EDISON

Melrose Industries

Update – ESG Focus

Accelerating sustainability

Industrials

Melrose embraces sustainability through two avenues: internally through continuous development of its ESG practices and externally through the development of enhanced or completely new products that assist global decarbonisation. The former offers the potential to improve the internal operations of acquired businesses, an inherent part of Melrose's 'buy, improve, sell' strategy, and the latter offers accelerated growth opportunities through the increasing push to reduce global emissions. Improvements in both are likely to enhance the key value realisation 'sell' element of the Melrose strategy. This review provides a discussion and analysis of the group's sustainability actions, goals and performance to assist investor understanding. An overall rating is not provided.

Year end	Revenue (£m)	PBT* (£m)	EPS* (p)	DPS (p)	P/E (x)	Yield (%)
12/20	7,723	(41)	(0.6)	0.75	N/A	0.6
12/21	7,496	252	4.1	1.75	28.0	1.5
12/22e	7,699	360	6.4	2.25	18.1	1.9
12/23e	8,348	545	9.6	3.00	12.1	2.6

Note: *PBT and EPS are normalised, excluding amortisation of acquired intangibles, exceptional items and share-based payments.

Internal sustainability

Melrose's strategy involves acquiring businesses and hence its sustainability performance is initially inherited and improvements are therefore arguably the key measure for group ESG performance. In 2021, the group made progress in seven of the 10 sustainability metrics reviewed (two others could not be adjusted for disposals and employee diversity was unchanged) albeit this was overshadowed by a tragic fatality in the aerospace division. These metrics were broadly in line with peers (five above and five below). Melrose set a number of key targets in 2021 including reducing Scope 1 and 2 intensity (tonnes CO_2 per £m of sales) by 20% by 2025 from 2021 levels (40% by 2030) and be carbon net zero before 2050 - in line with the Paris 1.5°C roadmap. 50% of electricity from renewable sources by 2025, 5% of waste to landfill by 2025 (zero by 2030) and lost time accident rate less than 0.1 (accidents per 200,000 hours).

Environmental led opportunities

Given its exposure to carbon intensive sectors including automotive (60%) and aerospace (34%), the greatest impact Melrose can have is through developing products to accelerate the decarbonisation. Continuous operational improvement within the current portfolio provides incremental benefits and therefore carbon reduction. The group also has a portfolio of new products aimed at decarbonisation, supported by £153m of annual product development for low carbon technologies in 2021. EV powertrain opportunities are current/near term, some such as hydrogen storage or electric aerospace are nearing commercialisation, while others, such as hydrogen powered aircraft, are rather more in the development stage. The group is targeting 50% of R&D and 50% of new products (75% for both by 2030) for products associated with decarbonisation.

17 May 2022

Price	**116p**
Market cap	**£5,086m**
Net debt (£m) at 31 December 2021	950
Shares in issue	4,372m
Free float	98.7%
Code	MRO
Primary exchange	LSE
Secondary exchange	N/A

Share price performance

%	1m	3m	12m
Abs	(5.4)	(26.6)	(29.1)
Rel (local)	(2.8)	(24.2)	(31.0)
52-week high/low		191p	108p

Business description

Melrose Industries acquires underperforming industrial companies. It undertakes operational improvements through restructuring and investment before disposing of the assets. Deals are individually financed through new equity (and debt) with proceeds returned in cash post value realisation

Next events

Capital markets event	8 June 2022
Interim results	8 September 2022

Analyst

David Larkam +44 (0)20 3077 5700

industrials@edisongroup.com

Edison profile page

Executive summary

This review focuses on the sustainability agenda, performance and opportunities at Melrose. The report is broken down into two sections: i) internal performance focusing on internal achievements against environmental, social and governance metrics and targets; and ii) environmental-led opportunities focusing on the decarbonisation opportunities the group is pursuing. The latest Edison financial review was released on 12 April.

The key to Melrose's internal sustainability performance is GKN (97% of sales ex JVs in 2021), which was acquired in 2018. Given the group strategy to 'buy, improve, sell', improving its sustainability performance, both internally and externally, can potentially influence value as well as an ESG impact.

Internally the agenda has been developing in recent years both in terms of depth of measurement and in ambition, with key targets being set in 2021. In 2021 the group made progress in seven of the 10 sustainability metrics reviewed (two others could not be adjusted for disposals, and employee diversity was unchanged), albeit this was overshadowed by a tragic fatality in the aerospace division. These metrics were broadly in line with peers (five above and five below), as highlighted in Exhibit 1, albeit disclosure from peers is generally less granular. Key target initiatives set in 2021 include a 20% reduction in Scope 1 and 2 emissions intensity by 2025 from 2021 levels, 50% of electricity from renewable sources by 2025, less than 5% of waste to landfill by 2025 (zero by 2030) and lost time accident rate less than 0.1 (accidents per 200,000 hours). Achieving these targets should assist in promoting the group's sustainability ratings.

Exhibit 1: Summary of key sustainability performance metrics for 2021

		Melrose	Peer average	Peer range	Relative to peers	Melrose target
Scope 1&2 emissions	tCO_2e	723,600				Net zero before 2050
Scope 1&2 intensity	tCO_2e/£m	105	90	54 to 215	-	
Scope 1&2 intensity reduction	%	3	8	-7 to +31	-	20% reduction by 2025 (c 5% pa)
Renewables as proportion of electricity used	%	1.5	20	0 to 50	-	50% by 2025 (depending on availability)
Waste intensity	t/£m	23.6	20	7-41	-	
Recycling	%	87	77	33 to 97	+	
Waste to landfill	%	5.7	9	3 to 28	+	5% by 2025/zero by 2030
Water intensity	m^3/£m	0.52	0.48	0.14 to 1.8		
Health & Safety - Lost Time Accident Frequency Rate	Rate per 200,000 hours worked	0.06	0.31	0.06 to 0.60	+	Achieve and maintain below 0.1
Health & Safety fatalities	Number in year	1	0	0	-	
Employee turnover	%	9 (voluntary)	14.5	2 to 26	+	
Training hours per employee	Hours per employee	23	6.5	3.4 to 23	+	
Employee diversity	% females	20	19.5	2.3 to 28.0		33% at executive and board level

Source: Edison Investment Research

External opportunities provide the greatest potential impact to the environment given GKN's exposure to carbon intensive sectors including automotive (60%) and aerospace (34%), seen as a 'hard to abate' sectors. Continuous improvement of the current portfolio provides incremental efficiency benefits and therefore carbon reduction. The group also has an exciting portfolio of new products aimed at decarbonisation that have been supported by £153m invested in carbon reduction product development in 2021. EV powertrain opportunities are current/near-term, some, such as hydrogen storage or electric aerospace, are nearing commercialisation, while others, such as hydrogen powered aircraft, are rather more in the development stage.

