GCC

User Guide – Carbon Calculator 2.0

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V1. Sept 24

1. Getting Started

a. Introduction

Welcome to the GCC Carbon Calculator! This tool has been designed specifically for museums, galleries and other organisations within the art sector to help you track and manage your carbon emissions. This can help you form your organisation's decarbonisation strategy and move towards the sector-wide reduction targets.

The calculator can also be used by individuals such as artists and curators who want to understand their own impacts. Whether you're organising exhibitions, touring events or other cultural activities, the GCC Carbon Calculator is tailored to support your carbon reporting.

b. Why Measure Emissions?

The first step in getting to grips with the environmental impacts of your operations is creating a carbon report and establishing a baseline figure. Once you've completed a carbon report, you'll quickly spot which specific actions, events, and time periods contribute the most to your emissions. From here, you can set targets, develop strategies and track progress towards achieving the 50% reduction in carbon emissions that we all need to reach by 2030.

Understanding and measuring the carbon emissions of your art organisation or project is crucial in taking effective climate action. This decade has been widely regarded by scientists as a critical decade for averting the worst impacts of the climate crisis. By using metrics common to today's international art world, the GCC Carbon Calculator is tailored for this purpose, enabling you to monitor the key sources of carbon emissions, and ultimately understand how to take action towards an environmentally responsible art world.

Not every section of the tool will be relevant to everyone. For example, not everyone will have purchased external accommodation, or offsite storage, or air conditioning refrigerants in any given year. Visitor travel might not be relevant to an arts publication or an artist's studio; a solo artist who works from home will not have commuting emissions (but will need to count the energy from their home working space under "building emissions").

c. Creating an Organisation

If you're not a GCC member, you'll first need to register to use the calculator. This is so you can save and revisit your reports.

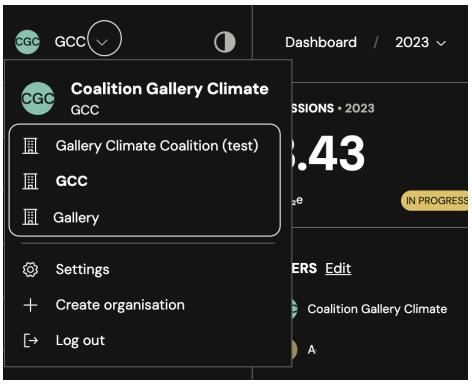
To get started, users must first create an organisation:

- After logging in, select "Create Organisation."
- Fill in the required details such as organisation name, size, baseline year, and carbon reduction targets.
- Creating an organisation automatically makes a user and admin, giving the user certain permissions.
- Once created, the Admin can invite others to join the organisation as Editors or additional Admins.
- Be wary of creating duplicates of an organisation. We recommend assigning one person within your team to create the organisation to avoid duplication.

If your organisation has created an organisation account, you can ask to be invited. You'll receive an email. Simply follow the link and you'll be signed up to your organisation's account.

d. Belonging to Multiple Organisations

Users can belong to multiple organisations and easily switch between them by using the user drop-down in the top left-hand corner. If invited to another organisation, you will receive an email or notification allowing you to accept the invitation and start contributing.



e. Different Roles

In the GCC Carbon Calculator, there are three user roles: **Admin**, **Editor**, and **Guests**.

Admins have full control over an organisation's profile. They can:

- Create an organisation.
- Invite new users.
- Manage organisation settings (e.g., name, baseline year, emission targets).

- Remove users.

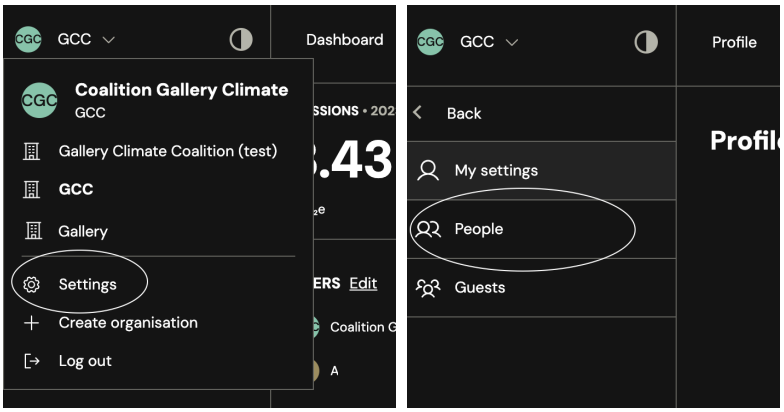
Editors can:

- Enter and update data for the organisation.
- View the dashboard and reports of the organisation.
- Collaborate on projects but do not have access to manage organisation settings or users.

Guest editors can:

- Only contribute to the report they have been invited to
- Only be able to view the report they have been invited to
- Will not be able to view the reports or dashboard of the organisation they have been invited to as a guest.

To be able to view the different users of an organisation you can click on the users list on the dashboard, or head to the “People” tab in settings (Found in the drop-down menu in the top left) where admin will be able to assign admin privileges to others or update roles.



f. Annual and Project Reports

Annual carbon reporting is essential for understanding and reducing your institution's environmental impact. By making carbon reporting an annual task, similar to tax returns or financial record-keeping, you can track your progress towards emission reduction targets effectively.

Regular annual reports are a core commitment for all members, whilst submitting an annual report is a key requirement of GCC active membership.

We recognise that tracking carbon emissions for specific projects or events is also

valuable, which is why we have included a Project Mode. This feature allows you to monitor emissions for individual projects, exhibitions, departments, or events, offering flexibility in how you track and understand your emissions.

While project reporting can offer alternative insights, only annual reports contribute to achieving active membership status.

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2. Data Gathering

a. Introduction

Collecting the necessary data for your carbon report might seem daunting at first, but much of it should already be available through your finance records/departments and/or your registrars. Additionally, if you work with external shippers, they should also have access to the relevant data. Before starting a report, we recommend informing the companies you work with about your carbon reporting and requesting the specific information you need.

