

## Disclaimer statement

This presentation contains certain statements that are forward-looking statements. They appear in a number of places throughout this presentation and include statements regarding the intentions, beliefs and/or current expectations of Ricardo plc (the "Company")

By their nature, these statements involve uncertainty since future events and circumstances can cause results and developments to differ materially from those anticipated. The forward-looking statements reflect knowledge and information available at the date of preparation of this presentation and, unless otherwise required by applicable law, the Company undertakes no obligation to update or revise these forward-looking statements. Nothing in this presentation should be construed as a profit forecast.

The Company and its directors accept no liability to third parties





## CAPITAL MARKETS EVENT

Creating an environmental and energy transition leader

26 MAY 2022



### FY21/22 UPDATE



In line with meeting board's expectations



Continued strong order intake in H2



Environmental and energy transition to continue to underpin growth



Continued strong cash delivery



### MEET TODAY'S SPEAKERS



Graham Ritchie Group CEO



lan Gibson Group CFO



Mike Bell Group Chief Strategy and Digital Officer



Mary Moore Group People & Organisation Director



Marques McCammon Managing Director, Automotive & Industrial



Tim Curtis, Managing Director, Energy & Environment



## TODAY'S AGENDA

OPENING REMARKS	RICARDO'S DNA	PROFITABLE GROWTH		DISCIPLINED EXECUTION	CLOSING REMARKS
Group overview and initial observations <i>Graham Ritchie</i>	Shared DNA Characteristics <i>Graham Ritchie</i>	Market opportunities <i>Mike Bell</i> Strategy for growth <i>Graham Ritchie</i> Financial framework <i>Ian Gibson</i>	BREAK	Operational excellence <i>Mary Moore</i> Business unit focus <i>Mike Bell</i> <i>Tim Curtis</i> <i>Graham Ritchie</i>	Executive summary and Q&A <i>Graham Ritchi</i> e
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## GROUP OVERVIEW

Graham Ritchie

## **RICARDO AT A GLANCE TODAY**

We are a global strategic, environmental and engineering consultancy with in-house production capability





## RICARDO GROUP OPERATES THROUGH ITS 5 BUSINESS UNITS

AUTOMOTIVE &INDUSTRIAL	PERFORMANCE PRODUCTS	ENERGY& ENVIRONMENT	RAIL	DEFENSE
29% NET REVENUES	22% NET REVENUES	16% NET REVENUES	22% NET REVENUES	11% NET REVENUES
Trusted specialists in clean, efficient, integrated propulsion and energy solutions	Engineering specialists in niche-volume manufacturing and software development	Partner of choice for solving complex environmental challenges through industry-leading analysis, advice and data	Expert in solving complex rail systems through the delivery of independent assurance and consultancy services	Trusted expertise in delivering wide-ranging engineering programmes to drive efficiencies while optimising safety
		THE AL		



# OUR PATH TO LONG TERM PROFITABLE GROWTH

Key strategic, cultural and operational changes to enable Ricardo to be a leading environmental and energy transition consultancy

#### WHAT'S WORKING?

- A deep heritage of over 100 years
- Experts in solving complex problems
- Rooted in science and innovation
- Good business unit service capability
- Customer and sector diversification
- Geographic footprint in 23 countries
- Strong growth drivers in energy transition and decarbonisation.

#### WHAT'S CHANGING?

#### Leverage our shared DNA

• Led by purpose, united by our values

#### Sustainable and profitable growth

• High growth and high margin focus

#### **Disciplined in execution**

• Shared operating model, aligned approach



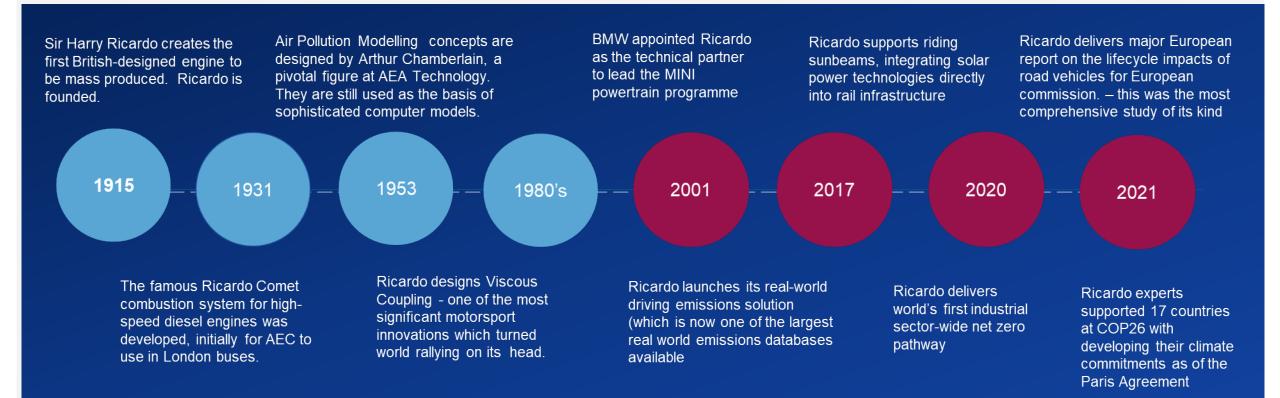


## **RICARDO'S DNA**

Graham Ritchie

## A DEEP HERITAGE AND A STRONG DNA

Delivering sustainable solutions that are rooted to our founder's ethos: To maximise efficiency and eliminate waste





## IT STARTS WITH OUR VISION: TO CREATE A SAFE AND SUSTAINABLE WORLD

#### OUR PURPOSE

We do this by enabling our customers to solve the most complex and dynamic challenges to achieve a safe and sustainable world



## OUR VALUES BUILDING BEHAVIOURS TO DRIVE THE RIGHT CULTURE

Our values guide every action and decision we make at work

#### **CREATE TOGETHER**

Be collaborative Embrace diverse teams Share knowledge

#### **AIM HIGH**

Plan for success Be pioneers of change Act with agility

#### **BE INNOVATIVE**

Be customer-focused Act on evidence Push boundaries

#### **BE MINDFUL**

Be respectful Show that we care Take ownership



# CLEAR STRATEGIC OBJECTIVES TO DELIVER PROFITABLE GROWTH

Being purpose led

#### Enabling meaningful and fulfilling work

#### Being a trusted partner to our customers

Achieving high growth in our chosen markets

Delivering operational excellence and efficiency

Optimising cash to invest for growth



## SUSTAINABILITY IS FIRMLY BUILT INTO OUR DNA AND WE ARE LEADING BY EXAMPLE

From the solutions we deliver to the actions we take in our own ESG commitments



#### ENVIRONMENTAL

Our key focus is on reducing the GHG emissions and group activities that will support us on our energy transition

#### We focus on our people, the social value we contribute to our communities, customers and wider supply chain

SOCIAL

#### GOVERNANCE

More aligned levels of governance to ensure that all aspects of the business contribute to our net zero journey



#### **ENVIRONMENT**

## OUR JOURNEY TO NET ZERO

We contribute to 8 of the UN Sustainable Development Goals and operationalise principles of UN Global Compact. We have stated our commitment to achieving net zero by 2030 and have approved SBTi targets.

# GHG emissions Science Based Targets Initiative (SBTi)

- Reduce scope 1 & 2 emissions 46.2% by FY31.
- Target aligned to 1.5°C average global temperature rise
- Increase annual sourcing of renewable electricity from 74% in FY20 to 90% by FY26.
- Reduce absolute scope 3 emissions 27.5% by FY31. Target aligned to well below 2°C temperature rise.

#### Sustainable procurement

• Environmental standards, supply chain labour, carbon reduction plans and waste reduction

#### Resources

- Reduction of water consumption by 10%
- Office footprint reductions

#### **Materials**

- Packaging weight reduction
- Use of recycled packaging

### OUR PEOPLE ARE AT THE VERY CORE OF ESG

Building engagement and inclusiveness across the group with meaningful impact to our local communities



#### DEI

We are passionate about creating a Ricardo where differences are valued and celebrated, where we feel we belong, and where we have opportunities to fulfill our potential.

#### WELLBEING

We are committed to regular activities and events to ensure the mental and physical wellness of our colleagues along with their safety remains our no.1 priority.