Internal performance

This section reviews the key internal sustainability metrics and targets and compares performance to peers where possible; note disclosure from some peers is more limited. We have not provided an overall rating but have included the Melrose score from key ESG ratings agencies.

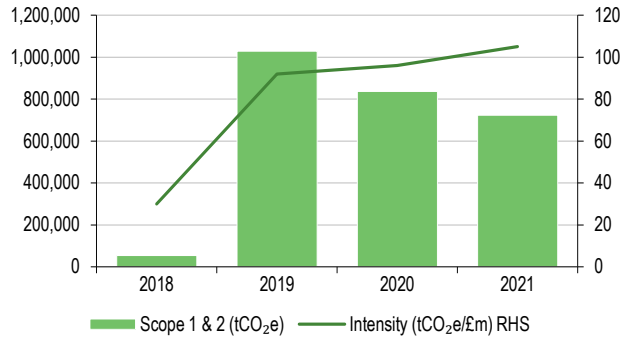
Environmental

Emissions

Melrose achieved a 14% reduction in absolute emissions and 6% in energy consumption in 2021 through a combination of underlying improvements and disposals. In 2021 the group invested c £10m on LED lighting retrofits, more efficient heating, ventilation and air conditioning (HVAC), renewable energy installations, insulation improvements and energy efficient equipment to improve energy consumption and lower its carbon footprint. Exhibits 2 and 3 show its performance since 2019, which was the first year to include GKN, acquired in 2018. 2020 usage declined due to COVID-19, while 2021 declines were largely due to the impact of disposals in the year, which are excluded. Adjusted for the disposals we estimate that emissions intensity (tonnes CO_2 per £m of sales), which increased on a headline basis, would have declined by 3%. Note that the figures are dominated by businesses acquired as part of the 'buy, improve, sell' strategy given the small size of Melrose's core operations, primarily from the central head office which has been carbon neutral for the last three years.

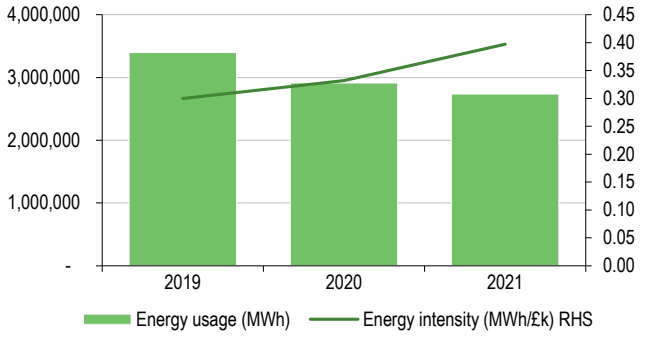
At the end of 2021, 112 sites (74%) were certified to ISO 14001 standard (environmental management systems), and 28 sites (18%) had achieved ISO 50001 (energy management) certification.

Exhibit 2: Emissions (Scope 1 & 2)



Source: Melrose Industries

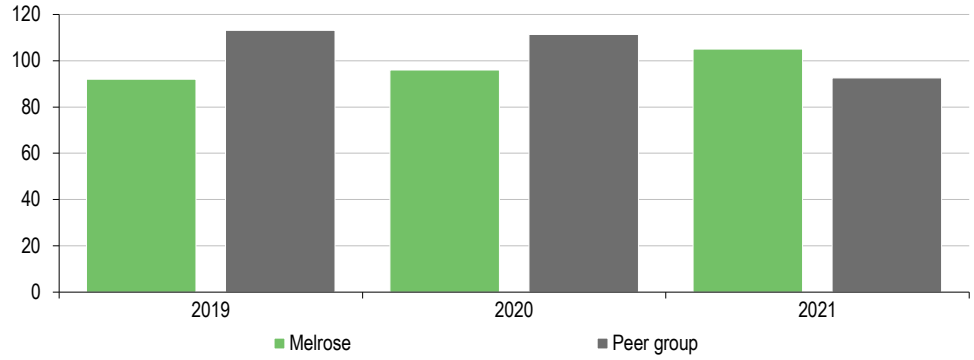
Exhibit 3: Energy usage



Source: Melrose Industries

Emissions intensity offers the best cross peer comparison, albeit different types of manufacturing (for example melting metal versus component assembly) will have different energy requirements. Melrose's 2021 headline emissions intensity increased and is now above the peer average. This partially reflects the impact of disposals, albeit even adjusting for these our estimated 3% underlying improvement is behind the peer average of 8% in the year.

Exhibit 4: Scope 1 & 2 emissions intensity (tCO_2e/£m)



Source: Edison Investment Research

The group reported Scope 3 emissions (upstream and downstream emissions that occur in the company's value chain) for the first time in 2021. At 78,835 tonnes of CO_2 equivalent (tCO_2e) emissions, this included business travel, fuel-related well-to-tank, electricity transmission and distribution losses, and water supply, suggesting coverage of four of the 15 potential categories under the Greenhouse Gas Protocol. Given the high in-use emissions figures in aerospace and automotive, discussed in more detail later in this document, we would expect full Scope 3 disclosure to increase significantly. Note the company has committed to greater engagement with suppliers in 2022 to better understand its Scope 3 footprint.

Melrose has set out its emissions targets:

- Reduce global Scope 1 and Scope 2 emissions intensity (CO_2e/£m) by 20% on average across the businesses by 2025 and 40% by 2030 from the 2021 baseline. Achieve net zero Greenhouse gas emissions before 2050.
- Source 50% of electricity from renewable sources by 2025 and 75% by 2030 (depending on availability).

The renewable target appears challenging given that only 1.5% of electricity was generated from renewables in 2021 (up from 0.4% in 2020). Given the increasing cost parity between renewables and carbon intensive electricity, management intend to enter agreements to purchase renewable power where available. The emissions intensity target will require c 5% improvement a year, which compares to Edison's estimate of a 3% reduction achieved in 2021. These targets appear closely aligned with the Paris 1.5% annual reduction requirement of 4.2% according to the Science Based Targets initiative (SBTi), although the renewables element is below their 80% 2025 threshold. Note these targets have not been submitted to the SBTi, which would also require further Scope 3 disclosure and analysis.

