

SECTION 131 FORM

File With _____ S. 37

Appeal NO: ABP 314485

TO: SEO

Defer Re O/H ☐

Having considered the contents of the submission dated/ received 23/12/24
from

Bernadette Condy Byr recommend that section 131 of the Planning and Development Act, 2000
be/not be invoked at this stage for the following reason(s): no new issues

E.O.: [Signature]

Date: 2/1/25

To EO: _____

Section 131 not to be invoked at this stage. ☐

Section 131 to be invoked – allow 2/4 weeks for reply. ☐

S.E.O.: _____

Date: _____

S.A.O.: _____

Date: _____

M _____

Please prepare BP _____ - Section 131 notice enclosing a copy of the attached
submission

to: _____

Allow 2/3/4 weeks – BP _____

EO: _____

Date: _____

AA: _____

Date: _____

File With _____

CORRESPONDENCE FORMAppeal No: ABP 314485Please treat correspondence received on 23/12/24 as follows:

. Update database with new agent for Applicant/Appellant _____

. Acknowledge with BP 23. Keep copy of Board's Letter ☐

1. RETURN TO SENDER with BP _____

2. Keep Envelope: ☐3. Keep Copy of Board's letter ☐

Amendments/Comments

Resp Recd

4. Attach to file

(a) R/S ☐(b) GIS Processing ☒(c) Processing ☒(d) Screening ☐(e) Inspectorate ☐RETURN TO EO ☐Plans Date Stamped ☐Date Stamped Filled in ☐EO: [Signature]AA: F. [Signature]Date: 21/1/25Date: 21/1/25

Alfie Staunton

From: B BEYER <bbeyer2021@gmail.com>
Sent: Monday 23 December 2024 13:23
To: Appeals2
Subject: Bernadette Conaty-Beyer Observation RA 314485
Attachments: Bernadette Conaty Beyer Observation 314485 ABP Dec 2024.docx

Caution: This is an **External Email** and may have malicious content. Please take care when clicking links or opening attachments. When in doubt, contact the ICT Helpdesk.

Hi James,

Please see my observation attached for Relevant Action Draft Decision case number 314485.

Merry Christmas.

Kind Regards,

Bernadette Conaty-Beyer
085-8640064

To: Board at An Bord Pleanála
Re: Relevant Action Draft Decision – 314485
Date: 20th December 2024

Dear Board,

I request that you **REFUSE PERMISSION** for the Relevant Action Draft Decision. I was very disappointed to read in the draft decision the following;

1: 6am – 8am Departures only off the North Runway. This is absolutely unacceptable. This type of decision is life changing and detrimental to our communities especially our children and future generations. Only one reason why this would be required and that is for financial greed. Local communities do not need to woken at this early hour in the morning. The inspectors reasons for considering this is not sufficient and I ask the board to reject it.

2: Extension of Night-time hours from 11pm-7am now to be Midnight – 6am. Again, absolutely shocking and detrimental to the health of the local communities, especially our children, all for financial gain for DAA. Nobody else is benefitting from this except DAA and other large corporations. The inspectors reasons for considering this is not sufficient and I ask the board to reject it.

A very positive thing for Ireland and a first for Irish Aviation is if we would be the first worldwide to “Ban on Night Flights”. The proposed 13,000 flights limit in the inspector's report does not go far enough. Residents in Ireland and across Europe are calling on a “Ban Night Flights” proposal at all European Airports which the campaign started on 13th September (photos below for your attention). Ireland was the first country in the world to “Ban Smoking in the Workplace” then we were the first country in the world to “Ban Plastic Bags”, now let us continue with Ireland being the first country in the world to “Ban Night Flights” or at least Ban them at Dublin Airport. It would be a very powerful positive statement that Ireland can demonstrate to other countries that health, local resident concerns, and environment factors come before pollution, profiteering and greenwashing.

All residents have a basic human right to a good nights sleep. How are my children to get any sleep with roaring jets passing their bedroom window throughout the night at 80dB+?

While if a ban on night flights is not achievable, I would welcome the 14 night per night flight movements is in line with other international airports including Heathrow in the UK. This would need to be from 11pm-7am. I disapprove of the proposed 99 flight movements during summer time period when we all sleep with our windows open (see photo below). How can one consider this to be appropriate conditions for residents living near Dublin Airport.

FLIGHTPATH:

Flightpath: We can all clearly recognize the tricks going on here in this Relevant Action with regards the unapproved flight path going over our homes. DAA is trying to get you, ABP to rubberstamp this unapproved Flight Path without proper planning and environmental assessments being done on this flight path. Straight out flight paths were approved and those communities under the straight out paths had 15 years to prepare, sell homes, get homes insulated etc...yet now today, these homes are not being flown over and instead flying over communities that never were consulted on this. The banking of 90 degree right turn that aircrafts do immediately upon departing off NR is extremely noisy and unnecessary. This banking is causing the most problems as it is creating the most noise therefore pollution.

The insulation scheme is a joke! How is the DAA going to insulate homes for 30,000 residents? DAA will not be able to "buy homes" by offering a buy out scheme from thousands of homeowners! Where would these people move to? We have a housing shortage not a flight shortage. ABP need to look at the reality in all this and not believe all the nonsense that DAA are making up as they go along.

DAA are showing their true colours as a deceiving semi-state government entity that continue to break the law by breaching their various planning conditions including:

- 1. Passenger Cap (breached in 2019 & 2023 and by Nov 2024)**
- 2. Flight Paths (continue to breach since opening of NR opened in 2022)**
- 3. Night Flights (continue to breach with more than 110 movements per night)**

Why would ABP ever consider that what DAA say in an application to be fact without consulting the regulator as in this case, the Irish Aviation Authority.

ABP should not consider entertaining a planning application from an applicant, such as DAA, who are already clearly breaching planning conditions. This case should really be thrown out until DAA can demonstrate that they can follow planning laws.

The DAA are essentially trying to get you, An Bord Pleanála, to rubberstamp the divergent flight path over our homes without following the planning permission granted by ABP in 2007. This retention flight path was never environmentally screened properly and no public consultation ever conducted. The recent change of Noise Contour Maps, that only came to the public's attention in March 2024, again highlights the devious way this process is being carried out by DAA. This is Unauthorised Development and must be stopped immediately.

This unapproved flightpath has essentially rezoned peoples lands over night and placed them into louder noise zones and devalued our homes and lands. No public consultation was ever carried out and proper planning was never followed. This is unlawful behaviour and would not stand up in a court of law.

What would happen today if the M50 was moved overnight with no warning? This is exactly what DAA did with the Departure Flight off the new North Runway and never told the local authorities or local communities. And the DAA still continue to breach their 2007 planning permission to this day.

MEETINGS WITH IAA & AIRNAV:

I along with other representatives from SMTW attended a very positive meeting with Declan Fitzpatrick CEO of IAA in February 2024. We discussed the role of IAA and where they stand with regards flight paths. IAA do not design flight paths but approve flight paths for safety. When a flight path is presented to IAA, they expect all planning and environmental conditions to be obeyed prior to their review. Many flight path options will work for departure flights off North Runway. ***Please see email on page 108 of SMTW Residents Group Submission.***

For ABP to believe DAA that this current divergent path is the only option flight path that is allowed for safety is simply untrue. ABP need to get clarity from IAA and not allow the DAA to mislead the planning process decision making. DAA must present other SID options to IAA approval for North Runway that align with EIAR for 2007 and thus will follow the planning permission granted.

SMTW also had a meeting with AIRNAV CEO Peter Kearney in September 2024, again a very positive informative meeting whereby we discussed flightpaths and the role of AIRNAV in the process. ***Please see email on page 106 of SMTW Residents Group Submission.***

From these 2x very important meetings – we clearly now understand that the responsibility regarding flight paths lies with DAA and their unwillingness to follow the law, unwillingness to ensure planning conditions are followed and the lack of providing correct information to other stakeholders involved in the development and approval of SIDS.

It is of utmost importance that ABP seeks immediate clarification from Irish Aviation Authority on the NR divergent flight paths before making any decisions.

NOISE PREFERENTIAL ROUTE:

Who designed the NPR? What body approved this radius of NPR? Who monitors NPR? Please do not say that DAA get to dictate this – that would be an absolute flaw in governing policy to allow applicant to control such, What's the reason for NPR if it is not being monitored and followed accordingly? What are the penalties if aircrafts fly outside the NPR? So many questions, yet the public has no answers to these.

