures - from electric vehicles and range-extended hybrids to new forms of combustion technology – that will be needed to support a low-carbon future for transportation.



#### **Developing adjacent market sectors**

Ricardo's long-standing strategy to develop its geographical footprint has served the Group extremely well through the recession, as has our more recent strategy of developing adjacent market sectors. Defence vehicles in particular are proving a highly attractive market: as armed forces are required to engage in increasingly hostile conditions of asymmetric warfare, defence ministries in many parts of the world are now demanding robust, agile and fuel-efficient vehicles affording unparalleled levels of crew protection. In addition to the long-standing relationship with the UK Ministry of Defence, where Ricardo is engineering upgrades to a large proportion of the existing in-service fleet of Land Rover Defender based vehicles, the highly successful Team Ocelot collaboration between Ricardo and Force Protection Europe has resulted in the creation of a truly unique vehicle concept for the future. Already at the stage of building advanced prototypes for the competition to supply the UK's future light protected patrol vehicle, Ocelot has also been shortlisted for Australia's Land 121 Phase 4 project.

In parallel with this highly successful adjacent market sector diversification into

defence vehicles, Ricardo's further moves to deploy its technology and expertise in sectors including renewable energy, unmanned aerial vehicles and rail and marine engineering have also been particularly well timed ahead of the recession. This broad portfolio of activities not only provides a resilient platform but also now positions Ricardo extremely well to benefit from the future recovery across multiple sectors.

#### Outlook

We are already seeing some positive signs of recovery, not least a return to business with some of our traditional automotive customers towards the end of the year with good sized programmes, but also increased activity within strategic consulting business, which is typically a lead indicator as customers map out their strategy for an anticipated economic recovery. Not only are we ensuring that we continue to manage operations at the current level: far more importantly, we are creating the conditions that will enable Ricardo to move quickly, effectively and opportunistically, as soon as demand picks up, to maximise the Company's success in each of the sectors in which we operate and in each geographical region in which we are present.

The challenges of recession could be seen as being analogous in economic terms to a process of natural selection. Extending that analogy to the decade ahead as the recovery takes shape, Ricardo aims to emerge from the selection process as one of the fittest, smartest, most agile and most successful companies in each of its selected markets.

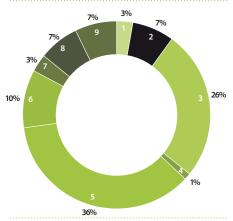
'We continue our geographical diversification into Asia, further reducing dependence on individual regions and customers'



## Strategy

Creating a leading global value-added industrial consultancy





- Rest of Asia

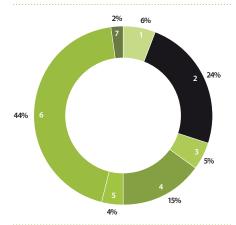
The fundamental cornerstones defining Ricardo strategy have been held constant since 2005 and have now proven their significance, value and fitness for purpose through periods of growth, recession and stabilisation alike. These values have enabled us to sustain class-leading performance in the delivery of excellent engineering services and the creation of genuine innovation for our customers, while also maintaining a strong order book, cash flow and balance sheet and providing a resilient profit and dividend stream for the benefit of our investors.

In the worst of the recession, when much of our traditional core automotive business disappeared, this strategy positioned us ahead of our competitors by virtue of the geographical and industrial sector diversifications already put in place. Collectively, these proactive strategic initiatives significantly softened the full impact of the downturn for Ricardo. They have also enabled the business to continue its development with crucial investments in technology, infrastructure, personnel and management controls to position the business well for future global economic recovery.

The cornerstones on which the strategy is developed are defined to deliver growth with a strong element of risk mitigation to cater for changing market conditions:

- 1. Reduce the impact of cyclicality and dependency, whether that be geographic, technical, sectoral or customer related;
- 2. Focus on sustainable growth through careful analysis and selection of key sectors, geographies, products and customers - often underpinned by legislation demanding continued technological development;
- 3. The provision of in-demand services which offer a high value-added content and which bring maximum benefit to the customer;
- 4. Achieving low costs through a carefully co-ordinated global operation which maximises low-cost resources worldwide wherever possible, and through increased efficiency derived from Group-based resource management.

#### Order intake by Key Sector year ended 30 June 2010



High Performance Vehicles

& Personal Transportation

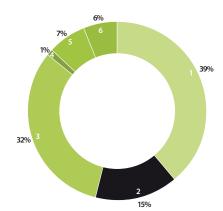
Passenger Car

Government

& Motorsport - Motorcycles

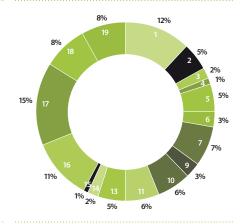
- I. Clean Energy & Power Generation
- Defence
- Agricultural & Industrial Vehicles - Rail - Marine Commercial Vehicle

Order intake by Product year ended 30 June 2010



- Engines Driveline & Transmission
- Systems Vehicle Systems
- Hybrid Electric Vehicle
- 5. Intelligent Transportation Systems
- Strategic Consulting

#### Order intake by Key Customer year ended 30 June 2010



- LIK Defence US Defence
- UK Government US Government 3. 4.
- Global Key Client I
- Global Key Client 2 Global Key Client 3 Global Key Client 4 (<1%)
- Global Key Client 5 Key Client I
- 11. Key Client 2
  12. Key Client 3 (<1%)
  13. Key Client 4
  14. Key Client 5
  15. Key Client 6

- Rest of UK
- Rest of UK
   Rest of Asia
- 18. Rest of Europe
- 19. Rest of USA



The strategy defined by the four cornerstones is delivered through an integrated framework of key operating themes. It is within these themes that various initiatives are developed, implemented and measured. At the top level these themes articulate the overall strategy of the business:

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

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 well documented in previous annual reports. To this end this report will only summarise and focus on the key changes or additions to the strategy.

In the past year we have continued developments in each of the strategic theme areas and have communicated these to our



stakeholders and the world at large through press releases and our in-house magazine, RQ. Significantly, on the "Global" theme we have continued our geographical development in order to provide ourselves with improved market access to key territories such as China, India and Japan. Crucially, we are focusing our efforts on those countries which have both fared better than other markets during the recession and which offer the prospect of more sustained long term growth in the years ahead.

#### **New industrial market sectors**

In previous years we have actively pursued product diversification through key investments in transmissions, electronics and strategic consulting capabilities to augment the longstanding strengths of the Group in combustion engines. We continue our geographical diversification into Asia and have additionally developed our European and North American facilities, further reducing dependence on individual regions and customers, enabling risk mitigation and acting as a springboard for future growth. In the past year we have embarked on perhaps the most exciting and potentially the

KPI for client dependency

Number of clients generating revenue for Ricardo exceeding 10% of Group revenue small number of clients











most rewarding strategic development of all; the introduction of a third dimension through a much more vigorous focus on exploitation of new industrial market sectors which can benefit from the exploitation of our technologies, expertise and processes.

The passenger car industry is rightly seen worldwide as a pinnacle of industrial achievement. The large multinational automakers are able to create complex, highvolume, technology-intensive products that satisfy extremely high customer and legislative expectations for performance, quality, durability, safety, environmental responsibility and low emissions, all at extremely low cost. It is of little surprise, therefore, that the passenger car sector is increasingly seen as the gold standard for high volume, robust and cost effective product design. The economics of the car industry dictate comprehensive and long term warranty security from products comprised of low-cost components, packaged into a weight- and

space-conscious context, and operating in an arduous vibratory, thermal and electromagnetic environment for a service life typically in excess of a decade.

Programme delivery and purchasing processes and tools are also seen as the benchmark for cross-industry adaptation. The passenger car industry has demonstrated what it takes to introduce industry-changing technology while meeting new legislation and consumer demands – crossing the chasm from low-volume niche into high-volume mainstream production. Many industries face similar demands as they move from niche to volume applications, where poor reliability or high component cost can no longer be accepted in a volume market place. As an example, if renewable power generation technologies are to gain genuine market scale and achieve their full lifecycle cost potential, they will need to address this issue. We are well placed to contribute to this development.

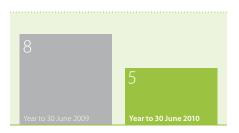
#### Carbon emission control and legislation will impact all industrial sectors

In many of the market sectors we are targeting, carbon emissions and energy efficiency are coming onto the agenda as never before. Similarly in those markets that use combustion engines as a source of power - including rail, marine propulsion and agricultural and industrial vehicles – noxious exhaust emissions regulations are beginning to apply in a manner similar to their introduction in the automotive industry worldwide over the past two decades.

In the phase of diversification that we have now embarked upon, Ricardo aims to address the needs of adjacent market sectors by drawing

KPI for technology dependency

Number of product groups exceeding £10m revenue pa targeting an increase in major



Ricardo supplied transmissions to teams competing in the Japanese Super GT race series





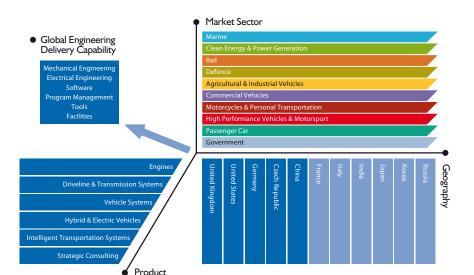
upon its pool of world-class engineers and its automotive industry process knowledge and technology. In doing so we are making key investments in recruiting experienced leaders from the targeted sectors -- leaders who are able to bring with them crucial market knowledge and network contacts, dramatically cutting the experience curve barriers to entry and enabling us to marshal our people, skills and resources to maximum effect for new sector-based customers.

Ricardo has been active in many of these adjacent market sectors in the past but we have to an extent previously treated them in purely opportunistic terms. The intent of the new strategic initiative will be for the Company to become very much more focused on the requirements of these adjacent markets and enable us to service them as completely and

as professionally as we do our automotive customers. As such, we aim to provide our technological and management consulting expertise for the resolution of key sector challenges in a manner which will deliver substantial value to all our customers in all these market sectors.

This strategy of expansion into adjacent market sectors further reduces the risk of dependency on a single market sector as well as bringing additional economies of scale to our internal R&D efforts as the step into the new markets draws heavily on the expertise and technology from existing markets. It will effectively complete the three dimensional view of the markets we engage with - as demonstrated in the diagram below – in terms of geography, product and sector. Moreover it sets a structure in place for future growth





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KPI for geographical spread

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

'The passenger car industry is rightly seen worldwide as a pinnacle of industrial achievement'



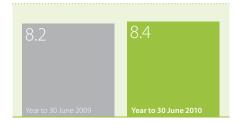


HRH The Duke of York with Ricardo CEO Dave Shemmans after the opening of the Ricardo Low Carbon Technology Centre, Leamington Spa, UK (top right); Ricardo display at DVD 2010, Millbrook (right)



KPI for premium brand

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



and risk mitigation, adding a further level of robustness to the business on top of that which has enabled us to meet the challenge of recession in such good shape. In essence, our aim is nothing short of creating in Ricardo the world's leading value-added industrial consultancy.

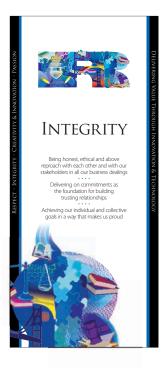
As in previous years' reports, the core strategic theme of "World Class Technology and Products" remains a key focus for the ongoing development of the Company. Some of these programmes are discussed in greater detail in the Features section of this report, beginning on page 33.

Our "World Class Infrastructure" programmes continue with the development of the One Ricardo business system based on SAP, which will be going live in the US first and which

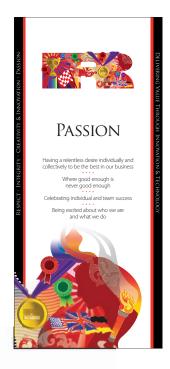
will be rolled out systematically thereafter across the Group. This business system will enable us to target our investment spend to the most profitable areas of the business.

With regard to the "Premium Brand" strategic theme, we continue to protect and build the Ricardo brand throughout the whole organization and in all the sectors in which we operate. We do this through enhancing both the tangible marketing tools such as the in-house magazine, RQ, our website and our attendance at industry shows. In addition to this there are many less tangible but equally important aspects of brand development in terms of our global reputation for taking on board and delivering the most challenging programmes and strategic engineering issues for our clients; in essence, the Ricardo brand is its people.











Ricardo is proud to sponsor two exceptionally bright and talented young students through the Arkright Scholarship Scheme. Philippe Marks and James Roberts pictured with Catherine Heritage, Ricardo's talent management lead

The Ocelot defence vehicle programme, the high-profile supercar engine development and supply programme, hybrid programmes for Chinese car companies, electric vehicle and advanced battery programmes for US and European manufacturers, the new engine for UAVs and the Taxibot semi-autonomous aircraft tug programme -- these are just a few examples showing where we have positioned Ricardo at the very centre of technology development and delivery leadership in various sectors. Ricardo has also continued to support, and has welcomed the support of, various governments worldwide as we continue to be called upon for independent strategic advice -- whether

that be for industry direction, legislation setting or meeting the challenges of CO2 reduction through technology programmes.

We were delighted to have HRH The Duke of York open the Ricardo Low Carbon Technology Centre in the Midlands in autumn 2009. The Duke's support not only brings a great motivational benefit within Ricardo but significant benefit beyond UK shores through his role as UK Ambassador for business. As much of Ricardo's business is conducted in international markets, such support and that of the many UK embassy teams overseas is highly valuable to us.

People underpin all that we do at Ricardo and this is reflected in our "Right Team, Right Culture" strategic theme. We continue both to 'bring in the best' and 'bring on the best' through our internal talent management programme. Notable achievements in this area have been the attraction of external talent to Ricardo in order to support our strategic objectives of market sector development in areas such as rail and renewable energy.

Finally, a major determinant of success for Ricardo is through our "One Firm" strategic theme. This focuses us on gaining results beyond the sum of the parts, reaping benefits for example through global resourcing and gaining operational effectiveness through increased utilization and timely deployment of the right resources and the cross-sharing of technology. Achieving the right organisational culture to support this "One Firm" theme requires teams

to be able to individually express themselves to the benefit of their markets – and this in turn requires the building of a community with a common strategy and value set. This strategy and value set enables individualism while promoting a common direction. The core values have been refreshed this year and communicated across the Group:

- Respect
- Integrity
- · Creativity and innovation
- Passion

In summary, these signify respect for all our stakeholders, integrity in our honest and ethical approach to our work, the creativity and the innovation that have defined the very character of Ricardo for almost a century, and the passion and commitment to our work that underscores everything we do for our customers. We believe these values, together with the strategy and the team within Ricardo, will provide an exciting future for the business and we relish the opportunities that a global market recovery will bring.

'Our strategy enables us to offer new solutions in the defence, rail, clean energy and off-highway sectors in addition to our road transport portfolio'



# **Research & Development**

R&D is at the very core of Ricardo's competitiveness

CAD image of the Ricardo Kinergy high-speed energy storage system (above)



Optically accessed piston used in the Ricardo sprayquided GDI research engine;

High-speed image of fuel spray development (right)



The demand for new and innovative technologies to meet future fuel efficiency or lower carbon regulations has continued to increase. In recent years Ricardo has actively pursued a strategy to build an internally funded R&D programme to develop new and innovative technologies to meet this demand with collaborative support from either government bodies or customers. During the past year our programme has also broadened to include the creation of Ricardo solutions to meet the challenges in a wide range of market sectors. This has enabled us to offer new solutions in the defence, rail, clean energy and off-highway sectors in addition to our road transport portfolio. Our roadmapping and technology forecasting capabilities have enabled us to put forward a range of new and innovative programmes for collaborative funding. This strategy has delivered a significant number of longer term collaboratively funded programmes that directly address our future business needs, training our staff in new areas and delivering opportunities for growth.

Some of the key programmes and achievements in R&D over the past year have been:

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



 A significant collaborative programme supported by both European and UK Regional Aid to develop advanced technologies for plug-in electric vehicles. This covers a wide range of innovative Ricardo technologies to deliver cost-effective and attractive products for consumers. The programme is divided into a range of work streams that include battery chemistry, range extender engines, low-energy heating, ventilation and cooling systems, next-generation silicon technologies, and modular power electronics concepts.









PEP charging station developed in collaboration with Ricardo (above): Lontra Blade supercharger being demonstrated in the Bladeboost project (below) and the Ricardo RED-LiON battery system (bottom)

- A collaborative programme to deliver a novel lower-cost battery system for hybrid and electric vehicles featuring a new battery chemistry. One of the key deliverables from this programme has been a fully adaptable battery management system which we believe is a step ahead of many current systems. This new system has enabled us to file a number of patent applications and to offer this technology to our customers.
- Successful demonstration of our steer-bywire technology with fail-safe architecture. This has been supported by a suite of safetycritical software that can automatically assess failure modes and effects and rate the impact of faults in a system. This is a significant enabler for many off-highway and defence applications.
- Hardware evaluation of our innovative flywheel coupling technology. This has also included the development of design processes and tools for our hermetically sealed magnetic coupling technology to enable mechanical flywheels to operate in a

high vacuum whilst providing direct drive to a mechanical transmission. This technology has proved to be attractive for energy recovery across a range of sectors including rail.

We have also received collaborative funding to support further exploration of an innovative approach to bearing design for wind turbine applications. Main bearing durability can be a particular challenge, with uneven wear leading to early failures. Ricardo has created a new approach to significantly improve the overall loading profile and improve both life and reliability.



'Cost and margin focus and strong balance sheet maintenance has led to a satisfactory trading performance in a turbulent, challenging market.'

Paula Bell, Group Finance Director



## Performance review

Investing for economic recovery

The results from continuing operations are the primary performance measure for financial results used by Ricardo. The German exhaust business continued to be held for sale at 30 June 2010 and has been reported under discontinued operations. The contract for the sale of this business was signed on 28 July 2010 and the sale completed on 30 July 2010.

The downturn in the world economy has seen a lengthening of our clients' tender to order cycle, particularly in the passenger car sector. Our strategy to secure orders from other market sectors has been successful, particularly in the US, where the orderbook position has grown significantly compared to 30 June 2009.

In the last quarter of the financial year we benefited from improved order intake levels as the automotive industry showed signs of recovery. This resulted in a strong closing orderbook of £101m (2009: £97m) containing good sector and client diversification.

Revenue from continuing operations was £162.8m (2009: £178.8m). Focused cost management across our global operations helped mitigate the impact of reduced expenditure from our clients. As a result, administration costs reduced by £8m in the year. Operating margin from continuing operations was £12.6m (2009: £15.1m).

Net financing costs were £1.8m compared to a £0.6m financing benefit in the prior year. The 2010 charge includes £1.7m of defined benefit pension scheme charges (2009: £1.1m) and the 2009 credit includes one-off foreign exchange benefits of £1.1m.

This resulted in profit before tax from continuing operations of £10.8m for the financial year to 30 June 2010, compared to £15.7m in the

previous year.

As noted above, in July agreement was reached to sell the non-core German exhaust business to J. Eberspächer GmbH & Co. KG. This resulted in a discontinued operations charge of £2.7m (2009: £5.7m), which comprised an operating loss of £0.5m (2009: £1.9m), an asset write-down of £2.9m (2009: £3.8m) and a positive tax effect of £0.9m (2009: £0.9m). This resulted in a Group profit for the year of £7.6m (2009: £9.0m).

We are once more pleased to report that we have maintained a strong balance sheet position. Net debt closed the year at £7.8m (2009: £3.5m) We continued to invest in R & D, with gross expenditure in the year (before deduction of government grants) of £11.9m (2009: £12.4m); in a subdued economic market, government grant support was particularly appreciated. The net expenditure after deducting government grant income was £8.9m (2009: £11.2m).

#### **Technical Consulting results**

Technical Consulting revenues declined to £153.4m compared to £168.1m in the prior year as further contraction took place in the automotive sector. Nevertheless, our strategy of sector diversification has partly offset this decline, with growth being particularly strong in the commercial vehicle and defence sectors.

Predicting the trend and timing of clients placing work necessary to meet CO<sub>2</sub> legislative targets has been very difficult. The third quarter of the financial year saw a reduced level of order wins, leading to reduced revenue for the full year. Quarter-four order intake levels improved, which led to a much improved orderbook position. Against a backdrop of continued market caution

KPI for the outlook

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

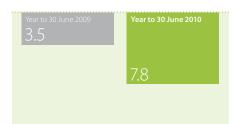


and reduced activity levels, the UK Technical Consulting division has been developing new market sectors in the face of this continued weakness in new orders from our traditional passenger car markets. Defence vehicle work has remained strong and stable, providing a good base for our operation. In addition, the commercial vehicles and motorsport transmissions sectors have continued to be strong.