To accurately track and compare your carbon emissions, establish a consistent yearly parameter for data collection. This could follow a calendar year (e.g., January to December) or a financial year (e.g., April to March). Ensure all data collected pertains to the chosen year only. Maintain the same time frame year on year for comparability. Ensure all departments and stakeholders adhere to the selected year parameters.

Our research has shown that three primary sources of carbon emissions are prevalent across most galleries, institutions, artist studios, and art sector businesses: air travel, shipping, and building energy consumption. Please note however that this is entirely dependent on your operations. For example, if you do no international travel and shipping, but lots of large-scale online events, it's likely that your digital emissions will make up a large proportion of your emissions. Before deciding whether to include the additional data or not, analyse your operations. If you have questions about this, please contact us.

Below you will find a breakdown of where to find data for each category.

b. Priority Data:

- Air Travel
- Freight

- Energy (including refrigerants)

Addressing these key areas is essential, as they significantly contribute to your overall carbon footprint. Please make every effort to collect this information accurately.

c. Additional Data:

- Surface Travel
- Accommodation
- Materials
- Digital
- Staff Commuting and Visitor Travel
- Custom Tab (for entering emissions from other tools and sources)

These categories represent activities with lower emissions impacts. While still important, if time/capacity is constrained, these can be estimated or left out of your report.

d. Data Gathering - What / Where / How

Emission Source	Data Required	Where to Find It
1. Air Travel	List of all flights taken and details about the journey: One-way / Return, origin > destination, flight class and number of passengers.	From travel agents, financial records and/or staff booking records.
2. Air Freight	List of all international art transport by air planes and details about the journey: one-way / return, origin > destination, weight.	Direct from the logistics and shipping companies and/or your registrar(s)/internal records
3. Ocean Freight	List of all international shipments made by sea and details about the journey: one-way / return, origin > destination, weight including packaging (optional).	Direct from the logistics and shipping companies and/or your registrar(s)/internal records
4. Road Freight (weight known)	List of all international shipments - consolidated	Direct from the logistics and shipping companies

	or otherwise - made by truck or heavy goods vehicle (HGV), details on the vehicle, and details about the journey: one-way / return, origin > destination.	and/or your registrar(s)/internal records
5. Road Freight (weight unknown)	List of all international shipments made by truck or heavy goods vehicle (HGV), details on the vehicle, and details about the journey: one-way / return, origin > destination, % of cargo ownership, % of load (how full the load was).	Direct from the logistics and shipping companies and/or your registrar(s)/internal records
6. Grid Energy Consumption (with a meter)	Unit and type, electricity total), Piped gas total, location, % share of premises energy.	From energy bills, meter readings or financial records
7. Grid Energy Consumption (without a meter)	Energy type, Building type, floor space occupied, location	Asking a landlord, rent agreement floor plan, estimates.
8. Refrigerants	Refrigerant chemical, amount added in report time-frame.	Maintenance Records,Technicians and maintenance bodies, Equipment Documentation.
9. Local Freight - Shared Cargo	List of all local freight shipments using shared cargo, one way/return, vehicle type, vehicle size (optional) charging location (for electric vehicles) distance travelled, type of weight, weight transported.	Direct from the logistics and shipping companies and/or your registrar(s)/internal records
10. Local Freight - Whole Cargo	List of all local freight shipments using whole cargo, number of trips, one way/return, vehicle type, vehicle size (optional)	Direct from the logistics and shipping companies and/or your registrar(s)/internal records

	charging location (for electric vehicles) distance travelled.	
11. Business Vehicle Use	Fuel type, Fuel volume, Vehicle type (if fuel volume not known) Distance travelled Charging Location (for fully electric vehicles)	From financial records and/or staff records.
12. Public Transport (Calculations by Distance)	Transport type, Route (optional), Distance, Number of tickets, Location	From financial records and/or staff records.
13. Public Transport (Calculations by Cost)	Transport type, Total amount spent, Currency, Location	From financial records and/or staff records.
14. Accommodation	Country of stay, Number of nights, Number of rooms Accommodation Type, Floorspace (optional)	From financial records and/or staff records.
15. Materials Quick Calculator	Type of purchase, Type of material, Amount purchased (kg, litre, or number of meals, measured or estimated)	From financial records and/or staff records.
16. Materials for Art Creation	Material, Reused/recycled content, % recycled content, Amount purchased (kg or litre, measured or estimated)	From financial records and/or staff records.
17. Materials for Exhibition Build	Material, Reused/recycled content, % recycled content, Amount purchased (kg or litre, measured or estimated)	From financial records and/or staff records.
18. Exhibition Equipment and Technology	Items purchased, Reused/reclaimed/hired?, Number of items, kg	From financial records and/or staff records.

	purchased (if "Other technology")	
19. Packaging and Disposables	Material, Reused/recycled content, % recycled content, Amount purchased (kg or litre, measured or estimated)	From financial records and/or staff records.
20. Office Equipment	Material, Reused/recycled content, % recycled content (if relevant), Amount purchased (kg or litre, measured or estimated) Number purchased (if gloves)	From financial records and/or staff records.
21. Publications/External Printing	Item printed (book, brochure etc.), Weight per item (g), Number printed, Recycled content of paper (%)	From financial records and/or staff records.
22. Basic Catering	Material, Reused/recycled content, % recycled content, Amount purchased (kg or litre, measured or estimated)	From financial records and/or staff records.
23. Websites	URL, Total page views, gCO_2e per view (you'll have to retrieve this from websitecarbon.com)	From your website hosting platform
24. Video Calls	Hours spent on video calls, Typical number of people on calls, Hours spent on large webinars, Typical number of people in webinars	From your calendar records, video call platform accounts and/or staff records
25. Cloud Storage	Cloud storage provider, GB of data stored, Location,	From your cloud storage provider