We are noticing a huge discrepancy in the Noise Preferential Route:

1. It has changed drastically from its original in 2007 until today
2. NPR is now wider and longer than original
3. Why is there an NPR for departures off North Runway but no NPR for Arrival on NR?
4. NPR shows for arrivals and departures on South Runway
5. More residents now noticing a lot more noise from aircrafts off South Runway flying over homes that were never originally flown over by south runway aircrafts. Are they now taking a shorter route instead of what they have been doing for years?
6. Please see images below referencing my concerns.

SUPPORT FOR SMTW RESIDENTS GROUP SUBMISSION:

I support the St.Margarets The Ward Residents Group submission along with the independent experts hired to give their views and feedback on this relevant action draft decision. I ask that the Board please consider the importance of all the high-level analysis and reporting that has gone into the SMTW submission representing the communities across Fingal and Meath. Over 30,000 residents are now affected by Aircraft Noise and Pollution from Dublin Airport and SMTW FORUM team have done phenomenal work as a community group holding regular public meetings for residents, drop-in clinics along with providing great resources and information on their website: www.WrongWayDaa.com.

MY NEW HOME BUILD:

My new home was never to be situated under a flightpath. No evidence existed to state that lands in Coolquoy/Kilcoskan would be under a flight path when I put in my submission in 2021. Fingal County Council stated that my land is situated in noise zone D and for me to insulate for that level of noise. Now it feels like my home is in Noise Zone A/B. We designed our home as a Vernacular style build with vaulted ceilings and open plan to fit in with the rural countryside. Now all we feel is tremors and vibrations going through our home when aircrafts fly over. Echoing sounds of loud aircrafts throughout the house. Privacy has also been taken away from us as aircraft flies over our entire home as low as 1000sqft where passengers can see into my home and watch my children playing in the garden. This is not the rural living I want. We were encouraged by other viewing other builds across Fingal that the more glaze you put into your home, it is better for sustainability and environmental reasons. We designed floor to ceiling glaze windows. We have a tremendous amount of windows throughout our home allowing for the natural light to come in. That is now ruined as the sounds of roaring jets flying overhead of 84dB+ is unbearable at times. We are also experiencing sun flickering as aircrafts pass over the sun. Unfortunately, the negatives outweigh all the positives that we worked towards achieving when designing our new home.

KILCOSKAN NATIONAL SCHOOL:

My children attend Kilcoskan National School which is very close to our new home. I am extremely concerned for all the children being exposed to 84dB+ in school, in school yard and the long lasting affects that all this noise will have on their health and education. The prospects of my children being high achievers is in jeopardy because of the affects long term noise pollution in their environment will have on them. We recently attended a school family day event and the disruption from noise of roaring jets overhead was extreme. See images below.

LINKS:

(Rising Tides: Watch from 35 minute mark:)

<https://www.rte.ie/player/series/rising-tides-ireland-s-future-in-a-warmer-world/10002411-00-0000?epguid=IP10002407-01-0003>

[Dublin Airport night flights: rule on limits a 'necessity' to manage health effects from plane noise – The Irish Times](#)

[Night-time noise from Dublin Airport flights 'still a concern'](#)

[New report finds aircraft noise policy puts the health of over one million people at risk - Aviation Environment Federation](#)

[Montrealers making noise about airplane racket launch petition ahead of federal election call](#)

[In The News | Smtw Forum](#)

PFAS – Dangerous Forever Chemicals at Dublin Airport:

As highlighted in the SMTW Residents Group submission, the major concern of PFAS in the soil in Dublin Airport and potentially buried under the North Runway itself is worrying for all residents living near the airport. The North Runway must be considered as Unauthorised Development and shut down until all PFAS on Dublin Airport lands are removed. This PFAS is trickling into our water systems which lead to Malahide Estuary. This contamination could possibly be in our drinking water and being sprayed on our fruits and vegetables grown locally near Dublin Airport.

Introduction

The Inspector's Report has rightly concluded that the adverse impact of the Relevant Action on the surrounding communities would be too severe to justify granting permission. The proposal's request for additional hours of operation on the north runway and a projected increase in night-time activity would result in significant additional awakenings, which are well-documented to cause substantial health and well-being consequences, including

increased risks of cardiovascular disease, mental health disorders, and sleep-related cognitive impairments.

Given these findings, it is essential that any current or future expansion of airport activity during night-time hours be disallowed but at the very least strictly limited by a movement cap of 13,000 annual night-time flights, as proposed.

Proposed operations on the north runway from 6am to midnight presents unacceptable risks to health and quality of life, and in particular will cause further catastrophic and unreasonable sleep disruption for residents and families already suffering due to north runway flightpaths.

The following summary points highlights the inadequacies of the DAA application:

1.0 Inadequacy of DAA Application

- The Dublin Airport Authority (DAA) application fails to assess or mitigate the adverse effects of nighttime noise adequately. Average metrics like % Highly Sleep Disturbed (HSD) and L_{night} fail to capture acute impacts such as awakenings, which have immediate and long-term health consequences¹.
- The inspector has defined that more than 1 additional awakening per night as a result of aircraft noise is a significant adverse impact².

2.0 Insulation Limitations:

- Insulation measures cannot fully mitigate nighttime noise due to factors like open windows, low-frequency noise, and peak noise events. The WHO average insulation value of 21 dB assumes windows are open 20% of the year, making insulation less effective.
- The introduction of a new insulation criteria of 80dB L_{ASMax} is welcomed, however, without a detailed set of maps indicating who qualifies for this the decision is incomplete.
- The proposed grant value of €20,000 is considered inadequate to fully insulate those homes that qualify. Comparisons to other EU countries are incomplete and do acknowledge the fact that construction costs in Ireland and particularly Dublin are close to the highest in the EU. The scheme should be redesigned to cover the full cost of insulation.
- Residential Noise Insulation Scheme (RNIS) and Home Sound Insulation Program (HSIP) do not meet modern health protection standards. Insulation is unsuitable for nighttime impacts and cannot substitute for operational restrictions like movement caps.

3.0 Necessity of the Movement Limit and Rejection of the Additional North Runway Operating Hours:

¹

[https://www.europarl.europa.eu/RegData/etudes/STUD/2020/650787/IPOL_STU\(2020\)650787_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2020/650787/IPOL_STU(2020)650787_EN.pdf)

² The inspector has concluded "in conjunction with the board's independent acoustic expert that the information contained in the RD and the RA does not adequately demonstrate consideration of all measures necessary to ensure the increase in flights during the nighttime hours would prevent a significant negative impact on the existing population."

- The movement cap of 13,000 nighttime flights is critical to reducing noise impacts and protecting public health. Without this cap, noise exposure levels will rise significantly, endangering the well-being of nearby residents.
- The proposed additional operating hours from 6am to 7am and from 11pm to midnight on the north runway are completely unacceptable. The flightpaths in operation from north runway are causing huge suffering, distress and sleep disturbance for tens of thousands of people in Fingal and Meath.
- Adding a further two hours to the schedule when most people are trying to sleep only makes and unreasonable situation even worse. The flightpath issue must be solved firstly before any other changes can be considered. For context, there were 40 departures between 6am and 7am on Monday 16 December 2024. This is the busiest hour of each day at the airport. It would be disastrous if these 40 departures were switched to the North Runway because they would now be taking a divergent turn and flying low (on full power while turning) over communities who should not be under or near to a flightpath. The volume and frequency would be much greater in the summer period.

4.0 Unauthorised Flight Paths and Breach of Planning Conditions

- The DAA has implemented flight paths that deviate significantly from those approved in the Environmental Impact Statement (EIS). These unauthorised deviations expose previously unaffected areas to significant noise impacts, creating unassessed risks.
- The deviations breach Condition 1 of the planning permission, which requires adherence to the originally assessed flight paths. No updated Environmental Impact Assessment (EIA) or planning application has been submitted for these changes.
- Affected communities have and are experiencing unreasonable noise levels without proper consultation or mitigation measures. Local schools have been impacted. The impact has been devastating for communities with families now feeling like they have no option but to sell their homes.
- The unauthorised flight paths undermine the planning system's integrity, setting a dangerous precedent for future projects. Granting permission under these conditions violates planning laws and obligations under the EIA Directive.
- There are multiple possible means of compliance with the pertinent ICAO regulations. IAA has received and approved only the one chosen by daa as Aerodrome Operator.
- Any inference or implication that IAA instructed or caused daa to deviate from the route approved in their planning permission **is not correct**.