The UK business continues to counteract unpredictable sales volumes by ensuring optimal business efficiency at all times. UK revenue dropped £10.3m in the year to £106.8m. The revenue figures include pass through costs of materials at minimal margin. Once material costs are excluded, the revenue reduction was £13.4m compared to last year. This was in part mitigated with cost reduction actions. Operating margins fell from 11.4% to 7.6%. During the first half of the year short-time working arrangements were implemented and temporary staff were used to ensure maximum efficiency while maintaining the core team and an appropriate skills base. In

KPI for liquidity

#### Net debt (£m)



July 2010 there was a permanent reduction in the UK workforce. Combined with a restructuring of the business to achieve greater operational efficiencies, a lean organisation is in place to maximize the benefits from the upturn in our core markets as they emerge.

It has been a challenging year for our Technical Consulting business in Germany, with significantly reduced client expenditure for us to compete for. However, key clients continued to place further orders for large programmes and we have achieved some success with new customers

The US Technical Consulting business showed strong signs of recovery following a difficult trading environment during the previous year. Revenues started to recover and the benefits of efficiency measures taken last year have enabled the business to increase profitability. Orderbook growth has been strong as the US builds on its diversified platform, attracting new clients in new sectors.

#### **Strategic Consulting results**

The sector diversification strategy pursued in the Strategic Consulting division has helped mitigate the impact of a turbulent year, which saw a decline in its traditional automobile sector business. Many new customers are now choosing Strategic Consulting's wider range of consulting services and the broader client base now provides a good platform for future growth.

Although revenue levels declined slightly in the year to £9.4m from £10.7m in 2009, improved pricing and margin together with tight cost control management meant the business delivered an improved operating profit of £1.8m, compared with £1.4m last year.

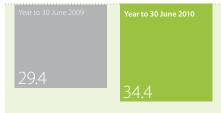
#### **Discontinued operations**

The non-core exhaust manufacturing was held for sale throughout the year to 30 June 2010 and, in consequence, its results are shown as results from discontinued operations. The sale agreement included the transfer of the business, employees, plant and equipment and inventories for a cash consideration of €2 million.

Discontinued operations results include an

KPI for pension commitments

Pension deficit (£m) valued in accordance with IAS19, targeting elimination of the deficit



additional write-down of assets of £2.9 million to reflect the agreed sale terms.

#### **Finance Income and costs**

There has been a net finance cost in the year of £1.8m, compared to net finance income of £0.6m in 2009. The prior year income included interest income resulting from cross-currency interest rate swaps and a one-off foreign exchange income of £1.1m. This year's cost also includes the finance charge for the pension scheme, which was £1.7m compared to £1.1m last year. Part of the increase was due to pension fund administration costs which were met directly by the Company for the first time this year.

#### Tax

The tax charge for the year was £0.5m (2009: £1.0m) We continue to benefit from R&D tax credits, and following a review in 2010 a further £0.8m of R&D tax credits were recognised in relation to prior years.

#### **Earnings per share**

As a result of decreased profits, partly compensated for by a reduced tax charge, earnings per share from continuing operations have decreased to 20.1p from 28.8p in 2009.

#### Dividend

The total (paid and proposed) dividend for the year remains at 10.7p per ordinary share (2009: 10.7p). The proposed final dividend of 7.5p (2009: 7.5p) will be paid on 26 November 2010 to all shareholders on the register at the close of business on 29 October 2010, subject to approval at the Annual General Meeting on 18 November 2010.

#### **Net assets**

Net assets at 30 June 2010 were £64.8m, which remained at a similar level to the prior year of £66.9m. Capital expenditure in the year was £7.6m (2009: £10.2m), including £2.7m for new operating facilities at our Shoreham Technical Centre and £1.6m for new business systems. At the end of the year our capital commitments were £1.3m (2009: £0.8m).

#### Net debt

We continue to maintain a strong balance sheet position. As we are currently delivering a number of assembly programmes material levels are higher than previously experienced. This has led to an increase in working capital in the period. As a result net debt closed at £7.8m compared to £3.5m at 30 June 2009.

At the end of the financial year the Group had £28m of committed borrowing facilities, £15m of which is committed for more than one year. In addition the Group had uncommitted facilities of £21m at the year end.

#### **Exchange rates**

Despite the weakness of sterling with the average value of sterling 13 percent lower against the dollar and 1 percent lower against the euro during the year ended 30 June 2010, there has been no significant overall impact on the profit before tax for the year due to this volatility in exchange rates. We have an exposure to the euro/sterling exchange rate arising from some of the work carried out in the UK for European customers, which is contracted in euros. The receivables arising on these contracts are hedged accordingly and hedge accounting is applied.

#### **Pensions**

The deficit in our defined benefit pension scheme measured in accordance with IAS19 'Employee Benefits' increased in the year from £29.4m to £34.4m, principally as a result of the fall in the discount rate used in the calculation of the scheme's obligations. On 28 February 2010 the defined benefit scheme was closed to future accrual.

In consultation with the trustees of the pension fund, the business has commenced a rebalancing of the pension fund assets during the year to reduce the overall volatility risk.

The cash contribution plan to eliminate the deficit, which commenced in 2006, continues and is targeted to eliminate the deficit by 2016. The next triennial valuation of the pension fund is due at 5 April 2011.

Ricardo Wolverine heavy-fuel engine for UAVs



## **Technical consulting**

Advanced technology, sector diversification and innovative solutions

#### **Passenger Car**

The past year can be summarised as a focus on survival and cash preservation on the part of many of the world's leading automakers, while the growth continued in some Asian regions and we have seen the emergence of new players into the niche markets of hybrid and electric vehicles. The legislative landscape remains a key driver to the demand for our low CO<sub>2</sub> technologies, with hybrid and electric technology, fuel- efficient diesel and gasoline engines, high-efficiency automatic transmissions and new forms of energy storage being particularly sought after. We remain confident that these areas will see further growth as general business confidence returns and the continuing legislative pressures on fuel economy requirements flow through into product plans. There was some return to external spend by traditional customers towards the end of the year, and we secured programmes across most engineering disciplines.

Our engine business has had a mixed year, with a very subdued order intake in the passenger car markets of gasoline and light duty diesel engines. In the final quarter of the year we have seen significantly increased activity in the market and we have been successful in winning considerable orders in the passenger car sector. This will give a good start to the next year and furthermore indicates a general strengthening of

In the US the focus of engineering has been on the new National Program to regulate passenger cars and light trucks for model years 2012 to 2016 in order to improve their fuel economy and reduce greenhouse gas emissions. New Corporate Average Fuel Economy (CAFE) standards will require these vehicles to reach an estimated combined average mile per gallon (US mpg) level of 34.1 by 2016.

A further focus is on energy security and in this respect Ricardo is well positioned with its Ethanol Boost, Direct Injection (EBDI) engine, a development which supports the US. Administration's energy independence agenda by making use of a domestic renewable fuel source. Our EBDI engine was announced at the Washington Auto Show in January 2010. It is the first engine to make use of ethanol's favourable properties and these capabilities will be proven in two vehicle demonstrators that will be completed during the coming year.

In Germany we secured increased business from premium automakers, demonstrating our growing position in this key European automotive market. In Japan car manufacturers were hit especially hard by the collapse of sales in the US in 2009, but are increasingly returning to profit helped by strong sales in China and recovery in the US. This has translated into an upturn in business for Ricardo and large turnkey opportunities are beginning to emerge once again.

The Chinese domestic automotive market has experienced unprecedented growth, especially in small to medium sized own-brand passenger cars. A major focus for new product development is centred on direct injection gasoline technology, dual clutch and planetary automatic transmissions, and hybridisation for improved economy. Ricardo is well positioned as a provider of leading-edge solutions in these areas and has as a result experienced continued growth.



Sentience demonstrator vehicle for ITS technologies

Russian market activity has been encouraging as the pace of technology increases, a significant highlight in the period being the award of a contract by Moscow-based KATE LLC to partner it in the development of a new seven-speed automatic transmission for use in AvtoVAZ cars.

In India we secured a number of engine, transmission and control and electronics contracts from leading manufacturers during the year. We have just started working on an advanced transmission for one of the country's largest manufacturers and saw a number of Ricardo-developed engines and hybrid vehicles launched at the prestigious Delhi Motor Show in January 2010.

#### Defence

The global defence market continues to focus strongly on the areas of crew protection and, where possible, the deployment of autonomous and remote controlled vehicles.



Ricardo's long-standing relationship with Bugatti on the advanced dual clutch transmission used for the Veyron supercar has continued with the development and manufacture of an upgraded version for the new Super Sport variant, officially the world's fastest production car.





The JCB Ecomax T4 engine is the first to adopt Ricardo's ultra low particulate Twin Vortex combustion system

In the UK MoD's Light Protected Patrol Vehicle (LPPV) programme Ricardo, in partnership with Force Protection Europe (FPE), has received significant positive user and customer feedback for the Ocelot design. If selected for LPPV, Ricardo will be the manufacturing partner for UK series production. Further orders have also been received for the WMIK Land Rover upgrade and for the development of new vehicles in the US. In addition to vehicle activity, the defence sector has drawn upon a number of key technologies from Ricardo's portfolio in areas such as Intelligent Transportation Systems (ITS), engines and hybridisation.

Ricardo has been working with the US Department of Defense, its agencies and its subcontractors, supporting the budget focus on energy use reduction, unmanned systems and acquisition reform - priorities very much in line with Ricardo thinking in this sector. Current programmes continue with the development

and demonstration of engines for ground vehicles, which increase power density and improve fuel economy. Vehicle fuel economy is the focus of a major vehicle demonstration programme which will be announced by Tank and Automotive Command (TACOM). This will include adaptations of Ricardo's commercial vehicle technologies and the development of fuel economy tool-sets to aid complex vehicle design and selection.

With a keen eye on the future needs of this sector, research programmes have emphasised the development of product technologies that are expected to further expand market opportunities for our services. An example of this is the Ricardo Wolverine 3 hp unmanned aerial vehicle heavy fuel engine, which is aimed at global markets.

#### Commercial, Agricultural and **Industrial Vehicles**

Engine-related programmes in the sector have

remained strong over this period, especially focused on US Tier 4 and European Stage 4 off-highway emissions regulations. Ricardo technologies in this sector such as the advanced Twin Vortex Combustion System have been much in demand. This system tackles emissions at source and greatly reduces the need for after treatment, so cutting costs and avoiding the packaging challenges of traditional solutions while improving fuel economy. JCB's Ecomax T4 engine which was approved in April 2010 incorporates this Ricardo technology and is claimed as the cleanest off-highway engine.

Business activity in the off-highway sector was so strong that capital investments were made to expand our Detroit test cell facilities to introduce heavy duty test capability in a formerly light duty dynamometer cell. Furthermore, a Presidential Memorandum has directed the US Environmental Protection Agency and the US Department of Transportation to create a firstever national policy to increase fuel efficiency and decrease greenhouse gas pollution from medium and heavy duty trucks for model years 2014-2018.

The period under review saw the successful completion of the Taxibot demonstrator vehicle programme for Israel Aerospace Industries Ltd. This concept enables commercial aircraft to be towed from the gate to the end of the runway without the use of aircraft engines, thus saving significant fuel consumption and CO<sub>2</sub> emissions. As the engineering partner, Ricardo provided the modelling, mechanical, hydraulic and automotive control systems for the design, build and development of an advanced aircraft tug, which successfully demonstrated operational

'Ricardo has been positioned at the forefront of leadingedge solutions for improving fuel economy in China and has as a result experienced continued growth in this market'



Flybus: The development of a Ricardo Kinergy flywheel energy storage device in a demonstrator vehicle based on an Optare Solo bus

towing with an Airbus A340 aircraft at Toulouse airport.

In addition to fuel efficiency, vehicle productivity is a key market driver in agriculture. Ricardo has been studying the effects of hybridisation and has defined a feasible hybrid system to improve vehicle productivity by more than 10 percent and also yield an improvement in fuel consumption. Interest has also been shown in Ricardo's flywheel energy storage technology where the stored energy from the descent can be used to reduce energy consumption for the loaded ascent, thus reducing overall running costs, for application in minina trucks.

In China and India construction vehicle manufacturers are reaching a critical size – the point at which developing their own driveline components becomes a viable alternative to purchasing from Europe or the US. Several are now seeking to acquire the key Ricardo technologies that will enable them to compete on a global basis.

#### **High Performance Vehicles,** Motorsport, Motorcycles and **Personal Transport**

Despite the pressures of the economic downturn, high performance vehicles continue to be developed around the world at levels similar to those seen previously. Ricardo has been heavily engaged with continued support for the Bugatti Veyron supercar programme. This has culminated in the supply of the driveline system for the new more powerful 1200 hp



SuperSport model, an example of which became the new production car world land speed record holder this summer. Ricardo is also continuing to develop a supercar engine that will be assembled by Ricardo in 2010.

In motorsport, Ricardo again successfully supported world champions and leading teams with the design and supply of high performance transmission systems and components. Our projects covered Formula 1, all three manufacturers within the Japanese GT Championship, the World Rally Championship and, once again, Ricardo supported the Peugeot team's Le Mans 24 Hours assault. Ricardo's technical expertise also continues to be greatly valued by the motorsport authorities, including world motorsport's governing body, the FIA, where our specialists can provide perspective and technical advice on aspects of both road and race powertrain design and development.

In the motorcycle and personal transportation sector we remain active with a number of global manufacturers, from high performance engine design to the low-cost hybridisation of scooters. The developed markets





Transmission supplied to teams competing in the

of Europe, Japan and USA are focused on singleuse leisure or commuting applications, with iconic brands competing over technology and performance. Developing markets such as China, Indonesia and India focus on the provision of low-cost personal transportation to the emergent middle classes. Whilst the introduction of comfort, safety and performance technology typically lags the pace of the developed markets, there is significant leadership in the development of electric propulsion as a result of local legislation on emissions in urban areas.



#### **Clean Energy and Power Generation**

The factors that drive the need for renewable energy – whether environmental, economic or the desire for energy security – remain high on the international agenda. The UK in particular has set ambitious renewable energy generation targets for 2020, with much of the emphasis on renewable electricity generation from offshore wind. New geographical markets where Ricardo has an established and growing presence are also now very active in the clean energy arena: China, for example, installed more wind power capacity than any other country in 2009.

Ricardo's driveline system analysis and design capabilities have secured business from turbine and gearbox manufacturers eager to ensure they have a robust and reliable product for deployment on and offshore. The key challenge for renewable energy companies is to develop cost-effective systems with good reliability. Ricardo's product development knowledge is well suited to address these key issues. Ricardo continues to grow its activities and secure business for both its technical and strategic consulting divisions in these sectors,

with a particular focus on wind power, marine power, energy storage, generator set and smart grid systems. In the conventional power area Ricardo is helping genset manufacturers upgrade their core technology to meet tighter emissions legislation. During 2009 a significant project with a major genset manufacturer has been progressed, addressing not just these upgrades but also the issue of cost optimisation.

#### **New Sectors: Rail and Marine**

A key component of the Ricardo strategy is to establish positions in adjacent markets where Ricardo technology can be readily exploited: throughout the year we have continued this process in the rail and marine markets. The rail industry continues to expand as its environmental and passenger density credentials drive the development of new high speed and commuter rail routes as well as the modernisation of existing lines.

For Ricardo, these developments represent a significant opportunity: our expertise in engines, transmissions and information systems is being sought either to extend the





Simon Scott, global rail market sector director

life of existing assets or to reduce the asset investment costs in mature sectors such as that for signalling control. The environmental needs are a lower priority in the rail market at present but imminent emissions legislation and predicted fuel cost increases are prompting clients to develop strategies to meet this legislation and reduce fuels costs and CO<sub>2</sub> emissions. Ricardo's hybrid technologies have stimulated interest and we have also gained initial interest from railcar manufacturers for powerpack development and integration, again leveraging our experience from other market sectors.

Since the last interim statement Ricardo has recruited a core team of senior rail leaders who have a wealth of experience in the international rail vehicle and signalling control and information market sectors. This team has combined well with our core engineering expertise, to develop this new sector.

In the marine area, the upgrade and development of current fleets is a global theme, with reduction in energy consumption and emissions as its primary drivers. Ricardo is utilising energy optimisation tool-sets to aid market complex system design and selection. Hybrid drives are currently being developed for port use, and the establishment of shoreto-vessel energy optimisation and micro-grid systems are being investigated where Ricardo technologies from clean energy and power generation can be leveraged.

## Strategic consulting

Sound advice in a period of economic turbulence



In an economic environment where most automotive manufacturers and suppliers have severely cut back their spending on consulting, Ricardo Strategic Consulting successfully accelerated its drive for market sector diversification with re-orientation of its services towards offerings less affected by the recession.

Our consultants conducted high-profile projects in a number of market sectors including a major US automotive client cost reduction programme, other automotive projects, clean energy, defence, financial services, government, off-highway and rail. Service offerings around cost reduction, business turnaround and distressed company assessments were in high demand. CO<sub>2</sub> reduction was equally high on the agenda of many of our clients, providing our strategic consulting business with important



project opportunities in the areas of advanced powertrain and electric vehicle strategy.

The unique value proposition of combining strategic and commercial insight with deep technical knowledge has proved a strong

asset in the difficult economic environment. Clients across all sectors saw this combination of capabilities as a clear and very relevant differentiator and the key to providing tangible solutions to some of their most pressing issues, whether they were in the area of cost or CO<sub>2</sub>

Our cost reduction service offering has been further improved and successfully applied in both the automotive and diversified market sectors; our cost reduction teams have identified and implemented very significant savings on behalf of a number of clients over the year. Some of these engagements were offered on a success-based contingent fee basis, underlining the commitment of Strategic Consulting to measurable results.

The continued investment in relationships within our traditional automotive anchor accounts has also paid dividends and we have experienced a marked uplift in demand from these clients. This has been especially marked in the last quarter of the financial year as clients have begun to benefit from improved performance in many of their key markets. Our most recent orders also indicate that the market is shifting out of recession mode and back into growth mode, with the focus of attention switching back on to market, product and technology strategies.

Over the last 12 months Strategic Consulting has also cemented its position as a leading advisor on electric vehicles. Groundbreaking projects were conducted in support of vehicle manufacturers, component suppliers, government agencies and private equity firms in this important future growth area. The projects ranged from developing mobility concepts to the assessment of battery technologies and review of the impact on the value chain.

Whilst maintaining tight control of costs and discretionary spend throughout the period, we have consolidated the consultant base and refocused our teams to better align capacity with demand.

As the global recovery gathers pace Strategic Consulting is well placed to continue delivering its unique combination of strategic insight coupled with deep technical know-how to a diversified client base spanning multiple sectors and regions.

# 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. Noncontract risks are controlled by the leaders of global product groups, Group functions and divisional managing directors. These risks are

analysed and reviewed regularly and are recorded in the Group's risk register in liaison with the Group's Risk Manager, 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.

During the year the following improvements were implemented in advance of the new UK Corporate Governance Code being published:

• Risks are now classified and reviewed 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 reviews higher rated risks on the register with the Board three times each year
- The introduction of additional cross functional risk reviews by group functional heads and divisional managing directors

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 48 to 51.

#### Customers and markets

The Group is largely dependent on a dynamic marketplace which is exposed to many external pressures, competition and structural change caused by global economic, cost-base, environmental and capacity concerns.

This could cause changes in client product plans, leading to delays in the placement of orders, the redirection, delay or curtailment of contracts or slippage in payments. At worst, this could result in bad debts due to the insolvency of a customer and the curtailment or pause in all programmes for that customer. These could lead to significant reductions in revenue and headcount and to the business delivering reduced performance. As the market recovers, the precise timing of order receipt and rate of ramp- up of project work load 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 client, territory or market sector, and the success of this strategy is measured by the key performance indicators for client dependency, geographic spread and technology dependency shown on pages 10 to 13. In the event of a sudden downturn, contingency plans are quickly deployed to minimise the short-term performance effects and preserve cash whilst protecting the long- term needs of the stakeholders. The impact of insolvency risk is mitigated by robust working capital management and credit insurance where economically available.

#### Contracts

The majority of the Group's revenue arises from fixed-price contracts for engineering services. The costs 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 claims.

#### **Impact**

Failure to perform on a contract or the infringement of the rights of others or a faulty product could also potentially subject the business to a claim from a customer and loss of reputation or reduced opportunity for repeat business. 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 have continued focus with the central leadership of the Chief Operating Officer, Mark Garrett and the Global Program Management Director, Fred Payne 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.

### 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.

## Technology

The business is driven by changes in technology to meet the needs of markets, sectors and regulators on varying time scales.

### Compliance with laws and regulations

The Group's operations are subject to a wide range of domestic and international laws, regulations and restrictions

#### Defined benefit pension scheme

The Group has a UK defined benefit pension scheme which currently has a funding deficit.

#### **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 27 and 28.

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 review by our Technology Steering Group, which is chaired by the Chief Technology & Innovation Officer, Neville Jackson. Further details of our R&D programmes are given on pages 16

#### **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 advice, where considered necessary, to ensure that employees and others act with the highest ethical standards and within local legal and regulatory requirements. Also, the Group's internal audit programme includes within its remit the review of compliance with applicable legislation and regulations. Policies are updated as regulations change and as our knowledge of best practice increases. We aim to anticipate the effects of working in new sectors, which adds to the range of regulations and laws which we need to comply with.

