

From: [REDACTED]
To: [economicregulation](#)
Cc: [REDACTED]
Subject: CAA consultation on the financial resilience of Heathrow's expansion plans.
Date: 11 October 2019 11:39:53
Attachments: [Heathrow Expansion - Draft 5.9 Representation\[1\]\[1\].docx](#)
[Heathrow - No3rdRUNWAY - Summary.pdf](#)
[Heathrow - SHE Summary.pdf](#)
[Heathrow - Stay Grounded- Barcelona Meeting - July 2019.pdf](#)
Importance: High

Dear CAA,

Re: CAA consultation on the financial resilience of Heathrow's expansion plans.

Please regard the following as my contribution to this consultation.

I oppose Heathrow's Expansion proposal. My attached representation to their last consultation sets out my reasoning. This is supplemented by three other attachments on this subject. I am just one of many hundreds of thousands, if not millions of people who object to the third runway or, rather, to any new runways in the UK or even worldwide.

With increasing global temperatures due largely to rising emissions of CO₂, and with the UK governments recent commitment to 'zero carbon' by 2050, not to mention similar commitments made by many countries via the Paris Treaty, now is the time to reduce travel by air, aircraft in the skies and new runways, not increase them.

Of course there are many other reasons to oppose the third runway: increased noise, increased pollution, the commandeering of greenbelt and farm land, the bulldozing of adjacent houses and towns and the massive impact on communities both near the proposed third runway and those under the flight paths – all of which make the third runway an ill-judged project.

Critically, the financial projections, largely developed in 2014 to support the expansion proposal, not only lack credibility and are likely to be unreliable, but anyway need updating to address inevitable required changes to the initial project and those that emerge as the project progresses. Importantly, they also need updating to address the impact of Brexit, the Trump tariff wars, ongoing global economic uncertainty and, importantly the impact of the government's commitment to zero CO₂ emissions by 2050. At least one of the adjustments needs to be a cap on passenger volumes [to be achieved by either voluntary election to reduce flying or by way of imposed carbon levies, higher charges, etc.] which must result in reduced aircraft movements, in effect extending current airport capacity generally and, in this case, specifically at Heathrow.

I do not know what business plans have been presented to the CAA, HAL shareholders, directors or lenders [because these do not appear to be available for easy access by the public] but whatever has been presented would need to be treated with some scepticism even before taking into account the points mentioned above. This project was always going to be risky. Now, arguably, that risk appears to have increased considerably. HAL argues that it should be rewarded for this [high] level of risk. The counter arguments must be that lenders typically increase their rates to compensate them for high risk, despite an airport typically being capable of 'guaranteed' revenues and cash flow; although considerably less reliably so moving forward

than in earlier years. Shareholders also expect high returns on their investments by way of dividends, capital growth or both. Customers of Heathrow operations – the airlines, their passengers, retail franchise operations expect consistent, reliable, economic benefits. Businesses and their travellers depend on it. In the background, the Government needs ongoing assurances that an enlarged and complex project will deliver the benefits from a financially sound structure that won't collapse in the way that [say] Thompson Travel has just done [and as have other large enterprises before it]. Taxpayers do not want to have to bail HAL out should it face troubled waters.

My read of CAA's position on the HAL/Heathrow expansion proposal, despite it being within a relatively highly regulated industry, is that the CAA seems hesitant, almost reluctant to apply rigorous regulatory demands of the company to ensure that everything possible is done to minimise financial difficulties or possible collapse. I believe that they should apply demanding hurdles and controls, not simply to protect the lenders and users of the expanded facility, but principally, to protect the Government and the taxpayer.

My sense is that HAL should be required to produce a reworked/refreshed business plan supported by financial projections that reflect the current fragile economic and environmental conditions that prevail and will prevail for the foreseeable future. These are mentioned above. Each and every critical assumption impacting the numbers needs to be revisited, analysed, tested and restated. The starting point is to reduce the growth of passengers but, as I set out in my report, many of the benefits set out in the Airports Commission papers seem exaggerated and many of the social costs seem minimised. They really need to be revisited to make sure they are acceptably underpinned by robust thinking. Even if these projections are correct, the overall averaged NPV of this project is virtually zero. Given the noise, pollution, carbon and social cost, it is anyway hard to understand how this project can have any economic benefit large enough to compensate for the collateral damage. This notwithstanding, it is difficult to contemplate funding requirements, funders, and the various consequences if the [revenue & cost] projections are inaccurate, not viable, actually not even quantified.

In the commercial world, one of the first analytical checks is to understand who the shareholders are and what stake they have in the company i.e. how their equity stake compares to third party debt. Typically, a simple debt/equity ratio is a starting point and generally potential investors are, not surprisingly, reassured by reasonable ratios. For companies with large structural projects [property developers, for example], the measurement is LTV [loan to value] where, again, analysts look for reasonably conservative ratios. In the case of HAL, both the 'regular' and the LTV ratios for 2018 are very high and the returns to both shareholder and debt financing seem low and, together, not capable of absorbing further increases to support the massive cost of the third runway project [accepting, in the case of the LTV ratio, that the increased investment itself will, to an extent, support considerably more debt]. My point is that it would seem very logical for lenders to require more conservative gearing however it is measured. The government should insist on this conservatism as well; that is to say that both it and lenders would seem correct to insist that HAL's foreign shareholders increase their equity stake considerably. I think it entirely reasonable for lenders and the government to insist on agreed credit ratings, restrictions on dividends and sale of assets should circumstances suggest that HAL's operations are facing financial vulnerability. Of course, all the afore going will likely to lead to a higher borrowing cost but why should HAL be the recipient of 'hurdle-free', therefore artificially low, borrowing costs? Under the circumstances, it seems puzzling to me that contemplate offering them. Surely all

parties to this would be better served by adding reasonable checks and balancing controls?

Finally, should HAL manage to persuade lenders to lend the amounts required [will this be £14bn, £20bn, £30bn, £50bn, £100bn[?], given that a Heathrow senior director remarked recently that large projects should be expected to overrun their budgets which, in turn, caused the owners of BA to suggest that HAL 'has no clue as to what the total project cost will be', added to which must be ongoing capital maintenance project requirements] it seems clear that the directors and shareholders should bear accountability and responsibility for any resultant overages, failures. The shareholders, in particular, should be the lender of last resort ...not the government or the taxpayer.

Given the high project risks [execution, duration & uncertain costs, revenues], its potentially risky proposed financing arrangements, add to these high levels of opposition oppose the third runway and, minimally, aim to reduce air travel, it seems to me well overdue that the Heathrow Expansion project should anyway be consigned to history.

Yours sincerely,

Mike Urwin

[Redacted signature block]

STOP HEATHROW EXPANSION: Representation

“Can creating hell on earth be described as progress?” RF

To: Heathrow
cc: Politicians, The Press, Opposition Groups, Activists

I write to argue against the third runway at Heathrow. The assessment that follows demonstrates clearly the negative impact that this runway will have on people's lives and health; on the environment and on global warming. It also challenges the project and the financial assessments which underpin the proposal.

Key problems associated with current Heathrow operations are simply exacerbated by an expansion which is presumed to be approved despite the need for planning permissions and the need to comply with EU pollution caps.

The analysis addresses the negative implications of a third runway under the key headings:

1. **Noise** – physical and mental health of potentially two million people., or more.
2. **Pollution** – physical health [including death] of thousands of people on the ground.
3. **Carbon/CO2** - global warming, impact on planet earth; questioning the 'need to fly'.
4. **Environment** – communities, villages, greenbelt, rivers, traffic near Heathrow.
5. **The Numbers** – poor assumptions, unsubstantiated interpretations, uncertain financial benefits.
6. **Decision Makers** – requested to reject the third runway because:
 - Implications of 2050 zero carbon commitment not determined
 - Heathrow already breaching EU pollution limits
 - Impact of proposed flight paths and their impact not available
 - Uncertain final project costs, financial benefits and 'who pays for what' not clear

Heathrow is spending huge sums of money on promoting the construction of a third runway. They are also very actively promoting 'consultation' on the expansion and on possible changes to flight paths. They attempt to appear engaged with communities but proceed as if the third runway is a 'done deal'. *It is not.*

I ask the government and Heathrow to regard this as a formal representation against the third runway at LHR. I call on dissenters to actively resist a third runway.

Key points are elaborated on page three and supported by more detail in the pages that follow.

Thank you for your attention.

Mike Urwin
B.Com. C.T.A. CA[SA]. MBA.

Wimbledon
September 8 2019

STOP HEATHROW EXPANSION: Index

“Can creating hell on earth be described as progress?” RF

Index

Summary of Key Expansion Issues Page 3

The Report

1. Noise: Heathrow & Approach/Departure Legs and Envelopes/NPR's Page 4
 2. Pollution: On the Ground Page 5
 3. Pollution: In the Sky [and impact of ATM changes] Page 6
 4. Carbon/CO₂ – Key Contributors to Global Warming Page 7
 5. Passengers [demand] Page 9
 6. Location: Environment Page 12
 7. Location: Strategic Page 13
 8. Connectivity: Travellers/Locations Page 14
 9. The Numbers Page 14
 10. Heathrow, Gatwick, Stansted Page 17
- The Politicians / Decision-Makers Page 18
- Some Picture Illustrations Page 20
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STOP HEATHROW EXPANSION: Summary of Key Expansion Issues

“Can creating hell on earth be described as progress?” RF

Summary of Key Expansion Issues

1. Noise & Pollution

- More than a million Londoners suffer excessive aircraft noise now
- A third runway and air traffic control changes will increase this by a further two million or more
- The numbers would be greater if lower WHO dB noise caps were adopted
- Air pollution [NO, Particulate Matter] near LHR already breaches EU and WHO limits
- LHR's third runway would increase pollution; worsen air quality; exceed EU limits
- Appropriate [more] compensation required for noise & pollution, and for property devaluation

2. Global Warming

- Excess CO₂/Carbon = global warming = extinction of life on earth
- Heathrow aircraft generate 20 million tons of CO₂ pa now
- A third run way would increase this by at least 25%
- UK has committed to ZERO carbon by 2050, so should LHR
- Required: fewer runways, fewer aircraft, fewer 'cheap' flights

3. The Environment

- 1000+ acres of greenbelt, farmland, woodlands covered in tar and concrete
- 1000+ homes, schools, properties demolished, communities disrupted
- M25 tunnelled, major roads 're-arranged' would disrupt traffic for years
- Rivers & streams diverted, risk of flood and of water contamination increased
- Huge, complicated project tormenting Londoners for 30 years or more

4. The Project

- Expansion project not fully assessable without new air traffic route proposals
- LHR 'hub connectivity' a driving but exaggerated, fallacious proposition
- An LHR expansion would benefit the south of England at the expense of the North
- Poor decision to locate LHR in London; poorer decision to agree expansion, a security risk
- Promoted by foreign shareholders at the expense of community, environment, planet

5. Financial Viability

- Based on questionable/speculative/dubious assumptions and false logic
- Benefits maximised, 'costs' minimised, 'inconvenient' human collateral 'ameliorated'
- Inconsequential 60-year NPV: **-£2.5bn/+£2.9bn**; *ignores cost of aircraft generated carbon*
- Significant increases of LHR aero and other charges to airlines/passengers
- **Questionable financial viability for promoters, airlines, government, funders, passengers**
- Expansion budget = £20bn, or £30bn, or £50bn ... to which add routine capex, opex
- Heathrow plc already seriously over borrowed; gearing is 20 times equity
- **How much will Heathrow fund, how much the Government, how much the taxpayer?**

STOP HEATHROW EXPANSION: Key Expansion Issues

“Can creating hell on earth be described as progress?” RF

STOP HEATHROW EXPANSION: The Report

“Can creating hell on earth be described as progress?” RF

The Report

1. Noise: Heathrow & Approach/Departure Legs and Envelopes/NPR's

“Noise” is a complicated subject. However, those who suffer aircraft noise find it quite easy to use simple words to describe it: **‘loud, intrusive, irritating, repetitive, soul-destroying’**.

Logic suggests that more aircraft traffic movements [ATM's] generate more noise. A LHR proposition that the size of the direct approach/departure noise envelopes has decreased as aircraft engines become quieter is surely negated by increased volumes. The core noise envelopes differentiate between day and night noise and depict areas impacted by duration averaged aircraft noise greater than selected decibel ratings. LHR applies ICAO of i.a. 55dB [day] and 50dB [night]. Critically, the World Health Organisation [WHO] limits are respectively 45dB day and 40dB night. The difference between the two is significant in that the higher levels represent noise at twice the intensity and nearly double the intensity to the human ear. In any event, a 16-hour averaged noise envelope is of little help explaining the impact of intermittent, repetitive noise at the upper dB levels where aircraft noise frequently exceeds 75dB or 80dB+.

Aircraft noise damages health. It spreads beyond compact computer-generated envelopes. Communities living directly under immediate approaches and take-off legs suffer sleep degradation and severe health issues associated with noisy and polluting aircraft engines. Those on departure legs, with aircraft at or near full throttle suffer the noise of low flying aircraft. Larger aircraft generate noise until they are at least at 6000 feet. In many cases these are still as low as 3750 feet AGL as far away as 10 nautical miles from Heathrow and many of these operate late at night which aggravates the sound sensation. Applying ‘reduced thrust’ [to reduce pollution at/near LHR], also means aircraft are lower and louder for longer.

*A recently published Public health green paper by Matt Hancock concludes that **less than seven hours sleep can cause mental and physical health changes**. A government guide suggests minimum hours of sleep for: adults 7-8 hours, teens 8-10 hours, and schoolchildren 9-12 hours. Compare this to **Heathrow's 6.5 hours restricted operations: 11h30pm to 6am [interrupted by flights coming in from 4h30 am]** - woefully falling short of the government minimums and challenging the physical and mental health wellbeing of over 2 million people under the flight paths with particular impact on our children. [Healthfinder.gov].*

It seems counterintuitive that the Government would approve a scheme which will knowingly cut across their recommendations in other areas, an action that could expose it to a risk of lawsuits when the impacts of this expansion become clear.

Wording addressing the ‘cost’ of assessing the impact of noise from one of the Airports Commission documents reads:

*“We have monetised the noise impacts at a local level using noise contour and population estimates to consider annoyance, sleep disturbances, acute myocardial infarction and hypertension on quality adjusted life years. Essentially this approach values noise impacts by estimating the number of years of lost life or spent with a disability and multiplying these by well-established values for each QALY lost, to provide the total monetised noise impacts. The analysis suggests that the scheme creates noise dis-benefits valued at **£1.5 billion...**”*

This £1.5bn PV value is for the 60 years from project start. £1.5bn! It could easily be doubled, tripled and certainly would be higher if the WHO noise limits were applied. It is anyway a terrible minimisation of a major collateral impact on the population under or near the flight path. The expansion, it seems, proposes to press ahead regardless of the pain, suffering, even death inflicted on citizens already persecuted by noise and pollution. In the name of expansion or progress, what cost a human life?

The above 'costing' does not include the pain and suffering of those living within the dimensions of the departure and arrival envelopes not fully included in the defined noise contours around Heathrow. Not only experiencing more noise and suffering from current and increased volumes but at this point, without the new proposed routes only scheduled to be made public by 2021/22, it is simply not possible for anyone to assess the 'new' noise impact on their areas. The Heathrow suggestion is that it is probably appropriate that noise be spread more evenly over London and that this will be achieved by adding more arrival and departure envelopes and routes, also perhaps requiring aircraft to approach at a greater [and constant] descent gradient than the current 3 degrees [and likewise for departures], or by tracking aircraft more finitely over one heading and otherwise trying to concentrate and/or disperse the pain.

More aircraft over more people would be in direct contradiction to the current government-imposed 'Westerly Operations' protocol requiring traffic to take off to the west 70% of the time, wind allowing. The current proposal is to change this to a more 'fair distribution', but this fairness is measured in what way: more surface area gets less traffic, meaning that less populated areas [to the West] get less traffic? It seems completely illogical to put more traffic over more people [as many as 2.2m more people according to the CAA]. The idea of more traffic over anyone is objectionable, hence the objection to this expansion. More noise impacting more people makes no sense, nor does the increased risk of aircraft crashes on/over a more densely populated area, low though that risk would be.

Every citizen subjected to continuous, intermittent noise above defined maximum dB levels [*not simply above an averaged level*] should receive tax free monetary compensation on an ongoing basis. As importantly, those who are exposed to new and/or more noise and whose properties suffer value depreciation should also receive a tax-free capital compensation. It is wholly inequitable that the airport operators and all those who directly and indirectly benefit from increased aircraft movements do not share their gains with those who suffer negative noise collateral. The latter has almost certainly not been costed into any cost/benefit analysis by those who have supposedly analysed every aspect.

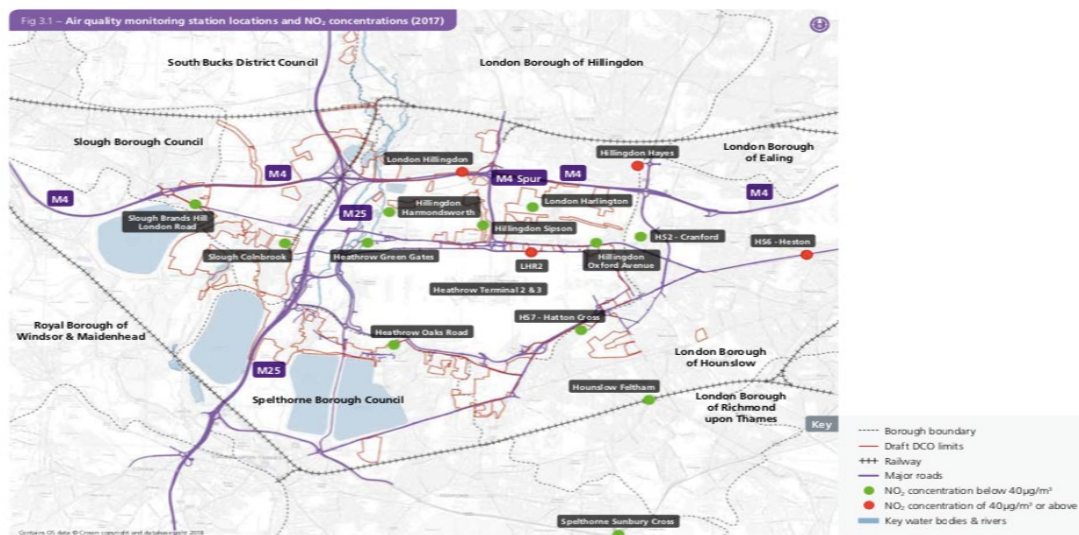
To reiterate: Until the new arrival/departure routes are available, it is impossible for anyone to comment meaningfully on the current expansion consultative document; it is difficult to understand how the government managed its assessment and decision without this information.

Finally, it seems that noise/pollution over areas impacted by increased traffic should preferably be reduced or minimised and where these options are not available, it should be treated as an ongoing cost to Heathrow and the airlines. These compensatory costs should address 'routine' disturbances and one-off and periodic compensation for negative adjustments to house and land values. These should be costed into this project. They should not be allowed to happen in the first place.

2. Pollution: On the Ground

Heathrow measures air pollution other than carbon, caused by noxious Nitrous Oxide [NO] and Particulate Matter [PM] generated at or near Heathrow using measuring equipment at fifteen measurement sites in or near the airport. [See image below]. It does not appear to measure pollution in the more distant approach or departure envelopes. If one cares to look up at the dispersing aircraft 'contrails' left in the sky [see last page], you see 'only' condensed water [also harmful to global warming], but they are evidence of all the

other pollution being generated by aircraft engines which you can't see. Does this all evaporate out to the universe? Hardly. Gravity obliges to bring it back to earth. Breathe in and some of the air will likely contain aircraft pollution. The recent Chernobyl series demonstrates clearly that a 'local' incident is not so local; the same for aircraft pollution.



The measurements at or near the airport currently show that generally [green] the measurements comply with maximums [but only just], guided by EU, WHO limit criteria; importantly **four of the measurement sites [red] show that they are already breaching EU limits.** It is easy to conclude that a 60% increase in air traffic [ATM's] to 765,000 or more together with associated vehicle traffic volumes will make it extremely difficult for Heathrow to comply with local/EU/WHO limits.

Given that Heathrow is already breaching local EU, WHO air quality requirements, and that future limits are clearly likely to be tightened, the Heathrow proposal should be opposed unless it can demonstrate that its operations will not exacerbate marginal compliance and already illegal air quality breaches. The target should be lower noxious gases rather than just operating in a state of (near) compliance.

Another relevant point is that, as with road traffic, where more damaging pollution [PM's] is generated by tyres and brake dust, landing aircraft tyres and brakes emit substantial volumes of PM's; not to mention huge volumes of carbon applied in the making of the aircraft tyres used and discarded relatively frequently.

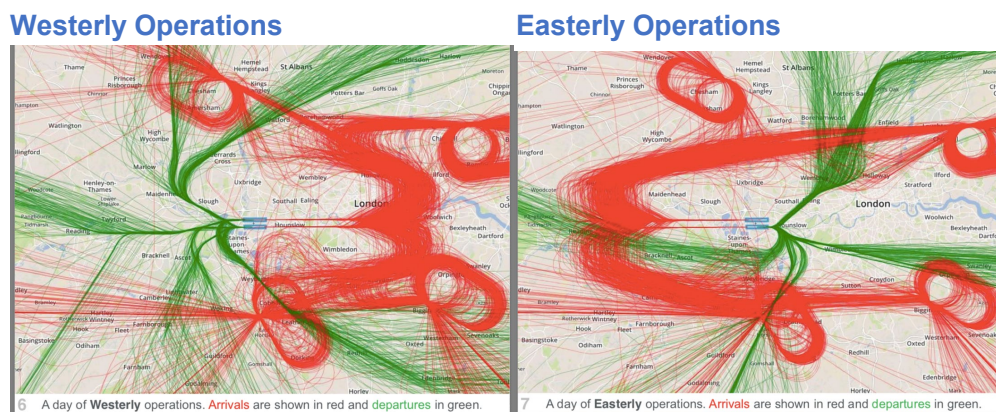
To summarise, ground pollution, NO₂ in particular but also PM's, damages health, causes premature death. It damages the health of our children. It should be reduced, not increased. Failure to demonstrate compliance is a definite expansion 'blocker'. EU/WHO regulations, notwithstanding, Heathrow should target much lower pollution levels. The UK government has a responsibility to ensure that EU/WHO targets are not breached and will not be breached by more air and relating ground traffic. LHR should not perpetuate a reputation for the most transit passengers if it is killing British citizens.

3. Pollution: In the Sky [and impact of ATM changes]

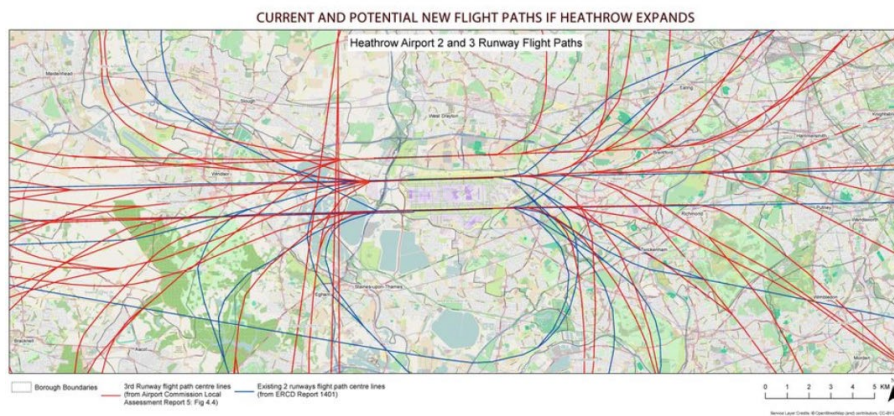
The Heathrow consultation earlier this year [2019] gave the public the opportunity to comment on Air Traffic Management [ATM] changes being considered by the CAA [Air Traffic Controllers] ... if anyone had the time to navigate, understand the material or respond to biased questions. The changes include a proposed Independent Parallel Approach to the two existing runways, continuous aircraft descent to minimise stacking, increases to descent and departure gradients [currently 3 degrees], more accurate routing of

aircraft to minimise impact on new areas but, ironically an increase to the number of departure/arrival envelopes shown in the two images below.

The critical point is that the proposed location of these new envelopes and flight paths will not be available until at least 2021 meaning that wider London is unable to assess the impact of aircraft overhead until then and it was simply not possible to comment meaningfully on the relating [or this] consultation without this information. The same conclusion for the House of Commons approval of the third runway on June 25 2018. Still, some searching uncovered a draft of what this might look like which is below the two images showing a typical day for westerly and easterly operations. **You are left to imagine what they will look like with 60% more traffic [and wonder whether Air Traffic Control will be able to manage increased traffic in an already busy sky ...is there any possibility that safety might be compromised?].**



and: the possible new flight paths: blighting London near & far...



4. Carbon/CO2 – Key Contributors to Global Warming

Carbon/CO2 – another complex topic. To understand ‘dynamic equilibrium/source/sink’, one of the many associated and fundamental carbon/CO2 concepts, needs a scientific qualification and years of experience. However, increasingly, governments around the world are persuaded to acknowledge the threat of global warming and reacting. The Paris Climate Agreement is an important testament to this. The UK committed last month [June 2019] to be carbon neutral by 2050, arguably already ‘too little, too late’ but, reinforced with positive actions now, it will help our children’s children see another day...

Green-house gas [CO2 a central component] is essential to the warmth and well-being of earth. Over the past thousands of years, the natural global volumes of carbon dioxide have increased and decreased in

100/150 thousand-year cycles, as shown in the second graphic overleaf. The obvious deviation is shown in the last two hundred-year period and more recently where the upward movement has broken out of the equilibrium range. Scientists suggest that changed weather patterns are the outworking of global warming and that this could become catastrophic.

The use of fossil fuels began in earnest at the commencement of the industrial revolution in the mid-19th century and has accelerated since then. In around 200 years, mankind has done more damage to this planet than in the preceding 4.5 billion years and its acceleration begs the question: how many more straws before the oceans start evaporating, turning the earth into another dead planet to join the likes of Mercury, Venus, Mars.

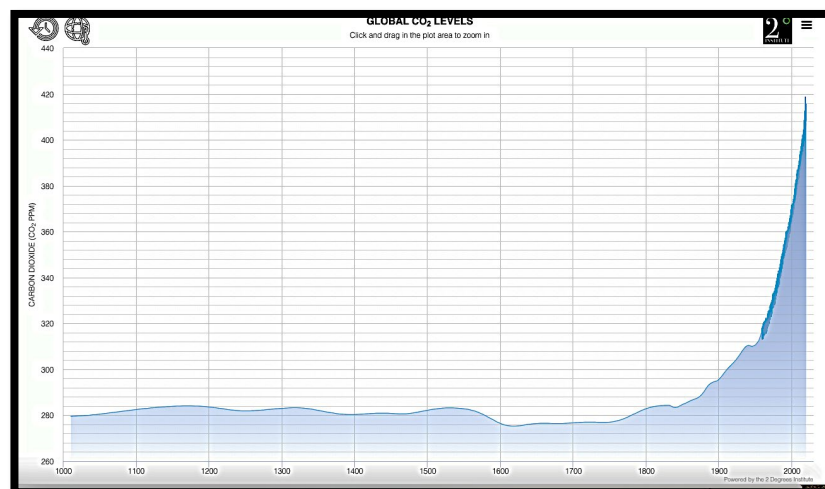
Although arguments rage around the relevance of man-made carbon, the obvious link between carbon and global warming cannot be ignored. Fortunately, many countries [unfortunately not all – especially those guilty of the largest emissions] are starting to make some progress but it is slow, much too slow.

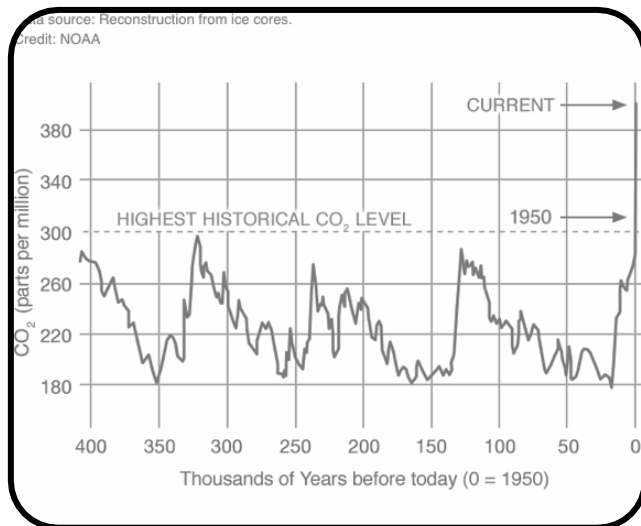
Aircraft [along with shipping and motor vehicles which generate even more pollution] contribute between 1.5% and 2% of all carbon emissions. This might sound small, but it is significant compared to the total, especially given its high growth rate – see below:

- **Global fossil CO₂ emissions** grew **164%**, from 20,674 mil tons in 1990, to **37,077 mil tons in 2017**.
- **Total global aviation CO₂ emissions** grew **210% from 372 mil tons in 1990 to 677 mil tons in 2017**.
- **Heathrow generates 20mil tons now**. The increase from 475,000 aircraft movements to 750,000 [or more] will mean 25% more until technology enables reductions [back to 20m tons].