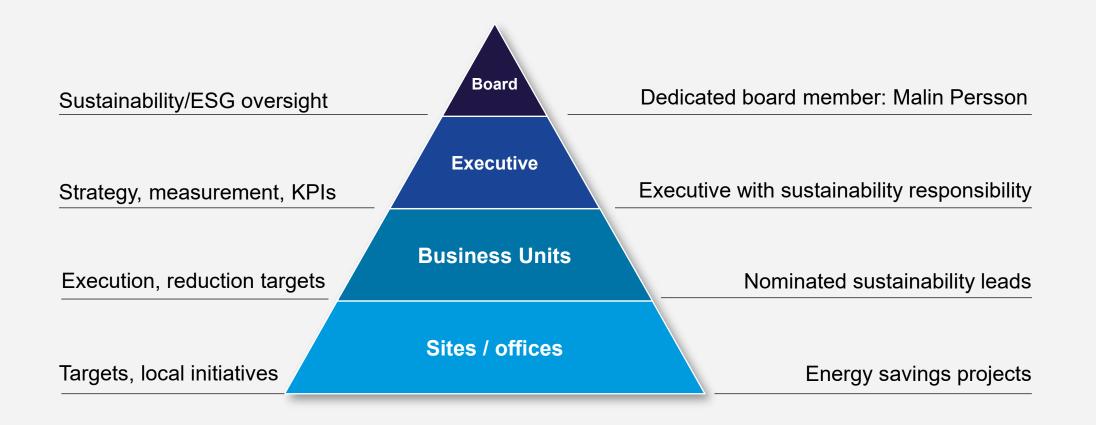
#### COMMUNITIES

We believe it is important to make a contribution towards our local and global community, not only through our advice, services and products but also through our own actions.



### SUSTAINABILITY EXCELLENCE THROUGH IMPROVED GOVERNANCE

Better governance with board focus and business unit alignment







## MARKET OPPORTUNITIES

Mike Bell

## STRATEGIC POSITIONING

#### STRATEGIC FINDINGS

- Diversification of portfolio from automotive has reduced exposure to business cyclicality
- Outperformed average peer EBIT margin in all sectors outside of Automotive & Industrial
- Strong growth in Energy & Environment, resilient performance during COVID
- Growth in rail, government-backed and counter-cyclical, passenger numbers impacted but relatively short-term COVID impact
- Shift from mechanical engineering to electrification and software key trend in mobility
- Greater capital intensity associated with established automotive technologies coupled with supply chain risks

#### **OPPORTUNITIES**

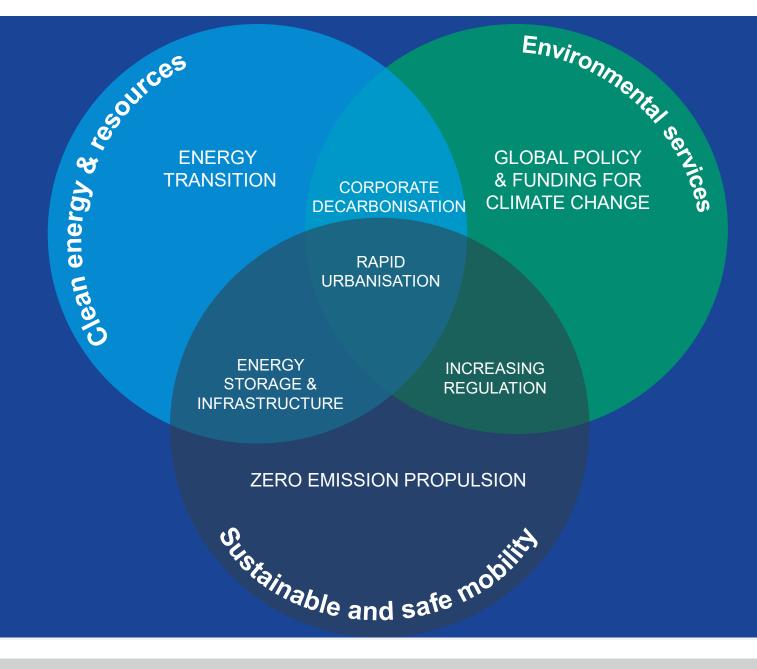
- Operating in sectors with significant change and transformation opportunities driven by climate change
- Value proposition around sustainability as growth focus building on energy & environment, transport & rail capabilities
- Rail & metro are critical to alleviating the environmental and congestion challenges of urbanisation
- Digitally enhanced solutions & service delivery to augment consulting & engineering services
- Optimise our investment focus on lower capital intensive services minimising supply chain risks



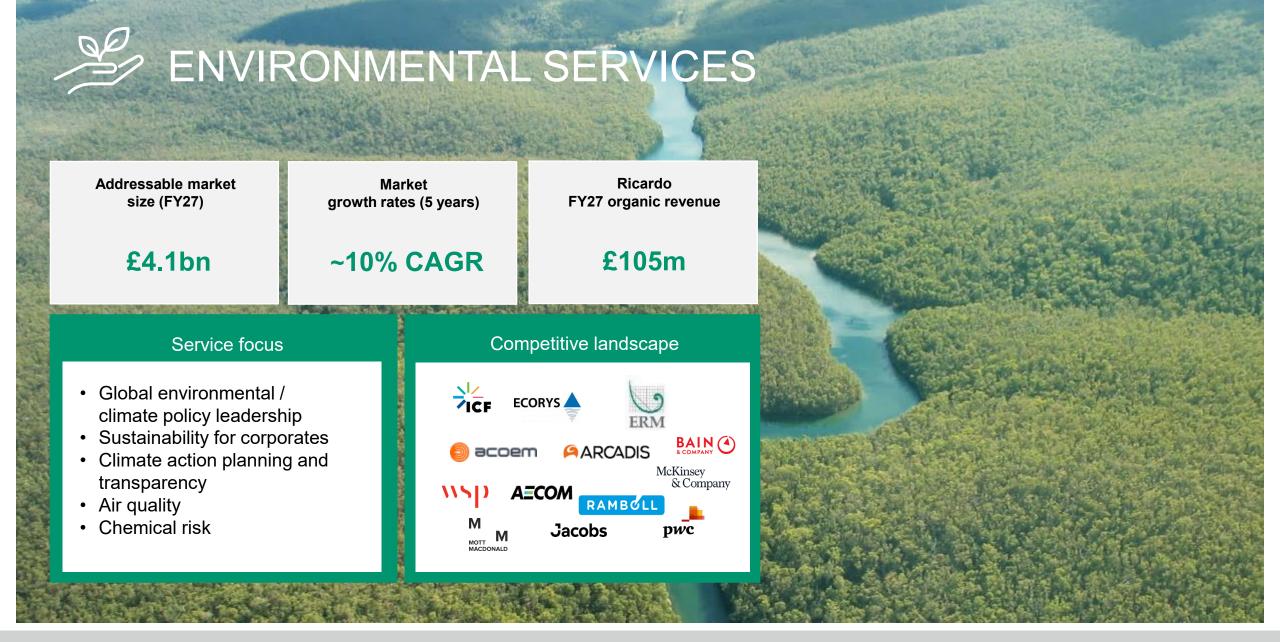
## GLOBAL MEGA TRENDS UNDERPIN OUR STRATEGY FOR GROWTH

Ricardo is uniquely positioned at the intersection of the mobility, energy and environmental agendas.

Where our expertise comes together, we have our greatest differentiation as we harness our expertise to adapt and mitigate the impact of climate change.











size (FY27) growth ra		rket e (5 years)	Ricardo FY27 organic revenue	
£7.5bn ~7% Key services		CAGR £44m Competitive landscape		
<ul> <li>Energy and transport se decarbonisation</li> <li>Water resources and inf</li> <li>Power planning &amp; distrib</li> </ul>	rastructure	ARUP <b>Jacobs</b> We princi multi-dis	A M M M M M M M M M M M M M M	





# SUSTAINABLE & SAFE





## URBANISATION: DELIVERING MORE THAN THE SUM OF OUR PARTS

TRANSPORT

POLICY & STRATEGY TO IMPLEMENTATION

NATER SCARCIT

THE REAL PROPERTY.

