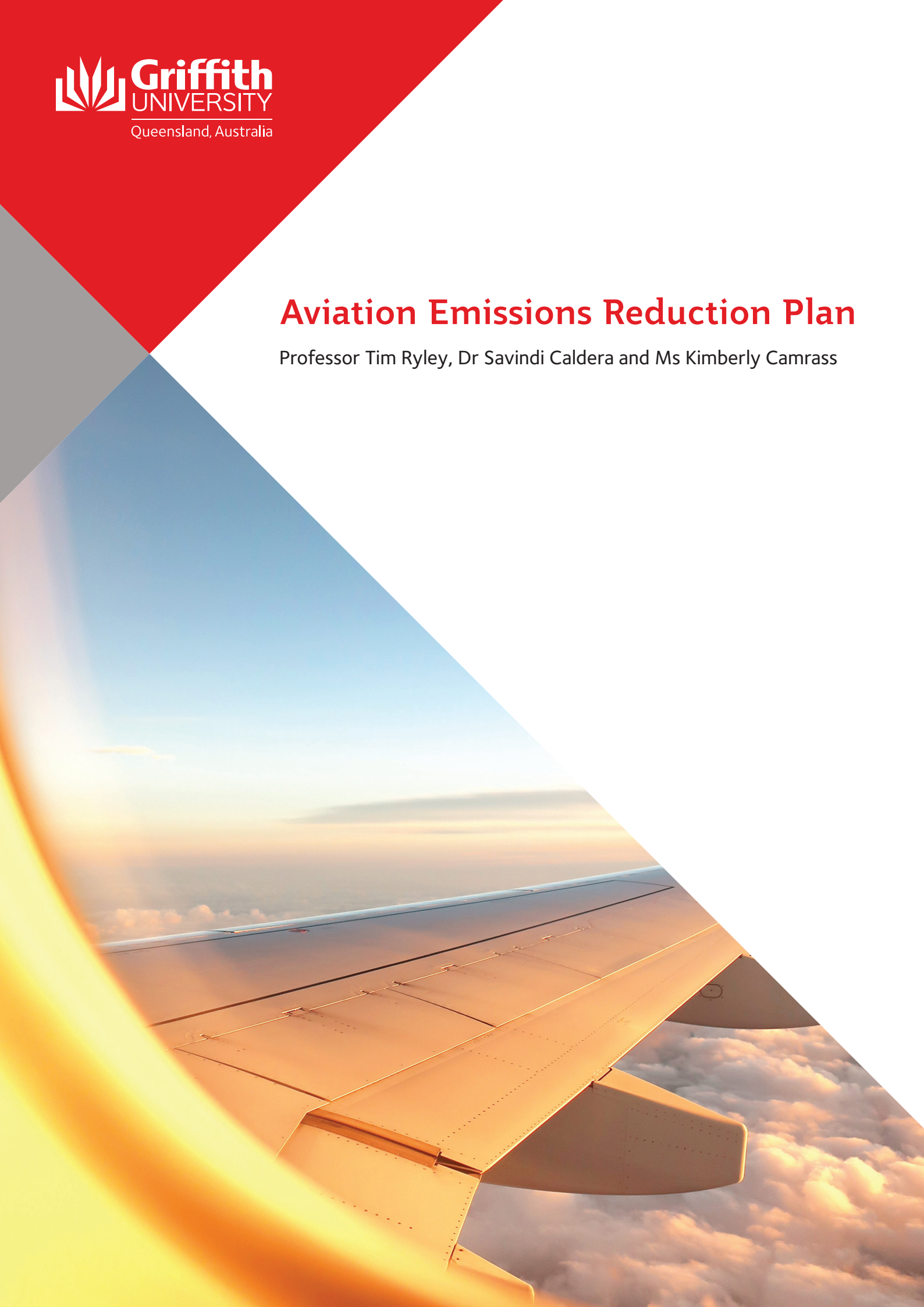


Aviation Emissions Reduction Plan

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Strategic context

The Griffith Strategic Plan *Creating a Future for All 2020–2025* provides a framework for the University to contribute to an equitable and environmentally sustainable society. It includes a commitment to halve carbon emissions by 2030 and achieve net zero emissions by 2050. The Strategic Plan also commits Griffith to rank in the top 200 universities globally for the Sustainable Development Goals (SDGs). After electricity consumption, the largest source of University emissions has been identified as those stemming from air travel. As a result, the Net Zero Sprint Report, developed and endorsed in 2019, recommended the University pursue a **25% in aviation reduction emission from a 2010 Baseline**. In line with our broader climate action targets, this plan has utilised a 2030 timeframe.