	Length of usage time (days)	
26. Emails	Approx number of emails sent	From your email accounts
27. Visitor Travel	Location of venue, Visitor numbers, Mode of travel % of visitors that use this method, One way distance (km)	From visitor travel surveys
28. Visitor Travel Quick Calculator	Region, Location of venue Visitor numbers, Average round trip distance of visitors(km)	You can use estimates for this table
29. Staff Commuting	Location, Working days, Work from home days, Walk days, Distance travelled each way (km), Car days, Distance travelled each way (km), Car (hybrid) days, Distance travelled each way (km), Car (100% electric) days, Distance travelled each way (km), Train days, Distance travelled each way (km), Metro days, Distance travelled each way (km), Bus days, Distance travelled each way (km), Motorcycle days, Distance travelled each way (km), Taxi days, Distance travelled each way (km)	From staff commuting surveys
30. Staff Travel Quick Calc	Location of venue, Number of staff, Working days/year, Do you have staff that WFH?, % of days worked from home	You can use estimates for this table
31. Custom	Source of Data, tCO_2e	From external carbon reporting tools/a professional carbon audit

A template is also available for users to download, allowing for bulk upload and input from project reports as well as data from other tools such as Julie's Bicycle Creative Climate Tool. You can request the CSV templates via calculator@galleryclimatecoalition.org

e. Setting a target

Your carbon reduction target is a % reduction of your baseline year, with a 50% reduction as GCC's minimum target. When creating an organisational account, you'll be asked to set your reduction target with the option of selecting a pathway between 50-90%.

At least a 50% reduction by 2030 is the goal (ideally from a pre-covid baseline year however we understand this gets increasingly tricky and will accept a later baseline year as long as it is a full 12 months and truly indicative of your operations).

We are asking all GCC members to sign up to at least a 50% CO2e emissions reduction by 2030, based on 2018/2019 levels. This is in line with IPCC guidance on limiting global heating to 1.5 degrees. However, in consideration of the urgency of the crisis and the slow pace of global progress since this advice was given by the IPCC in 2018, we strongly encourage all our members to go further than this – especially as most of our members are based in countries that bear a higher responsibility for the climate crisis, and so should be reducing their emissions at a faster rate than the minimum requirement.

We're aware that many of our members are engaging with this issue for the first time, and for them, 50% by 2030 will feel like an achievable starting point. However, some GCC members have already started taking action, and many have already set more ambitious targets (or fall under the aegis of local governments or universities that have set more ambitious targets). Our hope is that if our more engaged and experienced members declare more ambitious 2030 targets (eg.. 70% - 90% emissions reductions), it will encourage the rest of our membership to keep upgrading their targets and move further and faster as new opportunities for decarbonisation become available over the next few years.

We understand that planning a pathway for a target that feels far into the future can be hard. After all, we can't know exactly what will happen over the next few years - what new challenges or opportunities might arise. But we can't allow uncertainty to prevent us from setting goals and taking action. Instead, we must take a leap of faith.

If in doubt, a 30% target by 2027 is a good starting point to aim for. It will either put you ahead of the game for a 50% target or act as a launchpad from which you can accelerate your efforts even further to achieve a 70% reduction by 2030.

f. Setting a baseline year

A baseline year provides a reference point against which you can measure your progress in reducing emissions over time. Setting a baseline year is crucial for effectively tracking and cutting your carbon emissions. By comparing current emissions to your baseline year, you can accurately track progress toward your emission reduction target.

We recommend using 2019 as your baseline year. This was the last full business year before the COVID-19 pandemic and provides the most relevant data for setting reduction targets. If using 2019 is not feasible, 2021 can be an alternative baseline. However, avoid using 2020 due to the significant drop in global emissions caused by the pandemic.

If your organisation was established after 2021 we recommend that users use the first year of operations as the baseline year.

Upon registration, you will be required to set your baseline year. If at any point you need to change this, simply go to the organisational settings.

If you have already reported a baseline year with a previous version of the calculator you can submit that report in a few easy steps:

- Follow the steps in the introduction section of the user guide to create an annual report for your baseline year. Be sure to label the report as your baseline year and enter the relevant parameters.
- Navigate to the "Customs" tab in the calculator and input the emissions data from your previous report.
- Go to the "Carbon Calculator" section of the calculator and select the relevant report. Then click "Finalise" in the top-right corner of the page. A message will appear stating that you haven't completed your priority data. If you've already submitted a report using the previous calculator, you can proceed by clicking "Mark as complete." If you've reported emissions using the GCC calculator before, only your total calculated emissions are required.

By setting a baseline year, you are taking the first essential step towards understanding, managing, and reducing your carbon footprint effectively.

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3. Creating a Report

a. Configuring Your Report

If you're ready to create a report, you can head over to the calculator tab as this section of the guide will help you through creating a report, whether it's an annual report or a project report. Follow these steps to get started with the initial stages of creating a report:

Step-by-Step Guide to Setting Up Your Report:

- **Creating a report:** To create a new report, go to the "Carbon Calculator" tab, and click on "Create New Report". Here, you will have the option to choose between an "Annual Report" or a "Project Report."
- The "Recent Reports" section gives you the option to navigate to reports you've been working on.
- **Configuring Your Report:** Once you've created your report you'll then need to configure it.
- **Title**: Enter a title for your report. If this is an annual report, it will be named automatically based on the year that the majority of the months of the report falls into. If this is a project report, you will be able to enter a title for your reference as well as other users working on it.
- **Organisation**: Select your organisation from the dropdown menu. (You will only see this option if you are a user across more than one organisation).
- **Start date / End date**: Select the appropriate date that marks your assessment period. This could be a calendar year (e.g., January - December) or a financial year. If working on annual reports, ensure consistency in the time-frame year on year.

b. Emissions Settings

Date Quality Score

The Quality Score enhances transparency and reliability in your carbon emissions reporting. It indicates how much of your data is based on direct measurements versus estimates or assumptions, encouraging reporting even with limited data. By enabling the Quality Score, you ensure your report is as accurate and transparent as possible.