Exhibit 5 highlights the range of targets set by peer companies, including commitments to SBTi (note 'committed' under the SBTi is the first stage of registering to set a target).

Exhibit 5: Emissions targets

	Carbon intensity	Renewables	Carbon neutrality	SBTi – Near term	SBTi – Net Zero
Melrose	**20% by 2025 (c5% pa)/40% by 2030**	**50% by 2025**	**Net zero by 2050**		
AMM	Intensity 5% reduction a year	100% in US by 2025	2040	Committed	Committed
Borg Warner	50% reduction 2005–30 (c 4% pa)		2035 Scope 1&2		
Dana				Committed	
FACC	40% reduction by 2030 from 200 (c 3.5% pa)		2040		
Magna	> 2% pa reduction in intensity	35% by 2025		Committed	
MTU	Carbon neutral production in line with the ecoRoadmap in Munich and the local roadmaps				
Nexteer	3% a year				
Schaeffler	Neutral own production by 2030	100% by 2024	2040		
Senior	Absolute 6% a year to 2025			1.5°	
Spirit	Absolute reduction 3.5% a year to 2030	100% by 2030			
ZF	80% by 2030 (14% pa)	100% by 2030	2040	1.5°	Committed

Source: Companies, SBTi

Finally note that Melrose provides a comprehensive analysis of emissions and energy consumption by type, offering far greater granularity than peers.

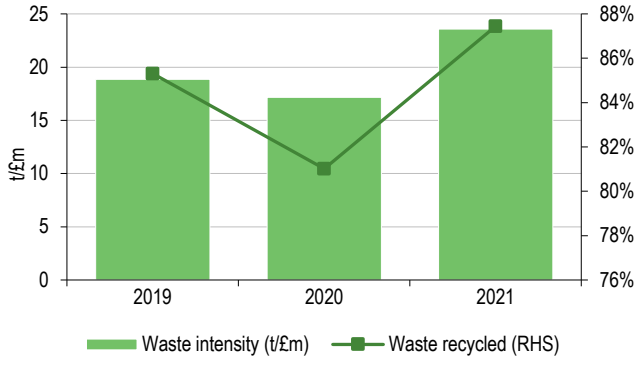
Waste

The group generated 162,000 tonnes of waste in 2021, an increase of 8%, ahead of the 2% organic top-line growth before accounting for the impact of disposals (historical information required to provide adjustments is not available). Intensity increased to 23.6 tonnes per million pounds. GKN operations entail high levels of cutting and grinding, leading to significant amounts of swarf and therefore higher amounts of scrap. Hence the importance of waste treatment. Recycling increased to 87% (from 81%, predominantly in house) while landfill reduced 41% to 9,175 tonnes or 5.7% of all waste.

Melrose's stated landfill target is 5% of total waste by 2025 and zero landfill by 2030. It does not currently have a stated recycling or overall waste reduction target.

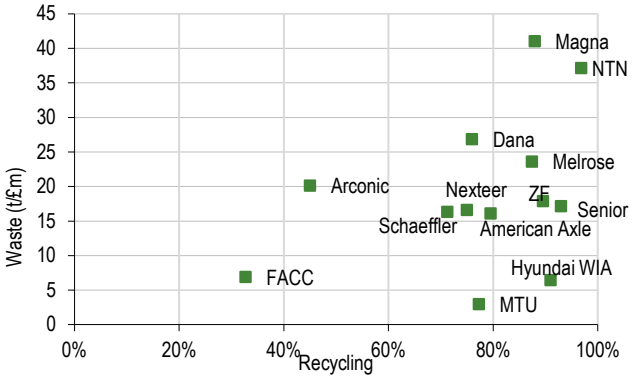
Peer comparison depends significantly on actual processes (assembly generally having lower waste than manufacturing). Exhibit 7 provides a view of waste intensity versus recycling, albeit many companies are yet to fully disclose such information. The preferred space in the chart is the bottom right quartile (as minimum waste, maximum recycling as a company's processes will permit).

Exhibit 6: Melrose waste generation



Source: Melrose

Exhibit 7: Waste generation and recycling



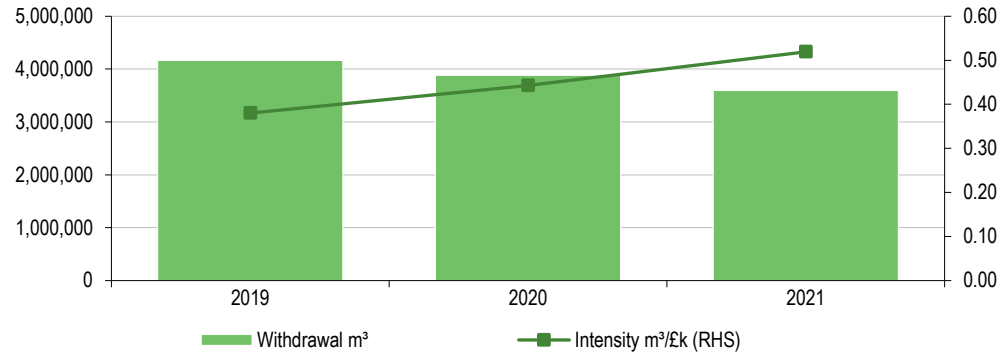
Source: Company information

Water

Total water usage has been declining but the intensity has been increasing. Key reasons behind this include increased measurement, moving from 80% of sites reporting in 2019 to 100% in 2021, reduced activity due to the pandemic and the impact from disposals made in 2021, which were less

water intense (historical figures on disposed companies are not available). In 2021 Melrose assessed that 20% of sites are located in areas of 'extremely high' baseline water stress and a further 15% located in areas of 'high' baseline water stress. Details of actions to reduce stress in these regions are expected going forward. Note management intends to report water usage to CDP in 2022 and develop group-wide reduction targets. This should assist with the somewhat limited disclosure in certain areas such as water recycling.

Exhibit 8: Water withdrawal



Source: Melrose

Circular economy

While emissions are a key focus for sustainability for many companies, the shift to a circular economy is also gaining increasing attention. In this respect, 88% of Melrose products by sales are recyclable (own internal survey covered 49% of sales) and 60% of input materials were from recycled or remanufactured content (survey covered 63% of group sales).

