

ABF Investor Briefing on Environmental Factors

Wednesday, 18th May 2022



Introduction



**Associated
British Foods**
plc

George Weston

Chief Executive, Associated British Foods plc

Efficiency and enablement



ROAL, an ABFI joint venture company, Finland

Governance and strategy



Illovo Sugar Africa, Nchalo, Malawi



AB Mauri, Turkey

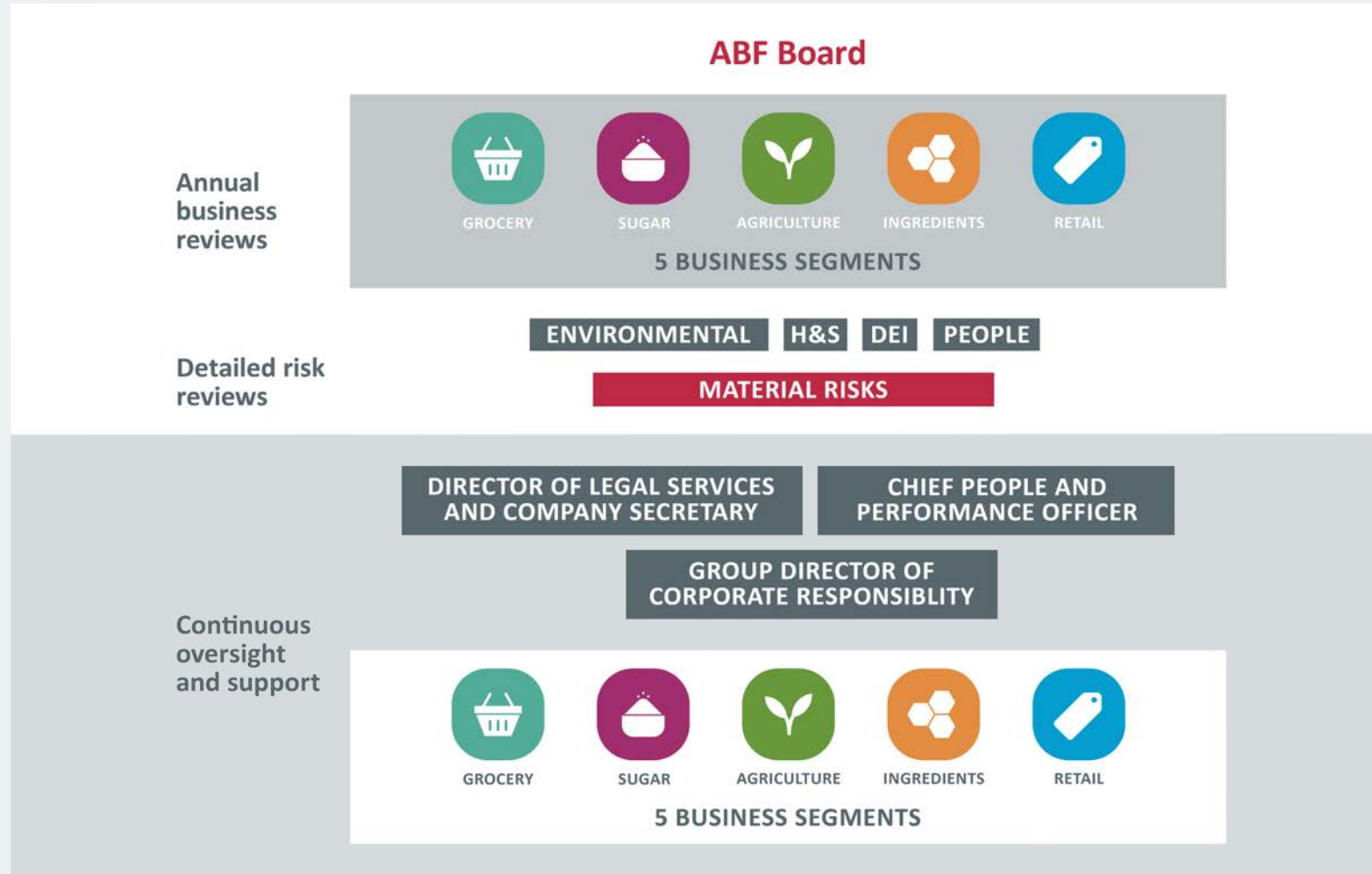


ROAL, an ABFI joint venture company, Finland



Primark store, Sicily, Italy

Governance framework



Specific actions, measurable outcomes



Primark store, Bilbao, Spain



A Jordans Farm Partnership farm, UK



Riverside Glasshouse, Wissington, UK



ROAL, an ABFI joint venture company, Finland

Net zero by 2050 or sooner



Bioethanol, Wisington, UK

Our focus



Illovo Sugar Africa, Dwangwa, Malawi



**Associated
British Foods**
plc

John Bason

Finance Director, Associated British Foods plc

Agenda

GHG emissions and carbon enablement

Emissions

AB Sugar

British Sugar

Carbon enablement

TCFD

Biodiversity and ecosystem protection

Ecosystem protection and soil health

Water stewardship

Plastics and packaging

Short break then Q&A



A Jordans Farm Partnership farm, UK