5.0 Night Flight Restrictions in Europe and Implications for Dublin

- Major airports like Schiphol, Heathrow, and Frankfurt enforce strict caps or curfews on nighttime flights. Dublin's proposed 31,755 annual nighttime flights far exceed these airports' limits relative to passenger numbers.
- European airports prioritize reducing noise exposure to mitigate sleep disruption, cardiovascular risks, and stress.
- Adopting the 13,000-flight cap aligns Dublin with international best practices, ensuring proportional and sustainable operations.
- Without the movement limit the Noise Abatement Objective (NAO) set by ANCA for Dublin Airport cannot be fully achieved.

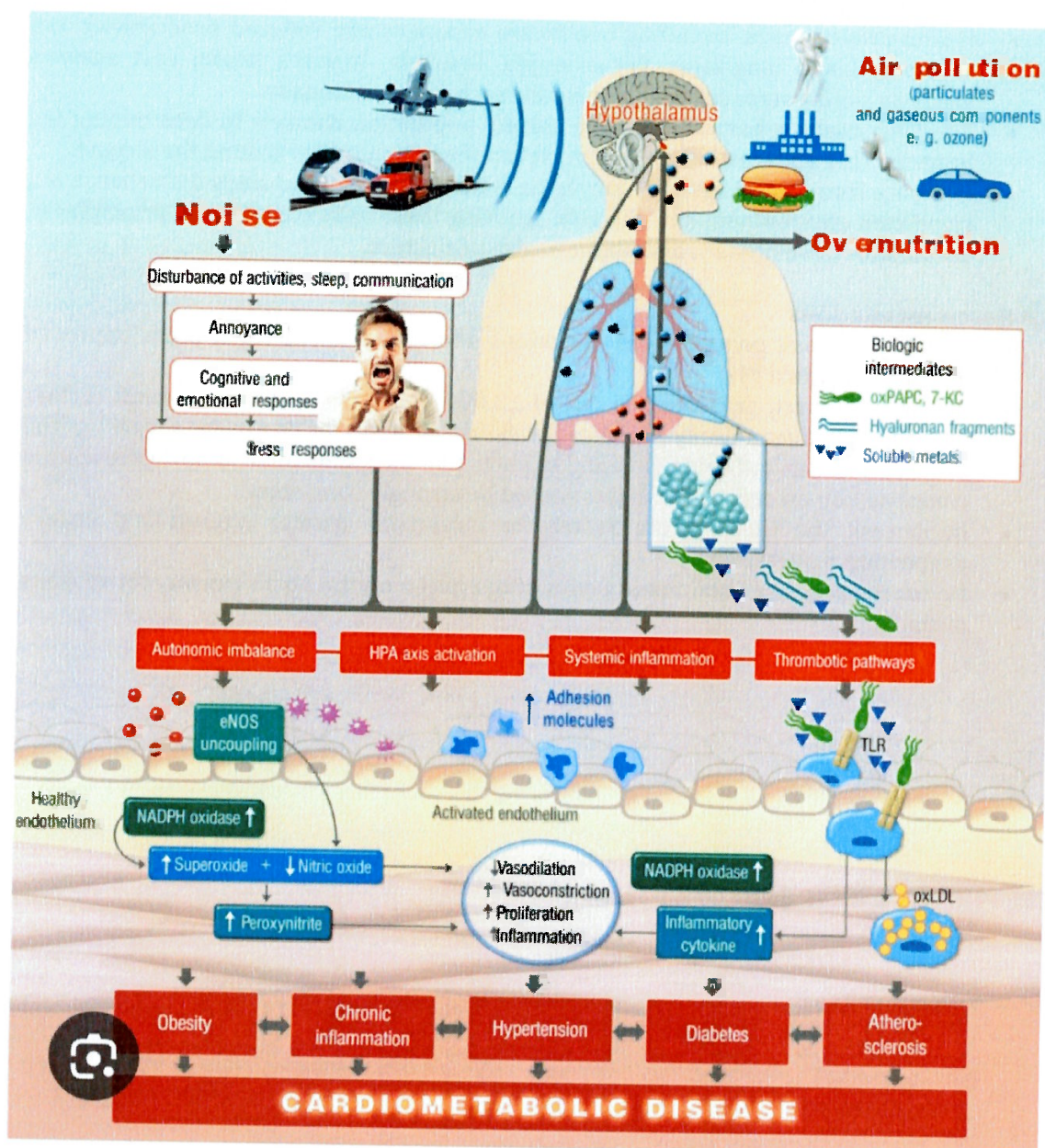
6.0 Health and Environmental Impacts

- Chronic exposure to nighttime aircraft noise increases the risks of cardiovascular disease, hypertension, and mental health issues. Children's cognitive development is adversely affected, impairing memory, learning, and overall performance.
- Health-related costs, including healthcare expenses and reduced productivity, are substantial and long-term. For example, Brussels Airport's health cost analysis suggests similar impacts at Dublin could reach €750m annually.
- The DAA analysis has not used the correct population datasets in determining the impacts. This underestimates the impact on the communities around the airport.
- Evidence from health agencies emphasizes that noise-induced sleep disturbance is a significant environmental health risk. Ignoring these risks contravenes principles of sustainable development and public health protection.

7.0 Recommendations

- Immediately halt unauthorised deviations and revert to the flight paths approved under the original EIS.
- At the very least, maintain the cap of 13,000 nighttime flights to prevent further degradation of community health and well-being, however due to the severity of the projected health and environmental impacts that nighttime aircraft noise presents, a complete ban on night-time flights should be strongly considered.
- Implement the Noise Quota System to incentivize quieter aircraft and ensure proportional operations.
- Reject the proposed additional hours of operation on the north runway for reasons outlined.

SEE PHOTOS & GRAPHS BELOW:



Health Affects of Aircraft Noise & Pollution. If Aviation continues without restrictions, it is estimated that it will cost the Irish Government in excess of €750 million euro per year due to the health issues to residents that comes with the pollution and damage to our environment. Airlines Industry in Ireland is trying to hide this serious important data and want to disguise it by rambling on about tourism and jobs!

Your Body On... **SLEEP DEPRIVATION**

COGNITIVE FUNCTION

Poor memory; difficulty with concentration, learning, and problem solving.

IMMUNE SYSTEM

Increased likelihood of getting sick; slower recovery and healing times

APPETITE & METABOLISM

Appetite increases; metabolism slows. Increased risk for overeating, obesity, and diabetes.

SKIN

Accelerates the effects of aging

MOOD

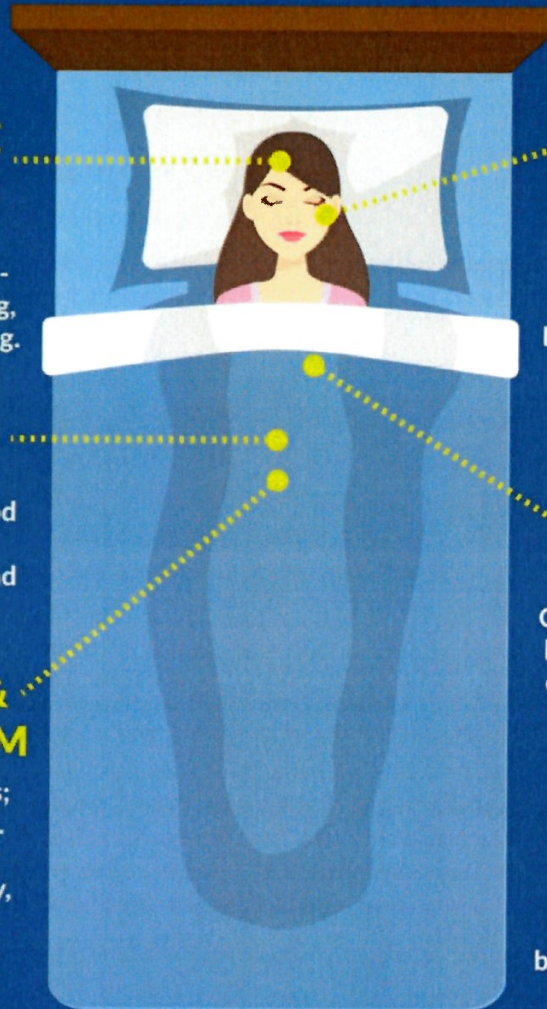
Increased irritability; risk for emotional disorders, anxiety, and depression

HEART HEALTH

Greater risk for high-blood pressure, atherosclerosis, stroke, and heart failure

CANCER RISK

Associated with increased rates of breast, prostate, and colorectal cancer



How much sleep does my child need?

