



**Ricardo plc**  
**Interim Results Presentation**  
**Half year ended 31 December 2013**

## HIGHLIGHTS – for the half year ended 31 December 2013

- A record order book up 18% to £143m (Jun 2013: £121m)
- Underlying<sup>(1)</sup> profit before tax up 29% to £9.3m (Dec 2012: £7.2m)
- Organic<sup>(2)</sup> profit before tax up 11% to £8.0m (Dec 2012: £7.2m)
- Net funds up £2.1m to £8.2m (Jun 2013: £6.1m)
- Interim dividend up 8% to 4.3p per share (Dec 2012: 4.0p)
- Multi-year engine supply agreement signed with McLaren Automotive
- Outlook remains positive, strong platform for further growth

<sup>(1)</sup> excluding specific adjusting items, which comprise amortisation of acquired intangible assets and acquisition costs

<sup>(2)</sup> excluding Ricardo-AEA for the period up to 8 November 2013. Ricardo-AEA was acquired in the prior year on 8 November 2012

# Key indicators



	Half year ended 31 December		Year ended 30 June
	2013	2012 Restated <sup>(1)</sup>	2013 Restated <sup>(1)</sup>
Order intake	£135m	£106m	£218m
Order book	£143m	£136m	£121m
Gross profit %	39.0%	39.8%	41.5%
Operating profit % <sup>(2)</sup>	8.8%	7.8%	10.4%
Tax rate	18%	17%	19%
EPS (basic) <sup>(2)</sup>	14.6p	11.4p	35.4p
Dividend	4.3p	4.0p	14.0p
Net funds	£8.2m	£(2.7)m	£6.1m
Pension deficit (pre-tax)	£21.5m	£22.3m	£19.7m
Closing headcount (including subcontractors)	2,183	2,198	2,198

<sup>(1)</sup> on adoption of revised International Accounting Standard 19 Employee Benefits

<sup>(2)</sup> excluding specific adjusting items, which comprise amortisation of acquired intangible assets and acquisition costs

# Income statement



£m	Half year ended 31 December		H1 2013/14 v H1 2012/13	Year ended 30 June
	2013	2012 Restated <sup>(1)</sup>	% change	2013 Restated <sup>(1)</sup>
Revenue	111.9	100.3	12%	229.7
Gross profit	43.6	39.9	9%	95.4
Administration costs	(33.8)	(32.1)	5%	(71.5)
Underlying operating profit	9.8	7.8	26%	23.9
Specific adjusting items <sup>(2)</sup>	(0.5)	(1.4)	(64%)	(2.0)
Operating profit	9.3	6.4	45%	21.9
Net finance costs	(0.5)	(0.6)	(17%)	(1.2)
<b>Profit before tax</b>	<b>8.8</b>	<b>5.8</b>	<b>52%</b>	<b>20.7</b>
Comprising:				
Underlying profit before tax	9.3	7.2	29%	22.7
Specific adjusting items <sup>(2)</sup>	(0.5)	(1.4)	(64%)	(2.0)
Taxation charge	(1.6)	(1.0)	60%	(3.9)
<b>Profit for the period</b>	<b>7.2</b>	<b>4.8</b>	<b>50%</b>	<b>16.8</b>

*Excluding Ricardo-AEA results for the period up to 8 November 2013, underlying profit before tax was £8.0m, 11% up on prior year*

<sup>(1)</sup> on adoption of revised International Accounting Standard 19 Employee Benefits

<sup>(2)</sup> specific adjusting items comprise amortisation of acquired intangible assets and acquisition costs

# Revenue by customer location



External revenue £m	Half year ended 31 December		Year ended 30 June
	2013	2012	2013
UK	49.5	49.8	116.5
Germany	11.7	7.2	16.2
Rest of Europe	11.7	7.9	21.4
<b>Europe total</b>	<b>72.9</b>	<b>64.9</b>	<b>154.1</b>
<b>US</b>	<b>17.5</b>	<b>16.9</b>	<b>36.4</b>
China	6.7	3.3	8.0
Japan	9.1	8.4	18.3
Rest of Asia	5.2	5.6	11.6
<b>Asia total</b>	<b>21.0</b>	<b>17.3</b>	<b>37.9</b>
Rest of the World	0.5	1.2	1.3
<b>Total</b>	<b>111.9</b>	<b>100.3</b>	<b>229.7</b>

## Half year ended 31 December

£m	Revenue earned		Underlying operating profit <sup>(2)</sup>		Underlying operating profit <sup>(2)</sup> margin	
	2013	2012	2013	2012 Restated <sup>(1)</sup>	2013	2012 Restated <sup>(1)</sup>
Technical Consulting	84.7	76.7	5.6	4.7	6.6%	6.1%
Performance Products	27.2	23.6	4.2	3.6	15.4%	15.3%
Head office costs	n/a	n/a	-	(0.5)	n/a	n/a
<b>Total</b>	<b>111.9</b>	<b>100.3</b>	<b>9.8</b>	<b>7.8</b>	<b>8.8%</b>	<b>7.8%</b>

<sup>(1)</sup> on adoption of revised International Accounting Standard 19 Employee Benefits

<sup>(2)</sup> excluding specific adjusting items, which comprise amortisation of acquired intangible assets and acquisition costs

£m	Half year ended 31 December		Year ended 30 June
	2013	2012 Restated <sup>(1)</sup>	2013 Restated <sup>(1)</sup>
Operating profit	9.3	6.4	21.9
Depreciation and amortisation	5.0	4.2	9.3
Working capital (increase)/decrease	(2.0)	3.6	3.1
Dividends	(5.2)	(4.5)	(6.6)
Tax paid	(0.2)	(0.2)	(0.7)
Capital expenditure	(3.4)	(3.5)	(10.8)
Proceeds of sale and lease back of offices in Germany	-	3.7	3.7
Pension charge and funding	(2.3)	(2.3)	(4.6)
Other	0.9	-	0.9
<b>Cash inflow excluding AEA consideration</b>	<b>2.1</b>	<b>7.4</b>	<b>16.2</b>
AEA consideration	-	(18.0)	(18.0)
<b>Cash inflow/(outflow)</b>	<b>2.1</b>	<b>(10.6)</b>	<b>(1.8)</b>

<sup>(1)</sup> on adoption of revised International Accounting Standard 19 Employee Benefits

# Balance sheet summary

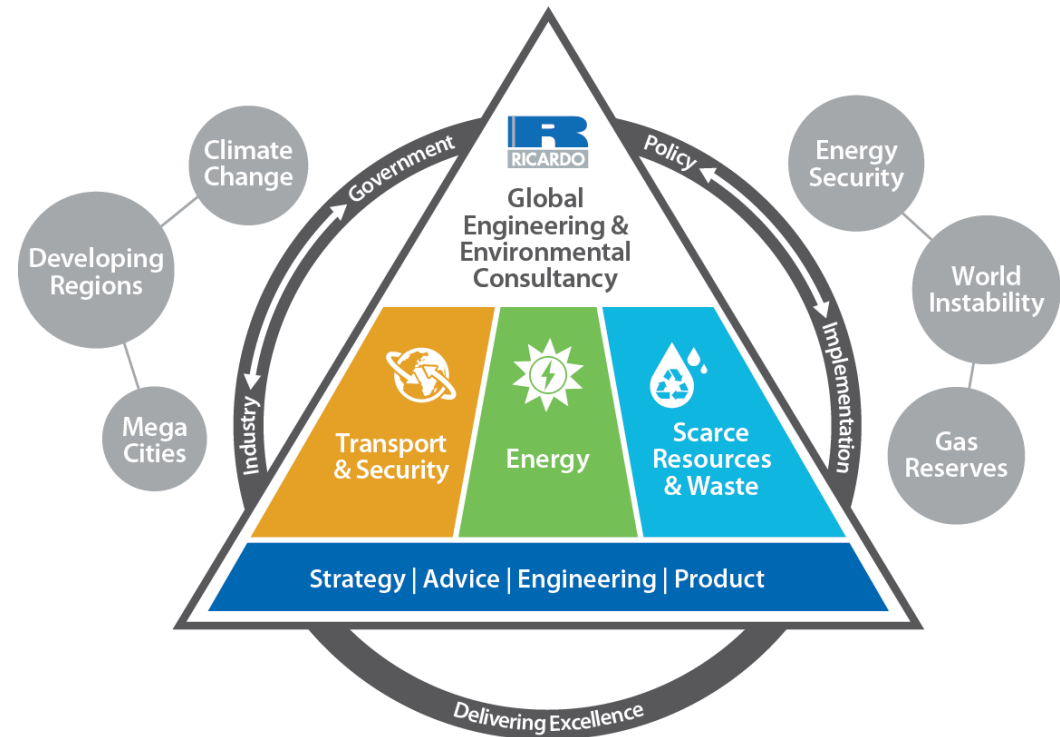


£m	31 December		30 June
	2013	2012	2013
Tangible assets	46.0	44.9	48.2
Intangible assets	40.7	40.8	41.5
Inventory and receivables	70.7	69.8	62.6
Net funds/(debt)	8.2	(2.7)	6.1
Trade and other payables	(54.3)	(54.4)	(47.3)
Pension deficit (net of tax)	(17.2)	(17.2)	(15.1)
Other	3.9	5.9	3.9
<b>Net assets</b>	<b>98.0</b>	<b>87.1</b>	<b>99.9</b>



# The Ricardo strategy for growth is focused on global engineering and environmental consulting and the development of longer cycle revenues