ENERGY

AIR

QUALT

Zero tailpipe emissions road transport, public transport retrofit, routing to charging infrastructure

Rail and metro infrastructure provides safe, efficient movement of people & goods

Power sector planning, heat and renewables, transport energy options (electrification, hydrogen)

Environmental impact assessment, water infrastructure, storm water management, circular economy

al Bring

Monitoring and software modelling capabilities at a megacity scale, implementation of Clean Air Zones

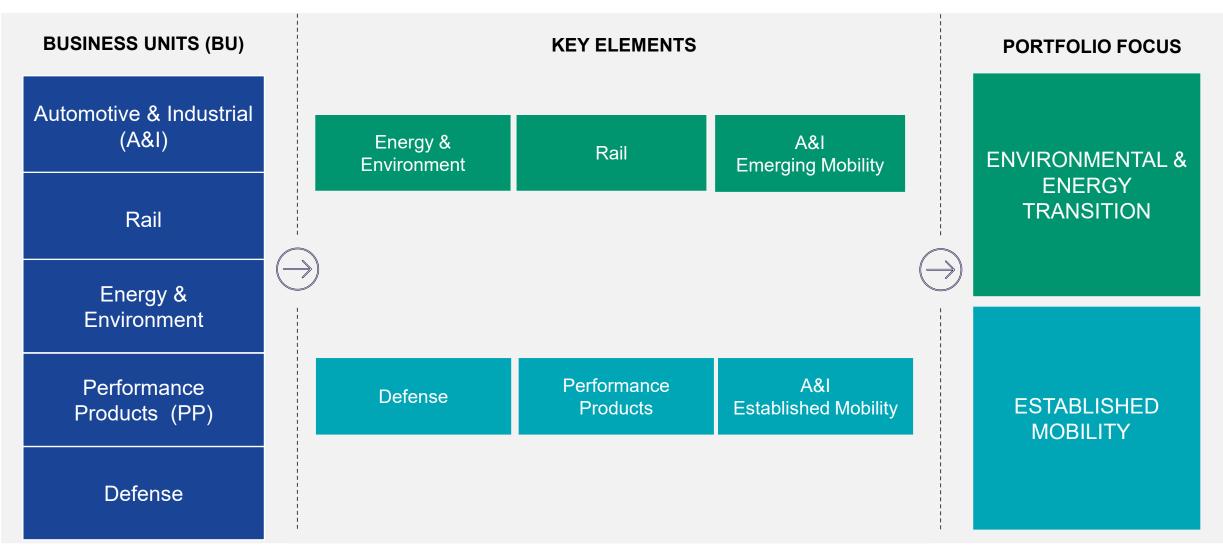




## **STRATEGY FOR GROWTH**

Graham Ritchie

## LEVERAGING AND PRIORITISING EXISTING CAPABILITY





## HIGH GROWTH AND HIGH MARGIN FOCUS



<sup>(1)</sup> Margin % calculated on new basis with Group costs held centrally and not allocated to reporting segments



## CREATING AN ENVIRONMENTAL AND ENERGY TRANSITION LEADER

A shift from mobility services to environmental and energy transition solutions





## VALUE THROUGH PRIORITISATION, EXPANSION & ACCELARATION

Strategic growth priorities to deliver sustainable profitable growth





### DEMONSTRATING OUR CAPABILITIES ACROSS THE VALUE CHAIN

From policy, strategy and initial concept phase, right up to the delivery of customer programmes

# EVIDENCE COLLECTION & POLICY DEVELOPMENT

Ricardo is supporting national and local level governments (UK, Europe (including European Commission), Middle East, Australia, South America, Africa) to develop air quality, energy and transport policies





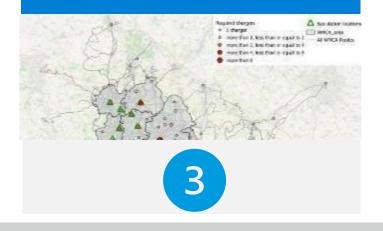
#### SUPPORTING STRATEGY & ALIGNMENT WITH POLICY

Examples of our work include the modelling city compliance with EU air quality legislation and supporting OEM's to align with future vehicle environmental policy.



#### IMPLEMENTATION

Ricardo has developed Geofencing technology that automatically triggers hybrid vehicles to only use electric when in specific locations e.g. city centres or clear air zones.





## Case study: SERVICES TO SOLUTIONS

Demonstrating how experts from across Ricardo are collaborating to turn services into differentiated and repeatable solutions that solve some of the world's most challenging problems

## A SOLUTION TO DECARBONISATION PROPULSION FOR THE RAIL INDUSTRY

### CHALLENGE

Scottish Power commissioned Ricardo to investigate opportunities to decarbonise the energy infrastructure for the Rail sector.

#### SERVICES

Traditional services in this area delivered in single deliverables:

Renewable energy assessment (incl. green hydrogen)

Feasibility studies

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Technology due diligence

Rail engineering support

Demonstration project support

#### SOLUTION

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Full decarbonisation pathway and implementation support.

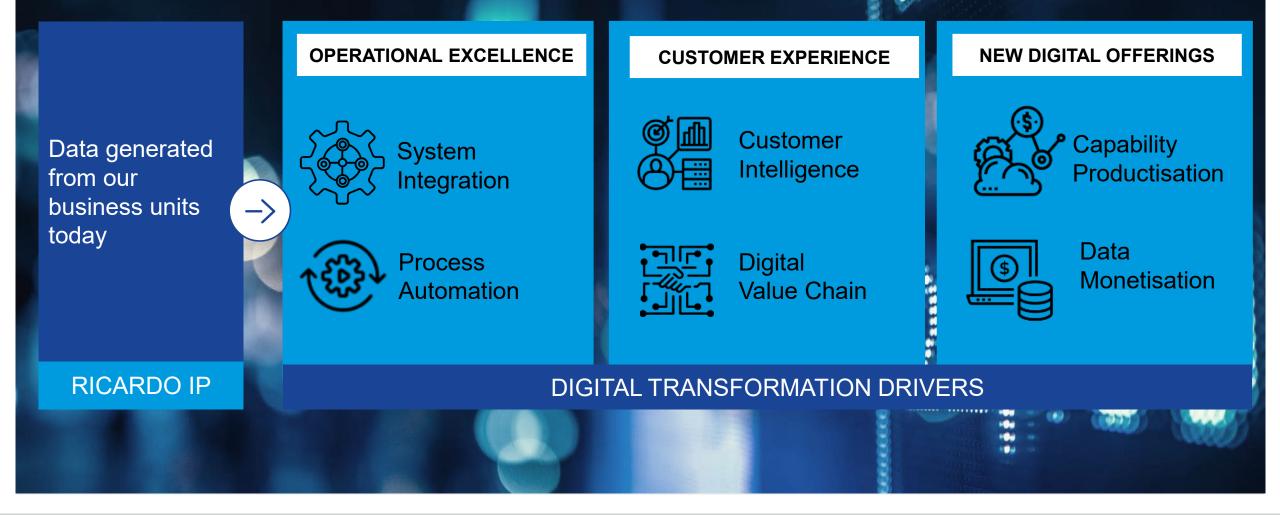
From initial analysis of existing infrastructure using through to implementation of demonstration projects and full rollout (which can be applied to global rail market)

Utilises energy, rail and engineering capability



**PORTFOLIO PRIORITISATION** 

## VALUE CREATION THROUGH DIGITAL





#### Case study:

## RapidAir® AIR QUALITY MODELLING

#### The challenge

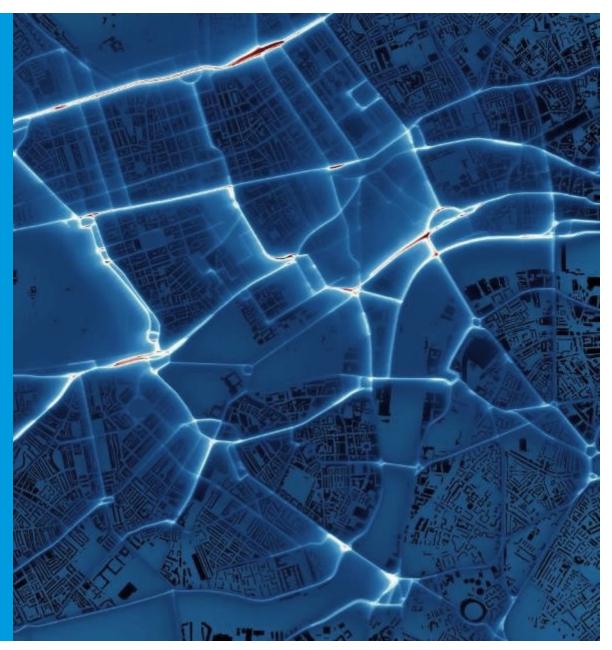
The United Nations has identified air pollution as the most important environmental health risk of our time, responsible for one in nine deaths globally.

#### **Our solution**

RapidAir® is a high-resolution air quality modelling tool that allows transport planners and policy makers to understand the contribution of pollution sources on air quality. It is the fastest high resolution, urban air quality modelling system on the market.

#### **Customer benefits**

Our customers can quickly evaluate the impact of different mitigation scenarios, generating reliable outputs that they can have confidence in, allowing them to make trusted and informed policy decisions.