Score	Valuation
1	Data that is a rough estimate.

2	Data sets that you have perhaps worked out from just 6 months of data, or have certain numbers that you're somewhat confident is as close to being accurate as possible.
3	Data that you have full confidence in is as accurate as it can be.

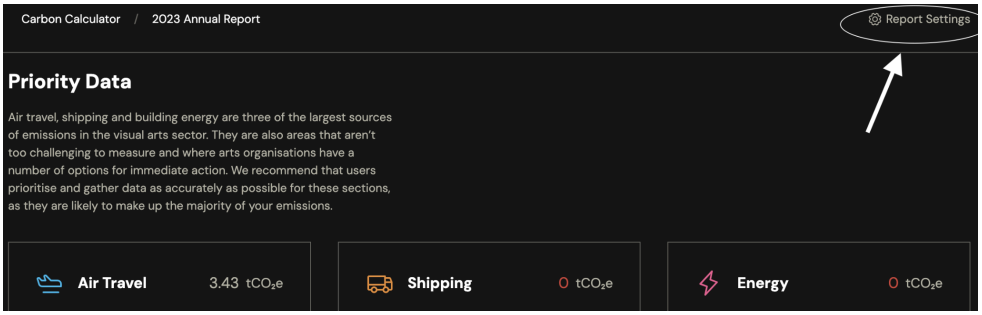
Inputting data quality scores is optional, but we encourage users to adopt this approach for transparency and benchmarking.

Enable Custom Data
This allows you to add emissions data from other tools and sources. It will enable an extra category within the report. The Custom tab allows users to report on emissions that the GCC calculator may not be equipped to capture. For more information about using this feature, please see the custom data section below.

Include Scopes
This is an educational feature that allows you to see which scopes your emissions fall into. Scopes 1, 2 and 3 are categories of emissions used in formal carbon reporting under the internationally recognised Greenhouse Gas Protocol.

If you wish to change these settings any time during your report you'll be able to by clicking on 'Report Settings' in the top right hand corner of the report's page.

Once you're happy with your report configuration you can click 'Create Report'.

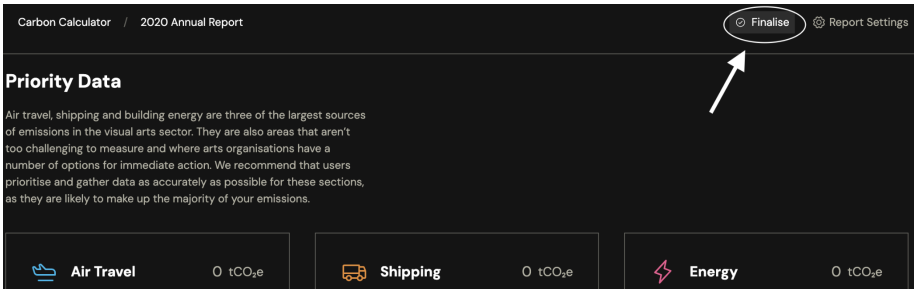


c. General Tips

Uploading Previous GCC Reports
You may have already reported on a previous year's carbon emissions through version 1 of the calculator and want them to appear within version 2. Adding previous reports can offer a few advantages, such as allowing you to set a baseline year and track your emission reductions on the dashboard. Here's how to use the custom tab to upload previous reports:

- Follow the steps listed in the Creating a Report section to create an annual report

- Enable the customs tab when creating your report in the report settings.
- Go to the customs tab of the calculator and input your emissions from your previous report.
- Click “Finalise” at the top right of the page.



Using a Template for Bulk Upload

CSV files are available for collecting data for bulk upload. This may be useful for copying data from shippers or other carbon reporting tools within a spreadsheet format. You can access the CSV files here.

Every category will have a button at the top that says “Import Spreadsheet”. This is where you can bulk upload your data.

Bespoke Carbon Factors

In some tables within the tool you’ll find a field called “bespoke carbon factor”. A bespoke carbon factor allows you to enter a custom emissions value when you have more specific data than the default provided by the tool. It measures the amount of carbon dioxide equivalent (CO2e) emitted per tonne of material transported per kilometre (tKm). This allows you to input a specific carbon factor based on your own data or unique circumstances, rather than relying on the default values our calculator provides. In some instances, the shippers you work with may be able to provide you with this data. If this is the case for you, simply include the bespoke carbon factor in each line entry.

Decimal Points

To ensure accurate data entry, please note that the calculator only accepts decimal points (.) and does not support commas (,) for decimal values. If you attempt to use a comma, you'll receive an error message stating “some fields are missing or are incorrect.” For example, input 150.00 instead of 150,00 to avoid errors. This helps avoid miscalculations, especially for weights and other numeric values.

Copying Data to a Project Report

If you’re adding data to an annual report that will also occur in a project report you can copy a table entry across to a project report. Click on the additional options menu to

the left of the row and select “send row to report”. Select the report you’d like to send a row to. Your data for that row will then be copied to your project report.