- Strategy driven by global megatrends
  - Emissions Reduction
  - CO<sub>2</sub> Reduction
  - Changing Energy Mix (Dual Fuel)
  - Air Quality
  - Climate Change
  - Resource Scarcity (Oil, Water etc)
  - Urbanisation



# Global market backdrop for H1

- Asian market growth - demand from OEMs and product development to tap into developing markets
- Automotive industry in US, Asia & Europe active to meet CO<sub>2</sub> legislation, increased competition and global markets
- Growth in Performance Products and 'halo' products for brand differentiation
- Defence cuts creating demand for advanced technology and innovative solutions in fuel economy and lower cost product development



# H1 2013/14 Highlights



- Active passenger car business in UK, US & Asia - particularly Japan & China
- US 'Big 3' level of business increasing
- Large contract wins with European and Chinese motorcycle companies
- Defence orders from new export markets and multi-year US contracts
- AEA on plan, focused on private sector, international and future cities growth
- Performance Products highlights - Motorsport & High Performance Vehicles:
  - Long term Porsche Cup agreement
  - Monorail application in Brazil requiring more transmissions
  - McLaren Automotive significant multi-year engine supply agreement
- Solid pipeline across all market sectors with growth in new sectors



## Benefiting from Ricardo's established presence in Delhi

- New sales in sustainable transport, air quality and climate finance
- Two projects jointly with Ricardo:
  - CO<sub>2</sub> reduction strategies for HGV's and two-wheelers
  - Reviewing India's automotive fuel policy
- Recruiting senior climate policy expert into Delhi Office

## Joint Projects for European Commission

- Costs and benefits Heavy Duty Vehicle light-weighting
- Software for simulating CO<sub>2</sub> performance of Heavy Duty Vehicle

## Expanding our offerings in Saudi Arabia

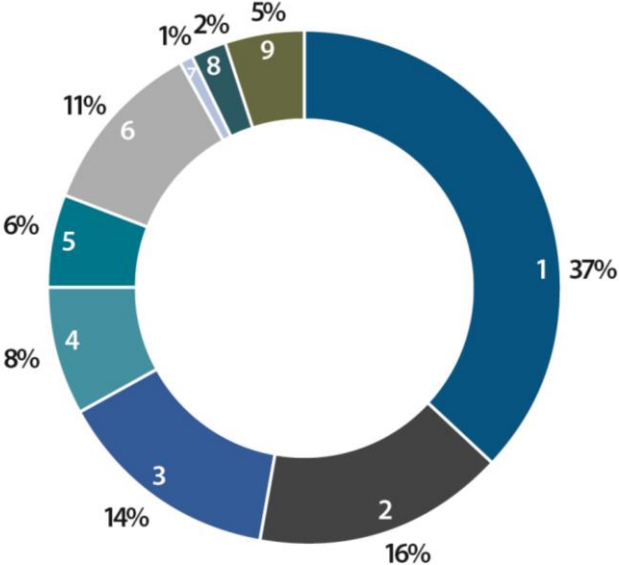
- Initial two £1m projects progressing well (Air Quality and Waste Management Strategies for Riyadh)
- Joint proposal for procurement support on Riyadh's Rapid Transit Bus System, using Ricardo's Real-Time Emissions Monitoring



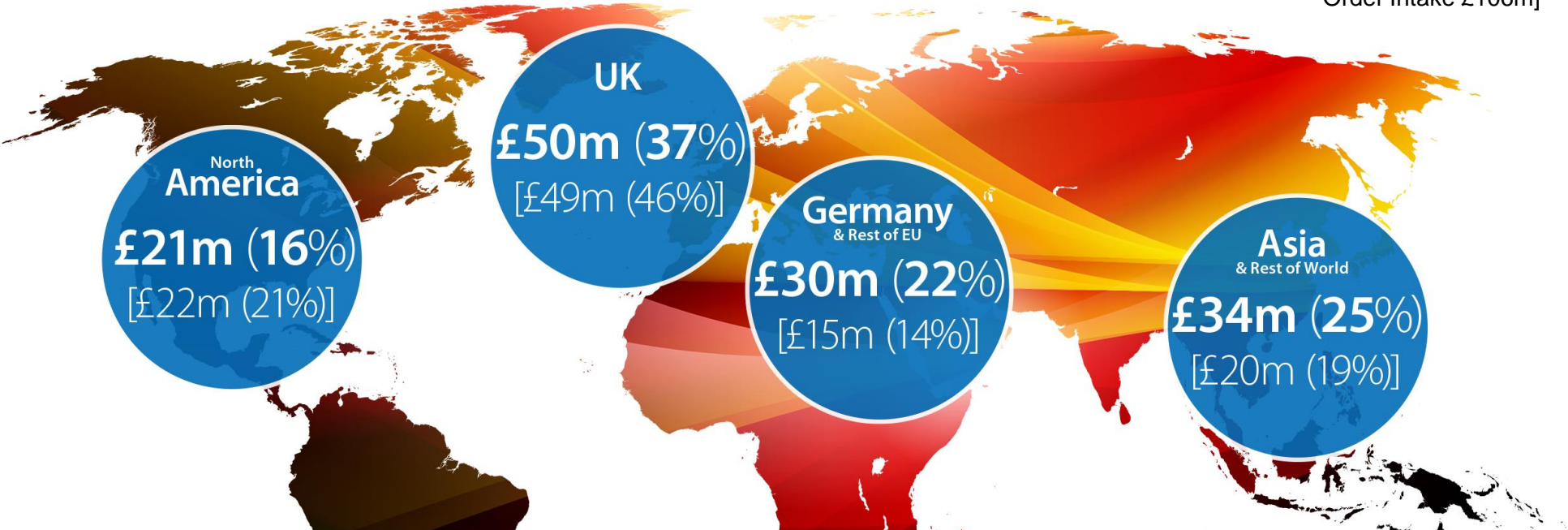
# A good balance of order intake from across the globe with increasing business from Asia and Europe



- 1. UK
- 2. North America
- 3. Germany
- 4. Rest of Europe
- 5. Japan
- 6. China
- 7. India
- 8. Rest of Asia
- 9. Rest of World



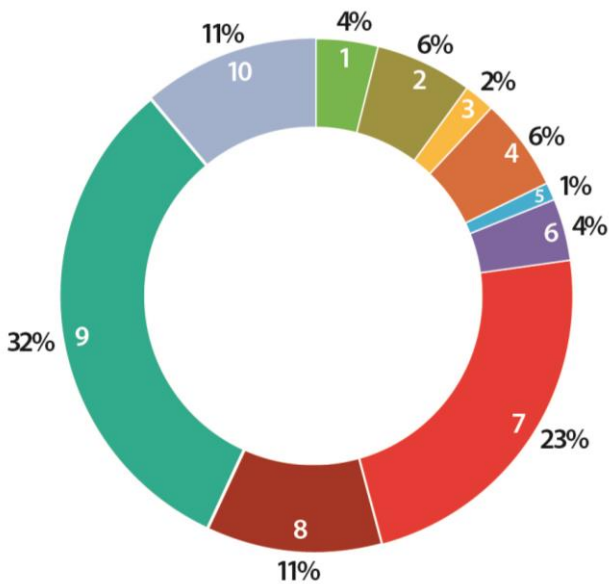
**H1 2013/14**  
**Order Intake £135m**  
 [H1 2012/13  
 Order Intake £106m]



# Well balanced market sector order intake with a strong period for motorcycle business and high performance vehicle assembly













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



**H1 2013/14**  
Order Intake **£135m**

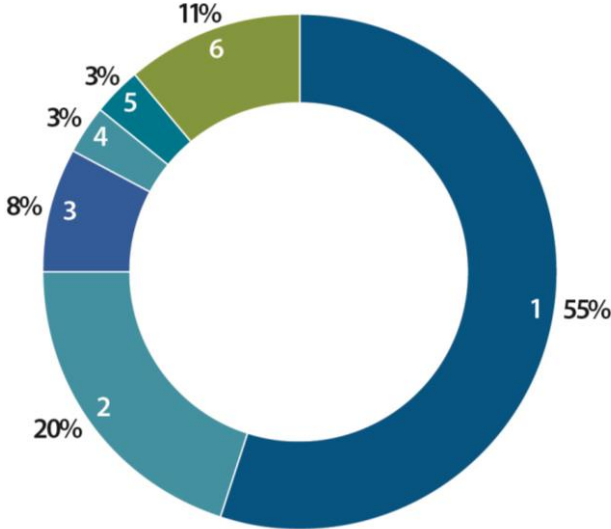
[H1 2012/13  
Order Intake £106m]

<b>M&amp;PT</b>	<b>G &amp; E</b>	<b>HPV&amp;M</b>	<b>Rail</b>	<b>CV</b>	<b>Marine</b>	<b>CE&amp;PG</b>	<b>Defence</b>	<b>AIV</b>	<b>PC</b>
									
<b>£15m (11%)</b> [£3m (3%)]	<b>£15m (11%)</b> [£4m (4%)]	<b>£31m (23%)</b> [£22m (21%)]	<b>£8m (6%)</b> [£4m (4%)]	<b>£6m (4%)</b> [£4m (4%)]	<b>£1m (1%)</b> [£1m (1%)]	<b>£5m (4%)</b> [£5m (5%)]	<b>£8m (6%)</b> [£9m (8%)]	<b>£3m (2%)</b> [£6m (5%)]	<b>£43m (32%)</b> [£48m (45%)]