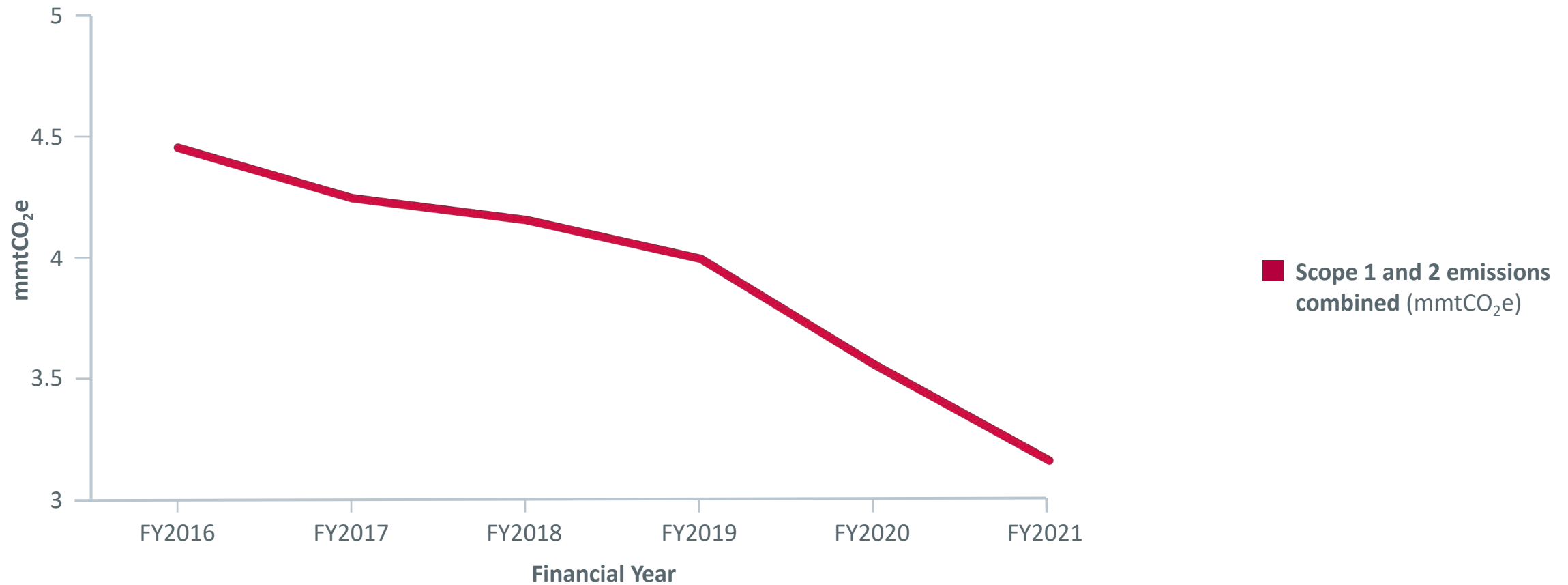
GHG Emissions and Carbon Enablement

Paul Lister

Director of Legal Services and Company
Secretary, Associated British Foods plc

Scope 1 and 2 GHG emissions

ABF Group total Scope 1 and 2 2015–2021



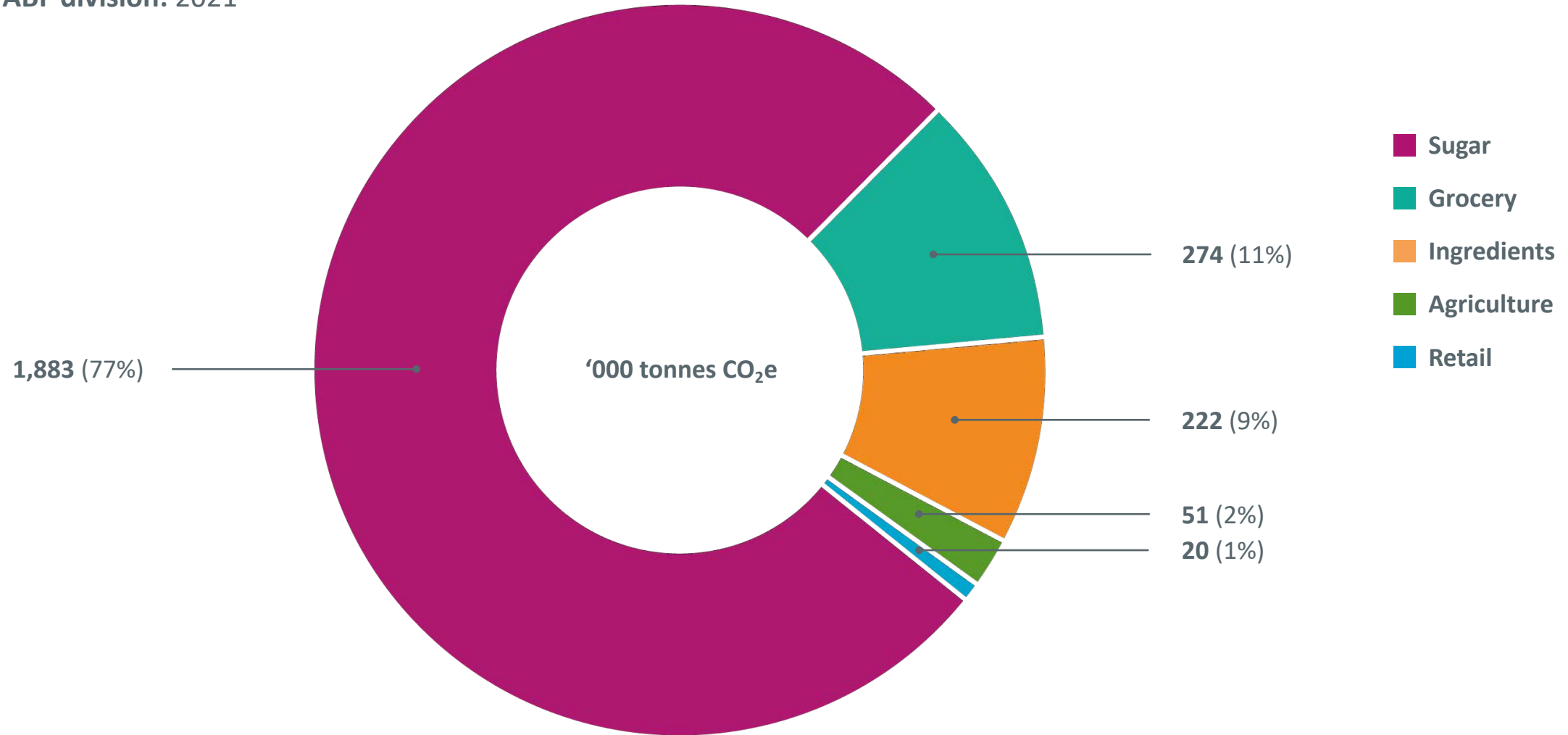
Scope 1 and 2 GHG emissions

ABF Group total Scope 1 and 2 2015–2021



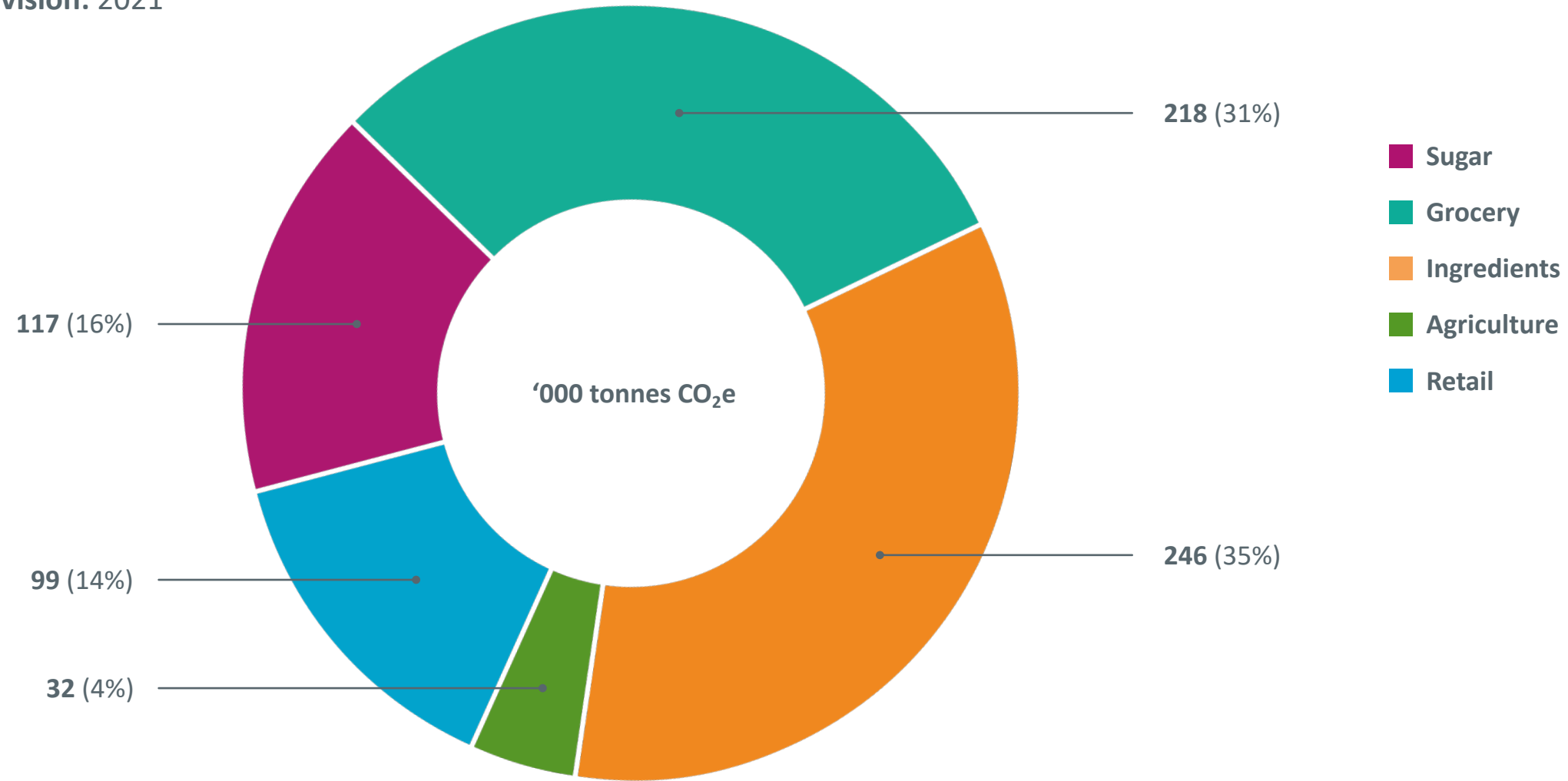
Scope 1 emissions

By ABF division: 2021



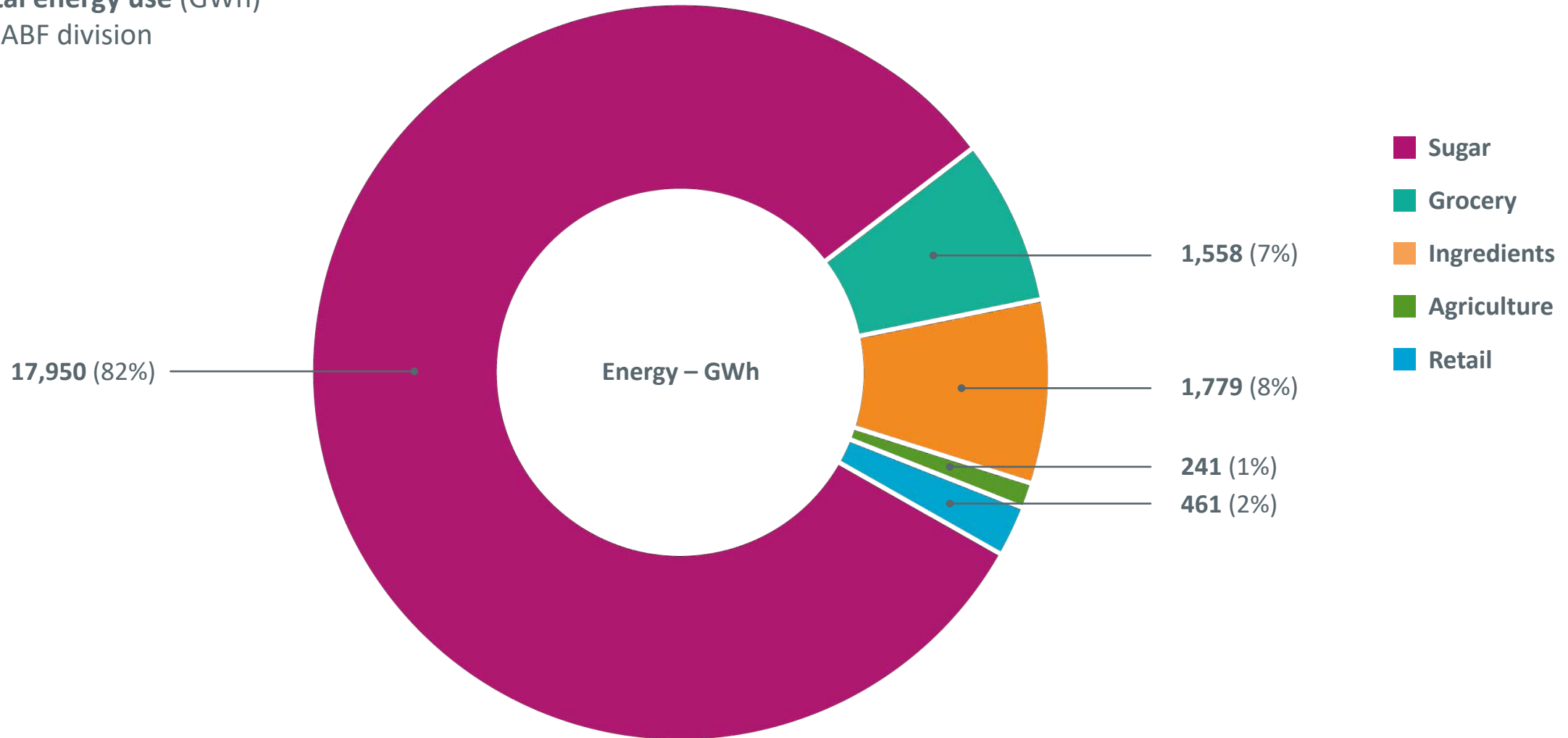
Scope 2 emissions

By ABF division: 2021



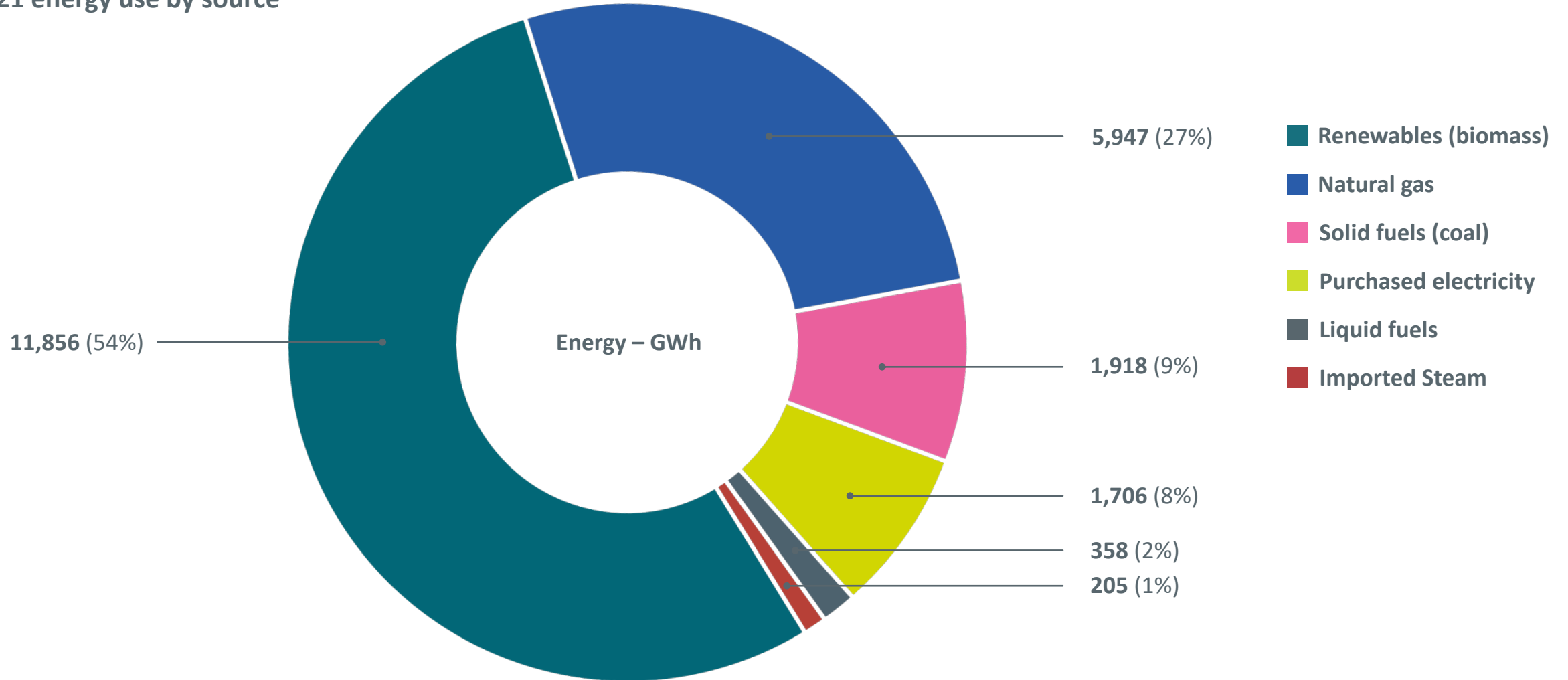
Energy consumption

Total energy use (GWh)
by ABF division



Energy consumption

2021 energy use by source



Renewable energy: export to national grids

- ca.92% of energy from biomass used within ABF businesses
- High degree of energy self-sufficiency, especially AB Sugar
- Significant electricity exporter to national grids
- 2021: Total 910 GWh
 - AB Sugar 855 GWh
 - AG Agri 47 GWh
 - ABFI 7 GWh
- 910 GWh equivalent to
 - 13% total electricity consumption in Tanzania*
 - 25% total South Africa solar PV sector*
- Total electricity exported equivalent to 53% of total ABF Group purchased electricity use in 2021