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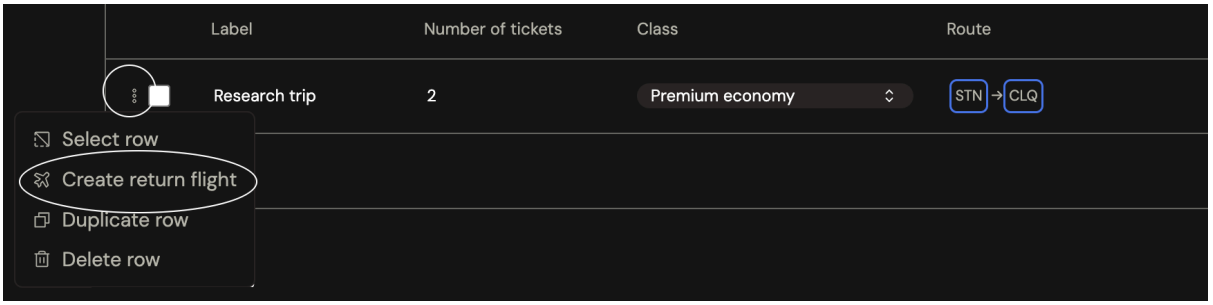
4. Data Categories

a. Air Travel

Calculating Flights

The Air Travel section of the tool allows you to calculate emissions for all passenger flights related to your organisation, based on departure and arrival locations, travel class, and number of travellers.

To calculate emissions, you’ll need to enter the number of tickets (this field allows you to denote how many tickets were purchased for one flight, or how many times you took this flight in the time-frame of the report). You’ll then need to fill out the class field, which is important as first class and business class can dramatically impact the emissions total of your report. The route you took should be your start and end airport. You can search the airport you need with either the location of the city/country or the airport code. For routes that include layovers you should include the layover airport code. If your return journey was the same as your outward journey you can click on the three dots to the left side of the row. There you can click “Return Journey” and this will automatically duplicate the data input row with the journey reversed. You can still edit this duplicated row of data should you need to update any details.



b. Shipping

The Shipping section allows you to calculate emissions for long distance air, ocean, and road freight. For this section you'll need to know the route and weight. For simplicity, the calculator gives you the option to add estimated road journeys on either side of an air or sea shipment. You also have the option to estimate the weight of the packaging if you do not have access to this data. For long distance road freight, you have two options: one table allows you to calculate emissions based on weight, while the other provides estimates if weight is unknown, based on the % of cargo ownership.

In some instances, the shippers you work with may be able to provide you with bespoke carbon factors. This is if they have more in-depth data available than our calculator is able to provide. If this is the case for you, simply include the bespoke carbon factor in each line entry in the shipping section.

Air Freight

To calculate air freight emissions, you'll need to list all international art transport by aeroplanes and details about the journey: whether it was one-way / return, the origin and destination locations, and the weight. The tool gives you the option to include an estimated road journey to and from the port(s). If you have data on the road freight to and from the port, please input this in road freight. If you do not have this data, we will assume a 40km journey by a standard van at each end of the shipment.

There is an option to select whether gross weight or volumetric weight has been used. Please use gross weight wherever possible. If you only have volumetric weight, select this option and we can do a very approximate conversion. If your shipper has only given you "chargeable weight", ask them whether this is gross or volumetric weight - it could be either!

You also have the option to include an estimated weight for packing added by shippers if you do not have access to this data. If users select "no" in the 'Weight includes shipping crates?' column, we will assume a 30% addition to the weight.

Ocean Freight
To calculate ocean freight emissions, you'll need to list all international art transport by sea and details about the journey: whether it was one-way / return, the origin and destination locations, and the weight. The tool gives you the option to increase the accuracy of your report by including details about the ship and container type. If you don't have access to this information, don't worry - the calculator will work out the carbon totals based on averages.

Unlike the Air Freight section above, you'll need to go to an external site to work out the nautical miles of any sea freight journey. You can do this by visiting ports.com and entering the start and destination ports.

If you have data on the road freight to and from the port, please input this in road freight. If you do not have this data, we will assume a 40km journey by a standard van at each end of the shipment.

There is an option to select whether gross weight or volumetric weight has been used. Please use gross weight wherever possible. If you only have volumetric weight, select this option and we can do a very approximate conversion. If your shipper has only given you "chargeable weight", ask them whether this is gross or volumetric weight - it could be either!

You also have the option to include an estimated weight for packing added by shippers if you do not have access to this data. If users select "no" in the 'Weight includes shipping crates?' column, we will assume a 30% addition to the weight.

Road Freight - Weight Known
If you know the weight of items sent via long-distance road freight, use this table to calculate the emissions. You'll need to enter the route, vehicle type, distance travelled and weight transported. The tool gives you the option to increase the accuracy of your report by including details about the size of the vehicle.

Again, you'll need to go to an external site to work out the distance of any road freight journey. You can do this by visiting google maps and entering the start and destination locations.

There is an option to select whether gross weight or volumetric weight has been used. Please use gross weight wherever possible. If you only have volumetric weight, select this option and we can do a very approximate conversion. If your shipper has only given you "chargeable weight", ask them whether this is gross or volumetric weight - it could be either!

You also have the option to include an estimated weight for packing added by shippers if you do not have access to this data. If users select "no" in the 'Weight includes shipping crates?' column, we will assume a 30% addition to the weight.

Road Freight - Weight Unknown
If the weights of the items transported are not known please use this table. To calculate emissions, you'll need to enter data regarding the route, vehicle type, distance travelled, how full the vehicle was, and what % of the cargo is owned by you. Please fill in as much detail as possible, especially regarding how much of the shipment was your responsibility.

Again, you'll need to go to an external site to work out the distance of any road freight journey. You can do this by visiting google maps and entering the start and destination locations.

There is an option to select whether gross weight or volumetric weight has been used. Please use gross weight wherever possible. If you only have volumetric weight, select this option and we can do a very approximate conversion. If your shipper has only given you "chargeable weight", ask them whether this is gross or volumetric weight - it could be either!

You also have the option to include an estimated weight for packing added by shippers if you do not have access to this data. If users select "no" in the 'Weight includes shipping crates?' column, we will assume a 30% addition to the weight.

c. Energy

This category allows you to input data for your building emissions and refrigerant use for any cooling for air conditioning and climate control systems.