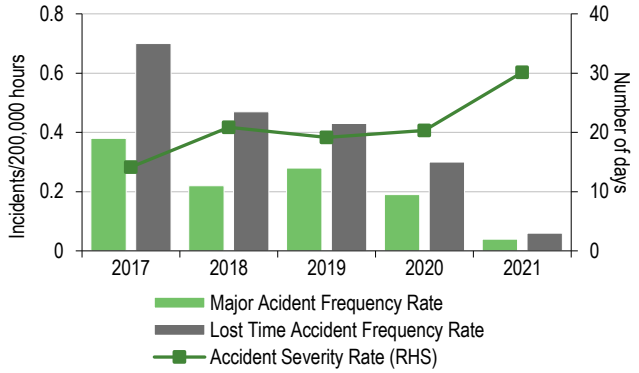
Social

Health and safety

2021 saw positive continuous improvement in the key metrics, but this was overshadowed by a fatal incident at the group's Aerospace division site in Papendrecht, the Netherlands. Excluding this tragic event, good progress has been made in recent years with lost time accidents at 0.06 per 200,000 hours (equivalent to approximately one per 1,600 employees in the year), within management's target of below 0.1. Exhibit 10 puts Melrose at the top end of peers for lost time accidents in 2021 (a number of companies still do not report) or in line with the average looking at Melrose's average since the acquisition of GKN.

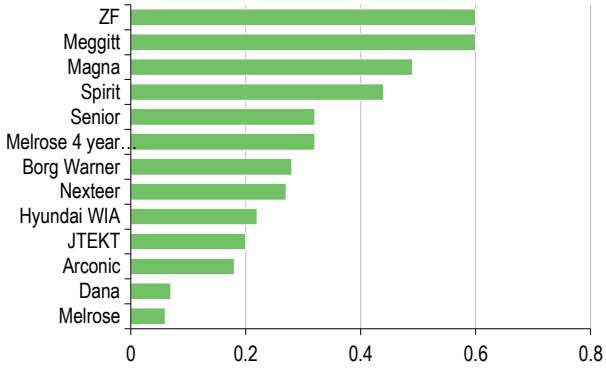
Part of the programme for safety is driven by ISO 45001 (occupational health & safety). 74% of sites (inclusive of office, production and testing sites) within the group were certified at the end of 2021, including 100% of GKN Automotive production sites and test centres.

Exhibit 9: Melrose accident statistics



Source: Melrose

Exhibit 10: Lost time accident rate (per 200,000 hours)



Source: Companies, Edison Investment Research

Employee turnover

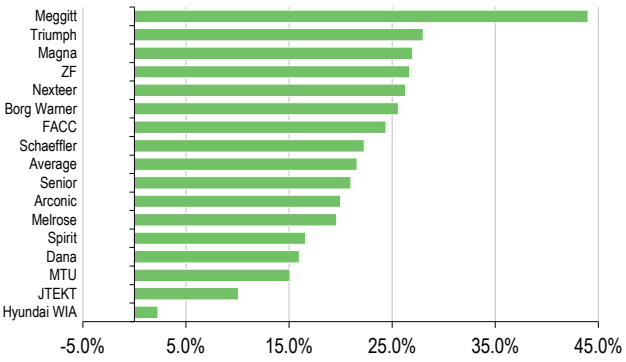
Employee voluntary attrition was 9% in 2021. This puts Melrose in the mid-range of peers (50% of peers reporting) at 2% to 26% - lower in Japan/South Korea and higher in North America. With limited standards and comparables, key is the decline from 10% the previous year. In terms of training, Melrose's average is 23 hours per employee, up from 13 hours and the highest in its peer group (35% reporting). Melrose training spend per employee was £209 up from £166. Melrose has a £10m five-year skills fund focused on training in the UK.

Gender diversity

Overall group employee diversity remains at only 20% women, arguably reflecting the heavy manufacturing nature of the business and puts Melrose in the mid-tier of peers (average 19.5%). Diversity increased at the executive committee level to 36% from 35%. Melrose does not provide an ethnicity or age breakdown of employees.

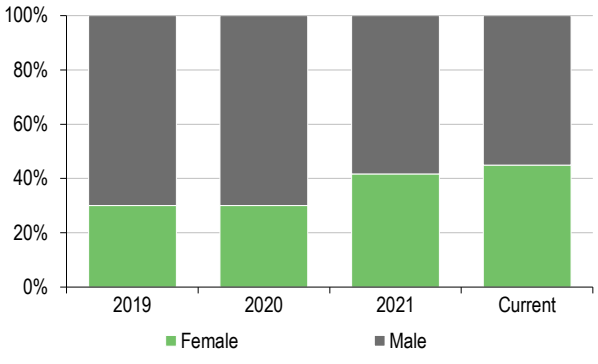
Board diversity has risen to 42% women at December 2021 from 30% in 2020, operating above the Hampton-Alexander Review target of 33%, and has one director from an ethnic minority background in line with the Parker Review.

Exhibit 11: Gender diversity – all employees



Source: Edison Investment Research, company information

Exhibit 12: Gender diversity – board



Source: Melrose

Pensions

Prior to acquisition, GKN had a significant pension deficit issue. Melrose made commitments of 'up to £1 billion' of additional funding on acquisition. By the end of 2021 Melrose had made £0.35bn of additional cash contributions while internal performance and other measures had added a further £0.75bn. As a consequence, funding levels have risen from 78% to 107% with the GKN 2016

scheme risk profile further reduced through a buyout with a major insurer. The trustee approval to halve the annual funding to £30m a year further highlights the improved position.

Governance

Remuneration

Melrose's executive pay is orientated towards a long-term incentive scheme linked directly to shareholder value creation, with executive directors' salaries and bonus opportunity being deliberately pegged below peers. The current long-term incentive scheme is due to crystallise on 31 May 2023. Melrose's pay structure has received strong shareholder support, most recently at the AGM on 5 May 2022 when the director's remuneration report (DRR) received over 97% approval. In 2021, the CEO's salary increased by 12.4%. However, this partly reflected the pandemic reductions undertaken in 2020 and a more meaningful measure is the 6% (3% pa) increase from the 2019 level. At £551k, this is well below the peer group average: 2020 UK 31 to 100 industrial, manufacturing and engineering companies with a lower quartile of £771k, median of £859k and upper quartile of £954k (source: Spirax-Sarco remuneration report). The median ratio for CEO to employee pay for 2021 was 29:1 (median UK pay £37k).

Sustainability was historically included within the 'strategic targets' of the executive bonus scheme but split out with explicit objectives for the first time in 2021. The targets were 80% based on financial metrics (EPS growth) and 20% on strategic objectives including sustainability at 4% (Exhibit 13). Peer group CEO bonus targets include sustainability at 0% to 25%. The sustainability objectives are split into i) publish sustainability targets and commitments; ii) publish inaugural Task Force on Climate-Related Financial Disclosures (TCFD) disclosures (a requirement for all main market listed companies from December 2021); and iii) improve sustainability benchmarking scores and external disclosure.