This Plan provides an overview of the necessary actions to facilitate the policy and behavioural changes needed to achieve this target. Reducing emissions from air travel will also contribute towards Griffith's overall impact across a range of SDGs, most notably SDG 13: Climate Action. Diversity and inclusion are also at the heart of the Griffith University values. The COVID-19 pandemic has given all staff and students greater access to scholarly knowledge through virtual conferences and research/teaching events that do not necessitate air travel. This should be acknowledged and further supported. With international borders re-opening in a staged manner from early 2022 in south-east Queensland, it is important that Griffith act to avoid a return to pre-COVID aviation emissions levels.

An Aviation Emissions Reductions Working Group was commissioned by the Griffith University Sustainability Sub-Committee to university aviation emission reduction options and achieve the target, through consultation with the university community. Staff air travel behaviour on university business and possible pathways to reduce Griffith's aviation emissions have been researched. The data collection effort, conducted in October and November 2020, involved interviews with ten relevant Griffith University stakeholders and a week-long immersive digital discussion with 52 Griffith University staff using the digital platform Recollective. Based on these results, this implementation plan was presented to enable the Executive Group to reform policy and develop targeted measures within the university to reduce aviation emissions.

Emissions context

Released in August 2021, the Sixth Assessment Report from the Intergovernmental Panel on Climate Change (IPCC) outlined the continued, increased warming of the planet, calling for accelerated action on emissions reduction in the short to medium term. In line with IPCC recommendations, Griffith University has committed to halving emission by 2030 and achieving net zero by 2050. In order to meet these targets, the University's Net Zero Sprint Report (2020), recommended a suite of actions, including a reduction in aviation emissions by a minimum of 25% or 2,961 tonnes CO₂ per annum. Aviation emissions in 2017/18 were 15% of total carbon emissions and, as such, reducing air travel is a critical component of ensuring the University meets its 2030 and 2050 emissions reduction commitments. Additionally, reducing aviation emissions will have a significant impact on the University's Scope 3 emissions total.

Key issues and risks

There is a risk that reducing air travel emissions can be seen to be at odds with progressing a globally networked university that enables academic career development. The following three issues for consideration emerged from the interviews and research that supported the development of this plan:

1. Limiting collaboration and innovation
2. Limiting career growth
3. Lack of supporting infrastructure and expertise in overseas teams

It is acknowledged that for some University business it will still be necessary to travel by air, such as for specific research sites or in-person international student events. This demands a clear and transparent approach that can encourage positive emissions reduction behaviour, whilst also acknowledging that some air travel remains necessary.

This plan outlines the outcomes required for Griffith to meet a reduction in aviation emissions by 2030, outlining the actions to facilitate this change, along with indicators required to evaluate progress. It also provides a foundation for ongoing emissions reduction beyond 2030 through the establishment of principles, systems and data collection infrastructure.

Informing research

The actions in this plan were developed following an extensive research phase, including the following elements:

- Analysis of all currently available staff flight data and associated emissions
- Development of an initial desktop report based on a review of academic literature and technical reports
- Data collection through a series of semi-structured interviews with ten Griffith staff members and key stakeholders
- A week-long recollective study with 52 staff members who had previously travelled by air for university business.

These elements are outlined in further detail in the Aviation Emissions Reduction Working Group Report, included as an Appendix to this document.

Implementation of this plan

Delivery of this plan will occur in two distinct stages:

1. a foundation year (2022)
2. an ongoing delivery stage (2023–2030).

The 4 target outcomes of this plan, along with associated actions and indicators are summarised in the visual diagram on page 5. During the foundation stage, priority will be given to implementing those actions that will improve Griffith's processes, systems and data infrastructure to inform evidence-based decision-making moving forward. Focus will be placed on increasing the visibility of data relating to both the purpose of air travel undertaken and its funding source (e.g. from third party funding sources); developing a deeper understanding of the aviation sector's approach to reducing emissions between now and 2030; impacting behaviour through more transparent reporting; revising the University travel policy to provide clarity around when different classes of travel are appropriate and utilising targeted offsetting for necessary travel. This stage will also involve, deep and ongoing consultation and engagement with senior decision-makers to establish caps and other mechanisms that will support the delivery of later stages of the plan.