AGE GROUP

HOURS PER NIGHT

Infants 4 - 12 months old

12 - 16 hours per 24 hour period

Children 1 - 2 years old

11 - 14 hours per 24 hour period

Children 3 - 5 years old

10 - 13 hours per 24 hour period

Children 6 - 12 years old

9 - 12 hours per 24 hour period

Teens 13 - 18 years old

8 - 10 hours per 24 hours

Naps included, according to the American Academy of Pediatrics

Medical professionals clearly say that our children need as much uninterrupted sleep as possible. How are our children expected to have a flourishing life on only 6 hours of sleep per night due to aircraft noise. Our children's education and career paths will be stunted if ABP approves DAA request for additional 2 hours of operations night-time operations. Do I tell my children now that there is no hope of them becoming doctors, engineers, or planning inspectors. All these career paths and many others take multiple years of study, learning, concentration and hard work. How can our children possibly focus to achieve these type of careers on 6 hours of sleep?

Click on WHO REPORT ON ENVIRONMENTAL NOISE GUIDELINES:



DOC-20241216-WA
0026_



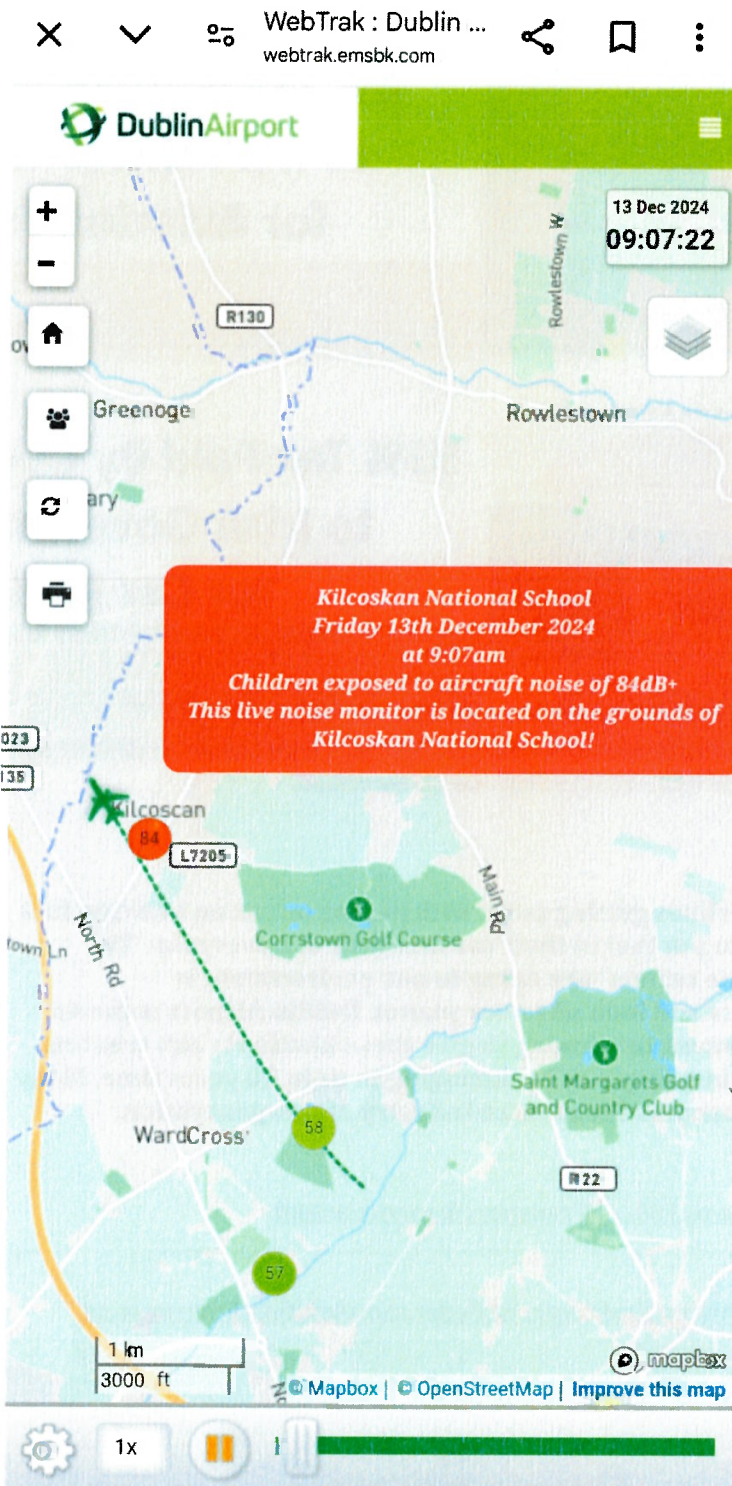
Irish Taxpayer is funding cheap airline flights. There is NO TAX paid by Airlines for Aviation Fuel = More Profits for Airlines!
LOSS OF €760+ MILLION EURO TO IRISH EXCHEQUER YEARLY*

Which is more important to you?

NO TAX on Car Fuel that you use daily OR
No Tax on Flights that you may use twice a year?
Our government uses our tax money to subsidize Aviation Fuel

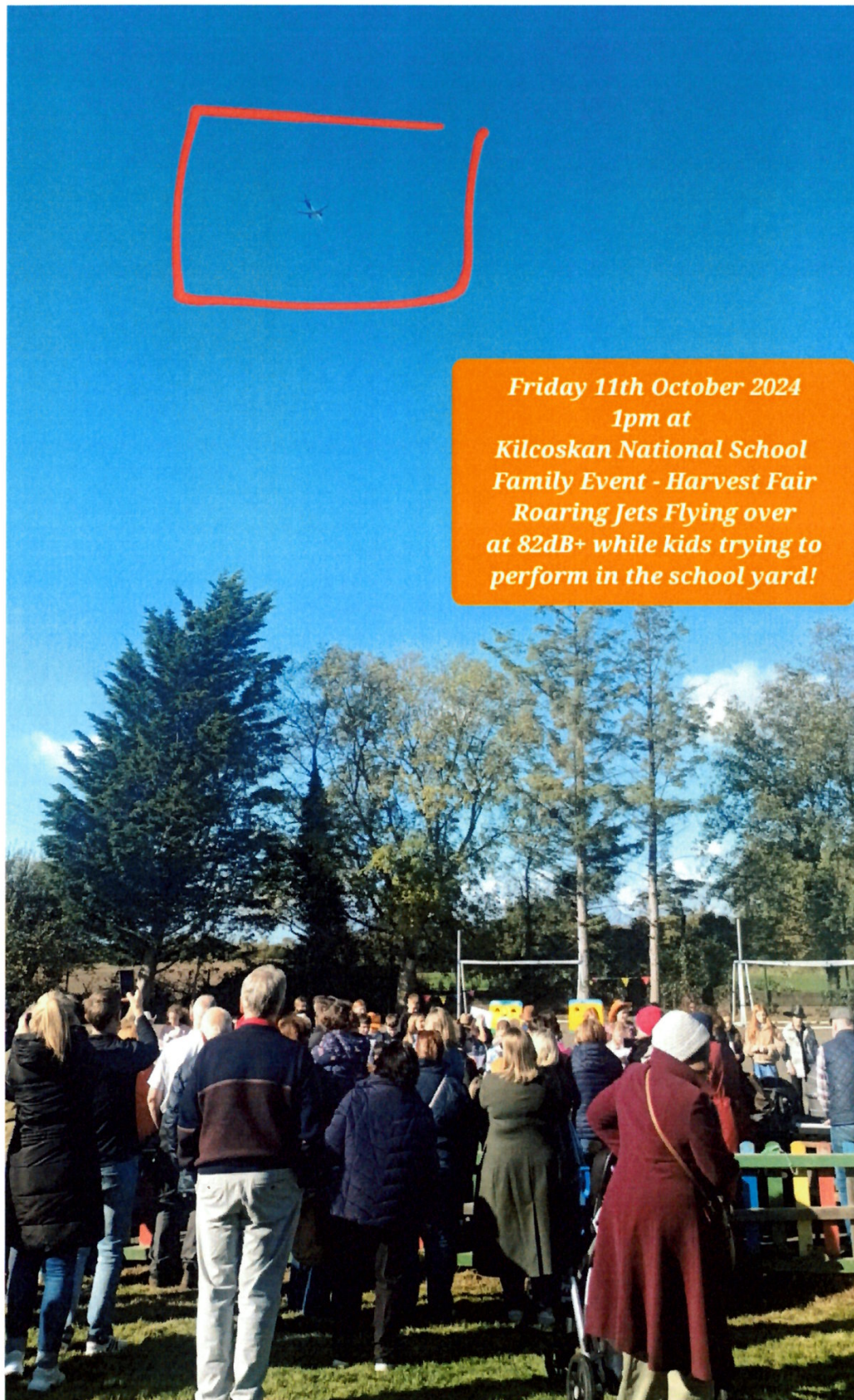
[Irish government lost out on close to 760... | Transport & Environment](#)

[It's time to tax aviation more - Aviation Environment FederationAviation Environment Federation](#)











11th November 2024 at 12:01pm. Children in the yard at Kilcoskan National School with Roaring Jets flying over. This school also has an autism unit and the outdoor space is very important to the children. The healthy quiet outdoor space is now taken from them because of the loud aircraft noise flying over at 84dB+.