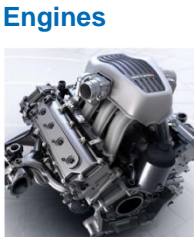
# Strong engines orders driven by CO<sub>2</sub> legislation, developing market penetration by the major OEMs and engine assembly



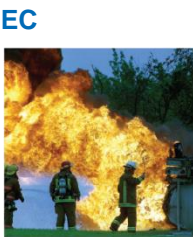
- 1. Engines
- 2. Driveline & Transmission Systems
- 3. Vehicle Systems
- 4. Hybrid & Electric Systems
- 5. Strategic Consulting
- 6. Environmental Consulting



**H1 2013/14**  
**Order Intake £135m**  
 [H1 2012/13  
 Order Intake £106m]



**£74m (55%)**  
 [£48m (45%)]



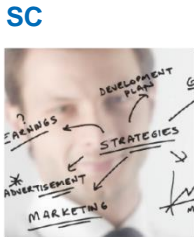
**£15m (11%)**  
 [£4m (4%)]



**£4m (3%)**  
 [£3m (3%)]



**£27m (20%)**  
 [£22m (21%)]



**£4m (3%)**  
 [£4m (4%)]

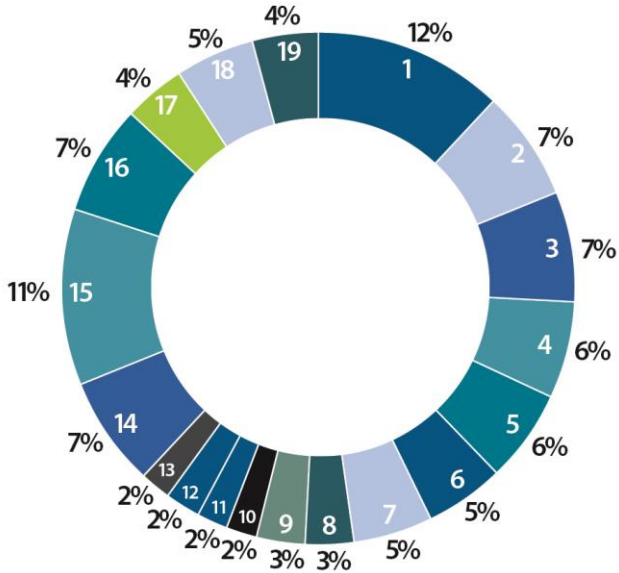


**£11m (8%)**  
 [£25m (23%)]

# The balance of products and good customer mix continues, with a good level of multi-year business returning



H1 External Order Intake by Key Client



- 1. Key Client 1
- 2. Key Client 2
- 3. Key Client 3
- 4. Key Client 4
- 5. Key Client 5
- 6. Key Client 6
- 7. Key Client 7
- 8. Key Client 8
- 9. Key Client 9
- 10. Key Client 10
- 11. Key Client 11
- 12. Key Client 12
- 13. Key Client 13
- 14. Rest of UK
- 15. Rest of Asia
- 16. Rest of Europe
- 17. Rest of North America
- 18. UK Government
- 19. US Defence



**H1 2013/14**  
Order Intake £135m

[H1 2012/13  
Order Intake £106m]



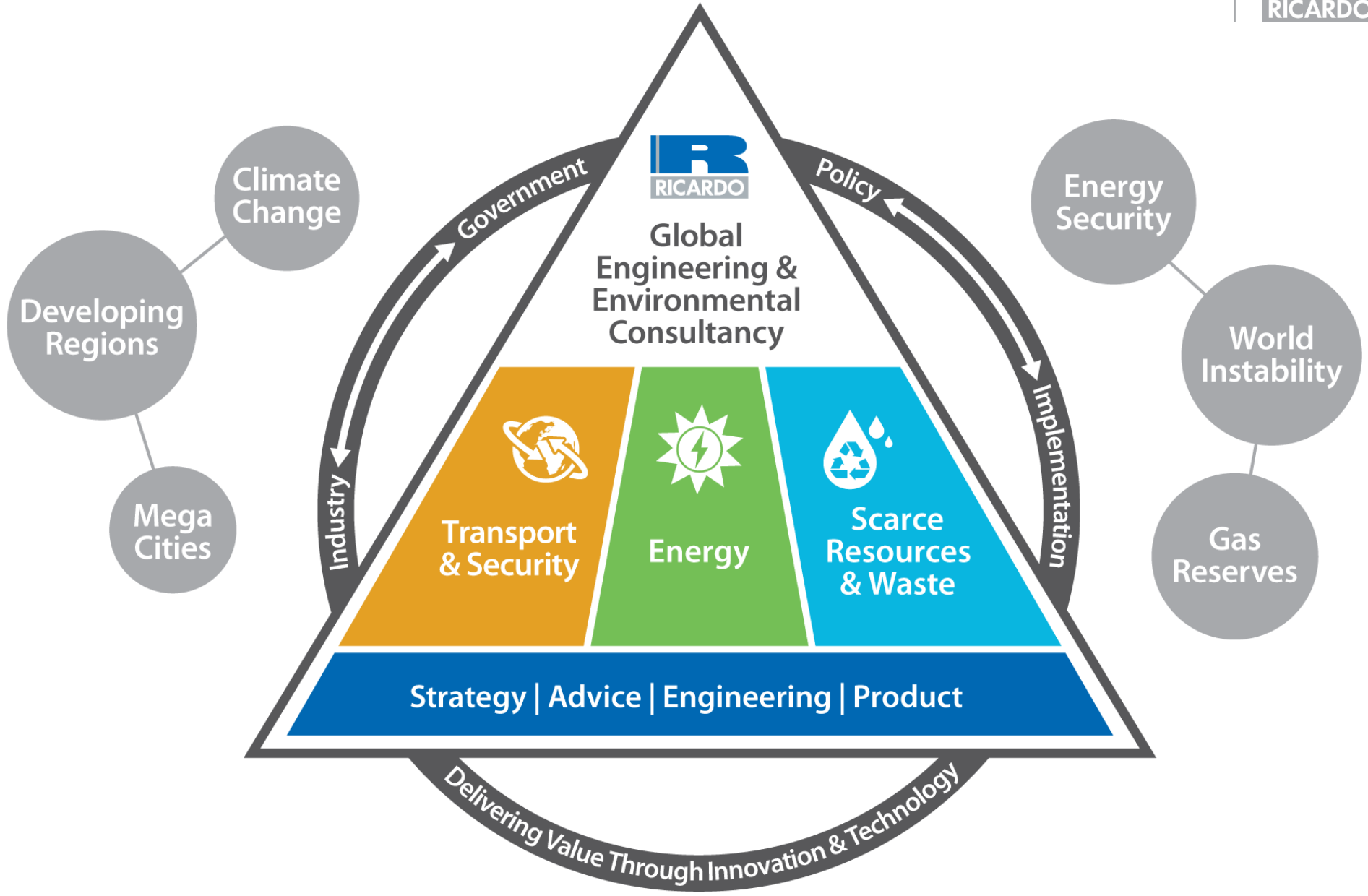
## Summary for period and outlook

- Strategy and execution delivering continued growth in profits
- Ricardo-AEA fully integrated into Group and performing well
- Strong balance sheet providing both organic and partnership/acquisition growth options
- Record order book and encouraging pipeline
- Global passenger car OEMs returning to spend
- New market sectors of Rail, Motorcycle and Power Generation contributing well
- Significant new contract with McLaren Automotive
- Core drivers remain at the top of clients agenda
- Outlook remains positive against a slowly improving economic backdrop



# Appendices

# A global engineering and environmental consulting company (1/2)





## Oil Economy

**Transport & Security**

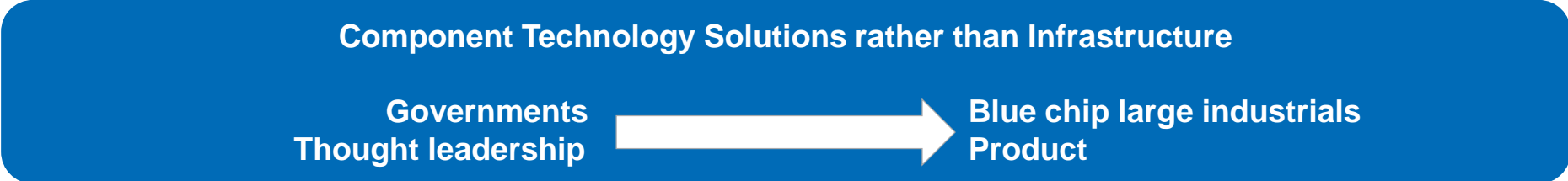
**Energy**

- Burning oil more efficiently
- Burning oil more cleanly
- Alternative sources
- Established legislation
- Recognised need
- Industrial & Government driven
- Economic and climate benefits
- Homeland and overseas security

## Water Economy

**Scarce Resources**

- Using water more efficiently
- Using water more cleanly
- Alternative sources
- Embryonic legislation
- Emerging need
- Government driven
- Emerging industry recognition
- Economic and societal benefits



# Global tailpipe and CO<sub>2</sub> emissions legislation adherence are “must haves” in the development budget of many of our clients

