

*Go Ahead*

# Climate change strategy

July 2021



# Introduction

Public transport is part of the solution for climate change.

By its very definition, mass transport – the use of buses and trains, rather than private cars – means that a large number of people can be moved from place to place in an efficient way. Mass transport gets people out of their cars, eases traffic congestion, cuts emissions and improves health outcomes.

David Brown – Group Chief Executive



Fossil fuelled combustion engines are an enemy to the environment. A fully loaded double decker bus can take as many as 75 cars off the road. A single train can replace even more. The UK government recognised this impact in its 2020 Green Ten Point Plan, in which one of the ten points focuses specifically on promoting green public transport, cycling and walking.

The single biggest contribution that Go-Ahead can make to tackling climate change is to work with our clients and partners to grow our passenger volumes. The COVID-19 pandemic has complicated the picture, as travel habits have changed, and we may never see a return to the working and living patterns of 2019. But the worst possible legacy of the pandemic would be a car-led recovery that leads to increased congestion, air pollution and carbon emissions.

We welcomed the recent National Bus Strategy with its emphasis on bus priority measures, designed to speed up bus journeys on congested roads. Innovation like this will help deliver the modal shift to public transport that needs to happen. But it is vital that we encourage consumer behaviour change in other ways too. As we emerge from the pandemic into a greener recovery, Go-Ahead is at the forefront, calling for public messaging that says: “Walk and cycle if you can, use buses and trains, and only take the car if you need to.”

This climate change strategy sets out how we will play our part in reducing emissions. We intend to make our services and activities as green as possible. This year, Go-Ahead was ranked top in the transport sector for

community and environmental responsibility by Britain’s Most Admired Companies, and we were recently listed by the Financial Times as a European Climate Leader for our record of cutting emissions.

Go-Ahead already has the largest electric bus fleet in the UK. We have delivered ground-breaking innovation with geofenced buses that automatically switch to zero-emission operation when they enter clean air zones. We even have buses that clean the air as they travel, and trains that recycle energy back into the network.

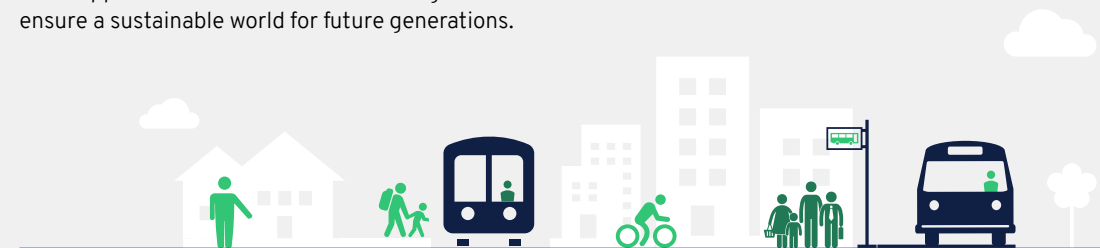
The Go-Ahead Group’s purpose is to be the local partner taking care of journeys that enhance the lives and wellbeing of our communities around the world. It is fundamental to achieving our purpose that we plot a course to becoming a net zero emissions business.

But there is much more to do. This strategy sets out how we will become a net zero business by 2045. It sets out targets we aim to achieve between now and then, and the actions required to deliver on our ambition. The journey we’re embarking on requires a great deal of collaboration – with governments, with partners and with suppliers. We will all need to work together to ensure a sustainable world for future generations.



Becoming a net zero business and achieving the targets to reduce our carbon emissions by 75% by 2035 is no small task, and one which requires us to be bold and ready to change. From embracing new technology and developing new working practices, to supporting the adoption of more sustainable habits among our colleagues and our customers, Go-Ahead’s climate change strategy will impact on all areas of the business. Our relationships with partners, suppliers, governments and customers will be more important than ever, and our track record of working collaboratively and with agility to get things done gives me confidence that together we can deliver our environmental potential.

**Katy Taylor** – Chief Strategy and Customer Officer, Climate Change Sponsor



# Executive summary

The Go-Ahead Group aims to reduce its emissions by 75% by 2035 and be a net zero company by 2045. This strategy is ambitious but deliverable. It helps plot our route to the clear destination of 2045 and sets out key milestones along the way.

The need for change is undeniable. The era of debate over the facts of climate change has long passed. The United Nations International Panel on Climate Change (IPCC) warned back in 2018 that the world has just 11 years to curb emissions, to ensure that global warming is limited and the worst impacts of climate change are avoided. As a business, we are aligned with the IPCC's position that the world needs to limit any rise in temperature to no more than 1.5°C above pre-industrial levels. Our targets, which are rooted in climate science are consistent with achieving that.

There are a number of immediate drivers for us to take action. Our shareholders tell us that they view progressive environmental, social and governance values as critical in allocating capital. Political stakeholders have committed to achieving net zero by 2050 and recognise the ambitious targets needed by industry to achieve it. Local and national governments increasingly require operators to show evidence of decarbonisation in order to bid for contracts, and many local authorities allow only cleaner vehicles to operate in their city centres.

In addition, there is also a clear trend of positive consumer attitudes towards choosing environmentally responsible businesses. Our operating companies are already encountering the cost of climate change as the frequency of extreme weather events increases, disrupting rail services and blocking roads.

We are embarking upon this strategy from a strong position. Go-Ahead has already achieved a 22% reduction in absolute carbon emissions since 2016. We have also achieved an A-rating in the Carbon Disclosure Project (CDP) and already report against the Task Force on Climate-Related Financial Disclosures (TCFD). Through a rigorous risk assessment and prioritisation process (see pages 7-9) we evaluate each element of our response to climate change.

A Climate Change Task Force, drawn from across the Group's operations, engineering, finance, facilities, procurement and communications colleagues, has identified five key workstreams. These workstreams, and the achievements, priorities and plans defined under each, form the structure of our climate change strategy.

Since 2016, Go-Ahead has already achieved a reduction in absolute carbon emissions of

**22%**

Our shareholders, including international fund managers, tell us that they view progressive environmental, social and governance values as critical in allocating capital.



## Executive summary continued



### Climate change adaptation

Identify how climate change impacts our businesses, passenger services, premises and supply chains, and identify adaptation plans

1. Identify risks and vulnerabilities
2. Quantify costs and source funding
3. Identify risks to properties
4. Work with suppliers to identify and reduce exposure and vulnerabilities
5. Develop business cases for adaptation measures
6. Work with partners



### Mitigation: Decarbonisation

Decarbonise our fleet and operations

1. Bus fleet decarbonisation
2. Rail fleet decarbonisation
3. Ancillary fleet decarbonisation
4. Decarbonisation of properties
5. Develop net/carbon zero commitment

Net zero business by **2045**  
 Zero-emission bus fleet in the UK by **2035**  
 Non-diesel rail fleet by **2035**  
 By 2035 reduce carbon emissions by **75%**



### Mitigation: Air quality

Reduce our negative impact on air quality by reducing emissions: CO, HCs, NOx, PM

1. Improve bus fleet by procuring electric vehicles
2. Purchase new buses at the latest emissions standards
3. Remove older lower emissions standards vehicles from the fleet
4. Work on bus priority solutions with local authorities

By 2025 reduce:  
 Carbon monoxide (CO) by **17%**  
 Hydrocarbons (HC) by **49%**  
 Nitrogen oxides (NOx) by **63%**  
 Particulate matter (PM) by **55%**



### Mitigation: Water

Reduce our water footprint by embedding responsible water management practices

1. Address leaks better
2. Reduce third party use of our water
3. Reduce water use
4. Improve water sourcing

By 2025 reduce water use by **25%**



### Mitigation: Waste

Reduce our overall waste volumes and increase reuse and recycling, by implementing waste initiatives

1. Improve rail and bus waste management contracts
2. Increase recycling rates
3. Behaviour change programmes for customers and colleagues
4. Reduce waste in supply chain and operational activities

By 2025, increase waste recycling rate to **60%**

Management principles and governance

Identify projects for investing, influencing stakeholders, driving behaviour change and finding external funding

Prioritise solutions by their impact on customers, colleagues, carbon and cost

## Executive summary continued

### Our ambitious targets

Go-Ahead's climate change strategy will identify, quantify and mitigate the effects of climate change in order to adapt; will decarbonise our transport fleet; will reduce the negative impact on air quality from our operations; will cut our water usage; and will reduce waste.