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 2008 and anticipates deficit recovery contributions being made until 2016. The Group has agreed a plan with the trustees to move part of the assets of the pension fund into lower risk investments, and has 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 is normally in a net borrowing position, requiring some borrowing from its bankers.

Given the recent turmoil in the banking sector, globally there has been an increase in the risk of the Group being unable to secure sufficient funds or of the cost funds and facilities being high.

#### Mitigation

This risk is managed by robust cash management, monitoring forecast and actual cash flows, maintaining good relationships with the Group's bankers and ensuring sufficient borrowing facilities are in place at all times to support the Group's 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 21 to the financial statements.

# Corporate social responsibility

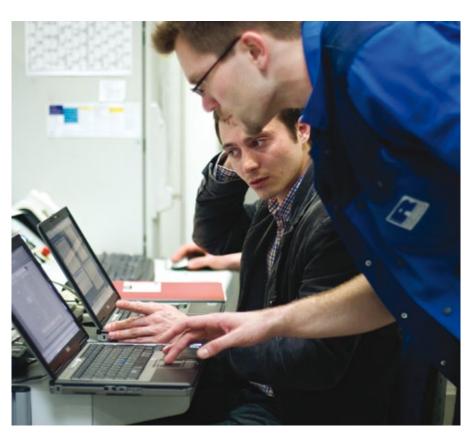
A responsible and global corporate citizen

#### Commitment to stakeholders

Ricardo aims to manage its relationships with its stakeholders and to communicate with them professionally and responsibly. The Board recognises its principal stakeholders as shareholders, clients, employees, suppliers and local communities and also recognises its responsibility to the environment. Responsibility 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. Under our ethics policy we do not permit bribery, anticompetitive or corrupt business practices in any dealings. Under our fraud prevention policy we do not allow intentional acts by one or more individuals within the business to use deception or theft to gain unjust or illegal advantage. Under our whistle-blowing policy we provide a procedure for any employee to raise any malpractice concerns in an appropriate manner, with protection to the whistle-blower.

#### **Shareholders**

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



#### Clients

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

#### **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 and has been developing and embedding

KPI for employee and knowledge retention

**Employee turnover pa** based on voluntary ers, targeting a level of c. 10%



tools to do this. The concept of 'optimum contribution' as a means for individuals and teams to derive effective performance has been translated into practical operational tools which underpin 'performance management'. Alongside this, a refresh and re-statement of the Company Values has created 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 who, having gained different experience, have brought this back to further strengthen our business.

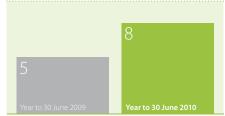
The dynamics of the market are such that we ensure we make regular and rigorous reviews of our skill base, proactively managing the balance between attrition and refreshing or enhancing the skill-set through carefully targeted recruitment.

The changes in the market during the early part of the year have had the impact of reducing the level of voluntary employee turnover. By the end of the year this started to be re-balanced to more normal levels of close to 10 percent. The Company has taken an opportunity to bring in fresh skills in line with the evolution of business diversification whilst balancing strong knowledge retention within the business.

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

Our talent management process has also identified up-and-coming business leaders to take up the challenge of career development opportunities, particularly as we expand our presence in new geographical markets and sectors. In particular, the identification of highpotential employees on a global basis gives us a KPI for health and safety

Reportable accidents based on UK RIDDOR initions, targeting zero accidents



robust method to focus our development spend in addition to normal development channels for all employees.

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

Through the implementation of the approaches described above, we believe that we are significantly improving both the quality and efficiency of our recruitment and development efforts, with substantial advantages to the management, operation and delivery of our business.

#### **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 recognis e the level of reportable accidents as a key performance indicator. Whilst there was a disappointing increase in the number of reportable accidents in the last financial year, 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.

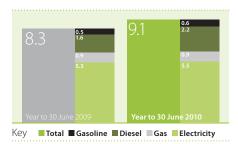
Many of Ricardo's clients require certification to the environmental management system standard ISO 14001 for their key suppliers. We are accredited to this standard in our technical centres in the UK, the US, Germany and Prague. The application of the policy is defined by appropriate processes and procedures 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 two of which are indirect impacts, as the impact is seen in the resulting products of our customers. The first

#### KPI for the environment

CO₂ tonnes per employee calculated using Trade and Development, targeting an efficient use of resources





Tomáš Zemek from the Prague office being presented with The Marcus Beresford Young Engineer of the Year Award (left); The Ricardo Engine assembly facility at Shoreham (below)

area is the core business of technical consulting for new or improved products across the sectors we serve, which will have an impact on the levels of emissions, fuel consumption and noise. This includes Ricardo-funded and clientfunded engineering projects where technology is developed to provide low-emissions and high-efficiency technologies for incorporation in products in all parts of the world.

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

The third area of impact is our testing operations, which is the area of the business where the majority of the risks of direct impact on the environment exist. Our testing for customer and research programmes uses fuels and electrical energy. The resulting negative environmental impacts are offset by 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 have no dominant waste stream.

In order to support our customers and



develop relationships where some face-to-face contact is essential, we travel to customers' and other sites when necessary. The decisions on airline routing and how many staff should travel are generally based on cost and timetable availability, with direct flights and modern aircraft being preferred. However we aim to minimise travel, particularly travel between Ricardo sites, by the use of video, audio and internet conferencing. The process used to identify these impact areas is derived from ISO14001, where we are required to identify areas with potential for significant negative environmental impact. These impacts are reviewed during internal and external audits and subjected to specialist risk assessments.

Projects to reduce energy consumption are actively encouraged and have become more important as unit fuel costs have increased. Regenerative dynamometers enable the re-use of electricity generated by testing operations and thereby lead to savings and environmental benefits which include lower water usage. The

proportion of regenerative dynamometers in the UK, the US and Germany has been increased and will continue to as investments are made. Loadsensitive coolant pump drives have also been installed in some test houses to reduce electricity consumption. Our new buildings are as energy efficient as is economically viable. To test our environmental focus we measure energy usage in terms of the tonnes of CO<sub>2</sub> produced by the business from the use of diesel and gasoline fuels for testing, and from gas and energy use in our facilities. For ease of understanding this is expressed as a ratio to headcount. Whilst a continuous reduction in CO2 tonnes per head is targeted, this is not at the expense of taking on testing business that inevitably uses fuels. Only the energy used directly by the Group is measured. The indirect benefits to the environment from Ricardo's work are not measurable, but almost certainly far outweigh any direct negative impacts.

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

#### **Suppliers**

Relations with the supplier community are regarded as an essential ingredient in achieving client and shareholder satisfaction. Our policy is that key suppliers should be certified to ISO 9001 and ISO 14001, and all suppliers are encouraged to obtain these certifications. It should be noted that in the case of some projects, suppliers are nominated by clients in accordance with normal industry practice. Where a choice between suppliers is possible, various procurement methods are used depending on the type of product or service being procured. For service functions for our main sites, local suppliers are used where commercially practical. There are no



Ricardo employees (left) during a trek to Everest base camp, including Jo Vicat-Brown and Ben Thornton, who raised £2212 for a local Sussex hospice

Greenpower Goblins (below) gives primary school children the opportunity to build and race an electric kit car. Ricardo sponsored 3 local schools, purchasing car kits and providing STEM engineering ambassador support throughout the project



significant supply contracts which are essential to the business of the Group, and we are not tied to any suppliers in such a manner as to jeopardise the independence of the business. Initiatives being managed by our Head of Global Procurement are delivering a number of savings by consolidating the supply base and in some cases by securing better rates for longer term contracts.

#### **Local communities**

It is our policy to aim to make a positive contribution to all countries and communities in which we operate, particularly in the areas of education and children local to our main sites. All Ricardo offices support local community activity and give charitable donations, particularly where employees participate in community or charitable fund-raising activities. The focus is on creating sustainable links and on improving the image and understanding of the business and the engineering profession in the community. Examples in education include the provision of work experience placements for local schools, supporting the Greenpower Goblins scheme for primary schools, the UK Science and Engineering Ambassadors scheme, and by employees acting as school and academy governors. Support is provided to promote women in engineering via the ANKe in Germany and the Society of Women Engineers in the US. The Midlands Technical Centre also supported a local athlete with Olympic potential, Sarah McGreavy and the Shoreham Technical Centre supports Peter



Ricardo ladies entered the Race for Life to raise money for charity

Mitchell, a sprint cyclist.

We occasionally match staff donations to charitable activities, particularly where there is active staff participation in events. We supported Jeans for Genes in UK and Jeans for a Cause in US, which has a different beneficiary each month. In the UK we are also supporting the Race for Life, where an event supported by Ricardo was held in July 2010.

Some of our employees took part in a sponsored trek to Everest base camp in October 2009. The money raised was matched by the business and contributed to the Chestnut Tree House, a children's hospice close to Shoreham. The whole business supported the Haiti appeal, our German team contributed to Médecins Sans Frontières and the UK and US teams contributed directly via Van Scoyoc, one of our US advisors on government matters, who matched the staff and Ricardo contributions each of \$7500 - a

generous achievement which led to \$30,000 being donated in total.

We often allow the use of facilities for charitable activities free of charge and we engage with local economic regeneration organisations. Financial contributions to charities in the year to 30 June were £9,713 (2009: £22,000), and included £6,333 of Ricardo contributions to Haiti appeal via Van Scoyoc.

The effectiveness of these policies is informally measured by feedback from the communities in which we engage.



Confident for the future

Despite the continued global economic turbulence and the resulting continued absence of many of our traditional clients from our order intake, the business has performed well in the circumstances. We have maintained a strong balance sheet and grown our orderbook, and propose an unchanged dividend payment. We have continued to invest in world-class facilities and leading-edge research and have in place a targeted recruitment programme for recognised specialists to drive our

We are now seeing signs of recovery from our traditional clients, with orders starting to be placed; however, we are continuing to run the business with high levels of control and vigilance to ensure that we exploit any recovery to the full, whilst at the same time managing any turbulence along the way. As a result of our diversification strategy, our clients now come from a broader range of sectors and we look forward to serving them for many years to come with a stream of repeat business. The key drivers of CO<sub>2</sub> reduction and energy security remain and will return to centre stage when the economy is more fully recovered.

Moreover, with many clients having restructured their operations, outsourcing can provide an effective way for them to both meet the demands of the forthcoming emissions legislation and return to more normalised product development cycles.

With the global economic recovery appearing to be underway, Ricardo is well positioned with a good orderbook, a broad client base, a highly relevant technology portfolio and a strong balance sheet to exploit the opportunities that lie ahead. We remain committed to our strategy and are confident for the future.

**Dave Shemmans** 

Paula Bell

(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.

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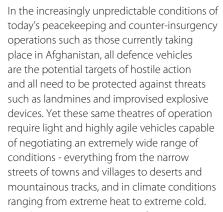


## **Features**

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- 38 Optimising ethanol
- 40 Helping JCB Create the 'world's cleanest offhighway engine'
- **42** Next generation transmission technology for China

# Protect and SUIVE

Engineering a completely new concept in defence vehicles



In setting out to capture the requirements of a potential future light protected patrol vehicle (LPPV) for the armed forces of the UK Ministry of Defence (MoD), NATO and other friendly nations, Ricardo aimed to develop a concept that would embody the same qualities of agility and size as the current British Army Land Rover-based fleet, while providing a stronger, better-armoured vehicle capable of carrying and supporting ever more heavy communications devices, electronic systems and other equipment.

In January 2009 Ricardo and Force Protection Europe (FPE), a division of South Carolina based Force Protection Inc, developed the concept for a completely new light protected patrol vehicle to be known as Ocelot. The companies decided to collaborate for two principal reasons. Firstly, Force Protection is a company with extremely strong international





credentials in terms of the delivery of vehicles with exceptional standards of survivability and mine-blast protection. Secondly, the potential collaboration on the new Ocelot concept would build upon an existing mutually beneficial relationship as Ricardo had been working with Force Protection since late 2007 on enhancements to its Cougar product range (the Mastiff and Ridgeback) and on the Wolfhound, a flatbed cargo-carrying version of the Mastiff being built for the UK MoD.

An agreement was quickly reached between the companies in February 2009 to







jointly develop the Ocelot vehicle, with FPE taking on the role of prime contractor for the UK MoD's LPPV programme and any other international markets that Ocelot might be targeted at. The IPR (intellectual property rights) for Ocelot are jointly owned. According to FPE managing director David Hind, "we chose to partner with Ricardo because of its reputation for world-class automotive excellence – and particularly because of the recognition of this within the UK MoD."

Just seven months later, in September 2009, the first Ocelot prototype – built at the





# Ecotang

Reducing the noise, pollution and CO2 emissions of global air travel



In the space of just a few decades, the international air travel market has expanded beyond recognition, from a preserve of the very rich to being an everyday feature of modern life. The consequent expansion of civil aviation has seen once modestly sized national and regional airports becoming vast international transit hubs serving multiple full-service airline networks, and has more recently given rise to the development of the low-cost carrier sector.

With this growth now being mirrored by a similar democratisation of air travel across the developing world, it is hardly surprising that the attention of the global aviation industry is increasingly turning to the challenge of reducing its carbon emissions. A particular area of focus in terms of fuel efficiency is that of airport taxiing operations, where aircraft engines are used as an inefficient means of low-speed ground manoeuvring. According to European aircraft manufacturer Airbus, taxiing at airports using the aircraft's main engines results in a huge consumption of fuel, forecast to cost around \$7 billion globally by 2012, with consequent CO<sub>2</sub> emissions of approximately 18 million tonnes per year.

In addition to its comparatively high carbon emissions, taxiing using aircraft main engines can also have extremely negative impacts in terms of local air quality and noise, and is a frequent cause of foreign object damage to engines as the result of the ingestion of debris into the turbine's air intake

These issues led the Innovation team at the Lahav Division of Israel Aerospace Industries Ltd (IAI) to propose a concept they called Taxibot, a semi-robotic tractor that would tow aircraft from the airport gate to the take-off point and return them to the gate after landing, thus eliminating the need to run the plane's engines during taxi-in and until immediately prior to take-off during taxi-out. The Taxibot concept is based on the assumption of zero interference with the aircraft systems, such that the concept can be engineered for commercial introduction quickly and without specific adaptation for individual aircraft. Its aim is to provide a ground vehicle that enables the pilot to manoeuvre the aircraft between the gate and the runway in exactly the same manner as at present, steering through the nose landing gear and braking in the usual way via the aircraft's own brakes. The only obvious difference for the flight crew would be that the aircraft's main engines would be switched off and the tractive effort would instead be provided by the Taxibot.



Yet while such a conceptually simple innovation might appear extremely attractive, the engineering challenge was considerable. IAI is one of the world's leading designers and manufacturers of military and commercial aerospace systems, but it needed support in the development of next-generation ground vehicle design in order to bring the Taxibot concept from the ideas stage to a working prototype vehicle. For this reason, it chose to appoint Ricardo as its vehicle engineering partner to realize a viable fullsize and fully operational demonstration vehicle capable of proving the Taxibot concept via a comprehensive test programme.

The donor vehicle provided to Ricardo to form the basis of the Taxibot demonstrator was a Krauss Maffei PTS-1 towbarless aircraft tractor originally owned and donated to the



project by Lufthansa LEOS. This 36 tonne, twoaxle vehicle was powered by twin V8 Mercedes diesels delivering a combined 750hp through its hydrostatic drive. For the Taxibot concept to be demonstrated, the vehicle would need to be completely rebuilt in stretched form with a third axle to enable installation of IAI's patented rotating "turret" mechanism, a platform that can tilt and move axially. The nose landing gear (NLG) of the aircraft would be clamped into this turret, together with associated energy absorption systems and controls. This turret system needs to be precisely monitored and controlled in order to provide smooth and uninterrupted towing forces to the aircraft, adapted in real time to accommodate the effects of braking through the aircraft's rear wheels. Moreover, in order to ensure that using Taxibot is almost invisible and non-intrusive to the taxiing experience of the flight crew, it would need to mirror precisely the steering performance of the aircraft's NLG wheels.

This re-engineering of the donor tug had to start from first principles of vehicle structural design and dynamic analysis, a process greatly assisted by the use of CAE simulation tools. Ricardo made extensive use of multi-body dynamics and motion analysis

software, employing an extremely rigorous approach which left nothing to raw assumption. Engineering the steering system in particular was a complex challenge as it was necessary to create exactly the same steering feel for the pilot through a six-wheeled, three-axle vehicle as would normally be experienced in the conventional taxiing mode. Ricardo extended the hydrostatic drive to the additional wheels and engineered a completely new control system enabling the precise control of tractive effort to each of the vehicle's now six wheels.

Dual Ricardo 'R-Cube' electronic controllers manage the forces applied to the nose landing gear as well as vehicle speed, steering – and all the communications with the customer's electronic systems for navigation, speed setting and control tower integration - as well as the operational logic of the vehicle systems and the pilot interface. The resulting Taxibot demonstrator vehicle was constructed entirely at the Ricardo vehicle engineering facility at Shoreham, UK, and weighs a total of 52 tonnes complete with its complex hydrostatic drive system and hydraulic systems handling the fourwheel steering and aircraft pick-up and clamp actuators. The six-wheeled vehicle is capable of robotically towing, under pilot control, Boeing

747 and Airbus A340 airliners.

To enable the extensive testing programme required for demonstrator vehicle development, Ricardo also designed and constructed a bespoke 100-tonne test trailer capable of simulating the towing performance of a wide range of commercial passenger jets. Initial testing of Taxibot was carried out by Ricardo and IAI engineers at Dunsfold aerodrome, approximately 25 miles south west of London. Following completion in March 2010, the project team subsequently re-located to the facilities of Airbus at Toulouse airport, France, for testing on a full size in-service A340-600 aircraft.

With further development, the Taxibot concept could ultimately help to facilitate the complete automation of airport ground traffic. In addition to significantly reducing fuel consumption, this could yield further important benefits in terms of smoothing traffic flows at the world's most congested hub airports by optimising the use of the existing infrastructure. This innovative Ricardo-engineered vehicle concept could fundamentally alter the way that we travel, mitigating a significant proportion of the carbon emissions of the global aviation industry while also helping airports to reduce their local environmental impacts.

# etnanol.

Working with America's ethanol industry to develop a future low carbon powertrain

As the industrialised nations of the world struggle to reduce the carbon intensity of their transportation systems, ethanol offers a particularly attractive biofuel solution for the North American market. A highly stable fuel which is already incorporated into the gasoline supply chain of the US in the form of a 10 percent allowable blend in pump grades available to consumers, ethanol can be produced directly from the corn grown abundantly by the country. With significant research efforts being directed towards ethanol production based on cellulosic biomass (which is currently waste material regardless of the end use of the corn) as well as towards the intensification of agricultural yields, ethanol is likely to play a significant role in the decarbonisation of the US motor fuel chain as well as in other regions and nations with a developed agricultural base.

At the 2010 Washington Auto Show Ricardo and Growth Energy, the foremost body representing the US ethanol industry, announced that they would collaborate on a research project to demonstrate that a highly optimised engine fuelled on ethanol can provide a cost-effective, low-carbon, high fuel economy alternative to fossil fuel power. Two demonstrator vehicles are being produced



Ricardo Inc president Kent Niederhofer explains the design of the EBDI engine to Congressman Steny Hoyer, House Majority Leader, at the 2010 Washington Auto Show

incorporating Ricardo's Ethanol Boosted Direct Injection (EBDI) engine technology; the vehicles will show that, even for larger applications, extreme optimisation of ethanol combustion can enable engine downsizing of the order of 50 percent and still deliver substantial fuel economy and CO<sub>2</sub> emission improvements from a costeffective, high performance and inherently low emission powertrain.

Ricardo's EBDI engine technology solves many of the shortcomings of current generation flex-fuel engines, which are typically only optimised for gasoline operation and do not make full use of the properties of ethanol. Unlike existing flex-fuel engines, EBDI takes full



The project is using a Ricardo EBDI engine, developed from a production V6 gasoline product, to re-power two GMC Sierra 3500 HD pickup trucks, each with a kerb weight of some 2.7 tonnes (6000 lbs) and a towing capacity up to 7.5 tonnes (16,500 lbs). The project team selected these comparatively large vehicles as the basis for the programme in order to demonstrate the full flexibility of the EBDI engine concept. By selecting a vehicle of this class the engineers aim to show that EBDI is applicable across an extremely wide range of vehicle types -- from medium duty on- and off-highway applications to small family cars -- anywhere that higher blends of ethanol are generally available.

The fuel saving potential of EBDI is however at its best in larger vehicles when it is employed to substitute for high capacity gasoline engines; it can offer the most attractive cost



General (retired) Wesley K. Clark, the co-chairman of Growth Energy, emphasised the potential energy security benefits for America of further development of ethanol as a motor fuel: "Ethanol is the only renewable fuel that is ready to displace more foreign oil. If we are ever to achieve the energy independence that is vital to the economic and national security of our nation, we must begin to put more ethanol into our fuel tanks - and less gasoline from foreign oil."