The UK has just committed to be carbon neutral by 2050. A third runway and more air traffic clearly cannot possibly be acceptable. Despite improvements to engine technology and fuel, they are still burning fossil fuel. More of them will burn more. More is not less. Airlines and air travellers should not be allowed to churn out carbon like this. See below – the first graphic shows the history back 1000 years [the 10,000 image looks the same]; the second, overleaf, the natural rise and fall ‘cycle’ over the past 400,000 years ... but very unnatural in the last two centuries:

Global Co2 Levels





- Burnt aircraft fuel produces emissions in the rough ratio of 67% carbon and 13% hydrogen, NO, etc.
- A large four-engined aircraft flying from London to New York generates some 230 tons of CO₂
- Heathrow generates some 20m tons of CO₂ a year and this will increase by c25% to 25m over the period gradually declining[?] back to 20m tons by 2050, **but not to zero...**
- Heathrow's total 60-year additional CO₂ contribution would be c 1.353m tons!
- Heathrow's CO₂ projections above are based on a UK total airport related carbon capped figure of 37.5m tons^{*} per annum; in a carbon traded scenario the total UK airport carbon generated would be 51.5m tons^{**}

^{*} this to help reduce[?] the UK's overall emissions to within global targets [an 80% reduction from 1990 levels] ...clearly set before the new UK commitment to zero emissions by 2050.]

^{**} carbon trading does **NOT** help the planet. Carbon is carbon and should not be traded. Period].

[Note that carbon produced by airports only refers to carbon generated at the airport and by departing aircraft; citizens on the ground are still subjected to carbon/pollution generated by incoming traffic as well; an issue conveniently ignored in the Airports Commission reports].

Carbon/CO₂ are major issues for global warming and for the planet. All airports, all aircraft need to be targeted with zero emissions. There should be fewer aircraft in the sky not more. The time to start making significant changes is now ...not by 2050.

In any event, the models developed by the Airports Commission are based on a national carbon reduction of 80%% off a 1990 base by 2050 [to give the 37.5m tons cap for all UK airports]. With the changed UK commitment to zero carbon, their financial models need reworking. Unless restrained, the relative CO₂ contribution percentage of aircraft will rise as other industries, cars, etc. make the necessary and required reductions.

It is reluctantly accepted that the existing investment in aircraft will slow change but this provides a bigger incentive to stop putting newer old technology aircraft into service; to hold rather than to increase runway capacity. This 'short term' change is being applied to diesel cars and London is striving to increase anti-pollutive vehicular travel in London. London is leading the way. Heathrow and other UK airports should be doing the same.

5. Passengers [demand].

Government sponsored analysts have dutifully categorised air passengers and extrapolated numbers to 2050. The table below [Aviation forecasts 2017] shows the outlook for all passengers. It clearly shows that the dominant category is **leisure travel at 72%**; with **'business' travel at only 19%**.

mppa	2016		2030		2050	
UK business	18.7	7%	25.9	7%	38.0	8%
UK leisure	112.0	42%	156.1	44%	224.1	45%
Charter (UK leisure)	12.8	5%	7.6	2%	11.2	2%
Foreign business	16.7	6%	22.2	6%	31.3	6%
Foreign leisure	51.2	19%	63.8	18%	86.3	17%
Domestic business	15.1	6%	18.5	5%	23.6	5%
Domestic leisure	16.2	6%	19.4	5%	26.8	5%
International-international transfer	23.9	9%	42.6	12%	52.7	11%
Total	266.6		356.1		494.0	
Business	50.6	19%	66.6	19%	92.9	19%
Leisure	192.2	72%	246.9	69%	348.4	71%
International-international transfer	23.9	9%	42.6	12%	52.7	11%
Total	266.6		356.1		494.0	
UK resident	174.8	66%	227.5	64%	323.8	66%
Foreign resident	91.8	34%	128.6	36%	170.2	34%
Total	266.6		356.1		494.0	
UK resident	174.8	72%	227.5	73%	323.8	73%
Foreign resident (no II transfers)	68.0	28%	86.0	27%	117.5	27%
Total	242.8		313.6		441.3	

Generally, an extrapolation might be acceptable, but air travel involves aircraft which generate lots of carbon: on the ground, more on take-off, and in flight...as well as in the manufacture processes. A necessary first step would be to challenge the need for each category to travel and then whether this should involve aircraft. See wording below the picture.

Three points:

Firstly, with the current population at c7 billion and potentially growing to c12 billion or more in the decades ahead, will a third runway at Heathrow turn into a fourth and a fifth and a sixth? Where will these be sited? Surely not at Heathrow; and if a fourth cannot be located at Heathrow, why squeeze in a third one now?

Secondly, will all the airports around the world extend their capacities in like manner as increasing volumes of more affluent people demand more runways? More runways = more aircraft = more travel = more carbon = more global warming = extinction of life on earth.

Finally, given the constraints of current technology, viable electric aircraft to cope with current and increasing volumes seem unlikely for at least another 50 years. Batteries require charging and this is supplied by power utilities still largely burning fossil fuel. The bottom line is that the world anyway cannot wait 30 years or more for the electric aircraft 'solution' [if it is one...].

Meanwhile, one would expect travellers, now increasingly aware of carbon's contribution to global warming to appreciate a requirement, either voluntarily or by imposition, to reduce flights. Large volumes of travellers are enticed to travel by cheap airline operators offering cheap flights [see below].



The real price of flying: Pollution, Noise, Carbon...global warming...ultimately life on earth.

Instead of assuming a steady growth of passenger 'demand', the opposite should be modelled. 'Frivolous flying' should not be allowed to continue unabated. On-site business meetings should be minimised and replaced by video conferencing. Leisure travel needs to be rationed, not only by Heathrow, but by every airport around the world. Either a carbon levy [sooner/more than already contemplated] or more importantly a form of non-tradable mileage rationing scheme, perhaps a frequent flier tax, need consideration. In Scandinavia and many other countries, including the UK, individuals are already, voluntarily, starting to reduce flying. [UK's 'Flight shaming' refers]. In addition, aircraft fuel should be taxed [or current taxes increased] to encourage a move to cleaner fuel. We should be demanding fewer aircraft in the sky not enabling an increase. London and the UK should lead the world with this initiative, not the reverse.

Heathrow worries that the current c80m passenger cap stifles business but it is a total number comprising components which can easily be managed. Higher pricing would free up seats for [real] business. Both leisure and business travellers are already using cheaper options at alternative airports. Airlines have peak periods and price passengers into less busy, less popular periods. Add to the ticket price a levy for carbon and one to compensate those who suffer the collateral and the cap on Heathrow would not hamper business or [real] leisure travel. It would reduce the numbers of 'casual' fliers. In fact. It could be argued that the entire 'cheap' airline industry really represents current surplus capacity. [And, for interest, note that the cost to the country of tourists leaving the UK shores is roughly 50% higher than incoming tourist revenue].

'Cheap flights have to be a thing of the past. Life on planet earth depends on it. Failure to curb carbon will ultimately drive the human race to extinction...

6. Location: Environment

“Heathrow airport is currently considered in local plans and strategies to have substantial adverse impacts on the local environment, which would be expected to be worsened by the construction and operation of a new north west runway”. “Expansion at Heathrow is not currently supported by the London Plan due to its potential environmental impacts”
Airports Commission. Business Case and Sustainability Study. 2014 [updated].

The third runway development proposal is massive and would scar the local landscape forever, lost green belt land, woodlands, protected plant species will be irretrievable. Below some of the major impacts:

- A very significant impact is the irretrievable loss of 694ha [1715 acres] of **Green Belt land** as well as loss of wider, non-Green Belt land.
- The total land required for the third runway and supporting infrastructure is 569ha for the airport development and 294ha for relating surface access and flood storage, a total of 863ha or 2132 acres.
- The loss of 60ha of woodland and 431ha of agricultural land are significant impacts for eco-systems and the commandeering of land from three local non-statutory designated sites [Old Slade Lake, Lower Colne, and Stanwell II] are equally concerning as will be the impact on nationally rare plant species – the pennyroyal – as will be the loss of deciduous woodland, traditional orchards and rivers and brooks.
- As mentioned earlier, 783 **houses** have been identified for demolition and a further 289 near the surface access routes could, similarly be lost to this project ...over 1000 – when London is crying out for residential accommodation?
- The villages of **Sipson, Longford and Harmondsworth** will be severely impacted if not entirely bulldozed.
- Twenty-one designated **heritage assets** would be impacted by the immediate land take and more than 200 within close proximity of the project, many of these irreplaceable
- Of note, the third runway expansion project has the following local impact:

“Approximately 12 kilometres of the existing watercourse would be ‘lost’ with the diversions of the Colne Brook, parts of Duke of Northumberland’s River and River Colne. The creation of a new channel, the ‘River Colne Spur’ confluence is likely to have a significant residual impact. Approximately 3 km of open channels would need to be culverted, running contrary to efforts by the environment agency to provide environmentally-friendly flood schemes. They could also be residual water quality impacts arising from the polluted run-off. Major changes to the fluvial environment pose major flood risk even with mitigation measures”.

AC Business Case and Sustainability Assessment.

- Another major ‘local’ project is the need to remove and replace the **Lakeside Energy from Waste Plant** which plays an important role in regional and waste management and in the processing of clinical waste and other contaminated material. It is a complex and lengthy project with a duration to match that of the construction of the runway.
- And then there is the **tunnelling of the M25**. How long will that take and what disruption? And remodelling the many roads around Heathrow. How long will that take and where does the traffic go in the interim...unless it is to one of the two new **car parks, described as the two largest car parks in Europe with a capacity of nearly 50,000 vehicles...**

It does not take much imagination to realise that the impact on the area to be consumed by the third runway project will scar this part of the earth forever and cause terrible suffering to all those who have to live through these major projects, some of which, no doubt will go wrong, wrong, wrong.

7. Location: Strategic

The busiest airport in the world, since 1998, is Atlanta's Hartsfield Jackson International Airport handling 985,000 ATM's [2700 per day] and over 100 million passengers per annum. This compares to Heathrow's 475,000 and 80 million passengers. It has 5 runways on 4700 acres. The major difference between the two is that Atlanta is populated by fewer than 750,000 people. The airport is owned by the City of Atlanta.

London's population is 9 million with more than a million people impacted severely by noise and pollution of aircraft traffic; the closer to the airport the greater the impact. For disturbance minimisation and for safety reasons, more aircraft should take off over less populated areas. This resulted in the government requirement for 70:30 'Westerly Operations' [already described]. Preferential noise routes [PNRs] were implemented for the same purpose; also, to avoid areas subject to one direction of traffic from being subjected to traffic from the opposite direction and vice versa.

Heathrow is already poorly located given the size of London and the proximity of LHR's location; also located near undeveloped greenbelt and surrounded by small country villages. It would be an extremely poor decision to add to this:

- A third runway, its supporting infrastructure and the increased traffic it generates,
- The closure and relocation of the Waste to Energy Plan,
- The enormous road works projects including the tunnelling of the M25,
- The variety of other projects already mentioned ...

...all of which make this is an enormous project with complex components now scheduled for more than thirty years. It will create inconvenience and negative social collateral for hundreds of thousands of people, millions even.

For the above and many other reasons, it is easy to conclude that the current Heathrow location is unfortunate and that expanding it would be even more unfortunate [not to forget that Windsor Castle is also directly under the approach to the runways...and the immediate departure legs].

It is also proposed that the UK needs a central hub and that for a variety of reasons Heathrow should consolidate its hub role. The likely consequences of this would be more traffic at Heathrow, less at all other airports across the country. Railing, bussing, or worse, flying passengers around the country to/from LHR does not seem sensible if they could as easily fly directly to their destinations from smaller hubs in the north [Birmingham, Manchester, Edinburgh]. The reason for HSR2 is to help grow economic activity in the north. If it has to expand, and even if it does not, it would seem obvious to apply the same logic to the air travel business. Locate more of it in the north.

However, a proven logic to service passengers in the south and limit the contentious implications of a third runway at Heathrow suggests that Gatwick and Stanstead should have another runway ahead of Heathrow. Indeed, City Airport has just launched its proposal to expand its capacity [without a new runway] and not so long ago, both Stansted and Gatwick were each proposing an added runway. Indeed, Gatwick is assessing the use of its existing second runway to increase ATM's and passenger numbers.

A strategic reason not to put all the UK eggs in one basket is that it would make it an easy target for terrorist activity; an easier one if warfare ever had to challenge the UK. One dirty bomb and the UK

would lose its hub connectivity to the world in an instant. See the 'Schiphol news flash' on July 24 on the last page.

8. Connectivity: Travellers/Locations

One of LHR's major drivers of this hub expansion is to connect businesses and leisure travellers in 100 cities in the UK to its hub and from there to 200+ locations in 80+ countries around the world.

Consider:

1. If UK passengers are connected to one UK hub, it is logical that their country destinations will have their own hubs [e.g. USA, India, China, Russia]; they would reduce the need to fly directly to end locations.
2. For both businesses and leisure travellers, the usual 80:20 business principle will probably apply to travel, meaning that most passengers anyway travel to fewer locations.
3. Destinations will not be decided by Heathrow [or any airport] but by the travellers and the airlines, the latter driven by profitability. An empty plane to Vladivostok does not compete with a full one to JFK
4. For the UK, a concentration at Heathrow risks at least two major economic problems:
 - Stripping economic development & jobs from the north in favour of the south, contrary to the government's regional/northern economic development policy. A strategy of [partial] London or regional hub decentralisation would make more sense.
 - Stripping investment and passengers from other UK airports exacerbates the 'central versus decentralised' dilemma and likely threatens the economic survival of some of these airports.

The 'benefits' of connectivity are an exaggerated myth. The few who have to get to outlying destinations find ways to do that. Heathrow cannot use 'connectivity' to justify its expansion.

9. The Numbers

A reliable business plan relies on well-considered assumptions, clear planning criteria and a proper understanding of both product-offering and customer. Market predictability helps. In volatile times, five-year projections are difficult; twenty, thirty and, 60-year horizons are virtually impossible. The latter is what Heathrow [and the government] is attempting to do.

The Project Costs.

The table below shows the expansion costs split broadly between the runway/infrastructure [scheme capex], [£17.6bn] and the surface access costs [roads etc], [£5bn], a total of £22.6bn or £16.1bn 2014 PV. Three points:

1. The probability of this project overrunning budget is high, so even with contingencies, expect the real total number [including all projects] to be nearer £30bn, £40bn, maybe £50bn or more.
2. It is far from clear 'who pays for what'. Expect the government and taxpayer to pick up a big chunk of the surface [road] costs at least; maybe more. That would be £5bn or £10bn or more.
3. Have these numbers really been fully costed for the M25 tunnelling project and its collateral, the diversion of rivers and streams, the moving of the waste to energy facility, the need to minimise flooding and water pollution issues, amongst all other costs?
4. Have these numbers factored in Brexit and the Trump tariff wars, global economic cycles with a major downward correction probably near if not already started?

Table 3.10: Scheme costs, (£billion, 2014 prices)

	Costs
Scheme capex (Real)	17.6
Scheme capex (PV)	12.8
Surface access costs (Real)	5.0
Surface access costs (PV)	3.3
Total cost (Real)	22.6
Total cost (PV)	16.1

Source: Airports Commission analysis

The Cost/Benefit Study

The next table shows the 2018 updated cost/benefit analysis of this project on the right [compared to the Gatwick and LHR extended runway options]. Note that the figures are based on a carbon traded scenario i.e. no cap to airport/aircraft generated carbon. Carbon capped figures [especially if ZERO carbon is applied] would drive the PV figures down further as i.a. aircraft ATM volumes are reduced.

All the Airports Commission studies and their supporting work need to be studied to fully understand them; many hundreds, thousands of pages. However, focussing on the summary documents, it is quite easy to interpret these with scepticism.

Consider the following:

1. Passenger benefits look incredibly high – the product of lower airfares, more efficient, comfortable, superior travel experiences, more destinations, lower waiting times, fewer delays. Hard to believe.
2. Net Public Benefit has also been developed through rose tinted glasses but, even if correct, needs to be discounted for lower economic activity elsewhere and balanced by the thought that this investment applied to other projects or at other airports could produce similar benefits.
3. Airline Profit losses – could be higher since these would be generated as much from higher costs [increased Heathrow aero charges (£20 to £30) supplemented with other LHR operating charges, not quantified], the cost of operating new aircraft, more expensive fuel, etc], as they would be from lower airfares resulting from increased competition due to underutilised runway capacity.
4. The reverse of this 'shadow cost' [higher airfares due to runway constrained runway capacity] is that airlines have been overcharging passengers for years given that it is unlikely that aircraft currently operate at 110% capacity on all routes? It seems doubtful that airlines will reduce fares. On the contrary, they will be more likely to increase them, although this will be as much to recover costs rather than it would be to generate profit.
5. Environmental dis-benefits have been minimised away to have virtually no impact on the analysis. Noise, pollution, discomfort, death are supposedly inconsequential costs of the expansion. Carbon and CO₂ contribute to the destruction of life, but show up as a minimised inconvenience to be 'managed' within UK, EU, WHO, global quotas.
6. The cost of carbon generated by departing aircraft has been completely ignored.

At the bottom of the table, all considered, the sixty-year expansion project delivers an almost inconsequential Net Present Value benefit of **-£2.5bn** to +£2.9bn. Although this needs considerable interpretation, it is tempting, at first glance, to say 'move it to Gatwick', at least showing a positive NPV, but that is not a particularly ideal solution either. **Better to simply stop expansion completely.**

Table 3.1 Monetised impacts under the DfT17 central, carbon traded forecasts and revised methodologies (present value, £bn, 2014 prices)

	LGW Second Runway	LHR Extended Northern Runway	LHR Northwest Runway
Passenger benefits	69.4	57.2	67.6
Government revenue	4.6	2.9	3.5
Wider economic impacts	0.1 to 1.3	1.6 to 2.7	1.8 to 3.1
Total benefits to passengers and the wider economy	74.1 to 75.3	61.7 to 62.8	72.8 to 74.2
Environmental disbenefits*	-0.9	-1.5	-1.9
Net public value ^	72.5 to 74.3	56.2 to 61.3	67.4 to 72.2
Airline profit loss	-65.1	-46.4	-55.0
Net social benefit	8.0 to 9.2	13.7 to 14.9	15.8 to 17.2
Scheme cost (AC forecasts)	-6.4 to -6.3	-12.0 to -10.7	-14.9 to -12.9
Surface access cost (AC forecasts)	-0.6	-3.9 to -1.9	-3.4 to -1.4
Net Present Value ^	1.0 to 2.4	-2.2 to 2.3	-2.5 to 2.9

* All impacts other than air quality are modelled for the central demand scenario. Air quality is monetised using the high demand scenario. These impacts are relatively very small, so do not impact on the summary metrics.

^ Scheme and surface access costs are based on AC forecasts.

A conclusion could be that the Heathrow expansion project plan was ‘simply’ based on the following ‘big picture’ assumptions:

1. Heathrow has runways and hub connectivity to the world.
2. Populations and passenger numbers are growing.
3. Another runway is needed and the Heathrow hub is a logical choice
 - For LHR, more aircraft movements = more profit, more jobs,
 - It responds to the government’s [Heathrow’s?] transport policy,
 - It is good for the economy in the build phase and some beyond,
4. And comes with an ‘acceptable’ ‘cost’: social, environmental, carbon, pollution, noise
 - despite massive disruption to the local communities, homes, schools, space, and
 - massive greenbelt land grabs, natural habitat destruction, etc
 - a project that will disrupt life in London for more than 30 years or half a life time
 - an enormous price vs the first few bullet points

Whilst the cost/benefit viability models anyway need rerunning to comply with the UK’s committed zero carbon target by 2050, it also must factor in the impact of Brexit, the Trump tariff wars and the impacts of popular environmental and political movements as are witnessed in the USA, in Italy, the UK, Europe and across the world. Today, more than ever, millennials and school children are prioritising positive environmental impact over material economic gain. They worry about the future of the earth even if the promoters of Heathrow appear to indulge capitalism and the carefree traveller.

Has any serious common sense been applied to this extremely contentious project? Has the cost/benefit analysis really been objective, realistic, fair? Has it really been subjected to an impartial, objective, independent, high level review?

10. Heathrow, Gatwick, Stansted

A very quick look at the 2018 Annual Financial Statements shows:

£mil	LHR Heathrow	LGW Gatwick	STN Stanstead
Income Statement			
Revenue	2,970	466	333
Operating Profit	1,088	104	103
Profit after Tax [trading]	260	32	79
PAT/Revenue%	8.96%	6.87%	24%[?]
Balance Sheet			
Net Assets [excl all debt]	17,407	476	1,236
PAT/Net Current Assets%	1.5%[?]	6.7%	6.4%
Debt [net of cash]	16,028	1,033	436
Equity	760	1025	800
Debt/Equity**	21 x [!]	1 x	55%
Air Traffic Movements[thousands]	476k	286k	190k
Total Passengers[millions]	80m	46m	28m

** Heathrow's AFS's calculate gearing by dividing consolidated net debt by its Regulatory Asset Base [RAB]. It claims to operate comfortably within required financial ratios [but does not actually present actual ratios or compare them to the caps]. A quick rough calculation of net debt per the balance sheet [£16bn] divided by Net Assets [£16.6] [excl all debt] gives 96%. Heathrow's accounts show nominal net debt of £14m and a RAB of £16.2m to give 86%. Whichever ratio is used, LHR gearing is very high. It is certainly higher than most commercial businesses. It gives the impression that there is little headroom for further debt.

Heathrow stands out because: 1. It is significantly bigger than the other two London airports. 2. Its profit to net assets is low and the lowest and 3. Its debt ratio/gearing is staggeringly high.

An obvious question: how will a heavily over-gear Heathrow finance its share of the costs of the third runway, as well as 'routine' ongoing replacement capex, maintenance and opex? Will its investors tolerate another 10, 20, 30 years of uneconomic ROI which looks entrenched given the likely prospect of rising costs of operation [even if some of these are passed on via increased aero and other charges]. Finally, **will the government i.e. the taxpayer ultimately have to bail Heathrow out as it has been required to do in the case of the banking sector and, more recently with a failed Carilion?**

Note also that Heathrow [HAL] is owned by FGP Topco Ltd - 90% of whose shareholders are foreign:

<i>Ferrovial SA</i>	25%	<i>Qatar Investment Authority</i>	20%
<i>CDPG [Quebec]</i>	12.62%	<i>GIC</i>	11.2%
<i>Alinda Cap Ptrns USA</i>	11.18%	<i>China Investment Corporation</i>	10%
<i>Universities Superannuation Scheme</i>	10%		

Three points:

1. Distributed profit benefit foreign shareholders; they do not benefit the UK...
2. HAL shareholders are motivated by profit and ROI, seemingly not by the people under the flight paths, displaced, subjected to noise, pollution, building operations for half a life time.
3. They do certainly not appear concerned about the impact of carbon and the planet?

And consider:

4. Should an expansion press ahead regardless of the concerns raised, there is anyway a clear case to disperse the growth amongst either the two largest or four alternative London airports and, if 'Powering the North' is a serious strategy, to add Manchester, Birmingham, Edinburgh and

5. Given the cost of the expansion, the considerable funding requirement and its strategic importance to the country, there could be a case for part city or government ownership and funding as with Atlanta et al, meaning that taxpayers will foot some of the bill, and
6. Both could be supported by a closer analysis of the cargo that aircraft carry – both passengers [local, international, in-transit] and freight. It does not seem entirely sensible to transport this to and from regional locations to a central hub and the reverse for incoming cargo. More carbon and pollution ...when it could as easily come and go directly.

The Politicians [...and rationale for other Decision-Makers]

Whether all our MPs read, understood, questioned or challenged the various papers provided them is doubtful but understandable given the many assessments, all made more complicated by proposals based on less than satisfactory assumptions, analysis, assessment and conclusions.

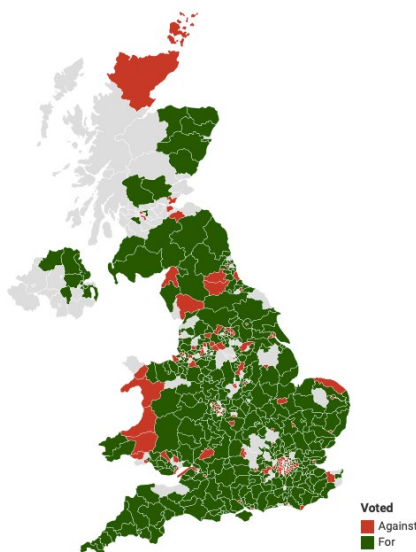
For the record, on June 25 2018, in a motion **for** approval in principle, subject to further analysis, etc, 415 MP's voted for, **19 against**, and there were many c116 abstentions [of which eight were Conservatives]:

	<u>Aye</u>	<u>Nay</u>	<u>All</u>
1. Conservatives	286	8	294
2. Labour	119	96	215
3. Other	10	15	25
4. Total	<u>415</u>	<u>119</u>	<u>534</u>
5. Abstentions			<u>116</u>
6. Total			<u>650</u>

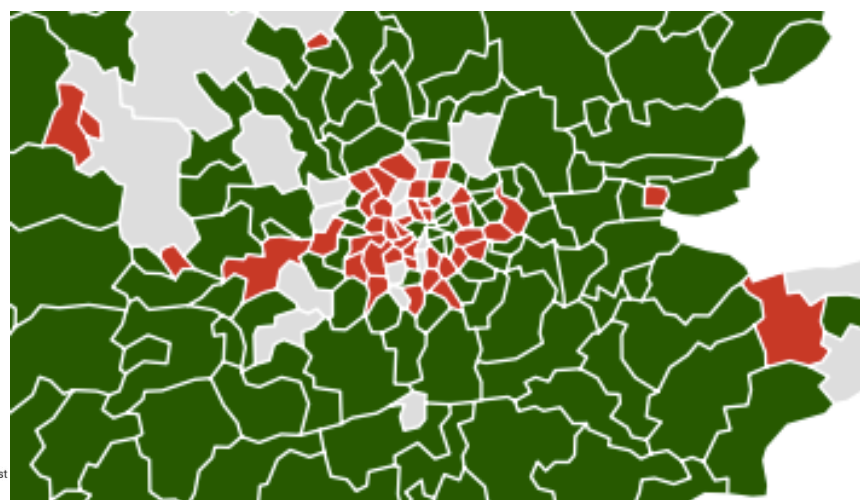
It will not be surprising that of the 'against' [and possibly abstained] figure, virtually all represented constituencies directly or directly impacted by Heathrow air or ground traffic and the expansion itself.

On the contrary, most of those who voted 'for' live nowhere near Heathrow. An irony to escape no-one will be that the victims of this expansion live in the largest city in the UK, if not in Europe, and one of the largest in the world; the politicians vote a little bit like cows voting for turkeys at Christmas...

The images below show how the voting went; note the abstention of the SNP and most of Wales and a dominant 'no' from constituencies at Heathrow or under the flight path



UK: **For** and **Against**



London: **For** and **Against**

The more important point is that MP's voted on a proposal that was analysed years ago [accepting a few updates], prior to the 'zero carbon' commitment and did not account for a rapidly changing global sentiment re the environment [carbon]. They took as read that the economic benefits outweighed the costs [but not convincingly in NPV terms] but did not really appreciate what the real revenues and costs are. They simply accepted that millions more passengers must fly; accepted that there was no alternative other than capacity growth. Did they step back and really consider the massive local collateral damage to the local and global environment, to the hundreds of thousands, millions [if more flight envelopes are introduced to 'disperse' the pain]. Did they stop to consider that this project will endure for 30 odd years. Did they vote knowing how much of the project will be funded by Heathrow [how?] and how much by the taxpayer? If they had read this paper and the thousands of other objections, would they have voted 'for' again? If not, they should reconsider and put a stop to it now! It is essential. Our lives and those of our children and their children depend on it.

The above mentioned simply to point to those who need persuading in order to get this project rejected at the earliest opportunity.

Finally, it is hoped that the above report helps to persuade the promoters and supporters to reconsider and withdraw their proposal and support respectively. The issues and problems highlighted above should encourage opponents to increase their opposition as actively as they can.

Thank you for your attention

Mike Urwin
Wimbledon
September 8 2019



A BA Airbus 380 scraping over the local community on its way to a 'quiet' landing...