The Group's overarching target is to become a net zero carbon business by 2045. As milestones on the way to this target, we plan to achieve a zero-emission bus fleet by 2035 and to eliminate all remaining diesel trains from its networks by 2035, helping to meet our 75% emissions reduction target by 2035.

In addition, Go-Ahead aims to cut the amount of water used by a quarter by 2025, and to recycle 60% of its waste by the same year. Setting out key emissions milestones, we will reduce vehicle emission factors by 17% for carbon monoxide (g/kWh), 49% for hydrocarbons, 63% for nitrogen oxides and 55% for particulate matter – all by 2025\*.

The Group's overarching target is to become a net zero carbon business by

# 2045

Programmes to achieve these ambitious objectives will be embedded at all levels in the business. All the targets will be rigorously monitored through an accountability structure overseen by the Group's executive committee and the Board.

Achieving these goals will require many smaller steps along the way. These will include investments in new technology – including purchasing zero-emission buses, electrifying bus depots and improving the power efficiency of railway rolling stock. We will crack down on wastage, whether through water leaks, unnecessary use of energy, or idling of engines. Wherever possible we will reduce, reuse and recycle materials.

Go-Ahead will also prioritise sustainability and climate issues in its supply chain. We have defined our Scope 3 emissions as representing less than 40% of our overall carbon impact and our next step will be to set targets for our upstream and downstream carbon impacts. We will ensure that, wherever possible, we work with suppliers that share the Group's sustainability commitments. And as a Company, we will introduce programmes to encourage behavioural change in colleagues at all levels in the business.

### Our journey as a business

We are determined to reach our targets and key milestones, but we know that there are many variables that are outside of our control. The Group cannot control how quickly the energy grid is decarbonised, or the extent of public funding for electrification of rail lines or zero-emission vehicles or alternate technology for our diesel-operated trains. The "Climate change strategic risks and opportunities" section of this report sets out some of these variables, and we will continue to hold ourselves accountable as a Group, and to be transparent about the variables that are inside our control.

Acknowledging these contingencies reminds us that no business can act on its own. Throughout the implementation of our strategy, Go-Ahead will listen to and engage with colleagues, customers, suppliers, investors and other stakeholders, and we are looking forward to taking this journey together. The scale of change is significant, and we know that clear and transparent communication is vital to our success.

The time is now to place public transport at the very heart of the global sustainability agenda, and to precipitate a permanent change in customer behaviour.

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\* All baselines are FY 2019/20.

# Go-Ahead successes to date

Go-Ahead aims to be a leader in the transition to a low-carbon economy. Since 2016, the Group has achieved a 22% absolute reduction in carbon emissions – during a period in which our operations have expanded into Ireland, Germany, Norway and Singapore. We have been recognised for our success, with acknowledgement from industry bodies, disclosure standards organisations and the media.

## Powering ahead in buses

We are already leaders in the bus industry. In the UK, Go-Ahead operates the largest electric fleet, with 210 zero-emission vehicles. Having been instrumental in the introduction of the first zero-emission services in London, Go-Ahead successfully launched the first electric bus fleet in the North East of England in 2020.

In 2016, Go-Ahead opened the UK's first all-electric bus depot in Waterloo, winning an International Energy Globe Award and saving 2,500 tonnes of CO<sub>2</sub> since the project started in 2016. This was followed by a larger all-electric depot in Northumberland Park, with capacity for overnight charging of 117 buses. This depot is set to become a “virtual power station”, taking surplus energy from the batteries of parked buses and feeding it back into the grid.

Innovations in bus technology include geofencing, where buses automatically switch from diesel to electric mode in city centre low-emission zones. Go-Ahead has seen a 6.9% improvement in average efficiency of diesel bus fleet between 2016 and 2020, due to sustained investment in more fuel efficient buses. This has saved 9.5 million litres of diesel, and 24,000 tonnes of CO<sub>2</sub>. In Singapore, Go-Ahead buses have been fitted with ultra-light solar panels. These weigh only 20kg and have the potential to save each bus 1,400 litres of diesel fuel. We are beginning to introduce solar technology into our UK bus fleet.

A further initiative in Southampton has seen buses fitted with air filters to remove particulate matter from the atmosphere, making the air behind the bus cleaner than the air in front of the bus. For diesel vehicles, modernisation work is underway to bring the Group's fleet into line with Euro VI emissions standards, leading to a 33% decrease in the average fleet CO<sub>2</sub> emission factor since 2012.

Northumberland Park, North London, has capacity for overnight charging of

## 117 buses



## Leading the way in rail

In rail, we are showing what is possible to achieve with electrification, alternate (non-diesel) technology operation, and zero carbon energy. Go-Ahead is the UK's largest operator of electric trains through its Southeastern and GTR companies. GTR's Class 700 fleet recycles 15.8GWh of energy per period\*, which is returned into the network to power additional services. This equates to a 50% reduction in energy demand compared with the previous fleet of trains.

To increase our use of renewable energy, solar panels have been fitted in bus and rail depots in UK and Germany. Go-Ahead operates the UK rail's biggest electric vehicle charging hub at Hatfield station, and all of Go-Ahead's UK premises are powered by zero carbon electricity from renewable sources, as we switched to a fully renewables tariff in 2019.

Finally, an incubator sponsored by Go-Ahead for transport start-ups, the Billion Journey Project, is helping the Group to identify the next big thing in climate and energy. The project supports innovative products that can support our business operations to be cleaner and greener.

\* There are 13 periods in the railway year, each of around 28 days.



Go-Ahead's progress was recognised in 2021 with an “A minus” rating from CDP – the highest score achieved by any UK transport operator.



In the annual Britain's Most Admired Companies study, we were proud to achieve the top score for all transport companies in the category of “Community and Environmental Responsibility”.



The Financial Times named Go-Ahead as a European Climate Leader for its record of cutting emissions.

# Prioritisation

## Prioritising our climate change activity

Devising a climate change strategy involves making complex calculations to weigh up the cost, risk and opportunities of specific investments and activities. Go-Ahead has a decentralised structure, as we recognise that the management teams of local rail and bus companies are the best placed to make the right decisions for their customers and communities.

### Climate change strategy principles

Go-Ahead has adopted the following climate change strategy principles as a best practice approach to guide day-to-day decision making:

- 1 Identify material risks and opportunities posed by climate change.** Ensure these are aligned with business strategies within every Go-Ahead business.
- 2 Embed the climate change strategy into business protocols.** Risk registers, Board reports and other key documents at individual company level must reflect the risks and opportunities identified in the strategy.
- 3 Ensure good leadership and governance.** A strong example must come from the top of each business, with leaders publicly committed to prioritising climate change.
- 4 Embed responsibilities and ownership mechanisms into the business.** It should be clear to all stakeholders who is responsible for decisions with environmental implications.