"As science moves from making ethanol from corn to producing it from corn cobs and other plant materials," continued the General, "ethanol will provide even greater sustainability. Through this project with Ricardo we aim to be able to put potential customers in the driving seat and demonstrate to them that with EBDI technology ethanol can deliver performance and fuel economy and offers an attractive and sustainable transport solution using an American-produced renewable fuel. Consumers should have a choice at the pump

emissions, expanding the use of ethanol in gasoline, decreasing dependence on foreign oil, and promoting the creation of American jobs in the ethanol supply chain. By collaborating with Growth Energy as opposed to a single automaker, vehicle manufacturer or engine builder, Ricardo has ensured that neither of the lead partners in the project has any commercial motivation to restrict the technology to a single automotive brand or product line. Equally, both partners are fully committed to the open dissemination of the results, which

will be available when the two demonstrator vehicles are launched in early 2011.



# Helping JCB create the 'world's CLECINEST off-highway engine'

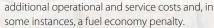
Removing emissions at source for mining, industrial, agricultural, and construction equipment and vehicles

Some of the greatest challenges facing engine and vehicle manufacturers today lie in meeting the future emissions regulations planned for the off-highway sector. With the impending US Tier 4 regulations due to come into force between 2011 and 2014 – together with similar European regulations in the same timeframe - mining, agricultural and construction equipment manufacturers are facing an unprecedented tightening of the emissions limits applying to their product ranges. Both US and European regulations imply a massive reduction in permitted levels of NOx (nitrogen oxides) and PM (particulate matter) emissions of around 90 percent. In many cases these changes apply to product classes which were previously loosely regulated — so the new rules will broadly align emissions regulations for off-highway vehicles with the already very strict limits enforced by European EU6 and US 2010 on-highway truck standards.

In their efforts to meet the huge emissions reductions demanded, many manufacturers have been following a strategy of installing substantial, complex and expensive exhaust



aftertreatment systems. The technologies adopted have included high-capacity exhaust gas recirculation (EGR) systems for NOx reduction coupled with diesel particulate filters (DPF) to control PM. Alternatively – in parallel with common practice amongst many commercial vehicle firms – manufacturers have been considering the implementation of SCR (selective catalytic reduction) as an alternative approach to NOx reduction. While offering viable solutions to the impending regulations, each of these aftertreatment technologies has inherent drawbacks in terms of initial cost of manufacture and package volume, as well as



While Ricardo has helped many manufacturers who have chosen to adopt engineering solutions based on a combination of these and other aftertreatment technologies, the Company has also developed its own proprietary combustion system which, for engines rated up to approximately 23 kW per litre, is capable of addressing emissions at source. The Ricardo Twin Vortex Combustion System thus has the potential to significantly reduce product manufacturing and whole-life operating costs.

The lead customer for this new combustion system is JCB, which has incorporated the technology on its £80-million project to develop what is claimed to be the cleanest off-highway diesel engine in the world — the 4.4-litre JCB Ecomax T4. The engine is undergoing field testing ahead of Interim Tier 4 and Stage 3B legislation coming into effect in 2012. With its Ricardo Twin Vortex Combustion System, the JCB engine offers major benefits to its users including lower fuel consumption, reduced cost







of ownership, increased reliability and, thanks to the elimination of the DPF system, superior packaging with no compromise in machine design compared to other systems.

JCB's director of engine programmes, Alan Tolley, says: "We believe the T4 4.4 is not only the cleanest engine in the off-highway sector, but also a first in the industry. Until now, it was expected that in order to achieve the Interim Tier 4 and Stage 3B legislation, the fitting of a DPF would be essential. But for mid-range construction equipment the disadvantages of doing so are exhaust back-pressure and increased fuel consumption. Also, if load cycles



are light, the DPF doesn't self-regenerate and forced regeneration burns yet more fuel."

At power ratings in excess of 23 kW per litre some exhaust aftertreatment equipment may still be necessary, but with its inherently low engine-out emissions the Ricardo Twin Vortex Combustion System can still potentially significantly reduce the cost of emissions compliance for both manufacturer and end user. Ricardo is also continuing its development efforts with the aim of raising the power threshold below which no additional equipment will be needed to satisfy Tier 4 regulations.

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As JCB's Ecomax T4 engine demonstrates, Ricardo's Twin Vortex Combustion System already offers a hugely cost-effective solution with which manufacturers of off-highway machines developing up to 130 kW can meet Tier 4 emissions without the need for any exhaust aftertreatment whatsoever. Its benefits are significant cost reductions: the on-cost of using the Twin Vortex Combustion System compared to a current Tier 3 compliant engine is estimated by Ricardo as being only marginal in comparison with the alternative of using a diesel oxidation catalyst or DPF. Fuel consumption savings of between two and three percent are also significant, as is the prospect of reduced servicing costs for many years into the future.

The development of the Twin Vortex Combustion System is a powerful example of how Ricardo is able to benefit the newly regulated off-highway equipment industries by building upon its knowledge, experience and world-class reputation for delivering ultra-clean technology and solutions in the automotive and commercial vehicle sectors.

# Next generation transmission technology for China

Developing the first front wheel drive eight-speed automatic transmission for a leading Chinese component manufacturer

The Chinese automotive industry has remained extremely buoyant in comparison with its international peers through the current recession. The resilience of this market serves as a further and very practical validation of the Ricardo strategy of geographical diversification which has seen the Company significantly increasing its engagement with all parts of China's vibrant automotive industry in recent years. Since the opening of the first Ricardo office in China – a wholly owned foreign enterprise – in 2005, this presence on the ground has secured the Company a clear advantage over many of its competitors. Ricardo has been notably successful in forging collaborative partnerships with indigenous Chinese companies from the leading automakers to the aspiring Tier 1 supply sector, in addition to the many longer-established automotive joint venture companies co-owned by Chinese and Western automakers.

An extremely successful and on-going collaboration which demonstrates the unique value proposition that Ricardo can offer to this market is with Shengrui Transmission Machinery, a division of the Weifang Shengrui Power Machinery Technology Company. This

project, commenced in mid-2009, involves the development of a ground-breaking eightspeed automatic transmission concept – the 8AT. A prototype of this innovative transmission system was given a 'first spin' test at Ricardo's Leamington, UK, facility in February 2010, in front of executives from the Chinese company's board, as well as representatives of the Weifang regional government.

A vehicle featuring an 8AT was shown at the prestigious Beijing Motor Show in April 2010 and it is anticipated that a production version of the new gearbox will be ready for manufacture in China in the near future.

Weifang Shengrui, based in Shandong province, is a successful, independently owned supplier of engine components to automakers and powertrain manufacturers in Europe as well as China. The company's history of collaboration with Ricardo goes back more than three decades. Interviewed for BBC television news who attended the 'first spin' event, Shengrui president Liu Xiangwu indicated that this experience, plus Ricardo's acknowledged high profile in China, accounted for Shengrui's choice of partner on the 8AT project.





Shengrui president Liu Xiang (left) at the first spin of the Shengrui 8AT transmission, with Professor Peter Tenberge (centre) of Chemnitz University, Germany,

The prototype transmission is the fruit of a strong co-operative enterprise between Ricardo and Weifang Shengrui engineers, who are working as a fully integrated project team based at Ricardo's Leamington Spa, UK, technical centre as well as the company's facility in Shanghai. From the date of contract in June 2009, the first working model was produced in the astonishingly tight timescale of seven months.



performance, and yet the 8AT design is a relatively simple arrangement that requires no special gear design or manufacture. The prototype offers the potential for excellent shift quality and is notably compact, offering significant packaging benefits. Additionally, there is the potential for five and six-speed

and worldwide.

This highly successful collaboration further demonstrates the benefits of Ricardo's highly flexible approach to providing advanced technology through collaborative engineering programmes tailored to the specific requirements of the Company's customers.

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





# Governance

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# **Board members**

#### Paula Bell FCMA

#### (Group Finance Director)

Paula Bell joined Ricardo plc and took up the position of Group Finance Director in November 2006. Paula is 43 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 AWG plc and over a ten year period at Rolls-Royce plc, Paula was Finance Director for various divisions before becoming the Business Development Director for the international Transmission and Distribution division, where she led on strategy, sales and marketing and a global merger and acquisition programme. 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 47 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

#### **David Shemmans BEng**

#### (Chief Executive Officer)

Dave Shemmans, aged 44, 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 cofounder of Wavedriver Limited (a subsidiary of PowerGen plc). He has also gained consulting and management experience in both listed and private companies. He holds a degree in electronics from UMIST and is a graduate of the Harvard Business School. Dave was a board member of the Electronic Leadership Council and Member of the steering group for the New Automotive Innovation Growth Team.

# Ian Lee BA, CA, CPA

#### (Non-Executive Director)

lan Lee was appointed as non-executive director on 1 August 2008 and Chairman of the Audit Committee on 18 November 2008. Ian is 63 years old. He is a former senior partner of Ernst & Young LLP in Glasgow, where he was primarily involved in leading and co-ordinating audits of listed companies and international groups. He was a member of the Ernst & Young governing Council for six years, and was a member of the firm's audit committee. He was the Convener of the Institute of Chartered Accountants of Scotland Audit and Assurance Committee. Ian is a non-executive director of Clyde Process Solutions plc and is responsible for chairing that Group's Audit and AlM committees. He is also a non executive member and a member of the audit committee of the NHS Greater Glasgow and Clyde Board.



#### 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 65 years old. He was Chief Executive of Kidde plc until he retired from that position in March 2005. He is currently Chairman of BBA Aviation plc and Chairman of the Vitec Group plc.

#### David Hall MA, MSc

#### (Non-Executive 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 63 years old. He was formerly at the Boston Consulting Group, the international strategic and management consulting firm, where he started and built up the financial services practice, served on the worldwide Executive Committee, was Chairman of BCG's ten global practice groups and had global responsibility for HR. David is also Chairman of the Financial Services Compensation Scheme and a member of the board of Hoare & Co, a private bank.

# Hans-Joachim Schöpf

#### (Non-Executive Director)

Hans-Joachim Schöpf was appointed nonexecutive director on 1 July 2009. He is 68 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 is non-executive director of Ricardo's Technology Steering Group.

#### Patricia Ryan LLB (Hons) (Group Legal Counsel & Company Secretary)

Patricia Ryan is 45 years old and is a qualified solicitor. Patricia joined Ricardo's Legal Department in 2002 and was appointed Group General Counsel in 2005 and Company Secretary in November 2008. Patricia holds an honours degree in law from the University of Westminster and is a member of the Law Society.

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

#### (Chairman)

Marcus Beresford was appointed a nonexecutive director on 1 October 2003 and Chairman on 1 January 2004 and retired from the board of Ricardo on 18 November 2009. (Not pictured)

# Corporate governance in practice

#### The Combined Code on Corporate Governance

The Company has applied the principles set out in Section 1 of the Combined Code on Corporate Governance issued by the Financial Reporting Council in June 2008 ("the Code"). Section 1 of the Code applies to companies and this statement, together with the Directors' Remuneration Report set out on pages 52 to 59, explains how the Company applied its principles throughout the year ended 30 June 2010.

#### The Board of directors

The Board, which is headed by the non-executive Chairman, Michael Harper, also included three other non-executive directors and three executive directors as at 30 June 2010. Professor Hans Schöpf was appointed nonexecutive director on 1 July 2009. Marcus Beresford retired from the board on 18 November 2009 whereupon Michael Harper was appointed Chairman and David Hall was appointed Senior Independent Director and Chairman of the Remuneration Committee. As announced on 1 July 2010, Interim Group Finance Director Bill Jessup resigned from the Board upon the return of Paula Bell from maternity leave.

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 and determines fees paid to non-executive directors other than the Chairman. 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 subsidiary companies and other senior executives. The minutes of the meetings of both the Ricardo Operating Board and the Executive Committee are circulated to the Board.

The performance of the Board is evaluated 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 non-executive director including the Chairman. The results of the questionnaire are analysed and reviewed by the Board and appropriate improvements agreed and

For the year ended 30 June 2010 the Board set itself objectives including supporting the executive in developing strategy objectives, maintaining focus on talent management and succession planning and reviewing and improving risk management.

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 both gross and net risks to the business.

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 nonexecutive 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 result of their office, to the extent permitted by law. In respect of those liabilities for which the directors may not be indemnified, the Company maintained a directors' and officers' liability insurance policy throughout the year. Although their defence costs may be met, neither the Company's indemnity nor insurance provides cover in the event that the director is proved to have acted fraudulently or dishonestly. Each director has access to the services of the Company Secretary if required.

The non-executive directors including the Chairman are considered

	Board		Committee meeting	S
	meetings	Audit	Remuneration	Nomination
Number of meetings in the year	8	5	8	3
Number attended by each member				
Marcus Beresford*	4	4	4	2
Hans Schöpf	8	5	8	3
Michael Harper	8	5	8	3
David Hall	8	5	8	3
lan Lee	8	5	8	3
Dave Shemmans	6	-	-	3
Bill Jessup **	4	-	-	-
Paula Bell ***	4	-	=	-
Mark Garrett	8	=	=	=

<sup>\*</sup> Marcus Beresford retired from the Board on 18 November 2009. \*\* Bill Jessup was appointed to the Board on 4 January 2010 and left the Board on 30 June 2010. \*\*\* Paula Bell returned from maternity leave on 21 June 2010.

by the Board to be independent of management and are free to exercise independence of judgement. They have never been employees of the Company nor have they participated in any of the Company's share schemes, pension schemes or bonus arrangements. They receive no other remuneration from the Company other than the directors' fees disclosed and travel expenses.

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

Procedures have been put in place for the disclosure by directors of any such conflicts and also for the consideration and authorization of these conflicts by the Board. The procedures allow for the imposition of limits or conditions by the Board when authorising any conflict, if they think this is appropriate. These procedures were duly followed to approve appropriate conflicts immediately prior to the enactment of the conflict provisions in October 2008 and are now included as a regular standing item for consideration by the Board at its meetings. No conflicts have been reported during the year under review.

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 re-election at least every three years. In the 2010 Annual General Meeting the directors are asking the Shareholders to amend the Articles of Association to provide for the retirement and re-election of each director annually as outlined on page 62.

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 authorization 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 "Internal Control Revised Guidance for Directors" in the Combined Code (Turnbull). The Board is satisfied that, where significant failings or weaknesses in internal controls were identified during the year, appropriate remedial actions were taken, or are being taken.

#### **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 Chairman of the Audit Committee on 18 November 2008. Ian is 63 years old. He is a former senior partner of Ernst & Young LLP in Glasgow, where he was primarily involved in leading and coordinating audits of listed companies and international groups. He was a member of the Ernst & Young governing Council for six years, and was a member of the firm's audit committee. He was the Convener of the Institute of Chartered Accountants of Scotland Audit and Assurance Committee. Ian is a non-executive director of Clyde Process Solutions plc and is responsible for chairing that Group's Audit and AIM committees. He is also a non-executive member and a member of the audit committee of the NHS Greater Glasgow and Clyde Board. He therefore has recent and relevant experience.

The other members of the Audit Committee: Michael Harper, David Hall and Hans Schöpf 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 and the Group Finance Director, where the Chairman of the Audit Committee considers it appropriate.

Meetings of the Audit Committee were held five 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 risk. The Committee also receives from the external auditors a report of matters arising during the course of the audit which the auditors deem to be of significance for the Audit Committee's attention. In this manner they have reviewed the effectiveness of the system of internal controls for the period covered by the Accounts.

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  $% \left( x\right) =\left( x\right) +\left( x\right) +\left$ 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 management's response to the findings and
- 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 ethics and fraud prevention policies. The 1998 Public Interest Disclosure Act ("the Act") aims to promote greater openness in the workplace and ensure that "whistle-blowers" are protected. The Company maintains a whistle-blowing policy in accordance with the Act, which allows employees to raise concerns on a confidential basis with certain nominated individuals if they have reasonable grounds for believing that there is serious malpractice within the Company. The policy is designed to deal with concerns, which must be raised without malice and in good faith, in relation to specific issues which are in the public interest and which fall outside the scope of other Company policies and procedures. The whistle-blowing policy is overseen by the Chairman of the Audit Committee, has been reviewed during the year and is promoted via the staff briefing process and the Company's intranet site. 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 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 2010 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 decisionmaking;
  - Any work where a mutuality of interest is created that could compromise the independence of the external auditor; and
  - Any other work which is prohibited by UK ethical guidance.

The Audit Committee has considered the effectiveness of the external auditors which included obtaining a report on the audit firm's own internal quality control procedures, consideration of the audit firm's annual transparency report and review of an internal questionnaire completed by senior and relevant Finance staff. 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 2010 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 52 to 59, which is the subject of a vote by shareholders at the 2010 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 Schöpf and David Hall) 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

The Group has a policy of appointing industry experts to participate in its local operating boards, thus bringing broader global experience to the Group. Sivert Hiljemark, formerly at Volvo Cars (UK), Walter Aspatore of Amherst Partners, LLC, and Akira Kijima, formerly at Mitsubishi Motor Corporation, have been members of the UK, US and Japanese local operating boards respectively throughout the year ended 30 June 2010.

#### **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 2009 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 21 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 with the Code

The Board confirms that it complied throughout the year ended 30 June 2010 with all relevant provisions contained in section 1 of the Code.

On behalf of the Board

Michael Harper

Chairman

27 September 2010

Chairman of the Audit Committee

# Directors' remuneration report

#### Introduction

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

The Company will seek the approval of this report by shareholders at the forthcoming Annual General Meeting on 18 November 2010.

#### **The Remuneration Committee**

The Board of Directors is responsible for executive remuneration policy. During the year under review the Remuneration Committee was chaired by Michael Harper up to the AGM and then by David Hall who transitioned into the role. The Remuneration Committee also comprised all of the nonexecutive directors – Michael Harper, David Hall, Ian Lee and Hans Schöpf. The non-executive directors have no personal financial interest other than as shareholders in matters to be decided, no potential conflicts of interest arising from cross directorships and no day-to-day involvement in running the business. Biographical details of the members of the committee are shown on pages 46 and 47, details of attendance at the meetings of the committee during the year ended 30 June 2010 are shown on page 49, and directors' shareholdings are shown on page 59. The Remuneration Committee has written terms of reference, which are available at www. ricardo.com, and its responsibilities include:

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

Towers Watson (formerly Watson Wyatt) Limited is the appointed independent remuneration advisor to the Remuneration Committee, the original appointment date being April 2009. The Group Human Resources Director, Sarah Murphy, and the Company Secretary, Patricia Ryan, support the Committee internally. During the year under review Towers Watson

also provided services in connection with Ricardo pension funds. The cost of each of these services was £74,085 for remuneration services and £557,237 for pension services. These costs include fees for administrative and trustee secretarial services and a one off charge of circa £200,000 in relation to the cessation of accrual of the defined benefit pension scheme.

#### **Executive remuneration policy**

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

Remuneration packages for each executive director and their fixed and variable elements are reviewed annually. As part of its considerations, the Remuneration Committee has reviewed and confirmed that remuneration policy is consistent with good risk management. A significant element of potential remuneration is performance linked, both through the annual bonus scheme and through participation in share incentive schemes. The proportion of variable pay in the total remuneration package is typically around 60 percent.

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

During the year the Committee reviewed remuneration arrangements and concluded that remuneration and its various component parts remain appropriate for the coming year. Within this review, pay and employment conditions of employees of the Group were taken into account, through consultation with the CEO and Group HR Director, when determining directors' remuneration for the year commencing 1 July 2010. A number of relatively minor adjustments to the future operation of the policy are detailed below.

The annual review date for basic salaries was formerly 1 July. In view of the uncertain market dynamics no changes were made in July 2009 and the annual review date was changed to 1 January with effect from 1 January 2010.

A number of factors are taken into account when salaries are reviewed: principally market rates 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. Salaries were reviewed in January 2010, it being 18 months from the previous review. The average review across the Group was 3% and specific awards for the Chief Executive Officer of 6%, Group Finance Director of 4%, and Chief Operating Officer of 0%. The next review will take place by the end of the calendar year 2010, with any awards to be made effective 1 January 2011. Such awards will be reported in next year's Annual Report and Accounts.

#### Basic annual salary and maximum bonus potential

#### For the year ended 30 June 2010

	Basic¹ salary £'000	Maximum bonus potential
Dave Shemmans	382	100%
Paula Bell	236	80%
Mark Garrett	175	80%

<sup>1.</sup> Salary as of 1 January 2010 review.