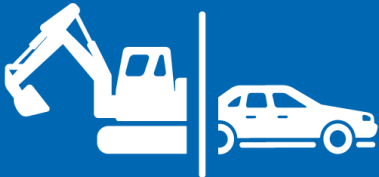


		2010	2015	2020	2025
Passenger car, LCV & HPV	Europe	Euro 5	Euro 6	Euro 7	
			Pass Car 130 g/km	Pass Car 95 g/km	
	US (49 States)	Tier 2	Tier 3		
		27.5/23.5 mpg Cars/LCVs	37.8/28.8 mpg Cars/LCVs		54.5 mpg Fleet (Combined Cars & LCVs)
	California	LEV II (2009)	LEV III		
	27.6/20.3 mpg Fleet/LCVs		43.4/26.8 mpg Fleet/Trucks	54.5 mpg Fleet (Combined Cars & LCVs)	
China	Euro 4	Euro 5			
	18-45 mpg	24-50 mpg weight classed		56 mpg Fleet Average	
Japan	Post New Long Term				
		39.5/35.8 mpg Cars/LCVs		57/63 mpg Gasoline/Diesel	
Motorcycles & personal transportation	Europe	Euro 3	Euro 4	Euro 5	Euro 6
	US (49 States)	Classes I, II & III		Harmonisation with California	
	California	Tier 2			
	China	Stage III			WMTC likely to be adopted with new emission limits
	Japan	ISO 6460 Limits 0 - 125cc / > 125 cc			WMTC likely to be adopted with new emission limits
Taiwan	13.1-48.2 km/litre				
Commercial vehicles (medium & heavy duty truck)	Europe	Euro V	Euro VI	Euro VII	
	US (49 States)	EPA 10			
			Federal CO <sub>2</sub> emissions standards		
	California	CARB 10			
			Federal CO <sub>2</sub> emissions standards		
China	Euro III	Euro IV	Euro V		
		Fuel economy standards in place			
Japan	Post New Long Term (decreasing NOx limits in stages)				
	World's first heavy duty fuel economy legislation				
Agricultural & industrial vehicles	Europe	Stage IIIA	Stage IIIB	Stage IV	
	US	Tier 4 Interim	Tier 4 Final		
	China	Stage II	Stage III	Stage IV	
	Japan	S.I./Diesel Standards		New Standards Similar to Euro IIIB	
Rail	EU & Russia	Stage IIIA	Stage IIIB		
	US	Tier 2	Tier 3	Tier 4 Switch & Line Haul Locomotives	
	India	Planning adoption of US Tier 2 regulations			
	Australia	Not yet regulated			

# What we do – core areas of capability



Engines



Vehicle Engineering



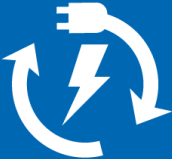
Performance Products

**RICARDO  
AEA**

Environmental Consulting



Transmissions & Driveline



Hybrid/Electrical Systems



Strategic Consulting



Software

# We work with a range of diverse global customers – they validate our roadmaps and we invest in the next generation of technology



**Passenger Car**

**High Performance Vehicles & Motorsport**

**Commercial Vehicles**

**Motorcycles & Personal Transportation**

**Agricultural & Industrial Vehicles**

**Government & Environment**

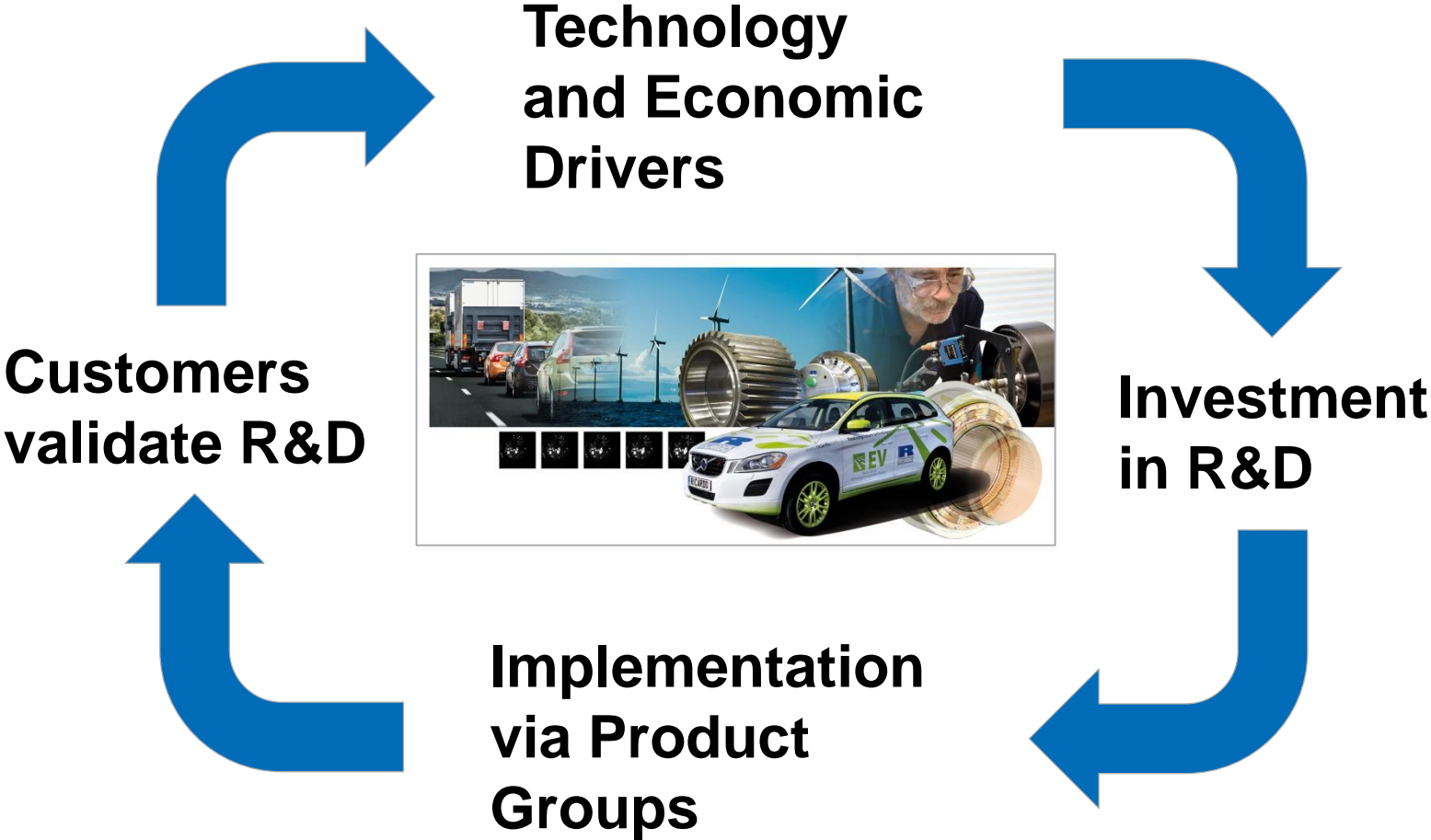
**Rail**

**Defence**

**Clean Energy & Power Generation**

**Marine**

# We have a value added R&D led business model





# Our strategic view ensures the relevance of our products & services



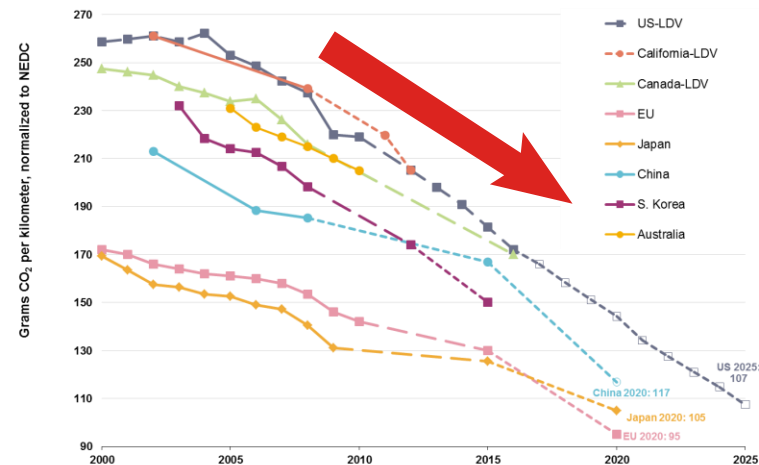
Increasingly stringent emissions legislation, rising energy and resource prices, growing congestion and the impact of climate change are key drivers in the sectors we serve