The last page contains three pictures to help the understanding of this issue:

STOP HEATHROW EXPANSION: The Report
"Can creating hell on earth be described as progress?" RF

1. Expanded contrails over London the location of aircraft pollution...



2. Schiphol Airport Brought to a Standstill: No Fuel, No Connectivity, No Carbon!
[July 24 2019]

17:19
◀ Messages

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< 🇳🇱 INDEPENDENT A A ↗

Schiphol airport: All flights to and from Amsterdam hub delayed, diverted or cancelled

| Wednesday 24 July 2019 | 18:06

Flights from Europe's third busiest airport have been cancelled because planes cannot be refuelled.

3. The impact of global warming. Forests in the Russian Arctic Circle on fire.
[July 2019]



General

- Expansion will increase flight numbers to 756,000 flights, an increase of over 280,000 flights each year.
- A 3rd runway will be 3,500m long and located north west of the airport. It has a total width of 60m.
- This will increase capacity at the airport to be able to handle 115 million passengers by 2030, 130 million passengers by 2035 and 142 million passengers each year by 2050.
- Total expansion proposals to take place over 30 years.
- A new Terminal 'T5X' plus a T5X satellite to the North.
- There will be extensions to Terminals 2 and 4 plus additional 'satellite' terminals T2C and T2D. Terminal 1 will be demolished.

Local Communities

- Destruction of at least 761 homes.
- Local residents temporarily forced to relocate during construction period.
- Shortage of rented accommodation caused by construction workers moving to area.
- Relocation of community facilities.
- Community facilities will experience different noise and other effects compared to today.
- Permanent change to communities around the airport, including the number of homes, community facilities and environment.
- Negative effects on recreational spaces and routes during construction
- Destruction of Harmondsworth Primary School
- Displacement of Heathrow Special Needs Centre
- Displacement of Stanwell Moor, Moor Lane and Pinglestone Allotments.
- Multiple construction support sites outside the boundary of the airport
- 24-hour working, seven days a week, including Bank Holidays, will be required for construction activities that ensure the new runway is operational as soon as possible.

Local Infrastructure

- Relocation of Longford Substation
- Diversion of Bath Road Sewer
- 4 additional fuel tanks at Perry Oaks site plus new fuel storage facilities on airport site
- New waste water treatment plant (sewage works).
- Doubling of freight handling capacity – redeveloping and expanding existing sites to the south of the Southern Runway – more warehouses and a new truck park.
- New hotels are planned in the Central Terminal Area (CTA), next to T5, at Hatton Cross and immediately south of the Northern Parkway.
- Relocation of Immigration Removal Centre to Faggs Road in Bedfont.

Property

- 761 homes in Compulsory Purchase Zone – will be demolished.
- 5,500 homes in Wider Property Zone at risk.

- Heathrow to buy eligible homes for market value plus a home loss payment of 25%. This applies to eligible properties for qualifying home owners in the Compulsory Purchase Zone and Wider Property Offer Zone.
- Home owners in CPZ being asked to enter into a Home Purchase Bond even before development consent order is submitted.
- Homes in WPZ won't be purchased until development consent is granted.
- Under the Statutory Compensation Code:
 - Home owners to be offered a 10% home loss payment, currently capped at £63,000.
 - Tenants in CPZ who have been in occupation for longer than 12 months will receive just £6,300 per household.

Flight Operations

- Proposed Night Flight ban between 23.00 and 05.30
- Minimum of 7 hours of respite for all communities between 22.00 and 07.00.
- Runway alternation to continue.
- Proposal to rotate use of each of the 3 runways every day so that they may be used in turn for landings, departures or in "mixed mode" (landing and departures).
- Use one runway for early morning arrivals from 05.30, the other two runways would be use from 06.00.
- Heathrow to explore the use of 'managed preference' to reduce the effects of aircraft noise for communities. Proposals to be presented in the DCO application.
- 25,000 additional flights each year before any third runway is built.
- Claim that environmental effects of these extra flights is 'relatively limited'

Transport

- Diversions of the M25, A4 and A3044 including changes to junctions, roundabouts and new link roads.
- A new Southern Road Tunnel to connect to Beacon Road Junction roundabout
- Destruction and replacement of Colnbrook rail branch line
- 2 new massive car parks for 24,000 and 22,000 cars and new multi-storey car park near T4 – increasing total number of parking spaces by over 3,000.
- Expansion of coach and bus hub, including new routes but no financial commitment to help delivery.
- State that might be prepared to contribute to Western and Southern rail access schemes but gives no specific commitment of precise amount.
- Claim that doubling of freight will not double number of vehicles or HGVs on the road.
- 2 new areas for HGV drivers to wait before heading to the Cargo Centre.
- The construction of new roads, the diversion of existing roads and other works to move services will lead to both temporary and permanent effects.
- Other construction activity, including additional trips produced by construction vehicles and workforce travel, may also lead to disruption for travellers.
- Increased passenger and colleague numbers and other operational changes at the expanded Heathrow, will lead to changes in travel patterns, which could result in negative effects for transport network users.
- Changes in traffic volumes and speeds will also result in changes in driver stress at various locations, which is expected in some cases to be negative.

- An increase in crowding is forecast on services between some Network Rail and London Underground stations, including on the Piccadilly line.

Climate

- The greenhouse gas emissions from the DCO Project are considered to have a **significant negative effect**. This is because the DCO Project would lead to GHG emissions in all phases of development, over a long period of time, and emitted to the global atmosphere.
- Heathrow's current GHG emissions are around 20.8 MtCO₂e per year. Air transport accounts for over 96% of Heathrow's GHG emissions, with surface access transport contributing 3%.
- Heathrow claim that GHG emissions from the DCO Project in 2050 are calculated to be equivalent to 1.2% of the UK 2050 carbon target set by the Climate Change Act 2008. This comparison excludes GHG emissions from international aviation and ignores the latest CCC advice and the moves towards Net Zero.
- The DCO Project without mitigation scenario results in an **additional 184.Mt CO₂e** – a whopping 38% increase in Heathrow carbon emissions, over the period 2022 to 2050.
- Expansion would mean that 6.57Mt of carbon extra being emitted every year.
- Heathrow claim that much of this carbon will be offset by the airlines but provides no calculations of how a lower level of carbon emissions can be achieved whilst increasing flight numbers.
- The non-CO₂ impacts of aviation are not considered at all.

Air Pollution

- Construction activities have the potential to affect the quality of air locally.
- The flights and road traffic that will use an expanded Heathrow will produce emissions that 'could increase' levels of pollutants in the air.

Health

- Expansion will affect people's physical health and mental wellbeing, particularly for children, the elderly and those with long-term illnesses.
- Likely to be worse health and wellbeing amongst those are forced to move home or have their education disrupted.
- The changed identity of the communities near the airport will affect how those who remain feel about their community which may affect their health and wellbeing.
- Open spaces, sports facilities and some walking or cycling routes will be affected by the land required. Replacements are proposed, but there may be times before they could be fully re-provided.
- Having construction activity and the construction workforce near local communities close to the site boundary or construction traffic routes may affect health and wellbeing.

Noise

- The effects of expansion will be negative and significant for many communities, with a large number of people experiencing increase in exposure to aircraft noise.
- The third runway will mean that many communities have aircraft flying over them for the first time.

- During construction, noise will significantly affect some residents, schools and places of worship in areas closest to the new runway.
- Heathrow claim that 25,000 extra flights would only result in 'very small changes' to the overall noise level.
- Significant effects from aircraft ground noise have been identified for some residents adjacent to the new runway and taxiways.
- There will also be significant effects from changes in road traffic noise for some residents, associated with new or altered roads linked to the expanded airport.

Noise Insulation

Heathrow will offer three schemes, each one to address slightly different circumstances.

- Scheme 1 – for eligible properties (within LAeq,16hr 60dB noise contour) affected by aircraft noise, a full package of sound insulation to habitable rooms
- Scheme 2 – for eligible properties (Road Noise equivalent to - Day time: LAeq,16hr 63dB Night time: LAeq,8hr 55dB) to address noise from construction, road or rail sources
- Scheme 3 – a £3000 contribution to a package of sound insulation treatment (for properties within LAeq,16hr 57dB or the full Lden 55dB noise contours of an expanded airport, whichever is the bigger).
- Community buildings in the 60dB LAeq, 16hr contour will now be eligible for mitigation (current scheme is at 63dB).

Waterways

- Significant negative effects are predicted on the Wraysbury River, River Colne, Longford River and Duke of Northumberland's River as a result of passing the rivers beneath the new runway in a proposed covered river corridor.
- Loss of flood plain of River Colne and Colne Brook.
- A significant negative effect as a result of the infilling of lakes, resulting in a loss of open water and associated habitat.
- Significant cumulative negative effects to the River Colne from the effects of expansion.

Biodiversity

- Construction will result in the loss of some habitats across the area, including within the Colne Valley Regional Park, Staines Moor Site of Special Scientific Interest and a number of Local Wildlife Sites.
- This habitat loss will also result in wildlife being lost or displaced from areas on which they have depended for foraging, sheltering or as movement corridors.
- The presence of people, artificial lighting and the noise associated with activities during both construction and operation of the airport will also result in the displacement of wildlife.
- New structures and buildings will change the distribution of water (either within the ground or moving across the surface) in the environment. Structures such as basements, the lining of new river channels and the control of water running off new sealed surfaces can all change the water environment locally.
- For some habitats this can alter their nature and result in a transition between different forms (for example a change from a wet woodland to a dry woodland, thereby changing the associated plants and animals).

- The use of road vehicles, specialist equipment and aircraft all lead to the production of exhaust emissions. These emissions all include nitrogen oxides that can damage plants.
- Significant adverse effects are expected to occur as a result of the permanent loss of good quality agricultural land.
- There is a risk that certain sand and gravel mineral resources could be lost as a result of the land required.

Historic Environment

- Construction will result in the loss of part of Harmondsworth Conservation Area and some listed buildings within it.
- In the Longford area, all designated built heritage assets and the Conservation Area will be lost.
- Heritage assets of archaeological interest within the construction footprint will also be lost and there is the potential for significant effects on remaining historic landscape character.
- During operation of an expanded Heathrow, noise levels may change for several historic buildings and landscapes resulting in the potential for significant effects:
 - To the east of the airport: the Royal Botanic Garden World Heritage Site at Kew, Chiswick House, Syon Park, Richmond Park, Osterley Park, Richmond Terrace Walk and Terrace and Buccleuch Gardens (Grade II) ;
 - To the west of the airport: six Registered Historic Park and Gardens of the Royal Estate Windsor, and two those at Eton College and Ditton Park.

Waste

- The waste assessment focusses on the capacity of the surrounding waste facilities to manage (or otherwise) the waste arising from expansion.
- Significant effects may be caused if the waste results in a large reduction in landfill void space or a severe capacity gap in treatment infrastructure available in the local or regional area.
- Expansion will lead to an acceleration in loss of waste treatment and disposal capacity.
- The preliminary assessment concludes that expansion is considered to have a significant negative effect on waste treatment and disposal capacity.



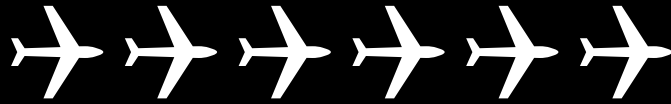
HOW A THIRD RUNWAY WILL AFFECT YOU AND YOUR FAMILY



www.stopheathrowexpansion.co.uk



NO



THIRD



RUNWAY



Please cut out this poster and display in your window
to show your support for the campaign

Foreword from the Chair of Stop Heathrow Expansion



Dear Fellow Resident,

We have sent you this information booklet so you can see the true nature of Heathrow's expansion plans and what they mean for our communities, without Heathrow's gloss and positive spin. We hope you find it useful.

For some of you, this will be the first time Stop Heathrow Expansion has made contact. Heathrow Airport Ltd. published their 'Preferred Masterplan' on 18th June for consultation, until 13th September 2019.

On the following pages you will find some of the specific impacts to the Heathrow Villages, West Drayton and the southern part of Hayes.

Find the street (or one close by) you live in, to see how it affects you. You can also find streets of family members and friends who live in these areas and share the information with them.

Heathrow have far from won this campaign. They thought they had it in the bag, but in fact they do not. The campaign is making good progress and we can and will stop this expansion, just like we did in 2010. But we can't do it just by ourselves, so please come and join the campaign - you can email us at info@stopheathrowexpansion.co.uk - we'd love to hear from you!

We've organised three public meetings in the area so you can come and hear in more detail the impacts of construction, noise and air pollution and will be able to answer your questions. Local politicians have been invited too.

- Monday 15th July, 7pm, Pinkwell Primary School, Pinkwell Lane, UB3 1PG
- Tuesday 16th July, 7pm, Heathrow Primary School, Harmondsworth Lane, Sipson, UB7 0JQ
- Friday 19th July, 7pm, Yiewsley & West Drayton Community Centre, 228 Harmondsworth Road, UB7 9JL

If you cannot attend any of these dates please get in touch and involved with our campaign to save our communities.

Heathrow's consultation on its 'Preferred Masterplan' shows the truly devastating scale of their proposals. We feel it is in fact a less of a Masterplan and more a Disasterplan!

Jackie Clark,
Chair of Stop Heathrow Expansion

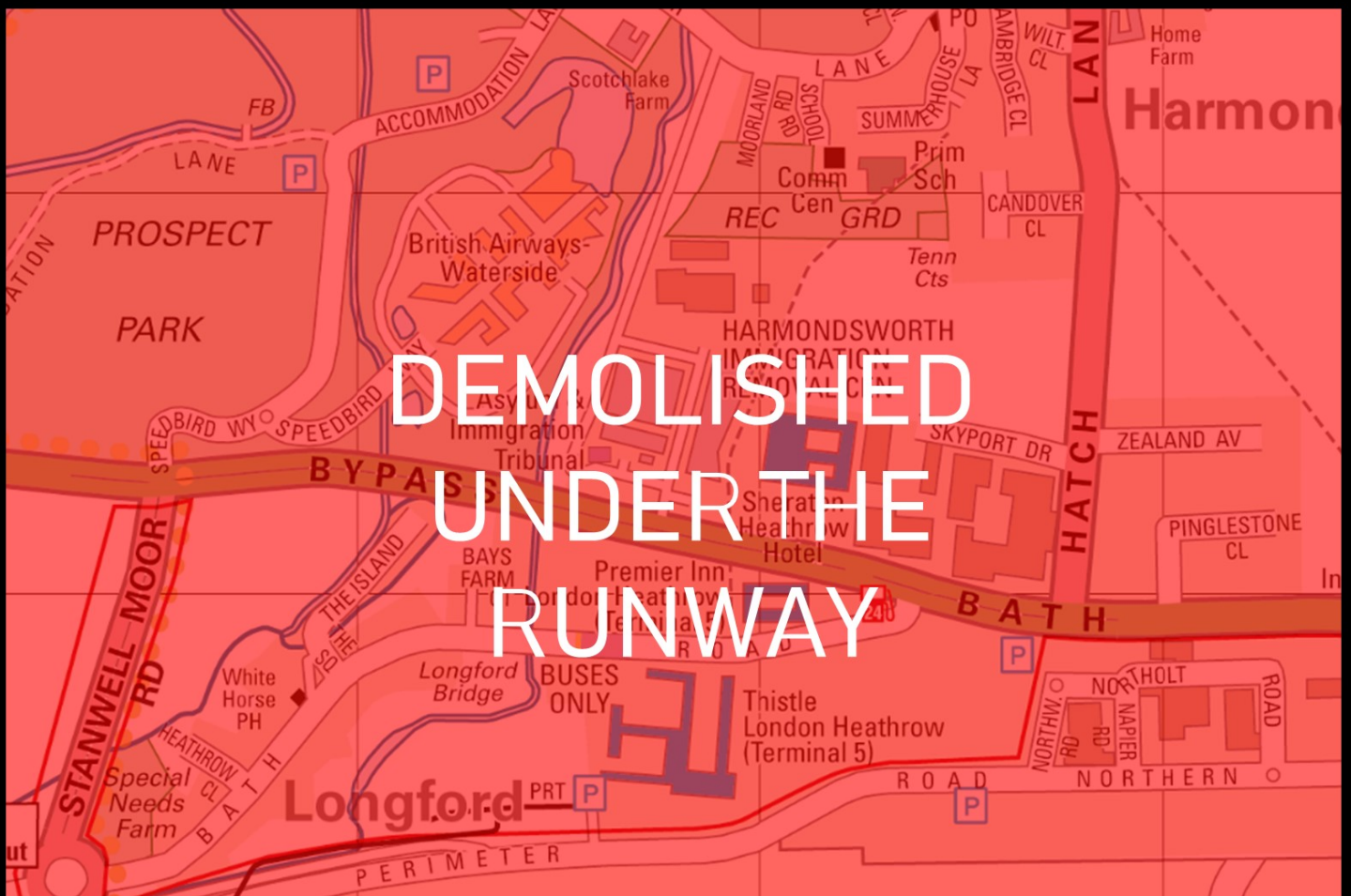
The Stark Reality of Heathrow Expansion: The Heathrow Villages

All the **HOMES** in these roads will be **DEMOLISHED**
and residents will be forced to move

Bath Road, Harmondsworth
Cambridge Close, Harmondsworth
Candover Close, Harmondsworth
Hatch Lane, Harmondsworth
Moor Lane, Harmondsworth
Moorland Road, Harmondsworth
Pinglestone Close, Harmondsworth

Summerhouse Lane, Harmondsworth
Wilton Close, Harmondsworth
Zealand Avenue, Harmondsworth
Bath Road, Longford
Bays Farm Court, Longford
Heathrow Close, Longford
The Square, Longford

**LONGFORD AND TWO THIRDS OF
HARMONDSWORTH
WILL BE WIPED OFF THE MAP**



“We want to make sure residents have all the information they need to understand our plans” (Heathrow Preferred Masterplan, 2019).

This is what Heathrow have put in the booklet for Longford residents. It is a very short booklet, mainly with graphics and not a lot of information.

No one has any difficulty understanding that they will be evicted from their homes to make way for a runway and satellite terminal building!



“We know that building the runway will cause disruption to people in Harmondsworth” (Heathrow Preferred Masterplan, 2019).

Building the runway will not cause disruption to the people of Harmondsworth - **IT WILL BE UTTERLY DEVASTATING**. The vast majority of people in Harmondsworth will be losing their homes. This cannot, in any way, be construed as disruption. Unless of course, Heathrow are just referring to the people that they think will be able to live in their homes with a runway just metres away.

Here is the proof that Heathrow have no idea of the area they wish to destroy . They think that the children of Harmondsworth Primary School deserve to be educated **BESIDE** the Stockley Bypass “a quieter location north of the M4 “ - Harmondsworth Primary School will be relocated by 2022— children in Year 3 and below **NOW** will be expected to attend the newly relocated school.

but Harmondsworth Primary School will need to move to a quieter location to the north of the M4.

YOUR COMMUNITY COULD BE NEXT!

**HELP US TO SAVE THESE HISTORIC COMMUNITIES
BEFORE HEATHROW PUSH FOR A FOURTH RUNWAY!**

The Stark Reality of Heathrow Expansion: The Heathrow Villages

All the residents in these roads will be left just metres from the runway

Their village destroyed and unrecognisable

Residents will find their **HOMES UNINHABITABLE**

because the noise and pollution levels will be so high they would be

dangerous to human health

Acacia Mews, Harmondsworth
Blondell Close, Harmondsworth
Harmondsworth Lane, Harmondsworth
High Street, Harmondsworth

Holloway Lane, Harmondsworth
Meadowlea Close, Harmondsworth
Monks Way, Harmondsworth
Priory Way, Harmondsworth

Sited at the eastern end, just metres from the runway, Sipson residents will have
planes less than 200ft above them

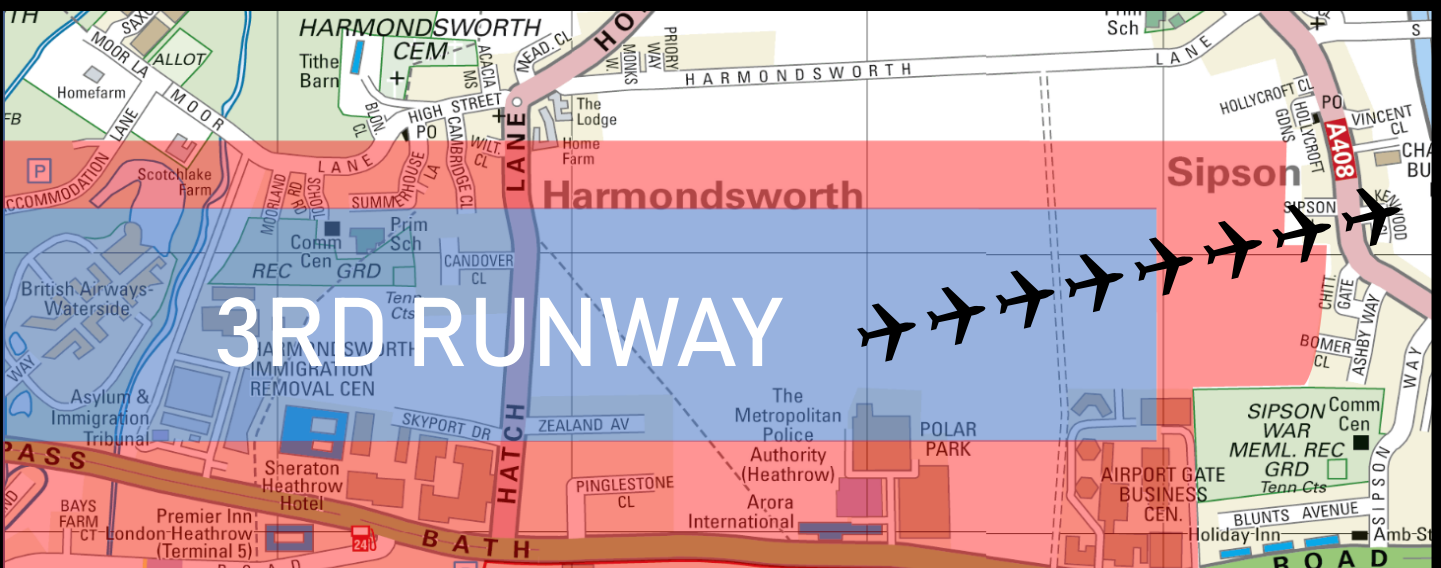
All the **HOMES** in these roads will be **IN the Public Safety Zone***

These **HOMES** will all be **UNINHABITABLE**

Ashby Way, Sipson
Bomer Close, Sipson
Blunts Avenue, Sipson
Chitterfield Gate, Sipson

Hollycroft Close, Sipson
Hollycroft Gardens, Sipson
Kenwood Close, Sipson
Sipson Close, Sipson

Sipson Road (south), Sipson
Sipson Way, Sipson
Vincent Close, Sipson



***Public Safety Zones** are areas of land at the end of runways established at the busiest airports in the UK, within which certain planning restrictions apply. These aim to control the number of people on the ground at risk in the unlikely event of an aircraft accident on take-off or landing.

The objective is that there should be no increase in the number of people living, working or congregating in PSZs and that, over time, the number should be reduced as circumstances allow (e.g. when any redevelopment takes place).

Heathrow have made a big play on the fact they are 'saving Sipson'. They haven't made a big play on the fact they are 'destroying Harmondsworth'.

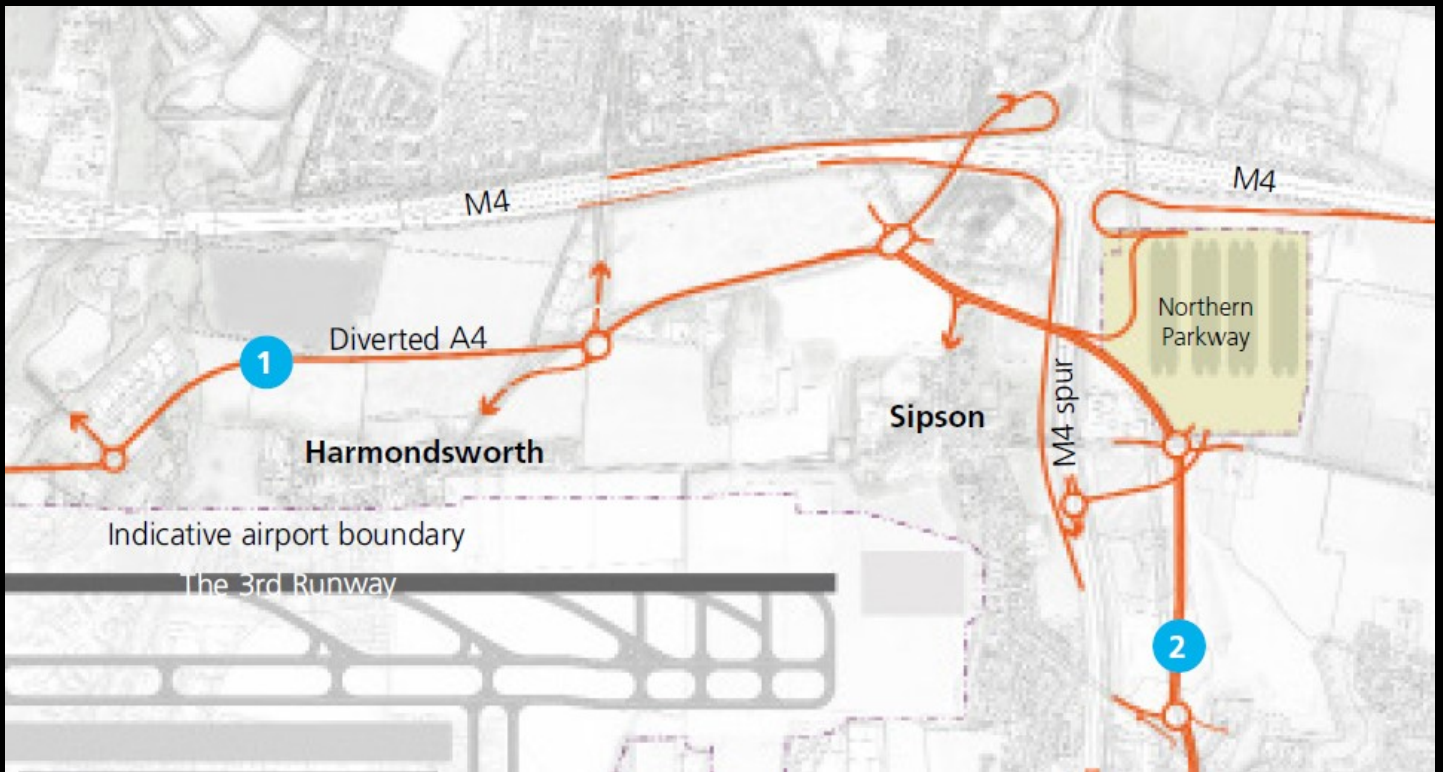
The truth is, they are not saving anyone. They are hellbent on destroying every community in the Heathrow Villages to satisfy their overseas shareholders.

One of two 25,000 space car parking hubs on the edge of Sipson, with 11,000 more spaces than today...Heathrow claim there will be no extra cars on the roads as a result of expansion, **why do they need this car park?**



And hidden neatly on the plans are hotels, blink and you'll miss them in the documents!

If destroying two thirds of Harmondsworth wasn't bad enough, the remaining residents will have a newly diverted A4 in their back gardens as well as a runway in their front gardens. Sipson residents will be also be surrounded on all sides **and** have planes taking off right over them.



In their glossy documents, Heathrow paint a picture of a green and pleasant land. They seem to think that people will be taken in by this. They talk about community but in fact they are destroying the community!

The Stark Reality of Heathrow Expansion: The Heathrow Villages

Homes in these roads will be subjected to **noise**
from **ARRIVALS AND DEPARTURES** from the 3rd runway and the middle runway
Residents here will also find their **HOMES UNINHABITABLE**

Doghurst Drive, Sipson
Chestnut Close, Sipson
Harmondsworth Lane, Sipson
Russell Gardens, Sipson
Sipson Road, Sipson
Sipson Lane, Sipson
Wykeham Close, Sipson
Vineries Close, Sipson
Bath Road, Harlington
Bletchmore Close, Harlington
Boltons Lane, Harlington
Brendon Close, Harlington
Browngraves Road, Harlington
Brickfield Lane, Harlington
Caroline Place, Harlington
Cheviot Close, Harlington
Cranford Lane, Harlington
Croft Close, Harlington
David Close, Harlington
Doghurst Avenue, Harlington
Eastfield Cottages, Harlington
Egerton Close, Harlington

Field Close, Harlington
Forge Close, Harlington
Gilpin Way, Harlington
Grampian Close, Harlington
Hall Lane, Harlington
Harlington Close, Harlington
Heath Close, Harlington
High Street, Harlington
Hudson Road, Harlington
Kiln Close, Harlington
Little Elms, Harlington
Manor Lane, Harlington
Manse Close, Harlington
Mendip Close, Harlington
New Road, Harlington
Pembury Court, Harlington
Pennine Way, Harlington
Pondside Close, Harlington
Providence Lane, Harlington
Quantock Close, Harlington
Raywood Close, Harlington
Richards Close, Harlington

Sipson Lane, Harlington
St. Peter's Way, Harlington
St. Paul's Close, Harlington
Tasker Close, Harlington
The Crescent, Harlington
Warner Close, Harlington
West End Lane, Harlington
Wyvern Grove, Harlington
Victoria Lane, Harlington
Acorn Grove, Cranford
Crane Gardens, Cranford
Craneswater, Cranford
Cranford Lane, Cranford
Eton Road, Cranford
Langley Crescent, Cranford
Malvern Road, Cranford
Oxford Avenue, Cranford
Pendell Avenue, Cranford
Saunton Avenue, Cranford
Strathearn Avenue, Cranford
Winchester Road, Cranford
Windsor Park Road, Cranford



Do you live in one of these roads? Do you work? Do you have children?