#### Annual performance related bonus

For the Chief Executive Officer, the Group Finance Director and the Chief Operating Officer the bonus plan for the year ending 30 June 2010 was based on achievement against the financial targets of profit before tax and cash as well as personal objectives. In the light of the actual performance against these targets, the Remuneration Committee concluded that some bonus should be paid for achievement against personal objectives and first half-year cash targets. The first half-year cash target achievement was the same for each of the Executive Directors at half of the maximum cash element; personal targets were achieved by 85 percent for the Chief Executive Officer, 67 percent for the Chief Operating Officer and 50 percent for the Group Finance Director who was on maternity leave for half of the period under review. The total percentage bonus for each Executive Director was 18.5 percent for the Chief Executive Officer, 13.3 percent for the Chief Operating Officer and 12.0 percent for the Group Finance Director.

For the year ending 30 June 2011 the Chief Executive Officer's maximum bonus potential will remain at 100 percent of base salary. Maximum bonus potentials for the Chief Operating Officer and the Group Finance Director are 80 percent of base salary.

Annual performance related bonus for the year commencing 1 July 2010 is based on achievement against the financial measures of profit before tax (60 percent of bonus opportunity), cash (20 percent), and personal targets (20 percent).

Salaries and percentage maximum bonus potential for the year ended 30 June 2010 are summarised above.

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

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

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

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

The diversity of the Company's business in terms of geography and sector also requires the flexibility to grant share 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 circumstances, and in other circumstances in order to create further alignment with shareholders and to incentivise further business growth.

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

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

2006 LTIP awards are subject to the following performance conditions:

50 percent of any award vests according to Total Shareholder Return (share price movement plus dividends reinvested – "TSR") relative to the FTSE Small Cap Index (excluding financial services companies and investment trusts); and

50 percent of any award vests according to normalised earnings per ordinary share ("EPS") growth performance.

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

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

#### 2006 LTIP awards - TSR performance condition

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

2006 LTIP awards - EPS growth performance condition

Vesting level	Awards made during financial year ending 30 June 2010	Current intention for all awards made during financial year ending 30 June 2011
Nil vesting of that element of award subject to EPS	Less than RPI plus 4 % per annum	Less than RPI plus 4% per annum
30% vesting of that element of award subject to EPS	RPI plus 4 % per annum	RPI plus 4% per annum
100% vesting of that element of award subject to EPS	RPI plus 11% per annum	RPI plus12% per annum
Straight line basis	Between RPI plus 4% and plus 11% per annum	Between RPI plus 4% and RPI plus 12% per annum

The Remuneration Committee reviewed the EPS growth target range for awards for the year ending 30 June 2011 and believes they will be appropriately stretching, taking account of current business forecasts and plans. 2006 LTIP performance targets will be reviewed for any subsequent awards, taking account of prevailing conditions at the time.

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

Maximum awards in relation to basic salary at time of award (actual amounts vesting will depend on performance)	Plan cycle ending 30 June 2010	Plan cycle ending 30 June 2011	Plan cycle ending 30 June 2012	Plan cycle ending 30 June 2013
Dave Shemmans	85%	100%	100%	100%
Paula Bell	50%	75%	75%	75%
Mark Garrett	-	30%	75%	75%

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

The EPS growth performance condition is again subject to review at the time of any grant. No share option grants have been made during the year ending 30 June 2010. The terms of the 2004 ESOP are:

2004 ESOP grants - EPS growth performance condition

Vesting level	EPS growth over three years for grants made in the year ended 30 June 2005	EPS growth over five years for grants made in the years ended 30 June 2006 to 2010
Nil vesting	Less than RPI plus 3% pa	Less than RPI plus 3% pa
30% of grant vesting	RPI plus 3% pa	RPI plus 3% pa
100% of grant vesting	RPI plus 6% or more pa	RPI plus 10% or more pa
Straight line basis	Between RPI plus 3% and RPI plus 6%	Between RPI plus 3% and RPI plus 10%

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

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

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

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

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 percent of the issued ordinary share capital of the Company and 5 percent 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 4.54 percent of which 3.25 percent related to discretionary employee share plans.

In the year to 30 June 2010 the Company closed the Defined Benefit: Ricardo Group Pension Fund ("RGPF") to future accruals. The purpose of this was to reduce future liabilities and volatility of the Fund, the Company giving a commitment that it would make broadly the same contribution level per employee via a different method: The Chief Exective Officer is the only executive director affected by the change. His arrangements are in line with other people transferring from the defined benefit scheme. The other executive director arrangements remain unchanged.

Supplementary pension/

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

	Pension Scheme	Membership	Pension award	award in lieu of pension
Dave Shemmans	Up to 28 February 2010 Defined Benefit: Ricardo Group Pension Fund ("RGPF")	Active: notional cap applied to £123,600  Deferred member as from 28 February 2010	Up to two thirds of basic salary (up to the cap) on retirement at age 65 after 25 or more years' service. Retirement before 65 is subject to actuarial reduction. Member contributions are based on an age-related scale and were required at the rate of 6.35% of pensionable earnings until 28 February 2010.	During the year to 30 June 2010 payment in lieu of pension provision for UK earnings over the notional cap was made at the rate of 20% in line with UK market practice for chief executives of companies of Ricardo's size and complexity.
	From 28 February 2010 Defined Contribution: Ricardo International Pension Scheme ("RIPS")	Active member; notional cap applied to £123,600.	Employer's contributions were made at the rate of 10% of basic salary over the Lower Earnings Limit and below the cap and at 20% between the cap and basic salary for the period to 30 June 2010.	Since 28 February 2010, a supplementary award of £16,930 per annum being the value of the difference between what the Company was contributing to the RGPF fund and the expected fund generation through RIPS, calculated by actuarial evaluation. This is paid monthly via payroll.
In summary the overall em	nployer contribution to pension is ap	proximately 20% of base salary	, the constituent parts being a re	esult of historical arrangements.
Paula Bell	Defined Contribution: Ricardo International Pension Scheme ("RIPS")	Active member.	Employer's contributions were made at the rate of 20% of basic salary over the Lower Earnings Limit for the period	

Scheme ("RIPS") Earnings Limit for the period to 30 June 2010 Certain terms were protected as carry-over from the RGPF arrangement for the Chief Executive Officer: on death in service, Dave Shemmans is entitled, subject to the medical requirements of the insurance company, to a lump sum of four times annual salary at date of death, together with a spouse's pension of 35 percent of annual salary and a pension per child of 12.5 percent of annual salary, subject to a maximum limit of 25 percent, until the child attains the age of 18 (or 21 if in full time education). Early retirement is available with the consent of the Company and the Trustees if the individual is

Active member: notional cap applied to £123,600.

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

over 55 or retiring due to ill health.

Mark Garrett

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. at 1 July 2009. (In the 2009 Report, this was incorrectly stated as £15,000)

Defined Contribution:

Ricardo International Pension

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

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

to 30 June 2010

Employer's contributions were

made at the rate of 20% of

basic salary over the Lower

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

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

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

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

The fees will be reviewed in the January timeframe of each year and reported in the Annual Report and Accounts. Non-executive director fees for the year ended 30 June 2010 are as follows:

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

The non-executive directors do not participate in any of the Company's share schemes, pension schemes or bonus arrangements nor do they have service agreements. They are appointed for a period of two or three years by letter of appointment and are entitled to one month's notice of early termination for which no compensation is payable. The unexpired terms of the non-executive directors at 30 June 2010 are:

Michael Harper	36 months
David Hall	24 months
lan Lee	13 months
Hans-Joachim Schöpf <sup>1</sup>	24 months

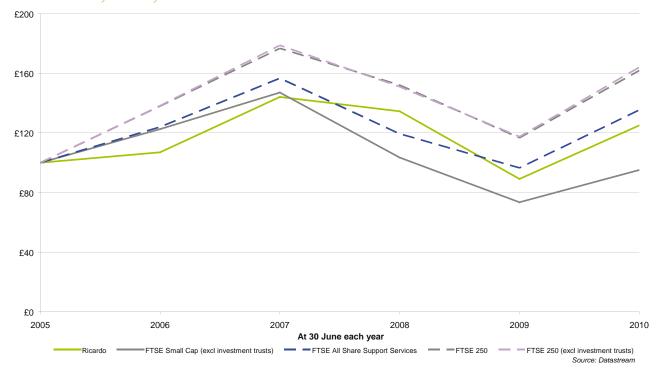
1 Non-Executive member of the Technical Steering Group for which he receives a fee of €16,000 pa.

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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. The chart shows that the benchmark has been exceeded.

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 2005 to 30 June 2010



#### **Auditable part**

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

for the year ended 30 June 2010:

	Basic salary and fees	Performance related bonus as cash	Performance related bonus as deferred shares (1/3rd)	Other benefits(a)	Termination benefits	Total 2010	Total 2009
	£′000	£′000	£′000	£′000	£′000	£′000	£′000
Executive Directors							
Dave Shemmans (b)	371	47	24	81	=	523	429
Paula Bell	226	19	9	19	-	273	239
Mark Garrett (c)	175	16	8	40	_	239	167
Bill Jessup (d)	145	_	_	23	_	168	-
Non-executive Directors							
Hans-Joachim Schöpf	37	_	_	_	_	37	-
Michael Harper	90	=	_	1	=	91	43
David Hall	43	_	_	-	=	43	37
lan Lee	42	_	-	1	-	43	39
Marcus Beresford	50	-	_	4	-	54	130

- (a) Other benefits include payments in lieu of pension provision for UK earnings over the notional HMRC cap and other benefits as described in the section under that heading on pages 54 and 55. (b) In respect of Dave Shemmans, a cash benefit amount of £54,089.12 was paid in lieu of pension provision for UK earnings over the notional cap, as reported on page 55.
- In respect of Mark Garrett, a cash benefit amount of £22,146 was paid in lieu of pension provision for UK earnings over the notional cap, and a payment in lieu of pension provision such that the total Employer's contributions were made at the rate of 20 percent, as reported on page 55.
- (d) Bill Jessup fulfilled his six month interim role covering the Group Finance Director's maternity leave. He also received £23,275 pension cash equivalent.

As reported in the directors' remuneration report of 2009, Steve Parker left the Board and the Company on 23 July 2009 under the terms of a compromise agreement with the principal terms of 12 month's base salary and benefits including pension and excluding bonus, totalling £545,000. Share options and deferred shares were pro-rated for performance and time according to plan rules. There was no mitigation clause in the contract. As this had been agreed in substance at 30 June 2009, these costs were recognised in the accounts to 30 June 2009.

In 2009, Geoff Bicknell fulfilled a six months interim role covering the Group Financial Director's maternity leave in that year. His emoluments totalled £118,000, comprising his basic salaries and fees.

(a) With respect to defined benefit pension schemes

	Additional accrued pension benefits earned in the year	•	Accrued pension entitlement	Transfer value at 30 June 2010	Transfer value at 30 June 2009	Increase in transfer value less members' contributions	Transfer value of additional accrued pension (excluding inflation)
	£′000	£′000	£′000	£′000	£′000	£′000	£′000
Dave Shemmans	2	3	24	184	120	64	21

The increase in the accrued pension entitlement is the difference between the accrued benefit at 30 June 2010 and that at 30 June 2009. All transfer values have been calculated on the funds' transfer value basis. The increase in the transfer value less directors' contributions is the increase in the value of accrued benefits during the year after deducting the director's personal contributions. The transfer value of the increase in accrued benefits, required by the Listing Rules, discloses the current value of the increase in accrued benefits that the director has earned in the period, whereas the change in his transfer value, required by the Companies Act, discloses the absolute increase or decrease in his transfer value and includes the change in value of the accrued benefits that results from market volatility affecting the transfer value at the beginning of the year, as well as the additional value earned in the year.

(b) With respect to defined contribution pension schemes

Employer contributions payable in the year	£′000
Dave Shemmans	4
Paula Bell	49
Mark Garrett	12

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

		S	hare price at award	Number of provisional shares					Value of shares	
	Cycle Ending	Award Date	date in pence	At 1 July 2009	Allocated	Lapsed	Vested	At 30 June 2010⁴	vested £'000	Vesting Date
Dave Shemmans	2009 <sup>2</sup>	Oct 061	303.30	85,801	-	30,888	54,913	-	133	20.10.09
	2010	Oct 07 <sup>3</sup>	283.60	98,906	-	-	_	98,906	-	16.10.10
	2011	Oct 08 <sup>3</sup>	299.90	120,040	-	-	-	120,040	-	22.10.11
	2012	Oct 093	246.40	-	124,188	-	-	124,188	-	21.10.12
Paula Bell	2009 <sup>2</sup>	Oct 061	303.30	30,283	=	10,901	19,382	-	47	20.10.09
	2010	Oct 07 <sup>3</sup>	283.60	37,376	-	-	-	37,376	-	16.10.10
	2011	Oct 08 <sup>3</sup>	299.90	56,769	-	-	-	56,769	-	22.10.11
	2012	Oct 093	246.40	-	69,094	-	-	69,094	-	22.10.12
Mark Garrett	2011	Oct 08 <sup>3</sup>	299.90	15,005	-	-	_	15,005	_	22.10.11
	2012	Oct 093	246.40	-	53,267	_	-	53,256	-	21.10.12

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

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

			Share price at		Number	of provisional sh	ares			
	Award date	Award date		Deferral period	Deferral award date in	At 1 July 2009	Awarded	Dividend shares	Vested	At 30 June 2010
Dave Shemmans	Oct 07	3 yrs	283.60	20,646	-	827	-	21,473		
	Oct 08	3 yrs	299.90	21,484	-	861	-	22,345		
Paula Bell	Oct 07	3 yrs	283.60	8,046	=	322	-	8,368		
	Oct 08	3 yrs	299.90	12,268	-	492	-	12,760		
Mark Garrett	Oct 07	3 yrs	283.60	2,943	-	119	-	3,062		
	Oct 08	3 yrs	299.90	5,208	=	209	_	5,417		

Amounts allocated include shares equivalent to dividends on provisional shares.

For reference and continuity from the 2009 report, following the resignation of Steve Parker, his October 08 award of 35,972, vested pro-rata, to the extent of 13,144 shares and the remaining number of shares lapsed.

snioning scare: on percent of the shares vested in respect of the cycle enging in 2009.

2. The 2009 Annual report included the LTIPs with the award date of October 2006 on the basis that they vested on completion of the performance period on 30/6/09. The Group has determined that the award vests in the October following approval by the Remuneration Committee. Therefore the vesting dates for awards made in all subsequent years are amended on the same basis.

3. Awards made under the 2006 LTIP: performance conditions as outlined on page 53.

4. The mid-market closing price of the Company's shares on 30 June 2010 was 274.5p (2009: 210.0p).

#### The 2004 Executive Share Option Plan

		Number of options				Exercise price	Date from which	
	At 1 July 2009	Granted	Exercised	Lapsed	At 30 June 2010	in pence	exercisable	Expiry date
Dave Shemmans	80,000	-	-	-	80,000	267.50	22.02.08	21.02.15
Paula Bell	25,000	-	-	-	25,000	300.00	20.10.09	19.10.16
Mark Garrett	16,672	-	-	-	16,672	305.00	22.10.11	21.10.18

The performance conditions are outlined on page 54 of the Remuneration Report.

Steve Parker's 2004 options lapsed on 15 January 2010 – 6 months following cessation of employment. His 1994 option of 50,000 was exercised on 23 September 2009. The market value of the shares at the time of exercise was 270.0 pence per share.

The closing mid-market price of the Company's shares on 30 June 2010 was 274.5 pence. The highest closing price during the year was 310.0p and the lowest closing price during the year was 200.0p

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	Number of shares
	At 30 June 2010	At 30 June 2009
Dave Shemmans	67,906	35,508
Paula Bell	19,768	8,333
Bill Jessup	-	=
Mark Garrett	5,125	5,125
Michael Harper	25,000	20,000
David Hall	20,000	20,000
lan Lee	10,000	10,000
Hans-Joachim Schöpf	10,000	-

Steve Parker resigned on 23 July 2009. The number of shares in which he had an interest at 30 June 2009 was 120,978. Marcus Beresford retired as Chairman of the Board on 18 November 2009, At that date he had a beneficial interest in 20,000 shares.

At 27 September 2010, the interests in shares of the directors who were still in office were unchanged from those at 30 June 2010.

On behalf of the Board

**David Hall** 

Chairman of the Remuneration Committee

and 5. Hall

27 September 2010

# Directors' report

The directors present their report and the financial statements for the year ended 30 June 2010.

#### **Business review**

The principal activities of the Group are the provision of technical and strategic consulting to industry, commerce and other agencies. The directors have prepared a Business review which is set out on pages 6 to 31 and amongst other things covers:

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

A segmental analysis is given in note 2 to the financial statements, and financial risks and policies are given in note 21 to the financial statements with the principal risks outlined in the Risk Management report on pages 25 to 26.

#### **Directors**

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

Non-executive directors:

- Marcus Beresford, CBE, MA.Mech.Sc., FIET, Chairman (retired 18 November 2009)
- Michael Harper, MSc, CCMI, FRAeS (appointed Chairman on 18 November 2009)
- David Hall, MA, MSc (appointed Senior Independent Director on 18 November 2009)
- Ian Lee BA, CA, CPA
- Hans-Joachim Schöpf

#### Executive directors:

- Dave Shemmans, BEng
- Paula Bell, FCMA
- · Mark Garrett, CEng, FIMechE
- Bill Jessup, (Interim Group Finance Director appointed 4 January 2010, resigned 30 June 2010)

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

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

#### **Board Committees**

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

Audit Committee: Ian Lee (Chairman); Michael Harper; David Hall; Marcus Beresford (until retirement on 18 November 2009) and Hans-Joachim Schöpf;

Remuneration Committee: David Hall (appointed Chairman on 18 November 2009); Marcus Beresford (retired 18 November 2009); Ian Lee, Michael Harper and Hans-Joachim Schöpf

Nomination Committee: Michael Harper (appointed Chairman 18 November 2009); Marcus Beresford (retired 18 November 2009); David Hall; lan Lee; Hans-Joachim Schöpf and Dave Shemmans.

Details of the roles of the Board of Directors and Board Committees can be found on pages 48 to 51 and of the role of the Remuneration Committee on page 52.

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

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

Company law requires the directors to prepare financial statements for each financial year. Under that law the directors have 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 period.

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 iurisdictions.

Each of the directors, whose names and functions are listed in pages 46 and 47 confirm that, to the best of their knowledge:

- the Group financial statements, which have been prepared in accordance with IFRSs as adopted by the EU, give a true and fair view of the assets, liabilities, financial position and profit of the Group; and
- the Business Review, contained in pages 6 to 31, includes a fair review of the development and performance of the business and the position of the Group, together with a description of the principal risks and uncertainties that it faces.

#### Directors' interests and indemnity arrangements

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

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

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

#### Supplier payment policy

In view of the international nature of the Group's operations there is no specific Group-wide policy in respect of payments to suppliers. Relationships with suppliers are, however, governed by the Group's policy commitment to long-term relationships founded on trust and mutual advantage. Within this overall policy, individual operating companies are responsible for agreeing terms and conditions for their business transactions and ensuring that suppliers are aware of the terms of payment. Creditor days for the year ended 30 June 2010 were 36 days (2009: 29 days).

#### **Donations**

During the year the Group made various charitable donations which are summarised in the Corporate social responsibility report on page 30. The Group made no political donations during the year to 30 June 2010.

#### Disclosure of information

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

#### Change of control provisions

There are a number of agreements that take effect, alter or terminate upon

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

#### Share 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 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 2009 Annual General Meeting, shareholder resolutions were passed authorising the directors to allot relevant securities of the Company up to a maximum nominal amount of £4,220,266. In addition, at the same meeting shareholders authorised the Company to make market purchases of its own ordinary shares up to a maximum of 5,115,474 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 27 September 2010 the Company's share capital is divided solely into 51,324,730 ordinary shares of 25 pence each. All ordinary shares rank equally for all dividends and distributions that may be declared on such shares. At general meetings of the Company, each member who is present (in person, by proxy or by representative) is entitled to one vote on a show of hands and, on a poll, to one vote per share. With respect to shares held on behalf of participants in the all employee Share Incentive Plan, the trustees are required to vote as the participants direct them to do so in respect of their plan shares. 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 23 September 2010, being a date not more than one month prior to the date of the notice of Annual General Meeting, the following are holders of more than 3% of the Company's issued share capital, all of which are non-beneficial interests:

	Number of Shares	% of issued share capital
Delta Lloyd Asset Management	6,618,132	12.89
Artemis Fund Managers	4,942,691	9.63
Legal & General Investment Mgmt	3,655,174	7.12
Scottish Widows Investment Partnership	3,520,086	6.86
Montanaro Investment Management	3,128,970	6.10
Impax Asset Management	2,998,954	5.84
Schroder Investment Management	2,828,628	5.51
Jupiter Asset Management	2,429,832	4.73
Highclere Investors	1,811,882	3.53

#### **Articles of Association**

There are no restrictions on the amending of the Articles of Association of the Company other than the need to pass a special resolution of the shareholders.

#### **Annual General Meeting**

The 2010 Annual General Meeting of the Company will take place at 10.00 a.m. on 18 November 2010 at the offices of Royal Bank of Scotland, 250 Bishopsgate, London. A separate notice of meeting will be sent to shareholders.