Rising energy prices and limited natural resources



Increasing population growth



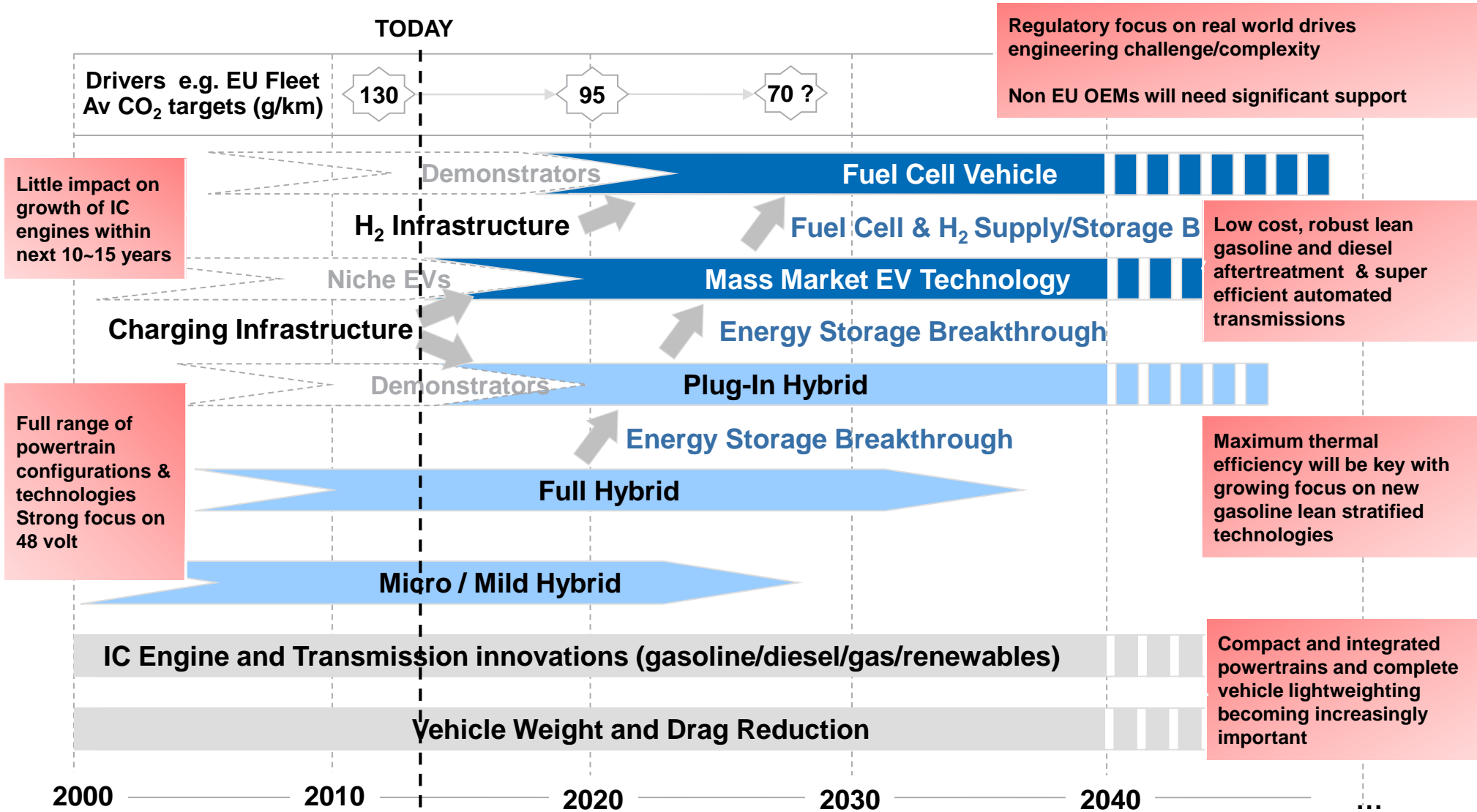
Legislation is driving down emissions for many industries



# Technology Roadmap for Passenger Car



Electrification of the market will take many years during which time powertrain and vehicle optimisation will be key to product differentiation and legal compliance

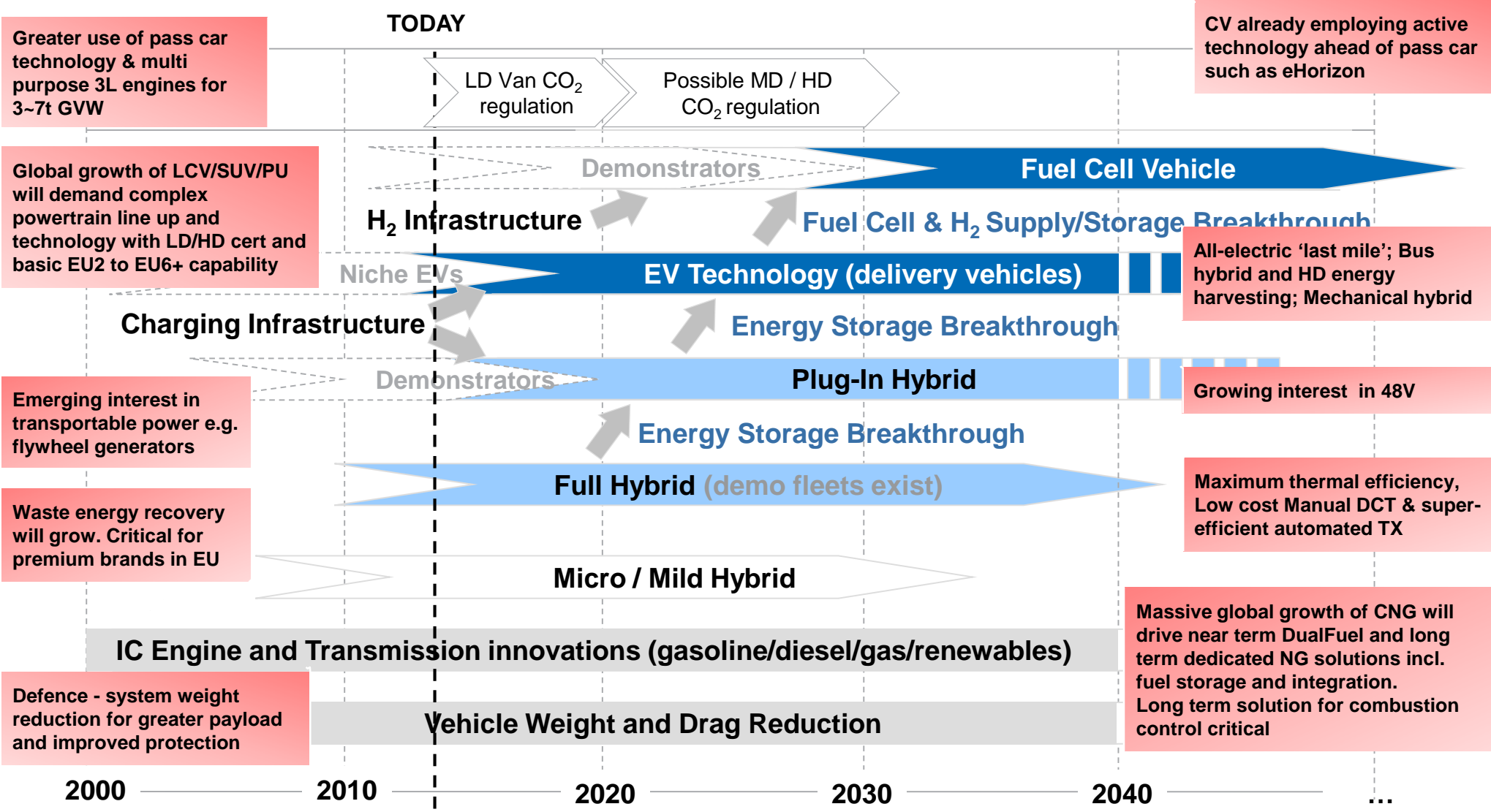


Source: UK Automotive Council Technology Roadmap for passenger cars, prepared by Ricardo

# Technology Roadmap for Commercial and Off Highway Vehicles



Legislation tracks passenger car trends, but key issues are cost-effectiveness, based on total cost of ownership (which is yet to be demonstrated) duty cycle and growth of CNG

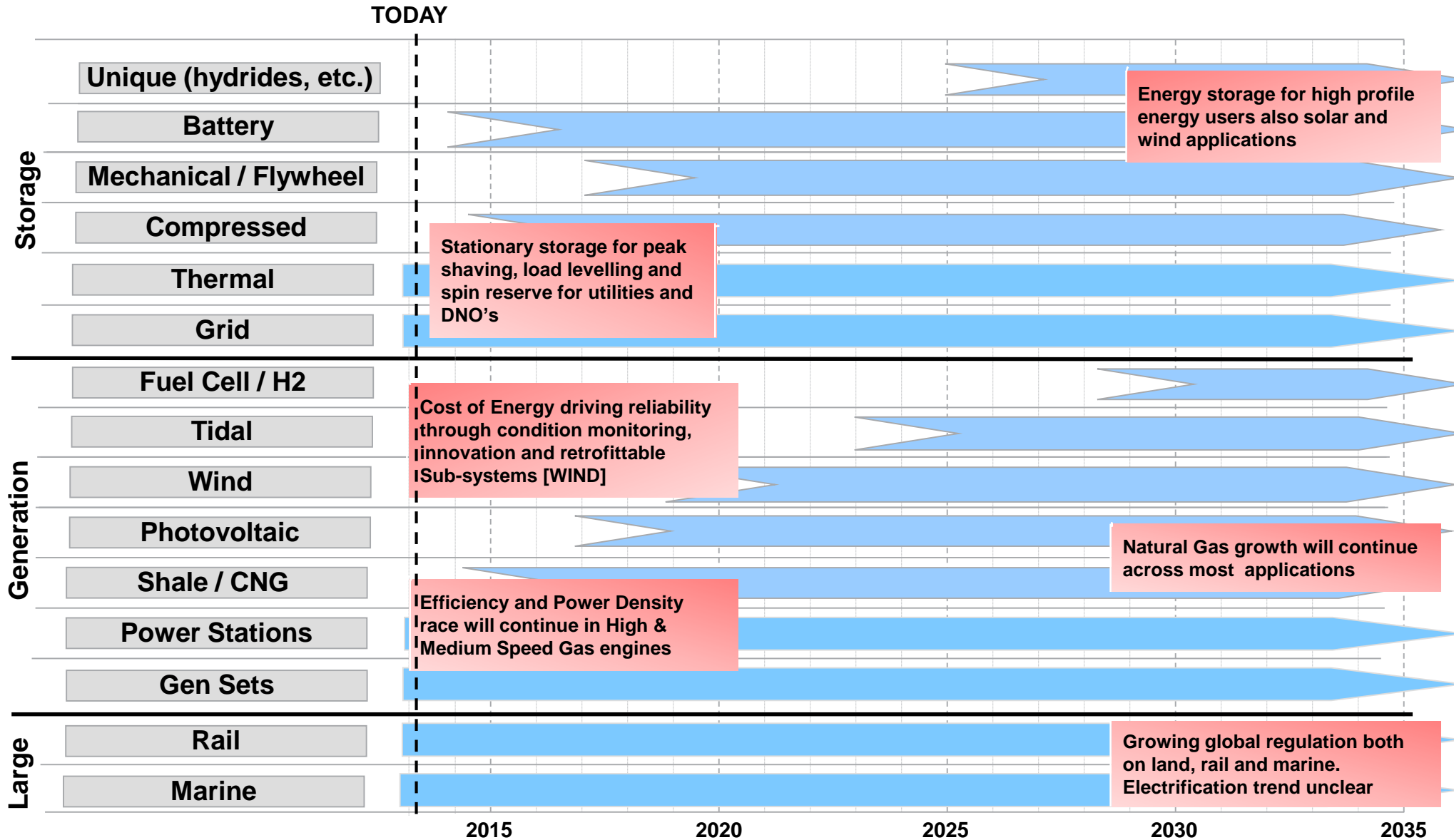


Source: UK Automotive Council Technology Roadmap for passenger cars, prepared by Ricardo