- 5 Develop robust and meaningful targets.** We must allow ourselves to be publicly held to account for measurable progress in addressing climate change.
- 6 Develop achievable action plans.** Climate-related activities should be planned and embedded into business practices as set and agreed by management.
- 7 Track data, report and share our best practice.** Insights from each business should be leveraged to create a continuous cycle of feedback and iterative improvement.

All of Go-Ahead's decisions are rooted in climate science.

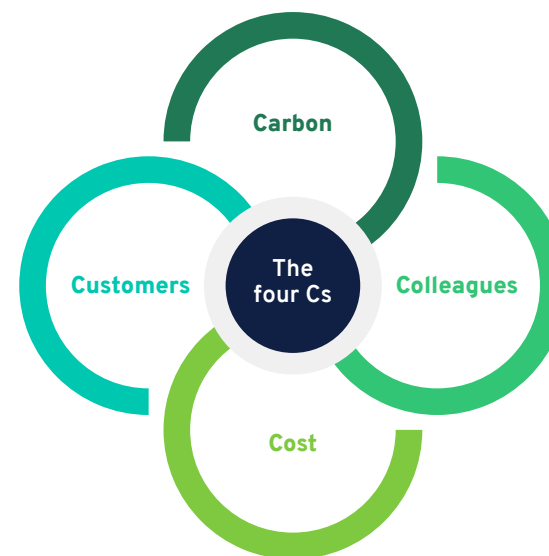
- ➔ See page 12 for more details on how our decarbonisation target is rooted in climate science.

### A balanced approach to new initiatives

Go-Ahead is committed to demonstrating leadership on climate change and we understand the need to align the interests of investors, colleagues, communities and customers through a balanced approach. Many steps towards adapting the business for climate change will carry an upfront cost, which could mean working together with partners and stakeholders to co-fund climate initiatives. Others involve cultural change, which means working closely with our colleagues, customers and communities to shift behaviours and mindsets.

## The four Cs

To determine how to devote time and resource effectively, Go-Ahead will assess all potential climate change-related initiatives in line with the "four Cs" framework, designed to support our decision-making process.



### Carbon

How much emitted carbon will the project save? Each project will be measured according to its benefit in reducing carbon and other harmful emissions.



### Colleagues

What will the project's impact be on colleagues? As well as considering any risks to the business, each project will be assessed on whether it helps us recruit and retain high-calibre individuals, as sustainable initiatives have often been shown to do.



### Cost

What will the upfront cost be? Will there be a cost saving over a longer period? A project's potential to reduce costs will be a factor in determining how to prioritise time and resource.



### Customers

How will the project benefit customers or be received by customers? Each project will be considered in terms of customer reaction, for example, whether it could change behaviour, influence views on climate change, or change the Group's reputation.

## Prioritisation continued

### Prioritising our climate change activity continued

Initiatives will take various forms:

- **Investment** – The transition to zero emissions may require additional investment over the short or medium term, even if it is likely to save money in the long term. As ever, investments will be subject to budgetary and capital expenditure limits, and each initiative will require a compelling business case.
- **Behaviour change** – Some solutions will involve behaviour change amongst colleagues, customers and wider stakeholders. This will involve creative communications and engagement activity.
- **Policy influence** – The pace and scale of the transition needed to take on climate change will necessitate collaboration, including partnerships between public and private sector. As we develop our expertise in the climate space, we will seek to support policy that can effectively deliver change.
- **Partner relationships** – We will monitor opportunities for external funding and respond proactively, including through joint applications with local authorities or partners.

### Stakeholder engagement

Climate change can only be tackled if all parts of our economy work together. Go-Ahead is continuously listening to and engaging with stakeholders, and the Group has led annual surveys since 2016 to better understand stakeholder perceptions and needs. In the last five years, air quality and climate change have consistently featured as priority issues. In the autumn 2019 survey, stakeholders and investors rated “air quality and climate change” as the highest priority challenges for the Group to take on.

Climate change is an increasingly important part of our strategy and features heavily in discussions around the boardroom table. Ahead of Task Force on Climate-Related Financial Disclosures (TCFD) reporting requirements taking effect for Go-Ahead in the 2021/22 financial year, we are already increasing our disclosures through the TCFD methodology, acknowledging the importance of clear and transparent communication on this topic. This disclosure will require the business to consider its exposure to climate-related risk, in terms of both physical and transition risk. Our climate change strategy will increasingly become a strong theme within Go-Ahead’s narrative and wider communications.

In developing our climate change strategy, we have reflected on the expectations of our shareholders in this area, which include:

- Defining a broad corporate purpose that reflects the needs of our customer, communities and shareholders
- Building corporate strategy and business planning to maximise multi-stakeholder value generation
- Identifying and setting targets, and monitoring and reporting against key stakeholder performance indicators

Meeting these expectations will encourage the continued support of current shareholders and will attract prospective investors as we cement our position as a long term, sustainable investment.

We are currently developing the next stages of our internal and external communications and engagement strategy. This will help us to explain Go-Ahead’s progress on climate change, and to encourage partners and stakeholders to work with us in delivering our strategy. Over the coming months and years, we look forward to working in collaboration with local and national authorities, passengers and investors to accelerate change across the public transport landscape.

Climate change is an increasingly important part of our strategy and features heavily in discussions around the boardroom table.





## Prioritisation continued

### Climate change strategic risks and opportunities

Climate change brings significant risks and businesses are not immune to this. As part of our governance processes, Go-Ahead keeps a series of risk registers, which cover operational and strategic risks. These are updated periodically and used to reflect how we operate, plan and invest. There are also strategic opportunities for the Group to explore as the result of climate change impacts, which we consider regularly.

As of 2021, our top strategic climate-related risks and opportunities are classified as follows:

#### Strategic risks

- **Technology** – Technology risk is comprised of the ongoing transition to new technologies, which is developing rapidly in the transport sector. In particular, the ongoing move away from diesel to electricity, and expected shifts to hydrogen in bus fleets, could include multiple risks. These include reliability, compatibility with existing services, the immaturity of hydrogen bus technology, the availability of power and space constraints at depots

- **Dependencies** – Achieving transition depends on external factors over which Go-Ahead has little control. Cost of transition is a key factor. Dependencies include:
  - UK grid electricity decarbonising as National Grid has forecast
  - Technological advancement for EV alternatives occurs for some of the more specialist vehicles in the ancillary fleet by 2035
  - There is significant reduction in traction electricity consumption
  - Regenerative braking is delivered as planned on HS1
  - ULEV bus technology accelerates enough to achieve economies of scale and provides the range extension needed – and the UK government implements the incentives needed as indicated in the decarbonising transport strategy 2021
  - UK government funding is available at levels needed to ensure regional bus fleet transition can be undertaken
  - Passenger numbers bounce back from the impact of COVID-19 reduction
  - TfL completes the fleet transition from diesel to electric buses as projected
  - The majority of GTR diesel operations are electrified or use alternate (non-diesel) technology operations by 2035

### Strategic opportunities

- **Modal shift** – There is an opportunity for low-carbon, high-energy efficiency public transport to position itself as an essential climate change solution, and integral to achieving the UK government's 2050 objectives. As governments around the world take on net zero targets, there is an opportunity for Go-Ahead to showcase its centrality to the green transition as a trailblazing business. Getting to zero will require governments to actively support modal shift to buses and trains
- **Emerging resource efficiencies** – As the grid in the UK decarbonises and diesel costs increase, we are increasingly transitioning to electricity as an energy source. The increase in electricity consumption, primarily due to the electrification of our bus fleets, provides scale and predictability of consumption over the long term. New opportunities can be explored in procuring electricity, which could lead to significant cost reductions and reputational benefits

Technological advancement for EV alternatives occurs for some of the more specialist vehicles in the ancillary fleet by

2035

- **Enhancing the resilience of the Group** – There are opportunities to enhance the resilience of the Group – both operationally, by identifying and mitigating climate-related risks, and at a strategic level by influencing the expectations of regulators and investors. These opportunities will reinforce the long term sustainability and success of the business. Our process to identify existing and future climate impacts has so far led to opportunities in fleet maintenance, supplier engagement, client engagement and premise planning

Climate change also brings physical and reputational impacts which affect our business and require mitigation and adaptation efforts.