The directors propose a final dividend of 7.5 pence (2009 – 7.5 pence) per share, amounting to £3,859,354 (2009 - £3,836,606) payable on 26 November 2010 to shareholders on the register at close of business on 29 October 2010. The final dividend proposed will make a total of 10.7 pence (2009 10.7 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.

The following directors offer themselves for re-election:

- 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 2010 are shown on pages 46 and 47.

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

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 £4,234,290, 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 2011 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 £641,559, 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 14)*

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 15)

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.

The directors are asking shareholders to approve an amendment to the Articles of Association to provide for the re-election of each director of the Company annually at each Annual General Meeting.

An explanation of the change between the proposed and the existing articles is contained in an appendix to the Notice of Annual General Meeting.

#### Amendment to Articles of Association (resolution 16)

The directors are asking shareholders to approve two amendments to the Articles of Association. The amendments are to:

- provide for the retirement and, if appropriate, re-election of each director of the Company annually at each Annual General Meeting; and
- (b) increase the limit on the aggregate fees which may be paid to directors for their services to not exceed a maximum of £350,000

#### **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

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Patricia Ryan

Group General Counsel and Company Secretary 27 September 2010

# Independent auditors' report

# to the members of Ricardo plc

We have audited the financial statements of Ricardo Plc for the year ended 30 June 2010 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 Cashflow and the related notes. The financial reporting framework that has been applied in their preparation is applicable law and International Financial Reporting Standards (IFRSs) as adopted by the European Union and, as regards the Parent Company financial statements, as applied in accordance with the provisions of the Companies Act 2006.

#### Respective responsibilities of directors and auditors

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

This report, including the opinions, has been prepared for and only for the Company's members as a body in accordance with 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.

#### **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 2010 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 51, in relation to going concern: and
- the parts of the Corporate Governance Statement relating to the Company's compliance with the nine provisions of the June 2008 Combined Code specified for our review.

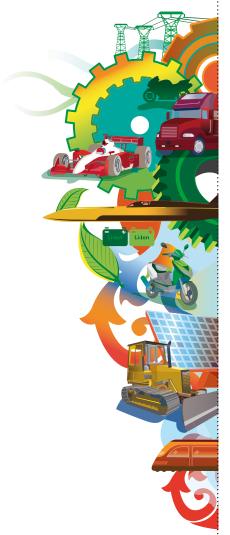
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**Graham Lambert** (Senior Statutory Auditor) for and on behalf of PricewaterhouseCoopers LLP Chartered Accountants and Statutory Auditors Gatwick

27 September 2010

"Ricardo aims to emerge from the challenges of the recession as one of the fittest, smartest, most agile and most successful companies in each of its market sectors"





# Financial statements

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# Consolidated income statement for the twelve months ended 30 June 2010

Continuing operations	Notes	Year ended 30 June 2010 £m	Year ended 30 June 2009 £m
Revenue Cost of sales	3	162.8 (103.7)	178.8 (109.2)
Gross profit Administration expenses		59.1 (46.5)	69.6 (54.5)
Operating profit	4	12.6	15.1
Finance income Finance costs	6 6	1.2 (3.0)	4.0 (3.4)
Profit before taxation		10.8	15.7
Taxation	7	(0.5)	(1.0)
Profit for the period from continuing operations		10.3	14.7
<b>Discontinued operations</b> Loss for the period from discontinued operations	9	(2.7)	(5.7)
Profit for the period		7.6	9.0
Earnings per ordinary share From continuing operations			
Basic Diluted	10 10	20.1p 20.0p	28.8p 28.6p

# Consolidated statement of comprehensive income for the twelve months ended 30 June 2010

	Year ended 30 June 2010 £m	Year ended 30 June 2009 £m
Profit for the period	7.6	9.0
Other comprehensive income		
Currency translation on foreign currency net investments	0.6	4.9
Fair value loss on foreign currency net investment hedges	-	(0.3)
Fair value (loss)/gain on foreign currency cash flow hedges	(0.7)	0.7
Actuarial losses on defined benefit scheme	(7.2)	(11.6)
Deferred tax on items taken directly to equity	2.1	2.3
Total other comprehensive income for the period (net of tax)	(5.2)	(4.0)
Total comprehensive income for the period	2.4	5.0

# Statements of changes in equity for the twelve months ended 30 June 2010

Group	lssued share capital £m	Share premium £m	Other reserves £m	Retained earnings £m	Total equity £m
At 1 July 2009	12.9	13.7	5.2	35.1	66.9
Total comprehensive income for the period	_	_	_	2.4	2.4
Share-based payments	-	-	-	0.9	0.9
Proceeds from shares issued	=	0.1	=	=	0.1
Ordinary Share dividends	-	-	-	(5.5)	(5.5)
At 30 June 2010	12.9	13.8	5.2	32.9	64.8
At 1 July 2008	12.9	13.7	0.9	39.2	66.7
Total comprehensive income for the period	=	=	4.3	0.7	5.0
Share-based payments	_	_	_	0.7	0.7
Ordinary Share dividends	-	_	_	(5.5)	(5.5)
At 30 June 2009	12.9	13.7	5.2	35.1	66.9
	Issued				
	share	Share	Other	Retained	Total
	capital	premium	reserves	earnings	equity
Company	£m	£m	£m	£m	£m
At 1 July 2009	12.9	13.7	=	20.4	47.0
Total comprehensive income for the period	_	_	_	2.7	2.7
Share-based payments	=	-	=	0.9	0.9
Proceeds from shares issued	_	0.1	_	_	0.1
Ordinary Share dividends	-	-	-	(5.5)	(5.5)
At 30 June 2010	12.9	13.8	-	18.5	45.2
At 1 July 2008	12.9	13.7	-	26.0	52.6
Total comprehensive income for the period	=	_	_	(0.8)	(0.8)
Share-based payments	_	_	_	0.7	0.7
Ordinary Share dividends				(5.5)	(5.5)
At 30 June 2009	12.9	13.7	-	20.4	47.0

# Statements of financial position as at 30 June 2010

		Gr	oup	Con	pany	
		30 June 2010	30 June 2009	30 June 2010	30 June 2009	
	Notes	£m	£m	£m	£m	
Assets						
Non current assets						
Goodwill	11	15.4	16.0	_	_	
Other intangible assets	12	3.7	2.5	2.3	0.6	
Property, plant and equipment	13	47.7	47.3	8.7	9.1	
Investments	14	_	=	36.3	35.5	
Derivative financial assets		0.1	1.3	-	1.1	
Deferred tax assets	23	20.4	14.4	10.7	8.8	
		87.3	81.5	58.0	55.1	
Current assets						
Inventories	15	7.7	5.1	_	_	
Trade and other receivables	16	55.2	44.8	46.0	42.8	
Derivative financial assets		0.3	-	0.1	-	
Current taxation		0.7	0.5	_	_	
Cash and cash equivalents		7.8	16.8	0.1	4.2	
Assets held for sale	9	1.4	7.5	-	-	
		73.1	74.7	46.2	47.0	
Total assets		160.4	156.2	104.2	102.1	
Liabilities						
Current liabilities						
Bank loans and overdrafts	19	(15.2)	(16.4)	(10.9)	(9.9)	
Trade and other payables	18	(39.9)	(34.3)	(11.2)	(11.3)	
Derivative financial liabilities		(0.1)	=	(0.1)		
Current tax liabilities		(3.6)	(2.6)	(0.9)	(0.8)	
Provisions	24	(0.5)	(0.8)	_	_	
Ion current assets Ioodwill Inter intangible assets Iroperty, plant and equipment Investments Iverivative financial assets Iverivative financial liabilities Iverivative financial revivative f	9	_	(0.8)	_	-	
		(59.3)	(54.9)	(23.1)	(22.0)	
Net current assets		13.8	19.8	23.1	25.0	
Non current liabilities						
Bank loans		(0.4)	(3.9)	-	(2.6)	
Retirement benefit obligations	22	(34.4)	(29.4)	(34.4)	(29.4)	
Derivative financial liabilities		(0.2)	(0.3)	(0.2)	(0.3)	
Deferred tax liabilities	23	(1.3)	(0.8)	(1.3)	(0.8)	
		(36.3)	(34.4)	(35.9)	(33.1)	
Total liabilities		(95.6)	(89.3)	(59.0)	(55.1)	
Net assets		64.8	66.9	45.2	47.0	
Shareholders' equity						
Share capital	25	12.9	12.9	12.9	12.9	
Share premium	27	13.8	13.7	13.8	13.7	
Other reserves	28	5.2	5.2	_	-	
Retained earnings	29	32.9	35.1	18.5	20.4	
Total equity		64.8	66.9	45.2	47.0	

The financial statements on pages 65 to 98 were approved by the Board of Directors on 27 September 2010 and signed on its behalf by:

**Dave Shemmans** 

(Chief Executive Officer)

(Group Finance Director)

# Consolidated and parent company cash flow statements for the twelve months ended 30 June 2010

		Gro	up	Company	
		June	June	June	June
		2010	2009	2010	2009
	Notes	£m	£m	£m	£m
Cash flows from operating activities					
Cash generated/(used) by operations	30	11.9	15.2	(4.2)	8.1
Interest received		1.3	2.1	1.5	3.0
Interest paid		(1.6)	(2.3)	(0.9)	(2.0
Defined benefit pension scheme financing costs		(1.7)	(1.1)	0.4	(0.5
Tax paid		(1.8)	(1.8)	-	(0.1
Net cash generated/(used) by operating activities		8.1	12.1	(3.2)	8.5
Cash flows from investing activities					
Proceeds of sale of property, plant and equipment		0.1	0.1	_	_
Disposal of subsidiary		-	(0.1)	-	5.8
Purchase of intangible assets		(2.0)	(1.2)	(1.7)	(0.6
Purchase of property, plant and equipment – continuing operations		(5.5)	(8.8)	_	-
Purchase of property, plant and equipment – discontinued operations		(0.1)	(0.2)	-	-
Purchase of investments in subsidiary undertakings		-	_	(8.0)	(19.6
Net cash used by investing activities		(7.5)	(10.2)	(2.5)	(14.4
Cash flows from financing activities					
Net proceeds from issue of ordinary share capital		0.1	=	0.1	_
Net proceeds from issue of new bank loan		8.6	0.3	6.2	_
Repayment of borrowings		(9.3)	(9.8)	(9.1)	(1.5
Dividends paid to shareholders	8	(5.5)	(5.5)	(5.5)	(5.5
Dividends received from subsidiaries		-	-	8.5	5.1
Net cash (used)/generated by financing activities		(6.1)	(15.0)	0.2	(1.9)
Effect of exchange rate changes		0.3	1.6	-	1.2
Net decrease in cash and cash equivalents		(5.2)	(11.5)	(5.5)	(6.6
Cash and cash equivalents at 1 July		9.9	21.4	3.7	10.3
Net cash and cash equivalents at 30 June		4.7	9.9	(1.8)	3.7
At 1 July					
Cash and cash equivalents	31	16.8	37.3	4.2	20.3
Bank overdrafts	31	(6.9)	(15.9)	(0.5)	(10.0
	31	9.9	21.4	3.7	10.3
At 30 June					
Cash and cash equivalents	31	7.8	16.8	0.1	4.2
Bank overdrafts	31	(3.1)	(6.9)	(1.9)	(0.5
	31	4.7	9.9	(1.8)	3.7
	31	4.7	5.5	(1.0)	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 2009 and 30 June 2010

#### (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, with the following exceptions: equity-settled share-based payments, derivative financial instruments and defined benefit pension assets which are measured at fair value; and defined benefit pension liabilities which are measured at present value, adjusted for unrecognised past service cost.

In the year, the Group adopted International Reporting Standards: May 2008 Annual Improvements to IFRSs, April 2009 Annual Improvements to IFRSs (with effective dates on or prior to 1 July 2009) and IFRS 8 'Operating Segments'; amendments to International Reporting Standards: IFRS 1 'First-time Adoption of International Financial Report Standards', IFRS 2 'Share-based payments', IFRS 3 'Business Combinations', IFRS 7 'Financial Instruments: Disclosures', IAS 1 'Presentation of Financial information', IAS 23 'Borrowing Costs', IAS 27 'Consolidated and Separate Financial Statements', IAS 28 'Investments in Associates', IAS 31 'Interests in Joint Ventures', IAS 32 'Financial Instruments: Presentation' and IAS 39 'Financial Instruments: Recognition and Measurement'; and International Financial Reporting Interpretations: IFRIC 15 'Agreements for the Construction of Real Estate', IFRIC 16 'Hedges of a Net Investment in a Foreign Operation', IFRIC 17 'Distributions of Non-cash Assets to Owners' and IFRIC 18 'Transfers of Assets from Customers'.

With the exception of IFRS 8 and IAS 1 (revised) none of the new, amended or revised standards have had any significant impact on the financial statements. The reporting disclosure requirements of IFRS 8 are shown in note 2. The principal impacts of IAS 1(revised) are that the consolidated statement of recognised income and expense has been replaced by the consolidated statement of comprehensive income and that a consolidated statement of changes in equity has been included. 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 period. 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.

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

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

#### Retirement benefit costs

The Group operates a defined benefit pension scheme that provides benefits to a number of current and former employees. This scheme is closed to new entrants 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 22.

#### 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 17.

#### 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 23.

#### Goodwill

The Group determines whether goodwill is impaired at least 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.

#### Disposal group held for sale

The disposal group held for sale is stated at the lower of carrying amount and fair value less costs to sell when the sale is highly probable and expected to be completed within a year of the balance sheet date. The disposal group is also to be available for immediate sale and being actively marketed at a price that is reasonable in relation to its current fair value. Businesses acquired with the intention to sell are held at fair value less costs to sell.

#### (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. The results and total assets of discontinued operations are shown in note 9.

#### (e) Revenue

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

#### Professional services

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

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

Profit is not recognised on a contract, and revenue is not recognised in excess of recoverable costs, unless its outcome can be estimated reliably. A loss on a contract is recognised immediately 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 leasing of software and supply of related services is recognised on a straight line basis over the period during which the service is supplied.

Assets arising from the recognition of revenue are recorded in trade and other receivables, initially as amounts recoverable on contracts and transferred to trade receivables when invoiced. Amounts received from customers for services not yet recognised as revenue are initially classified as payments in advance 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 transmissions and special vehicle modifications based on contractually determined prices. 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

Expenditure on research and development is recognised as an expense in the period in which it is incurred.

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

#### (g) Government grants

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

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

### (h) Retirement benefit costs

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

For the defined benefit retirement benefit scheme, the cost of providing benefits is determined using the Projected Unit Credit method, with actuarial valuations being carried out at each balance sheet date. Actuarial gains and losses are recognised in the 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 balance sheet represent the present value of the defined benefit obligations as adjusted for unrecognised past service cost, and as reduced by the fair value of scheme assets. Any asset resulting from this calculation is limited to past service cost, plus the present value of available refunds and reductions in future contributions to the plan.

#### (i) Share-based payments

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

Fair value is measured by using Black Scholes and Monte Carlo models as explained in note 26. The expected life used in the model is adjusted for the effects of exercise restrictions and behavioural considerations. The Group has elected not to apply this accounting policy to options granted before 7 November 2002, and no cost has been recognised in the income statement for those options.

#### (j) Leases

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

### (k) Foreign currency

#### Transactions

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

The principal exchange rates are:

US dollar 30 June 2010: 1.5071 (2009: 1.6520) 30 June 2010: 1.2348 (2009: 1.1760) Furo

#### Consolidation

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

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 balance sheet date, and any adjustment to tax payable in respect of previous years.

Deferred tax is provided in full, using the balance sheet 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 balance sheet 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 period in which they are fully authorised, or in the case of interim dividends when paid.

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

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

#### (o) Other intangible assets

The cost of a purchased intangible asset is the purchase price 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 software products, which have finite useful lives

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

Between 2 and 10 years Purchased software Capitalised software development Between 2 and 10 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
- Long and short leasehold property
- Plant and machinery
- Fixtures, fittings and equipment
- Freehold land is not depreciated

Between 25 and 50 years Over the term of the lease Between 4 and 10 years Between 2 and 10 years

#### (q) Investments

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

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

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

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

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

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

Disposal groups held for sale are stated at the lower of carrying amount and fair value less costs to sell when the sale is highly probable and expected to be completed within a year of the balance sheet date. The disposal group is also to be available for immediate sale and being actively marketed at a price that is reasonable in relation to its current fair value. Businesses acquired with the intention to sell are held at fair value less costs to sell.

#### (t) Inventories

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

#### (u) Financial instruments

Non-derivative financial instruments

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

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

Bank loans are recognised initially at fair value less directly attributable transaction costs 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.

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

#### Derivative financial instruments

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

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

### Hedge accounting

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

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

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

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

#### Embedded derivatives

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

#### (v) Provisions

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

### (w) New standards and interpretations

At 30 June 2010, the International Accounting Standards Board and IFRIC had issued the standards and interpretations, shown below, that subject to adoption by the EU, are effective, for accounting periods commencing on or after 1 July 2010.

Issued standards and interpretations not yet effective	Effective date (periods commencina)	Endorsed by EU
	commencing)	Uy EU
International Financial Reporting Standards		
April 2009 Annual Improvements to IFRSs	01-Jan-10	Yes
IFRS 9 Financial Instruments	01-Jan-13	No
Amendments to International Financial Reporting Standards		
IFRS 1 First-time Adoption of International Financial Report Standards	01-Jan-10	Yes
IFRS 1 First-time Adoption of International Financial Report Standards	01-Jul-10	Yes
IFRS 2 Share-based payments	01-Jan-10	Yes
IAS 24 Related Party Disclosure	01-Jan-11	Yes
IAS 32 Financial Instruments: Presentation	01-Feb-10	Yes
International Financial Reporting Interpretations		
IFRIC 14 Prepayments of a minimum funding requirement	01-Jan-11	
IFRIC 19 Extinguishing Financial Liabilities with Equity Instruments	01-Jul-10	

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

Ricardo plc has implemented IFRS 8 "Operating Segments" with effect from 1st July 2009.

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

For management purposes, the Group is organised into two strategic business units (Technical consulting and Strategic consulting) based upon their different products and services:

- Technical consulting provides services in relation to the development and implementation of engineering projects and low volume precision manufacturing. Technical consulting is further analysed by geographical sector to reflect the differing economic factors in these markets. This is consistent with the information provided to the Chief Operating Decision Maker.
- Strategic consulting generates income from management and operational consultancy.

No operating segments have been aggregated to form the above 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 before exceptional items. 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).

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

#### Year ended 30 June 2010

Revenue from external customers Inter-segment revenues	Tech UK £m 108.6 8.1	Germany £m 16.4 5.6	US £m 28.6 3.6	Total Technical consulting £m 153.6 17.3		Head office and consolidation adjustments £m	Total £m 162.8 18.2
Total revenues Revenues carried out by other segments	116.7 (9.9)	22.0 (6.9)	32.2 (0.7)	170.9 (17.5)	10.1 (0.7)		181.0 (18.2)
Revenue earned	106.8	15.1	31.5	153.4	9.4	-	162.8
Operating profit from continuing operations Finance income Finance costs	8.1 - (2.4)	(0.8) 0.2 (0.1)	3.7 - -	11.0 0.2 (2.5)	1.8 - -	(0.2) 1.0 (0.5)	12.6 1.2 (3.0)
Profit before taxation from continuing operations	5.7	(0.7)	3.7	8.7	1.8	0.3	10.8
Total assets Discontinued operations	73.2	35.2	22.6	131.0	5.2	22.8	159.0 1.4
Total assets per financial statements							160.4
Total liabilities Discontinued operations	(26.4)	(7.8)	(4.4)	(38.6)	(3.8)	(53.2)	(95.6) -
Total liabilities per financial statements							(95.6)
Depreciation and Amortisation Capital expenditure - Intangible assets Capital expenditure - Property, plant	4.3 0.2	1.6 0.1	1.9 -	7.8 0.3	-	0.4 1.7	8.2 2.0
and equipment	3.5	0.8	1.2	5.5	_	_	5.5

#### Year ended 30 June 2009

	Tech UK £m	nnical consulting  Germany  £m	US	Total Technical consulting £m	Strategic consulting fm	Head office and consolidation adjustments £m	Total £m
Revenue from external customers Inter-segment revenues	115.9 6.9	20.1 3.6	£m 29.9 6.5	165.9 17.0	12.9 0.2	±m - -	178.8 17.2
Total revenues Revenues carried out by other segments	122.8 (5.7)	23.7 (7.6)	36.4 (1.5)	182.9 (14.8)	13.1	-	196.0 (17.2)
Revenue earned	117.1	16.1	34.9	168.1	10.7	_	178.8
Operating profit from continuing operations Finance income Finance costs	13.4 0.3 (0.5)	(0.6) 0.9 (0.4)	2.8 - -	15.6 1.2 (0.9)	1.4 - -	(1.9) 2.8 (2.5)	15.1 4.0 (3.4)
Profit before taxation from continuing operations	13.2	(0.1)	2.8	15.9	1.4	(1.6)	15.7
Total assets Discontinued operations	71.4	32.0	18.5	121.9	2.0	24.8	148.7 7.5
Total assets per financial statements							156.2
Total liabilities Discontinued operations	(26.4)	(5.5)	(4.1)	(36.0)	(2.6)	(49.9)	(88.5) (0.8)
Total liabilities per financial statements							(89.3)
Depreciation and Amortisation Capital expenditure - Intangible assets Capital expenditure - Property, plant	5.0 0.5	1.5	1.8 0.1	8.3 0.6	- -	0.4 0.6	8.7 1.2
and equipment	3.5	4.1	1.4	9.0	-		9.0

Revenues from one customer of the Technical consulting segment represent approximately £21.1m (2009: £2.7m) of the Group's total external revenue.