#### MARKET EXPANSION

### VALUE CREATION THROUGH MARKET AND CUSTOMERS

Opportunity to leverage our customers relationships across market sectors



500+ large and strategic customers across our sectors



### VALUE CREATION THROUGH GEOGRAPHIC SCALE AND REACH

USA Target growth for: EE | Rail | A&I | Defense

EUROPE & MIDDLE EAST Target growth for: EE | Rail | A&I | PP

CHINA Target growth for: A&I

AUSTRALIA Target growth for: EE | Rail





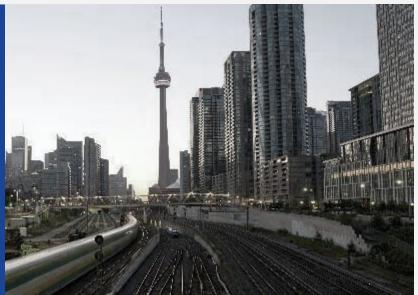
BUILDING OUR CAPABILITY AND EXPERTISE ACROSS NORTH AMERICA AND CANADA

A large growth market for our Rail business unit for both certification and consulting services in solving complex and innovative rail systems Metrolinx Independent Safety Assessment

Ricardo Certification has been appointed as the Independent Safety Assessor (ISA) for the transformation of rail transit across the Greater Toronto and Hamilton region

**sky Tran USA** Independent Safety Assessment

Ricardo is the Independent Safety Assessor for the early development of sky Tran USA, an elevated personal rapid transit concept.







# M&A FOCUS ALIGNED TO ENVIRONMENTAL AND ENERGY TRANSITION AND GEO EXPANSION

We are increasingly focusing our investments in highly attractive environmentally and digitally-led areas. This approach allows us to reposition ourselves for long-term growth, where we can build leading positions in the markets in which we operate.

### Strategic M&A priorities

Accelerate environmental leadership through :

Strengthening our position in key sectors

Expanding into priority geographies

Adding new technological and digital capabilities



#### Case study:

# RECENT ACQUISITION IN LINE WITH OUR INVESTMENT STRATEGY

A move to strengthen our energy and environment portfolio across the value chain  Acquisition of Inside Infrastructure, a water-focused environmental consultancy in Australia, completed in Feb 2022

- Inside Infrastructure is being integrated to the Group's Energy & Environment business unit
- Firmly establishes our position and capabilities as a prominent environmental and technical consultancy within Australia
- Also offers an expanded enduse market into adjacent sectors





## STRATEGIC GROWTH MILESTONES





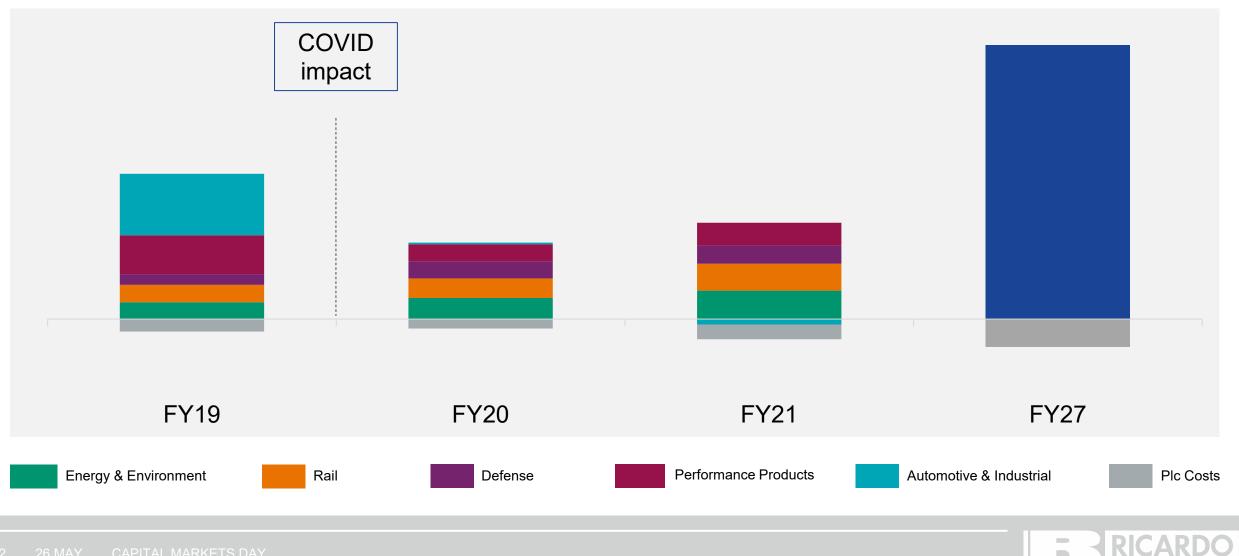


# FINANCIAL FRAMEWORK

lan Gibson

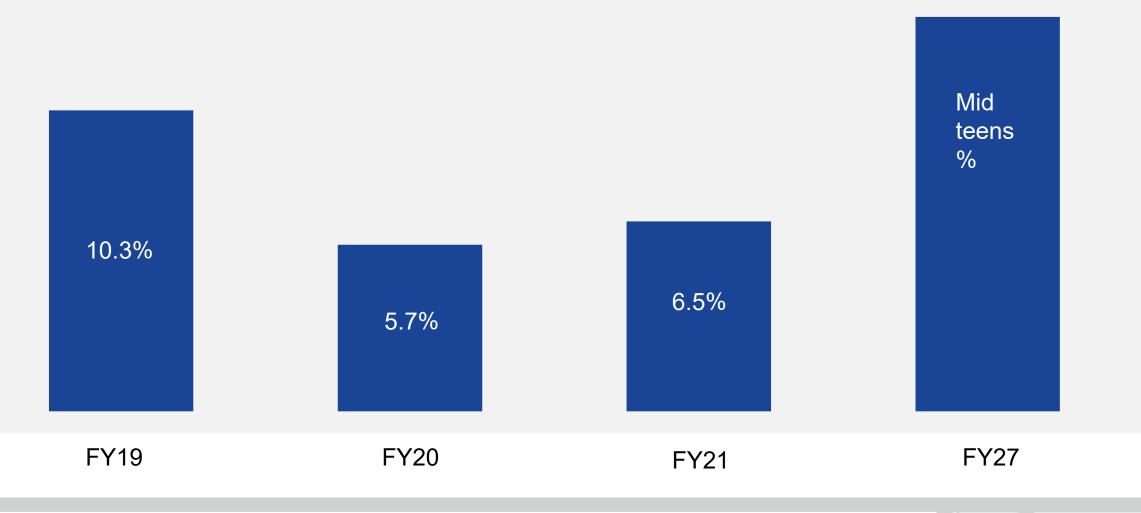
## TARGETING DOUBLING UNDERLYING OPERATING PROFIT

We are targeting a doubling of operating profit over the five years to FY27



## HIGHER UNDERLYING OPERATING PROFIT MARGIN

Targeting improved operating profit margin through acceleration of Environmental & Energy Transition





## **INCREASING EFFICIENCY OF INDIRECT COSTS**

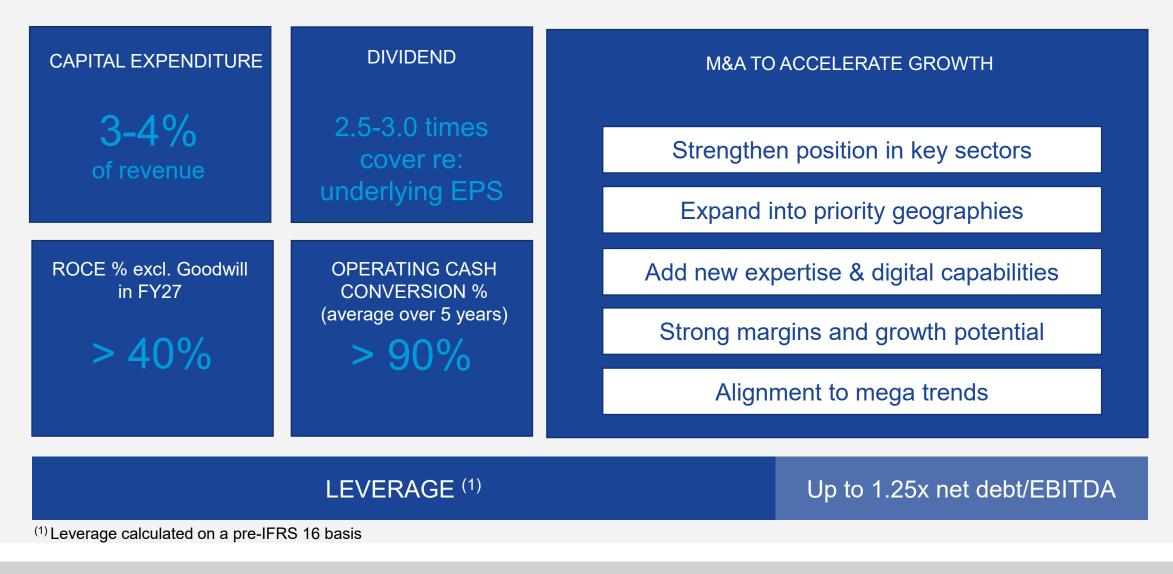
	FY21		FY24	FY27
£m	Current format	Future format		
Total Business Units	90.6	81.6		
PLC/Group Costs	4.4	13.4		
Total	95.0	95.0		
% revenue	27%	27%	<25%	<20%