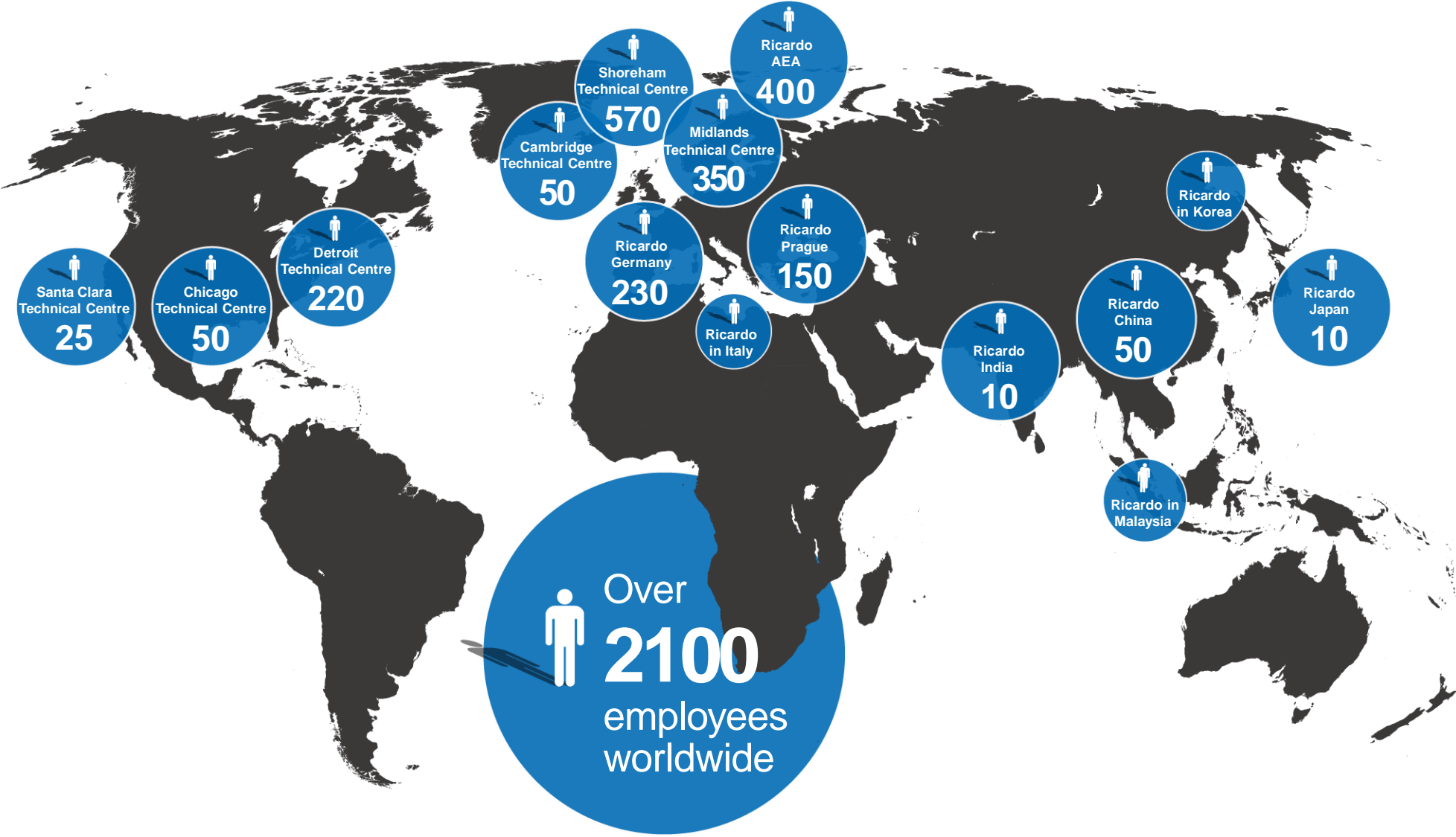
# Technology Roadmap for Large / Static Power



Various legislative drivers dominated by running cost and efficiency drivers. Cross sector technology can differentiate Ricardo