Exhibit 13: CEO annual bonus targets 2021

EPS growth	80%
Completion of restructuring	4%
Sustainability	4%
Cash generation across the group	3%
Reduction of Group debt and liabilities	3%
Return to margin target path	3%
Improving UK pension scheme funding	3%

Source: Melrose

Audit quality

No qualifications were made by the auditors in their opinion statement. Of note were comments on the loss-making contract provisions (£167m at December 2021). The accounts comment on the complexity of assessing these provisions and that the loss-making provisions in Automotive are no longer material. However, they also comment that 'there is still a heightened risk due to the wider macroeconomic factors that impact the valuation of the loss-making sales already identified, but also increases the risk that additional contracts may have now become loss-making. Therefore there is still a heightened risk around the completeness of loss-making sales'.

Tax strategy

The company maintains a straightforward tax structure, often unwinding the complexities of previous owners. This generally assists in any disposal. The current underlying corporate tax rate is 22%.

Financial structure

The group had gross debt of £1,365m at 31 December 2021 (net debt £950m). This comprised two bonds acquired with GKN (£450m maturing in 2022 and £300m maturing in 2032) with the remainder from bank debt. None of these facilities carries sustainability-linked targets.

External ESG ratings

Key ratings agencies views on Melrose can be found on page 8 of the company's Sustainability Report or from the relevant agencies:

CDP : CDP Scores.

MSCI : MSCI search tool.

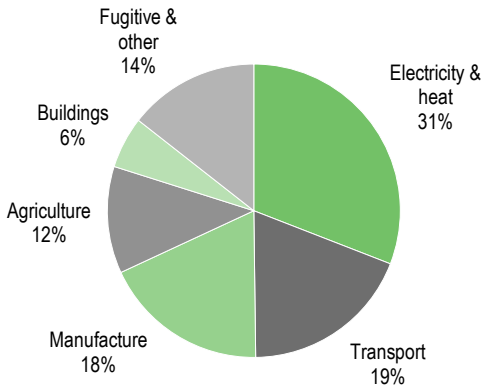
Sustainalytics : Sustainalytics search tool.

Environmental-led opportunities

The 'improve' element of Melrose's strategy includes enhancing the growth profiles of the businesses acquired. Sustainability and decarbonisation offer some of the fastest-growing markets for industrial companies and hence opportunities for Melrose subsidiaries. This has been highlighted though Nortek and the investment in StatePoint Technology, which enables savings of up to 30% for energy consumption and up to 90% for water usage on cooling systems. A key market has been in the fast-growing data centres arena. This development no doubt assisted with the disposal of Nortek Air Management in 2021.

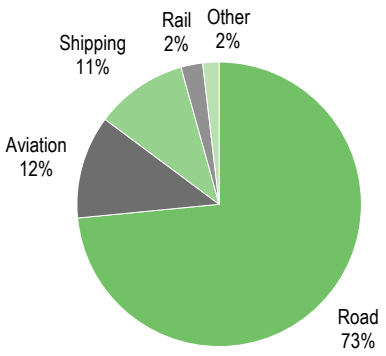
Scope 3 'in-use' emissions generally account for around 75% of emissions in automotive and more than 90% in aerospace. As a consequence, Melrose can make the greatest difference to its total emissions through development of its end-products.

Exhibit 14: Source of emissions



Source: Our World in Data

Exhibit 15: Transport sector emissions



Source: Our World in Data

Hence Melrose has significant opportunity to participate in the decarbonisation of the economy as these sectors look to improve efficiencies and convert to zero emissions power sources. This will also have a significant impact on Melrose's overall emissions. This can clearly be seen in the automotive sector, where the shift to electrification is accelerating. The average internal combustion engine (ICE) car emits around 1.5tCO_2e a year. Almost two million battery electric vehicles (BEV) were sold globally, excluding China, in 2021, which translates to annual savings of 3mtCO_2e. GKN has a market share of c 50%, suggesting that vehicles with GKN product will be saving c 1.5mtCO_2e a year. While Melrose cannot take all the credit for this, given the input from other suppliers, it compares to group Scope 1 and 2 internal emissions of 723,360tCO_2e in 2021.

Targets

To promote development in this direction, Melrose has set out the following targets:

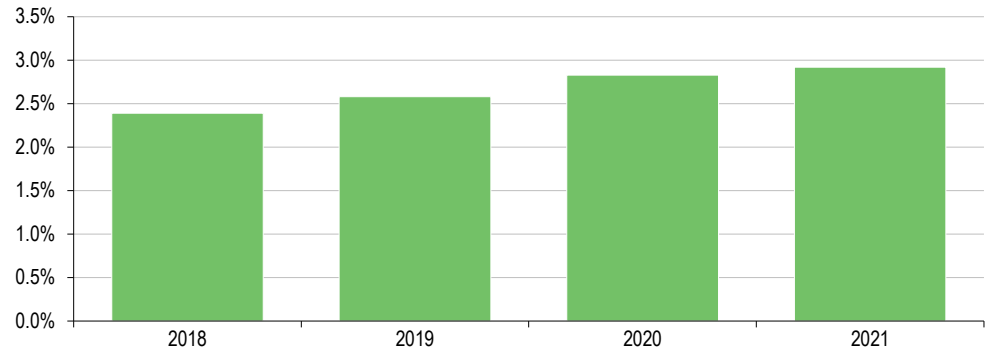
- Achieve 50% of total R&D expenditure on climate-related R&D per year to contribute to the decarbonisation of the sectors in which its businesses operate by 2025, 75% by 2030 and 100% by 2040.
- Achieve 50% of new products which contribute to the decarbonisation of the sectors in which its businesses operate by 2025, 75% by 2030 and 100% by 2040.

Current performance

To support such activities, Melrose continues to invest in R&D which stood at £201m or 3.0% of sales in 2021 (ex JVs). This increase in intensity, as shown in Exhibit 16, is despite the inevitable

cost to the group's key margin targets. Melrose also states that it invested more than £153m in products aimed at cutting emissions in 2021.

Exhibit 16: R&D as percentage of sales



Source: Melrose

An internal review found that revenue from products designed to increase fuel efficiency and/or reduce emissions was £1,039m in 2021. This equates to c 15% of sales, although we note that this review only covered 49% of group sales.