### Cost reduction initiatives:

- Restructuring Automotive & Industrial
- Global back office efficiency improvements



## **DISCIPLINED CAPITAL ALLOCATION**





## TARGETED FINANCIAL MILESTONES IN TRANSITION



26 MAY CAPITAL MARKETS DAY

### RICARDO

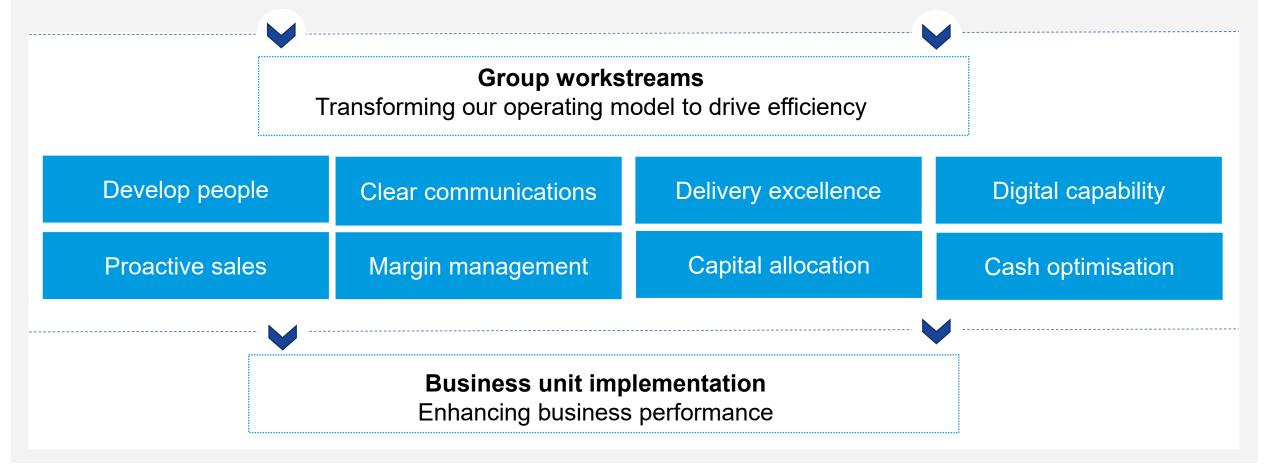


# **OPERATIONAL EXCELLENCE**

Mary Moore

# CONSISTENT EXECUTION IN OUR OPERATING MODEL

Driving operational efficiencies and delivering enhanced growth through shared operating model and standard ways of work that will ensure maximum value





### Investing in our people TALENT ACQUISITION AND DEVELOPMENT TO SUPPORT GROWTH

TALENT (

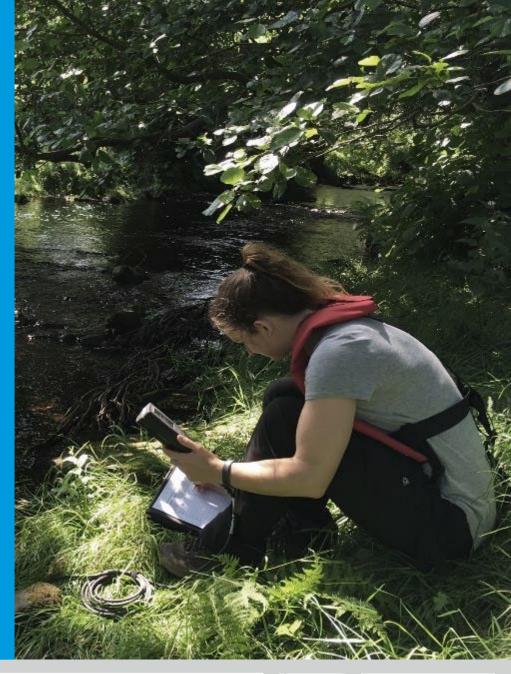
Personalised candidate experience Candidate market led attraction tools Profile spotlights Diverse candidate pools

TALENT DEVELOPMENT

Linked business & capability planning Establishing workforce planning

TALENT RETENTION

70 people already benefitting from LTIP Redesign of short term incentives





## STRIVING TO ENABLE MEANINGFUL AND FULFILLING WORK

A clear Employee Value Proposition (EVP) that embeds innovation and inspiration across the Group



- Pride in doing quality work for our customers
- Breadth of experience and global experience
- We use our know-how in science and engineering to create practical solutions
- Purpose-led in our approach
- We actively value diversity in our people
- Working with leading experts

### WHAT KEEPS OUR PEOPLE?

- Alignment to our purpose
- Growth in competence
- Creating connections
- Empowerment with real accountability



## CULTURE SHIFT TO TECHNICAL **AND** COMMERCIAL

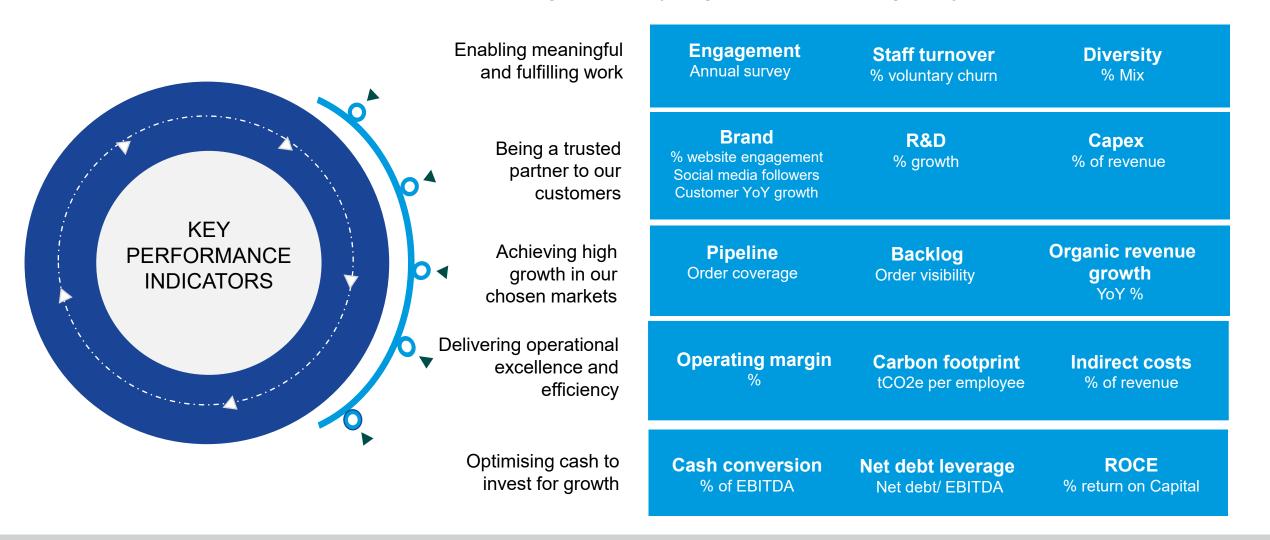
Leverage our technical expertise to create commercial value and deliver customer intimacy





# DATA DRIVEN PERFORMANCE CULTURE

Financial and non-financial targets closely aligned to our strategic objectives





# CULTURE GROWTH MILESTONES

### REFINE RICARDO DNA

- Refine vision, purpose, values and objectives
- Create clear ESG vision, actions and governance
- Establish clear
   communication channels

TODAY

### BUILD CAPABILITY & BELIEF

- Embedded Ricardo DNA
- Leaders equipped & capable
- Performance culture
- A networked group
- Defined EVP

- Workforce Planning
- Px change journey

FY 22/23

# CODIFY & SCALABLE

- Repeatable & scalable
   Px a "people" system
- Learning organisation
- Strengths based development
- Talent segmentation
- Organisation model and agility right sized

FY 23/24

OPERATING MODEL FOR GROWTH

- Automation & digital solutions
- Geographic scale
- Synergy benefits
- Operating model designed & implemented for growth

FY 24-26

### PURPOSE LED HIGH PERFORMANCE ORGANISATION

- Top quartile engagement
- EVP acts as talent magnate
- Established career paths
- Geographic and service capability scale creates new opportunities
- Established efficient processes creates organisational renewal