Is just SIX hours sleep enough for you and your family?



25,000 space car park on Little Harlington Playing Fields. Access can be from the M4 or via Sipson Road through Sipson or via Harlington



The future for Harlington and Cranford Cross from the 3rd runway means **RELENTLESS NOISE** for 75% of the year **AND** for the other 25% of the time noise from the middle runway.

Once again, Heathrow show a total disregard for our children. Heathrow Primary School will be just 50 metres from the airport boundary and 100 metres from the runway. Heathrow Primary School will be surrounded by construction for up to 30 years.

William Byrd Primary School will be overflowed by arrivals and departures and experience all day noise from a 3rd runway.

Our children deserve better

The Stark Reality of Heathrow Expansion: Hayes

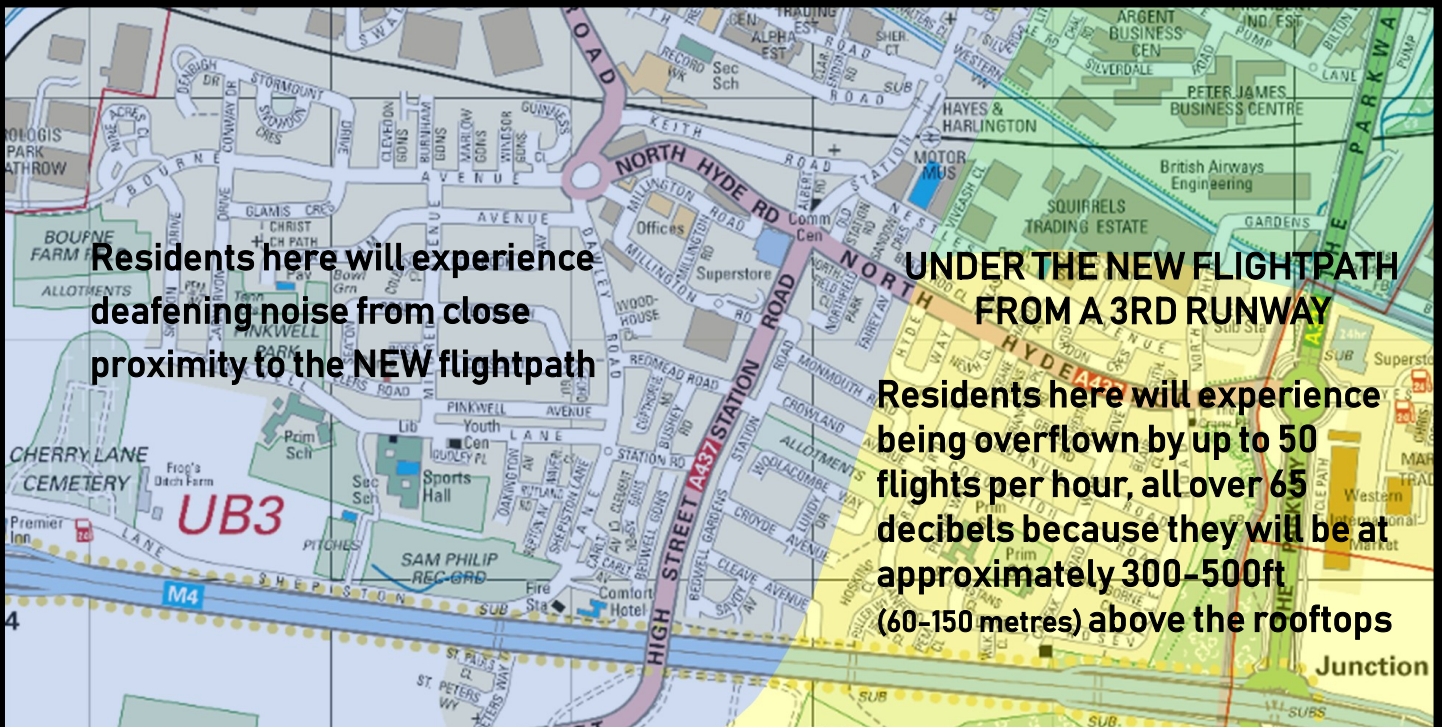
In 2017, Department for Transport maps showed that residents in the southern part of Hayes are not adversely affected by aircraft noise **BUT with a 3rd runway**, residents in these roads will find their **HOMES UNINHABITABLE** because the noise and pollution levels will be so high they would be **dangerous to human health**

Albert Road
Ashwood Gardens
Aspen Court
Bedwell Gardens
Black Rod Close
Blair Close
Boswell Path
Bourne Avenue
Burnham Gardens
Bushey Road
Carfax Road
Carlton Avenue
Carnarvon Drive
Cleave Avenue
Clement Gardens
Clevedon Gardens
Clifford Gardens
Colbrooke Close
Colbrooke Avenue
Conway Drive
Cophorne Mews
Coronation Road
Crane Gardens

Cranford Drive
Cranford Park Road
Crowland Avenue
Croyde Avenue
Dallas Terrace
Dawley Road
Denbigh Drive
Dickens House
Dudley Place
Elers Road
Fairey Avenue
Fuller Way
Glamis Crescent
Gordon Crescent
Granville Road
Guinness Close
Harold Avenue
High Street
Hillbourne Close
Hoskins Close
Hyde Way
Keith Road
Laburnum Road

Lundy Drive
Marlow Gardens
Mildred Avenue
Monmouth Road
Moston Close
Nestles Avenue
Newhaven Close
Nine Acres Close
North Hyde Gardens
North Hyde Road
Northfield Close
Northfield Park
Oakington Avenue
Old Station Road
Pembroke Way
Pemerich Close
Phelps Way
Pinkwell Avenue
Pinkwell Lane
Redmead Road
Repton Avenue
Roseville Road
Ross Close

Rutland Road
Sandow Crescent
Savoy Avenue
Seaton Road
Shepiston Lane
Skipton Drive
Snowdon Crescent
Station Road
St. Dunstans Close
Stormount Drive
Sutherland Avenue
Viveash Close
Waltham Avenue
Watersplash Lane
Waverley Close
Wentworth Crescent
Westlands Close
Wilkins Close
Windsor Gardens
Woodhouse Close
Woolacombe Way
Wyre Grove



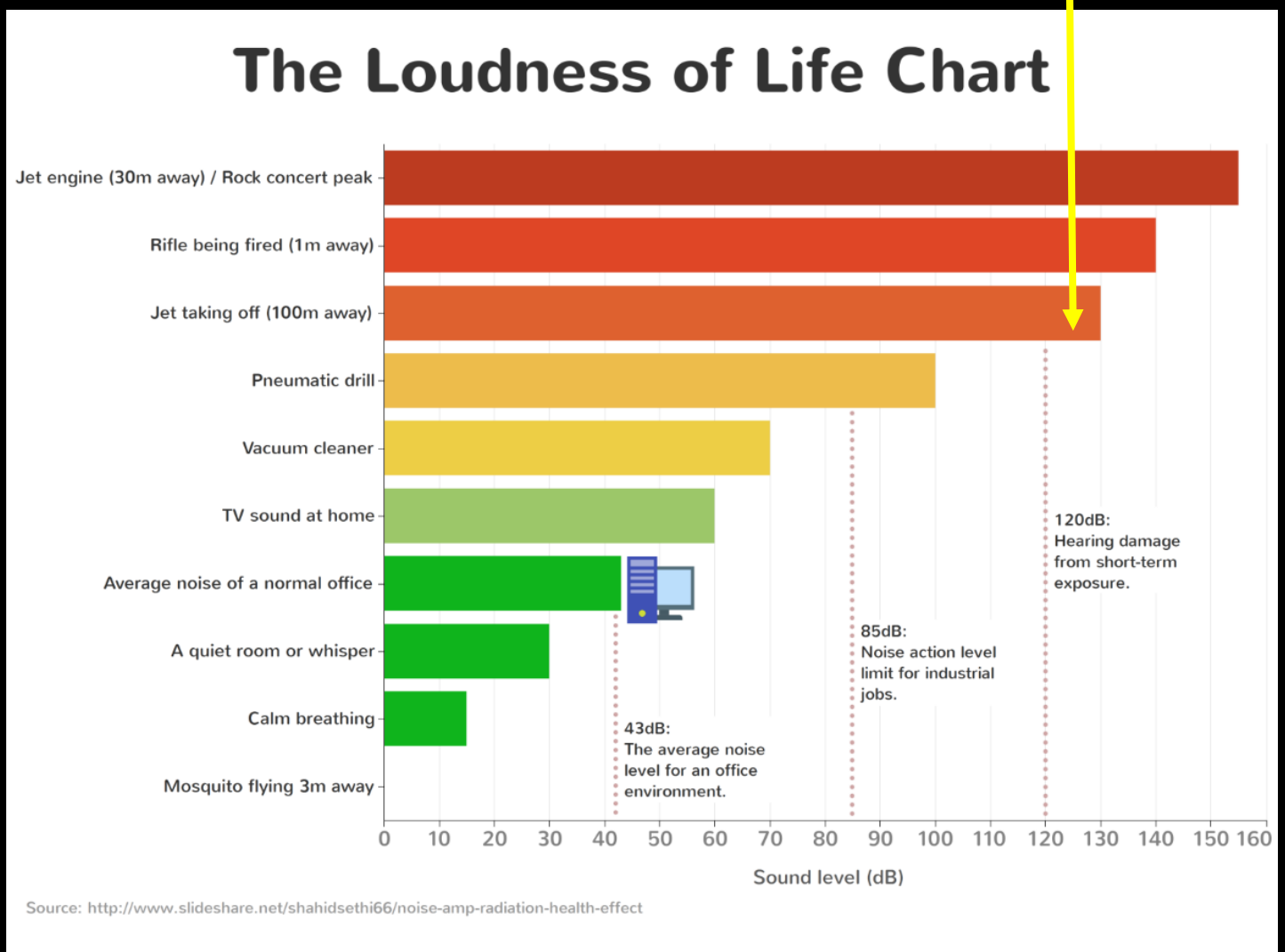
Heathrow has ignored Hayes!

What is certain is that residents of south Hayes in particular will be directly under the new 3rd runway flight path and will experience deafening increases in noise all year round.

Air quality will deteriorate substantially as a result of the new closer airport boundary and additional passenger and freight traffic on the surrounding roads and motorways.

We thought it might be useful to include a noise comparison graph to give you an idea of what you will experience in Hayes and the possible impact to your hearing.

Noise experienced by residents in Hayes as the result of a 3rd runway



Academic studies have shown exposure to aircraft noise impacts learning and exam performance. This could affect children attending Pinkwell Primary School, Harlington High School and Cranford Park Primary School as well as other schools in the local area.

Is your health and your children's health a price worth paying for Heathrow Expansion?

The Stark Reality of Heathrow Expansion: West Drayton

With a 3rd runway, residents in these roads will be **within 700 metres of the new runway** and will find their homes **under a new flight path**.

They will also find themselves surrounded by construction and its related **noise and pollution** for **THIRTY YEARS**

Berberis Walk	Laurel Lane	Roseary Close	Verbena Close
Blossom Way	Lily Drive	Rowan Road	Vine Close
Byron Way	Little Bentley	Scott Close	Wise Lane
Coleridge Way	Lupin Close	The Brambles	Wordsworth Way
Great Bentley	Magnolia Street	The Glebe	
Harmondsworth Road	Milton Way	Treeside Close	
Keats Way	Primrose Drive	Tulip Way	

In 2017, Department for Transport maps showed that residents in West Drayton are not adversely affected by aircraft noise.

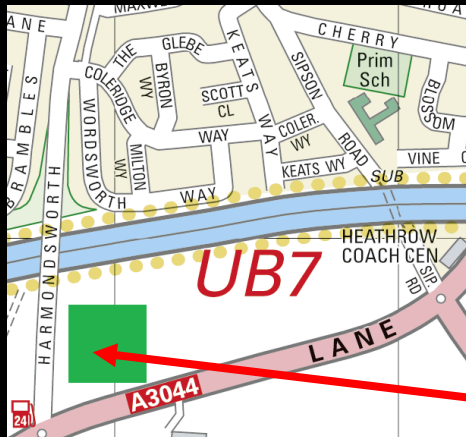
BUT with a 3rd runway, residents in these roads will find their homes **under a new flight path** and **disrupted by the construction**

Almond Avenue	Dell Road	Kings Road	Rowlheys Place
Archie Close	Drayton Gardens	Kingston Lane	Shawfield Court
Autumn Way	East Road	Lavender Rise	Sipson Road
Avenue Close	Eastwood Road	Lawn Avenue	South Close
Bagley Close	Edison Close	Maxwell Road	South Road
Beaudesert Mews	Elruge Close	Mill Close	Spring Promenade
Beech Close	Emden Close	Mill Road	St Martins Road
Bellclose Road	Evergreen Drive	Money Lane	Stainby Close
Blackthorn Avenue	Fairway Avenue	Mulberry Crescent	Starveall Close
Bluebell Terrace	Ferrers Avenue	Mulberry Parade	Station Road
Boxwood Close	Fir Tree Avenue	Myrtle Close	Summer Drive
Brandville Road	Fourseasons Terrace	Napier Close	Sunray Avenue
Briar Way	Foxglove Close	North Road	Swan Road
Brickfields Way	Frays Avenue	Oak Avenue	The Green
Brooklyn Way	Frays Close	Old Farm Road	Thornton Avenue
Catherine Close	Furzeham Road	Osprey Close	Thornton Close
Chapman Close	Hanson Close	Park Lodge Avenue	Walnut Avenue
Cherry Lane	Hatton Grove	Pennyroyal Drive	Warwick Road
Cherry Orchard	Hawthorne Crescent	Percy Bush Road	Weirside Gardens
Church Close	Hazel Avenue	Pippins Close	West Drayton Park Avenue
Church Road	Holly Gardens	Pocock Avenue	West Road
Colham Mill Road	Humber Close	Porters Way	Wintergreen Boulevard
Colne Avenue	Jasmine Terrace	Queens Road	Wren Drive
Cricketfield Road	Kebony Close	Rickard Close	

Water

Two options are being considered to deal with waste water generated by an expanded airport. Our preferred option is to send it to the Thames Water Sewer and this is under review with Thames Water.

An alternative is to provide a new Waste Water Treatment Plant. This will need to be distant from residential properties due to risk of odour. A site north of Holloway Lane and south of the M4 has been identified for this in our Preferred Masterplan.



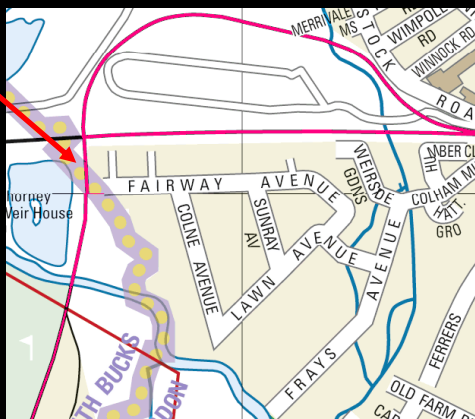
Heathrow thinks this is far enough away from your home.

Do you agree?

Proposed site for Waste Water Treatment Plant (Sewage Farm)

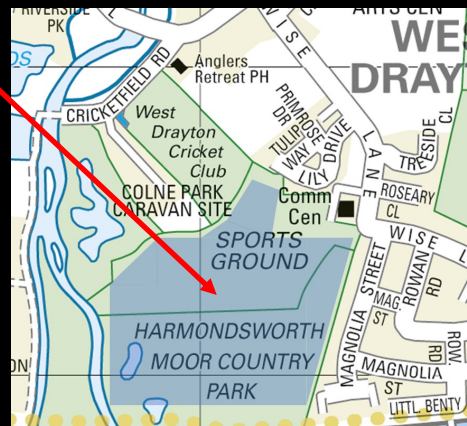
Disused rail line to be upgraded to transfer construction materials to and from the site. The trains will be made up of 30 wagons and operate 24 hours per day.

Construction of the whole project will take place over 30 years

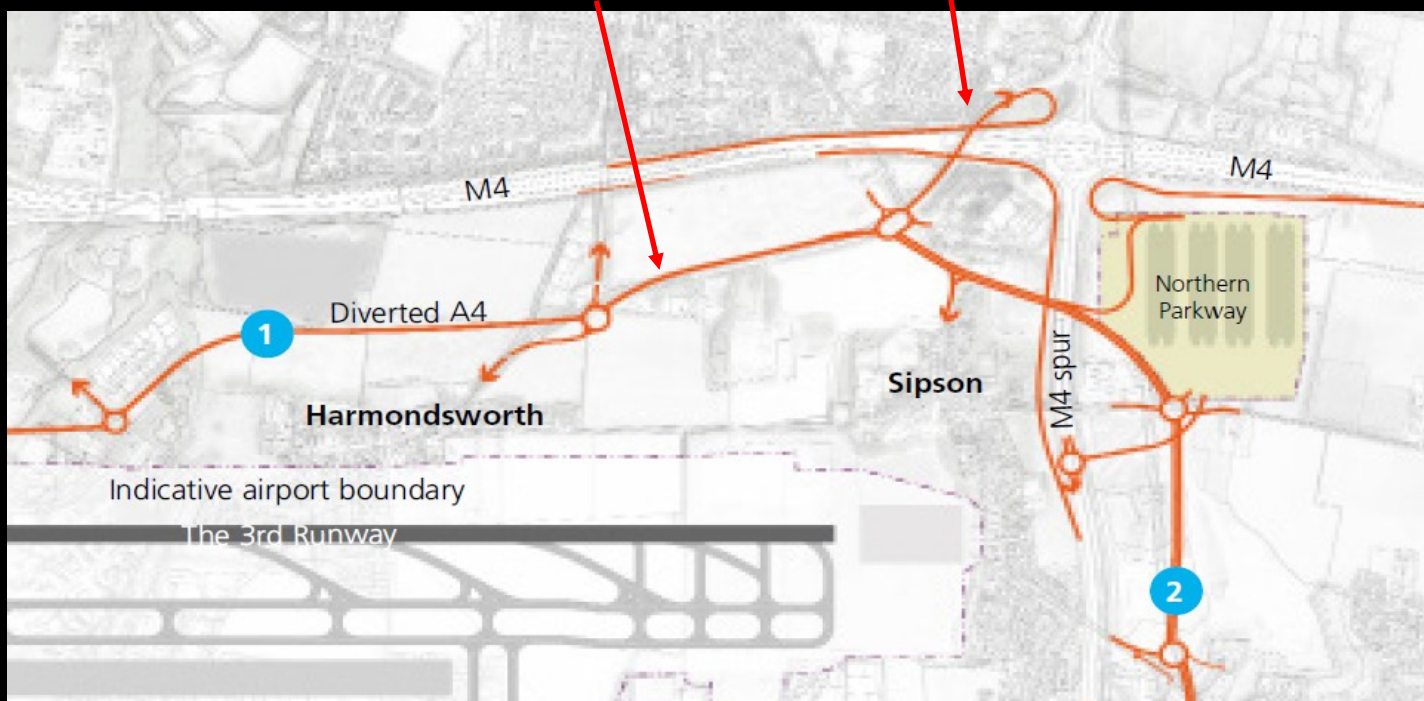


Flood Storage area right beside residential properties. The Environment Agency's Flood Zone Maps indicate that West Drayton is identified as being at risk of flooding.

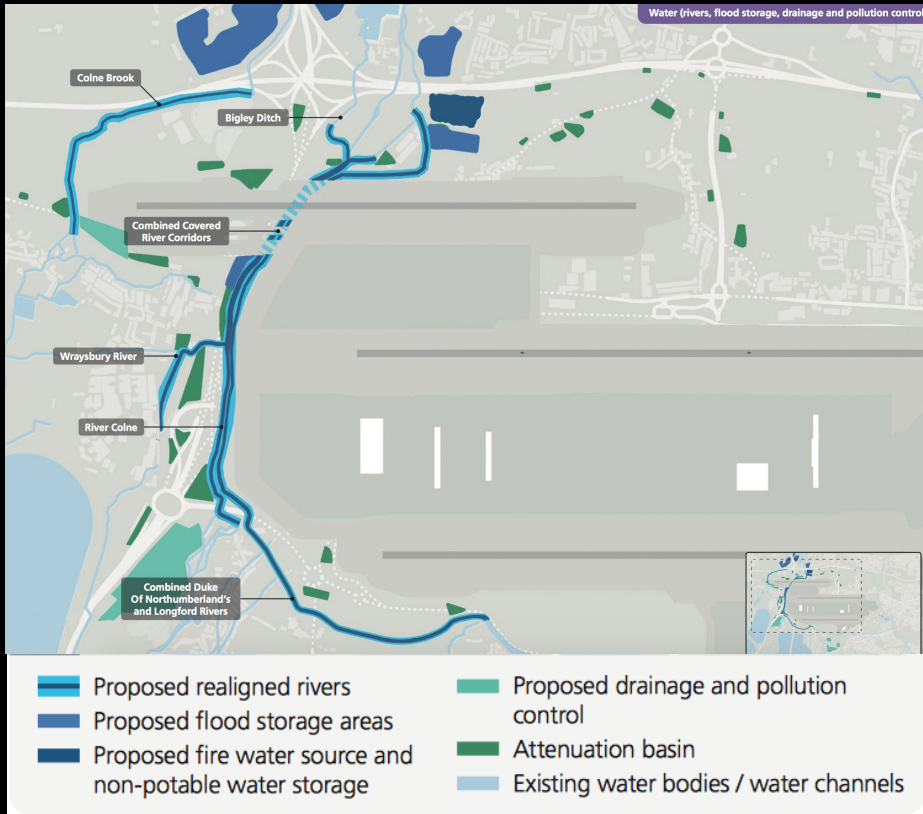
Construction of this site will be approximately 3 years.



The re-routing of the A4 will impact on people living in Blossom Way and Vine Close as the M4 Junction 4 will be re-aligned to meet the A4.



More impacts of Heathrow Expansion



Heathrow will once again be playing around with Mother Nature but they say that everything will be OK and we shouldn't worry. Yet their previous river diversions after the construction of Terminal 5, resulted in Colnbrook residents bringing out sandbags during the 2014 floods to stop the river water entering their houses.

Will residents in West Drayton be facing the same fate with the new flood storage?

NO 3RD RUNWAY COALITION

175,000 An expanded Heathrow would result in 175,000 additional daily trips on local transport networks.

Heathrow today 235,000 daily trips
 Expanded Heathrow 410,000 daily trips

Heathrow's aspiration is that there is no net increase in passenger and staff highway trips.

This would require a public transport mode share of 65% something no airport in the world has achieved.

Transport for London figures show that, despite Heathrow's promise of no extra passenger traffic on our roads, it is actually set to **increase** by over 63 million extra trips per year.

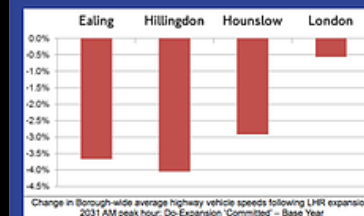
NO 3RD RUNWAY COALITION

Road & Rail Infrastructure

Two proposed schemes Western Rail Access and Southern Rail Access have received no Government commitment or funding.

Even with both these schemes delivered, a third runway would still result in an additional 71,600 car and taxi trips annually.

Crossrail & the Piccadilly Line upgrade were designed to support London's population growth, not a third runway.



With a third runway delays at junctions increase and average speeds slow impacting airport users and non-airport users alike.

When it comes to Heathrow Expansion the figures just don't add up!

2 + 2 = 5

What can residents do?

ATTEND OUR PUBLIC MEETINGS and encourage your friends and family to do the same

- Monday 15th July, 7pm, Pinkwell Primary School, Pinkwell Lane, UB3 1PG
- Tuesday 16th July, 7pm, Heathrow Primary School, Harmondsworth Lane, Sipson, UB7 0JQ
- Friday 19th July, 7pm, Yiewsley & West Drayton Community Centre, 228 Harmondsworth Road, UB7 9JL

KEEP UP TO DATE with the campaign via websites www.stopheathrowexpansion.co.uk
www.no3rdrunwaycoalition.co.uk

WRITE to your local MP, your Local Council Leader and your local councillor - explain the reasons why you oppose expansion.

ATTEND A CONSULTATION EVENT and ask questions - you should have received a leaflet from Heathrow detailing all the consultation events. If you haven't please get in touch with us.

RESPOND TO THE CONSULTATION - you DO NOT have to complete Heathrow's online or paper feedback forms. You can just simply send an email to feedback@heathrowconsultation.com or send a letter to FREEPOST LHR AIRPORT EXPANSION CONSULTATION. Include in your response that without known flight paths the consultation is incomplete. Set out all your objections to the expansion proposals. **SEND US A COPY OF YOUR RESPONSE SO THAT WE CAN HOLD HEATHROW TO ACCOUNT.**

The statutory consultation is running from 18th June to 13th September which includes Heathrow's detailed masterplan for expansion.

VOLUNTEER TO HELP US - we don't ask for much of your time but we do need help with leafleting, organising meetings and other events.

JOIN OUR 'STOP 700 MORE' GROUP - <http://stopheathrowexpansion.uk/700more/index.htm>

A third runway would create more than 700 extra flights per day and we all know the devastation that would bring. To highlight this number we are building a "STOP 700 MORE" group and we are asking you to become part of it.

By joining this group, you would represent one of the number of extra flights per day that a third runway would bring if it were to ever open.

To become part of the group, all you need to do is to sign up to join other residents who are pledging to commit to two peaceful events over the coming months. You can join simply by sending us a message with your name, email address and contact number. We do not need to know your address, but it is helpful for us to know where our supporters are based, so please include that if you wish.



REMAIN COMMITTED

WE CAN WIN THIS, IT IS NOT A DONE DEAL



HEATHROW'S PREFERRED DISASTER PLAN

EVEN HEATHROW ADMIT
IT'S NOT JUST A STRIP OF TARMAC

"Expanding Heathrow is more than building a new runway – we also need to build facilities for passengers, make changes to roads and car parks, and relocate some of the existing airport infrastructure."

(Heathrow Master Plan 2019)

HEATHROW WANT A LAND GRAB THE SIZE OF
GATWICK - THINK ABOUT IT.....

GATWICK AND HEATHROW IN HILLINGON BOROUGH



INTERNATIONAL CONFERENCE ON: **DEGROWTH OF AVIATION**

12th to 14th of July 2019
Barcelona, Can Batlló



IMPRINT
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TABLE OF CONTENT

○ Welcome	03
○ Venue: Can Batlló & food	04
○ Online Participation	04
○ Language and Interpretation	05
○ Why this Conference?	05
○ Barcelona: A City exploited by Tourism and Air Traffic	07
○ Detailed Program	11
○ Briefing Papers	19
– Kerosene & Ticket tax	19
– Progressive Ticket Tax - Frequent Flyer Levy	21
– Caps or Bans on (short-haul/domestic) Flights	24
– Moratoria on new Airport Infrastructure and Scaling Down of Airports	27
– Institutional Changes of Travel Policies	30
– Fostering Alternatives	33
– Touristic Degrowth	37
○ Fees and Donations	40
○ Stay Grounded: Network Meeting and Campaign Kick-off	40
○ Acknowledgements	40
○ Notes	42
○ Program Overview	50

WELCOME!

Dear participants of the conference on Degrowth of Aviation:

We are very happy to welcome you in Can Batlló (and as online participants) to three days full of discussion, presentations and networking on how to end aviation's license to grow, and work towards a just transport system and a sustainable tourism.

Over recent months, together with a lot of assistance from local movements and advice from experts from all over the world, we have put together an ambitious program:

On Friday we will make connections between those demanding an end to aviation's growth, those struggling against airport expansions, and groups in Barcelona fighting against mass tourism and its consequences.

On Saturday we'll have deeper discussions about measures to reduce aviation and mass tourism. We want to look at visions and steps that can bring us closer towards an ecological and just mobility, and seek ways to organize for achieving that

On Sunday morning, we will take the spirit of the conference onto the streets. There will be a creative performance in Barcelona - about which we will give more information at the conference. At Sunday afternoon's closing session we will talk about how information and connections from the conference will influence our work and actions. What can we do to expand on these gains and continue the discussions we have started?