Children exposed to 82 dB at Kilcoskan National School at 8:50am on Friday 13th December as they playing in the school yard before school begins at 9am.





Example of bedroom window open & loud aircraft of 82dB+ flying over during summer nights. How are residents supposed to sleep at night in heat and noise?

**PUBLIC INFORMATION
MEETING**

**AIRCRAFT NOISE
& POLLUTION**

COOLQUOY LODGE

Thurs 24th October
8pm

ALL WELCOME

SMTW FORUM
WrongWayDAA.com



PUBLIC MEETING POSTERS TO NOTIFY COOMUNITIES ABOUT UPCOMING MEETING



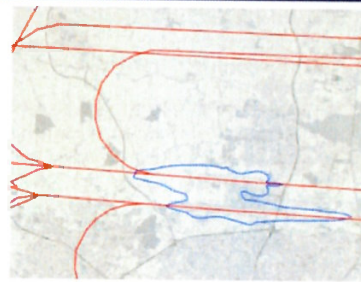
DAA BAD NEIGHBOURS!

Hundreds across Fingal and Meath attend a Community Meeting hosted by SMTW FORUM to learn about Relevant Action Updates and address other concerns locals have about DAA operations at Dublin Airport. TD's, Ministers, Councillors from Fingal & Meath in attendance also.

daa Planning

vs

daa Actual

**Straight Out**

daa promoted straight flight paths
 Fingal developed land use around this
 You decided to live in an area away from
 flight paths

Or did you....

**You were misled**

Fingal Co Co was misled
 ANCA was misled
 An Born Pleanala was misled
 YOU were misled

"Unanticipated variance" - daa

Read more at: www.wrongwaydaa.com

Straight out departure flight path as was approved by ABP in 2007 yet today DAA are operating a totally different unapproved flight path.

Comhairle Contae Fingal
Fingal County Council

An tAinmleas Pleanála agus
Infrastruchtúir Stráitéigheach
Planning and Strategic
Infrastructure Department

Back Quick search

Application details

F27A-0317

Print Print conditions Print further info

Summary

The consultation period for this application has expired (08 Jun 2021).

Planning reference	F27A/0317
Application type	Permission
Proposal description	Additional development comprising (i) provision of on-site wastewater treatment plant and (ii) provision of on-site wastewater treatment plant for all landscaping, etc.
Location/Address/Eircode	Lands at Kilsheen, The Ward, ...
Applicant's name	Bernadette Conaty-Beyer
Registration date	08 Jun 2021
Decision date	29 Jul 2021
Decision	GRANT/PERMISSION
Final grant date	07 Sep 2021

Development Regulations.

Reason: In the interest of clarity and to ensure proper planning and sustainable development.

10. a) All necessary measures be taken by the contractor to prevent the spillage or deposit of clay, rubble or other debris on adjoining roads during the course of the works. In the event of any such spillage or deposit, immediate steps shall be taken to remove the material from the road surface at the applicant/developers own expense.
- (b) The applicant/developer shall be responsible for the full cost of repair in respect of any damage caused to the adjoining public road arising from the construction work and shall either make good any damage to the satisfaction of Fingal County Council or pay the Council the cost of making good any such damage upon issue of such a requirement by the Council.

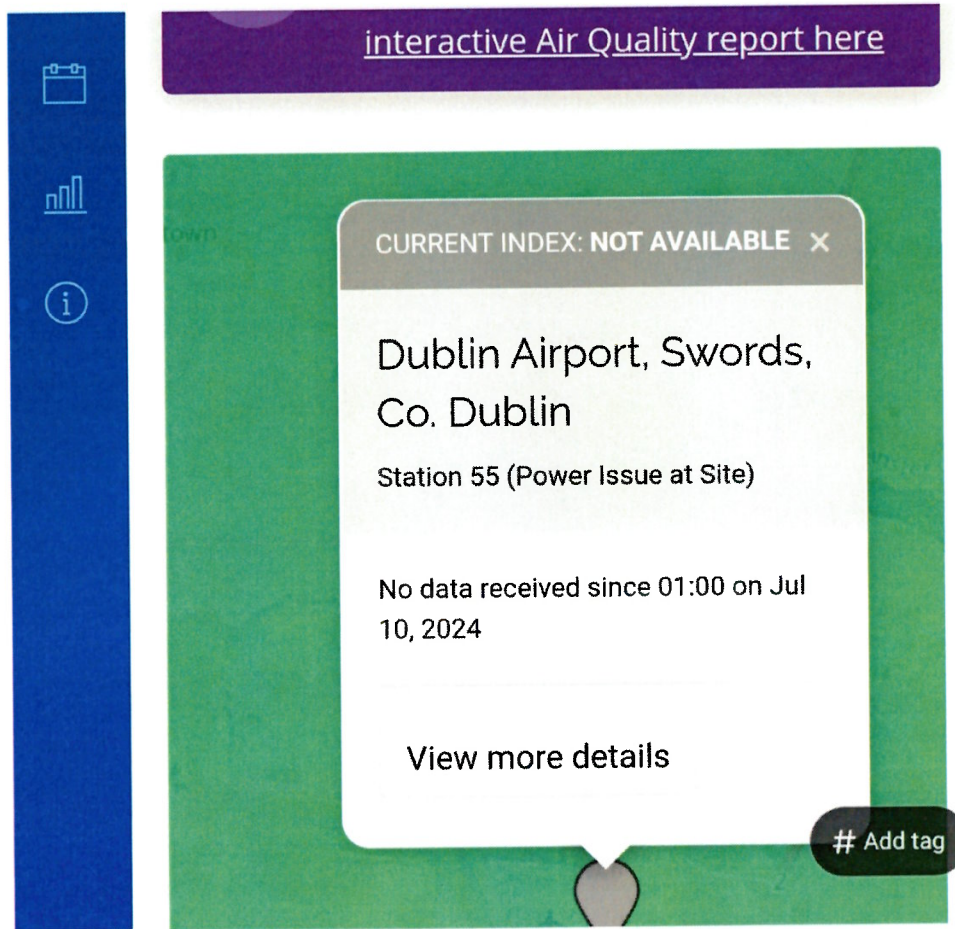
Reason: To protect the amenities of the area.

11. The following requirements shall be complied with:
- (i) The hours of operation on all construction sites shall be restricted to 8.00a.m. to 7.00p.m., Monday to Friday, and 8.00 a.m. to 2.00p.m. on Saturdays.
- (ii) No activities shall take place on site on Sundays or Bank Holidays.
- (iii) No activity, which would reasonably be expected to cause an annoyance to residents in the vicinity, shall take place on site between the hours of 7.00pm and 8.00am.
- (iv) No deliveries of materials, plant or machinery shall take place before 8.00a.m. in the morning or after 7.00p.m. in the evening.

Reason: In the interests of public health.

Fingal County Council stipulated that while building my new home, construction site work is restricted to times of 8am – 7pm. “No activity, which would reasonably be expected to cause annoyance to residents in the vicinity, shall take place on site between the hours of 7pm until 8am.

So then why are roaring jets being allowed fly over our vicinity causing tremendous stress and annoyance. Adding an additional 2 hours to night time hours will further escalate this problem for locals.



24 October 2024 8:59 PM

[Edit](#)

Screenshot_20241024_205947_Samsung Internet.jpg
/Internal storage/DCIM/Screenshots

Screenshots

582.34 KB | 1080x2408 | 3MP
Captured from airquality.ie

EPA Air Quality Monitor not working up until November 2024. Therefore no air quality data recordings available for prime summer time period. Is this outage by accident or coincidence? I and other local residents reported this outage multiple times, yet it took EPA/DAA months to get the monitor back up in running thus missing large chunk of summer readings. Very suspicious timing and long delay for repairs.