FY26/27





# **BUSINESS UNIT ALIGNMENT**

A&I Marques McCammon EE Tim Curtis Rail, PP and Defense Graham Ritchie

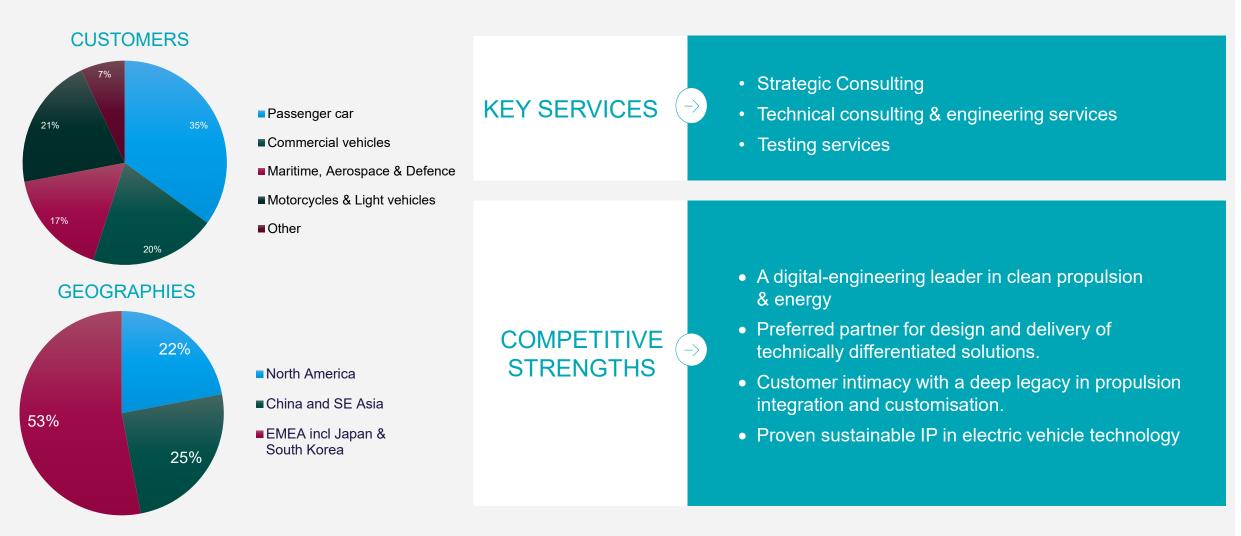


# AUTOMOTIVE & INDUSTRIAL STRATEGIC ACTION PLAN

We are a trusted advisor, helping customers around the world to solve complex mobility challenges

#### **AUTOMOTIVE & INDUSTRIAL**

# OUR BUSINESS AT A GLANCE

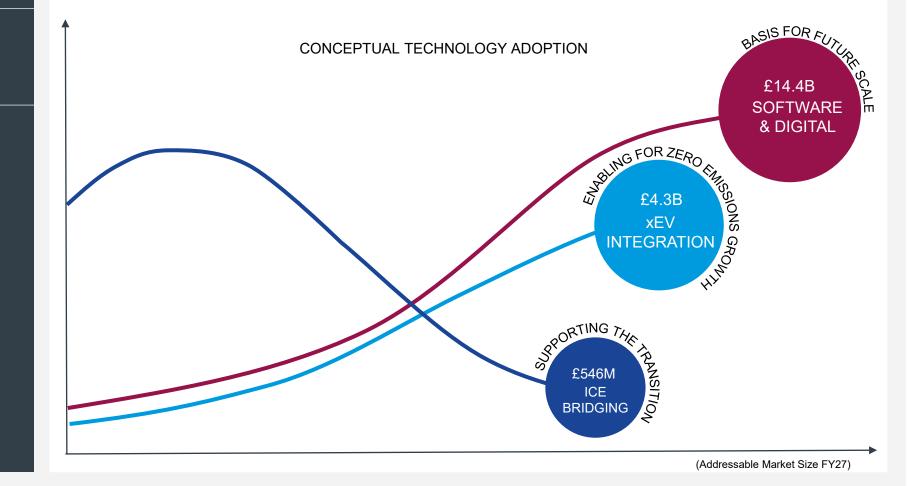




## ADDRESSABLE MARKET DEFINED BY 3 TECHNOLOGY ADOPTION CURVES

### 3 KEY MARKET SEGMENTS PROVIDE THE BASIS FOR A&I GROWTH STORY

- Digital solutions enablement underpins all three segments and forms the backbone for forward value creation
- Clear prioritisation based on market movement and growth horizons
- Base technology areas extends
   well beyond vehicle applications





# CLEAR FOCUSED ACTIONS BY KEY SEGMENTS

Deliver cash from our ESTABLISHED whilst scaling our EMERGING mobility solutions

### EMERGING Accelerating segment growth

- Retain, attract and develop talent in high growth segments
- Focused, agile capital allocation for revenue growth and ROCE
- Develop leadership in newer technologies
- Develop niche services in complex SW systems

# ESTABLISHED

Maximising returns leveraging scale and expertise

- Retain and develop expertise
- Review scale service efficiency and geographic footprint
- Lean, focused capital allocation to maximise cash and ROCE
- Continue diversification where the transition is more challenging
- Drive customer intimacy through key account management

## RICARDO

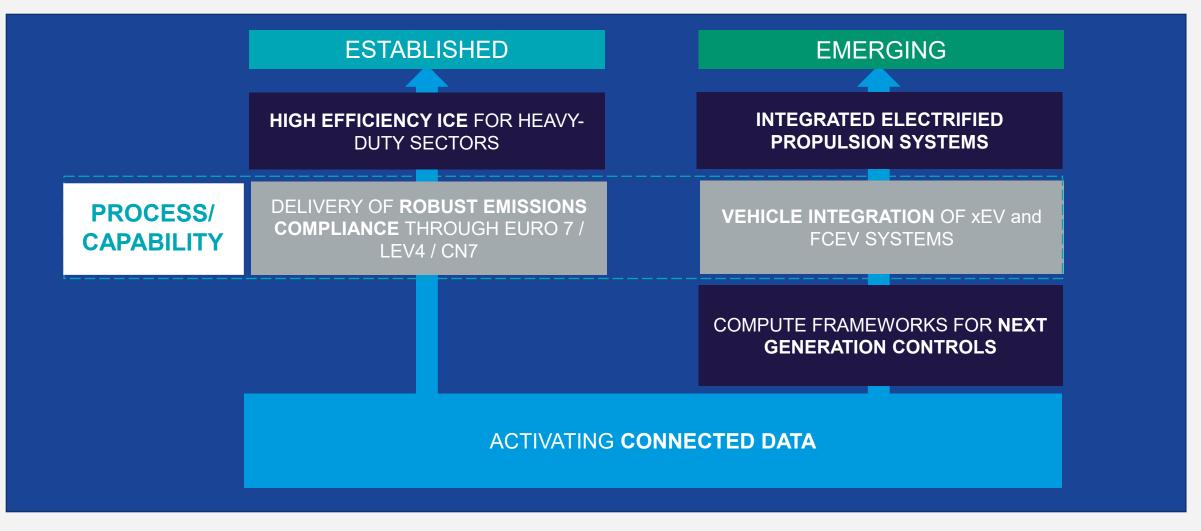
# HOW WE DELIVER SUSTAINABLE PROFITABLE GROWTH

A&I model for growth is focused on portfolio prioritisation closely aligned to market direction





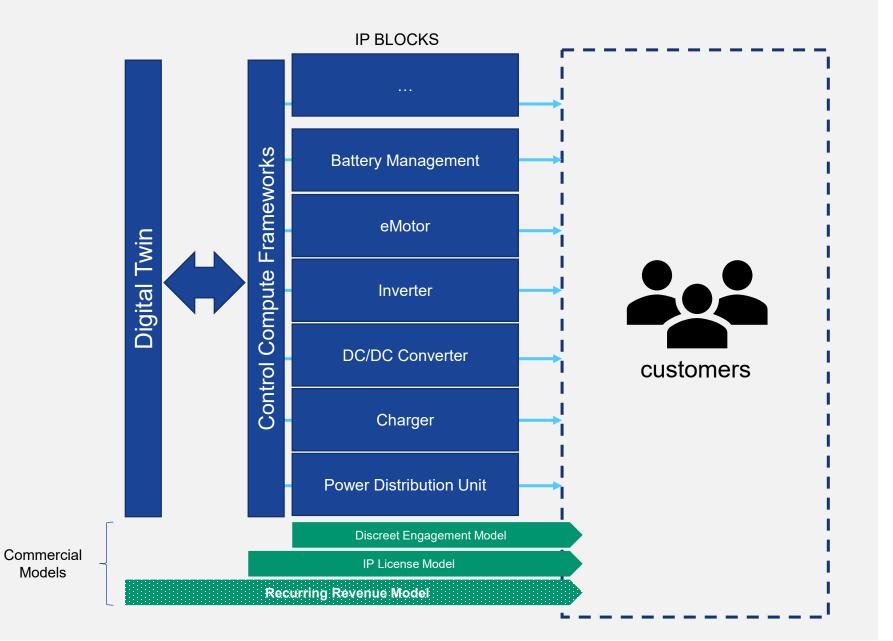
## OUR VISION TO BEING A TECHNOLOGY SOLUTION LEADER