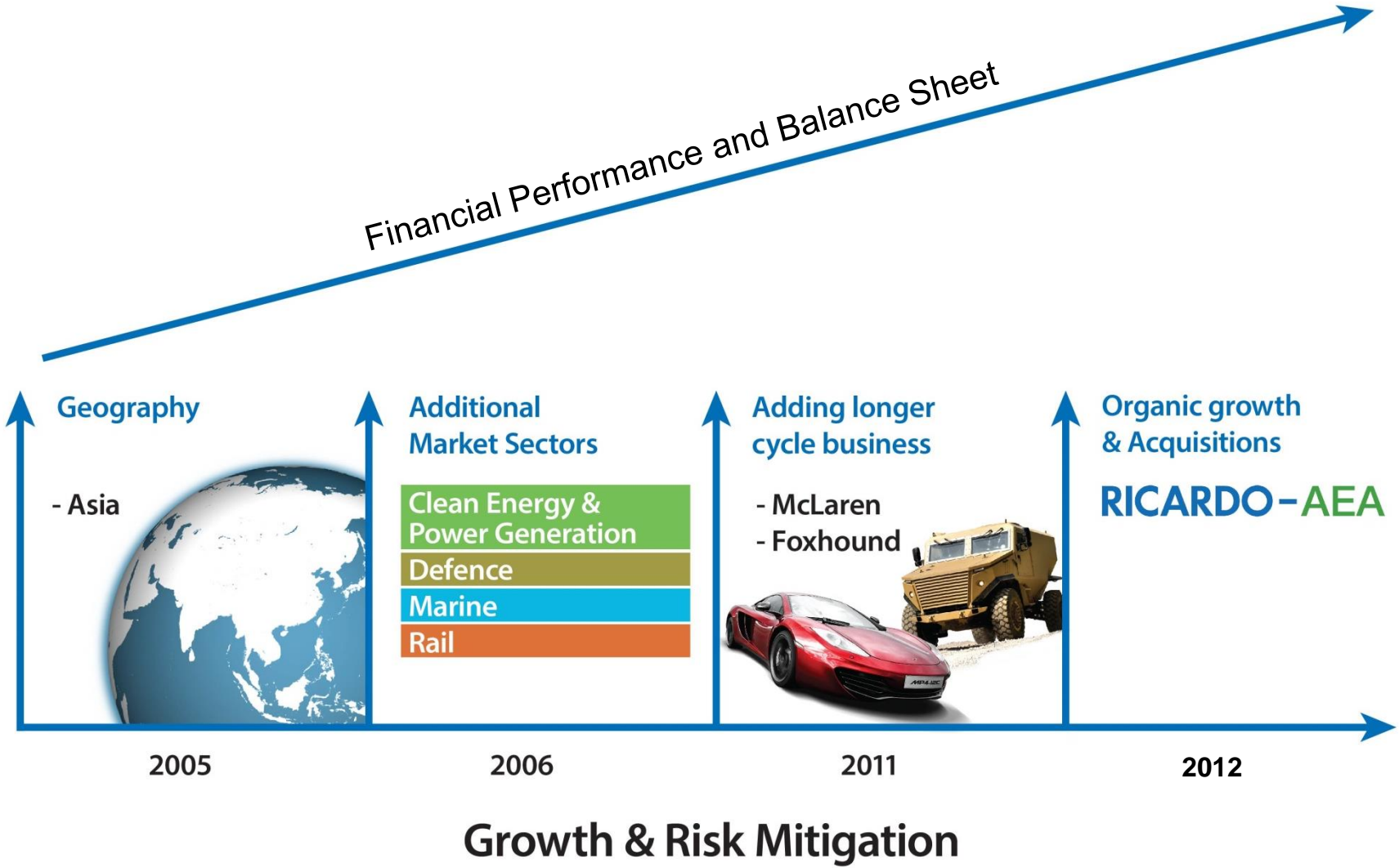
# Where we are



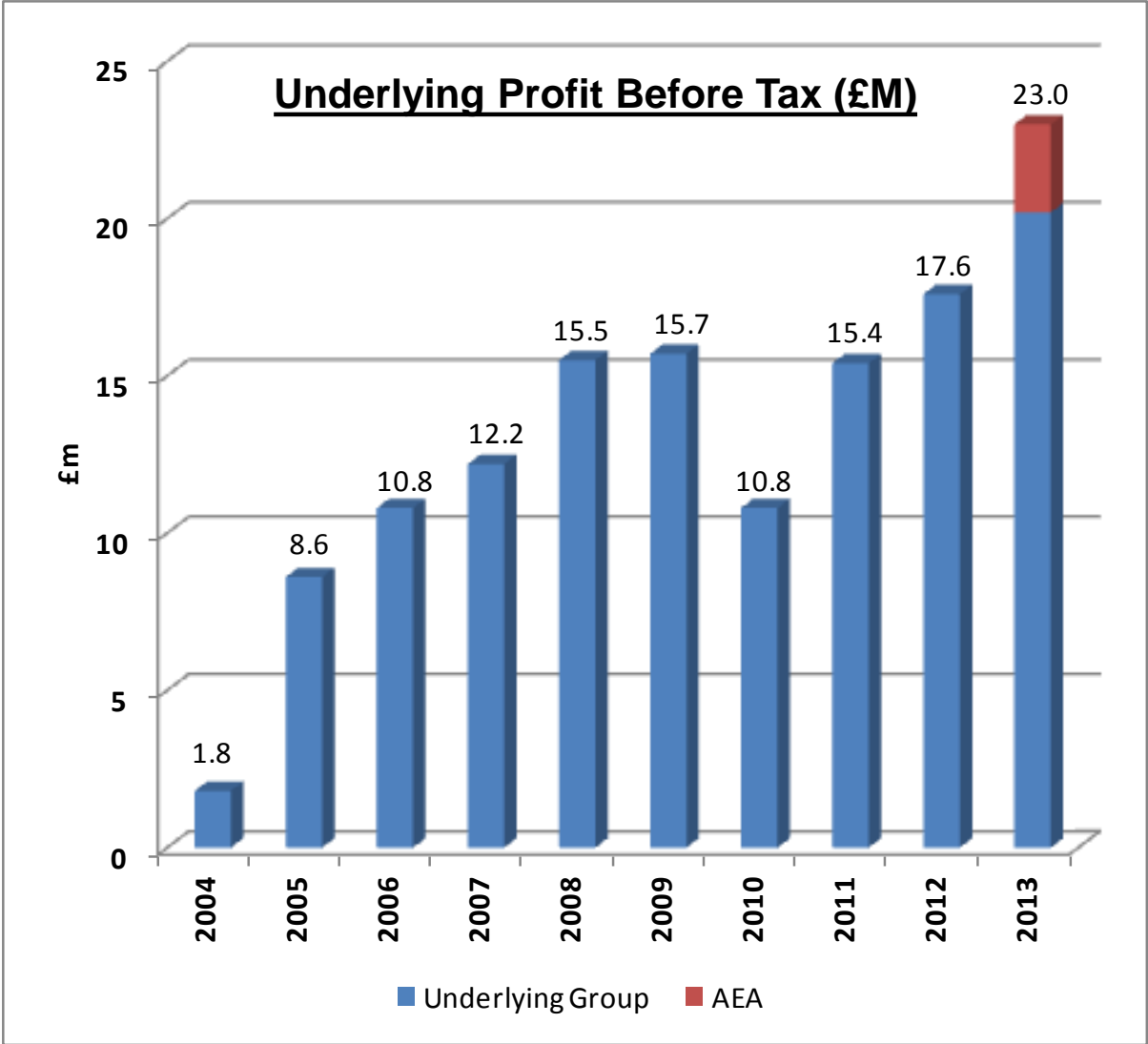
## Ricardo strategy guidelines – providing a secure platform for growth and risk mitigation

- No profit dependence on any one sector, client, product, geography or Ricardo division
- Tight diversity around a common competence
- Expansion into neighbouring sectors which can use our expertise
- Maximise utilisation and efficiency of engineering pool, whilst ensuring the attraction, retention and development of the Ricardo employee base
- Pursue innovative and value added assembly programmes when they augment and bring benefit to the Technical Consulting business (whether that be directly as part of a project or through Brand enhancement or client relationship enhancement)
- Continued focus on markets with enduring drivers – legislation, structural change, scarce resources and waste
- Reduction of cyclicalities with multi year programmes and relationships
- Pursue organic and inorganic growth (acquisitions and strategic partnerships)
- Maximise IP exploitation through a variety of routes to market