This conference is for people engaged in the topic of aviation or mass tourism and those who are interested and want to get involved. Briefing papers for each working group session were prepared in a collective process beforehand, and should be read in advance by all participants, so discussions can start from an

informed basis. The papers and the conference outcomes will lead to a "Degrowth of Aviation" proceedings that the Stay Grounded Network intends to publish by autumn (in English & Spanish).

Stay Grounded is a global network existing of 125 member initiatives and individuals, : local airport opposition groups, climate justice groups, NGOs, trade unions, academics, groups supporting alternatives to aviation like night trains, and organisations that support communities struggling against on-the-ground offset projects or biofuel plantations. We work to exchange experiences, support each other, and campaign together for a reduction of aviation and its negative impacts. We also engage in fighting the industry's greenwash climate strategies like offsetting emissions and biofuels. Now is the time to determine measures we can use to fight for aviation degrowth and reducing its enormous climate impact.

In the Program you will find all the relevant information on the sessions, the place, language interpretation and online participation. The texts and briefing papers are also available on the Stay Grounded website - if you look for sources in the texts you will also find all of them online.

At the time of printing this program we have more than a hundred registrations from 15 countries. We can't wait to meet all of you - be it virtual or in person - and for this dialogue for strengthening our individual and collective efforts for climate justice in the field of mobility and tourism.

We wish you an inspiring and empowering conference experience,
Sara, Irmak, Lena, Anne, Mira, Nuria, Gökçe, and Calum

| VENUE

The conference takes place in Can Batlló, a former factory and industrial complex which is now a self-organised community and neighbourhood space, with various collectives working there and a lot of cultural and political events.

It is located in the La Bordeta, a part of the quarter „Sants“ and reachable from the metro stations „Plaza de Sants“ and „Mercat Nou“.



Can Batlló

Address:
Carrer 11 de Juny
Constitució 19

North Access:
C/Constitució 19, corner with
C/Mossèn Amadeu Oller and
C/Olzinelles. Close to St.Medir parish.

South Access:
C/Parcerisa 17, corner
with C/Quetzal.

| CATERING

“Diomcoop” will provide the conference with meals on Friday evening as well as Saturday noon and evening. The social cooperative aims to give a sustainable and long lasting answer to the needs of social and work inclusion of immigrants in situations of vulnerability. Apart from making caterings with typical African food, they also do logistical services, and have an own fashion brand. Since our conference doesn't want to use plastics and disposable tableware, we hope that all of us help with washing dishes.

<http://diomcoop.org/>

| ONLINE PARTICIPATION

Video conferences are an important alternative to avoid long-haul flights for business, academia and politics. Since our conference is a no-flight conference it is especially important for us to offer a good online participation for our colleagues from far away. Except from the workshops on Friday and the performance on Sunday, all the sessions will have online access. They will all be available online in English.

We use zoom (www.zoom.us) for the online participation, so if you plan to attend online, please get familiar with it before. To include remote participants as much as we can, each session will have an online host in the 'Zoom room' for those dialling in (we will send out links for the sessions). To make it all work smoothly you can do three things:

1. Respect the principle of **'online first'** – remote participants have priority.
2. Help ensure that only **one person speaks at a time** (if online, mute when you're not talking)
3. Remember to always **speak into the microphone**.

| LANGUAGE AND INTERPRETATION

Languages are something beautiful but they can also create borders and barriers between people where they are not supposed to be. This could mean that informations are only available for some people who speak that certain language. But it could also simply mean that someone uses difficult wording that others don't understand. At our conference we try to soften those barriers. And we encourage all of you to have an eye on those language barriers and try to keep them as low as possible.

We have a team of interpreters and the technical equipment from the collective COATI to provide simultaneous interpretation between English and Spanish for most of the sessions. Our capacities are not enough to provide interpretation into other languages, but we encourage you to support each other in terms of language and don't hesitate to ask if you don't understand something. At the beginning of the conference, you can indicate the languages you speak on your name tags, so people can ask each other for support. For the events with simultaneous interpretation COATI will provide small radios for you to receive the interpretation.

Please take a small radio at the beginning of the event at the entrance, if you don't speak Spanish and English.

To make it easier for the interpreters we kindly ask you to always speak into the microphone and speak clearly, loud and not too fast.

| WHY THIS CONFERENCE?

Aviation and its damaging impact on climate change is starting to be discussed more and more. The problem, however, is, that none of the current strategies that target aviation's climate impact actually challenges the constant growth of the aviation sector. Instead, they pretend that flying could, in the future, become „climate neutral“ through technical improvements, biofuels and offsetting.

The Stay Grounded Network, in its **position paper**, makes clear that those are false solutions. The study „**The Illusion of Green Flying**“ points out the different short-falls and problems of the aviation sector's greenwashing strategy. The current instruments don't tackle the problem and shift the discussion away from the fact that we need to radically reduce aviation, especially in countries of the Global North. This is a necessary step to reach a just and ecological mobility system.

So if the only solution is degrowth of the aviation sector and reducing flights – how do we get there? Aviation is closely linked with our transport system, with tourism, energy and global trade – and with our economic system based on constant growth and competition. Fast mobility is necessary for a capitalist globalized system – yet the faster, the more climate-harmful it is. Climate justice can only be achieved by questioning this model, by reorganizing mobility, regionalizing the economy, and overcoming global inequity. Still, there are many steps to be taken towards this systemic change needed.

A mere reform of taxation schemes will not ultimately bring about the needed transformation – but which steps bring us closer to there, and which lead us away from those visions of an ecological and just society? Current policies of subsidization and non-taxation of the aviation sector are totally unjust and environmentally problematic. They directly feed the high, unrestrained growth of the aviation industry, leading to widespread, problematic hyper-mobile lifestyle choices, and travel and the normality of goods from everywhere anytime. In this conference, we discuss different instruments that could help to reduce aviation and the economic and social normalities it creates.

We excluded some potential measures right away because of being unjust in creating more problems than they solve, or because they don't have the capacity to bring about systemic changes. Among them are emissions trading, offsetting, „alternative“ fuels (biofuels, power to liquid), and the sole focus on efficiency of the engines. This conference will shift the discussion towards measures that might be more effective.

► **The conference will discuss a series of questions, among them:**

- Does it make more sense to demand for market and price instruments (like different taxation) or to implement regulatory instruments like limits to the numbers of flight, moratoriums on airport projects or shutting down certain airports? Or all of them?
- Does it make more sense to work bottom-up (individual behaviour change, voluntary changes of travel policies, grassroots pressure from below) or top-down (policy changes)? Or how can they play together in order to achieve systemic change?
- What kind of taxation system would be socially just and lead towards a reduction of flights?
- What role do institutions play in the rising demand for flights? How can and should they change their travel policies, to support environmentally friendly ways of travelling?
- What kind of alternatives to flying exist and what is needed to improve them?
- What role does tourism play in the discussion about degrowth of aviation? Do we need caps on tourism and if yes, how can that work?

The idea of the conference is to get into serious discussions about concrete ways to degrow aviation. Some of them might work within the current system. Some of them might challenge its foundations. They might lead towards the question of whether individual liberty should be restricted at the point where it violates the liberty of others. They should include considerations about the differences between countries in the Global North and the Global South and what kind of role international agreements and solutions must play.

However there won't be the space – and even the need – to mutually agree on a common manifesto or strategy. All of the discussed measures and strategies have their advantages and disadvantages, but their largest disadvantage is, that they are not publicly discussed the way they should. In the conference, we will fill this gap and hope to produce some outcomes that can be published as a collection of possible strategies to for degrowth of aviation in a just and sustainable way, and that can feed into more academic research and civil society campaigns.

BARCELONA: A CITY EXPLOITED BY TOURISM AND AIR TRAFFIC

Barcelona is the fourth most-visited European city, the first destination of Mediterranean cruise ships and the seventh largest European airport. While there were 3,7 million bookings in 1990, in 2016, Barcelona had more than 31 million bookings. Barcelona's tourism industry leads to very serious impacts and conflicts for the local society and the environment – social movements raise critique.

The city of Barcelona has experienced major transformations over the last four decades. The questionable developmental and speculative process around the celebration of the 1992 Olympic Games produced the first series of touristic waves which continue producing themselves today. If anything has changed, it is the overall perception; the social criticism and struggle against processes ¹ which have brought about the growth of mass-tourism in Barcelona and carried with them a spiral of inequalities and social conflicts. This is not a new or a Barcelona-specific phenomenon, it simply follows global logics and impacts many southern European ² cities and their inhabitants in a similar way.

The Olympic Games might have awoken discussion, but it was mostly in 2004 that the celebration of the “Fòrum de les Cultures” provoked criticism and mobilized social movements against another mega-event related to developmental and speculative dynamics. The global criticism against the process of touristification has been visible for years and it is brought forward by the analysis, denouncement and local proposals of social movements. Each year has been characterized by the growth of different mobilizations against the different aspects of touristification.

The promotion of the Barcelona brand is, broadly speaking, the result of international impulses which offered the Olympics, other global events and touristic icons. This promotion has been managed by the public-private consortium Turisme Barcelona and has made Barcelona a touristified city with the largest touristic affluence on the planet. This can be proven by Barcelona's rampant evolution: it grew from 3,7 million bookings in 1990 to more than 31 million bookings in 2016 ³. As a matter of fact, **more than 23 million visitors and tourists pass through Barcelona each year**, with a mean of 154.000 daily visitors ⁴. Being one of Europe's most dense cities (15,881 inh/km²), with 1,6 million residents, the pressure of tourism is very present, especially in the central districts. Barcelona is the fourth most-visited European city, the first destination of Mediterranean cruise ships and the seventh largest European airport ⁵ with more than 55 million passengers per year ⁶. In 2018, the number of intercontinental journeys by airplane has increased by 10,9% (9,4% on average since 2010) ⁷. The number of cruise ship tourists has increased by 12,1% ⁸ and the number of tourists by 4,3% ⁹. In this way, Barcelona is on a continuous tourism growth-path ever since the Olympic Games.

► **Barcelona's tourism industry and its production model leads to very serious impacts and conflicts for the local society and the environment:**

- The expulsion of residents for the transformation of their houses into tourist accommodations (hotels and both legal and illegal apartments);
- The increase of rental prices and purchase of real-estate for the purpose of market-competition as well as a focus on “touristic appeal” which basically translates into attractive real estate;

- The substitution of daily commerce with shops and services for tourists which are generally useless or inaccessible for the local population;
- The increasing collapse of mobility and accessibility as the result of private mass-events: music festivals, major conferences, sports competitions, etc;
- The specialization of the labour market in the tourist sector which is particularly precarious and feminized (e.g. las Kellys). The wages in the accommodation sector are one of the lowest in Barcelona;
- High levels of noise and air pollution, primarily caused by air planes and cruise ships;
- High generation of waste and abuse of natural resources;
- The loss of communitarian/public spaces as the result of the privatization for the purpose of touristic infrastructure and the concentration of leisure services (port zones, hotels, restaurant terraces and mono-functional zones for night life);
- The deterioration of the local population's living conditions and health;
- Over-specialization in tourism, reducing the opportunities for other productive sectors as well as an increasing dependency on the tourism sector.

The touristic model which is responsible for these impacts is neither free nor natural; it has been created according to the concrete interests of political and economics elites. It is nested in a more global dynamic of the financialization of the economy, and hence, the commodification ¹⁰ of life. Financialization captures the growing dominance of finance in the economy and the lives of people. Some examples are real-estate speculations, the increase of rents and the dispossession of public spaces which respond to a dynamic of commodification and financialization which compromises the right to housing, the right to the city. Big investment funds and banks, with complicity of the State, concentrate the benefits of this system while they cause and externalize (or socialize) the losses and negative consequences they produce ¹¹.

In a capitalist context, despite being a booming economic engine, the tourism sector, apart from other things, is currently responding to the logic of productive and financial accumulation where life remains at the margins and not in the centre. This, by means of speculation on our conditions of life through the decrease of wages, precarization at work, intensification of labour journeys, the worsening of labour conditions; compromising the health of workers and the environment ¹². In fact, the last years of coordination between collectives and entities, as well as the increasing hardships and evident touristification process, has caused a turmoil in the public opinion on the perception of tourism in Barcelona. Historically, the official perception held by those responsible for this process (the private sector and public institution) can be summarized as **“tourism is good for everyone because it produces wealth and jobs”**. But today, mass tourism is essentially seen as a problem of capital in the city and forms part of the population's biggest social preoccupations.

As a result of this change, the aforementioned responsible sectors have had to change their discourse. The private sector initially tried, without success, to blame the organized movements and is referring to them as mobilizers of **“tourist-phobia”** ¹³. At this moment, business owners are trivializing the concept of **sustainable tourism** and use the classist discourse of **quality tourism**. This does not resolve anything because the problems are not a matter of quality or tourist behaviour, they are a matter of **size**, disorderly markets and power relationships.

The local government is making steps, in recent years it has been formed by means of a municipal candidacy partly arising from social movements and including a program that reflected part of their demands. Mostly, it has kick-started critical discourses with the tourist sector at an institutio-

nal level and for the first time, some interesting but moderate measures have been proposed. But in the end, as the mandate progresses, the local government seems to have settled with the idea of managing the process of touristification without aspiring to stop or effectively reverse it.

► **The Airport as Catalyser of Global Tourism in Barcelona**

The growth of tourism and real-estate (oriented towards a floating population) in Barcelona cannot be explained without mentioning the infrastructure behind global and regional access, allowing the movement of tourists, temporary residents and investors. International aviation has been crucial for the development of Barcelona as one of the main tourist destination in the Mediterranean periphery. This process was possible thanks to various political and economic factors: the public investment in airports and incentives for airlines, the non-existent taxation of aviation, the liberalization of the aviation sector resulting in the ability to purchase cheap tickets and the increase of European and international airline connections.

The fact that 82% of tourists arrive in Barcelona by airplane ¹⁴, along with an exponential increase in the number of international arrivals, seems to be the main catalyser of the production of global tourism. In the last 2 decades, the amount of travellers recorded at the airport of Barcelona has increased by more than 20 million. This has facilitated a 17% increase in Barcelona's tourism over the last 5 years.

This system of mobility has strong environmental implications, it is estimated that the **transport by air plane represents 75% of the carbon emission from tourism in Barcelona** (the total emissions include transport, accommodation and tourist attractions) while 92% of the carbon emissions from tourism in Barcelona ¹⁵ can be allocated to transport as a whole. A tourist who arrives in Barcelona by air plane consumes 605,7 kg of CO₂ on average instead, a tourist who arrives by train only consumes 52,9 kg of CO₂ ¹⁶. Long distance flights have a very significant effect, approximately 25% of tourists arrive in Barcelona by means of a transatlantic flight and they alone generate 58,2% of the carbon emissions associated with touristic transport ¹⁷.

In this way, the airport of Barcelona contributes to the exposure of high environmental pollution to many residents in Castelldefels, el Prat y Gavà. The WHO (World Health Organization) has recognized the noise pollution of airports as a serious public health problem which can result in hearing loss, communication problems, concentration problems, sleep disorders, cardiovascular problems and mental health decline ¹⁸.

Based on ICAO (International Civil Aviation Organization) forecasts on international aviation growth in the next decades, a lot of governments justify the construction of new airports, terminals or the extension of landing strips. Spain's national Ministry of Development and AENA, a state-owned company that manages the general interest in airports and heliports in Spain, plan the **expansion of Barcelona's airport** in order to meet a demand of 25 million passengers more (the existing capacity is 70 million passengers). An operation which will include the Girona-Costa Brava airport ¹⁹. The recent Tourism Marketing Strategy Plan, promoted by Barcelona Tourism on behalf of the City Council, complements on the territory the enormous tourism growth planned by the infrastructure expansion. Once again by the false promise of de-concentrating tourism to reduce its impacts, the affected territory is enlarged to continue growing in already touristified areas and to start the process in others not yet been exploited. After the generalization of the problem from the centre to most of the neighbourhoods, now they define as the tourist destination not just the city, but the full demarcation of Barcelona, overflowing its municipal boundaries. If tourism and touristification

are essentially about territory and mobility, the infrastructural growth coincidentally allies with this extension of the battlefield.

The amplification of this infrastructure, along with the increase of cruise ship ports, will deepen itself even more in the disequilibrium between the touristic exploitation of the city and residential life – which has been and still is settled with the expulsion of the second by means of the first. Because of this, the contribution of tourism and air transport to the climate crisis will be disastrous. The management of Barcelona’s “access-ports” is supervised by the Spanish State where Barcelona’s City Council only has residual bargaining power. This means that the future of aviation and urban coexistence remains far from the influence of Barcelona’s population.

Given this diagnosis, the social movements call for the Degrowth of tourism and aviation!



PROGRAM FRIDAY 12th July

Friday’s events are open to the public and focus on cooperation with local movements in Barcelona against mass tourism. The problems of mass tourism in hot spots like Barcelona are closely interconnected with the demands for reducing flights. The Friday afternoon will open the possibility to choose between various workshops that give an inside into the diverse struggles.



4:00 – 4:45 pm

▸ Welcome with Check-in Performance (Theatre)

Facilitation: Magdalena Heuwieser (Stay Grounded) and Sara Mingorría (Env Justice Atlas)

Theater: Arkana collective (arcanacollective@gmail.com)

‘Check-in’ is a performance by the artist collective Arkana that makes visible different voices, stories and experiences around tourism and national borders. It is a political act where we combine movement, image, dance and voice to discuss concepts like the shift of ‘barrios’ (neighborhoods) into theme parks, labor precarity and immigration justice. Arkana is an artist collective based on Augusto Boal’s Theatre of the Oppressed and the Situationist Movement. We aim to raise questions and reveal cycles of power of the contemporary issues by connecting emotionally with the audience.

By artistic expressions, we generate new understanding and discursive spaces. Because, contrary to popular belief, it is given to artists, not politicians, to create a new world order.



5:00 – 7:00 pm

▸ Workshop-Slots

Stay Grounded – an introduction

Flying is the fastest way to heat the planet. The aviation industry and its climate impact is growing without limits. The Stay Grounded network was founded to globally connect more than 120 initiatives that fight airport infrastructure or work on climate and aviation related topics. This workshop both explains the problems involved with aviation, and the history and activities of the Stay Grounded network.

🗨 English with Spanish translations

👤 Mira Kapfinger, co-founder of Stay Grounded

Degrowth and Aviation

What is degrowth and how does it translate into political action? This workshop will provide a brief introduction to the different concepts of degrowth. In an open discussion, we then want to explore these ideas from a rather pragmatic and activist perspective, and see if they help us to identify how to act in the current political and cultural context of our time. In line with the theme of the conference, we will try to focus especially on the sector of transport and aviation.

🗨 English | 👤 Jöel Foramitti (Research & Degrowth)

No to Greenwashing of Aviation

In order to be able to discuss useful strategies to degrow aviation in the conference, it can be useful to understand current dominant strategies to deal with aviation emissions, among them the use of biofuels, the plans for synthetic fuels, and offsetting emissions. Can aviation be “decarbonized”? Is climate-neutral growth possible? In this workshop we will discuss the problems involved with such ideas and strategies.

🗨 English + Spanish translations | 👤 Magdalena Heuwieser, Stay Grounded campaigner and author of “The Illusion of Green Flying“

Visions for long-distance travel beyond aviation

The narrative of aviation growth is so strong that it is so hard to imagine another reality. Beyond all the policy-instruments discussed during this conference, we will discuss questions like: What is your vision for long-distance, in particular intercontinental, mobility? How will we travel, who, how often? What about migration, family visits, love miles? Collectively we will develop our imaginary based on the results of two recent events: the Barcelona/Cerbère workshop on transport narratives at the Degrowth Summer School and a workshop in Germany on transport utopias organized by Konzeptwerk Neue Ökonomie.

🗨 English (+ Spanish translations) | 👤 Matthias Schmelzer (Konzeptwerk Neue Ökonomie), Francois Schneider (Research & Degrowth), Manuel Grebenjak (Stay Grounded)

Participatory mapping on tourism in Barcelona

The aim of the workshop is to collectively reflect on the existing relationships between projects to expand the transport infrastructure and the tourism process in Barcelona, as well as to identify and understand their impacts. We will use a participatory mapping activity, working on a map prepared from a previous mapping exercise with the idea that this mapping is enriched during the workshop based on the contributions of each participant. This workshop is open to all people interested in this topic and/or the participatory mapping tool to reproduce them in other spaces.

🗨 English/Spanish | 👤 Yannick Deniau (Geocumnes) and Daniel (ABTS)

Weaving resistances from the conflicts of airports around the world

By mapping conflicts related to airports around the world, we will identify not only socio-environmental injustices, but also the different forms of resistances and mobilization related to the expansion or construction of new airports or aerotropolis. Moreover, we will reflect and discuss what may or may not be big or small victories/successes of the socio-environmental justice movements: stop, suspend or re-locate these infrastructure projects, increase compensation or reduce the negative effects on the most affected communities.

🗨 Spanish/English | 👤 Sara Mingorria (EnvJustice, ICTA-UAB)

The touristification and everyday life in the city – A feminist perspective

This workshop will identify and reflect collectively on how the configuration and spaces of our cities are adapted to accommodate tourist flows and market needs, while not taking into account neither the sustainability of life nor the daily needs of diverse people who live in the territories.

🗨 Spanish (+ English translations) | 👤 Blanca Valdivia (Col·lectiu Punt6)

Direct Action on Aviation

In this workshop we will share experiences of direct action related to airports and aviation. By using brainstorm techniques we will work on action concepts that could be applied locally as well as actions to be done in support and solidarity of local actions. Greenpeace NL is running an aviation campaign this year and is co-designing its campaign with grassroots and individuals throughout the Netherlands and beyond.

🗨 English | 👤 Mara de Pater (Greenpeace Netherlands)



7:30 – 9:30 pm

► Opening Event: Connecting the Movements

Facilitation: Sara Mingorria

On Friday evening we will look at the topic of aviation and mass tourism from the perspective of various local movements from Barcelona as well as of activists from the Global South. After presenting the Stay Grounded Network and the aims of the conference, we will start with an input by Yayo Herrero, a well known Spanish ecofeminist and activist, followed by Gabriela Vega Tellez (Coordinadora de Pueblos y Organizaciones del Oriente del Estado de México en Defensa de la Tierra, el Agua y su Cultura) a Mexican activist against airport constructions at Texcoco dry lake bed and Daniel Pardo from ABTS (Asamblea de Barris per un Turisme Sostenible) and SET network, a Catalan activist for degrowth on tourism.

After the inputs there will be short presentation by various local movements and groups: ABTS, Red SET, Col·lecciuo Punt6, EnvJustice, Climacccció, Rebel·ló o Extinció Extinció o Rebelió, Associació de Veïns de Gavà Mar, Prou Soroll, Plataforma per la Qualitat d'aire, ODG, Ecologistas en Acción, Families for Future, Fridays Ffor Future and Research & Degrowth.

In the end we will discuss with the audience about common strategies and possible alliances.



9:30 pm

▸ Social Dinner

PROGRAM SATURDAY 13th July

(registered participants only)



10:00 – 11:00 am

▸ Opening keynotes

Facilitation: Mira Kapfinger (Stay Grounded)

What does “Degrowth” actually mean? And what do we need to understand when talking about aviation? The two keynotes on Saturday morning will open up the day and lead you straight to the core of the discussions at this conference.

Filka Sekulova - Post-doc and researcher at the Institute for Environmental Sciences and Technologies (ICTA) at the Autonomous University Barcelona (UAB) - will introduce you to the concept and theory of Degrowth and point out how it is linked to aviation and tourism.

Stefan Gössling - Professor at Lund University and longtime researcher on tourism, transport and sustainability - will take a look at the views, opinions and discursive strategies of those driving the aviation system. Understanding the barriers and how to overcome these will serve as a starting point for the working group discussions on concrete policies and measures.



11:30 am – 2:00 pm

▸ Working Groups Sessions I



2:00 – 3:30 pm

▸ Lunch



3:30 – 5:30 pm

▸ Working Groups Sessions II

Working Group 1: Kerosene tax & ticket tax

(only in English)

Facilitation: Adrian Hassler (Am Boden bleiben)

In Europe, aviation kerosene is not taxed, while in many other countries a tax exists at least for domestic aviation. A new leaked study shows that taxing kerosene in the EU would cut emissions by 11% and raise almost 27 € billion in revenues every year – a new EU civil initiative calls for a kerosene tax. Adding to this, in many countries international flights are exempt from VAT. From a climate justice perspective, these tax-avoiding privileges are irresponsible and very unfair because they favour aviation over sustainable alternatives like trains.

This working group will discuss the possible effects of a kerosene tax, a ticket tax or VAT on tickets and goods, trying to work out the pros and cons. A close look on aspects of social justice, an international comparison as well as a clear distinction between a kerosene tax and a carbon tax will be at the core of the discussion.

Working Group 2: Progressive ticket tax or frequent flyer levy

(only in English)

Facilitation: Matthias Schmelzer (Konzeptwerk Neue Ökonomie) and Laura Machler (Am Boden bleiben)

In the UK, around 15% of the people are taking around 70% of the flights. Why should they be taxed the same as the people flying just once every while? Studies show, that those frequent flyers are wealthy. A progressive ticket tax increases the amount of tax with each successive flight-ticket one buys (could be per year, per life...). Some models propose one tax-free flight per year with increasing taxes for additional tickets (www.afreeride.org). Other models propose increased taxes for business class tickets, or stress that the tax revenues must directly feed into supporting railway infrastructure and scientific research on alternatives.

This working group will discuss what a progressive ticket tax could look like, and what would be obstacles and barriers to it.

Working Group 3: Limits or caps on short-haul/ domestic flights

(only in English)

Facilitation: Manuel Grebenjak (Stay Grounded)

In a time of climate crisis, there seems to be no good reason for domestic flights within Europe and short-haul flights in general. Instead, investments in good train infrastructure and ecological passenger ships are needed. The argument that personal liberty would be cut in case of forbidding or limiting short-haul flights, must also consider the restricted liberty of all the people already suffering from the climate crisis.

In this working group, we will discuss the pros and cons of bans, limits and caps. This includes thinking about what would be needed for people to accept this idea and for politicians to actually

put a law in force. The role of decent alternatives and a just transition are likely to be at the centre of the discussion as well as questions about the national or international scope of the measure.

Working Group 4: Moratoria on new airport infrastructure, and scaling down of airports

(English, Spanish)

Facilitation: Nuria Sanchez-Blanquez (Ecologistas en Acción) and Elli (Am Boden bleiben)

Expanding airports and constructing new ones both accommodates rising demand for flights and creates a business impetus to boost demand, to fill the growing capacity. There are about 1200 airport infrastructure projects around the world. Many of them are connected to violations of human rights and destruction of biodiversity or agricultural land. Airports also put people under constant noise and pollution pressure. Putting a moratorium on new airport infrastructure and scaling down existing airports wherever possible could be ways to stop the growth of the sector.

This working group will summarize the various struggles all around the world against new airports or airport expansions and discuss strategies on how to support them. Would it make sense to focus our demands on moratoria on infrastructure projects, and to demand the shut down of most existing airports?

Working Group 5: Institutional changes in travel policies

(English, Spanish)

Facilitation: Tone Smith-Spash

Travel policies mostly follow a pattern: the cheapest and fastest way to travel is given every advantage. This forces people to take the plane even if they don't want to. Governments, communes, universities, NGOs, trade unions and other institutions should take the lead and serve as role-models by implementing travel policies that support the most climate-favouring, sustainable kind of transport. This means not only committing to higher travel costs but also to more time spent on the journey which can be counted as working time.

This working group will discuss best-practices of travel policies in different sectors. How can those changes be fostered? How are or should they be interrelated with other needed changes on a political as well as on an institutional level?

Working Group 6: Fostering Alternatives

(only in English)

Facilitation: Irene Arandia Iniesta (Institute of Science and Technology, Universitat Autònoma de Barcelona, ICTA-UAB)

Not only are plane tickets very cheap, the lack of good and affordable alternatives also pushes people to fly. First steps on the way to a sustainable transport system can be: Night-trains and buses, improved international booking, improved transfers and affordable tickets. When it comes to crossing the ocean, investment in ships with renewable fuels is needed. Work travel can partially be shifted to online conferences. At the same time, we have to accept the need to generally question

the hyper-mobile lifestyle we have developed over the last few decades – maybe a form of decelerated societies are also part of the solution.

This working group will discuss alternatives to air travel. What are the already existing alternatives, what is needed to improve them and what should be the focus of research, social movements and policy work?

Working Group 7: Tourism Degrowth

(English, Spanish)

Facilitation: Filka Sekulova (ICTA, UAB) and Sara Fromm (Climacció)

The consequences of over-tourism are hitting more and more cities and places and are closely connected to low-cost airlines and the growth of the aviation sector. Some cities already put limits on the number of cruisers that are allowed to enter the port or limit entrance to overcrowded areas. In Barcelona, social movements are fighting for sustainable tourism and against platforms like Airbnb that contribute to rising rents and gentrification.