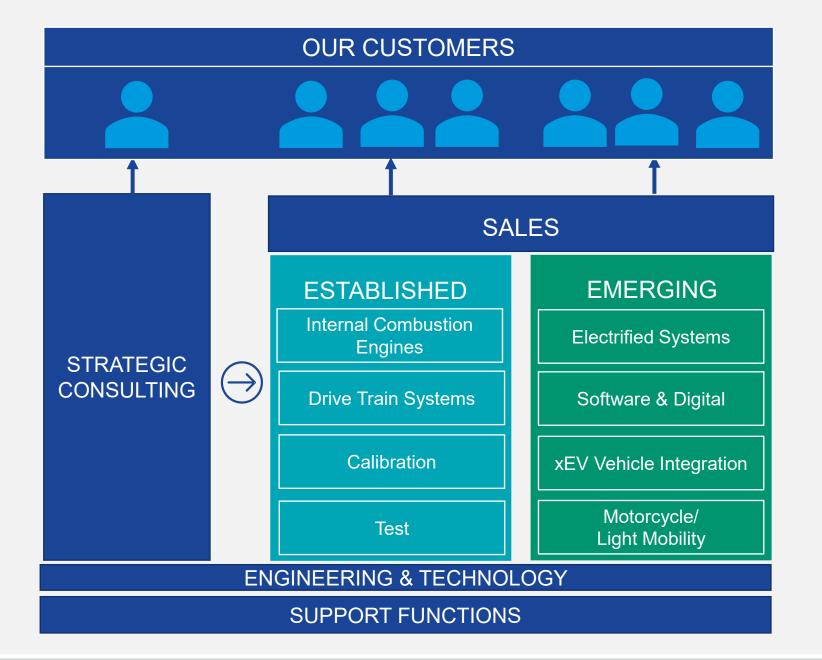
# DIFFERENTIATED IP FOR REPEATABLE CUSTOMER APPLICATION

- IP modules in xEV propulsion serve as building blocks to forward value proposition
- Technologies open doors to diverse commercial models and increased profit opportunity
- Digital Twin offers potential to unlock recurring revenue streams
- IP blocks at various stages of R&D and commercial deployment



# GLOBAL MANAGEMENT STRUCTURE TO ENSURE BEST PERFORMANCE

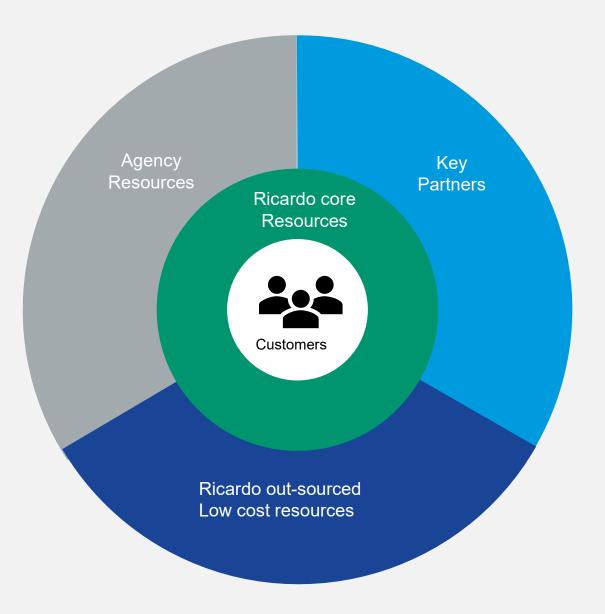
A structure that puts our customers first – where we provide the best solutions for their needs, pioneering innovation to solve their most complex problems





# GLOBAL ENGINEERING PEOPLE MODEL

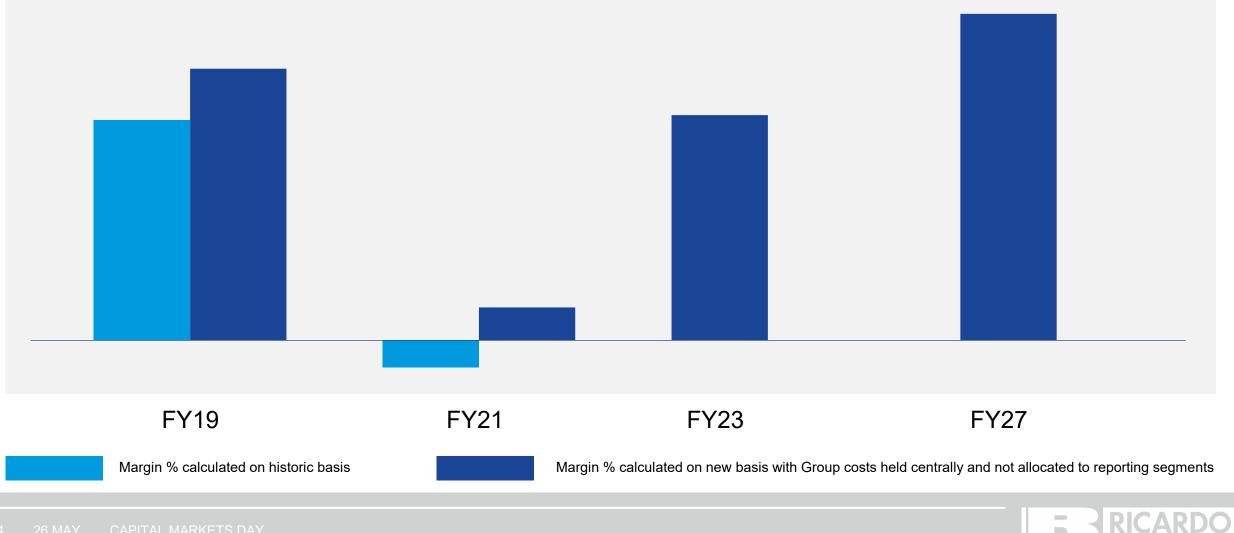
A holistic approach to talent acquisition for all skillsets and specialist capabilities





## SHAPE OF OPERATING PROFIT MARGIN

Targeting improved operating profit margin through acceleration of emerging technologies



### **A&I KEY TAKEAWAYS**



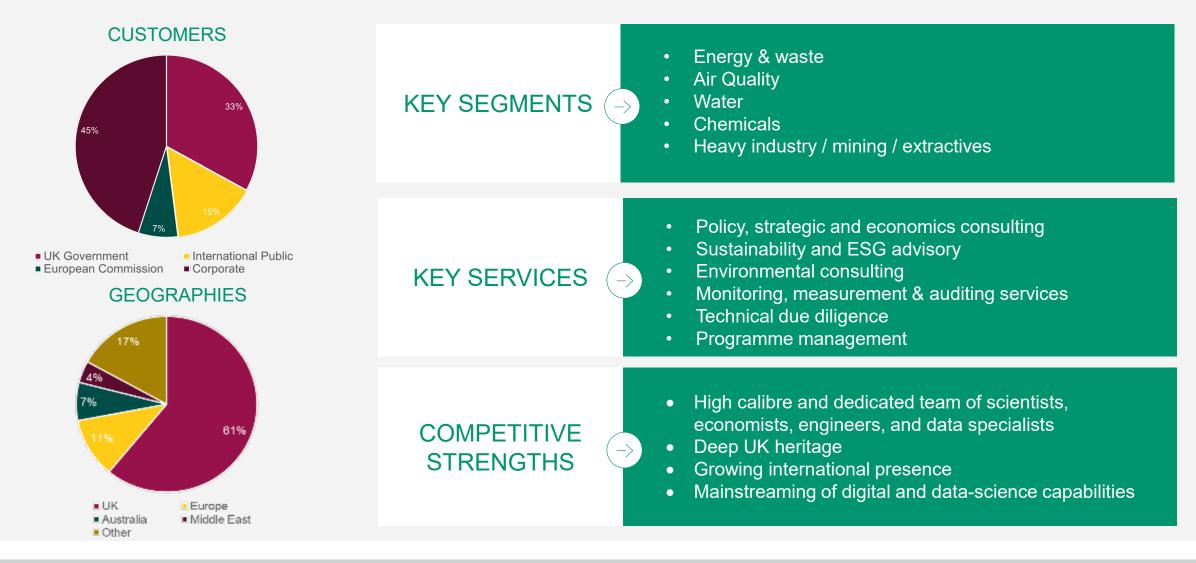


# ENERGY & ENVIRONMENT STRATEGIC ACTION PLAN

We are a trusted advisor, helping customers around the world to solve complex environmental challenges