Projects and products

Attention tends to be focused on the game-changing technologies but much of GKN's development is incremental and can still have a significant environmental impact. This includes:

- Light-weighting. The use of composites in aerospace or the developments in additive manufacturing which enable the manufacture of complex component shapes to offer the potential to improve fuel efficiency.
- Improved internal manufacturing. Since acquisition by Melrose, c £0.7bn has been spent on restructuring GKN. The key aim is to improve efficiency and financial performance including the margin targets set by management. Efficiency tends to mean greater throughput, often with fewer facilities, thereby reducing the carbon footprint of both group and individual end-products.

Melrose points to GKN Automotive's position in disconnect all-wheel drive (AWD) technology, which helps reduce AWD-related CO_2 emissions by up to 80% through increased efficiency (30%), reduced weight (20%) and increased durability (25%). Management estimates that the 525,000 systems sold in 2021 will reduce vehicle emissions by more than 45,000 tonnes of CO_2 annually.

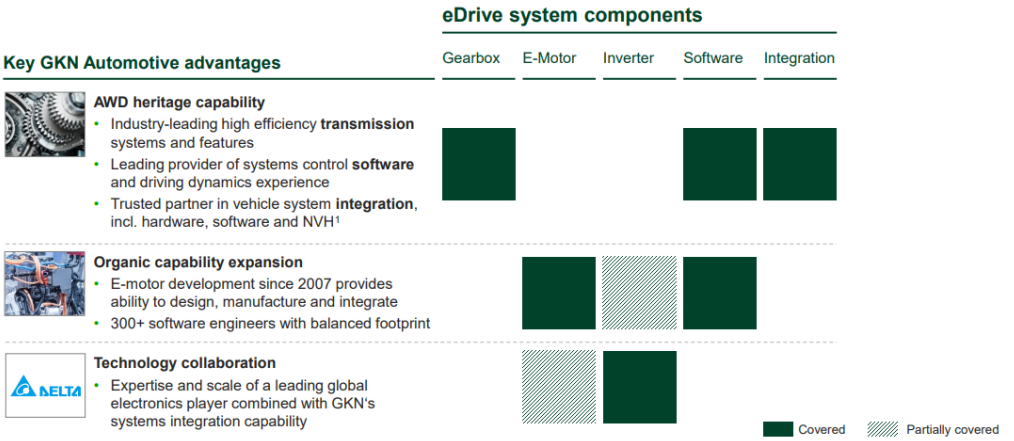
The group is involved in a number of varied projects, some already revenue generating and some still in the development stage. These include:

Automotive

The pathway to zero emission vehicles is now well established and even accelerating – EV (battery and plug-in hybrids) sales grew 108% in 2021 accounting for 4.6% of the global light vehicle market source: Jato Dynamics). EV motors operate at higher rotation speeds and produce higher torque than ICE motors. This necessitates different dynamics for the drivetrain (taking the power from the motor to the wheels). Complex six- or eight-speed gearboxes are no longer required, often using a single speed system. This might appear to eliminate complexity but brings in other challenges such as the wider performance envelope (speed and torque) which the drive system is required to handle. GKN has been moving up the value and technology chain from driveshafts to propshafts and into AWD systems providing the group with complete integration and software capabilities. These competences, along with specialist third parties as highlighted in Exhibit 17, have enabled GKN to develop a complete eDrive solution. The three-in-one system effectively integrates an

electric motor and inverter together with the single-speed transmission module that scales up the torque. It also includes power management, clutch and torque vectoring and can obviously be linked with GKN's traditional products such as sideshafts (delivering the rotational power to the wheels).

Exhibit 17: GKN capabilities



Source: Melrose

By 2021, GKN had already delivered more than 1.5m systems to customers. Continued success can be seen by the order intake of c £5bn of 'life of programme' new contracts in 2021, of which nearly 50% were for electric vehicle platforms.

Aerospace

The importance of in-use emissions is perhaps best demonstrated by Airbus. In 2019 (ie pre-pandemic) Airbus's Scope 1 and 2 emissions were 954ktCO_2e whereas Scope 3 indirect CO_2 emissions from 'use of sold product' were 736,003 ktCO_2e. The air transport industry has committed to halving CO_2 levels by 2050 from a 2005 baseline, some way short of the Paris 1.5° target, and to be neutral by 2060. This reflects the difficulty in achieving reductions, with the sector falling into the 'hard to abate' part of the economy.

Potential from existing products is not being ignored, as highlighted by GKN Aerospace's 'Wing of Tomorrow' programme. Led by Airbus UK, the aim is for an improved composite-based wing for single aisle aircraft, offering the potential for improved performance and significant CO_2 savings. GKN Aerospace is investing more than £25m in the programme over three years. On the more futuristic side, GKN is using its hydrogen, composite and electrical wiring expertise to help develop and supply components to a range of zero emissions aircraft.

Electric aircraft

GKN is involved with a number of electric aircraft start-ups including:

- Eviation. A US-based start-up developing a composite battery-powered, electric, nine-seater commuter aircraft called Alice with a range of up to 500 miles and speeds of 250mph. Trials are expected in 2022, with launch date around 2024. Announced orders include 12 for DHL and 75 for US regional airline Cape Air. GKN Aerospace has agreed to supply the wings, empennage and electrical wiring interconnection systems. In particular, this will leverage GKN's composite wing manufacturing expertise, as witnessed through its partnership with Airbus's 'Wing of Tomorrow' programme.
- Vertical Aerospace (NYSE:EVTL). Vertical is developing an electric vertical take-off and landing (eVTOL) aircraft. The original two-seater concept has been developed into a five-seater, 100-mile range aircraft, the VX4. The order book stands at 1,350 including American Airlines, Virgin

Atlantic and Bristow Group. The company is targeting certification in 2024 and deliveries commencing in 2025. The business listed on Nasdaq in 2021. GKN will manufacture composite wings and electric harnesses. Other partners include Rolls-Royce (electric powertrain), Honeywell (flight controls and avionics) and Solvay (materials).

- Joby (NYSE:JOBY). Joby is developing a five-seater eVTOL commuter aircraft. GKN is in discussions to supply components on the aircraft.