Building Energy
You can gather data for your building's energy use from bills, invoices, meters, and landlord reports. However, if you're unable to obtain this information you can use the "Building Energy (without meter)" table to estimate emissions based on the floor space of your building. This will give you a rough estimate of your energy emissions. Inputting any data you can obtain into the tables is better than no information on your building emissions at all. However, we recommend collecting data as accurately as possible for this section as, depending on your operations, it's likely to make up a relatively large proportion of your annual emissions.

Refrigerants
This is an optional section for air conditioning or climate control systems that use

refrigerant chemicals. Enter the amount added to the system in a year, including small amounts as even small amounts can significantly impact the climate due to gradual leakage into the air. You can find out about the use of refrigerant chemicals from a landlord or maintenance body. Maintenance records may include details about refrigerant refills or replacements.You can also check the documentation or specifications for your refrigerant equipment. Some equipment manuals include typical refrigerant usage rates or capacities. Even small amounts of these chemicals can have a significant climate impact as they gradually leak into the air so be sure to report on refrigerants if you're able to obtain the information.

Offsite Storage
This section is where you can record emissions for items stored in external facilities, like third-party warehouses. There are two tables to help you report this data:

There are a few ways of doing this calculation:

i. Request energy data from your storage providers:

- Request Energy Data: Ask if they can provide the facility's annual electricity and gas consumption. If they can, request them to calculate an average kWh of electricity and gas used per m^3 of storage space per day.
- Input Into Calculator: Use these kWh figures to calculate your storage's carbon footprint by entering the data into the calculator.

ii. If m^3 of Storage Space is Not Used:

- Proportional Allocation Method: If your provider doesn't use m^3 to measure storage, ask if they can allocate a percentage of their total energy consumption based on your share of their business. For example, if your storage represents 5% of their overall storage business, you can be allocated 5% of their energy usage for the year.

iii. If You Don't Have Storage Data:

- If you are unable to obtain data from your storage provider, you can use the "Offsite Storage (No Data)" table. Enter the amount of storage space hired within the table for either the input option of floor space m2, cubic space m3, or Rough description of storage type, depending on the information you have.

d. Additional Data

i. Local Freight

The Local Freight section helps you calculate emissions from short-distance road freight. Whether you're shipping artwork, materials, or equipment, this section covers all freight sent by road or courier for short-distance shipping. There are two tables to choose from depending on whether your shipment shared space with other cargo or occupied the entire vehicle.

Use Google Maps or a similar tool to look up the distance between the origin and destination of your shipment.

Gross or Volumetric Weight: Always use the gross weight (the total weight of the item including packaging) where possible. If you only have the volumetric weight, select this option, and the tool will make an approximate conversion.

Local Freight - Shared Cargo

Use this table if your shipment was combined with other deliveries. For example, if a piece of artwork was shipped on a lorry alongside other items, you'll only be responsible for a portion of the emissions. Enter the relevant details.

Where your shipment is added to other people's deliveries and transported together (e.g. via a postal service or general delivery company), then tonne-km factors are used, as only the share of the vehicle emission required for the transport of your specific items need to be added to your footprint.

Local Freight - Whole Cargo

If your shipment was the only delivery in the vehicle, like sending an item by courier on a motorbike or van, use this table. In this case, you are responsible for the full emissions of the journey.

Where the journey is entirely your responsibility – e.g. you have hired a courier or van-driving service to take an item directly from A to B – then vehicle-km factors are used, as the emissions from the entire vehicle need to be added to your footprint.

Additional information:

- Vehicle Size - If you have detailed information about the size and type of the vehicle used for the shipment, include it here. This option is not mandatory but can make your emissions calculation more accurate.

- Bespoke Carbon Factors - If your shipper provides specific carbon factors for the journey, you can input them here. This is optional, so don't worry if you don't have this data.

ii. Surface Travel

Surface travel relates to any travel taken overland, as opposed to flying. You can calculate emissions related to Business vehicle use (company cars, hire cars, staff mileage in own vehicles) or public transport (trains, buses, taxis, ferries). Please note, this section does not include staff commuting or visitor travel.

Business Vehicle Use

This table is for recording trips taken by car for activity and operations related to your organisation (not for staff commuting). For fossil-fuelled vehicles, please enter the fuel type and the volume purchased (litres/gallons) if known, as this is the most accurate method. If the amount of fuel purchased is unknown, you can enter the distance travelled **and** the vehicle type. If the vehicle type and fuel used are both unknown, you can simply select unknown or N/A in all fields and just enter the distance you travelled. We'll make an assumption that an average fossil fuel powered car was used in this instance to give you an estimate.

If you used an electric car you can also select the country you charged your car in. If you travelled across different countries in an electric vehicle, we recommend you choose the country where the majority of the travel/ charging occurred.

Public Transport - Calculations by Distance

This table is for when you have information on the exact journeys, with start and end destination, that were taken by staff for activity and operations related to your organisation (not for staff commuting). You can calculate the distances between start and end points via Google Maps and enter distance in the table in the table.

Public Transport - Calculations by Cost

We're aware that not all organisations are able to find specific details on public transport journeys but may have financial records of the amount spent on travel. In this instance, you can use this table. You can enter the total amount spent on different transport types within this table over the time period of your report. Please note that due to the assumptions made, this will be less accurate then calculations based on distance.

iii. Accommodation

Accommodation allows you to capture data on overnight stays for business trips. Seeing the environmental impact of accommodation may be useful when considering whether to return the same day from a trip or to stay overnight. It also allows you to understand the impact of different types of accommodation and make decisions for future trips to

minimise your emissions.

Enter the country, number of nights you stayed in the accommodation, and the type of accommodation. Entering the number of rooms is only compulsory for hotel/guest house accommodation. The accommodation type 'self-catering' could be rented apartments or houses.