*Demonstration at
Dublin International Airport, Ireland
13th September 2024
#BanNightFlights*



*International Day for the
Ban on Night Flights
Dublin International Airport, Ireland.
13th September 2024*

#BanNightFlights

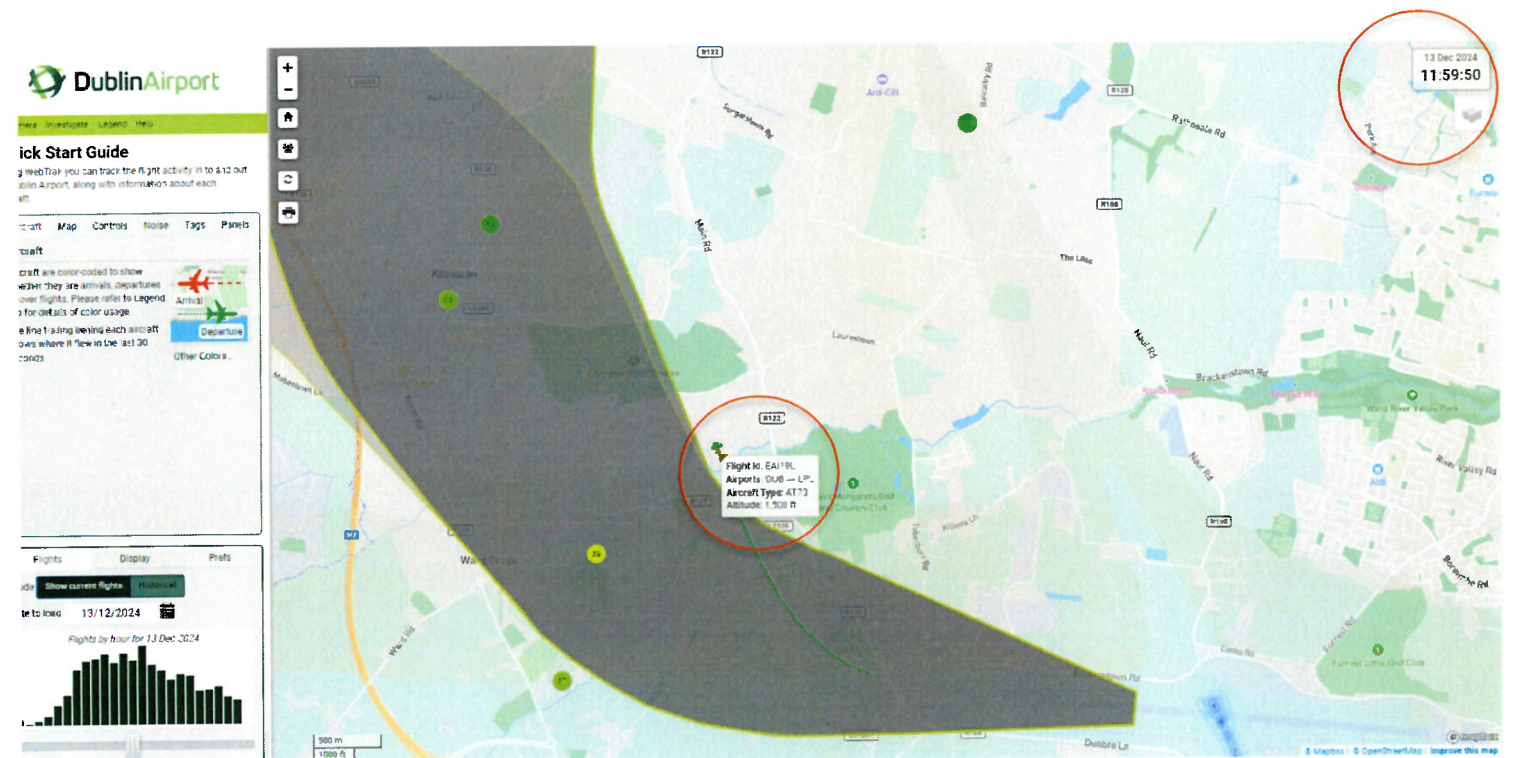
*Children Need Sleep!
Flight Departs from North Runway at
Dublin International Airport, Ireland
13th September 2024*



International Day for the Ban on Night Flights

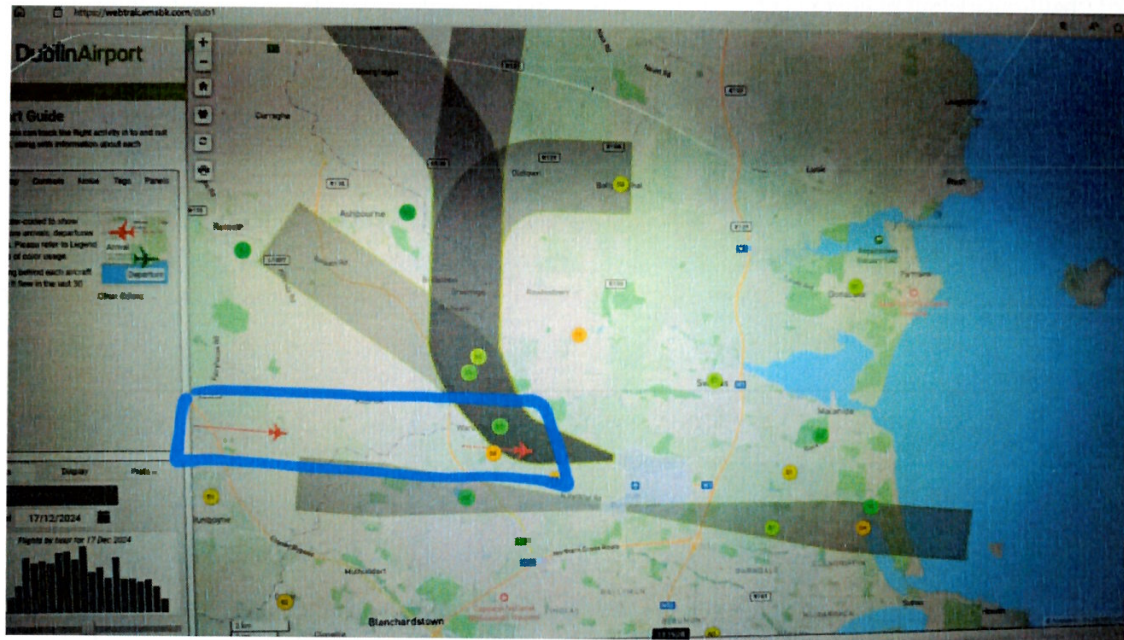
A large group of young children upset over very loud aircrafts flying over their school and homes waking them up early in the morning.

NPR: Who Designs It? Who Monitors It? What is its purpose if aircrafts flying out the zone? Why is no NPR being showing for arrivals onto NR? When penalties are enforced if aircrafts fly outside NPR?



Where is the NPR for the arrivals on the North Runway as shown here? NPR for South Runway is highlighted on both arrivals and departures (east and west) yet North Runway only showing departures? Why?

Are DAA trying to mislead An Bord Pleanála? Interesting that flights can land straight on flight path on North Runway with no safety issue yet they cannot depart the same way off the NR? All these homes on the straight out flight path are insulated and were given 15 years to prepare for this flight path yet they are not being flown over by departure aircrafts off NR. Unacceptable.



Fingal County Council stated in my planning conditions to insulate to a spec for Noise Zone D. So I did, and went over and beyond with triple glaze windows. I purchased by glazing from one of Ireland's premium window experts called Rationel. Alu-Clad windows are one of the finest windows on the market.

Click on pdf link below to learn more about our amazing windows. Unfortunately, we never knew we were going to be under a flight path and thus no amount of glazing would prepare you for noise of up to 84dB+.

Click below to read Rational window details:



epd.pdf

Introduction

The Inspector's Report has rightly concluded that the adverse impact of the Relevant Action on the surrounding communities would be too severe to justify granting permission. The proposal's projected increase in night-time activity would result in significant additional awakenings, which are well-documented to cause substantial health and well-being consequences, including increased risks of cardiovascular disease, mental health disorders, and sleep-related cognitive impairments. These impacts underscore the urgent need for stringent controls to protect affected communities.

Given these findings, it is essential that any current or future expansion of airport activity during night-time hours be strictly limited by a movement cap of 13,000 annual night-time flights, as proposed. However, the severity of the projected health and environmental impacts suggests that a complete ban on night-time flights may ultimately be necessary to ensure the well-being of affected communities. Night-time operations present unacceptable risks to health and quality of life, and the evidence strongly supports minimising or eliminating such activity to meet public health and sustainability goals.