This working group will discuss if and how limits and caps on tourism could be an answer to those problems. What regulations are feasible, socially just and what would be needed for sustainable tourism?



6:00 – 9:00 pm

► Joint Conference Session - Concrete ways to degrow aviation

Facilitation: Anne Kretzschmar (Stay Grounded)

This Session will bring together the outcomes from the working groups. After intensive discussion in small groups over the whole day, we want to share our ideas, results and questions with each other and compare the advantages and disadvantages of the different strategies and measures. After presenting the results from the working groups, we want to have a look at missing spots or contradictions, and draw a common picture - do the measures lead to degrowth in aviation? Can they be a driver for system change?

At the end of the session, representatives from degrowth academia, social movements in Barcelona and the Stay Grounded network will give their perspective on the outcomes of the conference:

Inputs by:

- Giorgos Kallis (environmental scientist working on degrowth, ICTA Barcelona)
- Representative of local movements in Barcelona
- Adrian Hassler (activist at Stay Grounded the German group “Am Boden bleiben”)



9:00 pm

► Dinner



10:00 pm

► Party

with DJ Compadre Galo

PROGRAM

SUNDAY 14th July

🕒 10:00 am – 12:00 pm

▶ Joint performance

On Sunday morning, we will take the message from the conference onto the streets. There will be a creative performance in Barcelona. We invite all conference participants to join. More information will follow at the conference.

🕒 3:00 – 5:00 pm

▶ How to proceed with the outcomes?

Facilitation: Magdalena Heuwieser (Stay Grounded)

On Sunday afternoon we want to discuss what do the outcomes mean for our groups and organisations. How will they influence our work and what can we do to spread the results and continue the discussions? What will I take home and what would be needed to deepen the discussion?

We have invited people from different organisations/ social movements/ institutional background to give short inputs on their plans and ideas for how to proceed. Afterwards there will be space to talk about those questions all together.

🕒 5:00 – 8:00 pm | internal meeting

▶ Stay Grounded Network Meeting and Campaign Kick-off

On Sunday 14th from 5:00 pm to 8:00 pm there will be an internal Stay Grounded Network meeting. If your organisation is already a **member** of Stay Grounded or if your organisation is interested in joining our planned **European campaign „Let's stay grounded“**, you're also invited to join this meeting. The campaign-meeting will continue on Monday morning (10 am to 1 pm). You can find more information on how to become a member and about the upcoming campaign at our website. (www.stay-grounded.org)

BRIEFING PAPERS

Working Group 1: Kerosene tax & ticket tax

Facilitation: Adrian Hassler (Am Boden bleiben) (adrian.hassler@posteo.de)

▶ 1 Short summary of strategy/measure

For historical reasons, aviation has enjoyed tax benefits that are unheard of in most other areas of society. This can partly be attributed to the international character of aviation as opposed to the national character of taxation. The 1944 Chicago convention as the foundational international agreement on aviation primarily sought to facilitate and expand international aviation. The Convention has given rise to a practice of exempting aviation fuel from taxation (excise duty) and value added tax (VAT), formalised through a series of bilateral air service/transport agreements. This principle has been upheld in cross-border aviation (if not at the domestic level). However, the Chicago Convention as such does not explicitly prohibit the taxation of aviation fuel, only for fuel that is already on board at landing.

By introducing adequate taxation in the aviation sector on par with other transport modes, demand could effectively be reduced, while at the same time generating significant revenue streams. Such taxation could take on several forms. Some of the most commonly envisioned taxes include a tax on kerosene comparable to other fuels, the collection of VAT, or ticket taxes (passenger taxes) that can be varied according to distance travelled and other factors (see also briefing paper on frequent flyer levy). The envisioned revenues of such taxes depends on many factors, but in order to provide some perspective, a recent study commissioned by the European Commission (CE Delft 2019) estimates that introducing a kerosene tax in Europe (at 33cts, the agreed EU minimum) would generate €17bn in fiscal revenue, while VAT (at 19%) would raise another €30bn Europe-wide. At the same time, emissions would be reduced by 11% (kerosene tax) and 18% (VAT), respectively.

It is important to consider aviation taxes in the context of other approaches to levy charges in this sector, including the EU Emissions Trading Scheme (ETS) and other envisioned carbon pricing measures. However, these measures are outside the scope of this briefing paper.

▶ 2 State of the art: Does this measure already exist somewhere?

The landscape of aviation taxation is generally very fragmented. Kerosene tax and/or VAT are collected for domestic aviation in many national contexts, including the United States, Brazil, China, and 17 European states. However, tax rates outside the EU are often significantly lower than the agreed (hypothetical) minimum in Europe at 0.33 Euro per liter as per EU Energy Tax Directive (e.g. 0.01€/ltr. in the US, 0.02€/ltr. in Australia). Given the constraints in collecting kerosene and VAT in cross-border aviation (see above), taxes on international connections are generally levied as ticket taxes, i.e. as a fixed amount per passenger and departure. Such ticket taxes exist in many countries, including ten EU states. In light of this fragmented approach, the most meaningful parameter for comparison is the overall tax rate for aviation, which may consist of a combination of the aforementioned taxes. This average rate (weighted for domestic and international flights, which are often taxed differently) is particularly high in the United Kingdom (ca. 40€ per passenger and flight), with a number of countries are lying in the range of 15-20€ (including Canada, the US, and

a number of EU states). Comparatively high tax rates for international departures are in effect in Australia (40€), Mexico (30€), and Brazil (30€).

► 3 Advantages

The introduction of meaningful taxation in the aviation sector comes with a range of advantages. Aviation taxes would generate a **significant income stream** that could be levied for the transformation of the transport sector towards more sustainable modes of transport, or could be redistributed. Whether such an earmarking (hypothecation) of tax revenues can be legally anchored depends on the national context, but the general practice is not unheard of in many countries (e.g. for road upkeep). It is also a highly **realistic and feasible** measure: aviation taxes already exist in many domestic contexts, hence the instrument is well-known and -studied. The measure can also be expected to enjoy somewhat **broad backing** among the public and even parties, as taxing aviation effectively amounts to bringing the sector in line with existing practice in other sectors (i.e. removing some subsidies). **Increasing ticket prices** are expected to curb demand (TU Delft 2019) and hence equally the current expansion of aviation, which could even be the start of a reverse dynamic in a sector that is generally built around optimistic growth scenarios. At the same time, it would give an immediate boost to the competitiveness of **alternative transport forms** such as rail and bus, which is often taxed at standard rate (although some countries apply exemption or reduced rate - see briefing paper on “fostering alternatives). Specifically on the matter of kerosene taxation, a key advantage is that it in principle could cover **all forms of aviation** (including goods transport), and **increase proportionally** to travelling distance. While taxes in principle apply equally to all citizens, there is a **social justice aspect** in that flying (frequently) is still largely practiced by middle- and higher-income households, as opposed to other forms of transport already being taxed in full. The ‘Yellow Vests’ protests in France are a case in point, arguing for kerosene taxes as a more socially just alternative to further motor fuel tax increases.

► 4 Disadvantages

The disadvantages of a tax-based approach fundamentally tie in with the **limits of market-based approaches** more generally. Expanding taxation in the aviation sector represents a one-off measure with **no inherent mechanism** to respond to the increasing urgency of the climate crisis, besides the (notoriously unpopular) option of raising tax rates. At the relatively low rates that are currently discussed and applied, the **level of ambition** is rather modest, as taxation amounts to a removal of subsidies at best. Although aviation taxes are not regressive as such, given the increasing prevalence of flying among higher-income households, individual low-income households may still be adversely affected (i.e. migrant workers) unless addressed through balancing measures, like full or partial redistribution. From a strategic point of view, introducing a kerosene tax and VAT in aviation fall short of offering **a more profound critique** of current forms of mobility both in regards to environmental sustainability and social justice, compared with e.g. the idea of a frequent flyer levy (see briefing paper on progressive ticket taxes). Finally, currently envisioned levels of taxation for kerosene do not account for the significant **non-CO₂-effects** of burning kerosene as opposed to the use of fossil fuels in other forms of transport. Similarly, such a tax must not exempt **biofuels**, which could create a dangerous incentive for their increased use. Also such a tax should not fully exempt synfuels (electrofuels) that would still generate other GHGs and contrails. Also the price signal of any tax can be swept by a drop of the barrel price!

► 5 Possible questions for discussion

- What to do with tax revenues? Should they be used at national or supra-national (e.g. EU) level? How to expand to global level?
- How to ensure they are not just used to balance budgets (even at supranational level)? How to avoid “lowest common denominator”/lack of ambition? How to reinforce the work of the countries taking action?
- How does kerosene/VAT taxation compare to ticket taxes/passenger duties? What are the advantages/disadvantages?
- How does it combine with a progressive ticket tax/frequent flyer levy?
- Are there any quick wins possible (countries which could incorporate such a tax with little or no effort from our part)?
- What about carbon taxes?

► 6 Literature

- CE Delft (2019), Taxes in the Field of Aviation and their impact. Study commissioned by the European Commission. https://ec.europa.eu/transport/sites/transport/files/studies/isbn-978-92-76-08132-6-taxes_in_the_field_of_aviation_and_their_impact.pdf
- CE Delft (2018), A study on aviation ticket taxes. Study commissioned by Transport and Environment. https://www.transportenvironment.org/sites/te/files/publications/2018_12_CE_Delft_7L14_A_study_on_aviation_ticket_taxes_DEF.pdf
- European Citizens Initiative on taxing kerosene (2019), Ending the kerosene tax exemption in Europe. <https://www.endingaviationfueltaxexemption.eu/wp-content/uploads/2019/05/Fairosene-Annex.pdf>
- An Italian ex-prime minister, an ex-WTO head, a former finance minister of Germany and 14 other economists urge the EU to impose a VAT on airline tickets and tax aviation kerosene: <https://www.transportenvironment.org/press/enrico-letta-pascal-lamy-and-hans-eichel-urge-european-leaders-use-green-tax-shift-fix-eu>
- CE Delft (2018), Taxing aviation fuels in the EU, Study commissioned by Transport and Environment. <https://cedelft.org/en/publications/download/2693> (summarised below)
- Climate Policy 19 (2019) International and national climate policies for aviation: a review. <https://www.tandfonline.com/doi/full/10.1080/14693062.2018.1562871>

Working Group 2: Progressive Ticket Tax - Frequent Flyer Levy

Facilitation: Laura Machler (Am Boden bleiben) <L.ma@posteo.de> & Matthias Schmelzer (Am Boden bleiben) <m.schmelzer@knoe.org>
Paper prepared by including inputs by Leo Murray, John Stewart, Miguel Valencia, Lisa Hopkinson, Werner Reh and Calum Harvey-Scholes.

► 1. Summary of strategy/measure

The frequent flyer levy (FFL) is a policy proposal that **aims to tackle the environmental impacts of flying in an equitable way**. The idea is to progressively tax frequent flying, thereby constrain

demand for flights, while at the same time distributing flights more equally across the income spectrum. A long overdue measure to tackle aviation growth is to tax kerosene and apply VAT to tickets; this would make flying more expensive and contribute to end the sector's privileges and competitive advantage over other forms of transportation. However, taxing everyone the same is socially regressive – wealthy people who can afford to will continue to fly often, whilst poorer people will be priced out. Why should the rich man on his sixth visit of the year to his Tuscan villa be taxed the same as someone visiting their family every second year? A FFL addresses this challenge of equity. The tax increases with each additional flight the individual takes (e.g. the tax on the 3rd flight is double that on the 2nd) thereby aiming to actively restrain the number of flights. The key goal of the policy is to deliver social justice, given that a relatively small number of people benefit from frequent flying, whilst the environmental damage it causes is spread across the global population. Even though cheap prices have led to a “democratisation of aviation” in wealthier countries, it remains the **privilege of few, both within the countries of the global North and certainly globally**. In the UK, where the idea of a FFL started, 70% of flights are taken by just 15% of the population. Globally, only 3 percent of the population flew in 2017, and around 90 percent of the global population has never flown. As lower income groups fly much less, the FFL would largely affect the wealthier people. Focusing specifically on taxing frequent flyers would considerably reduce air travel without limiting access to mobility for the many. However, the FFL might not be sufficient to reduce aviation enough to be consistent with overall CO₂-reduction goals, so it needs to be combined with other measures such as kerosene or CO₂ taxes. Also, there are many technical difficulties of introducing it.

► 2. State of the art: Does this measure already exist somewhere?

No similar measure currently exists with regard to aviation. There are a number of ticket taxes, the toughest of which is the UK's Air Passenger Duty. And some countries charge VAT on tickets for internal flights. However, all existing instruments tax every ticket/person equally. There exist, however, some **examples of progressively taxing environmentally damaging consumption**. For example, the UK's Vehicle Excise Duty, under which cars are taxed according to carbon emissions, was very successful in encouraging car owners to buy smaller, cleaner cars (until it was changed in 2017).

► 3. Advantages

One key advantage is that the FFL might be much more **socially acceptable** than general increases in taxes on aviation or kerosene, due to the disproportionate impact on wealthy frequent fliers. Studies show that most people in the UK (85%) would be better off under a FFL than under Air Passenger Duty, through either paying less tax or simply being the beneficiaries of more public spending. A survey on public attitudes to the FFL in the UK found that a FFL is perceived to be fairer than and preferable to any of the other options for reducing air travel.

The primary **focus of the FFL on number of flights** rather than distance is key: It means that low-income people with families in other continents have the opportunity from time to time to visit their families. Reducing the number of flights is also the key demand of communities impacted by noise around airports.

► 4. Disadvantages

There will be massive and **coordinated opposition from the aviation industry**. We can also expect **opposition from politicians and the general population**, in particular in the beginning,

as aviation is seen as a means of boosting economic growth and enabling modern lifestyles, but this could change and will have to. There is a crucial job of raising public awareness of the fact that climate targets cannot be met without constraints on air travel. And then the FFL might be the most popular option available, because of its strong equity component. Meanwhile, more sustainable travel modes to aviation must be made more attractive to support a change in public opinion.

A FFL might be **more complex to administer** than the current or alternative aviation tax arrangements. This was the pretext used by the Scottish Government when they refused to consider a FFL as an alternative to APD when tax powers were devolved to their government. Implementing a FFL will entail changes to the customer journey when purchasing plane tickets which the industry will try to resist. That's why it needs to be as simple as possible.

The FFL **legitimizes frequent flyers' flights**, since frequent flyers' will contribute to finance public policies. The FFL thus needs to be combined with other policies aimed at reducing aviation in general. If the first flight per person per year is tax free (or taxed low), the FFL will **only be able to reduce aviation to a certain degree** that might still not be in line with climate goals. The FFL at least implies and probably normatively establishes a right to one return flight of any distance per year. It also dispels any notion that distance has consequences regarding one's (or one's family's or friends') relocation choices, a critical matter given the scale of world population and the significant role of air (and other long-distance) travel on annual global GHG emissions.

The FFL **does not account for the distance and class of a flight**. These are, however, key determinants of the climate impact, a long-distance flight London-Sydney being 30 times more harmful than a short-distance flight London-Malaga and a first class seat generating 7 times more carbon. The FFL should thus be combined with a kerosene or CO₂ tax. Given that the FFL is insufficient by itself from a climate standpoint, it should also be discussed why it is beneficial to use FFL in addition to a kerosene or CO₂ tax.

There is an opportunity cost of pushing the FFL into adoption, as efforts could otherwise be used to promote other measure(s) that would more effectively reduce aviation's harms to the climate. A related consideration is that some climate measures may cause injustices; for example, the injustice of a kerosene tax on the poor who might wish to fly is one of the harms that should be considered.

► 5. Questions to discuss

There are some key questions and challenges that need to be discussed. These include among others the following: What is the difference between the FFL and a CO₂ tax? What should be the level of the tax? What should be the scope of the FFL, national, EU, global? How could the FFL be introduced, what are the legal challenges? What should be done with the revenues? Taxing business or employees?

For more details on these questions see here (<https://tinyurl.com/yxv9cknq>)- we suggest participants of the working group to read them before the conference.

► 6. Literature

- Outline of Frequent Flyers Levy: <http://afreeride.org/>
- Poll of public opinion of the Frequent Flyers Levy: <https://s3-eu-west-1.amazonaws.com/>

media.afreeride.org/documents/Aviation_briefing_Jan2019+FINAL.pdf

- The economics and effectiveness of the Frequent Flyers Levy: https://neweconomics.org/uploads/files/58e9fad2705500ed8d_hzm6yx1zf.pdf
- The Committee on Climate Change's UK Expert Advisory Group on reaching Net Zero recently explicitly suggested that a FFL could be a politically viable approach to demand management policy in the UK: <https://www.theccc.org.uk/wp-content/uploads/2019/05/UK-Net-Zero-Advisory-Group-Chair-Report.pdf>
- Some recent favourable coverage of the concept is here: <https://www.thisismoney.co.uk/money/comment/article-6981961/A-Free-Rides-idea-fairer-tax-flights-fight-climate-change.html>
- FoE and Greenpeace both call for a FFL again in their recent climate emergency manifestos / policy papers: <https://www.greenpeace.org.uk/climatemanifesto/aviation-and-shipping/> <https://friendsoftheearth.uk/climate-change/friends-earth-court-continue-challenge-against-unlawful-decision-build-third-runway>
- Work from Transport & Environment: <https://www.transportenvironment.org/newsroom/blog/ending-aviation's-tax-holiday>
- Suggestion from the Dutch Secretary of State for Finance: <http://www.airportwatch.org.uk/2019/02/dutch-sec-of-state-for-finance-says-an-eu-airline-tax-needed-to-limit-low-cost-flights/>
- Petition set up by Andrew Murphy of T&E: <https://www.change.org/p/eu-governments-stop-airplane-pollution-end-tax-breaks-for-airlines>
- The company 'Responsible Travel' argue for a 'green flying duty' as part of a new manifesto on tourism: <https://www.responsibletravel.com/copy/manifesto-aviation>
- Siân Berry, the co-leader of the Green party, has called on people to take no more than one flight a year and suggested a tax should be imposed on further journeys. Berry hasn't flown since 2005. See: <https://www.theguardian.com/travel/2019/may/22/could-you-give-up-flying-meet-the-no-plane-pioneers>
- Curbing aviation with a Frequent Flyer Levy and aviation fuel duty – a fair tax package: <http://www.transportforqualityoflife.com/radicaltransportpolicytwopagers/>
- Public attitude in the UK to tackling aviation's climate change impacts: <https://1010uk.org/flying>

Working Group 3: Caps or Bans on (short-haul/domestic) Flights

Facilitation: Manuel Grebenjak, Climaxió (manuelgre@riseup.net)

Paper prepared also including inputs by Werner Reh.

In a time of climate crisis, there seems to be no good reason for domestic flights within Europe and short-haul flights (connections that can be arrived within one day or night using alternative modes of transport) in general. Instead, investments in good train infrastructure and ecological passenger ships are needed. The argument that personal liberty would be cut in case of forbidding or limiting short-haul flights, must also consider the restricted liberty of all the people already suffering from the climate crisis as well as from airport noise and pollution.

In this working group, we will discuss the pros and cons of bans, limits and caps as well as the promotion of rail alternatives to short-haul flights. This includes thinking about what would be needed

for people to accept this idea and for politicians to actually put a law in force. The role of decent alternatives and a just transition are likely to be at the centre of the discussion as well as questions about the national or international scope of the measure.

► 1 Short summary of strategy/measure

Leaving political feasibility aside, introducing absolute limits on aviation is technically the easiest and most secure way to guarantee the industry's contribution to climate mitigation targets. Taking feasibility into account, such limitation is foremost an option for short-haul routes. A reduction of short-haul flights seems to be the easiest way to reducing flying without causing significant negative effects for travellers. Preconditions for this are well developed alternatives. For example, western European states invested billions of Euros since the end of the 1980s in a high speed rail network which can replace a large proportion of short haul flights (even though we need to keep in mind that energy use rises exponentially with speed).

Different forms of limits, bans or caps on (short-haul) flights are possible:

- immediate bans on flights with rail alternatives of four or five hours and expand the rail network for speeds of 200 km/h and optimize timetables (integral fixed-interval timetables). Establish networks of comfortable overnight trains in Europe and on all continents
- caps on the amount of flights on short-haul connections from one specific airport to another (e.g. maximum of two flights a day instead of seven from one destination to another); also as an intermediate step for a complete abolition
- bans on short-haul flights with a rapid phase-out transition period for airports and airlines as well as the building of alternatives
- Flight limitations for airports, that are related to both emission targets and noise and fine dust limits (limits of the environmental capacity of airports). Reduction of the huge excess capacities of airports in Europe to a greatly reduced capacity of airports per country.

► 2 State of the art: Does this measure already exist somewhere?

In our research, we could not find an existing ban/cap on flights, especially short-haul flights at the national or international level. However, the idea to ban especially easy-to-substitute short-haul flights is gaining momentum. The most prominent recent example might be the statement of Frans Timmermans, the European Social Democrats' top candidate for the May 2019 EU elections, who said in a televised debate that he would support a total ban on short-distance flights. Also his conservative counterpart Manfred Weber advocated for a reduction of such flights, although not supporting a ban. The EU White Paper on Transport stated 2001 "We can no longer think of maintaining air links to destinations for where there is a competitive high-speed rail alternative."

In a recent move members of the Dutch parliament wanted to ban the flight between Brussels and Amsterdam. Similar debates on domestic flights are ongoing in France: A new French mobility law under preparation proposes banning flights between airports where an alternative rail link exists, as long as the rail journey in question would be no more than two hours and 30 minutes longer than the flight it replaces.

Even more radically, the well-known German climate expert Hans-Joachim Schellnhuber stated earlier this year that "domestic flights within Germany should be banned" and proposed that air travel be reduced to 20 flights in a person's lifetime and that its price should be increased considerably.

► 3 Advantages

The comparative climate advantage of alternatives like trains, high-speed trains and even busses is very high. Therefore, there is a high potential for rapid emission reduction.

Short-haul flights have poor economic profitability because of their lower occupancy rates than European or international flights. They are continued by airlines and alliance partners in order to feed their international and intercontinental hubs and for fear of losing their historic („grandfathered“) slots in airports („Use it or lose it“ rule). The slot regulations are not only highly inefficient but even counterproductive for climate protection policy.

A main advantage is that this measure is more effective and socially just than market and price mechanisms. Putting taxes on flying is of course necessary in order to treat all forms of transport equally, or disincentivize the most harmful form of transport, but raising prices could mean that the well-off continue flying as before, amplifying the injustice in the mobility system.

Banning short haul or domestic flights would not give the rich more opportunity to fly and applies equally to everyone.

Short haul flights are used for ordinary transit, which could be shifted to the railway. But some people, living in one city and working in another or companies with branch networks, use them for frequent commutes. This form of work life is exhausting and hard to combine with relationships and family life, so banning such flights could disincentivize harmful work norms and promote alternatives such as video conferencing. Banning short haul/domestic flights could lead to shutting down lots of regional airports - which are often deficitarian anyways and kept alive by subsidies. Jobs could be created simultaneously in the railways. A multimodal and sustainable approach to (public) transport is demanded in many official government papers – but nowhere delivered yet. Modal shift from short-haul flights is a low hanging fruit. But obviously still hanging too high for today's politicians.

► 4 Disadvantages

Despite announcements by politicians during election campaigns, the political feasibility of bans or caps on flights or of restrictions on individuals' amount of flying is questionable at this moment. So far and despite a slow cultural shift beginning (e.g. Swedish “Flygskam“), flying has still a very positive image. Lifestyle and work relations of a rising middle and upper class are often based on the existence of such flights, enabling the aviation industry to avoid adequate regulation of its growing contribution to the climate crisis.

The infrastructural feasibility of banning short-haul flights varies by country, depending on the extent and quality of their train networks. Therefore, an implementation on e.g. the EU level with the same rules for every country might not be feasible within the current political landscape. Limiting aviation in economically growing countries in the Global South might conflict with issues of global justice and historical responsibility for environmental problems like the climate crisis. Therefore the highly industrialized countries must go ahead.

► 5 Discussion: For reducing short-haul flights significantly in Europe a three step approach could be discussed in the working group

- By 2020: Shift all short-haul flights within EU member states and Switzerland to rail with a parallel train alternative of four hours or less travel time. Possible driving actors: A coalition of forerunner countries France, Germany, Benelux countries.
- By 2023: After strategic expansion of the European rail network for trains and a Euro-wide night-train offer: Shift all short-haul flights to destinations that can be reached within ten hours by rail.

- By 2026: All in the EU are shifted to rail. Short-haul flights are only taking place in peripheral countries of the EU where there is no rail alternative, and just until a rail alternative is in place.

► 6 Literature

- Jörgen Larsson, Anna Elofsson, Thomas Sterner & Jonas Åkerman (2019): International and national climate policies for aviation: a review, Climate Policy
- Sonia Sodha (2018): A radical way to cut emissions – ration everyone's flights. The Guardian: <https://www.theguardian.com/commentisfree/2018/may/09/cut-emissions-flights-air-travel-flying>
- Friends of the Earth Europe (2000): „From Planes to Train. Realising the potential from shifting short-haul flights to rail. Brussels
- Bund für Umwelt und Naturschutz Deutschland (BUND) u.a. (2015): NGO-Luftverkehrskonzept (NGO aviation conception for Germany: summary in english). Berlin. https://www.bund.net/fileadmin/user_upload_bund/publikationen/mobilitaet/mobilitaet_ngo_luftverkehrskonzept.pdf
- Friends of the Earth Europe (2018): Sufficiency: moving beyond the gospel of eco-efficiency. Brussels. https://www.foeeurope.org/sites/default/files/resource_use/2018/foee_sufficiency_booklet.pdf
- Stefan Gössling, Paul Upham (2009): Climate Change and Aviation. Issues, Challenges and Solutions. Earthscan. London.

Working Group 4: Moratoria on new airport infrastructure, and scaling down of airports

Facilitation: Elli, Am Boden bleiben pirelli_64@riseup.net & Nuria Sanchez-Blanquez, Ecologistas en Acción transporte@ecologistasenaccion.org

“Ultimately, an uncomfortable and familiar conclusion for aviation remains: a moratorium on airport expansion at least in wealthy nations is one of the few options available to dampen growth rates within a timeframe befitting of the 2 °C target.”¹ ~ Alice Bows-Larkin, 2014.

► 1. Short summary of strategy/measure

The rapid growth of aviation demands new infrastructure. Simultaneously, new or bigger airports demand growth in flights. 550 new airports or runways are planned or being built around the world, plus runway expansions, new terminals etc, in all more than 1200 infrastructure projects. Most of them involve land grabbing, the destruction of ecosystems and local pollution (noise/traffic/particles/etc.). The Environmental Justice Team together with Stay Grounded and the Global Anti-Aerotropolis Movement have made a map showing more than 40 conflicts related to airport infrastructure: <https://stay-grounded.org/map/> and <http://ejatlas.org/>

Effective resistance against airport projects can prevent those negative effects, and counter a lock-in to an emissions-intensive, destructive form of mobility for decades into the future. It also makes abstract issues such as emissions become tangible. With activist networks that connect

different local struggles, by sharing experiences and joining forces, we can build up pressure to tackle the root causes of aviation growth and climate change.

By definition, a moratorium is an officially-ordered delay or suspension of an activity or a law. In a legal context, it may refer to the temporary suspension of a law to allow a legal challenge to be carried out. In our case, an “airport moratorium” is a building moratorium that halts the construction of a project or projects. Building moratoriums are imposed by cities, towns and the courts, and for a variety of reasons. In addition, a moratorium can be short-term or indefinite, depending on the project and the area where it is located ².

A moratorium on expanding an airport doesn’t lead directly to a systemic change. However, many such demands, especially if made in the Global North, could call into question the stability of the current system.

► 2. State of the art: Does this measure already exist somewhere?

As far as we know, there is no country yet that introduced the measure on a national scale, prohibiting the construction of any airports and airport infrastructure projects at all. We only found that there are judicial processes for establishing a moratorium against special airports on a regional scale.

- **Munich Airport:** In 2012, in a referendum most of Munich’s population voted against the construction of the new runway at the city airport. The Bavarian government established a five-year moratorium in 2018. The expansion would mean an increase from 90 to 120 departures and landings per hour. During its campaign in the latest Bavarian regional election, the new government promised to stop any airport expansion, and once in power it agreed the limited-time moratorium. The project is only suspended, still retaining its prior approval. Whether the moratorium will have a long-term effect or not is still uncertain. ³
- **Vienna Airport:** in March 2017 an Austrian administrative court blocked the construction of a third runway at Vienna’s Airport because it would go against the country’s commitments with the Paris agreement. ⁴ The court decision considered climate protection more important than any interest in jobs or better aviation infrastructure. ⁵ The airport company appealed the ruling saying it would violate essential rights such as freedom of ownership, freedom to carry on a business and the principle of equality. Shortly after, the decision was remanded to the lower court, and after further proceedings it announced approval for the construction of the new runway. ⁶
- **Idaho Falls:** there was a moratorium of development of land surrounding the Idaho Falls Regional Airport but only for six months. ⁷
- **Mexico city:** the project of a new airport in Mexico city in the dry lake bed of Texcoco was launched at the beginning of this century but has been cancelled twice because of local and national opposition and might be cancelled for a third time.
- **Other cases of successful moratoria:** We want to be inspired by previous successful or half successful moratoria such as the atomic moratorium in Germany ⁸, the coal moratorium in the US ⁹ and the international whaling moratorium. ¹⁰ (Information on this point will be distributed in a separate sheet prior to the workshop). Any other example is very welcome.