- Read more about our adaptation plans on pages 14 and 15.



# Governance: embedding in the business

The priority given by Go-Ahead to tackling climate change is demonstrated by leadership on the issue at the highest levels of the business, with the Chief Executive Officer and the Board of Directors. Clear accountability and transparent reporting structures are in place throughout the Group to ensure that our climate change policies and principles are transformed into action.

We take a co-ordinated approach across the Group's businesses, to ensure that our climate change strategy is at the heart of decisions made by leaders across Go-Ahead's devolved company structure.

## Group governance

Go-Ahead's Chief Executive Officer is ultimately responsible for climate change strategy and leads discussion on climate-related risks and opportunities at Board and executive committee meetings. The climate change strategy is approved by the Group's Board of Directors, which receives updates at least twice annually on progress against our targets, on changes in legislation, and on costs and opportunities arising from climate change.

The executive committee, including the Chief Executive Officer and Chief Financial Officer, agrees the targets for tackling climate change and investment priorities.

Data, metrics and detailed action plans are managed by our Climate Change Task Force – a multi-functional team drawn from Go-Ahead's operating companies and from the Group's head office. The Task Force formulates the plans which enable a programme of climate-related projects to be delivered across Go-Ahead's businesses and is responsible for monitoring progress. There are five workstreams co-ordinated by the Task Force. Each has an owner on the Task Force who is responsible for forming collaborative cross-business working groups to identify opportunities, develop business cases and execute delivery plans.

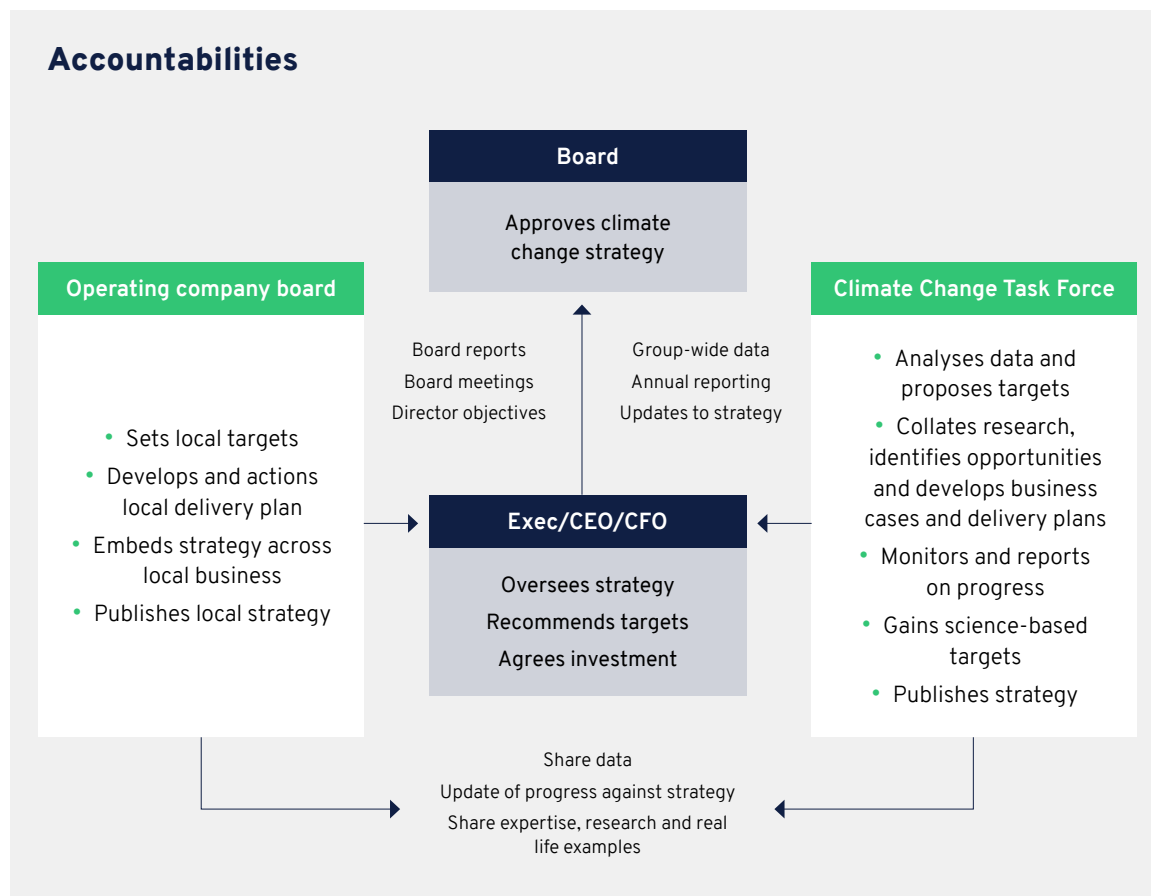
## Operating companies

Each of Go-Ahead's operating companies updates monthly on its progress in addressing climate change via its Board reports. Each operating company discusses its progress on climate change mitigation activity, and the risks and opportunities of climate-related and environmental impacts, twice per year.

Delivery and implementation of our climate change strategy sit with operating companies. Data, actions and success against targets are reported at a local level wherever possible. Local empowerment and leadership are vital to ensure that adequate resources are provided for project delivery, and to enable the early identification of any key challenges.



## Governance: embedding in the business continued



### Operating companies continued

Teams within individual bus and rail businesses monitor the impact of climate change on their operations, including the cost of goods and services, and supply chain requirements. This information is reflected in our operating companies' risk registers, which in turn feed into the Group-wide risk register, which provides a top-down perspective.

### International

A large majority of the Group's operations, and therefore its emissions, climate risk exposures and climate-related opportunities, are located in the UK.

With the international expansion of Go-Ahead's footprint over the last five years, additional data from international operations has been fed into the Group's overall base data, to understand the scale of non-UK emissions and the contribution non-UK operations make to our climate and environmental targets. This has allowed us to set targets for the entire Group, and to incorporate all operations into the same reporting structure.

It is hard to make direct comparisons between businesses in different countries. For example, as Go-Ahead's bus businesses in Ireland and Singapore are provided with vehicles by the local contracting authorities, we have had to make forward-looking assumptions based on the stated aims of each authority.