# Non Current Assets by geographical location

	2010	2009
Asset location	£m	£m
UK	35.2	34.4
US	7.3	7.3
Germany Rest of the world	23.8	23.5
Rest of the world	0.5	0.6
	66.8	65.8

# 3 Revenue

# a) Revenue by category

Continuing Operations	2010 £m	2009 £m
Rendering of services Sale of goods	148.7 14.1	162.5 16.3
	162.8	178.8
Discontinued Operations Sale of goods	11.5	10.5
Total Revenue	174.3	189.3

### b) Revenue by customer location

	2010	2009
External Revenue – continuing operations	£m	£m
UK	42.7	47.6
Germany	21.6	30.4
Rest of Europe	27.5	27.1
Europe Total	91.8	105.1
US	40.6	31.8
China	10.2	5.0
Japan	9.8	20.8
Rest of Asia	9.7	15.3
Asia total	29.7	41.1
Rest of the World	0.7	0.8
	162.8	178.8

# Operating profit

	2010 £m	2009 fm
	2111	LIII
The following items have been charged in arriving at operating profit:		
Amortisation of intangible assets (note 12)	0.8	0.9
Depreciation of property, plant and equipment (note 13)	7.4	7.8
Cost of inventories recognised as an expense	19.6	19.1
Operating lease rentals payable		
– plant and machinery	0.4	0.4
– property	3.6	3.4
Repairs and maintenance on property, plant and equipment	2.1	2.9
Redundancy and termination costs	0.2	1.9
Trade receivables impairment	0.4	_
Foreign exchange losses	1.2	1.2
With respect to the Group research and development activities the following items have been charged/(credited)	2010 £m	2009 £m
in arriving at operating profit:		
Research and development expenditure in the period	11.9	12.4
Government grant income received in respect of part of this expenditure	(3.0)	(1.2)
	8.9	11.2
	2010	2009
	£m	£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	0.1	0.1
	0.4	0.4

Fees payable to the company's auditors for other services comprise £42,000 (2009: £42,000) for the interim review, £42,000 (2009: £39,000) for advisory services in relation to project assurance, £4,000 (2009: £nil) for taxation advisory services and £22,000 (2009: £21,000) for the statutory audit of the Group's German subsidiaries.

Staff costs	2010 £m	2009 £m
Wages and salaries	66.1	71.9
Social security costs	9.5	9.8
Other pension costs (note 22)	2.5	3.2
Share-based payments	0.9	0.7
	79.0	85.6
	2010	2009
Average number of employees (including executive directors) during the year	Number	Number
Production and engineering staff	1,256	1,359
Management, administration and sales	274	271
	1,530	1,630
	2010	2009
Key management compensation	£m	£m
Salaries and short-term employee benefits	1.9	2.1
Share-based payments	0.3	0.4
Post-employment benefits	0.3	0.2
Termination benefits	-	0.8
	2.5	3.5

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

# 6 Finance income and costs

	2010 £m	2009 £m
Finance income		
Bank interest receivable	0.3	1.3
Foreign exchange gain on financing activities	_	1.1
Interest on other financial assets	0.9	1.6
	1.2	4.0
Finance costs		
Interest payable on bank borrowings	0.6	1.9
Defined benefit pension financing costs (note 22)	1.7	1.1
Interest on other financial liabilities	0.7	0.4
	3.0	3.4

	2010 £m	2009 £m
Current tax		
UK corporation tax at 28%	_	0.1
Adjustment in respect of prior years	(0.1)	-
Total UK tax	(0.1)	0.1
Foreign corporation tax	2.7	2.0
Total current tax	2.6	2.1
Deferred tax		
Charge for year relating to temporary differences	(1.4)	0.6
Adjustment in respect of prior years	(0.7)	(1.7)
Total deferred tax	(2.1)	(1.1)
Taxation	0.5	1.0
Tax on items recognised directly in equity	(2.1)	(2.3)
Total current tax charge	2.6	2.1
Total deferred tax credit	(4.2)	(3.4)

The tax charge for the year is lower (2009: lower) than the standard rate of corporation tax in the UK. The differences are set out below.

	2010		200	9
	%	£m	%	£m
Profit for the year before tax		10.8		15.7
Profit for the year multiplied by rate of corporation tax in the UK	28.0	3.0	28.0	4.4
Effects of:				
Expenses not deductible for tax purposes	0.9		1.9	
Government tax incentives	(26.0)		(19.8)	
Irrecoverable overseas tax	12.9		5.7	
Adjustments to taxation in respect of prior years (1)	(13.0)		(14.1)	
Other differences in tax rate/other	1.8		4.4	
Total taxation	4.6	0.5	6.1	1.0

<sup>(1)</sup> Including 34% regarding £3.7m of R&D tax credits (2009: 27% regarding £4.2m)

	2010 £m	2009 £m
Final paid 7.5p per share (2009 : 7.5p) Interim paid 3.2p per share (2009 : 3.2p)	3.9 1.6	3.8
Equity dividends paid	5.5	5.5

The directors are proposing a final dividend in respect of the financial year ended 30 June 2010 of 7.5p per share which will absorb £3.9m of retained profits. It will be paid on 26 November 2010 to shareholders who are on the register of members at the close of business on 29 October 2010, subject to approval at the Annual General Meeting on 18 November 2010.

### 9 Discontinued operations

At 30 June 2009 and 2010, the Group's exhaust business in Germany was classified as held for sale, and as a discontinued business.

An agreement for the sale of the German exhaust manufacturing business was signed on 28 July 2010. The sale agreement includes the transfer of the business, plant and equipment and inventories for cash consideration of €2.0 million.

The sale agreement has resulted in property, trade and other receivables and trade and other payables no longer forming part of the disposal group. These assets with a book value of £2.3m have been reclassified from assets and liabilities held for sale to their respective asset and liability classes in continuing operations at 30 June 2010.

	2010	2009
Results of discontinued operations	£m	£m
Revenue	11.5	10.5
Operating costs	(12.0)	(12.4)
Operating loss	(0.5)	(1.9)
Finance costs	(0.2)	(0.9)
Loss before tax	(0.7)	(2.8)
Attributable tax credit	0.2	0.7
Write down of assets held for sale	(2.9)	(3.8)
Tax effect of write down	0.7	0.2
Net loss attributable to discontinued operations	(2.7)	(5.7)
	2010	2009
Assets and liabilities classified as held for sale	£m	£m
Property, plant and equipment	0.2	3.0
Inventories	1.2	2.7
Trade and other receivables	-	1.8
Total assets classified as held for sale	1.4	7.5
Trade and other payables	-	(0.8)
Total liabilities associated with assets classified as held for sale	-	(0.8)
Net assets of the disposal group	1.4	6.7

There is no (2009: £nil) net expense recognised directly in equity contained in the consolidated statement of comprehensive income relating to discontinued operations.

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

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

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

	2010 £m	2009 £m
Earnings attributable to equity shareholders Adjustments to exclude loss for the year from discontinued operations	7.6 2.7	9.0 5.7
Earnings from continuing operations	10.3	14.7

	Number of shares millions	Number of shares millions
Basic average number of shares in issue Effect of dilutive potential shares	51.3 0.2	51.1 0.3
Diluted average number of shares in issue	51.5	51.4

Earnings per share	Per share amount pence	Per share amount pence
From continuing operations Basic Diluted	20.1 20.0	28.8 28.6
From continuing and discontinued operations Basic Diluted	14.8 14.8	17.6 17.5
From discontinued operations Basic Diluted	(5.3) (5.2)	(11.2) (11.1)

Group	£m
At 1 July 2008	17.9
Reclassified as held for sale	(3.0)
Exchange adjustments	1.1
At 30 June 2009	16.0
Exchange adjustments	(0.6)
At 30 June 2010	15.4

At the balance sheet date £12.7m of the net book amount relates to the German engineering business (2009: £13.3m) and £2.7m (2009: £2.7m) of the net book amount relates to two businesses which have been fully integrated into Ricardo UK Ltd (Gemini and Tarragon).

The recoverable amounts were evaluated based on 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 CGU. The growth rate assumed after this five year period is based on long-term GDP projections for the market that the CGU operates within of 3%. The pre-tax discount rate used to discount the German and the UK cashflows were 10.3% (2009: 10.6%), and 11.1% (2009: 10.6%).

The recoverable amounts of both the UK business and German engineering business (CGU's) are in excess of the carrying values, and so no impairment has arisen in the year (2009: 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 CGU's.

# 12 Other intangible assets

	Purchased software	Software development costs	Total
Group	£m	£m	£m
Cost At 1 July 2008 Additions Disposals Reclassified as held for sale Exchange rate adjustments	8.6 1.0 (0.4) (0.3) 0.3	0.4 0.2 - -	9.0 1.2 (0.4) (0.3) 0.3
At 30 June 2009	9.2	0.6	9.8
Additions Disposals	2.0 (0.5)	- -	2.0 (0.5)
At 30 June 2010	10.7	0.6	11.3
Amortisation At 1 July 2008 Charge for the year Disposals Reclassified as held for sale Exchange rate adjustments	6.9 0.8 (0.4) (0.3) 0.2	- 0.1 - - -	6.9 0.9 (0.4) (0.3) 0.2
At 30 June 2009	7.2	0.1	7.3
Charge for the year Disposals	0.8 (0.5)	- -	0.8 (0.5)
At 30 June 2010	7.5	0.1	7.6
Net book amounts			
At 30 June 2010	3.2	0.5	3.7
At 30 June 2009	2.0	0.5	2.5
At 30 June 2008	1.7	0.4	2.1
Company		Purchased software £m	Total £m
Cost At 1 July 2008 Additions		0.1 0.6	0.1 0.6
At 30 June 2009		0.7	0.7
Additions		1.7	1.7
At 30 June 2010		2.4	2.4
Amortisation At 1 July 2008 Charge for the year		- 0.1	_ 0.1
At 30 June 2009		0.1	0.1
Charge for the year		-	-
At 30 June 2010		0.1	0.1
Net book amounts			
At 30 June 2010		2.3	2.3
At 30 June 2009		0.6	0.6
At 30 June 2008		0.1	0.1

Purchased software includes £2.2m (2009: £0.5m) in respect of assets under construction, which are not being amortised.

# 13 Property, plant and equipment

	Land ar	Land and buildings		Fixtures,	
		Short	Plant and	fittings and	
	Freehold	leasehold	machinery	equipment	Total
Group	£m	£m	£m	£m	£m
Cost					
At 1 July 2008	17.4	7.2	87.6	15.0	127.2
Additions	1.0	0.1	6.0	1.9	9.0
Disposals	<del>-</del>	_	(3.4)	(1.0)	(4.4)
Reclassifications	0.8	_	(0.8)	-	_
Reclassified as held for sale	(3.5)	-	(2.0)	(1.1)	(6.6)
Exchange rate adjustments	0.6	0.2	4.2	0.8	5.8
At 30 June 2009	16.3	7.5	91.6	15.6	131.0
Additions	1.2	0.1	2.9	1.3	5.5
Disposals	_	_	(3.7)	(2.9)	(6.6)
Reclassified from held for sale	3.5	-	0.1	0.1	3.7
Exchange rate adjustments	(0.5)	0.1	1.8	0.4	1.8
At 30 June 2010	20.5	7.7	92.7	14.5	135.4
Depreciation					
At 1 July 2008	2.5	2.1	62.5	12.1	79.2
Charge for the year	0.5	0.4	5.6	1.6	8.1
Disposals	-	-	(3.4)	(0.9)	(4.3)
Reclassified as held for sale	(0.9)	-	(1.2)	(1.0)	(3.1)
Exchange rate adjustments	0.1	0.1	2.9	0.7	3.8
At 30 June 2009	2.2	2.6	66.4	12.5	83.7
Charge for the year	0.5	0.3	5.3	1.3	7.4
Disposals	_	_	(3.7)	(2.8)	(6.5)
Reclassified from held for sale	1.2	_	0.1	0.1	1.4
Exchange rate adjustments	(0.1)	0.1	1.4	0.3	1.7
At 30 June 2010	3.8	3.0	69.5	11.4	87.7
Net book amounts					
At 30 June 2010	16.7	4.7	23.2	3.1	47.7
At 30 June 2009	14.1	4.9	25.2	3.1	47.3
At 30 June 2008	14.9	5.1	25.1	2.9	48.0

The additions within freehold land and buildings and plant and machinery include £1.7m (2009: £nil) in respect of assets under construction. £nil (2009: £0.3m) of depreciation relates to discontinued operations.

At 30 June 2010, contracts had been placed for future capital expenditure, which have not been provided for in the financial statements, amounting to £1.3m (2009: £0.8m)

	Land ar	Land andbuildings		
		Short		
	Freehold	leasehold	Total	
Company	£m	£m	£m	
Cost				
At 1 July 2008, 30 June 2009 and 30 June 2010	5.6	6.1	11.7	
Depreciation				
At 1 July 2008	1.0	1.3	2.3	
Charge for the year	0.1	0.2	0.3	
At 30 June 2009	1.1	1.5	2.6	
Charge for the year	0.1	0.3	0.4	
At 30 June 2010	1.2	1.8	3.0	
Net book amounts				
At 30 June 2010	4.4	4.3	8.7	
At 30 June 2009	4.5	4.6	9.1	
At 30 June 2008	4.6	4.8	9.4	

### 14 Investments

	Shares in subsidiaries
Company	£m
At 1 July 2008	37.1
Additions	19.6
Disposals	(5.8)
At 30 June 2009	50.9
Additions	0.8
At 30 June 2010	51.7
Provisions for impairment at 1 July 2008, 30 June 2009 and 30 June 2010	15.4
Net book amounts	
At 30 June 2010	36.3
At 30 June 2009	35.5
At 30 June 2008	21.7

Addition relates to the acquisition of Ricardo Shanghai Company Limited from another Group company. Details of the principal operating subsidiaries are shown in note 36

Group	2010 £m	2009 £m
Raw materials and consumables Work in progress	6.8 0.9	3.8 1.3
	7.7	5.1

	Group		Comp	oany
	2010	2009	2010	2009
	£m	£m	£m	£m
Trade receivables	27.2	23.6	_	-
Less: provision for impairment of receivables	(0.8)	(0.7)	-	_
Trade receivables - net	26.4	22.9	_	-
Amounts recoverable on contracts (note 17)	23.8	17.4	_	-
Amounts owed by Group undertakings	_	-	45.1	41.9
Prepayments and accrued income	2.5	2.2	0.9	0.5
Other receivables	2.5	2.3	-	0.4
	55.2	44.8	46.0	42.8
Provision for doubtful debts:				
At 1 July	(0.7)	(1.5)	_	-
Income statement charge	0.4	-	_	-
Amounts utilised	(0.3)	0.7	_	_
Reclassified (from)/as held for sale	(0.1)	0.1	_	_
Exchange rate adjustments	(0.1)	_	-	-
At 30 June	(0.8)	(0.7)	-	-

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

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

# 17 Contracts in progress

	2010 £m	2009 £m
Amounts due from customers: Amounts expected to be recovered within 12 months Amounts due to contract customers:	23.8	17.3
Amounts expected to be settled within 12 months	(10.8)	(10.5)
Net amounts due from contract customers	13.0	6.8
Analysed as: Contract costs incurred plus recognised profits less recognised losses to date Less: progress billings	236.5 (223.5)	218.3 (211.5)
Contracts in progress at balance sheet date	13.0	6.8
IAS 11 contract revenue	142.9	157.4

# 18 Trade and other payables

Group		Company	
2010	2009	2010	2009
£m	£m	£m	£m
7.6	4.7	0.7	0.5
2.6	2.5	0.1	0.1
-	-	5.8	5.3
14.0	11.5	2.7	3.0
12.4	11.6	_	_
3.3	4.0	1.9	2.4
39.9	34.3	11.2	11.3
	2010 fm 7.6 2.6 - 14.0 12.4 3.3	2010     2009       £m     £m       7.6     4.7       2.6     2.5       -     -       14.0     11.5       12.4     11.6       3.3     4.0	2010     2009     2010       £m     £m     £m       7.6     4.7     0.7       2.6     2.5     0.1       -     -     5.8       14.0     11.5     2.7       12.4     11.6     -       3.3     4.0     1.9

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

#### 19 Bank loans and overdrafts

	Group		Company	
	2010	2009	2010	2009
	£m	£m	£m	£m
Bank overdrafts	3.1	6.9	1.9	0.5
Current bank loans	12.1	9.5	9.0	9.4
Total current borrowings	15.2	16.4	10.9	9.9

The bank loans are denominated in sterling, euros and swiss francs. The variable interest rates on sterling, euro and swiss Franc loans, vary from 0.9% above Euribor to 2.1% above LIBOR. A euro loan which attracts interest at a variable rate, which is normally fixed weekly and at 30 June 2010, the rate was 0.9%. There are fixed rate loans which are denominated both in euros and swiss francs. Interest rates on these loans vary from 2.3% to 5.6%. Loan balances include £2.5m (2009: £2.5m) of loans in respect of Ricardo GmbH which are secured on buildings belonging to the company.

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

### 20 Fair value of financial assets and liabilities

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

	Group		Comp	oany
	2010	2009	2010	2009
	£m	£m	£m	£m
Cash at bank and in hand	7.8	16.8	0.1	4.2
Bank overdrafts	(3.1)	(6.9)	(1.9)	(0.5)
Loans repayable within one year	(12.1)	(9.5)	(9.0)	(9.4)
Loans repayable after more than one year	(0.4)	(3.9)	_	(2.6)
Trade receivables	26.4	22.9	-	-
Trade payables	(7.6)	(4.7)	(0.7)	(0.5)
Amounts owed by Group undertakings	_	_	45.1	41.9
Amounts owed to Group undertakings	-	-	(5.8)	(5.3)
Accrued interest receivable	_	0.3	_	0.3
Accrued interest payable	_	(0.3)	_	(0.3)
Derivative financial assets	0.4	1.8	0.1	1.2
Derivative financial liabilities	(0.3)	(0.6)	(0.3)	(0.3)
	11.1	15.9	27.6	28.7

Summary of methods and assumptions Short term borrowing and deposits -

Long term borrowings -

Derivatives -

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

The fair value of bank loans approximates to the carrying value in the balance sheet as they are mainly floating rate loans where payments are reset to market rates at regular intervals. 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 balance sheet date. (Level 2 as defined by IFRS 7 Financial instruments: disclosures).

Net exchange gains / (losses)	2010 £m	2099 £m
Profit / (loss) On loans and receivables On other financial assets and liabilities	(0.8) 1.6	(0.2) 0.1
	0.8	(0.1)
Equity On loans and receivables On other hedging instruments	_ (0.8)	1.9 0.4
	(0.8)	2.3

### 21 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	
	2010	2009	2010	2009
Gearing ratio	£m	£m	£m	£m
Net debt (note 31)	7.8	3.5	10.8	8.3
Total equity	64.8	66.9	45.2	47.0
Total capital	72.6	70.4	56.0	55.3
Gearing ratio	10.7%	5.0%	19.3%	15.0%

### (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 £48.9m (2009: £42.9m). This included committed facilities of £28.2m (2009: £22.7m), of which one facility for £10m was undrawn at 30 June 2010 as in 2009. The undrawn facility was granted during 2009 and is available for the period to March 2011. A committed facility for £2.4m matured in July 2010 (£2.6m July 2009). A long-term loan for €8m matured in March 2010. A new committed facility of £15m was granted during the year and is available until December 2012. At 30 June 2010, £6.6m of this facility had been drawn. In addition the Group had uncommitted facilities of £20.7m (2009: £20.2m) at 30 June, none of which mature until December 2010, with the exception of some minor overseas facilities. The uncommitted facilities are renewable annually, with the exception of the uncommitted facilities in Germany which are renewable monthly.