At the conclusion of the foundation stage, a review process will be undertaken, informed by improved data infrastructure and ongoing consultation resultant from the implementation actions throughout 2022. This will provide an opportunity to review and re-affirm or refine the aviation emissions reduction target and trajectory to 2030. This will also give the university the chance to reflect on the rapid change in air travel expected in 2022.

The foundation stage will also provide additional information required to reassess and refine ongoing delivery of the actions within this plan to ensure that they remain appropriate in light of the additional data obtained. Implementing these actions will be critical in allowing Griffith to meet its ongoing emissions reduction targets, specifically contributing to a reduction in Scope 3 emissions.

25% aviation emissions reduction by 2030 (from 2010 baseline)

Commit

Griffith raises the ambitions of its targets and commitments



Action 1:

Obtain EG commitment to Aviation Emissions Reduction Implementation Plan



Action 2:

Establish annual university level net emission targets (consider strategically informed flight caps)



Action 3:

Establish university and element key performance indicators (e.g. total emissions, % flight reduction, emissions per FTE)

Indicator:

Target of 25% reduction in aviation emissions by 2030 is endorsed



Improve

Travel data is systematically collected and reported to drive continuous emissions reduction



Action 4:

Identify existing internal data and communications gaps



Action 5:

Develop tools to address gaps including systems architecture to include travel justification, centralised travel communications and emissions dashboards/calculators



Action 6:

Integrate aviation emissions data with other staff activities and resources to increase visibility, including through awareness programs and events

Indicator:

5% reduction in flights occurs annually to 2030



Indicator:

Evidence in performance improvement through key indicators including % flight reduction, emissions per FTE staff, flights allocated to early career researchers and online conference % attendance



Engage

Griffith staff and stakeholders understand the impact of flying and prioritise low carbon options



Action 7:

Develop and implement onboarding and professional development material for staff, including online modules



Action 8:

Demonstrate cost-savings and other co-benefits of reduced air travel



Action 9:

Develop targeted approach to address institutional barriers to change and encourage the use of tools to inform travel choices

Indicator:

Best practice guidelines and decision-trees are implemented and utilised



Innovate

Innovative teaching and research practices are fostered to reduce aviation emissions



Action 10:

Implement Sustainability Awards to recognise creativity in offering immersive experiences that minimise aviation travel, including local and regional events and digital innovations



Action 11:

Establish and maintain research and development partnerships to investigate low carbon aviation



Action 12:

Review and update conference and event guidelines to facilitate hybrid options and other opportunities

Indicator:

Upwards trends in innovative approaches to teaching and research practices that reduce emissions