Hydrogen-powered aircraft: H2GEAR

H2GEAR is a collaborative project (GKN Aerospace partnering with Intelligent Energy, Aeristech, Newcastle University, The University of Manchester and University of Birmingham) to develop a hydrogen propulsion system for sub-regional aircraft (less than 100 passengers). The project aims to deliver a ground test of a complete 1MW powertrain, including the hydrogen storage, fuel cells, power management system and an electric motor by 2026. GKN is the lead partner, with the project being run out of the company's Global Technology Centre in Bristol. GKN brings hydrogen storage, aero-engine (from Volvo Aero), aero electrical technology (from Fokker) and manufacturing experience. Intelligent Energy brings fuel cell expertise and Aeristech high-speed electrical engines. This initial feasibility and test stage is a £54.4m project (GKN has committed £31.8m, of which £13.3m will be grant funded through Aerospace Technology Institute/Innovation UK).

Hydrogen

Hydrogen is expected to provide a key element to solving global decarbonisation. The IEA expects global hydrogen demand to grow at least five-fold by 2050. Europe is pushing further, as highlighted by the UK targets published in 2021 (Exhibit 181), which have already seen the short-term 2030 targets doubled as part of the 2022 British energy security strategy.

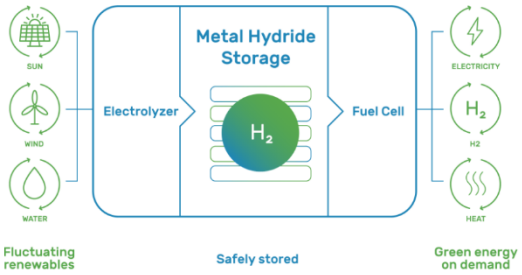
Exhibit 14: UK hydrogen demand and proportion of final energy consumption in 2050

Source: HM Government, UK Hydrogen Strategy

Hydrogen storage

Energy storage is an important element of decarbonisation, particularly given fluctuations from renewable energy sources such as wind and solar. Traditionally, hydrogen is stored as a high-pressure gas or a cryogenic (low temperature) liquid. Chemical storage offers an alternative technology through hydrogen bonding with a compound in a reversible reaction. Benefits claimed by the GKN storage system include long life (15 years+), low pressure, no capacity losses and 100% recyclability. The system generates heat on regeneration which, along with the weight of metal hydride, makes such a technology best suited to stationary storage solutions.

Exhibit 19: Overview process diagram



Source: GKN Hydrogen

Exhibit 20: HY2MEDI system

Source: GKN Hydrogen

Melrose established GKN Hydrogen as a separate business unit in 2021. Commercialisation is expected to commence in 2023 with three scale products in testing: HY2MINI 16.5–420 kWh, HY2MEDI 0.5–2 MWh and H2MEGA >8.8MWh, benefiting from the modular design of the system.

Hydrogen production

HiiROC has developed Thermal Plasma Electrolysis process to convert gas (methane) into hydrogen and carbon black. The result is 'turquoise hydrogen' (a low-emission hydrogen dependent on the thermal process being powered with renewable energy and the carbon being permanently stored or used) with none of the CO_2 emissions that arise from traditional steam methane reformation and utilising a fifth of the energy of water electrolysis. The GKN collaboration aims to combine HiiROC's H2 generation technology with current hydrogen storage technology from GKN Hydrogen and GKN Aerospace expertise. Investors Wintershall Dea and VNG have recently announced a 400kg/day hydrogen facility in Germany using HiiROC technology, due to be operational in 2023. The business raised £21m in November 2021 for development and trials in which Melrose participated.

Exhibit 21: Financial summary

£m	2019	2020	2021	2022e	2023e
Year to December	IFRS	IFRS	IFRS	IFRS	IFRS
INCOME STATEMENT					
Revenue (ex Associates)	11,592	7,723	7,496	7,699	8,348
Cost of Sales	(8,732)	(6,858)	(6,394)	(6,467)	(6,929)
Gross Profit	2,860	865	1,102	1,232	1,419
EBITDA	1,534	521	734	894	1,081
Operating profit (before amort. and excepts.)	1,102	141	375	484	681
Amortisation of acquired intangibles	(534)	(472)	(452)	(452)	(452)
Exceptionals	(250)	(156)	(374)	(250)	(200)
Share-based payments					
Reported operating profit	318	(487)	(451)	(218)	29
Net Interest	(213)	(182)	(123)	(124)	(136)
Joint ventures & associates (post tax)	0	0	0	0	0
Exceptionals					
Profit Before Tax (norm)	889	(41)	252	360	545
Profit Before Tax (reported)	105	(669)	(574)	(342)	(107)
Reported tax	(51)	114	172	0	0
Profit After Tax (norm)	699	(27)	197	281	420
Profit After Tax (reported)	54	(555)	(402)	(342)	(107)
Minority interests	(9)	(3)	(4)	(2)	(2)
Discontinued operations	(106)	32	1,283	0	0
Net income (normalised)	690	(30)	193	279	418
Net income (reported)	(61)	(526)	877	(344)	(109)
Average Number of Shares Outstanding (m)	4,858	4,858	4,695	4,372	4,372
EPS - normalised (p)	14.3	(0.6)	4.1	6.4	9.6
EPS - normalised fully diluted (p)	14.3	(0.6)	4.1	6.4	9.6
EPS - basic reported (p)	(1.2)	(11.0)	18.7	(7.9)	(2.5)
Dividend (p)	1.70	0.75	1.75	2.25	3.00
Revenue growth (%)	(1.2)	(20.0)	2.0	2.4	8.4
Gross Margin (%)	24.7	11.2	14.7	16.0	17.0
EBITDA Margin (%)	13.2	6.7	9.8	11.6	13.0
Normalised Operating Margin	9.5	1.8	5.0	6.3	8.2
BALANCE SHEET					
Fixed Assets	14,322	13,515	11,438	11,126	10,824
Intangible Assets	9,822	9,299	7,437	6,985	6,533
Tangible Assets	3,432	3,133	2,528	2,668	2,818
Investments & other	1,068	1,083	1,473	1,473	1,473
Current Assets	3,918	3,165	2,584	2,609	2,697
Stocks	1,332	1,126	893	904	942
Debtors	1,970	1,658	1,184	1,198	1,249
Cash & cash equivalents	512	311	473	473	473
Other	104	70	34	34	34
Current Liabilities	3,486	3,363	3,124	3,053	3,120
Creditors	2,461	2,456	2,051	2,076	2,163
Tax and social security	106	188	142	142	142
Short term borrowings	284	165	462	462	462
Other	635	554	469	373	353
Long Term Liabilities	7,203	6,207	3,358	3,570	3,507
Long term borrowings	3,464	2,926	903	1,145	1,185
Other long-term liabilities	3,739	3,281	2,455	2,425	2,322
Net Assets	7,551	7,110	7,540	7,112	6,894
Minority interests	26	29	33	33	33
Shareholders' equity	7,525	7,081	7,507	7,079	6,861
CASH FLOW					
Operating Cash Flow	1,534	521	734	894	1,081
Working capital	58	371	62	(20)	(65)
Exceptional & other	(519)	(9)	(321)	(335)	(250)
Tax	(117)	(14)	(65)	(79)	(125)
Net operating cash flow	956	869	410	460	641
Capex	(495)	(265)	(225)	(500)	(500)
Acquisitions/disposals	119	(11)	2,693	0	0
Net interest	(120)	(127)	(137)	(60)	(72)
Equity financing	0	0	(730)	0	0
Dividends	(237)	0	(69)	(84)	(109)
Other					
Net Cash Flow	223	466	1,942	(184)	(40)
Opening net debt/(cash)	3,482	3,283	2,847	950	1,134
FX	90	7	40	0	0
Other non-cash movements	(114)	(37)	(85)	0	0
Closing net debt/(cash)	3,283	2,847	950	1,134	1,174