If you have data on the floor space of your self-catering accommodation you can choose the custom option and enter the floorspace yourself. This is very granular data and entirely optional, so we don't recommend you spend time obtaining this information if it's tricky to do so.

iv. Materials

The Materials section of the carbon calculator helps you assess the emissions associated with materials used across various operations, including art creation, exhibition builds, packaging, office supplies, publications, and basic catering. The tool calculates the carbon footprint of manufacturing these materials and their average transport into the global marketplace, covering the majority of their climate impact. The Materials section is intended for internal material use and does not include items purchased for retail or ingredients for cafes and restaurants.

Within the Materials section, you can choose between two calculation methods depending on the data available:

- **Materials Quick Calculation**: This option provides a fast estimate if you're unable to gather detailed information about the materials you've used. The quick calculation assumes average recycled content and uses standard factors derived from the UK government and the Idemat database (EU-based). It is a great starting point for setting targets and comparing emissions across various categories, but if you're aiming for precise planning or deeper reductions, we recommend gathering more specific data and using the detailed tables.
- **Detailed Calculations**: Use the different tables for different material use, including artworks, exhibitions, packaging, and events. In these tables you'll find a vast range of materials. This option allows for a more precise assessment of your materials' carbon footprint by letting you input specific data, including recycled content and exact material types. These tables also factor in the transport of the material from its likely origin to the global marketplace. While the "last leg" of transport (from point of sale to the user) only adds a small percentage to the footprint, you can add your own data for this in the Shipping section if desired.

Do not include items purchased for retail, or ingredients purchased for sale in cafes/restaurants - look out for separate GCC tools for these categories coming soon!

Weight Estimation Tools
If you don't have the exact weight of certain materials, the calculator provides a weight estimation tool. This feature helps estimate the weight of common items, which can be helpful when gathering data is challenging.

v. Digital

The Digital section of the calculator helps you estimate the emissions from your organisation's online activities, including websites, video calls, cloud storage, and emails. While digital emissions are generally a smaller part of your overall footprint, this section provides a useful tool to get an impression of their impact.

- **Websites:** To calculate the emissions from your website, visit www.websitecarbon.com, input your URL, and scroll down to find the gCO2e per view figure. Enter this value into the calculator table along with the number of visitors your website receives. This will give you a rough estimate of the emissions generated by your website traffic.
- **Video Calls:** For video calls or webinars, enter the total time spent on these activities in hours, and the amount of people that tend to be in a video call/webinar. You can fill this out for an individual's use. This data helps estimate the emissions from the energy used during these online interactions.
- **Cloud Storage:** Input your data for cloud storage use by selecting your provider, entering the amount of gigabytes stored, and the length of time (in days) the storage has been used during the length of the report. For organisations using large-scale cloud storage solutions, or with specific storage deals, you can contact GCC via calculator@galleryclimatecoalition.org for more detailed advice on how to calculate these emissions.
- **Emails:** Email emissions are primarily calculated for educational purposes, as their overall impact is usually minor. You only need to input an approximate number of emails sent, including recipients. For instance, if you sent 100 emails, each with 3 people in CC, you would input 300 emails (100 x 3). The aim here is to provide a rough estimate, so there's no need to spend too much time calculating exact numbers.

vi. Commuting & Visitor Travel

This section of the tool allows you to measure or estimate the emissions associated with staff commuting and visitor travel. Measuring these emissions requires surveying your visitors and/or staff, to find out how they travel. If you haven't yet carried out a survey, the estimation tools can be used to give you a rough figure based on your visitor/staff numbers, so you have a sense of the scale of this impact.

For visitor travel, you will be required to enter the total number of visitors you have every year (this should be the same in every row). Then enter the method of transport you wish to document, the % of visitors that used this method, and the average distance visitors travel under this method. If you have multiple venues you wish to report on, change the annual number of visitors to reflect the new set of data accordingly.

For staff commuting, you will need to add a new line for each member of staff/volunteer. Enter the amount of days they have travelled using each method of transport along the row. After every method of transport enter the distance they travelled using this method.

Please note, Commuting & Visitor Travel will not be included in your final report as GCC recommends that these emissions are considered separately from your main carbon reduction targets. GCC views visitor travel and staff commuting as areas of "shared responsibility" between an arts organisation, its audience and staff. We advise that organisations measure these emissions and work to reduce them - but, as they aren't completely within an organisation's control - consider them separately from your 2030 reduction targets.

vii. 'Custom'

The 'custom' emissions input allows users to report on emissions that the GCC calculator may not be equipped to capture. This feature is especially useful for adding emissions data from external sources, such as:

- A detailed and accurate carbon audit by a professional.
- Data from shippers that isn't easily represented in the calculator.
- Waste audits from a cafe or restaurant associated with your organisation.
- Other emissions categories not included in the GCC tool, such as building refurbishment carbon.

When to Use the Custom Emissions Tab

The Custom Emissions tab is designed to help you report emissions that aren't covered by the calculator, particularly in complex or specialised areas. This ensures that your organisation can still account for all emissions sources, even if some lie outside the scope of the GCC tool.

Important Note

While the tool allows for flexible reporting, we recommend entering data directly into the existing calculator categories when possible. This will ensure consistent, comparable data across your report, especially for emissions that can be accurately calculated by the GCC tool (e.g., visitor travel, energy use).

Accepted Data Sources
Data entered into the Custom Emissions tab must align with recognised sources, which you can select from a drop-down menu. If your data doesn't match one of these, or you are unsure, contact us at calculator@galleryclimatecoalition.org for support.

Custom Emissions in Your Report
Any emissions added through this tab will appear in your report, labelled as "custom emissions." These are not calculated by the GCC tool, so it's important to clearly specify what the custom data represents. You will have the option to decide whether custom emissions should be included in your main total or classified as "Shared" emissions, such as for visitor or staff travel.

Custom Tab Best Practice

- **Avoid duplicating data:** Use the Custom tab only for emissions that the GCC tool cannot calculate. We encourage users to input data into the tool directly to ensure consistency and accuracy.
- **Label clearly:** Ensure that any emissions data entered in the Custom tab is clearly labelled and easy to interpret in your final report.
- **Seek guidance:** If you're unsure how to classify or report custom emissions, don't hesitate to reach out to the GCC team for further advice.