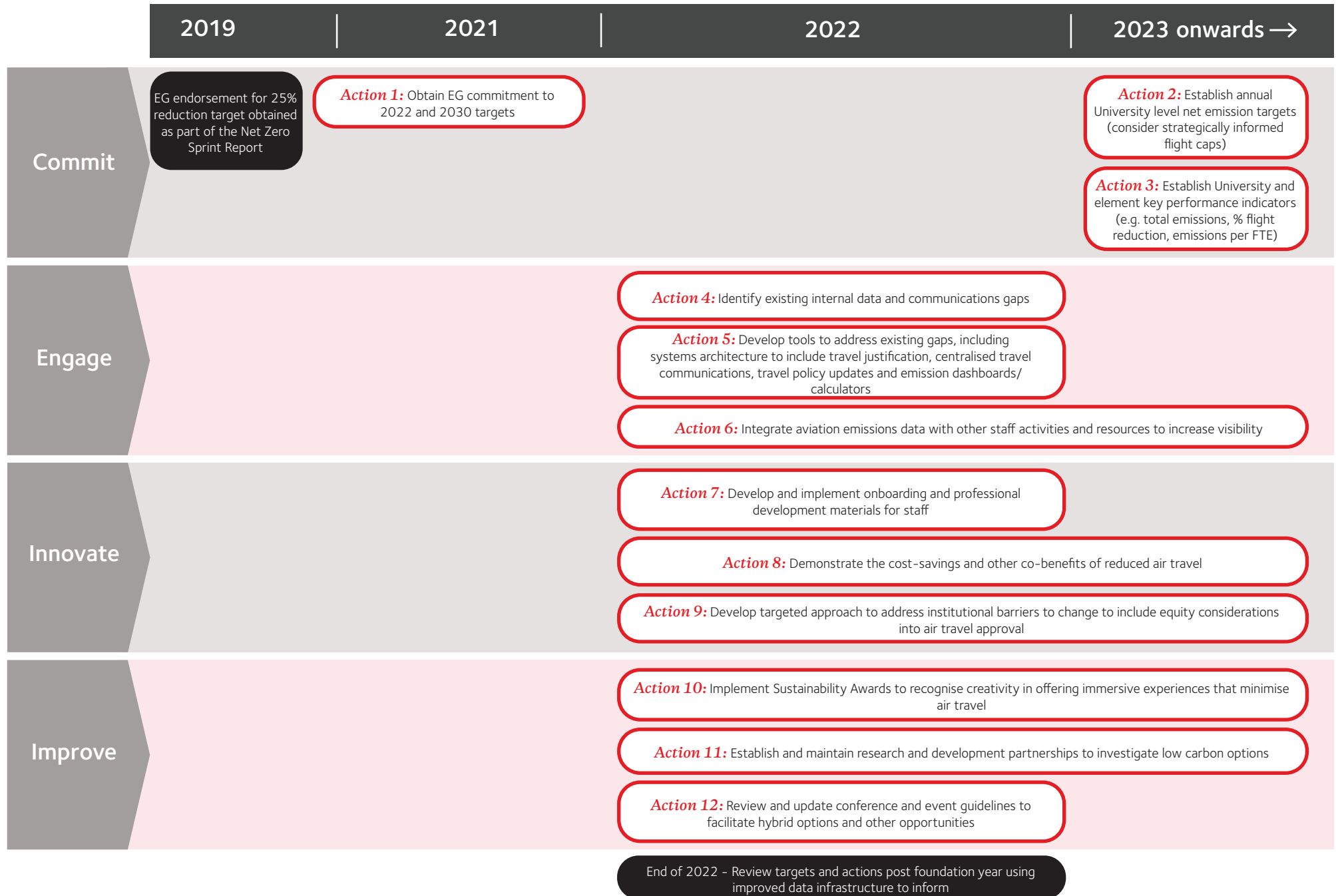


Indicator:

An increase in the uptake of interest and quality of applications for sustainability awards over the life of this plan (to 2030)



Implementation overview



Outcome 1. Commit

Griffith raises the ambitions of its aviation emissions reduction targets and commitments

Key actions



Action 1: Obtain Executive Group commitment to Aviation Emissions Reduction Implementation Plan



Action 2: Establish annual university level net emission targets (consider strategically informed flight caps)



Action 3: Establish university and element key performance indicators (e.g. total emissions, % flight reduction, emissions per FTE)