# Targets rooted in science

## Net zero by 2045

We commit to reduce absolute scope 1 and 2 GHG emissions by 75% by 2035 from an FY 2019/20 base year.\*

Words need to be matched by actions in any robust climate change strategy. For that reason, The Go-Ahead Group is setting targets rooted in science which commit the business to clearly defined, measurable change of a scale required to match current climate science. Decarbonisation targets summarise the actions we will be taking, but for those targets to be meaningful they need to be aligned with a reduction in greenhouse gas emission levels necessary to prevent catastrophic change to our climate.

To pinpoint how far, and how quickly, emissions need to be reduced, Go-Ahead is working with ERM, a global carbon consultancy, to set our carbon reduction target. All the measurements in this document have been calculated following best practice methodology and in line with the latest peer-reviewed scientific research.

\* Go-Ahead has submitted its decarbonisation targets to the Science Based Targets initiative for verification.

## Our approach

Emissions targets are categorised at three levels, according to the level of direct control a company has over emissions.

- **Scope 1** refers to emissions produced directly from sources owned or controlled by Go-Ahead
- **Scope 2** refers to targets from electricity, steam, heating or cooling purchased by Go-Ahead. Scopes 1 and 2 include emissions from our buses, trains and premises around the world
- **Scope 3** targets include carbon used in our supply chain – such as the carbon generated when our buses are built and maintained, or the carbon emitted when purchased goods are manufactured and shipped to us

Go-Ahead intends to reduce emissions across all three categories. In the first instance, we have set binding and high-impact targets against scopes 1 and 2. We are currently in the process of developing our more complex scope 3 emissions reduction activity and will publish these targets later in 2021.

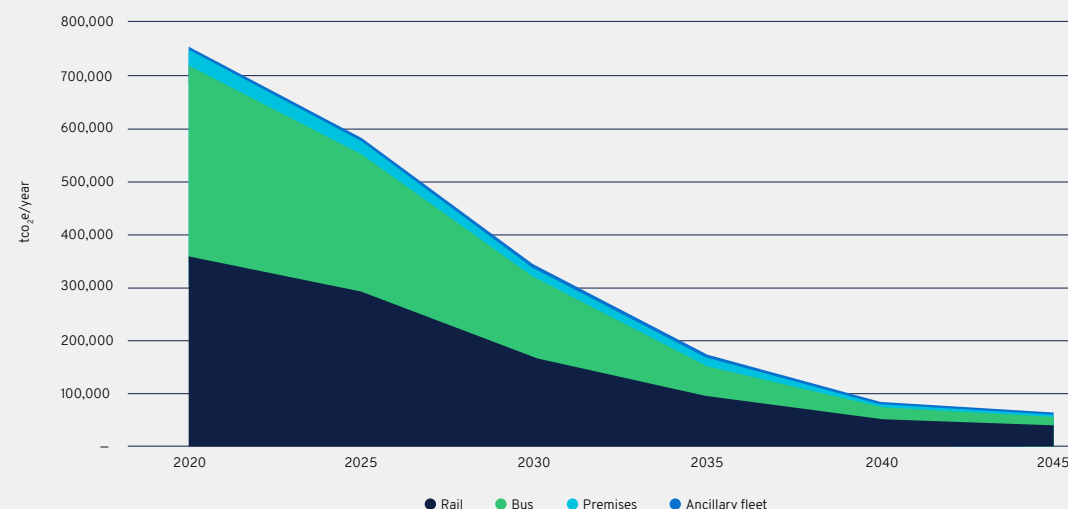
The baseline for the strategy is an independently verified measure of Go-Ahead's emissions for the financial year ending June 2020. We used this to project future emissions over a 15-year horizon and calculated that in order to contribute to meeting the 1.5°C threshold, we must reduce emissions by at least 4.2% on average annually. However, we can do more. We have set a target that means we are aiming to decarbonise by 75% by 2035, from 752,000 to 188,000 tCO<sub>2</sub>e/year.

This means we have set a net zero ambition for scopes 1 and 2 by 2045, which will include offsetting the residual carbon that cannot be removed.

There are many variables in how the future will unfold, some of which are out of Go-Ahead's control – including the extent the electricity grid will be decarbonised and the speed and scope of the shift to low-emission vehicle

technology. We can only achieve our targets if these dependencies materialise, a full list of which is provided in the “Climate change strategic risks and opportunities” section. The data and calculations behind the Group's targets will therefore be comprehensively reviewed and updated every five years.

## Forecast Group GHG emissions to 2050 (scope 1 and 2)



From 2045 residual CO<sub>2</sub> will be offset.

# Workstreams



## Adaptation

Read more on page 14



## Decarbonisation

Read more on page 16



## Air quality

Read more on page 18



## Water

Read more on page 19



## Waste

Read more on page 20

# Adaptation



## Climate change adaptation

Much of our climate change-related activity will focus on mitigating the impact of climate change, that is, avoiding the worst-case scenario impacts and ensuring we can make our contribution to limiting global warming to 1.5°C.

It is also vital to consider how our business will be required to adapt to changes in the climate, and what this will mean for our investment, engagement and operations. Our aim in this workstream is to identify how climate change will impact our business, and to identify and quantify key climate risks, so we can take steps both to mitigate against them, and to adapt to them.

We will need to work closely with partners on developing our plans, including Network Rail, Highways England, national government, local authorities and our suppliers.

At the same time, it is important to consider opportunities alongside risks. There will be impacts of climate change on our passenger services, our premises, the infrastructure we utilise, and our supply chain and partners. But there will also be opportunities for the business to improve our operations, attract new customers and adapt to serve the new, greener world that will emerge.

### Our experience of climate change

It is already possible to see significant negative impacts from climate change on our businesses, our operations and our customers.

Prolonged periods of hotter and wetter weather are becoming more frequent, and more disruptive. The infrastructure that we operate, and third party infrastructure that we rely on, is increasingly impacted by weather-linked disruption. In our rail operations and bus businesses, we are seeing increases in landslips and floods every year.

Research shows that the UK will experience increased instances of heavy rainfall and higher wind speeds. We are moving into an era of hotter, drier summers and wetter, warmer winters with an increasing risk of snow.

There are many risks in this more unpredictable operating environment. These could include, but are not limited to:

- Customer complaints and negative feeling about increased disruption
- Increased risk of accidents to passengers and our people
- Failure to meet contractual obligations due to weather events
- Increased compensation pay-outs
- Increased maintenance and repair activity and costs
- Restrictions on infrastructure, premises and other asset usage

- Increased insurance premiums
- Costs of long term relocation, for premises at flood risk
- Costs of dealing with flooding, high winds and other climate-related weather events at our owned and leased properties, depots and stations
- Our people, essential to our operations, being unable to get to their place of work due to severe weather conditions which impacts on our ability to deliver services

As a business, we need to adapt our operations and businesses to ensure that we can continue to operate effectively, sustainably and affordably. It is our aim to do so whilst maintaining value for money for passengers, delivering to our contracts and ensuring returns for investors.

These risks are difficult to quantify and even harder to predict. As with many other businesses, we are at an early stage of scoping and planning the actions we will need to take to adapt to climate change. The future holds significant disruption, and we will need to act decisively and quickly.