# Ricardo strategy implementation – the story so far

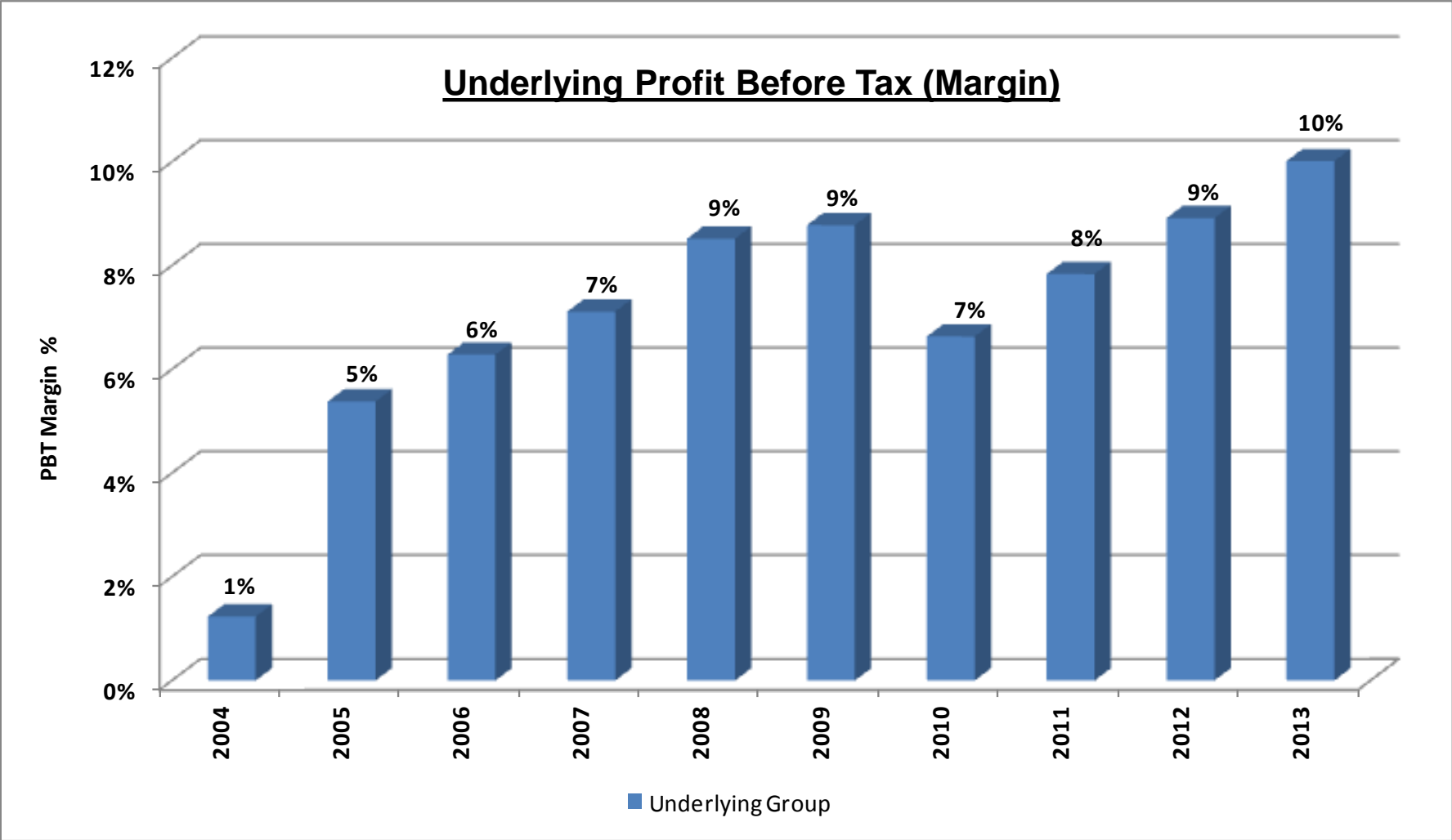


# Strategy for growth and risk mitigation demonstrated pre, during and post recession (1/2)

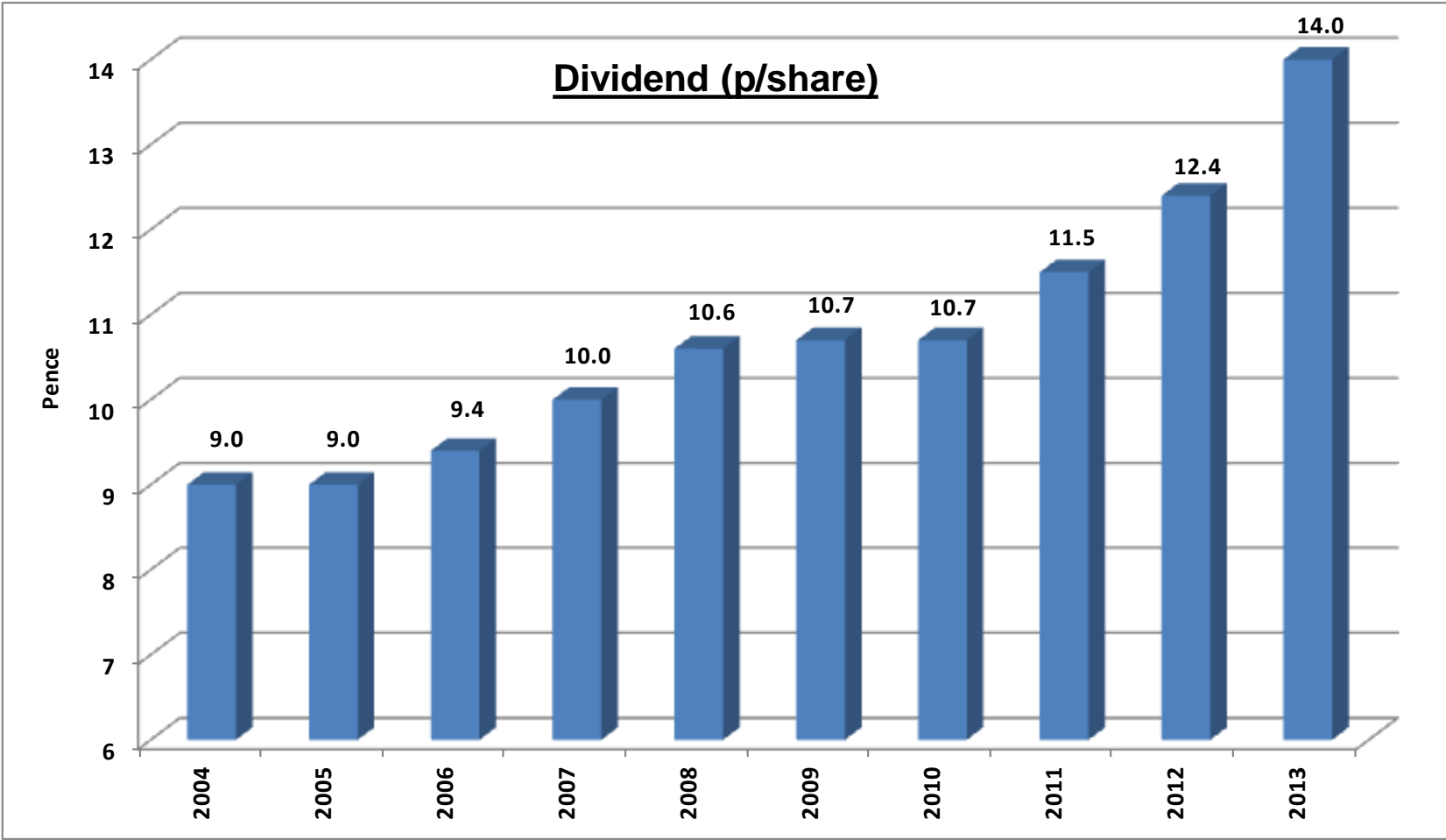




# Strategy for growth and risk mitigation demonstrated pre, during and post recession (2/2)

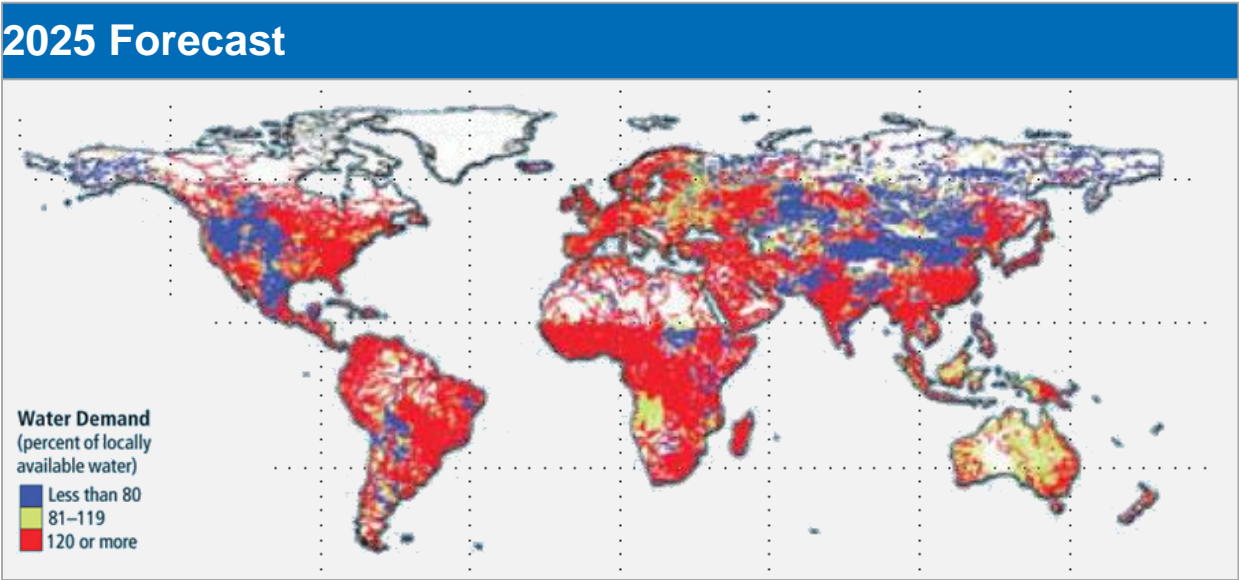


# Progressive dividend policy – dividend cover in the range 2 to 2.5 times



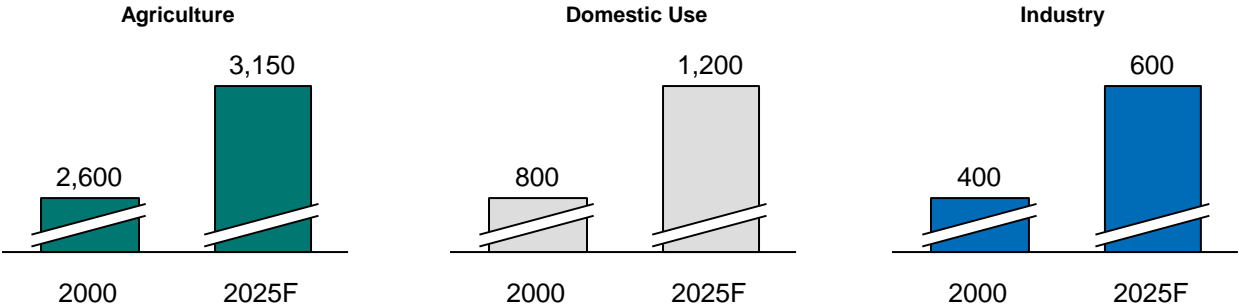
# Climate change, population and economic growth could lead to significant water scarcity across the globe by 2025

## Global Water Scarcity



- Climate change, population growth and economic development put water resources under stress
- Significant increase of water demand across domestic, industrial and agricultural user
- In absence of concerted efforts to professionally and efficiently extract, process and consume water sources, major parts of the world will face serious water scarcity by 2025

## Water Demand Trends by Sector (km<sup>3</sup> p.a.)



Source: American Scientist, UN

# Strong regional regulations driving water market investment around the world



## Water Market Regulation: EU, US and Asia

Europe	US	Asia	
		China	Japan
Dangerous Substances Directive (1976)	Clean Water Act (1976): pollutant discharge legislation	China – Prevention and Control of Water Pollution (1984 – revised 1996)	Japan – Sewage Law (1970)
Urban Wastewater Treatment Directive (1991): sewage discharge	Safe Drinking Water Act (1984)	China – The Water Law of PRC (1998 – revised 2002)	Japan – Water Pollution Control Law (1997)
Directive on Nitrates Pollution from Agricultural Sources (1991)	Arsenic Rule (2001)	China – Law of PRC on Water and Soil Conservation (1991)	Japan – Water Works Law (last revision in 2001): controls water quality
Directive on Integrated Pollution Prevention and Control (1996)	Enhanced Surface Water Treatment Rule (LT2) (2005) Pathogen Control	China – 11th 5 Year plan : RMB 330bn investment in Wastewater	
EU Water Framework Directive (2000): combines many of the above measures to cover industrial effluent, pesticides, nitrates, biocides	Stage 2 Disinfection By Product Rule (2005): drives UV treatment	China – 12th Five Year Plan : Water and waste USD 450bn investment – specific provisions approved for enhanced water quality	
	Combined Sewer Overflow (CSO) Rules		
	ARRA (2009): \$6 billion in funding for municipal water (\$2b) and sewer (\$4b) projects		

- National governments increasing water regulation to address stressed water resources
- Regulators dictating water quality and quality of service
- EU Water Framework Directive commits member states to achieving good quality water in sufficient quantity by 2015
- Government initiatives are supported by significant investment commitments, driving the overall market growth

Source: Impaxam

# In summary, growth is being pursued in the following key areas



Area of the Business	Priority Activities
<b>Technical Consulting</b>	<ul style="list-style-type: none"><li>• Transport and Energy sectors</li><li>• Exploiting CO<sub>2</sub> and emissions legislation</li><li>• Innovative and roadmap led R&amp;D investment</li><li>• Critical mass technical delivery in core developed markets</li><li>• Asian market growth (business development focus)</li><li>• World leadership in powertrain and whole vehicle delivery</li></ul>
<b>Performance Products</b>	<ul style="list-style-type: none"><li>• Global motorsport delivered from UK base</li><li>• Global niche assembly delivered where appropriate</li><li>• Exploitation of IP through royalties and product</li></ul>
<b>Ricardo-AEA</b>	<ul style="list-style-type: none"><li>• Overseas expansion in environmental sector</li><li>• Private sector growth</li><li>• Cities agenda</li><li>• Expansion into water and scarce resources</li></ul>