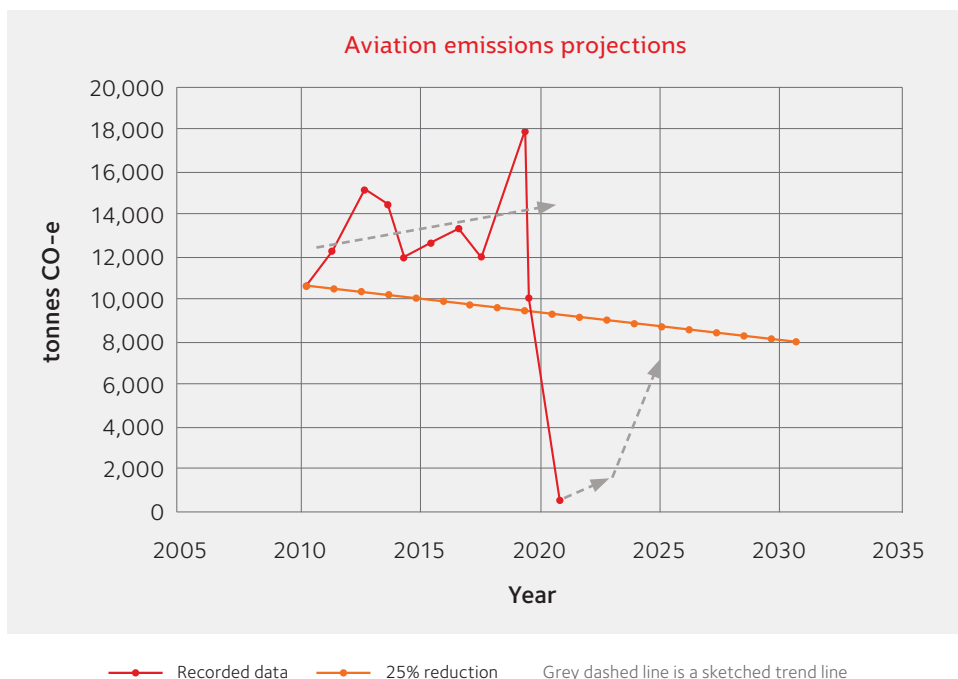
Key indicators

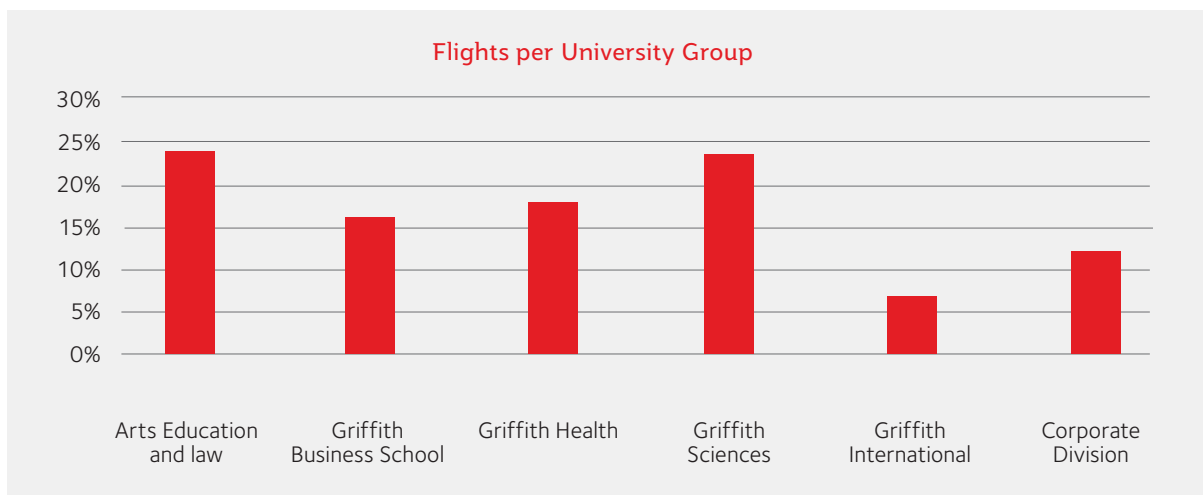
- Target of 25% reduction in aviation emissions by 2030 is endorsed

A clear plan for achieving a 25% reduction in aviation emissions by 2030 (a 2010 baseline) will be developed at completion of the foundation year. The plan will seek to balance this commitment with achievement of the University's other strategic plan ambitions.

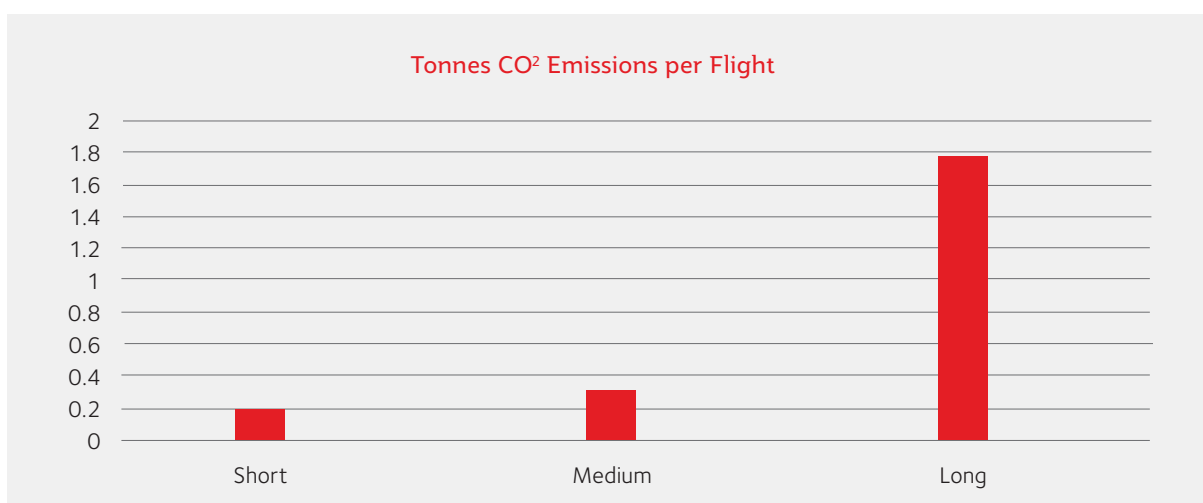
The 25% reduction target has arguably become more achievable in a post COVID-19 operating environment, providing Griffith with the opportunity to establish the systems infrastructure for ongoing aviation emissions reduction.