By using the Custom Emissions tab correctly, you'll ensure a comprehensive and transparent report while maintaining consistency in the data entered across your organisation's footprint.

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5. Additional Features

a. Dashboard

Once you've started inputting data and submitting reports, you'll see the dashboard come to life with data visualisations.

The top left hand box gives the current total emissions for an annual report, whether it's a finalised or in progress report.

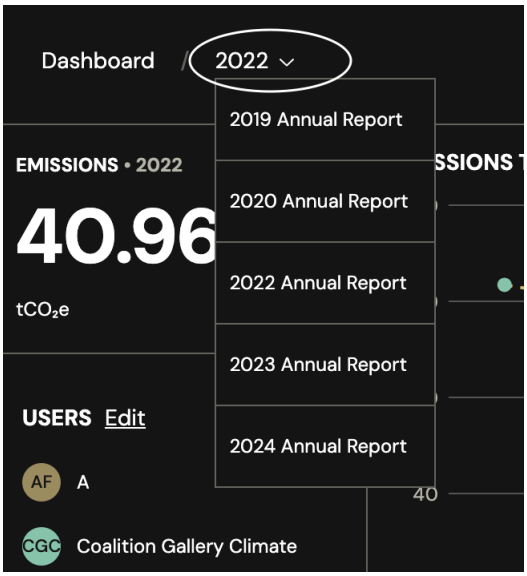
The emissions target tracker in the dashboard allows you to visualise your progress in reducing your carbon emissions. It's based off of your baseline year and your reduction target. Be sure to set your baseline year and reduction targets in organisation settings to enable this feature. To learn more about setting a baseline year and a target, please refer

to the getting started section of this user guide.

The dashboard also has a pie chart to give you a category breakdown of an annual report. There's also a bar graph, allowing you to understand your emissions better by category year on year. The bar graph will display up to the most recent six annual reports.

The checklist has been provided for self reference. You can use this checklist to check off a category when you have finished entering data.

The pie chart, bar graph, emissions total, and checklist are all linked to the annual report that has been selected to show within the dashboard. To change the annual report displayed, click on the drop-down on the top left. It should be noted that no visualisation or checklist will be displayed for project reports.



Also displayed on the dashboard is a list of all the users under your organisation. If you are an admin, you will have the option to edit this list, allowing you to add and remove users.

On the dashboard you also have a shortcut to the most recent reports, whether in progress and completed.

b. Quick Calculator

The Quick Estimate Calculator provides rapid, comparative estimates of the carbon footprint for flights, long-distance travel, freight, and lighting. This tool is designed to help you make informed decisions about reducing your organisation's CO^2e emissions by offering swift calculations.

Results from the quick calculator are approximate, using general assumptions. Because of this you might find that results vary slightly from results in the main calculator. If you need more precise data, you can enter detailed information into the main calculator.

Categories Available:

- **Flight Classes**: Compare emissions between different flight classes.
- **Forms of Travel**: Calculate emissions for various transport modes (road, rail, air) between major cities. If travelling to smaller towns, select the nearest city or override the journey with a custom distance.
- **Freight Comparisons**: Compare the carbon footprint of long-distance freight transport by air, sea, road, or rail. Freight is calculated between major cities and ports, so for smaller destinations, select a nearby city.
- **Lighting**: Estimate emissions based on the number and type of light bulbs used in a building, along with the location.

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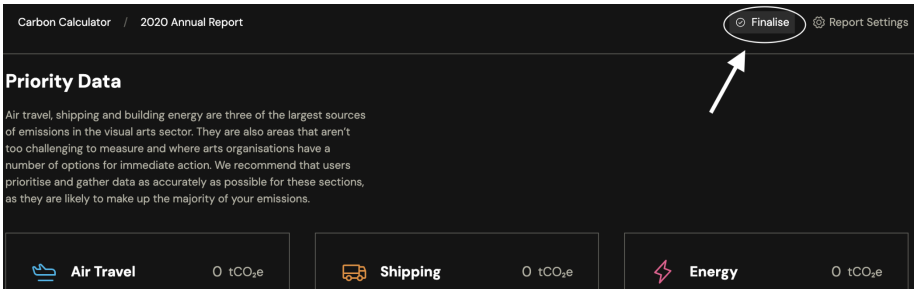
6. Once You've Finished

Complete Your Report
Once you've finished your report and you're certain you've inputted all the data you can you click on finalise in the top right-hand corner on the calculator page.
If you haven't inputted any priority data for your report a pop-up window will appear asking you if you're sure you've completed your report.



We recognise that not all organisations will have something to input for the priority data categories. For instance, if you're a small-scale, local gallery it might be unlikely that you took any flights. If you don't require one of the three priority sections, then simply check over your report to make sure you haven't missed anything before completing the report.

Next Steps
Once you've completed your report you can export a PDF version. You can use this to present to stakeholders, or even publish to your socials. Members can submit their

reports to be published on the GCC website. We encourage this for transparency and benchmarking. If you'd like to submit your report you can send it to us at calculator@galleryclimatecoalition.org

If you've completed an annual report you're only two steps away from GCC active membership. To find out more about active membership click here.

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7. Further Support and Resources

Resources
To find more resources to help you with the calculator head to the resources page at http://calculator.galleryclimatecoalition.org/resources. Within the resources page you can find out more on the methodology and a video tutorial..

FAQS
Within the resources section you'll find our FAQ where you might find answers to any questions you have. If you are unable to find answers within the FAQ you can email us at calculator@galleryclimatecoalition.org

Reporting a Bug
Sometimes bugs occur that might throw up error messages with certain combinations of data. If you think you've found a bug you can fill out a form to report it here.

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8. Acknowledgements & Thanks

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