### Looking to the future

Quantification of the risks we face, and adaptation to meet them, is an important priority for Go-Ahead. We will focus on three key areas to support our adaptation workstream:

- **Risk registry and actions:** Go-Ahead and its operating companies are incorporating climate change into our robust existing risk registers. The inclusion of climate change into our registers will generate a series of activities designed to reduce the impact of climate change and extreme weather events
- **Supply chain focus:** We will identify the ten most operation-critical suppliers for each of our companies. For each of these suppliers, we will ensure that they have a climate change adaptation appraisal in place, and a planned approach to maintain continuity of supply and services in the case of extreme weather events
- **High-risk location assessment:** We will identify locations that could be most at risk of extreme weather impacts such as flooding, high winds and earth movements. Working with local partners, we will aim to diagnose what mitigating action we could take to reduce this risk, and what adaptation processes we may need to put in place. Our priorities will include maintaining operations and passenger services whilst protecting buildings and our people, increasing proactive maintenance, identifying property devaluation risk and the possibility of vacating premises that will be increasingly affected. Business continuity planning will be reviewed alongside the ongoing development of our emergency response and service disruption plans

## Adaptation continued

### Business level risk assessment

We have identified the key strategic risks faced by the business due to the physical risks of climate change. For us, these are closely interlinked with reputational risk, because if our ability to operate is jeopardised by physical risk, this will affect our brand reputation in the eyes of our customers and stakeholders. There are three key physical risks and three key reputational risks.

Physical	
<b>Cost risk</b>	This stems from the accumulated costs of physical risks such as weather events occurring at individual operating company level. Our operating companies have identified multiple physical risks from climate change in their risk registers, many of which are already experienced. This includes risks to fleet, premises, operations, people and supply chain.
<b>Provision risk</b>	Physical risks could impact our ability to provide reliable bus and train services. This would lead to reduced passenger numbers and a loss of revenue for the business, and result in failure to deliver contractual obligations and service levels.
<b>Asset value risk</b>	At asset level, physical risks, such as the repeated flooding of a bus depot, will significantly reduce the asset value of the depot or significant replacement cost of assets contained within our premises.
Reputation	
<b>Climate change reputation risk</b>	There is a risk of damage to Go-Ahead's reputation with all stakeholders, including regulators, investors, passengers and colleagues, if we are perceived as not fully committed to tackling climate change.
<b>Contract risk</b>	With physical risks to operating comes the potential risk of breach of contract conditions. This could lead to loss of confidence on behalf of our clients and partners and, ultimately, loss of contracts.
<b>Reliability risk</b>	The physical risks of climate change are likely to impact on our ability to deliver reliable services. This is made more unpredictable by the fact that Go-Ahead is not responsible for the road and rail infrastructure on which we depend. These risks will impact our reputation as a reliable transport operator.

### Operational level risk assessment

Climate adaptation risk registers have also been completed by our operating companies. An indication of the risks to rail and bus operating companies gives a sense of the scale of adaptation needed. We have already seen examples of these risks in action, and work is already underway to adapt to these trends.

- 1 Damage to people, for example injury due to panels being blown from premises during extreme weather events
- 2 Risk of increased incidences of extreme storms and high winds, causing service disruption
- 3 Loss of revenue on exposed routes
- 4 Damage to vehicles and property
- 5 Increased flooding
- 6 Embankment weakening and earth slips, affecting the ability to run certain routes
- 7 Timetable disruption
- 8 Contractual penalties
- 9 Increased maintenance and repair costs
- 10 Decrease in customer satisfaction
- 11 Increased insurance premiums and claim excess costs



# Decarbonisation



## Reducing carbon emissions

At the heart of Go-Ahead's climate change strategy is a pressing need to reduce the greenhouse gas emissions generated by day-to-day bus and rail operations. This is a top priority for the business and will continue to inform our investment decisions.

### Drivers for change

There are a number of clear and undeniable reasons why we need to act.

We have listened closely to our local communities and to political stakeholders. All these stakeholder groups expect Go-Ahead to contribute positively to reducing the global threat of climate change, and to addressing the risks posed to our business by environmental damage.

Carbon emission reporting and reduction activities are now mandatory in many geographies. We anticipate this trend growing, with forthcoming laws and regulation continuing to raise the financial burden of generating greenhouse gases. At a local level, towns and cities are increasingly empowered to set their own targets on decarbonisation, and many are establishing emission-related conditions for operators of public transport.

As a commercial business, Go-Ahead is obligated to minimise costs and seek efficiency when making investments in low-carbon solutions. These aims support the delivery of an affordable service for our customers.

If Go-Ahead does not take action on this issue, our competitors will – and those with more climate-friendly reputations could ultimately take market share from us. This would weaken our business and undermine our ability to contribute positively to the change we wish to see.

### Key targets

The Go-Ahead Group has established targets that are rooted in climate science.

- Net zero carbon emissions by 2045\*
- 75% reduction in carbon emissions (scope 1 and 2) by 2035

These targets incorporate the following:

- Conversion of Go-Ahead's UK bus fleet to zero-emission models by 2035
- A significant reduction in emissions from Go-Ahead's international bus fleet by 2035, in line with requirements set by national and local transport authorities
- A non-diesel rail fleet by 2035
- A significant improvement in the energy efficiency of all Go-Ahead bus and rail premises by 2035

## Buses

Go-Ahead's 5,000 buses carry over 2 million passengers a day (numbers taken prior to the COVID-19 pandemic). The Group presently operates 200 electric buses in London, Oxford, Salisbury and Newcastle. Whilst Go-Ahead does not have control over the buses owned by the local contracting authorities in Ireland and Singapore, we are aware that the authorities in these countries are fully committed to converting their diesel buses to the cleaner bus fleet in the future and we are fully supportive of these initiatives.

### UK regional bus fleet

Go-Ahead intends to secure sufficient government funding contributions, to enable the decarbonisation of its regional bus fleet across the UK, and to implement a transition plan for the phased replacement of diesel buses with low-carbon electric and hydrogen vehicles.

### London bus fleet

We are supportive of Transport for London's (TfL) strategy for decarbonisation. Go Ahead London's bus fleet will be switched from diesel to electric in line with Transport for London's (TfL) stated objectives of completion.\*\*

## Rail fleet

The majority of the Group's rail operations are already electrically powered. Go-Ahead will transition towards 100% either electric or alternate (non-diesel) technology operation as soon as track and infrastructure allow. This will require public funding for electrification of a small number of branch lines in the South East of England or in alternate technology on our trains that are currently diesel operated.

Beyond this, Go-Ahead will drive continuous improvement in performance through improved measurement of energy consumption and on-train metering.

### Ancillary bus and rail vehicles

The Group will specify that, by 2035, our 350 ancillary vehicles must be electrically powered, rather than diesel powered, at the end of the existing lease or asset life of purchased vehicles.

\* Offsetting of residual CO<sub>2</sub> from 2045.

\*\* TfL has the stated aim of completion by 2037 at the very latest.





## Decarbonisation continued



### Our premises

We plan to introduce initiatives to reduce the consumption of electricity within Go-Ahead offices, depots, stations and premises, including new specification of LED lighting.

For rail premises, agreement will be needed between operating companies and the Department for Transport on the investment required to reach consumption targets. These investments could include the purchase of more efficient plants and equipment.

### Engaging and influencing stakeholders

Go-Ahead is committed to an ongoing dialogue with our stakeholders on decarbonisation initiatives. In particular, the Group will prioritise the following:

#### Engaging with government and regulators to enhance low-carbon investment

Alongside our strategic partners, Go-Ahead will advocate for greater government ambition on low-carbon investment. We will do this by clearly communicating the role of buses and trains in supporting smart cities, in helping to combat climate change and in improving air quality.

#### Engaging with our industry partners to influence the evolution of rail franchise structures

This could include options like GTR's "transforming rail" contract. Along with our industry partners, Go-Ahead will advocate for an optimum length of contracts to enable long term carbon reduction investments.