#### **ENERGY & ENVIRONMENT**

# OUR BUSINESS AT A GLANCE





## HOW WE DELIVER SUSTAINABLE PROFITABLE GROWTH

Aligning our growth focus and excellence in execution to the Group's strategic priorities

# PORTFOLIO PRIORITISATION

#### Capitalising on global market trends

#### Services to solutions focus:

- · Sustainability as a solution
- Energy transition solutions
- Integrated digital solutions

# MARKET EXPANSION

#### Expanding key market positions

#### Geographic scale and reach:

• Focus on key territories to continue international diversification in Europe, Australia and the Middle East

#### Adjacent markets to drive growth

• Expansion of capabilities and skillsets into key sector areas e.g.: Mining sector

#### Market acceleration through M&A

- U.S market entry
- · Acquire new capabilities and technologies

# DISCIPLINED EXECUTION

Continuous improvement to maximise value

#### Investing in our people:

- Increased focus on junior recruitment
- Training academy acceleration programme
- Standardised recruitment process

#### **Operational effectiveness:**

- Enhanced collaboration through knowledge and resource sharing
- Aligned and simplified processes and systems to remain competitive



# DELIVERING SUSTAINABILITY AS A SOLUTION

How we bring the value chain to life

#### **STRATEGY**

Helping customers define what they want to achieve

- · Sustainability / ESG strategy
- Net zero strategy
- Packaging strategy
- · Circular economy strategy
- Site decarbonisation strategy
- Supply chain decarbonisation

### EVIDENCE

Understanding the baseline position

- Carbon foot printing
- Scope 3 assessment
- Energy auditing
- Materiality assessment
- Competitor analysis
- Policy & regulatory review
- Product LCA
- Benchmarking & gap analysis
- Sub-metering

Supporting customers throughout their sustainability journey

#### TARGETS & ROADMAPS Clear steps to achieving stated ambition

- Science Based Targets
- Net zero roadmaps
- Decarbonisation pathway
- Circular economy roadmap
- Product Sustainability Assessment

#### IMPLEMENTATION SUPPORT Ongoing support to achieve stated goals

- Sustainable Procurement
- · Circular economy business support
- Feasibility study
- Business case development
- Technology development
- Supply chain engagement
- Capacity building and training
- Implementation programme support

#### REPORTING & DISCLOSURES Helping customers define what they want to achieve

- Carbon reporting
- ESG reporting
- TCFD
- Product LCA



#### PORTFOLIO PRIORITISATION

# CORPORATE DECARBONISATION

Ricardo is working with award winning Scottish Whisky company, Whyte and Mackay to deliver our tried and tested six-step approach to planning and delivering net zero roadmaps

Repeatable modules of £30-£50k per stream

Clients are regularly taking 3-5 Modules (in parallel or series) Growth in decarbonisation projects YoY:

Over 50% revenue growth

### Our solution

To date Ricardo's experts have delivered the following support and benefits:

- Detailed strategic review providing confidence that their sustainability strategy is built on accurate science based calculations
- Modelling a range of mitigation measures
- Developed a net zero roadmap

### Next steps

We are continuing to work with Whyte and Mackay to build the governance and execution of the net zero pathway, helping to guide their net zero journey to successful outcomes

Ricardo's strategic relationship with Whyte and Mackay will support them in driving long-term sustainability



#### PORTFOLIO PRIORITISATION

#### Case study:

# **ENÉRGY TRANSITION**

Our solution Carbon capture: utilization & storage

### Customer benefits

- Ricardo, in partnership with Bluebox Energy are developing an innovative carbon capture utilisation and storage technology to remove greenhouse gases and provide local communities with renewable heat and electricity, and by-products for farming and green construction
- The technology will generate heat and power, capture and store carbon dioxide and also produces biochar
- The biochar (similar to charcoal) from the system can be used by farmers, anaerobic digester operators & waste/water treatment sites
- The intention is to have the first plant running by mid 2023

The onward development plan has identified potential for 5-20 full sized systems at £8-10m revenue per system

and mails

### RICARDO

#### **ENERGY & ENVIRONMENT**

Case study:

DIGITAL SOLUTION: ASSESSING ZERO EMISSION BUS CHARGING INFRASTRUCTURE NEEDS

Transport for West Midlands (TfWM) commissioned Ricardo to carry out research to investigate strategic charging infrastructure deployment for electric buses in the West Midlands.

> Scale of data science led solutions - £30 -£500k

£1m of data science led solutions in FY23

#### Solution & Approach

Developed a model using Ricardo's data science experts that analysed location and financial data, based on current routes and potential demand for an electric bus network

Ricardo produced a map identifying the optimum charger locations, providing a clear picture of the potential costs and benefits of charging infrastructure, and how it compares with depot-only charging solutions

Results

The results showed TfWM the optimum combination of electric buses and charging infrastructure, that can achieve operational requirements at the lowest total cost of ownership, helping them decarbonise operations effectively



## EE KEY TAKEAWAYS



EE revenue growth has been strong and consistent over the recent years, with operating margin rising 500bps in last 5 years. We aim to build on this to accelerate growth in a positive market



International climate and environmental policy leadership will provide the strategic and reputational platform for growth

Sustainability and ESG advisory services will be the growth engine over the next 5 years



Energy and transport sector decarbonisation will create downstream engineering opportunities for other Ricardo Business Units



A key area for acquisition, with a focus on both international (US) and digital







# FOCUSED EXECUTION ACROSS OUR OTHER BUSINESS UNITS

Aligned to our growth drivers, the business unit aligned strategic action plans accelerate Group's ambition

RAIL

#### EXPERTS IN COMPLEX RAIL SYSTEMS

### PORTFOLIO PRIORITISATION

- Develop advisory services
- Operational and maintenance support
- Green propulsion
- Environmental services through the supply chain
- Digital systems integration

### MARKET EXPANSION

- Geo expansion Europe, US, Middle East
- Urbanisation, intercity
- Proactive sales model

### **DISCIPLINED EXECUTION**

- Improve advisory and certification utilisation
- Support function efficiency

### **PERFORMANCE PRODUCTS**

NICHE MANUFACTURING SPECALISTS

### PORTFOLIO PRIORITISATION

- ICE niche production (engine & transmission)
- Niche battery assembly
- Niche EDU
- Niche New Product Introduction (N<sup>2</sup>PI) consulting offering

### MARKET EXPANSION

- Spares aftermarket
- E motorsport
- Aerospace

### **DISCIPLINED EXECUTION**

• Support function efficiency

### DEFENSE

#### EXPERTS IN SYSTEMS INTEGRATION

### PORTFOLIO PRIORITISATION

- Complex systems integration
- Life cycle operations training and maintenance
- Hybrid solutions
- Productise solutions

### MARKET EXPANSION

- TCO procurement support
- Long life assets enabling retrofit

### **DISCIPLINED EXECUTION**

Support function efficiency





# CLOSING REMARKS

Graham Ritchie

## **KEY TAKEAWAYS**

### RICARDO'S DNA

### **DISCIPLINED EXECUTION**

- Delivering value and purpose is in our DNA
- Evolution of vision, purpose and values to support our ambition
- We will lead by example on sustainability
- Integrated strategic objective to support profitable growth

### **PROFITABLE GROWTH**

- Strong market drivers for long term profitable growth
- Portfolio focus on environmental and energy transition
- Leading expertise already in key markets
- Services to solutions across value chain and BUs
- Digital development to enhance differentiation
- Geographic expansion to leverage operational scale
- M&A to support acceleration of portfolio transition

#### Workstreams to align group operating model

- Governance and process to develop alignment and efficient delivery
- Focus on engagement, talent acquisition and retention
- Developing commercial and performance culture
- Balanced KPIs with clear accountability

### STRONG FINANCIAL FRAMEWORK

- On track for short term delivery
- Clear phased plan for profitable growth
- Long term high growth, high margin and lower capital requirements
- Improved efficiency in indirect costs to below 20% of revenue
- Prudent leverage of less than 1.25 times EBITDA



**STRATEGY ON A PAGE** 

**EXECUTIVE** VISION PURPOSE VALUES **SUMMARY** We do this by enabling our customers Create together To create a safe and to solve the most complex and Aim high sustainable world **RICARDO'S** dynamic challenges to achieve a safe Be innovative DNA and sustainable world Be mindful STRATEGIC OBJECTIVES Delivering Enabling Being a trusted Achieving Optimising **PROFITABLE GROWTH** operational high growth meaningful & partner cash to invest excellence & delivery in our chosen markets fulfilling work to our customers for growth SHARED OPERATING MODEL PERFORMANCE CULTURE DISCIPLINED EXECUTION Transformational workstreams Aligned KPIs AMBITION: A leader in strategy and engineering consultancy for environmental and energy transition





# THANK YOU

**Questions?**