Without such measures, the application should have been refused outright by the planning authorities, as the adverse impacts clearly outweigh any potential benefits. Therefore, the application must now be rejected to protect the integrity of the planning process, uphold public health standards, and ensure that the needs of the local community are prioritised over operational convenience.

The following expanded summary highlights the inadequacies of the DAA application, the breaches of planning conditions, and the need for a comprehensive approach to managing night-time flights, which includes the retention of the movement cap as an immediate measure and consideration of a full ban on night-time operations to safeguard public health and community welfare.

1.0 Inadequacy of DAA Application and Necessity of Movement Limit

- **Failure to Address Noise Impacts:**
 - The Dublin Airport Authority (DAA) application fails to assess or mitigate the adverse effects of nighttime noise adequately.
 - Average metrics like % Highly Sleep Disturbed (HSD) and L_{night} fail to capture acute impacts such as awakenings, which have immediate and long-term health consequences.
- **Health Implications of Nighttime Noise:**
 - Chronic sleep disruption contributes to cardiovascular disease, mental health disorders, and reduced cognitive performance.
 - The WHO highlights that even one additional awakening per night represents a significant adverse health impact, ignored in the DAA's proposals.
- **Projected Impacts:**

- The inspector has defined that more than 1 additional awakening per night as a result of aircraft noise is a significant adverse impact.
- The inspector has concluded “in conjunction with the board's independent acoustic expert that the information contained in the RD and the RA does not adequately demonstrate consideration of all measures necessary to ensure the increase in flights during the nighttime hours would prevent a significant negative impact on the existing population.”
- **Insulation Limitations:**
 - Insulation measures cannot fully mitigate nighttime noise due to factors like open windows, low-frequency noise, and peak noise events.
 - The WHO average insulation value of 21 dB assumes windows are open 20% of the year, making insulation less effective.
 - The introduction of a new insulation criteria of 80dB L_{ASMax} is welcomed, however, without a detailed set of maps indicating who qualifies for this the decision is incomplete.
 - Furthermore, the grant value of €20,000 is considered inadequate to fully insulate those homes that qualify. Comparisons to other EU countries are incomplete and do acknowledge the fact that construction costs in Ireland and particularly Dublin are close to the highest in the EU.
 - It is fundamentally wrong that anybody who is so significantly affected by the negative impacts of noise from the proposed development should have to carry the cost of any mitigation works needed.
 - The scheme should be redesigned to cover the full cost of insulation.
- **Necessity of the Movement Limit:**
 - The movement cap of 13,000 nighttime flights is critical to reducing noise impacts and protecting public health.
 - Without this cap, noise exposure levels will rise significantly, endangering the well-being of nearby residents.
- **Conclusion on Permission:**
 - The permission should be denied due to the DAA's insufficient noise mitigation measures and failure to address core public health risks.

2.0 Unauthorised Flight Paths and Breach of Planning Conditions

- **Deviation from Approved Flight Paths:**
 - The DAA has implemented flight paths that deviate significantly from those approved in the Environmental Impact Statement (EIS).
 - These unauthorised deviations expose previously unaffected areas to significant noise impacts, creating unassessed risks.
- **Failure to Seek Updated Permissions:**

- The deviations breach Condition 1 of the planning permission, which requires adherence to the originally assessed flight paths.
- No updated Environmental Impact Assessment (EIA) or planning application has been submitted for these changes.
- **Community Impacts:**
 - Affected communities have experienced noise levels without proper consultation or mitigation measures.
 - Local schools have been impacted.
 - The impact has been devastating for communities with families now feeling like they have no option but to sell their homes.
 - Trust in the DAA has been severely eroded due to a lack of transparency and accountability.
- **Legal and Procedural Concerns:**
 - The unauthorised flight paths undermine the planning system's integrity, setting a dangerous precedent for future projects.
 - Granting permission under these conditions violates planning laws and obligations under the EIA Directive.
- **Conclusion on Permission:**
 - Permission should be unequivocally denied until unauthorised flight paths cease and comprehensive reassessments are completed.

3.0 Right of Appeal in the Aircraft Noise Act 2019

- **Legal Framework:**
 - Section 10 of the Aircraft Noise Act permits appeals of Regulatory Decisions (RDs) by relevant persons who participated in the consultation process.
 - SMTW (St. Margaret's The Ward Residents Group) qualifies as a relevant person under this framework.
- **Inappropriate Refusal of Appeal:**
 - SMTW's appeal against noise-related RDs was inappropriately denied by An Bord Pleanála, despite clear legislative provisions supporting it.
 - Denial of appeal prevents critical scrutiny of noise mitigation measures and exacerbates community disenfranchisement.
- **Importance of Appeals:**
 - Appeals are vital for maintaining transparency, ensuring accountability, and balancing airport operations with community welfare.
- **Conclusion:**
 - Denying appeals undermines public trust and violates the Aircraft Noise Act's intent to provide affected parties a voice.

4.0 Noise Quota System in the Fingal Development Plan

- **Policy Objectives:**
 - Objective DAO16 supports a Noise Quota System (NQS) to reduce aircraft noise impacts, particularly during nighttime operations.

- The policy prioritizes community health, sustainability, and the use of quieter aircraft.
- **Challenges in Implementation:**
 - Without a cap on nighttime flights, cumulative noise impacts will persist despite efforts to incentivize quieter aircraft.
 - Current plans increase noise exposure above 2019 levels, violating noise abatement objectives.
- **Recommendations:**
 - Enforce a movement limit alongside the NQS to ensure it effectively reduces noise disturbances.
 - Align the system with best practices observed at major European airports.

5.0 Night Flight Restrictions in Europe and Implications for Dublin

- **European Comparisons:**
 - Major airports like Schiphol, Heathrow, and Frankfurt enforce strict caps or curfews on nighttime flights.
 - Dublin's proposed 31,755 annual nighttime flights far exceed these airports' limits relative to passenger numbers.
- **Health and Environmental Alignment:**
 - European airports prioritize reducing noise exposure to mitigate sleep disruption, cardiovascular risks, and stress.
 - Adopting the 13,000-flight cap aligns Dublin with international best practices, ensuring proportional and sustainable operations.
- **Conclusion:**
 - The proposed number of flights is disproportionate and poses unacceptable health and environmental risks.
 - Without the movement limit the Noise Abatement Objective (NAO) set by ANCA for Dublin Airport cannot be fully achieved.

6.0 Inadequacy of Insulation in Mitigating Aircraft Noise-Induced Awakenings

- **Technical Limitations of Insulation:**
 - Insulation does not address critical noise issues, such as low-frequency noise penetration and sharp peaks triggering awakenings.
 - Dormer-style housing near the airport is particularly susceptible to noise, rendering insulation largely ineffective.
- **Existing Schemes Are Insufficient:**
 - Residential Noise Insulation Scheme (RNIS) and Home Sound Insulation Program (HSIP) do not meet modern health protection standards.
 - Insulation is unsuitable for nighttime impacts and cannot substitute for operational restrictions like movement caps.
- **Alternative Mitigation Measures:**

- Voluntary purchase schemes for residents in high-noise zones should be expanded to address the most severe impacts effectively.
- **Conclusion:**
 - Insulation alone cannot mitigate nighttime noise impacts; operational restrictions must remain central to mitigation strategies.

7.0 Health and Environmental Impacts

- **Noise-Induced Health Risks:**
 - Chronic exposure to nighttime aircraft noise increases the risks of cardiovascular disease, hypertension, and mental health issues.
 - Children's cognitive development is adversely affected, impairing memory, learning, and overall performance.
- **Economic Costs:**
 - Health-related costs, including healthcare expenses and reduced productivity, are substantial and long-term.
 - For example, Brussels Airport's health cost analysis suggests similar impacts at Dublin could reach €750m annually.
- **Population Exposed:**
 - The DAA analysis has not used the correct population datasets in determining the impacts. This underestimates the impact on the communities around the airport.
- **Public Health Submissions:**
 - Evidence from health agencies emphasizes that noise-induced sleep disturbance is a significant environmental health risk.
 - Ignoring these risks contravenes principles of sustainable development and public health protection.

8.0 Other Environmental Impacts

- **Use of Outdated Surveys:**
 - The Appropriate Assessment (AA) relied on outdated ecological surveys that do not accurately reflect current environmental conditions.
 - Failure to update surveys undermines the validity of the assessment and risks overlooking critical impacts on local habitats and species.
- **No AA on Full North Runway Development:**
 - The AA did not assess the full scope of the North Runway development, focusing only on limited aspects of the proposal.
 - Significant components of the development were excluded, leaving major potential impacts unexamined.
- **No Cumulative or In-Combination Assessment:**
 - The AA failed to consider cumulative impacts arising from the interaction of the North Runway with other existing and planned projects in the vicinity.