#### Engaging with rolling stock companies to encourage innovation

In rail, we will work with rolling stock companies on low-carbon fleet innovations, especially for use on sections of track which are not already electric. Where opportunities require new funding arrangements, a business case will be presented to the Department for Transport.

#### Engaging employees in reducing energy

Our Go-Ahead colleagues play a valuable role in identifying opportunities to improve our energy efficiency and decrease our carbon emissions. We will introduce programmes to encourage behaviour changes by colleagues from across the business.



### Electric buses for the North East

In November 2020 Go-Ahead launched the first fully electric bus fleet in the North East of England. The nine new electric buses on its Go North East services provide 55,000 journeys a year covering 300,000 miles to nearly 2 million passengers in the region, across Newcastle and Gateshead annually.



Based at Go North East's state of the art depot in Gateshead, the game-changing "Voltra" buses are powered by zero-emission clean sources such as solar, wind and hydro, and are housed in a new electric bus micro depot capable of accommodating 30 electric buses, paving the way for future investment. The vehicles are the result of a £2m investment with top-up funding from the government's Ultra Low Emission Bus Fund.

The Voltra buses have a striking new futuristic look and boast a whole host of onboard features, including high-quality interiors with luxury seating using sustainably produced materials.

Features include free Wi-Fi, wireless and USB charging, seat back phone holders that allow you to comfortably watch videos from your seat, next-stop audio-visual announcements, and "tap-on tap-off" contactless bankcard ticketing, which is a first for the North East.



# Air quality

## Improving air quality

Improving air quality in our towns and cities is vital. Clean air is beneficial for our health and wellbeing, and for our environment and the global ecosystem. Our stakeholder surveys show that air quality, along with climate change, are the two priorities that Go-Ahead should be taking on. Combating them both requires a transition to low-carbon, zero-emission transport.

Prioritising air quality brings us into alignment with both national and local governments, as public authorities are increasingly aware of the role that air quality can play in greener, cleaner, healthier lifestyles. Go-Ahead has a clear mandate to address this issue, through increasing efficiency in our existing activities, and innovating towards new ways of doing business.

We have already made significant steps to improve our emissions through purchasing vehicles meeting Euro standards on pollutants. Euro VI is the latest in the series of increasingly stringent standards that specify the maximum emissions of pollutants in diesel engines. By investing in new fleet vehicles and purchasing new vehicles to replace those vehicles which meet previous standards, we are continually reducing the amount of emissions that we produce.

We continually review the efficiency of our fleet, and aim to proactively replace older vehicles, making use of scrappage incentives and investing in green transport innovation initiatives.

## Key targets

By 2025, we commit to reducing our vehicle emissions factors for the following four pollutants, against a baseline year of FY 2019/20:

- Carbon monoxide (CO) **17% reduction (g/kWh)**
- Hydrocarbons (HC) **49% reduction (g/kWh)**
- Nitrogen oxides (NO<sub>x</sub>) **63% reduction (g/kWh)**
- Particulate matter (PM) **55% reduction (g/kWh)**

## Successes to date

Since 2012, we have invested in modernising our existing bus fleet with the aim of reducing emissions. We have seen extensive success across the the Group: <sup>\*\*\*</sup>

- **33%\*** reduction in emissions factor (g/kWh) for carbon monoxide (CO)
- **59.3%\*** reduction in emissions factor (g/kWh) for hydrocarbons (HC)
- **68.5%\*** reduction in emissions factor (g/kWh) for nitrogen oxides (NO<sub>x</sub>)
- **68.6%\*** reduction in emissions factor (g/kWh) for particulate matter (PM)

## Looking to the future

Cleaner air is an ambition that we want to work towards together with all our stakeholders. We will focus on six key initiatives to improve air quality:

**Procurement** – We will continue our policy of procuring new vehicles with zero tailpipe emissions. For our existing Greater London routes, we will move to procuring only electric vehicles, with a plan to expand this across the UK.

**Air quality metrics alignment** – We will commit to establishing a fleet-wide standard for measuring air quality.

**Electric vehicle (EV) charging points** – We want to increase the number of EV charging points available in the car parks of our train stations. We will work closely with partners to make these investments profitable.

**Working with local authorities** – Our rail operating companies GTR and Southeastern Railway will pioneer collaboration with local authorities, to co-develop and launch integrated sustainable transport plans.

**Innovating our existing fleet** – To complement our new clean vehicle purchasing commitments, we will continue to adapt our existing fleet to reduce emissions.

\* Independently verified by Bureau Veritas (BV).

\*\* This methodology, calculations and the assumptions underlying it have been verified by Bureau Veritas. The below outlines recommended additions and contextualisation to the assumptions, and includes the assumption made on emission factor definition.

The vehicle emission factors utilised within the assessment are assumed to be the maximum emission rates for each relevant Euro Class.

Technology failures, distance travelled and driving conditions have not been included in assumptions. ZEBs are assumed to have zero tailpipe emissions.

**Emissions factor definition** – emission factor is the average emission rate of a given source, relative to units of activity, in this case grams per kilowatt hour (g/kWh).



## Powered by the sun

We are trialling ultra-lightweight solar panels, weighing less than 20kg, on 21 vehicles in both Southampton, UK, and Singapore. We expect that this will improve vehicle performance whilst decreasing overall fuel consumption. We are looking forward to the results of our trial in late 2021, and to expanding this innovative approach.



# Water



Like air, water is increasingly recognised as a key arena where physical climate risks may be realised. Climate change will challenge the reliability of the world's water supply. Weather events including higher temperatures, more frequent droughts and increased flooding will contribute to a scarcity of clean, uncontaminated water.

As a responsible business, Go-Ahead views careful management of water as an essential component in ensuring that its operations are environmentally sustainable. We have therefore committed to a target of reducing water consumption by 25% by FY 2024/25, with a baseline year of FY 2019/20, for all Go-Ahead companies.

## The impact of leaks

The primary cause of water wastage within the Group is leaks. Leaks develop due to the age and condition of underground pipework, as well as from infrequent damage by groundwork contractors. If pipework is not managed properly, there is a risk of water erosion. If surface water is able to seep away through underground routes caused by erosion, this can lead to instability in infrastructure such as railway tracks, causing extensive disruption.

## Target

Reduce water consumption by 25% by FY 2024/25.

## Looking forward

Access to clean water is a right that we want to ensure for future generations. We will focus on three key initiatives to conserve water and improve our water stewardship:

**Water efficiencies** – Investigations have already begun to identify where there are possible water efficiencies within operating businesses across the Group. These will include looking at vehicle washing schedules, infrastructure improvements such as improving toilet and tap flush controls, and local ownership of water use with on-site observation and proactive water management.

Each operating business will produce action plans developed at a local level to reduce its water usage and tackle leaks. These plans will be owned and implemented by teams on the ground in depots, stations and offices.

**Water reporting** – The Group is stepping up reporting processes to monitor and measure water usage. We are creating a central governance structure to oversee the management of water utilities across all operating companies.

Responsibility for this important area will be clearly defined as the Group develops its monitoring and reporting, and management will be expected to investigate and take appropriate mitigation action in cases of water over-consumption. This governance structure will also be responsible for steering initiatives to increase awareness of water consumption among employees.

**Granular water measurement** – Measuring and monitoring water use rely on having good data. Data loggers can provide this, but there can be issues with reliability and removal by third parties. Go-Ahead is ensuring that local supplies of water are data logged or water providers will be asked to provide accurate, metered data.