*International Energy Agency



Bagasse at Illovo Sugar Africa, Nchalo, Malawi

Renewable energy: purchased energy

- Renewables 29% of power generation globally*
- Encourage renewables transition where operationally and commercially feasible
- 2030: ca.39% electricity purchased by ABF in countries with >50% renewable energy**

*International Energy Agency

**International Renewable Energy Agency (IRENA)



Scope 3

- Scope 3 upstream the main focus
- Primark predominant source of Scope 3 upstream emissions for ABF:
 - ca.100 suppliers account for large majority of emissions
 - Implementation of energy efficiency programmes
 - Transition to renewable energy on-grid and off-grid
 - Net reduction in direct and indirect emissions
 - No need for carbon offsets
- Analysis of other businesses underway: focus on AB Sugar, Grocery and AB Agri



Primark Sustainable Cotton Programme, India

2030 Targets

- Primark: 50%, all 3 Scopes, 2018 baseline
- AB Sugar: 30%, Scope 1 & 2, 2018 baseline
- UK Grocery: 50%, all 3 Scopes, 2015 baseline
- Twinings carbon-neutral Scope 1, 2 and 3 upstream and transportation

Total ABF Scope 1 and 2 emission reductions:

- 32% lower by 2030 against 2018 baseline
- >37% lower over 2015–2030 period



Vivero, Hull, UK



Primark store, Rome, Italy

Implied Temperature Rise (ITR)

- ITR new metric
- Compares company GHG reduction targets with global temperature pathways
- Modelling is complex, includes multiple assumptions

ABF and external analysis:

- ABF ITR <math>< 1.8^{\circ}\text{C}</math>
- In line with Paris Agreement



AB Sugar, China



AB Mauri, St. Louis, US



Primark supplier factory, China



Primark store, Posnania, Poland

Net zero by 2050 or sooner





**Associated
British Foods**
plc

Mark Carr

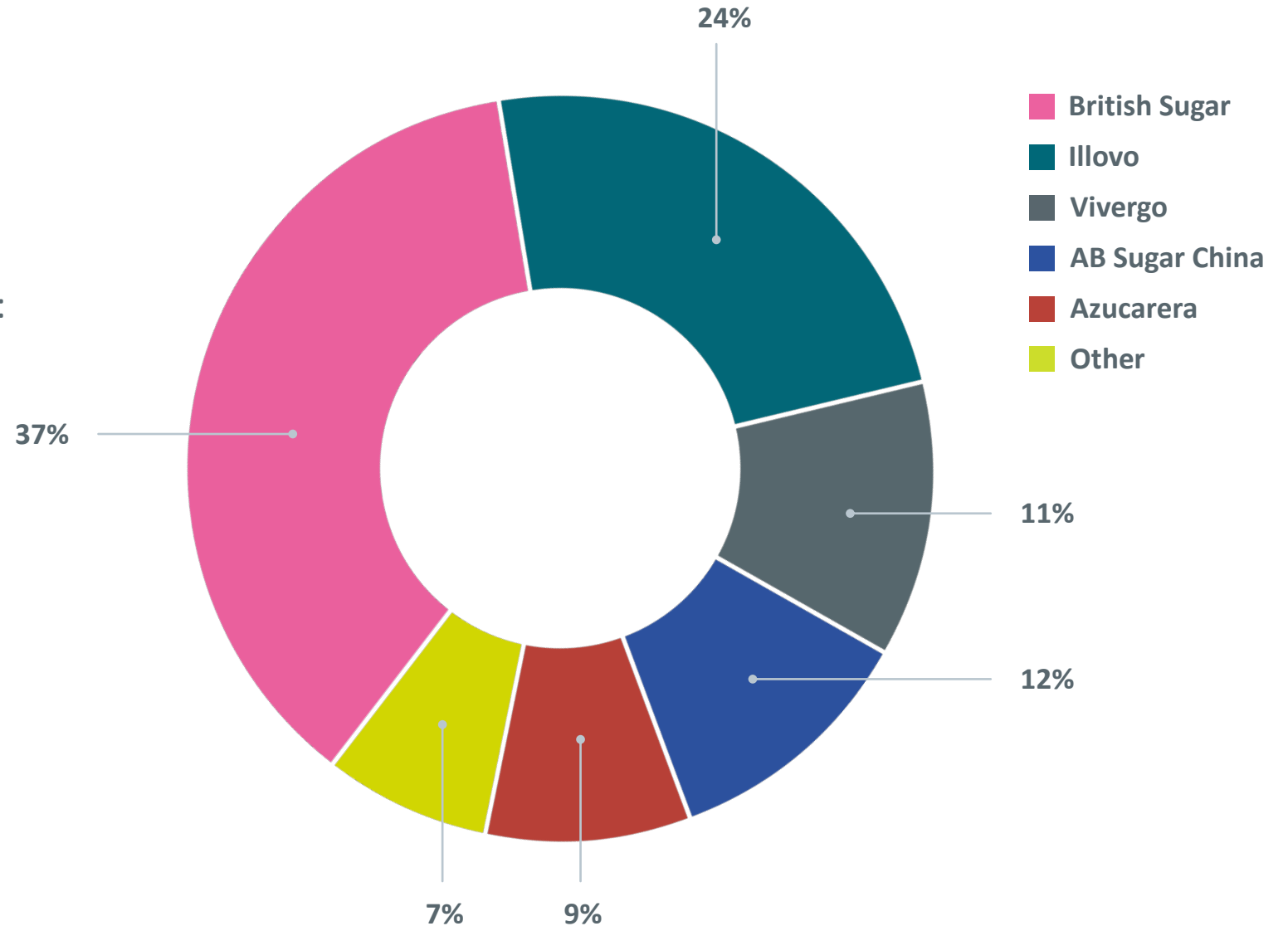
Group Chief Executive, AB Sugar

AB Sugar value chain



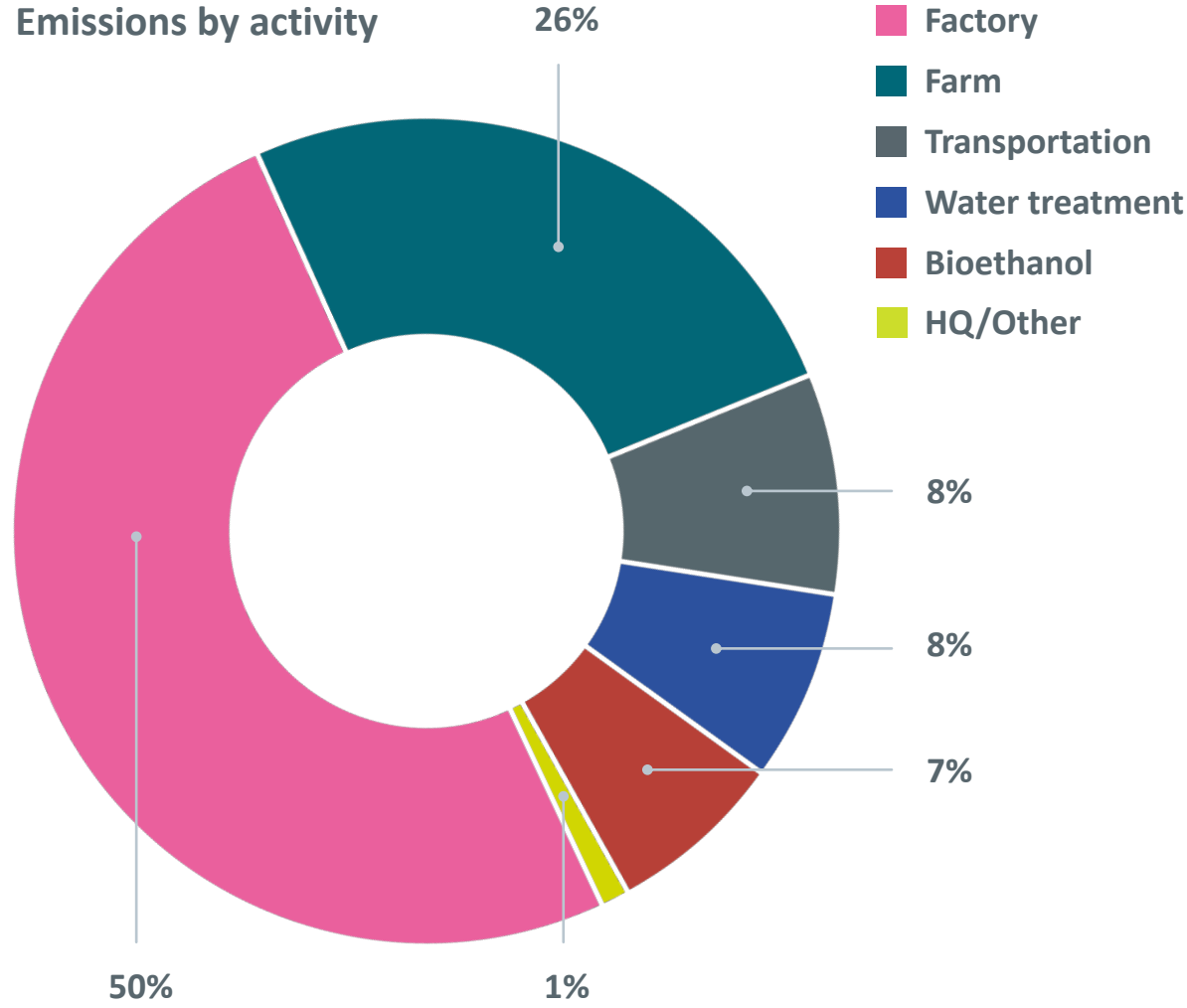
AB Sugar GHG emissions

- 2017–18 baseline reported emissions
 - Scope 1: 2,314 ktCO₂e
 - Scope 2: 234 ktCO₂e
 - Scope 3 (transportation/distribution): 238 ktCO₂e