The level of aviation emissions in 2010 was 10,852 tonnes CO₂-e. Flights increased significantly between 2017 and 2019, with a total of 23,468 flights taken in the financial year 2019, generating over 17,000 tonnes of greenhouse gas emissions. Historical aviation emissions and the trajectory towards the 2030 target are illustrated below, along with the percentage of flights taken across each University Group, Griffith International and the Corporate Division prior to the COVID pandemic. A 25% reduction from 2010 levels would equate to a target of 8,139 tonnes CO₂-e aviation emissions in 2030, requiring a halving of emissions from 2019 levels by 2030. By avoiding and reducing flight activity, it is estimated that total financial savings from this reduction would equate to \$2.8m by 2030.





The breakdown of flights across short, medium, and long-haul categories was also considered along with the relative emissions impact of each. In 2019, 33% of the University's flights are short-haul, 35% are medium haul and 32% are long haul. The emissions impact associated with long haul flights, however, is sufficiently greater as illustrated below.



The purpose, funding source, and priority for travel within each element will need to be understood through the foundation year to ensure projected reductions are realistic and strategically considered.

Once commitment to the 2030 target is confirmed, a series of performance indicators will be developed to provide further detail and insights to the monitoring and evaluation framework associated with this plan. These indicators will include the following, with additional indicators to be added to address the needs of specific areas of the University as required.

- Domestic / international flight % reduction
- Level of aviation emissions per FTE staff
- Online conference attendance / publication as a % of all conferences
- % flights undertaken by early career researchers and other equity-based indicators

The proportion of flights with aircraft (or airlines) exhibiting a higher environmental performance could also be included as this data becomes available.

Outcome 2. Improve

Travel data is systematically collected and reported on as part of a robust evaluation and improvement framework

Key actions



Action 5: Identify existing internal data and communications gaps



Action 6: Develop tools to address existing gaps, including systems architecture to include travel justification, centralised communications and emissions dashboards and calculators



Action 7: Integrate aviation emissions data with other staff activities and resources to increase visibility

Key indicators

- 5% reduction in flights occurs annually to 2030
- Improvement trends are evident across performance indicators, including % flight reduction, emissions per FTE staff, flights allocated to early career researchers and online conference % attendance

A clear and robust data collection and reporting framework is required to understand and then monitor progress towards aviation emissions reduction targets and to drive ongoing improvement. Actions to be delivered throughout the foundation year of this plan will support evidenced-based decision-making on an ongoing basis and provide an opportunity for a review of aviation emissions reduction ambitions on an ongoing basis. This will be supported by targeted communications to inform staff of their responsibilities in this area whilst also building a sense of motivation and empowerment to reduce their environmental impact.

This Plan recommends an improvement to data elements that track and communicate aviation emissions data across the University. These would also need to collect and report on data related to % flight reduction, emissions per FTE staff and online conference attendance levels. This data needs to be operationalised and integrated into University processes and decision-making through a suite of supporting tools and platforms for data sharing, transfer, and analysis. These would include data dashboards, interactive maps, carbon calculators and other resources. Staff consultation as part of the development of this plan also stressed the need for emissions data to be visualised and communicated in a manner that is easy to understand through translation into meaningful metrics such as equivalent numbers of car trips, for example.

Clear and explicit links between this Group level data and Griffith's broader commitment to creating positive impact for an equitable and environmentally sustainable society should be made. The continued use of data to drive behaviour change and recognise process will be critical in maintaining the University's trajectory towards its target.