	Group		Comp	oany
	2010	2009	2010	2009
Maturity of bank loans	£m	£m	£m	£m
Maturing				
Within 1 month	(11.5)	(2.6)	(9.0)	(2.6)
After 1 month and within 3 months	_	-	-	_
After 3 months and within 12 months	(0.6)	(6.9)	_	(6.8)
After 12 months and within 5 years	(0.4)	(3.9)	-	(2.6)
	(12.5)	(13.4)	(9.0)	(12.0)

#### (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.

	2010	2009
Ageing of trade receivables	£m	£m
Not overdue	17.9	12.7
Overdue but not impaired:		
0 - 90 days overdue	6.8	8.6
91 - 180 days overdue	1.1	0.9
Over 180 days overdue	0.6	0.7
	26.4	22.9

	Group		Company	
	2010	2009	2010	2009
Maximum exposure to bank counterparty risk	£m	£m	£m	£m
Cash at bank and in hand	7.8	16.8	0.1	4.2
Accrued interest receivable	_	0.3	_	0.3
Derivative financial assets	0.4	1.8	0.1	1.2
	8.2	18.9	0.2	5.7

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, as disclosed in note 20, and money held on deposit and certain derivative hedging transactions entered into with banks. Exposure to this form of risk is mitigated as material transactions are only undertaken with bank counterparties that have high credit ratings assigned by international credit-rating agencies. The Company further limits risk in this area by setting an overall credit limit for all transactions with each bank counterparty in accordance 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		Comp	oany
	2010	2009	2010	2009
Financial assets and liabilities by interest type	£m	£m	£m	£m
Floating rate financial liabilities	(8.1)	(19.5)	(4.3)	(12.5)
No interest financial liabilities	(7.9)	(5.6)	(6.8)	(6.4)
Fixed rate financial liabilities	(7.5)	(0.8)	(6.6)	_
Floating rate financial assets	6.4	14.8	44.3	45.7
No interest financial assets	28.2	27.0	1.0	1.9
	11.1	15.9	27.6	28.7

#### 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		ilities
	2010	2009	2010	2009
	£m	£m	£m	£m
US Dollar	9.4	7.1	(3.0)	(0.9)
Euro	7.6	8.3	(8.9)	(20.2)

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

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

#### **Embedded Derivatives**

In accordance with IAS 39 'Financial Instruments: Recognition and Measurement', management have reviewed all contracts for embedded derivatives that are required to be separately accounted for if they do not meet certain requirements set out in the standard. There have been contracts within Ricardo UK denominated in euros which fail to meet the requirements outlined by IAS 39, and so the derivative related to the contract currency was accounted for separately to the rest of the contract. As at 30 June 2010, there were no embedded derivatives and the fair value of the embedded derivative at 30 June 2009 was an asset of £nil. This derivative was recorded at fair value based on discounted future cash flows with gains and losses passing through the income statement. A loss of £nil (2009: loss of £0.1m) is recorded in the income statement

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

#### Exchange rate sensitivity

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

	Group		Com	pany	
	2010	2009	2010	2009	
	£m	£m	£m	£m	£m
Impact on profit for the year:					
10% weakening of the US dollar	-	(0.1)	0.1	(0.1)	
10% weakening of the euro	-	0.3	-	0.1	
Impact on equity:					
10% weakening of the US dollar	_	(0.1)	0.1	(0.1)	
10% weakening of the euro	0.1	1.0	0.2	0.8	

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

#### Interest rate sensitivity

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

	Group		Company	
	2010	2009	2010	2009
	£m	£m	£m	£m
Impact on profit for the year and equity:				
1% increase in euro and sterling interest rates	-	(0.1)	-	(0.1)
(g) Hedges and hedge accounting			2010	2009
Fair values of hedging instruments			£m	£m
Hedges of net investment in foreign operations			(2.7)	(11.1)
Cash flow hedges			0.3	0.3
Total			(2.4)	(10.8)

#### Hedge of net investment in foreign operation

At the reporting date the Group held €3m (2009: €14m) of loans and a cross currency interest rate swap for €7m, which combined, hedge the first €10m of the net investment in Ricardo's German subsidiaries and a cross currency interest rate swap for \$21.4m which hedges the net investment in Ricardo's US subsidiary. All of these hedge the risk in the change of the euro/sterling or US dollar/sterling spot rate that affects the value of the net investment.

### Cash flow hedges

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

Amounts relating to cash flow hedges in the period	2010 £m	2009 £m
Recognised in equity Removed from equity and included in profit and loss	0.6 0.1	0.5 (1.2)
Cash flows expected to occur and affect profit and loss	2010 £m	2009 £m
Within 3 months After 3 months and within 12 months After 1 and within 3 years	6.5 2.2 0.8	3.0 7.9 5.0
	9.5	15.9

# 22 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 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 (formerly Watson Wyatt Limited), qualified actuaries, using the Projected Unit Credit method.

The last completed triennial valuation of the RGPF was at 5 April 2008. At that date, the assets of the fund had a market value of £66.1 million and were sufficient to cover 76% of the benefits that had accrued to members, after allowing for expected future increases in earnings. Contributions expected to be paid to the plan during the year ended 30 June 2011 are £3.3m.

IAS 19 'Employee Benefits' valuations were completed as at 30 June 2009 and 30 June 2010 by Towers Watson, qualified actuaries. The postretirement mortality assumptions used in both years are the standard "00" series tables published by the Continuous Mortality Investigation ("CMI"), projected using medium cohort improvement rate with reference to each individual's year of birth. Under these mortality assumptions, the expected future lifetime is:

		2010		2009
Age	Males	Females	Males	Females
45	23.0	25.1	22.9	25.0
65	21.9	24.1	21.7	24.0

The other major assumptions made were:

	At 30 June	At 30 June
	2010	2009
Discount rate	5.3%	6.2%
Expected return on plan assets	5.8%	7.0%
Inflation	3.3%	3.5%
Rate of increase in pensionable salaries	3.3%	3.5%
Rate of increase in pensions in payment		
Pre 1 July 2002 accrual	3.3%	3.5%
Post 1 July 2002 accrual	3.3%	3.5%
Rate of increase in pension in deferment	3.3%	3.5%
Percentage of pension to be commuted for a lump sum at retirement	15.0%	15.0%

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

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

	Long term	Value at	Long term	Value at
	rate of return	30 June	rate of return	30 June
	expected at	2010	expected at	2009
	30 June 10	£m	30 June 09	£m
Equities	7.6%	29.7	8.4%	33.2
Bonds	4.5%	30.6	4.9%	21.0
Cash	4.0%	0.4	6.7%	3.6
Property	6.1%	4.2	4.0%	0.9
Diversified Growth Funds	6.4%	3.5	-	-
Total assets	5.7%	68.4	7.0%	58.7

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 actuarial loss in the value of the scheme assets was £9.1m (2009: £8.1m). Movements in the fair value of scheme assets and present value of defined benefit obligations were as follows:

	Assets £m	2010 Obligations £m	Net Total £m	Assets £m	2009 Obligations £m	Net Total £m
At 1 July	58.7	(88.1)	(29.4)	65.6	(85.5)	(19.9)
Current service cost Expected return/(interest cost)	- 4.2	(0.7) (5.4)	(0.7) (1.2)	– 4.5	(1.2) (5.6)	(1.2) (1.1)
Credit/(charge) to the income statement Actuarial (losses)/gains charged/credited to the statement of recognised income and	4.2	(6.1)	(1.9)	4.5	(6.8)	(2.3)
expense	5.2	(12.4)	(7.2)	(12.6)	1.0	(11.6)
Contributions from sponsoring companies	4.1	-	4.1	4.4	=	4.4
Benefits paid	(3.8)	3.8	_	(3.2)	3.2	_
Total movements	9.7	(14.7)	(5.0)	(6.9)	(2.6)	(9.5)
At 30 June	68.4	(102.8)	(34.4)	58.7	(88.1)	(29.4)
Cumulative actuarial gains and losses recognised At 1 July Net actuarial losses recognised in the year	in equity				At 30 June 2010 £m (14.3) (7.2)	At 30 June 2009 £m (2.7) (11.6)
At 30 June					(21.5)	(14.3)
History of experience gains and losses		2010 £m	2009 £m	2008 £m	2007 £m	2006 £m
Present value of defined benefit obligations Fair value of scheme assets		(102.8) 68.4	(88.1) 58.7	(85.5) 65.6	(83.7) 67.0	(81.1) 57.5
Deficit in the scheme		(34.4)	(29.4)	(19.9)	(16.7)	(23.6)
Experience adjustments on scheme liabilities Amount (£m) Percentage of scheme liabilities (%) Experience adjustments on scheme assets Amounts (£m)		(12.4) (12)% 5.2	1.0 1% (12.6)	1.4 2% (7.1)	0.1 - 4.1	2.8 3%
Percentage of scheme assets (%)		8%	(21)%	(11)%	6%	7%

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 £4.9m. An increase in price inflation of 0.25% would increase the scheme liabilities by £4.7m. If each scheme member were expected to live for an additional year then scheme liabilities would increase by

	2010	2009
Amounts charged in the income statement in respect of pensions	£m	£m
In respect of defined contribution schemes	2.3	2.0
In respect of defined benefit schemes	1.9	2.3
	4.2	4.3
Included within:		
Staff costs	2.5	3.2
Finance costs	1.7	1.1
	4.2	4.3

### 23 Deferred tax

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

(a) Deferred tax analysis by balance sheet ca	tegory		(	Group	Comp	oany
			2010 £m	2009 £m	2010 £m	2009 £m
Non-current deferred tax assets Non-current deferred tax liabilities			20.4 (1.3)	14.4 (0.8)	10.7 (1.3)	8.8 (0.8)
Net deferred tax asset			19.1	13.6	9.4	8.0
(b) Movements in net deferred tax assets and	d liabilities					
(c) Movements in her deterred tax assets and	Accelerated capital	Retirement benefit	Tax losses and	Unrealised capital		
	allowances	obligations	credits	gains	Other	Total
Group	£m	£m	£m	£m	£m	£m
At 1 July 2008	(3.4)	5.7	4.6	(0.7)	2.1	8.3
Credited/(charged) to the income statement Credited/(charged) to statement of	0.6	(0.7)	1.4	=	0.7	2.0
comprehensive income	_	3.3	_	-	(1.0)	2.3
Exchange rate adjustments	(0.1)	_	0.9	_	0.2	1.0
At 30 June 2009	(2.9)	8.3	6.9	(0.7)	2.0	13.6
(Charged)/credited to the income statement Credited to statement of comprehensive	(0.1)	(0.6)	4.0	=	(0.3)	3.0
income	_	2.0	_	_	0.1	2.1
Exchange rate adjustments	(0.1)	=	0.3	=	0.2	0.4
At 30 June 2010	(3.1)	9.7	11.2	(0.7)	2.0	19.1

At the balance sheet date there were no temporary differences associated with undistributed earnings of subsidiaries for which deferred tax liabilities has been recognised (2009: £nil). No liability would be recognised in respect of these differences because the Group is in a position to control the timing of the reversal of the temporary differences and it is probable that such differences will not reverse in the foreseeable future.

Company	Retirement benefit obligations £m	Unrealised capital gains £m	Other £m	Total £m
At 1 July 2008 Charged to the income statement Credited/(charged) to statement of comprehensive income	5.7	(0.7)	0.5	5.5
	(0.7)	-	-	(0.7)
	3.3	-	(0.1)	3.2
At 30 June 2009 Charged to the income statement Credited to statement of comprehensive income	8.3	(0.7)	0.4	8.0
	(0.6)	-	-	(0.6)
	2.0	-	-	2.0
At 30 June 2010	9.7	(0.7)	0.4	9.4

### 24 Provisions

At 30 June 2010	0.5	0.5
Utilised in year	(0.3)	(0.3)
Charged/(credited) to income statement	=	_
At 1 July 2009	0.8	0.8
Group	£m	£m
	provision	Total
	warranty	
	Short term	

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.

Group and Company	2010 Number	2009 Number	2010 £m	2009 £m
Authorised  Ordinary shares of 25p each  Allotted, called up and fully paid	80,000,000	80,000,000	20.0	20.0
At 1 July	51,154,745	51,045,579	12.9	12.9
Allotted under share option schemes	67,641	7,143	_	_
Allotted under LTIP scheme	102,344	102,023	-	_
At 30 June	51,324,730	51,154,745	12.9	12.9

The consideration received for shares allotted under the share option schemes and LTIP during the year ended 30 June 2010 was £nil (2009: £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 1,379 such shares at 30 June 2010 (1,379 at 30 June 2009).

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

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

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

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

Equity-settled Executive Share Options

	2010		2009	
		Weighted		Weighted
		average		average
		share		share
	Number	price	Number	price
Outstanding at 1 July	491,701	288p	418,171	285p
Granted	_	_	76,692	305p
Lapsed / Forfeited	(167,473)	308p	(3,162)	327p
Exercised	(50,000)	187p	_	_
Outstanding at 30 June	274,228	294p	491,701	288p
Exercisable at the end of the year	132,129	282p	217,761	254p

The outstanding options had a weighted average contractual life of 6.6 years (2009: 7.1 years). The weighted average exercise price in the year was 270p. The options are exercisable between 268p and 305p.

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

	2010	2009
Weighted average exercise price	_	305p
Expected volatility	_	37%
Expected life from date of grant	_	5 yrs
Risk free rate	_	4.0%
Dividend yield	_	3.0%
Possibility of ceasing employment before vesting	-	nil
Weighted average fair value of options granted in the year	-	65p

During the year ended 30 June 2010, no equity-settled executive share options were awarded, therefore no assumptions are disclosed above.

In 2009, expected volatility was determined by calculating the historical volatility of the Company's share price over the five years preceding the date of grant and the expected life used in the model is based on management's best estimate, taking into account the effects of nontransferability, exercise restrictions, and behavioural considerations.

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

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

	2010	2009
	Shares	Shares
	Allocated	Allocated
Outstanding at 1 July	512,379	388,324
Provisionally awarded	407,811	315,918
Lapsed / Forfeited	(12,874)	(31,954)
Expired	_	(57,567)
Vested	(3,306)	(102,342)
Outstanding at 30 June	904,010	512,379

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:

	2010	2009
Weighted average share price of date of award	248p	300p
Expected volatility	33%	23%
Expected life	3 yrs	3 yrs
Risk free rate	2%	4%
Dividend yield	5%	3%
Possibility of ceasing employment before vesting	10%	10%
Fair value per LTIP as a % of a share at date of award	70%	55%

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 Remuneration Report.

2010	2009
Number of	Number of
deferred	deferred
shares	shares
Outstanding at 1 July 438,154	268,361
Provisionally awarded -	237,442
Lapsed / Forfeited (98,817	(7,470)
Dividend shares awarded in the year 10,790	20,076
Vested (91,294	) (80,255)
Outstanding at 30 June 258,833	438,154

The outstanding deferred bonus plans had a weighted average contractual life of 1.0 years (2009: 2.1 years). The weighted average exercise price in the year was nil.

# 27 Share premium account

	Group and Company £m
At 1 July 2008 & 30 June 2009 Arising on shares issued in 2010	13.7 0.1
At 30 June 2010	13.8

	Merger	Translation	Hedging	
	reserve	reserve	reserve	Total
Group	£m	£m	£m	£m
At 1 July 2008	1.0	2.3	(2.4)	0.9
Movement in year	_	-	(0.8)	(0.8)
Recycled to P&L	_	-	1.2	1.2
Exchange rate adjustments	=	4.9	=	4.9
Tax on items recognised directly in equity	_	(0.9)	(0.1)	(1.0)
At 30 June 2009	1.0	6.3	(2.1)	5.2
Movement in year	_	-	(0.7)	(0.7)
Recycled to P&L		-	-	_
Exchange rate adjustments	_	0.6	-	0.6
Tax on items recognised directly in equity	_	_	0.1	0.1
At 30 June 2010	1.0	6.9	(2.7)	5.2

The merger reserve represents the amount by which the fair value of the shares issued as consideration for acquisitons exceeded their nominal value, offset by the goodwill on these acquisitons. 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/(loss) on cash flow hedges and a net investment hedge and is shown in the statement of recognised income and expense.

# 29 Retained earnings

	Group	Company
	£m	£m
At 1 July 2008	39.2	26.0
Profit for the year	9.0	7.5
Actuarial losses on the defined benefit pension scheme	(11.6)	(11.6)
Tax on items recognised directly in equity	3.3	3.3
Dividends paid	(5.5)	(5.5)
Share based payments	0.7	0.7
At 30 June 2009	35.1	20.4
Profit for the year	7.6	7.9
Actuarial losses on the defined benefit pension scheme	(7.2)	(7.2)
Tax on items recognised directly in equity	2.0	2.0
Dividends paid	(5.5)	(5.5)
Share based payments	0.9	0.9
At 30 June 2010	32.9	18.5

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

# 30 Cash generated by operations

	Group		Comp	Company	
	2010	2010	2009	2010	2009
	£m	£m	£m	£m	
Continuing operations					
Profit/(loss) from operations	12.6	15.1	(8.0)	2.4	
Adjustments for:					
Share-based payments	0.9	0.7	0.9	0.7	
Cash flow hedges	0.1	0.4	1.0	_	
Profit of sale of subsidiary	-	(0.1)	-	(0.8)	
Depreciation and amortisation	8.2	8.7	0.4	0.4	
Operating cash flows before movements in working capital	21.8	24.8	1.5	2.7	
(Increase)/decrease in inventory	(2.5)	0.6	-	_	
(Increase)/decrease in trade and other receivables	(9.3)	8.3	_	(0.6)	
(Increase)/decrease in inter company balances	-	_	(2.9)	5.4	
Increase/(decrease) in payables	4.7	(15.5)	(0.6)	2.7	
Decrease in provisions	(0.3)	-	-	-	
Pension payments in excess of pension costs	(2.2)	(2.1)	(2.2)	(2.1)	
Cash generated/(used) by continuing operations	12.2	16.1	(4.2)	8.1	
Discontinued operations					
Loss from operations	(0.5)	(1.9)	_	_	
Adjustments for depreciation	-	0.3	_	_	
Operating cash flows before movements in working capital	(0.5)	(1.6)	_	_	
(Increase)/decrease in inventory	(0.6)	0.5	_	_	
Decrease in trade and other receivables	0.2	0.3	_	_	
Increase/(decrease) in payables	0.6	(0.1)	-	-	
Cash used by discontinued operations	(0.3)	(0.9)	-	-	
Cash generated/(used) by operations	11.9	15.2	(4.2)	8.1	

# 31 Net debt

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

	Gro	up	Comp	oany
	2010	2009	2010	2009
At period end	£m	£m	£m	£m
Cash and cash equivalents (current assets)	7.8	16.8	0.1	4.2
Bank overdrafts (current liabilities)	(3.1)	(6.9)	(1.9)	(0.5)
Net cash and cash equivalents	4.7	9.9	(1.8)	3.7
Bank loans maturing within one year	(12.1)	(9.5)	(9.0)	(9.4)
Bank loans maturing after one year	(0.4)	(3.9)	_	(2.6)
Net debt	(7.8)	(3.5)	(10.8)	(8.3)

	Gro	up	Comp	oany
	2010	2009	2010	2009
Movements in period	£m	£m	£m	£m
Net debt at start of period	(3.5)	(0.3)	(8.3)	(3.2)
Net decrease in cash and cash equivalents	(5.2)	(11.5)	(5.5)	(6.6)
Add back net repayment of bank loans	0.7	9.5	2.9	1.5
Disposal of subsidiary	-	0.3	_	_
Effect of exchange rate changes on bank loans	0.2	(1.5)	0.1	-
Net debt at end of period	(7.8)	(3.5)	(10.8)	(8.3)

# 32 Operating leases

By date of commitments	2010	2009
Group	£m	£m
Total commitments under non-cancellable operating leases expiring: Within one year Between one and five years After five years	3.0 11.3 15.2	2.5 8.9 15.6
At 30 June	29.5	27.0
By nature of commitments Group	2010 £m	2009 £m
Total commitments under non-cancellable operating leases: Land and buildings Other	28.8 0.7	26.3 0.7
At 30 June	29.5	27.0

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.

#### 34 Post balance sheet events

An agreement for the sale of the German exhaust manufacturing business was signed on 28 July 2010. The sale agreement includes the transfer of the business, plant and equipment and inventories for cash consideration of €2.0 million.

In July 2010, the UK business implemented a restructuring programme which resulted in 58 redundancies at an anticipated cost of £0.9m.

	2010	2009
	£m	£m
The Company had the following transactions with Group undertakings:		
Sale of services	8.8	8.5
Finance income	0.5	1.3
Dividend income	8.5	5.1
The Company had the following year end balances with related parties:		
Amounts owed by Group undertakings	45.1	41.9
Amounts owed to Group undertakings	(5.8)	(5.3)

During the year the Company paid administration expenses of £0.1m (2009: £0.4m) on behalf of the Group's pension schemes.

# 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 accounts:

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

# **Corporate information**

#### **Group General Counsel and Company Secretary**

Patricia Ryan

#### **Registered Office**

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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 29 October 2010
Annual General Meeting 18 November 2010
Final Dividend Payment Date 26 November 2010

#### **Shareholder Services**

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

### Shareholder enquiries

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