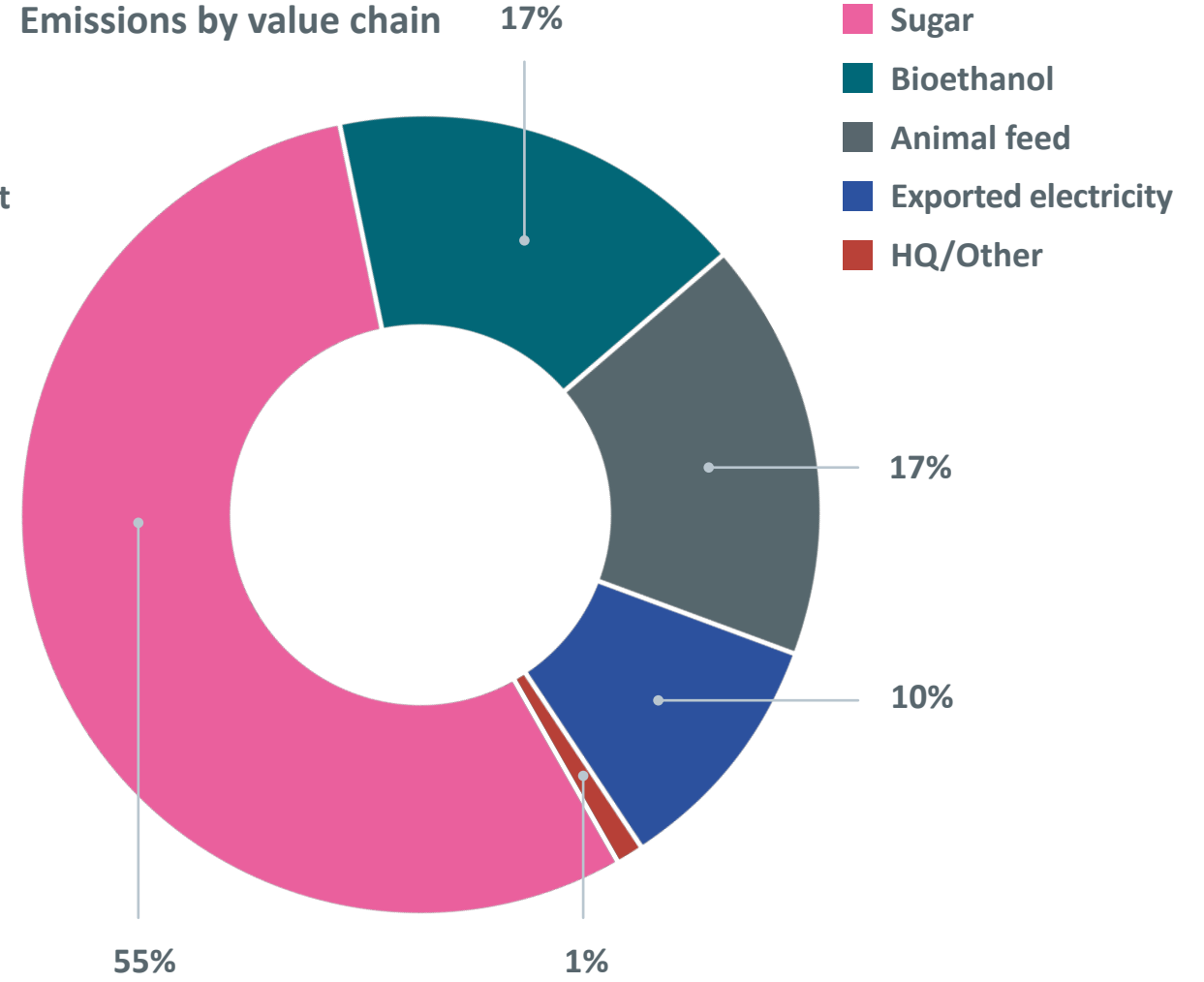


AB Sugar GHG emissions

Emissions by activity

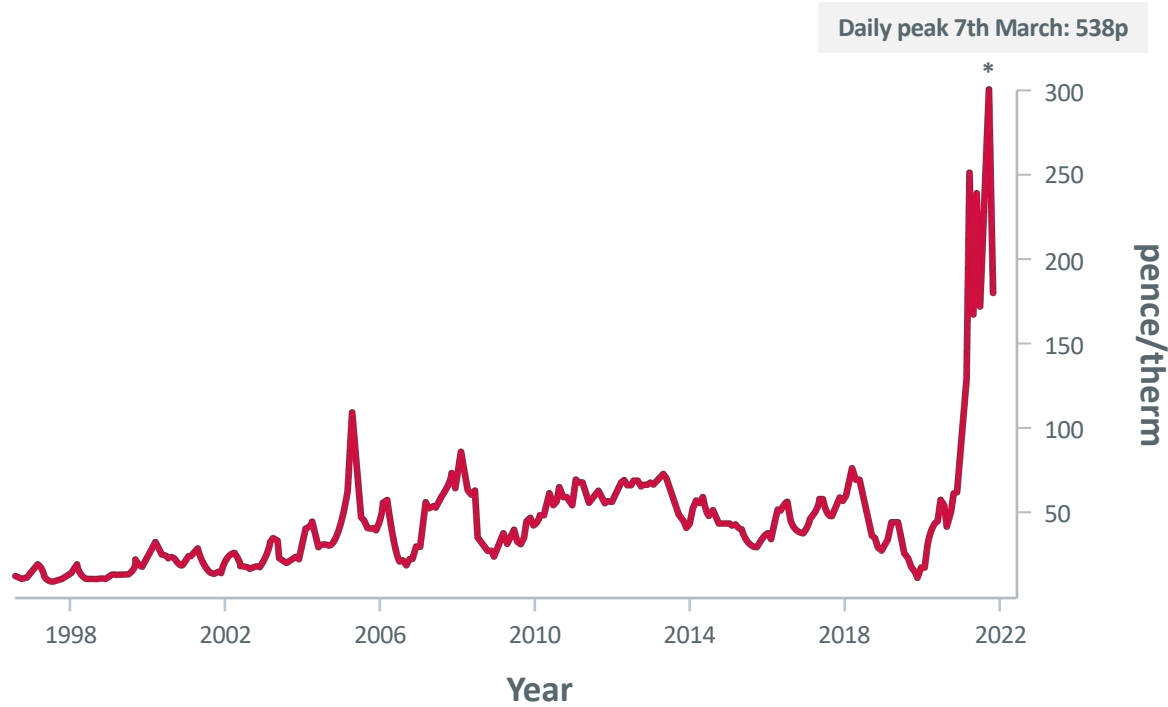


Emissions by value chain

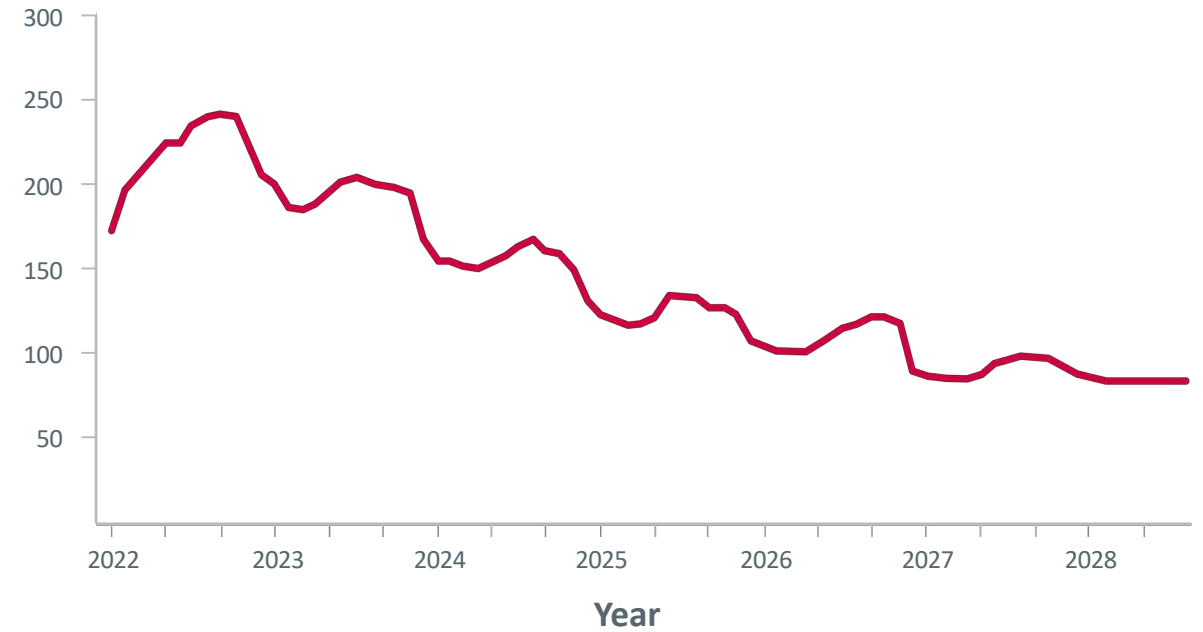


Context: UK gas prices

UK natural gas price: 1995–2022



UK natural gas futures: June 2022–October 2028



*ERCE UK Natural Gas Futures Curve

Context: carbon pricing

EU Emissions Trading Scheme



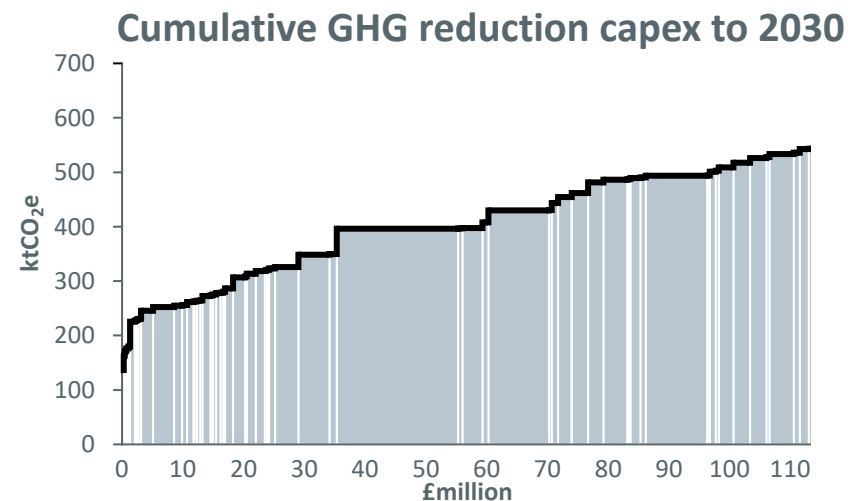
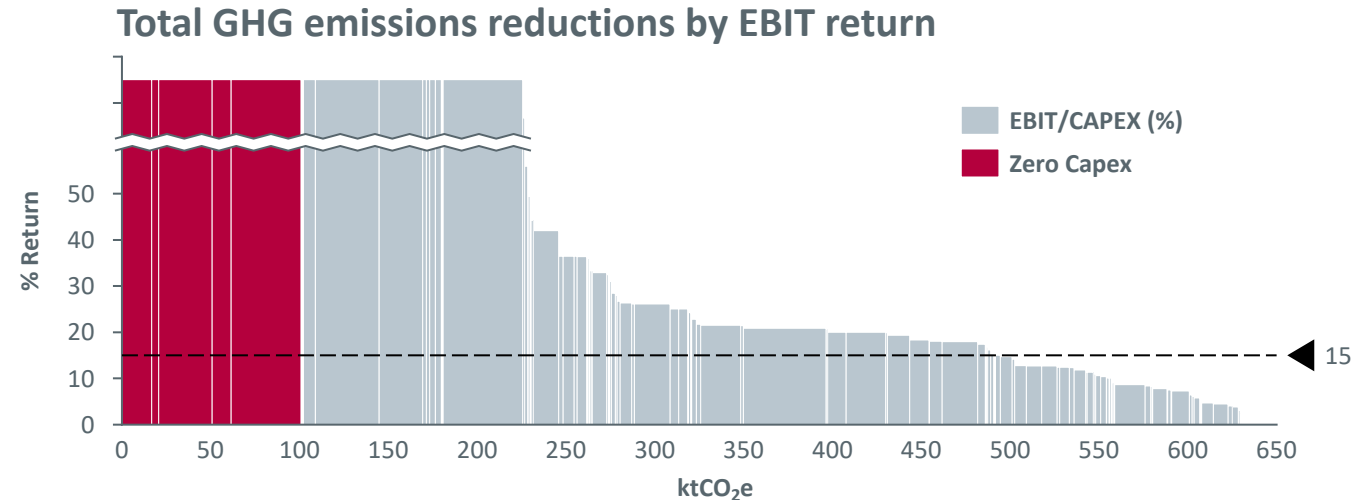
AB Sugar 2030 business plan



British Sugar, Wissington, UK

AB Sugar 2030 Business Plan: commercially attractive

- Already completed:
 - 10% GHG reduction against 2017–18 baseline
- Project pipeline: further 20% GHG reductions by 2030
 - Assumptions: 60p/therm UK NBP, £50/t UK ETS
 - >200 ktCO₂e reduction achieved at zero/low capex
 - >500 ktCO₂e reduction: up to £100m cumulative capex
- Affordable and commercially attractive projects: all >15% ROI



Azucarera pulp drying

- Azucarera switch from gas to solar for pulp drying 2015–2021:
 - Average Scope 1 emissions reduced by 25% per year
 - Total emissions averted to date ca.104 ktCO₂e