Outcome 3. Engage

Griffith staff and stakeholders understand the impact of flying and prioritise low carbon options

Key actions



Action 7: Develop and implement onboarding and professional development materials for staff



Action 8: Demonstrate the cost-savings and other co-benefits of reduced air travel



Action 9: Develop targeted approach to address institutional barriers to change and facilitate the use of tools to inform travel choices

Key indicators

- Best practice guidelines and decision-trees are implemented and utilised

Ongoing engagement is a critical component in achieving long-term behavioural change and establishing flight levels that are in line with both our emission targets and broader teaching and learning, research and partnership objectives. The actions outlined against this outcome area will facilitate this process across the organisation. These actions will be reviewed following the foundation year of this plan, in light of increased data, both internally and in terms of air travel more broadly.

As part of this process, Griffith will be able to demonstrate commitment to systematic prioritisation of low carbon travel and alignment with other University goals. Illustrating the co-benefits of emissions reduction is an important part of this process. A reduction of air travel by 25%, for example represents Griffith University savings of \$2.8M across the life of the plan. Additionally, a reduction in air travel and a transition towards virtual alternatives could lead to greater health and productivity benefits at an individual level.

Staff consultation to inform the development of this plan emphasised that concerted efforts to raise the University's ambitions around emission reduction will require cultural change and the need for a sense of investment and ownership amongst staff. Particularly strong themes emerged around the need for clear and transparent communication around the processes and decision-making around air travel. Approvals processes should consider the location, purpose, and benefits of proposed travel and facilitate the consideration of alternative options. Understanding staff concerns around perceived career limitations associated with reduced air travel is particularly key. Targeted approaches to address such institutional barriers will be required and could include assistance with virtual international network development, as well as less frequent but highly strategic international travel opportunities where necessary.

Awareness-raising amongst staff about the impact of flying is required, along with associated tools to facilitate this process. Staff consultations indicated the need for education to facilitate greater understanding of the rationale behind aviation emissions reductions targets. Further, these objectives should be framed around their relationship to the University's key values. Developing targeted approaches to facilitate the prioritisation of low carbon opportunities is critical, including increasing uptake of travel free meetings, remote collaboration tools and collective ground travel (train or bus). Supporting infrastructure to encourage this behaviour is required and will be implemented as a priority in the foundation year of this plan. Providing best-practice guidelines and other resources to support the prioritisation of low carbon options will be key, along with ongoing training to improve staff literacy in this area.

Outcome 4. Innovate

Innovative teaching and research practices are fostered to reduce aviation travel

Key actions



Action 10: Implement Sustainability Awards to recognise creativity in offering immersive experience that minimises aviation travel, including local and regional events and digital innovations



Action 11: Establish and maintain research and development partnerships to investigate low carbon aviation



Action 12: Review and update conference and event guidelines to facilitate hybrid conferences and other opportunities

Key indicators

- There is an upward trend in innovative teaching and research practices that reduce emissions
- There is an increase in the uptake of interest and quality of applications for sustainability awards over the life of this plan (to 2030)

There is a need to foster innovative teaching and research practices which enable an appropriate integration of technology, reduce the requirement for air travel and maintain the University's resilience in the face of future disruptions. Blended approaches to teaching and learning, including improved online delivery, virtual internship experiences and virtual reality/stimulation should be prioritised. Similarly, in the research context, the promotion of virtual/hybrid conferences, webcasts, online international collaborations, and immersive local research experiences should also be considered. The University's existing digital infrastructure, particularly Microsoft Teams, provides the foundation for the participation in and hosting of virtual conferences with minimal additional cost implications. Internal processes and guidelines will need to be reviewed and updated, however, to ensure they are fit for purpose to facilitate creative and innovative approaches. They will also need to address perceptions that an increasingly digital focus will limit collaboration, particularly at an international level or contribute to missed opportunities that may arise from networking with experts in the field.

Recognising innovation in teaching and research practice through a Griffith University sustainability awards event would help to promote and further facilitate such innovation. This could include university awards for creative initiatives that reduce aviation emissions, including hybrid conferences and remote data collection initiatives. Not only will this recognise and incentivise early adopters, but it will also serve to establish a repertoire of case studies to inform ongoing behaviour change.

Finally, it is important that Griffith continue to develop strategic research agendas on aircraft fuel efficiency to create alliances with other institutions and to lobby the government for a wider reach and better impact.