Source: Company accounts, Edison Investment Research

General disclaimer and copyright

This report has been commissioned by Melrose Industries and prepared and issued by Edison, in consideration of a fee payable by Melrose Industries. Edison Investment Research standard fees are £60,000 pa for the production and broad dissemination of a detailed note (Outlook) following by regular (typically quarterly) update notes. Fees are paid upfront in cash without recourse. Edison may seek additional fees for the provision of roadshows and related IR services for the client but does not get remunerated for any investment banking services. We never take payment in stock, options or warrants for any of our services.

Accuracy of content: All information used in the publication of this report has been compiled from publicly available sources that are believed to be reliable, however we do not guarantee the accuracy or completeness of this report and have not sought for this information to be independently verified. Opinions contained in this report represent those of the research department of Edison at the time of publication. Forward-looking information or statements in this report contain information that is based on assumptions, forecasts of future results, estimates of amounts not yet determinable, and therefore involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of their subject matter to be materially different from current expectations.

Exclusion of Liability: To the fullest extent allowed by law, Edison shall not be liable for any direct, indirect or consequential losses, loss of profits, damages, costs or expenses incurred or suffered by you arising out or in connection with the access to, use of or reliance on any information contained on this note.

No personalised advice: The information that we provide should not be construed in any manner whatsoever as, personalised advice. Also, the information provided by us should not be construed by any subscriber or prospective subscriber as Edison's solicitation to effect, or attempt to effect, any transaction in a security. The securities described in the report may not be eligible for sale in all jurisdictions or to certain categories of investors.

Investment in securities mentioned: Edison has a restrictive policy relating to personal dealing and conflicts of interest. Edison Group does not conduct any investment business and, accordingly, does not itself hold any positions in the securities mentioned in this report. However, the respective directors, officers, employees and contractors of Edison may have a position in any or related securities mentioned in this report, subject to Edison's policies on personal dealing and conflicts of interest.

Australia

Edison Investment Research Pty Ltd (Edison AU) is the Australian subsidiary of Edison. Edison AU is a Corporate Authorised Representative (1252501) of Crown Wealth Group Pty Ltd who holds an Australian Financial Services Licence (Number: 494274). This research is issued in Australia by Edison AU and any access to it, is intended only for "wholesale clients" within the meaning of the Corporations Act 2001 of Australia. Any advice given by Edison AU is general advice only and does not take into account your personal circumstances, needs or objectives. You should, before acting on this advice, consider the appropriateness of the advice, having regard to your objectives, financial situation and needs. If our advice relates to the acquisition, or possible acquisition, of a particular financial product you should read any relevant Product Disclosure Statement or like instrument.

New Zealand

The research in this document is intended for New Zealand resident professional financial advisers or brokers (for use in their roles as financial advisers or brokers) and habitual investors who are "wholesale clients" for the purpose of the Financial Advisers Act 2008 (FAA) (as described in sections 5(c) (1)(a), (b) and (c) of the FAA). This is not a solicitation or inducement to buy, sell, subscribe, or underwrite any securities mentioned or in the topic of this document. For the purpose of the FAA, the content of this report is of a general nature, is intended as a source of general information only and is not intended to constitute a recommendation or opinion in relation to acquiring or disposing (including refraining from acquiring or disposing) of securities. The distribution of this document is not a "personalised service" and, to the extent that it contains any financial advice, is intended only as a "class service" provided by Edison within the meaning of the FAA (i.e. without taking into account the particular financial situation or goals of any person). As such, it should not be relied upon in making an investment decision.

United Kingdom

This document is prepared and provided by Edison for information purposes only and should not be construed as an offer or solicitation for investment in any securities mentioned or in the topic of this document. A marketing communication under FCA Rules, this document has not been prepared in accordance with the legal requirements designed to promote the independence of investment research and is not subject to any prohibition on dealing ahead of the dissemination of investment research.

This Communication is being distributed in the United Kingdom and is directed only at (i) persons having professional experience in matters relating to investments, i.e. investment professionals within the meaning of Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended (the "FPO") (ii) high net-worth companies, unincorporated associations or other bodies within the meaning of Article 49 of the FPO and (iii) persons to whom it is otherwise lawful to distribute it. The investment or investment activity to which this document relates is available only to such persons. It is not intended that this document be distributed or passed on, directly or indirectly, to any other class of persons and in any event and under no circumstances should persons of any other description rely on or act upon the contents of this document.

This Communication is being supplied to you solely for your information and may not be reproduced by, further distributed to or published in whole or in part by, any other person.

United States

Edison relies upon the "publishers' exclusion" from the definition of investment adviser under Section 202(a)(11) of the Investment Advisers Act of 1940 and corresponding state securities laws. This report is a bona fide publication of general and regular circulation offering impersonal investment-related advice, not tailored to a specific investment portfolio or the needs of current and/or prospective subscribers. As such, Edison does not offer or provide personal advice and the research provided is for informational purposes only. No mention of a particular security in this report constitutes a recommendation to buy, sell or hold that or any security, or that any particular security, portfolio of securities, transaction or investment strategy is suitable for any specific person.

Frankfurt +49 (0)69 78 8076 960
Schumannstrasse 34b
60325 Frankfurt
Germany

London +44 (0)20 3077 5700
280 High Holborn
London, WC1V 7EE
United Kingdom

New York +1 646 653 7026
1185 Avenue of the Americas
3rd Floor, New York, NY 10036
United States of America

Sydney +61 (0)2 8249 8342
Level 4, Office 1205
95 Pitt Street, Sydney
NSW 2000, Australia