Solar pulp drying at Azucarera, Toro, Spain

Vivergo

- Largest bioethanol plant in UK, one of largest in Europe
- Largest single-source UK animal feed supplier
- Vivergo bioethanol in E10:
 - Averts >500 ktCO₂e UK vehicle emissions per year
- Important sustainable and domestic UK energy source



Vivergo, Hull, UK

Long-term value creation



British Sugar, Newark, UK

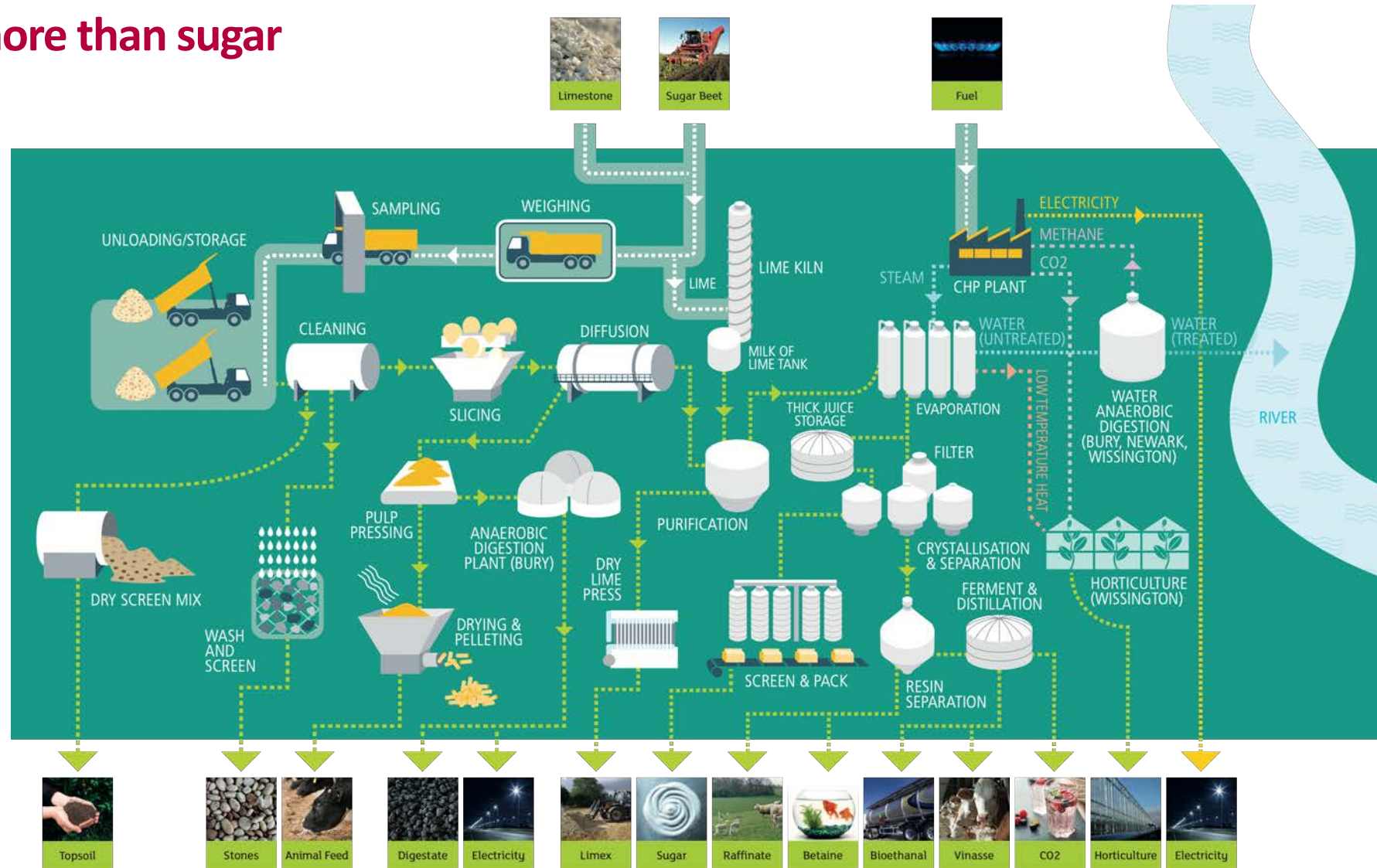


Associated
British Foods
plc

Paul Kenward

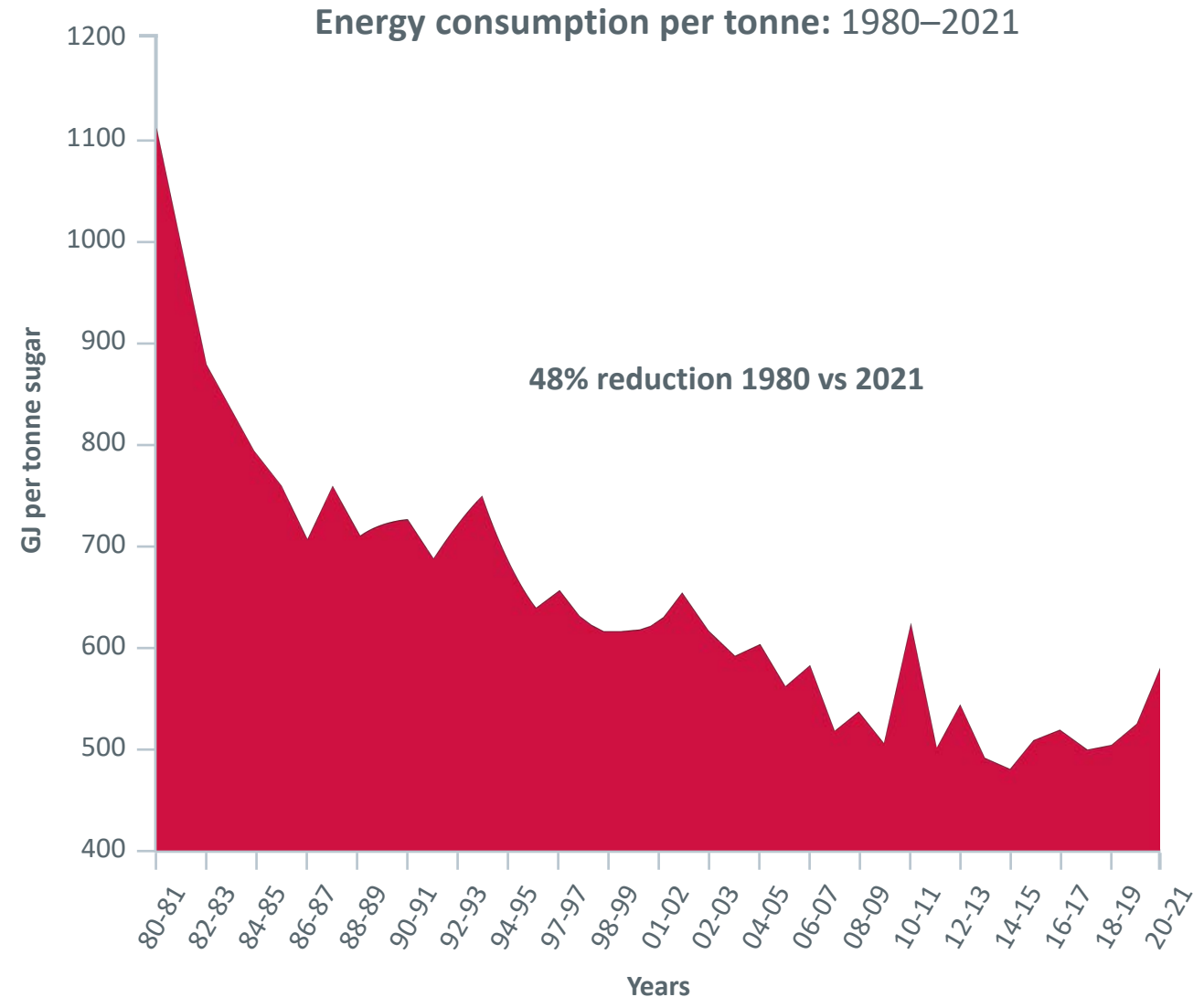
Managing Director, British Sugar

So much more than sugar



Continuous improvement

- Year-to-year variations depending on crop yields and growing conditions
- Significant downwards trend over time as a consequence of:
 - Continuous process improvement
 - Analysis of energy use
 - Energy efficiency and fuel substitution capex



Continuous improvement

- Snapshot from single year's business plan
- Current business plan: 12 Performance Improvement Projects underway across 4 sites
- >40 ktCO₂e per year reduction
- Split between 40% process optimisation, 30% energy efficiency, and 30% switch from coal to gas



British Sugar, Wissington, UK

Commercial advantage

- Customers focused on ESG
- Traceable and local
- FY20–21: 34% total B2B sales to customers requiring details of GHG reduction plans
- Attractive sustainability credentials: more volume at higher prices



Beyond 2030

- Focus on energy efficiency and emissions reduction post-2030
- Reliant upon UK national grid
- Green hydrogen/electrification: require infrastructure investment, UK Government policy decisions
- Optimistic on outcomes, but detail needed now



High pressure gas main compound, Derbyshire, UK

Katharine Stewart

**Group Corporate Responsibility Director,
Associated British Foods plc**

AB Enzymes

- AB Enzymes an ABFI company
- Extensive molecular biology and biochemistry R&D expertise
- >625 active patents/patent applications



ROAL, an ABFI joint venture company, Finland

AB Enzymes: cotton bio-polishing

- Bio-polishing cotton, 50°C down to 30°C
 - Energy efficiency gain 350KWh per 1 tonne processed
- 364kg CO₂e averted per 1 tonne processed
 - Asia total cotton volumes estimated 13.6 mmt per year
 - Bio-polished: estimated at ca.1.5 mmt per year
- Analysis supported by ClimatePartner

Potential to achieve ca.600 ktCO₂e averted per year



AB Enzymes: detergents

- 40°C down to 30°C
- Energy efficiency gain 260Kwh per 1,000 washes
 - Higher CO₂e averted in markets with high level of coal in powergen
 - 119kg CO₂e averted per 1,000 washes based on DE/AT/CH region powergen data

ca.630 ktCO₂e averted as modelled assumption based on global sales



AB Enzymes: carbon averted

- Two examples: >1.2 mmtCO₂e averted
- Significant impact from only two products within just one ABF business

Equivalent to ca.40% of total ABF Group Scope 1 and 2 emissions in 2021



AB Enzymes, Darmstadt, Germany

AB Agri

- Intellync Farm Footprints on-farm emissions measurement system
- Strong correlation between livestock health, farm efficiency and GHG impact
- British Sugar beet pulp ca.75% lower embedded carbon than imported soya*
 - Imported soya bean hulls: 1,824 kgCO₂e/tonne product
 - Sugar beet pulp: 460 kgCO₂e/tonne product

*Global Feed Lifecycle Assessment Institute (GFLI)



AB Agri customer farm, North Yorkshire, UK

Carbon enablement



ROAL, an ABFI joint venture company, Finland

Protecting and creating value through transition



Riverside Glasshouse, Wisington, UK

TCFD focus areas

- AB Sugar, Primark, Twinings
- 73% of Group adjusted operating profit, ca.70% of Scope 1 and 2 emissions
- Transition factors
- Physical risk factors
- Supply chain as well as own operations
- Analysis supported by SouthPole