## Putting a stop to leaks

With an aging rail infrastructure, leaks in water pipes are inevitable as pipes wear out or are damaged by prevailing weather conditions.

To deal with this GTR and Southeastern proactively monitor for water leaks using dedicated water data loggers. Since 2019 GTR has seen over 200 water data loggers fitted to supplies which provide an early warning system against continuous water flow.

Both rail businesses have made significant progress in monitoring water loss, identifying leaks early and resolving them effectively. Since the first steps were taken to address the issue, GTR and Southeastern have achieved a 30% reduction in water consumption.



# Waste



## Reducing waste and improving recycling

Changing the way we manage waste is important due to the role played by waste products in contributing to overall greenhouse gas emissions, as well as the negative impact on the wider environment. There is an ever-increasing societal and consumer interest in recycling and environmental conservation. As a socially responsible business, we care about how we impact our local communities and the local environments wherever we operate.

The UK government has set a target to reduce greenhouse gas emissions by 68% by 2030, compared to 1990 levels. There are two UK government initiatives currently in process that we look to support through our waste and environmental plans: the Environment Bill, and the Waste Prevention Programme for England. The Environment Bill making its way through Parliament in mid-2021 has several measures related to waste, including the requirement that producers separate certain materials prior to collection and processing. This aligns with the new Waste Prevention Programme for England that is currently in consultation phases. These new requirements mean we can expect the associated costs of waste disposal to increase. By taking steps now to reduce the amount of waste produced, and to improve our waste management, we are both improving our positive impact on the environment and reducing our overall costs.

### Key targets

We have short, medium, and long term targets for waste volume produced, and for recycling.

We aim to increase the overall proportion of waste recycled across the Group to:

- 60% by 2025
- 70% by 2030
- 80% by 2035

We are currently establishing our targets for reducing the overall amount of waste produced and expect these targets to be set by the end of 2021.

### Looking to the future

Focusing on waste allows us to address local environmental issues at the same time as climate change. We will focus on four key initiatives to improve waste management and recycling:

#### Waste management contracts and recycling at stations

We are focusing on GTR in our waste strategy in the immediate term, with Southeastern coming online in January 2022. At GTR, we are looking to introduce a new waste management contract as the existing one comes to an end in 2022, with an increased focus on recycling and waste segregation. GTR will be undertaking a pilot at Brighton station which will inform our future bus and rail waste strategies. This will include a mobile segregation unit on site, new recycling bins and a behavioural change campaign for customers in Brighton focusing on responsible disposal of waste and recyclates.

**Waste reporting** – By the end of 2021, the Group plans to establish a consistent waste reporting process that improves visibility of data, provides consistent metrics and informs overall waste reduction targets. This framework will be rolled out across all bus and rail companies within the Group.

**Supply chain waste** – We will work with our suppliers to set a target for an overall reduction in waste volumes. This will focus on avoiding excessive packaging,

reducing single-use plastic and introducing packaging return schemes. Baseline targets will be included in our future tender processes to identify suppliers that align with our environmental targets.

**Paper and printing waste** – We will work with colleagues to reduce paper usage and printing volume. This will be encouraged via printing-per-colleague reports for all bus and rail companies, as well as an internal behaviour campaign to make the switch to digital.



## Waste on the move in Brighton

We are working with Green Block Consulting to trial a mobile recycling facility at Brighton train station, which accounts for 11% of the total waste produced across GTR stations. Though small in size, the mobile segregation unit (MSU) has large scale capacity to facilitate the segregation of unsorted waste at the point of production. The self-contained unit will be installed at Brighton station. The unit provides instant access to real-time waste data, allowing waste trends to be locally identified. All waste is barcoded and can be attributed to waste producers. Enabling retailers to pay only for the waste that

they have produced encourages recycling, which is charged at a lower rate than general waste.

The pilot will have two phases. Phase one will take place between June and October 2021 at Brighton, and phase two, running from October 2021 to June 2022, will include up to 16 stations within a 15-mile radius of Brighton. This hub would capture 14% of GTR's total annual waste. Phase two will see waste transported between stations by an electric vehicle, further increasing the positive environmental aspects of this scheme.

# Delivery roadmap

	2021	2025/26	2029/30	2034/35
<b>Decarbonisation</b>				
Regional bus decarbonisation	Gov. funding; fuel efficiency; diesel buses replacement			<b>No diesel buses</b>
London bus decarbonisation	Electric vehicles make up ●% of Go-Ahead London (TfL services) fleet:			
	● 12%	● >40%	● 60%	● 100%
Rail fleet decarbonisation	Metering of fleet and monitoring of energy*	Electrification of remaining lines or alternate technologies; ongoing metering of fleet		<b>2035: No diesel rail</b>
Ancillary fleet decarbonisation	Replace as existing leases expire			
Premises decarbonisation	Plant and equipment plan and upgrades; opportunities identified from energy audits			<b>100% LED conversion</b>
	2021	2022	2023	2024/25
<b>Air quality</b>				
Procure new vehicles (Regional)			Order replacement vehicles for regional bus to catch up on average fleet age losses (Euro VI or ZEB)	
Procure new vehicles (London)	Produce regular emission factor reports. New EV buses in London**			
Innovation projects	Solar panel trials	EV prototype trialling in 2022; annual site air quality monitoring and measuring		

\* Assuming UK government investment in alternate (non-diesel) technology operation and metering. This date is based on the assumption that we continue operating both our existing rail contracts indefinitely.

\*\* Targets are based on forecasts of new electric vehicle purchases at Go-Ahead London, as follows: 40 zero emission buses (ZEBs) in 2021/22, 162 ZEBs in 2022/23, 231 ZEBs in 2023/24.

# Delivery roadmap

	2021	2022	2023	2024/25
<b>Adaptation</b>				
Risks and mitigation management	Risk assessment, registers and quantification of risks	Define and quantify mitigation	Measures and plans embedded	
Review supply chain	Identify critical suppliers and their adaptation continuity plans	Mitigation activities identified		
Property assessments	Identify local extreme weather predictions, develop premise safeguarding plan, assess high-risk areas	Embed actions and reviews		
<b>Water</b>				
Water efficiencies	Identify water efficiencies, action plans and guidance	Embed into new builds/redevelopments; robust leak management system		
Improving data management and reporting		Formal Utilities Working Group and site water champions; staff awareness campaign; improve data collection; third party separation		
<b>Waste</b>				
Waste contracts	Phase 1+2 Brighton Waste trial; new reporting requirements implemented	Mobilise new Southeastern waste contract and agree strategy for re-letting of GTR and bus waste contracts*		
Waste reporting	Identify waste streams; develop new reporting process and requirements; set reduction targets			
Supply chain	Review waste from suppliers and opportunities to reduce/return	Identify suppliers to work with	Revise supply chain charter and contracts	

\* This date is based on the assumption we continue operating both our existing rail contracts indefinitely.

# Thank you

We would like to thank the Go-Ahead Climate Change Taskforce members for their enthusiasm and hard work in bringing this strategy, and the targets within it, to life. This is especially impressive given the challenging conditions brought about by the pandemic during the development of this work.

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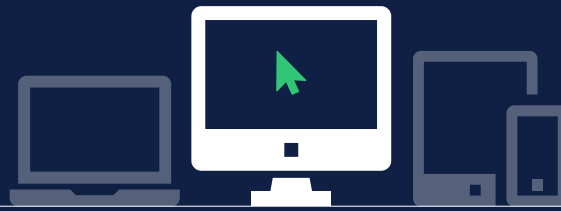
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