► 3. Advantages of the approach to fight for (national) (or EU) airport moratoria and limiting the number of airports

- The introduction of this measure would signal the precariousness of long-standing transport policy. This public visibility could be a turning point where aviation gets labeled “a climate killer”.

- When airports expansion is not possible, airlines or nations will need to cap their flights.
- A moratorium will be a relief for people and communities threatened by any airport expansion and the noise and pollution involved
- If this measure is implemented EU-wide, the aspiration of expansion and competition among European airports might disappear.
- Most regional airports write red numbers and are highly subsidized, so there are also economic reasons for reducing the amount of smaller airports.
- We should expect lower opposition for this measure than for other measures, from the point of view of the passengers.
- The measure is socially just in a way that it does not create new social injustice. On the other hand it also doesn’t change anything about the unjust access to mobility that already exists.
- A moratorium must include all types of airport infrastructure projects (Aerotropolis, Special Economic Zones, deportation custody)

► 4. Disadvantages of a national (or EU) airport moratorium

- One could argue: an Airport Moratorium alone is not enough. The number of departures and landings at the existing airports must be dramatically decreased. So the measure does not degrow aviation, and allows the existing level of air traffic.
- The demand for a worldwide moratorium on airports doesn’t take into account the differences of the status quo in the countries and therefore might be considered unjust.
- Airport moratoria might be hard to accomplish on a single airport scale because of the existing competition between different airports.
- Stopping growth of airports or even reducing airports will face opposition by workers and trade unions, if there are no good alternative plans
- While we are advocating for an airport moratorium we must already think about demolition of airports.
- It is necessary to make the bans permanent.

► 5 Questions to discuss

It would be interesting to discuss the following questions in our working group (more questions can be added):

- How can we demolish the assumption, that airport growth leads to more jobs and wealth in the region?
- How can we avoid that such a decision becomes a sacrificial tradeoff against other potential rulings, such as a night flight ban?
- How can we avoid getting only a tenuous moratoria that could be canceled in the next legislation period?
- How do we combine demands for moratoria with demands for scaling down existing airports.

► 6 Literature

- Alice Bows-Larkin (2015) All adrift: aviation, shipping, and climate change policy, Climate Policy, 15:6, 681-702, DOI: 10.1080/14693062.2014.965125
- Rose Bridger (2015): What is an Aerotropolis, and Why Must These Developments Be Stopped? <https://antiaero.files.wordpress.com/2015/03/gaam-whats-an-aerotropolis2.pdf>

Working Group 5: Institutional change of travel policies

Facilitation: Tone Smith Spash, freelance writer and activist (tone.smithspash@a1.net)

► 1 Short summary of the strategy/measure

Travel policies mostly follow this pattern: the cheapest and fastest way to travel will be refunded. This supports the current norm of flying for convenience, and often forces people to take the plane even if they don't want to. Little has so far been done by societal organisations (i.e. businesses, public sector, NGOs) to change this environmentally harmful practice although it could make a large difference to their carbon footprint. However, some organisations are now starting to put in place more progressive travel policies, often initiated from below (it seems). These vary from voluntary measures (e.g. you can take the train if you want) to strict rules (e.g. ban on short haul flights).

Which policies to recommend or pursue, depends on the perspective or vision one has with respect to what such kind of policies should achieve. This in turn depends on the implicit or explicit theory of change (practice theory, behavioural theory, social psychology, institutional theory). Generally, whether strict or not, organisations' travel policies are meant as a way to start a change of norms and behaviour, and more broadly to raise awareness as to how harmful this activity is. Most of the time, those initiating fly-less travel policies admit that such policies will not be enough for the change needed, and that much more needs to be done. Still, individual action and organisations' policies can work as a bottom-up political action to create conditions for institutional change (e.g. regulations and norms) more generally.

► 2 State of the art

Does this measure already exist? Where/who? (a selection):

1. Universities and departments (e.g. Lund (LUCSUS), Copenhagen, UCLA, Ghent)
2. (Environmental) research centres (e.g. Tyndall centre)
3. Municipalities (e.g. Malmö)
4. Cultural centres (e.g. Helsingborg concert hall)
5. Media (e.g. Politiken - DK daily newspaper)
6. Public organisations (e.g. BBC Worldwide, UK Environment Agency, AT Environment Agency)
7. Private firms (e.g. Lush, Novo Nordisk)

Types/categories of travel policies:

The main (identified) forms of travel policies, which can also be seen as „degrees“ of enforcement:

1. allowing employees to take the time needed to travel by train (and pay any extra costs),
2. actively encouraging environmentally friendly travel or less travel, or
3. imposing more sustainable travel arrangements.

Elements of travel policies

- Relative vs. absolute: Some companies introduce absolute rules, e.g. Ghent University who banned reimbursements for plane travel to any location within a six-hour train ride. Others encourage staff to reduce their emissions (decision tree), and focus on calculating personal efforts, e.g. Tyndall Centre.

- Individualist vs. communal: In Lund you have to justify to yourself any travel made, but this could be made more formal/communal.
- Focus on reduced emissions (relative) vs. what would be a good way to behave/a sustainable way of travelling.
- Some focus on economic incentives, like internal fee payment/offsetting or subsidies (e.g. UCLA). Offsetting emissions from flights is indeed one of the most often used measures by institutions - it just means a little bit higher costs, but no real change in behaviours and policies, and is according to several studies basically useless in terms of emissions (see e.g. Öko-Institute 2016).
- Levels of priorities: video conference over travel; train/boat/bus over flying
- Travel policy include guests as well as staff and management
- Work vs. holiday/private travel: While most companies focus on work travel policies, others encourage and reward avoided personal flying (e.g. give extra days off for travelling slow during holidays). An example is WeiberWirtschaft, Berlin. Also promoted by UK charity 1010uk.org.
- Get environmental certifications (ecolabels etc): However, those are often not explicit about flying.

Best practices/ideas - examples:

Many organisational travel policies are of a voluntary kind, and hence theoretical rather than actualised. We need good model policies for others to learn from. Are the absolute rules (bans) the best practices? They will clearly be the most effective in terms of direct emissions cuts. Some examples:

- Some organisations are considering a ban on domestic/short-haul flights or even avoiding planes within Europe (suggested criteria: <1000 km, <12 hours) (e.g. Sweden and Switzerland discuss introducing bans on short haul flights for MPs/government).
- Some already introduced such bans (BBC Worldwide in 2009: staff can only fly when travelling by train adds more than three hours to the journey; companies signing up to <https://einfach-jetzt-machen.de/> promise to avoid domestic flights and flying for shorter than 1000 km).

Fame and shame:

- Some organisations have prize awards for the most environmentally friendly means of travel to a conference, e.g. the European Society for Conservation Biology.
- Should we make competitions where universities/organisations/companies are assessed against each other on the best travel policy (benchmarking, „naming and shaming“ etc.)?
- Shaming campaigns, e.g. #flyskam? A candidate for shaming could be the European Commission, who don't allow invited guests to take the train if the journey is too long!

► 3 Advantages

- Feasibility: Easy to implement and get acceptance. Seen as less coercive when it comes from the company management than if imposed from the state/government (and even more so if the policy is voluntary)
- A soft way to raise awareness about routines we have stopped questioning, and to make people try out other ways of travelling
- New travel practices in work life might also have effects on how we live and travel in our daily (private) lives

- Organisations can inspire each other
- General policies can change with private examples leading the way and showing what is possible
- Can contribute to pressure governments to cut the unfair privileges of aviation
- Can have a huge impact if centrally decided public sector travel regulations (e.g. the German Bundesreisekostengesetz) are changed, since these often inspire firms' travel policies/re-fund policies, and also apply to organisations receiving public funding (e.g. universities, NGOs)
- It could be an advantage for organisations to have staff traveling by train, since working conditions there are generally better than on planes.
- Fly-less policies might potentially be attractive if they also include travelling less (e.g. by using video-conferencing instead), especially for employees with care responsibilities (e.g. small children). There is also a gender dimension to this: as men generally fly more, reducing flying may make conditions more even
- A bottom-up measure which can be combined with any other initiative of a more public policy kind

▶ 4 Disadvantages

- Focused primarily on awareness raising & behavioural change (rather than on structural change)
- Individualist focus
- Voluntary - hence dependent on the good will of organisations - probably of progressive and ecological ones, while big business continue using speed and emissions intensive practices
- Can be misused for greenwashing and PR
- Many of the new travel policies put in place, for example in universities, are to a large extent based on criteria or elements that are usually associated with a neoliberal management culture focusing on performance, benchmarking and transparency. They include voluntary measures and nudging rather than absolute bans. It might be worth discussing how these kinds of measures are perceived with respect to a radical agenda and policy for system change and social-ecological transformation.

▶ 5 Questions for discussion

- How to get governments, municipalities, universities, (environmental?) NGOs, trade unions and other organisations to take the lead and serve as role-models by implementing travel policies that support the most sustainable way of transport?
- Does sustainable travel necessarily mean higher travel costs and more time spent on traveling in total? Some evidence against this (e.g. BBC Worldwide), although it seems to be the general perception.
- What do we see as the best-practices? Voluntary schemes or drawing hard lines? Is one kind of travel policy more appropriate for some sectors than the other?
- How can changes in travel policy be fostered? It seems like it is often that individuals initiate this from below, rather than the management doing it from the top. What about the role of the trade unions in establishing progressive travel policies? How to encourage those who already travel environmentally friendly to share their experiences and be more proactive in policy development (vs. afraid of moralising)?
- Should we promote mandatory travel policies, where the management is obliged to elaborate a travel policy based on discussions with their staff? And more broadly: How to get the trade unions more involved in this topic?

- What about travel agencies? They are notoriously bad at providing good information on non-flying travel alternatives. Do they need to be part of a strategy for promoting this measure?

▶ 6 Literature & links

- Burian, Isabell (2018): It is up in the air. Academic flying of Swedish sustainability academics and a pathway to organisational change. LUCSUS Master Thesis, no 2018:013, Lund University.
- Kimberly, N. & S. Wynes (2019): Changing Behavior to Help Meet Long-Term Climate Targets. World Resources Institute. <https://www.wri.org/climate/expert-perspective/changing-behavior-help-meet-long-term-climate-targets>
- Öko-Institut (2016): How Additional is the CDM? <https://www.oeko.de/publikationen/p-details/how-additional-is-the-clean-development-mechanism/>
- Wynes, Seth et al. (2019): Academic air travel has a limited influence on professional success. Journal of Cleaner Production, Vol. 226, pp. 959-967.

Web-links to interesting examples of organisations' travel policies:

- Lund: <http://www.kimnicholas.com/academics-flying-less.html>
- Tyndall: https://tyndall.ac.uk/sites/default/files/tyndall_travel_strategy_updated.pdf

Web resources:

- Academics flying less: <https://academicflyingblog.wordpress.com>, <https://noflyclimatesci.org/>
- Environmental Studies Association of Canada: <https://esac.ca/climate-change-academia/>
- <https://esac.ca/wp-content/uploads/2018/09/REPORT-Climate-Change-and-Academia-ESAC-CSDH.pdf>
- Newspaper coverage of travel policies:
- <https://www.theguardian.com/environment/2009/oct/05/network-travel-and-transport>

Working Group 6: Fostering Alternatives

Facilitation: Irene Iniesta-Arandia (irene.iniesta@uab.cat)

▶ 1 Short summary of strategy/measure

Not only are plane tickets very cheap, the lack of good and affordable alternatives also pushes people to fly. At the same time, the hypermobile lifestyle some have developed over the last few decades must be questioned – maybe a form of decelerated societies are also part of the solution, as the Slow Food or an emerging Slow Travel movement are proposing.

First steps towards a sustainable transport system can be:

Night-trains and buses, improved international booking, improved transfers and affordable tickets (making train travel less expensive than flying).

When it comes to crossing the ocean, investment in ships propelled by solar, wind and maybe some renewable fuels (other than biofuels) is needed. Work travel can partially be shifted to online conferences. In general, shifting economies based on transnational trade of goods to more localized economies would be needed.

The aim here is climate protection, not nationalist-style protectionism. This can and needs to happen alongside maintaining multi-cultural and open minded societies.

► 2 State of the art, Advantages and Disadvantages of different measures

► 2.1 Shifting flights to (night) trains and buses:

The existence of trains, night trains, long distance or overnight buses differs widely between countries and continents. In many countries where a railway does not exist, good bus systems provide for longer distance travel (like many Latin American countries). Night trains were common across Europe but most were discontinued in recent years, nearly to the point of extinction. ¹¹ They lost large portions of their market share to low-cost airlines and to high-speed trains and are disfavored by unfair policies and lack of cooperation between train operators and between national authorities. ¹² The Swedish government announced in 2019 that it will fund the creation of overnight train services from Sweden to the European mainland.

Today, a common opinion among European professionals is that a rail journey time of four hours is a reasonable alternative to flying. Still, even this shift hasn't happened so far. Proactive rail companies, intensive public debates and bans of short haul flights are needed to make this modal shift appealing - especially if we want to replace more than just extremely short flights. Also, it is necessary to have train connections to bigger airport hubs so that short haul transfer flights can be avoided.

Also needed are improved international booking, affordable tickets and improved transfers between trains (e.g. night trains and day train connections). For now, there are just few websites that help people taking trains or ferries to find ways to book trips at affordable prices, like "The Man from Seat 61": <https://www.seat61.com/index.html>

Back on Track is a European network to foster European cross-border passenger train traffic and in particular the night trains (<https://back-on-track.eu/>).

Advantages: Even buses and trains powered by diesel have lower climate-harming emissions than flying, and trains powered by green electricity are far better. These alternatives are easier to access, train or bus stations are well connected to local public transport systems, they don't imply check-in and security checks, they provide for greater flexibility (booking a ticket the day of travel), and the time on board can, thanks to common onboard Wi-Fi, be used for working. If the journey is overnight the cost of accommodations is avoided.

A study by FoE Germany (BUND) found that 200.000 flights from German airports - which is about two thirds of all domestic flights - could be replaced by trips of less than four hours on existing ICE-trains. A recent study for the German Environmental Agency (Umweltbundesamt; not yet published) confirmed this order of magnitude.

Disadvantages: Travel can take longer than by plane, although travel to a remote airport and check-in time should be considered. There is not yet a single centralized ticketing system which could sell you a ticket for any train in Europe. Outside Europe, some countries have extensive rail networks but others do not.

Some argue that high speed trains are the only feasible alternative to flights. But there are problems involved: 1. energy use rises exponentially with speed, so high speed trains are extremely energy intensive. There are also high CO₂ emissions from producing the cement and steel used in construction. 2. trains still don't run 100% with renewable energy, which would

need to be changed soon, and 3. creating extra new train lines for high speed trains can be very complicated - they cut straight through the landscape (since tighter curves aren't possible), and can lead to resistance because of loss of livelihoods and biodiversity (see No TAV movement in Italy). So it could be discussed if there is a socially and ecologically acceptable limit for speed.

► 2.2 Ships with renewable propulsion:

Overseas travel was more common by ship than by plane until the 1970s. For such, ships could still be an alternative to flying. Currently, there is almost no existing passenger shipping. Cargo or cruise ships usually use heavy oil as fuel, which is why shipping is a growing source of greenhouse gas emissions and is also a major source of air pollution, causing health problems, acid rain and eutrophication. Like aviation, the sector's international emissions were not explicitly mentioned in the Paris agreement. The United Nations' global shipping body, the International Maritime Organisation (IMO), needs to act now, while countries in parallel need to include shipping in their own calculations and reduction commitments. Apart from the need to reduce international trade in goods and to strengthen regional economies, technological improvements would need to be implemented quickly, in order to replace heavy oil with a mix of renewable alternatives like wind, solar, battery-electric, hydrogen or ammonia.

There are some small examples of alternative shipping:

- Fairtransport (<https://fairtransport.eu/>), based in the Netherlands, is the first modern "emission free" shipping company, that uses only the wind as a means of propulsion. Their ships sail between Europe, the Islands in the Atlantic, the Caribbean and America with a focus on transporting special products which are organic, or crafted traditionally - such as Olive Oil, Wine and Rum. The ships also carry passengers offering the opportunity to travel around the Atlantic emission free. Fairtransport is a member of the Sail Cargo alliance, an alliance of sailing cargo vessels which also carry paying passengers.
- e-Ferry - zero emission commercial ferry powered by rechargeable batteries connecting the Danish part of the Baltic Sea and the island of Aeroe (Ærø) to the mainland: <http://e-ferry-project.eu/>
- The project "Race for water" campaigns on plastics in the sea, and uses a ship powered by solar, wind and hydrogen: <https://www.raceforwater.org/en/>
- "Sail to the COP" is a project where a ship and a crew of activists will sail from Germany to Latin America and make an action at the climate summit in Chile in December 2019, in order to raise awareness of the problem of aviation: <https://www.sailtothecop.com/>

Advantages: The journey is part of the adventure. It's possible to gain sail training experience which can enable sailing with other vessels in other parts of the world.

A longer ship trip offers the opportunity to take time off, relax, escape the ever-increasing pace of life, use the time for yourself.

Disadvantages: Ship travel not only takes much longer than a plane, but is currently also more expensive than flying. Trips by ship are very marginal and something for adventurers or people with enough money.

Using traditional sailing ships, only specific routes can be made, and at certain times of the year when the winds are reliable.

► 2.3 Telephone or Video Conferences:

Work travel can be reduced a lot by introducing phone or online conferences. Online methods can be used for interviews, conferences (like this one), workshops (“webinars”), or “Hybrid Learning” (to communicate with one or more remote students or faculty in a classroom environment synchronously with video and content). While skype used to be the most common means, in the last years, many more providers have established well-functioning systems, some of them for free, some of them paid, some less secure, others encrypted. There are real-life examples for how conferences can be organized with online attendees and presenters, in ways that are inclusive and function well.

- The network ecolize is developing an inclusive concept for online participation at conferences, which includes the remote participants into the social aspects of a conference like meals, coffee breaks etc. See <https://www.conferize.com/ecolize/2019-ga/no-travel>
- Virtual reality (VR) is growing and improving by the minute. There are companies already offering VR platforms for meetings (e.g. <https://meetinvr.net/> and <https://portalspaces.com/>).

Advantages: This alternative saves lots of emissions and money, reduces paper consumption waste and plastic, saves time and increases flexibility. Establishing online conference systems is also cheaper than paying lots of flights.

Disadvantages: Online conferencing is definitely more climate friendly than flying, but it needs to be kept in mind that online communication is not emission free. In fact, it is said that the internet in total produces about 2% of the world’s CO2 emissions. Another problem of treating information only online are security breaches and privacy issues. Also, it will always be necessary for certain personal relationships to see each other in real: feelings, friendships, emotions are hard to deal with when talking to a computer. But in many cases, work meetings and conferences can still be attended online.

► 2.4 Degrowth of travel & an economy of short distances

As we saw, many alternatives have their disadvantages: Their energy use is not zero, and some are still way too marginal. Not everything can be shifted from the plane to other modes (train, bus, ship, online). Therefore, it is necessary to reduce the need for transport wherever possible, to degrow travel and the trade of goods. A change of lifestyles and a lessened quest for mobility may be hard to achieve but is needed. Historical data shows that the time spent to being mobile hasn’t changed much over the past 50 years in the UK. We travel further and faster but not more often.

Also, an economy of short distances is necessary. Freight transport accounts for a significant share of carbon emissions. Instead of aiming to triple the volume of transport by 2050, we need to reduce the demand for goods from far away and develop localised economies. Especially food could be grown as locally as possible, which would also serve the means of food sovereignty. The aim here is climate protection, not nationalist-style protectionism. This can and needs to happen alongside maintaining multi-cultural and open minded societies.

Advantage: This proposal addresses the systemic change needed. It shows that aviation is embedded in a broader picture of a fossil capitalist economy that will be hard to overcome with-

hout radically changing policies - not only for transport, but also for trade, agriculture, energy, financial system, etc.

Disadvantage: Practical measures are harder to come up with. For example, do we want to impose a tariff on products brought by plane or boat? This could promote economic protectionism and therefore fuel far-right ideologies. Also, if it is not done internationally, it could be easily cheated... At the same time, someone should set the example. Because of being systemic, this proposal faces lots of resistance and obstacles. In addition it is often referred to as unrealistic utopia. Still, it is necessary to achieve a degrowth in trade, consumption and fossil fuel use. Lots of joined efforts together with other social struggles (on food sovereignty, trade justice, etc.) is needed for this.

► 3 Literature

- Friends of the Earth Europe (2000): „From Planes to Train. Realising the potential from shifting short-haul flights to rail. Brussels.
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- Öko-Institut (2015 a): Emission Reduction Targets for International Aviation and Shipping. <https://tinyurl.com/pyhhwsy>
- Transport & Environment (2018): Roadmap to Decarbonising European Shipping. <https://www.transportenvironment.org/publications/roadmap-decarbonising-european-shipping>

Working Group 7: Tourism Degrowth

Facilitation: Filka Sekulova, ICTA UAB, Research&Degrowth (fisekulova@gmail.com)

► 1. Global tourism: environmental and social trends and impacts

When critically reviewing trends in global growth in tourism, the slogan of degrowth (Demaria et al. 2013) inevitably comes to mind. Tourism is a trillion-dollar industry, with arrivals/receipts growing at an annual of 3-5%, outperforming even international trade with economic gains of the sector blowing up to US\$1.2 trillion in 2016 (Travel & Tourism 2017, UNWTO 2016). The environmental impact of the sector is equally large (Gossling 2002), where transport scores highest in terms of its carbon footprint. According to Lenzen et al. (2018) tourist expenditure grew from US\$2.5 trillion in 2009 to US\$4.7 trillion in 2013, whereas the global carbon footprint of the sector grew from 3.9 to 4.5 GtCO₂, comprising 8% of total global GHG emissions. They find that the per capita carbon footprint increases strongly with affluence (wealthier people travel more), and decreases only weakly with improving technology. So far, neither efforts promoting responsible travel behaviour nor technological improvements have been able to bring down the increasing carbon footprint of tourism (ibid). Appallingly large are the impacts of tourism on biodiversity loss, soil erosion, water scarcity and water quality. Some may argue that the incomes from tourism be decoupled from its

environmental imprint. Historical evidence and natural thermodynamic laws however points to the contrary: the higher the growth of the sector, the larger its environmental footprint/devastation (Hickel and Kallis 2019).

In terms of the social justice implications of global tourism, stories of displaced communities, labour precarity and poor working conditions abound. Büscher and Fletcher (2016) argue that tourism is not only a form of material violence due to the commodification processes involved, but also a manifestation of structural violence which is made invisible. A number of authors furthermore find that tourism contributes to forms of social prestige and reflects neoliberal lifestyles based on consumerism, commodification and capitalist production (Blázquez Salom et al., 2016). Blázquez Salom and Cañada (2011) further unveil tourism functioning as placebo by failing the promises of bringing 'development' and social well-being.

► 2. Barcelona as a hot-spot

The case of Barcelona is a sad illustration of both the environmental and social consequences of tourism, and its exponential growth. Last year (2018), the airport of Barcelona had more than 50 million arrivals, supposedly reaching the limits of its capacity. Moreover, the port of Barcelona ranks highest in Europe by number of passengers (about 2.7 million in 2018). Barcelona Municipality in 2016 registered 31 million overnight stays and altogether 23 million visitors (Ajuntament de Barcelona 2017), an increase of more than 800% since 1990. The social, cultural, political, relational and daily-life implications and ramifications of that growth are tremendous. The Stay Grounded Coalition in Barcelona identified some of these impacts in a joint statement (see <https://stay-grounded.org/barcelona-a-city-exploited-by-tourism/>).

Likewise, the growth of tourism in Barcelona cannot be explained without the expansion of high-speed transport infrastructure – both train and aviation, making Barcelona one of the main tourist destinations in the Mediterranean zone. A recent study by Rico et al. (2019), for example, found that up to 82% of the tourists in Barcelona come by plane.

► 3. Policies for touristic degrowth proposed by social movements in Barcelona with a global relevance

As a way of curbing the devastating socio-environmental impacts of tourism, the social movements of Barcelona call for touristic degrowth with a number of emblematic proposals among them:

- Reduction of the number of visitors and overnight stays, by limiting the number of cruise ships and low-cost and intercontinental flights per day, coupled with a moratorium on the expansion of the airport;
- Permanent moratorium on the construction of new touristic accommodation and a reduction of touristic sleeping/accommodation placements;
- Reduction of the weight of tourism in the aggregate city economy, necessitating generation of alternative job-placements and economic enterprises that could replace touristically-oriented jobs and industries;
- Fair environmental taxation of cruise ships, aviation and touristic accommodation;
- Increase of the tourist charges for the services externalized to the public sector including the public transport, maintenance, cleaning and security of public space;
- An increase of the stock of public housing through different instruments, including public

investment and legal obligation to create social housing by the private sector (30% -50%) in new construction and rehabilitation works;

- A rent-freeze for at least 5 years, as in the case of Berlin (<https://www.bbc.com/news/world-europe-48677393>)
- Reclaiming the public space, scaling down tourist-oriented commerce and facilitating local shops and trading;
- Fair labor agreements for workers in the tourist sector; and creation of other jobs outside the tourist sector; in case there are not enough jobs an overall reduction of working hours from 40 to 30 (with a maximum level of payment) in order to share existing jobs is a possibility;
- Promotion of zero waste measures and lowering (GHG) emissions in the tourist sector;
- Moving from tourism management based on public-private undertakings (such as Turismo de Barcelona) to public-community management, where citizens can effectively participate through legal entitlement

► 4. Possible questions for discussion:

- Which of those are more socially just and more feasible? What are the pros and cons of price mechanisms versus limits/bans of certain practices?
- Can all those instruments be used in other overcrowded cities or countrysides? What could be differences in the application of such in the Global South?
- Does it make more sense to fight for local measures (like touristic limits at the Barcelona level) or national/international instruments like a tax on kerosene (airplanes) and heavy oil (ships)? Or both? What could be effective social movement strategies?
- Maybe a reflection of own travel and tourist behaviours and the underlying interests could be interesting, too.

► 5. Literature:

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STAY GROUNDED NETWORK MEETING AND CAMPAIGN KICK-OFF

On Sunday 14th from 5:00 pm to 8:00 pm there will be an internal Stay Grounded Network meeting.

If your organisation is already a **member** of Stay Grounded or if your organisation is interested in joining our planned **European campaign „Let's stay grounded“**, you're also invited to join this meeting. The campaign-meeting will continue on Monday morning (10 am to 1 pm).

You can find more informations on how to become a member and about the upcoming campaign at our website. (www.stay-grounded.org)

FEES AND DONATIONS

The participation fee serves to cover a small part of the food, interpretation, travels, infrastructure etc. We didn't want to stop people who do not have much money from coming, which is why we offered different prices (10€/30€/50€). If you participate only on Friday for the public events, we kindly ask for a donation for the food. If you didn't pay the fee yet you can do this also in cash at the information desk at the conference. Or you transfer it to our account:

Account name: Periskop - Kollektiv

IBAN: AT49 1420 0200 1098 0039

BIC: EASYATW1

Bank: Easy Bank

Purpose: (Your full name) - Stay Grounded Conference

For payment from outside of Europe please use: <https://stay-grounded.org/conference-participation-fee> (only possible with Credit Card)

We are also happy about any donation to support the continuous work of Stay Grounded Network.

ACKNOWLEDGEMENTS

All of this wouldn't have been possible without the help and support of so many organisations and individuals. We want to thank everybody involved in the preparation, organisation and carrying out of the conference. Together and in solidarity we fight for the vision of climate justice and are thankful for all the support we give each other in our growing movement.

We are very thankful for all the groups in Barcelona who have been preparing for month for this weekend and who have formed a great alliance and network between groups involved in the topics of aviation and tourism.

A special thanks goes to Mike Gilliland, Marta Marín Hernández, Carlos Marín Hernández, Sara Mingorría, the Editorial Descontrol, others that don't want to be named, and the community of Can Batlló who gave us this wonderful venue and supported us with printing the program and making a Spanish version of the study "The Illusion of Green Flying" right before the conference.

Thanks to the facilitators of the working groups for their great work and for putting together the briefing papers.

Thanks to the note-takers, the supporters of the online participants and all the other volunteers who make this conference possible.

Thanks to the COATI collective for their support with interpretation equipment.