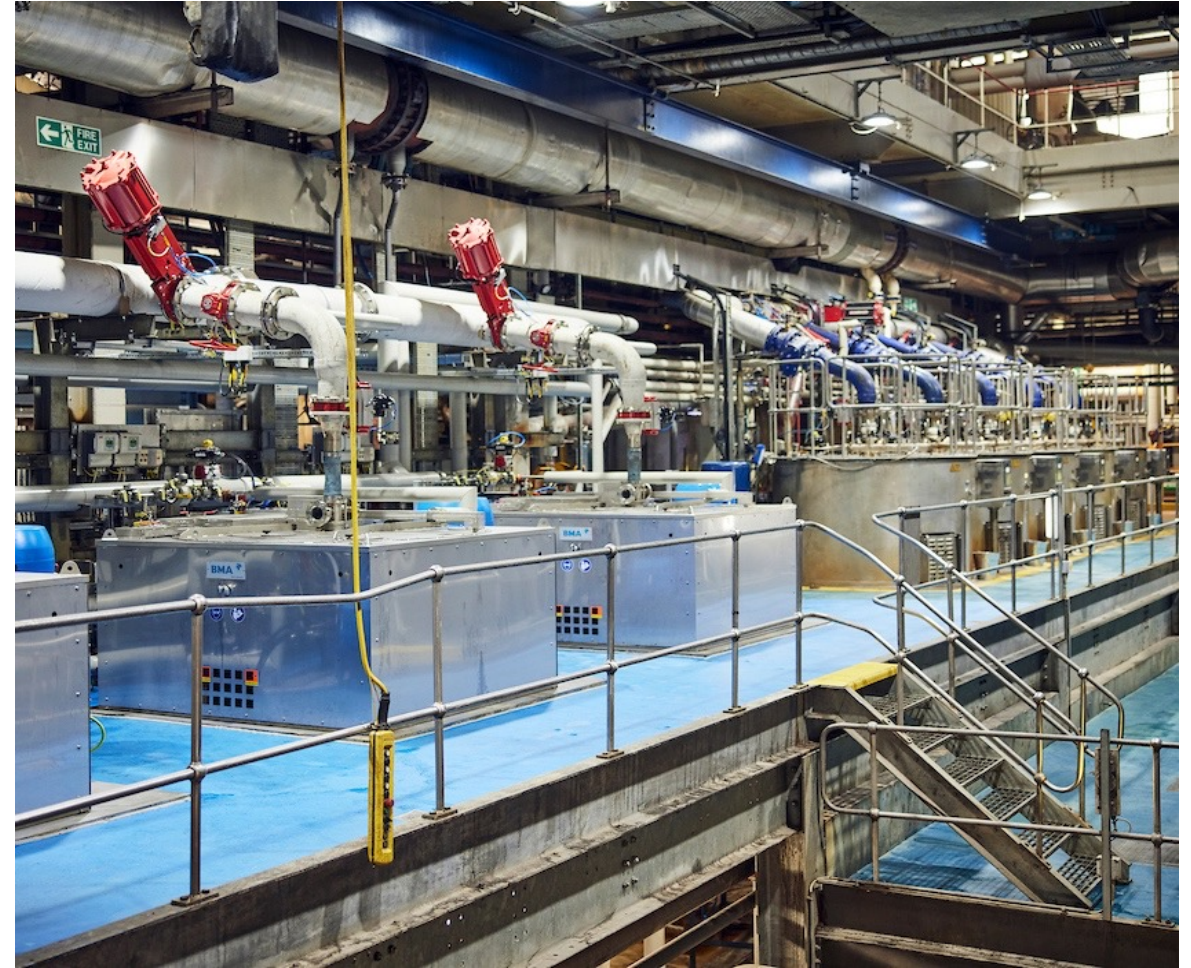
Primark store, Rome, Italy



British Sugar, Wisington, UK

Transition to 2030: AB Sugar

- Emissions reduction plans: affordable and commercially attractive
- Long track record of process optimisation and energy efficiency
- Increase in cost of carbon pricing mechanisms: no material impact on Group operating profit
- Transition to net zero presents significant opportunities



British Sugar, Wissington, UK

Transition to 2030: Primark

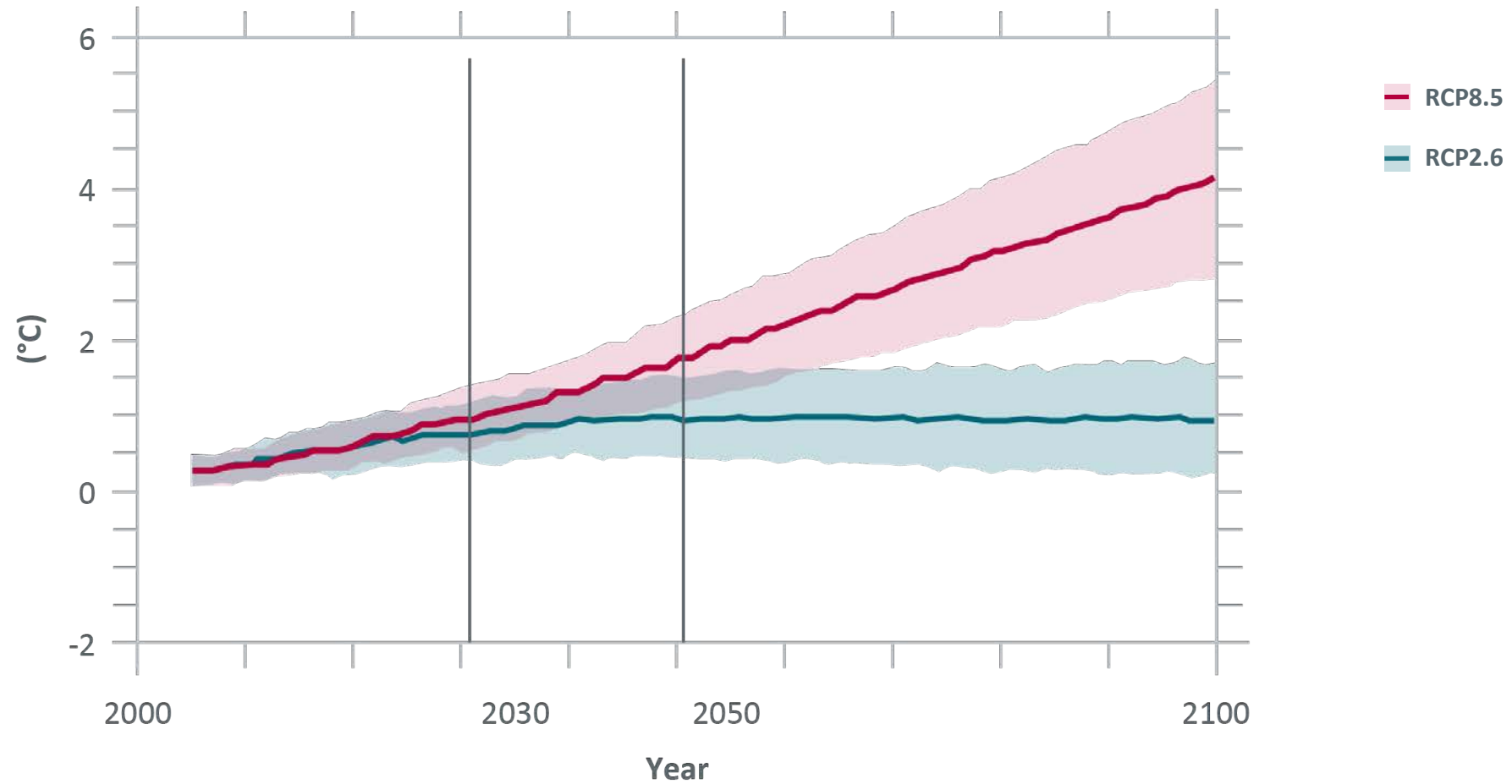
- Primark Cares: modest and manageable increase in costs net of mitigating actions
- Margin guidance on Primark Cares unchanged
- Firmly believe customers will recognise Primark sustainability commitment and respond positively



Primark Cares in-store installation, Germany

TCFD physical risk: concepts and frameworks

Global average surface temperature change



Physical risks to 2030: British Sugar

- Warmer, wetter winters in UK by 2030
- Yields c.8% higher under both RCP pathways
- Increase is smaller than some year-on-year variations over recent decades
- Warmer conditions increase crop disease potential
- Strong capability in developing solutions to mitigate disease impact



Physical risks to 2030: Illovo

- Increased risk of weather volatility
- Illovo already building capability to deal with increasing risks
- Variations between two models used
- Worst-case scenario less than year-on-year crop yield variations already experienced by Illovo



Retail: Primark

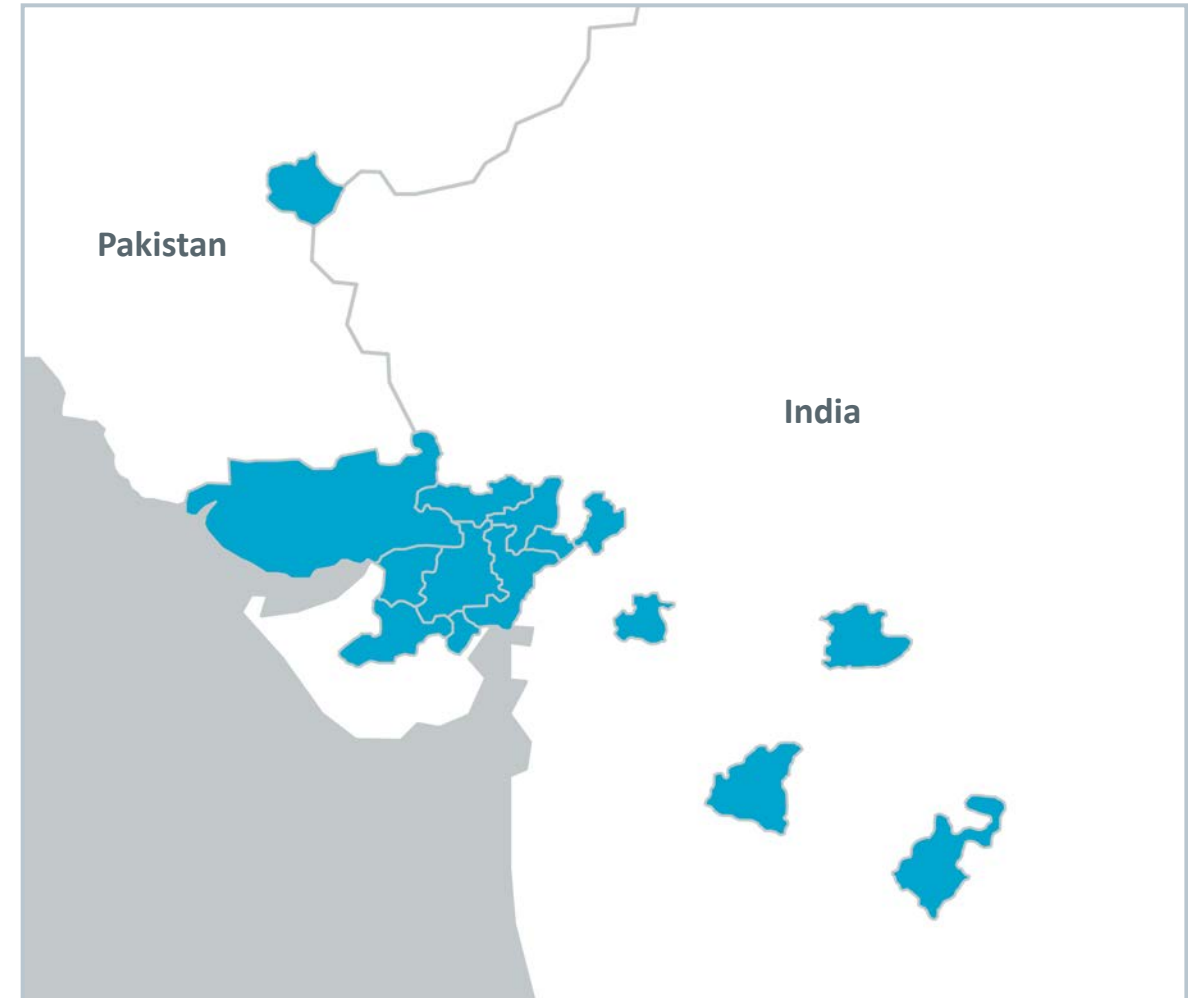
- Primark TCFD focus:
 - Cotton yields
 - Coastal flooding impact in Bangladesh and China
- Cotton 57% of Primark total garment fibre mix
- Bangladesh 22% of products sold by Primark



Primark Sustainable Cotton Programme, India

Physical risks to 2030: cotton

- Primark Sustainable Cotton Programme:
 - Majority of all Primark global cotton procurement by 2030
 - Smallholder support improves yields, reduces water and chemical fertiliser usage
- Extreme temperatures, heavy rainfall, timing and duration of monsoon season
- Minimal (0 to -4%) negative effect on yields under RCP2.6 and RCP8.5
- Well within current year-on-year variations
- Working with smallholders to mitigate effects



Physical risks to 2030: Bangladesh garment manufacturing sector

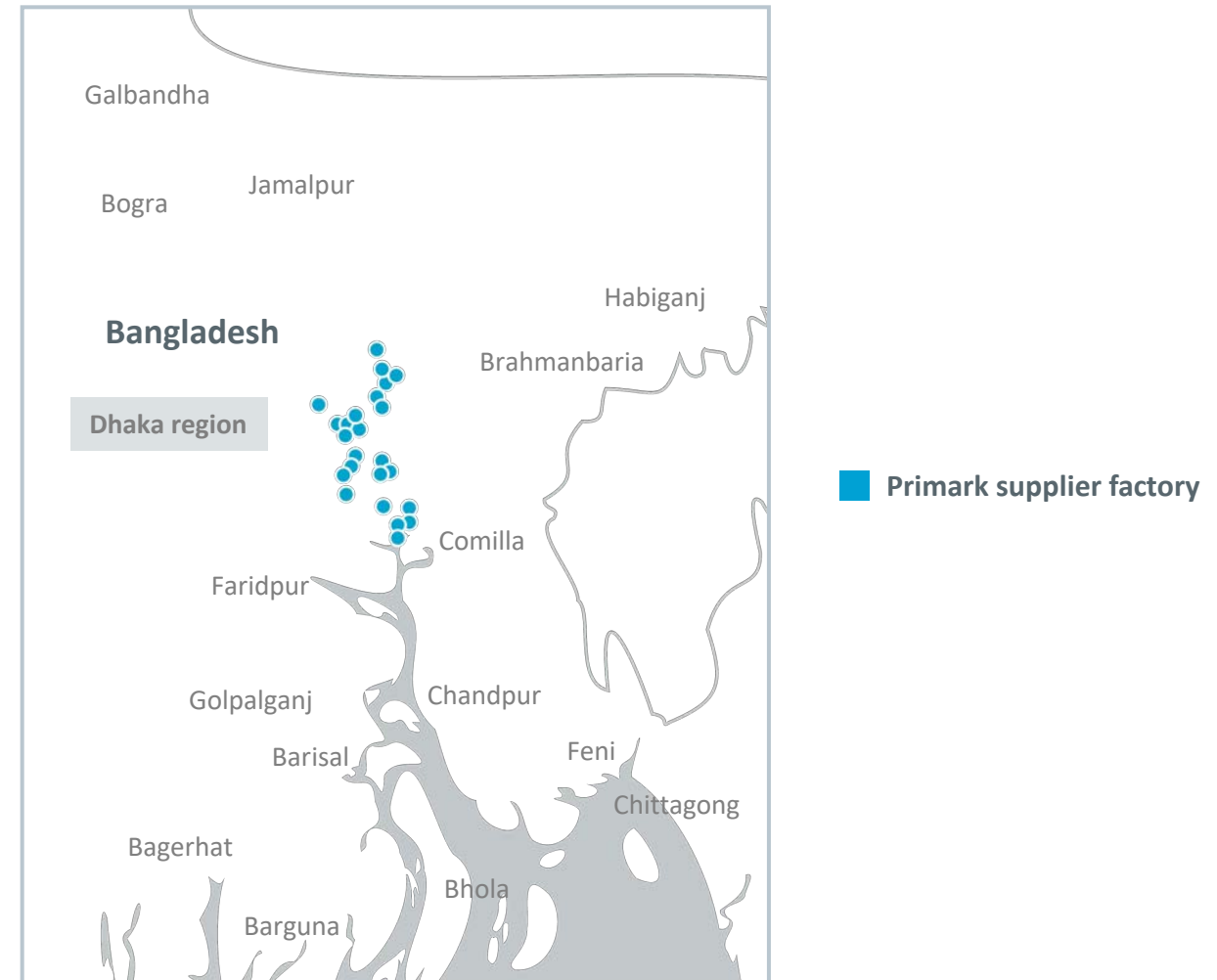
- Greater Dhaka region exposed to coastal flooding
- Authorities well aware, focused on infrastructure investment to build resilience
- Suppliers taking action, contingency planning
- Primark structural integrity programme:
 - Beginning later in 2022, regular evaluation to assess flood risk exposure
 - Led by well-established local Primark team in Dhaka
- Coastal flooding risk for container freight, port facilities: to follow



Primark supplier factory, Bangladesh

Physical risks to 2030: Bangladesh garment manufacturing sector

- Analysis based on 10, 25, 50 and 100-year floods
- Focus on 100-year coastal flooding as the most destructive risk
 - 1997 baseline using historical data: 4.4% of order units at risk
 - 2030 RCP4.5 and RCP8.5: 5.0% of order units at risk
- Very manageable within Primark supply chain, not material risk for Group



2030 to 2050: the long-range view



Illovo Sugar Africa, Eswatini

An aerial photograph of a rural landscape. The foreground is dominated by a large, golden-brown agricultural field, likely a cornfield, showing distinct rows and furrows. To the right, a large, calm pond reflects the sky. A dense line of green trees separates the fields from the pond. In the background, more agricultural fields and a small cluster of buildings are visible under a clear sky.

Biodiversity and Ecosystem Protection

Biodiversity

- Ecosystem protection and soil health
- Water stewardship
- Plastics and packaging



A Jordans Farm Partnership farm, UK

David Webster

Director of Sustainability and External Affairs,
UK Grocery

Our approach

- Wide range of crops and agricultural environments
- Ecosystem protection measures reflect localised factors
- Following development of:
 - Taskforce on Nature-related Financial Disclosures (TNFD)
 - UN Global Biodiversity Framework
- Balance food security with environmental stewardship



Oat crop, UK



Illovo Sugar Africa, South Africa



A tea plantation, China



A Jordans Farm Partnership farm, UK

Leveraging brands to support wildlife

Jordans Farm Partnership

- Jordans Cereals supported ecosystem diversity since 1984
- Partnership: Jordans, LEAF, The Wildlife Trusts, The Prince's Countryside Fund
- At least 10% farmland managed for wildlife
- Average now 17%
- Partnership covers 15 kha, equivalent to ca.8% total UK oats farmland

Seeds for Bees

- Jordans Cereals supporting Project *Apis m.*
- Wildflower seeds for ground cover: year-round pollinator forage
- Contribution covers ca.750 acres, equivalent to total orchard acreage supplying Jordans Cereals with almonds



A Jordans Farm Partnership farm, UK



Seeds for Bees orchard, California, US

Allied Mills Wheat Sustainability Supply Project

- Allied Mills one of UK's largest millers
- Partnership with Frontier, ABF's joint venture business
- Focus on soil quality and health
- Requires crop rotation, minimal tillage
- >5% of farmland managed for wildlife habitats
- Designed to enhance broader UK wheat industry understanding



Allied Mills Sustainable Farm Project, UK

Westmill Sustainable Rice Programme

- Sustainable Rice Platform, established by UN Environment Programme
- On-farm training in sustainable farming techniques
- Outcomes to date:
 - Water consumption: -25%
 - On-farm GHG emissions: -48%
 - Crop yields: +20%
 - Net incomes: +38%
- Project scaling up:
 - Farmers increase from 600 to 1,200
 - Goal: >20% of all rice purchased by Westmill to SRP standards by 2024



Westmill Sustainable Rice Programme, Pakistan

Multi-stakeholder initiatives

- Palm:
 - 0.07% of total global volumes
 - ABF member of Roundtable on Sustainable Palm Oil (RSPO)
- Soya:
 - 0.18% of total global volumes
 - AB Agri member of UK Roundtable on Sustainable Soya
 - AB Agri: targeting zero deforestation across soya supply chain by 2025
 - ca.80% of soya bought by AB Agri in UK certified zero deforestation



Multi-stakeholder initiatives

- Cocoa:
 - Ovaltine contributing partner to International Cocoa Initiative
 - Ovaltine member of World Cocoa Foundation
 - Europe: all cocoa bought by Ovaltine is 100% UTZ Certified
- ABF founding and board roles:
 - Sustainable Agriculture Initiative
 - UN Sustainable Rice Project
 - Ethical Tea Partnership

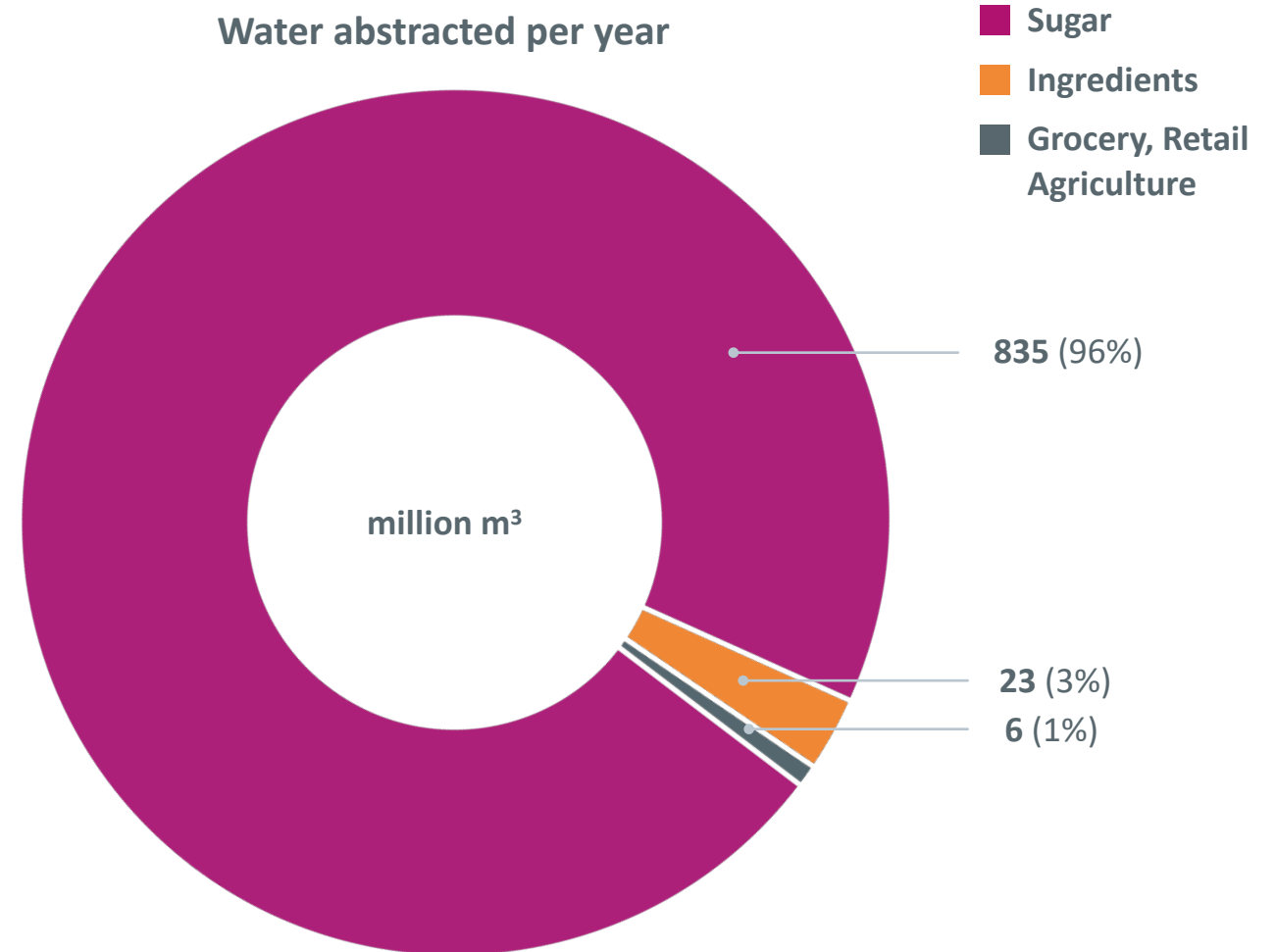


World Cocoa
Foundation



Water resource management: own operations

- AB Sugar: 97% total ABF Group water usage (Illovo: 96%)
- ABF Group:
 - 97% water abstracted from surface sources, 2% groundwater, 1% municipal
 - 75% total water use from rain-fed/irrigated crops