Thanks to all the interpreters for making this event accessible in different languages.

Thanks to all the speakers and facilitators of workshops for your contributions to the program.

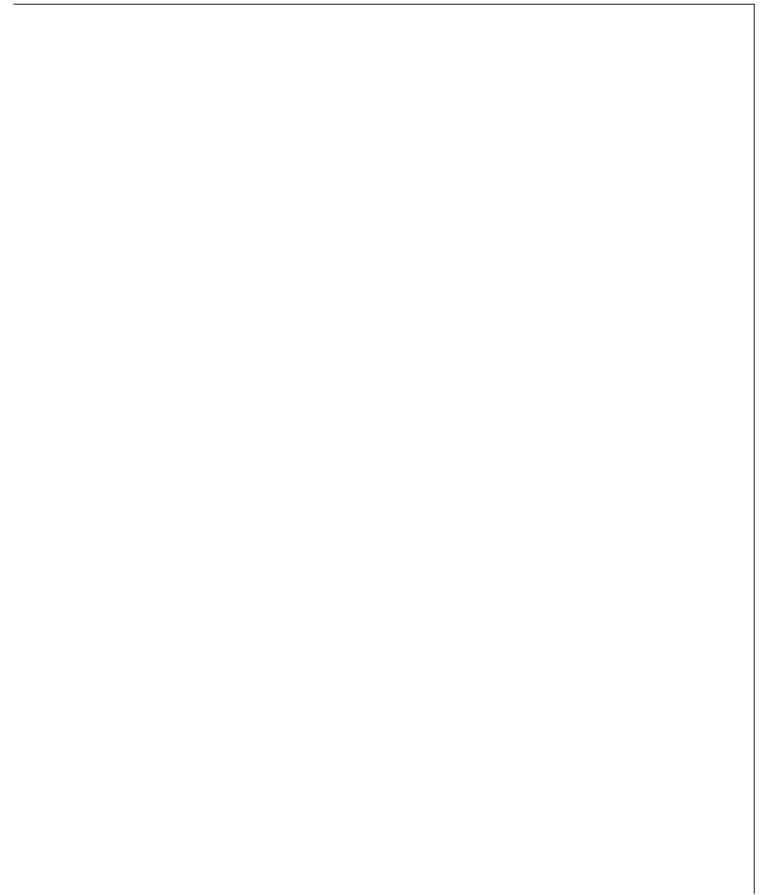
Thanks to Diego and others for the translation of so many texts from English into Spanish, and Anna for laying out this program.

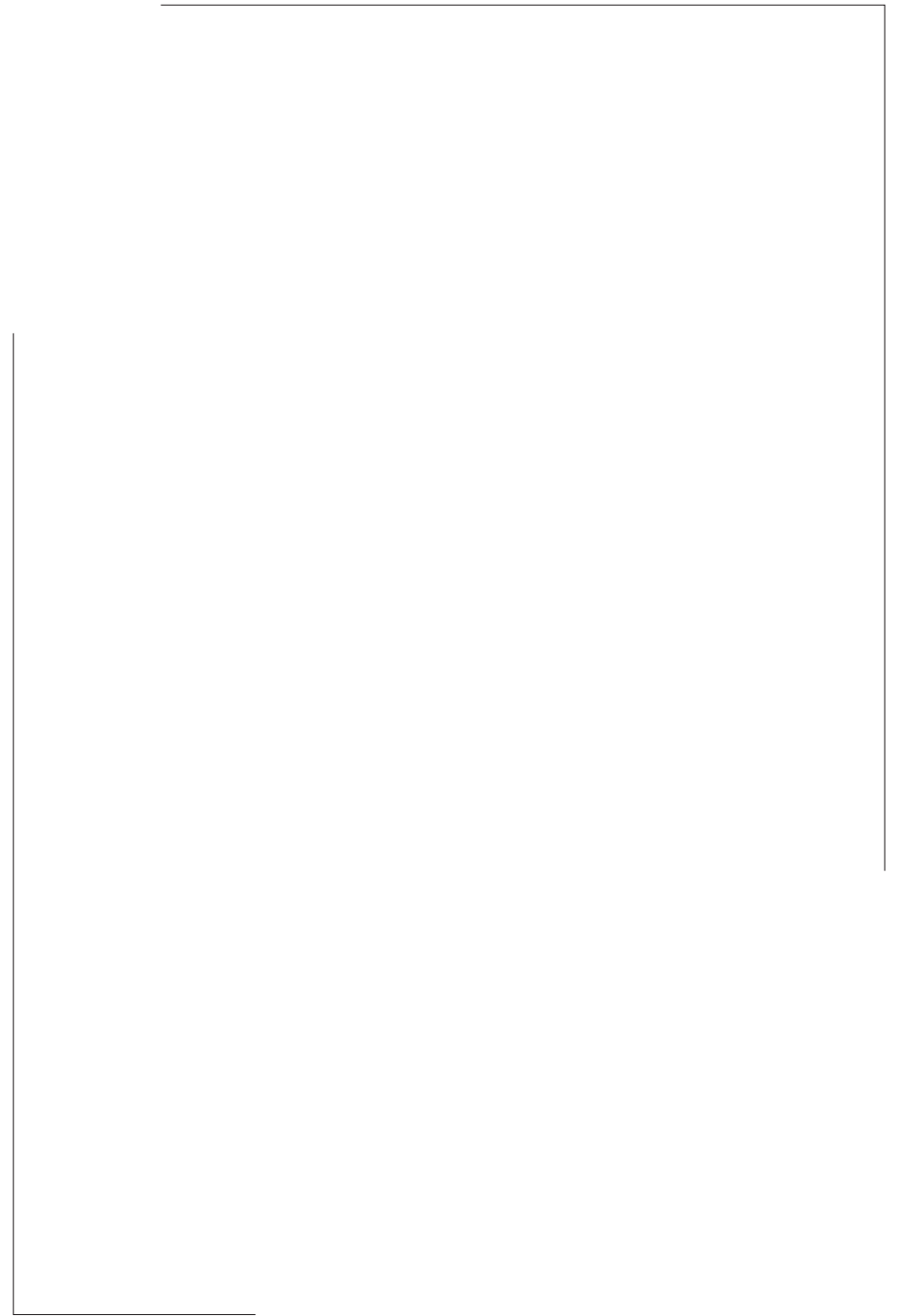
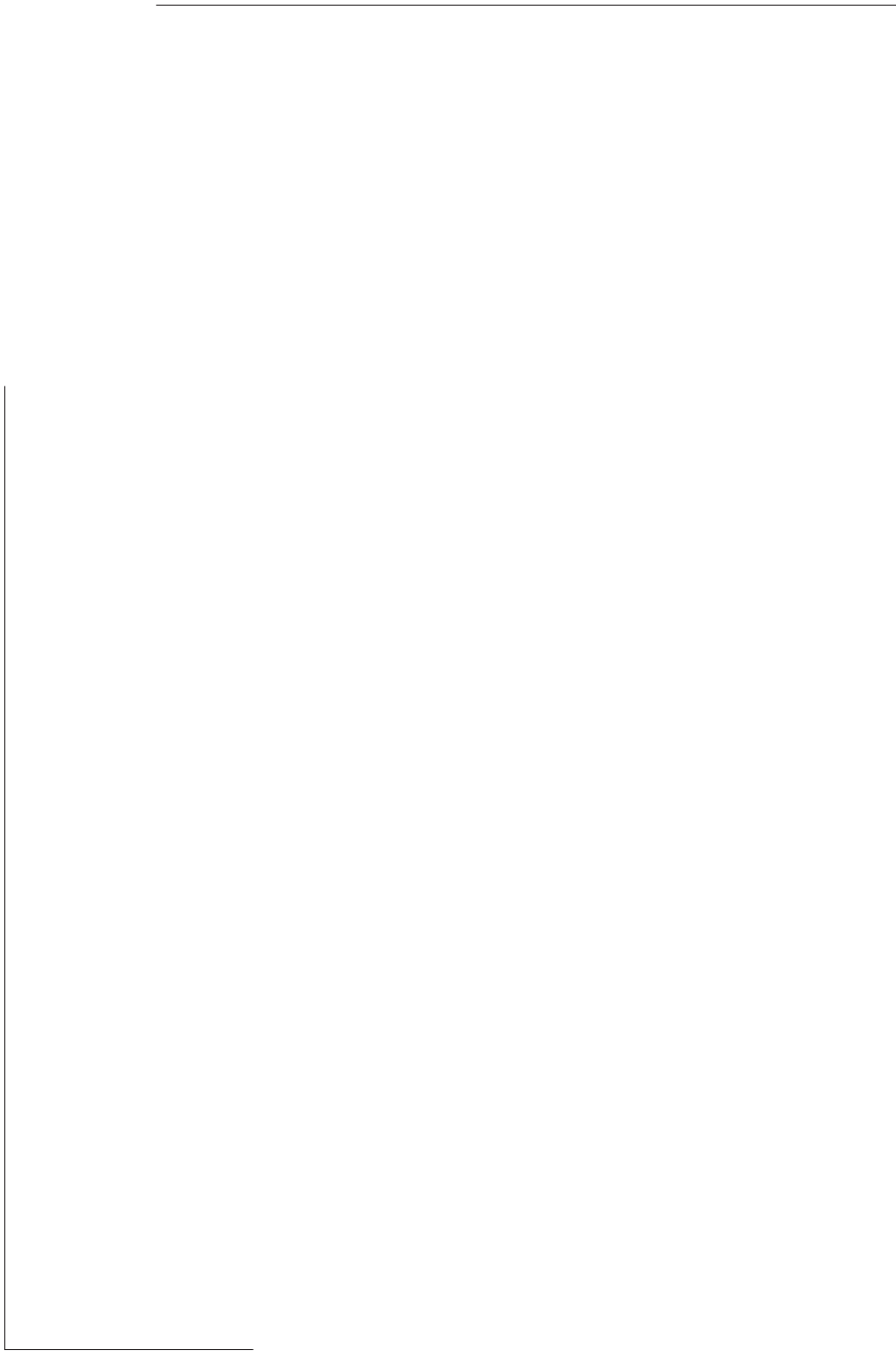
Thanks to the "turtles" (the Stay Grounded coordination team) and the whole Stay Grounded Network for supporting with your knowledge and your experience.

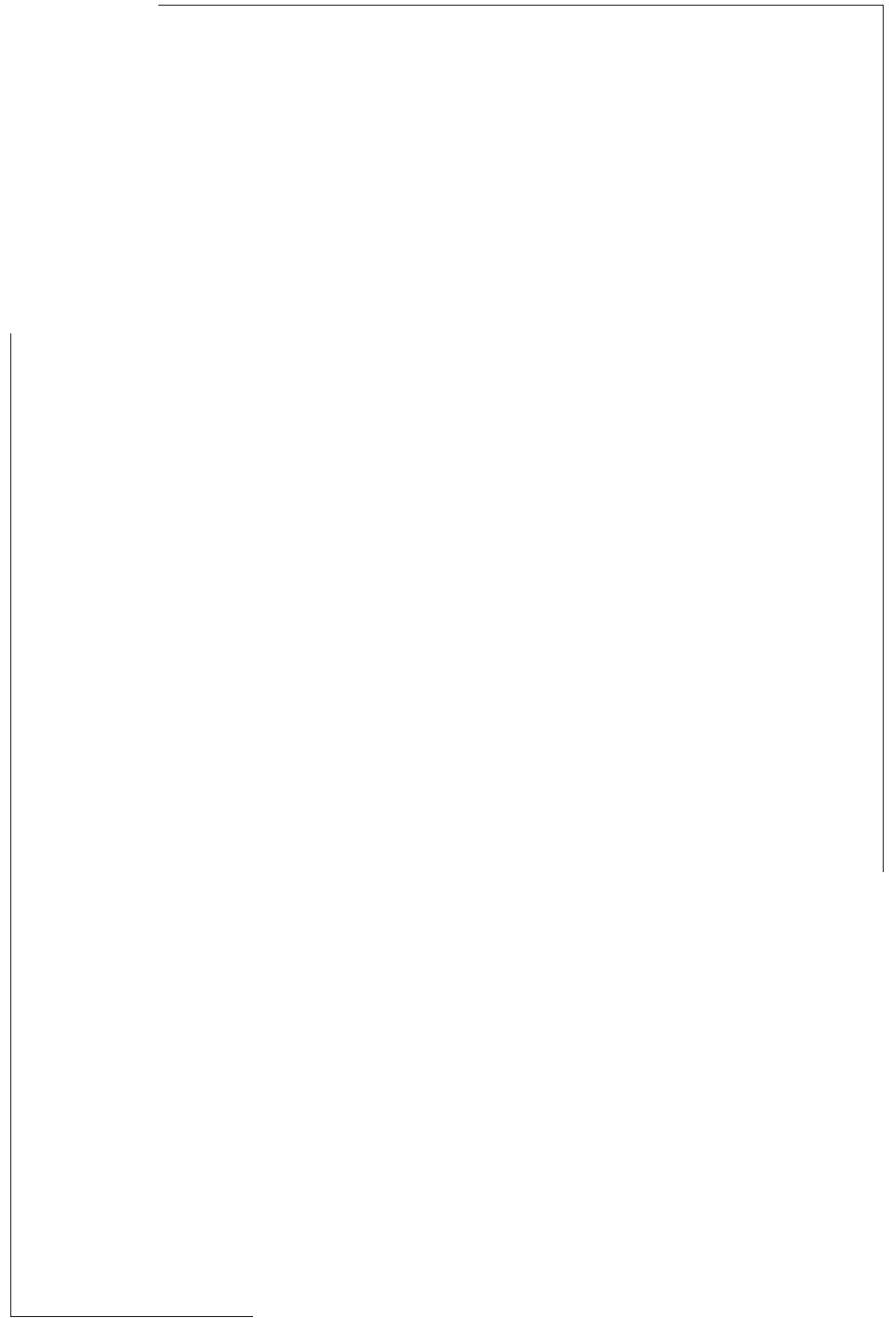
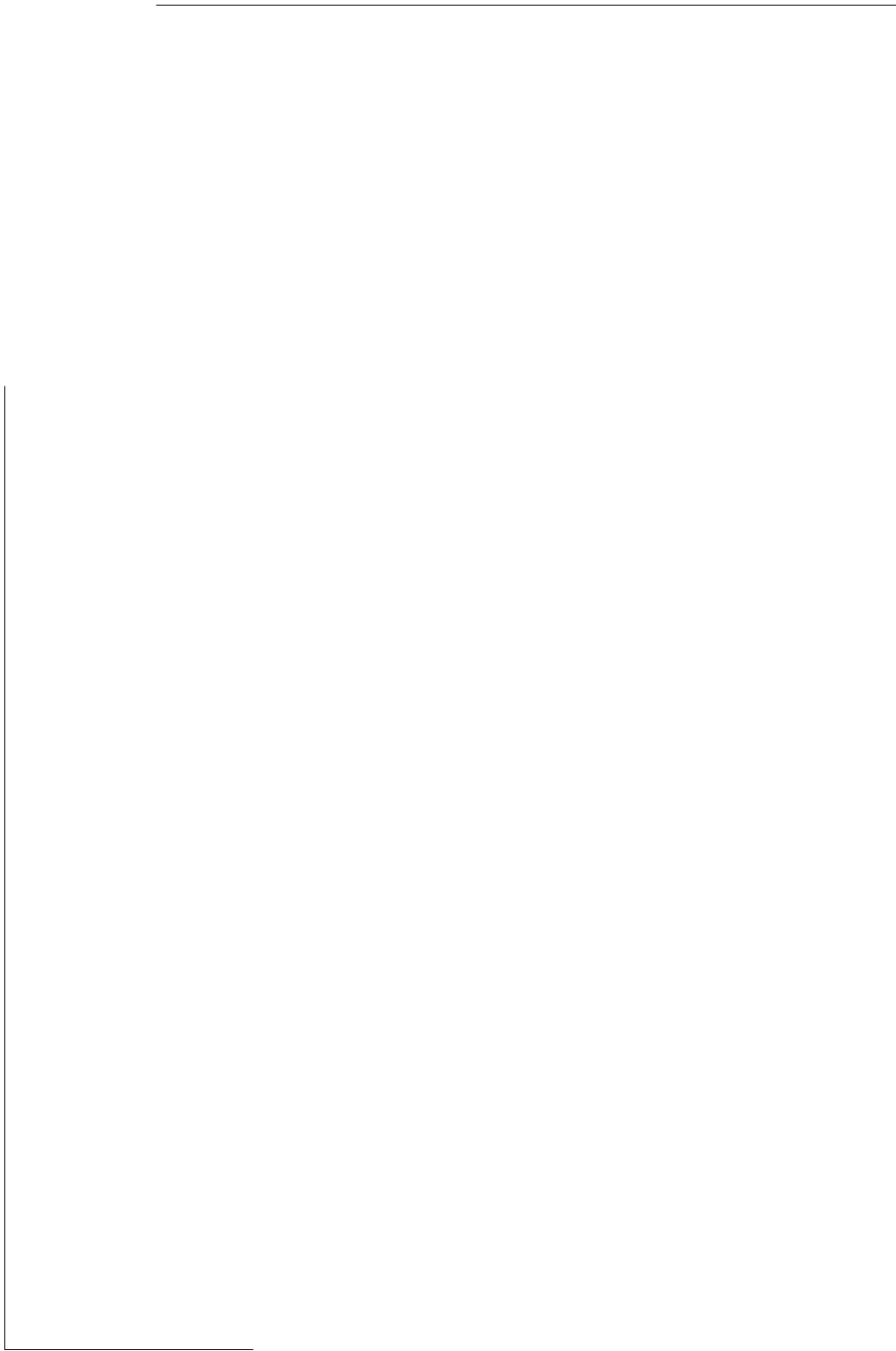
We also want to thank the Dreikönigs-foundation, the Lush UK foundation and the Guerrilla foundation for financing this event and continuously supporting the work of the Stay Grounded Network.

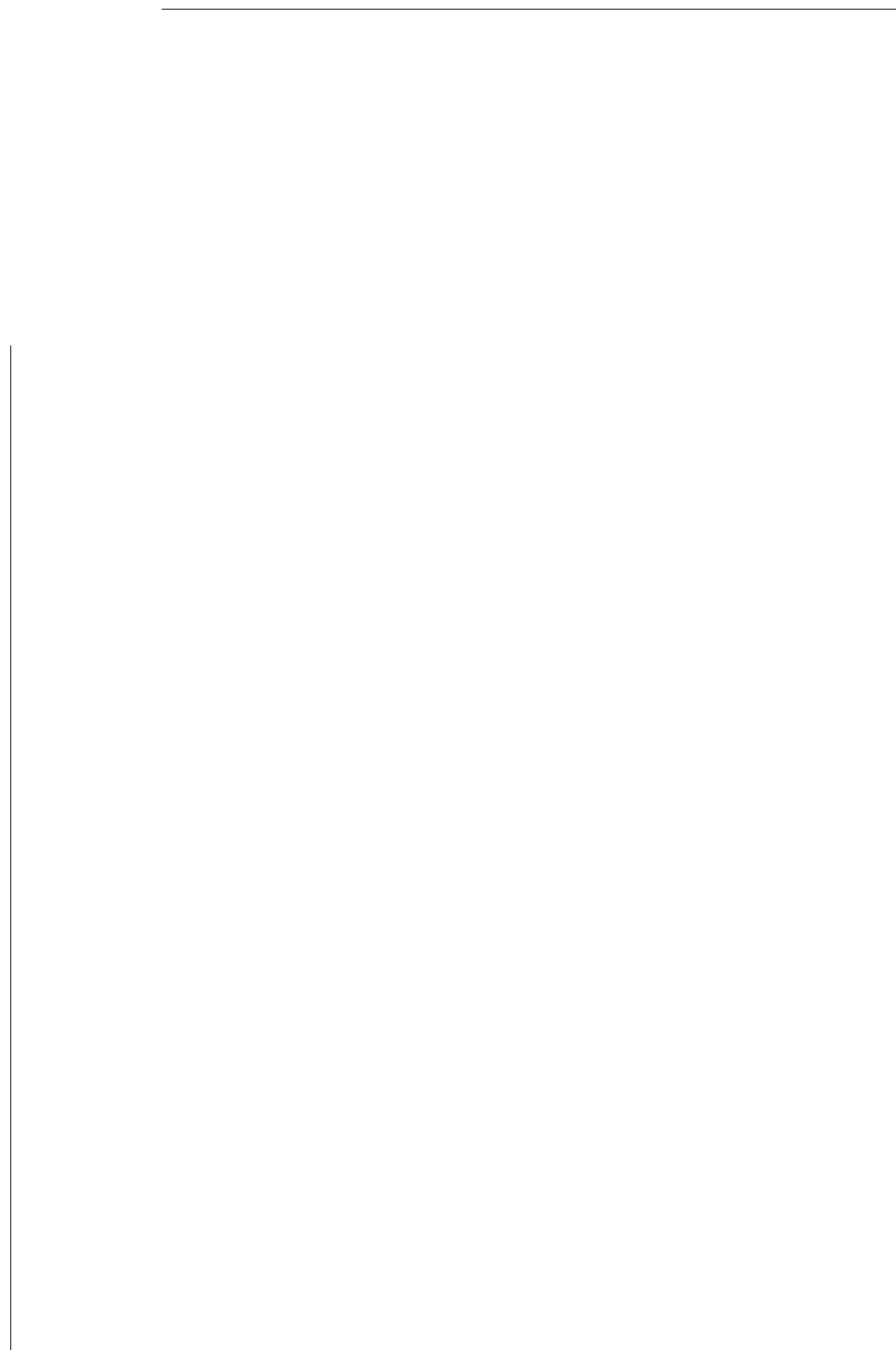
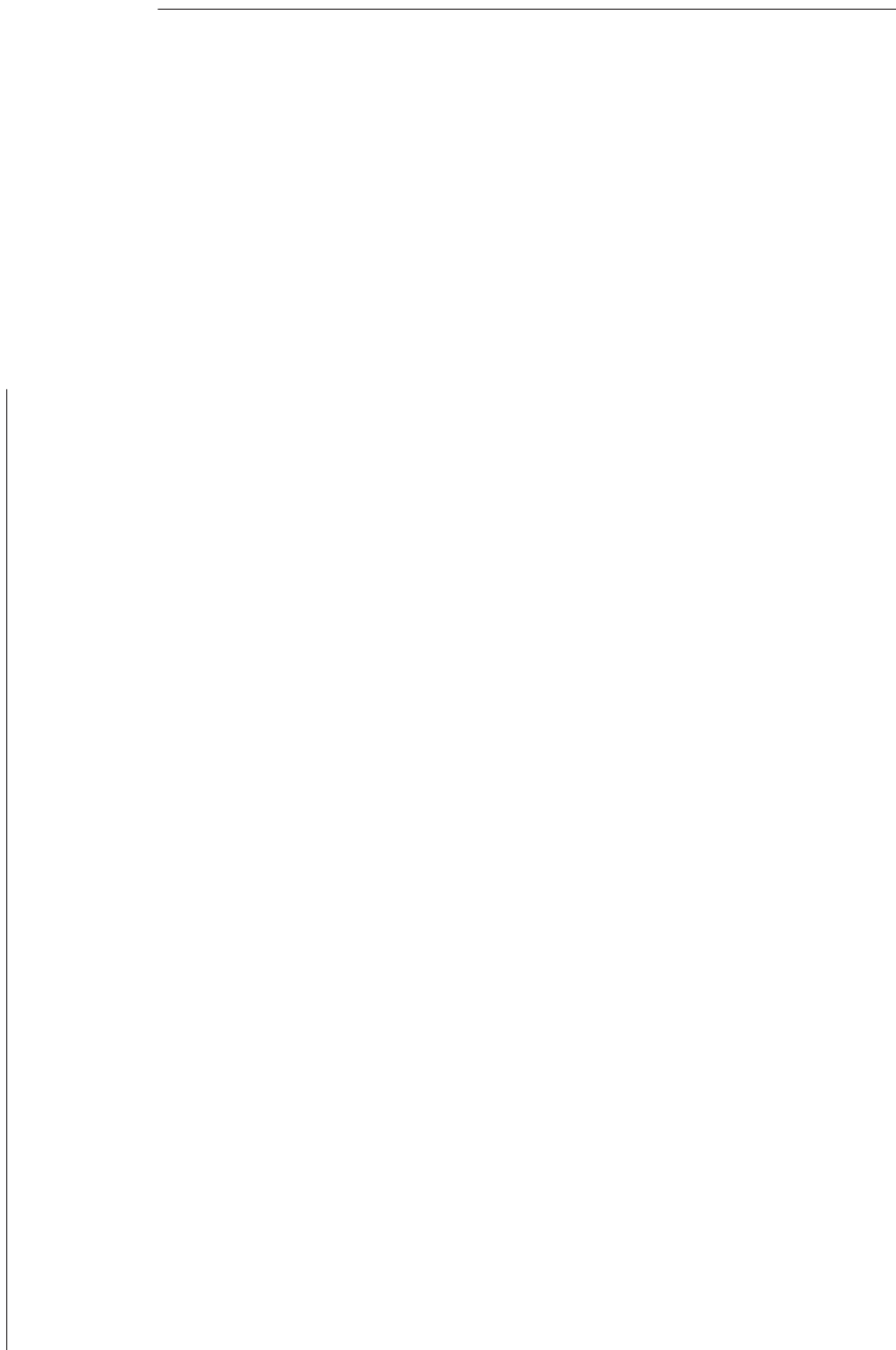


| NOTES













PROGRAM OVERVIEW

Conference on Degrowth of Aviation
at Can Batlló, Carrer 11 de Juny/Constitució 19, Barcelona

Friday 12th July

	SESSION		REMOTE
3:00 – 4:00 pm	Registration and Info-Desk	EN/ES	
4:00 – 5:00 pm	Welcome and Introduction, Check-In Performance (Arcana Collective)	EN/ES	✓
5:00 – 7:00 pm	Workshops		✗
	Stay Grounded an Introduction (Mira Kapfinger, Stay Grounded)	EN/ES	
	Degrowth and Aviation (Jöel Foramitti, Research and Degrowth)	EN	
	No to Greenwashing of Aviation (Magdalena Heuwieser, Stay Grounded)	EN	
	Visions for long-distance travel beyond aviation (Matthias Schmelzer, Konzeptwerk Neue Ökonomie; Francois Schneider, Research and Degrowth; Manuel Grebenjak, Stay Grounded)	EN/ES	
	The touristification and everyday life in the city, a feminist perspective (Blanca Valdivia, Col-lectio Punt6)	ES/EN	
	Weaving resistances from the conflicts of airports around the world (Sara Mingorria, EnvJustice, ICTA UAB)	EN	
	Participatory Mapping on Tourism in Barcelona (Yannick Deniaou, Geocumnes; Daniel Pardo, ABTS)	ES/EN	
	Direct action on aviation (Mara de Pater, Greenpeace Netherlands)	EN/ES	
7:00 pm	Coffee Break		
7:30 – 9:30 pm	Opening Event: Connecting the movements Inputs by Yayo Herrero, Gabriela Vega Tellez and Daniel Pardo Presentations by various local movements Discussion with the audience	ES/EN	✓
9:30 pm	Social Dinner		

Saturday 13th July

	SESSION		REMOTE
9:30 – 10:00 am	Welcome and registration		
10:00 – 11:00 am	Opening keynotes: Filka Sekulova (ICTA, UAB): Degrowth – an Introduction Stefan Gössling (Lund University): Understanding the barriers – what drives the aviation system?	EN/ES	✓
11:00 am	Coffee break		
11:30 am – 2:00 pm	Working Groups		✓
	1: Kerosin tax, ticket tax	EN	
	2: Progressive ticket tax, frequent flyer levy	EN	
	3: Caps on or bans on (short haul/domestic) flights	EN	
	4: Moratoria on new airport infrastructure and scaling down of airports	EN/ES	
	5: Institutional changes of travel policies	EN/ES	
	6: Fostering Alternatives	EN	
	7: Caps on tourism	EN/ES	
2:00 – 3:30 pm	Lunch		
3:30 – 5:30 pm	Working Groups continue		
5:30 pm	Coffee break		
6:00 – 9:00 pm	Joint conference Session: presenting and discussing the outcomes of the working groups statements by Giorgos Kallis (Research and Degrowth), Adrian Hassler (Am Boden bleiben) and a representative of the local movements	EN/ES	✓
9:00 pm	Dinner		
10:00 pm	DJ: Compadre Galo		✗

Sunday 14th July

10:00 am – 12:00 pm	Joint Performance against Aviation and mass tourism		✗
12:00 – 3:00 am	Break		
3:00 – 5:00 pm	How to proceed with the outcomes? in scientific research in movements in Barcelona in climate justice movement (Laura Machler, Am Boden bleiben) in NGOs (Lucy Giliam, Transport & Environment)	EN/ES	✓
5:00 – 8:00 pm	Internal network meeting of Stay Grounded network members	EN	✓

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