Illovo water stewardship

- Long-standing performance improvement programme optimising water use
- Continuous investment in enhanced irrigation systems:
 - ca.82% irrigated
 - Remainder rain-fed
- Data analytics to monitor water usage throughout value chain:
 - Potential to reduce water loss through leakage by up to 9%
 - Potential to increase crop yields by up to 3 tonnes per hectare

AB Sugar target: 30% reduction in water usage by 2030



Illovo Sugar Africa, Eswatini

AB Mauri water stewardship

- Comprehensive strategy to enhance water treatment processes
- >£75m investment since 2010
- Proportion of water used that is treated and returned:
 - 2018–19: 69%
 - 2019–20: 74%
 - 2020–21: 79%



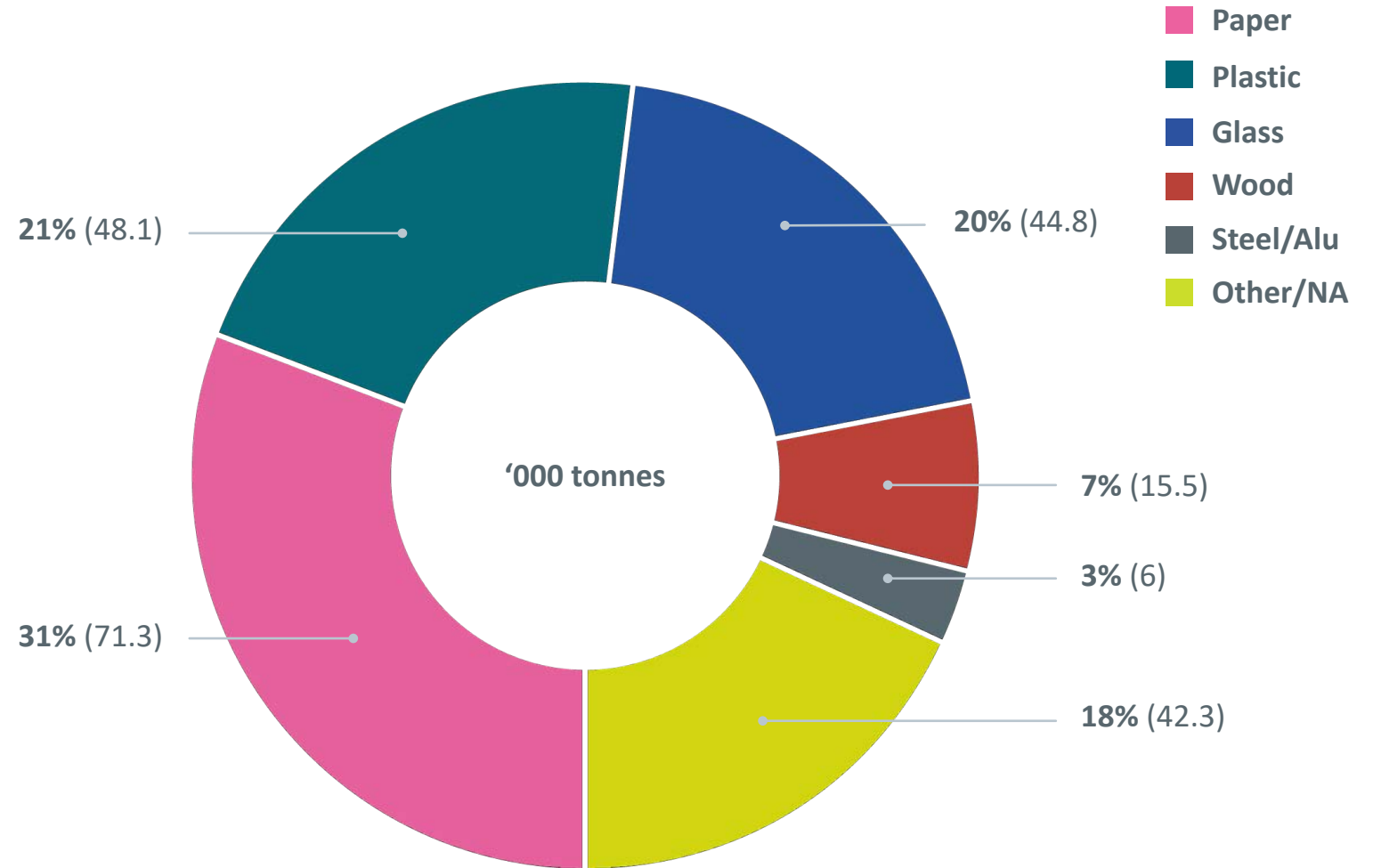
AB Mauri, Hull, UK

Plastics and packaging



ABF: packaging volumes by material type

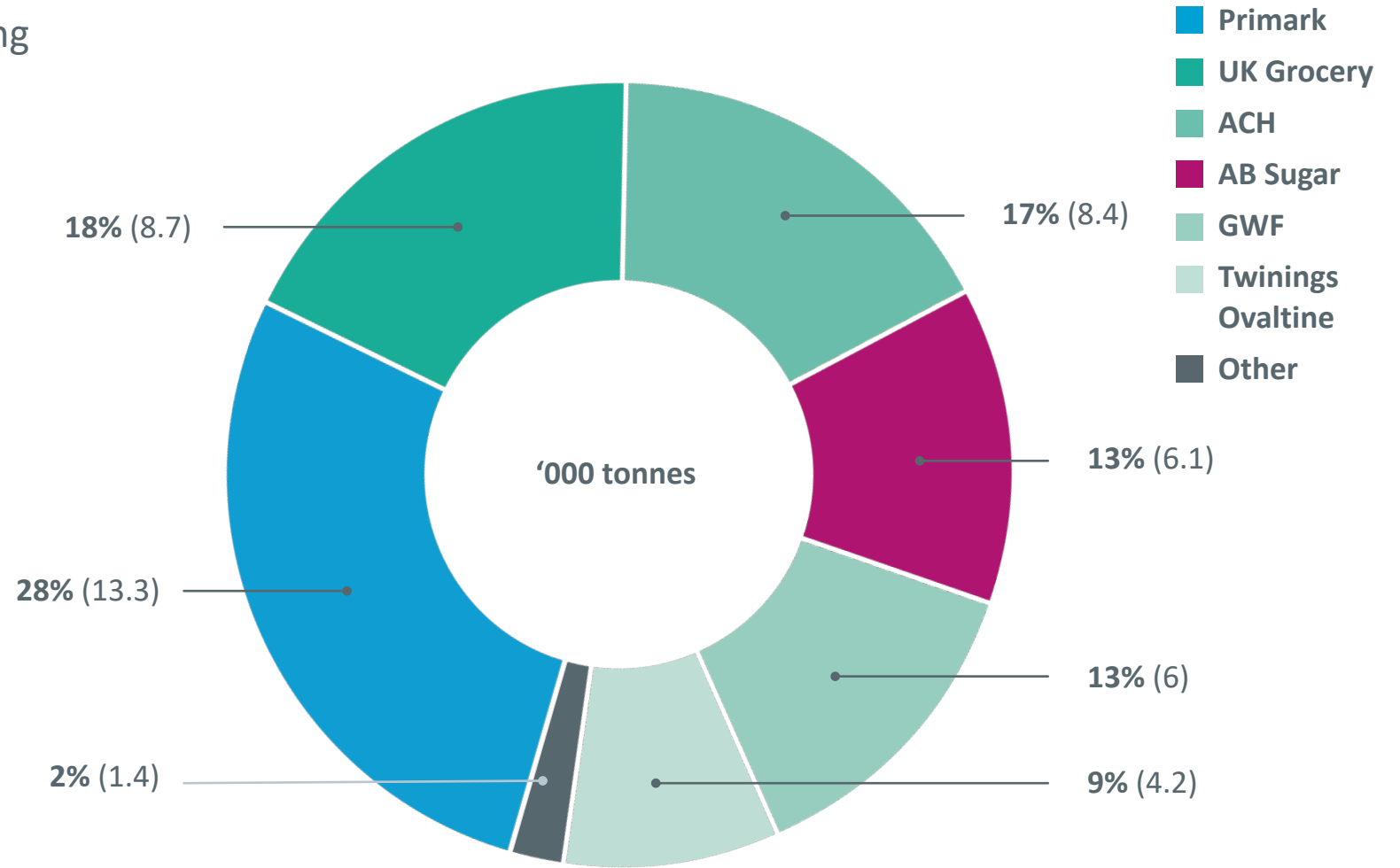
- Paper main packaging material across ABF
- Very small-scale purchaser of plastic in global terms:
 - 48.1kt per year
 - Context: global single-use plastic estimated ca.130mmt per year*



*Minderoo Foundation

Single-use plastic volumes by ABF business

- Primark largest user of plastic packaging followed by UK Grocery
- Primark goal: eliminate all single-use plastic by 2027
- UK Grocery businesses signatories to WRAP UK Plastics Pact



Our focus

- Much higher levels of recycling/recycled content than today
- Low level of collection rates globally, non-existent in many developing markets
- Constraints on availability of food-grade recycled content at scale
- Flexible polymers
 - Low collection rates
 - Chemical recycling technologies not yet at scale in all countries



Primark

- Goal: eliminate all single-use plastic by 2027
- Plastic hangers 65.5% total volumes
- Move to re-use model, cardboard alternatives
- Hangers & on-product poly packaging: 100% recycled content
- >0.5bn single-use plastic units already removed to date



Primark store, Germany

UK Grocery

- WRAP UK Plastics Pact
 - Circular economy for packaging
 - 100% reusable/recyclable/compostable by 2025
 - Eliminate use of problematic plastics
 - Incorporate recycled content
- Ambition: work in partnership across grocery value chain to create food packaging closed loop
- >82% of plastic packaging used in UK Grocery widely recycled/recycle-ready
- Increasing use of recycled content in packaging



Action in line with UK Plastics Pact

Kingsmill

- 30% recycled content bread bags
- First of its kind at scale in the world
- Significant supply-side constraints

Patak's Pappadums

- ca.590t PVC removed
- In line with WRAP UK Plastics Pact commitment to eliminate problematic plastics
- ca.7% of total UK Grocery plastic packaging volumes



GWF: TipTop Bakeries

- TipTop goal: 100% recyclable, reusable or compostable packaging across all businesses by 2025
- Cardboard bread tags:
 - Removes >400m plastic tags from waste



Conclusion