- The absence of an in-combination assessment violates key legal requirements and risks underestimating the overall environmental impact of the development.
- **Non-Compliance with Legal and Regulatory Standards:**
 - The failure to provide an accurate, comprehensive, and up-to-date AA breaches obligations under the EU Habitats Directive.
 - The planning process has been compromised by this omission, exposing the development to potential legal challenges.
- **Potential Environmental Risks:**
 - The lack of thorough assessment could lead to significant unmitigated impacts on protected habitats and species, including cumulative degradation of local ecosystems.

9.0 Recommendations and Final Position

- **Cease Unauthorised Flight Paths:**
 - Immediately halt unauthorised deviations and revert to the flight paths approved under the original EIS.
 - Conduct a new EIA to assess the impacts of any proposed deviations.
- **Retain Movement Limit:**
 - Maintain the cap of 13,000 nighttime flights to prevent further degradation of community health and well-being.
 - Implement the Noise Quota System to incentivize quieter aircraft and ensure proportional operations.
- **Refuse Permission:**
 - Granting permission under these circumstances undermines planning integrity and public trust.
 - Upholding planning law and ensuring transparent, evidence-based assessments are essential for future airport operations.

Again, I ask the Board of An Bors Pleanála to please consider my points in this submission and **REFUSE PERMISSION**. I would be happy to provide further clarification and evidence if required.

Kind Regards,
Bernadette Conaty-Beyer
085-8640064

Environmental Product Declaration



In accordance with ISO 14025:2006 and EN 15804:2012+A2:2019/AC:2021 for:

Rationel AURAPLUS / Rationel FORMAPLUS

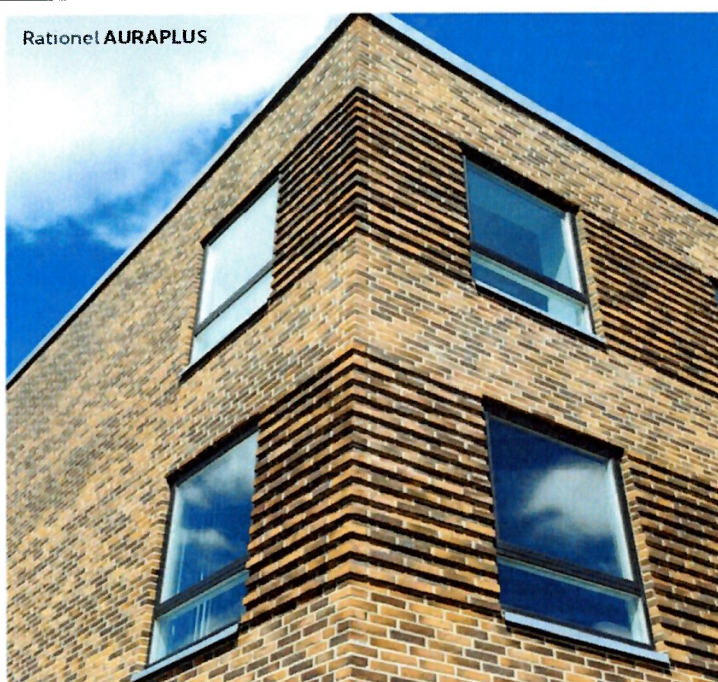
– top-guided window

from:

rationel[®]

Programme:	The International EPD System, www.environdec.com
Programme operator:	EPD International AB
EPD registration number:	S-P-07597
Publication date:	2023-02-10 (Revision date 2023-09-13)
Valid until:	2028-02-10

An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at www.environdec.com



General information

Programme information

Programme:	The International EPD System
Address:	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden
Website:	www.environdec.com
E-mail:	info@environdec.com

Accountabilities for PCR, LCA and independent third-party verification
Product Category Rules (PCR)
CEN standard EN 15804 serves as the Core Product Category Rules (PCR)
Product Category Rules (PCR): PCR 2019:14 Construction products (EN 15804:A2) (1.2.5) PCR 2019:14-c-PCR-007 c-PCR-007 Windows and doors (EN 17213) (2020-04-09)
PCR review was conducted by: CEN Technical Committee The review panel may be contacted via the Secretariat www.environdec.com/contact .
Life Cycle Assessment (LCA)
LCA accountability: Tyrens Sverige AB
Third-party verification
Independent third-party verification of the declaration and data, according to ISO 14025:2006, via: <input checked="" type="checkbox"/> EPD verification by individual verifier Third-party verifier: Daniel Bockin, Milogiraff and signature of the third-party verifier Approved by: The International EPD System Procedure for follow-up of data during EPD validity involves third party verifier: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

The EPD owner has the sole ownership, liability, and responsibility for the EPD.

EPDs within the same product category but registered in different EPD programmes, or not compliant with EN 15804, may not be comparable. For two EPDs to be comparable, they must be based on the same PCR (including the same version number) or be based on fully-aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have equivalent system boundaries and descriptions of data; apply equivalent data quality requirements, methods of data collection, and allocation methods; apply identical cut-off rules and impact assessment methods (including the same version of characterisation factors); have equivalent content declarations; and be valid at the time of comparison. For further information about comparability, see EN 15804 and ISO 14025.

Company information:

Owner of the EPD:

Rationel, Dalgas Alle 7, 7400 Herning, Denmark

Contact:

Manoli Ly Pedersen, Global Product Sustainability Specialist

Tel. direct +45 6025 1653

E-mail maly@dovista.com

Description of the organization:

Rationel creates windows and doors that frame our everyday lives. To provide the best setting for daily life and the best conditions for a safe, bright and vibrant home. A home with new possibilities and functions.

We take pride in being present for our customers. Having built a solid, long-lasting community with our business partners we can provide strong local roots. Meaning, we are always near when you need us. With 60 years of experience, we operate on a solid foundation which means that we will be here both today and going forward.

Rationel is a Danish based company with sales activities in Denmark, United Kingdom and Ireland. Rationel is a part of DOVISTA, that is one of the leading manufacturers of facade windows and doors in Europe. DOVISTA is a part of the VKR Group, also the parent company of VELUX.

Rationel is a trademark used under license by DOVISTA A/S, CVR-no. 21147583.

Product-related or management system-related certifications:

Rationel window and door systems are third party Q-Mark certified. BM TRADA operates the Q-Mark product certification for construction products, which is based on the Product Certification Standard EN45011. Rationel is registered in the BM Trada database under our parent company DOVISTA A/S. In the UK Rationel windows and doors are compliant with Part Q of the Building Regulations.

Name and location of production site(s):

DOVISTA Polska Sp. z o.o. Wedkowy, PL-83-115 Swarozyn

Product information:

Product name: Rationel AURAPLUS / Rationel FORMAPLUS – top guided window (wood/alu)



Product description:

The Rationel top-guided outward opening triple-glazed windows with aluminium cladding can be made as Rationel AURAPLUS or Rationel FORMAPLUS. The results in this LCA study will reflect both products as the materials in the windows are the same, with a small difference in material weight.

The life cycle inventory includes weights for the Rationel AURAPLUS model. There are the following differences between the products:

Rationel AURAPLUS contains about 270 grams more wood than Rationel FORMAPLUS.

Rationel AURAPLUS contains about 200 grams less aluminium than Rationel FORMAPLUS.

The Rationel AURAPLUS wood/aluminium windows are constructed using the same solid timber structure as our all-timber windows, with the addition of external aluminium cladding.

Rational AURAPLUS personifies clean lines. The sleek, flat frame gives your window a flush finish for a truly modern, Scandinavian feel. Windows are made to measure and come in a large range of opening functions. Glazing can be triple-glazed or double-glazed as per requirement. Optional glazing bars can increase the architectural elegance of this style. The external cladding comes in hundreds of colours and gives you the flexibility to have one colour inside your home and another on the outside.

Made from sustainably sourced timber, your windows and doors will last for decades if looked after. And with the external aluminium cladding, maintenance becomes minimal and life expectancy rises.

Suitable for both new build and replacement windows in domestic projects, multi-plot housing and commercial buildings.

The Rational FORMAPLUS wood/aluminium windows are constructed using the same solid timber structure as our all-timber windows, with the addition of external aluminium cladding.

Rational FORMAPLUS is designed to complement traditional architecture and the FORMAPLUS window range comes with angled glazing bead and ovolo moulded profile making it an ideal choice for country-style and traditional designs. Windows are made to measure and come in a large range of opening functions.

Rational FORMAPLUS is available with or without glazing bars which particularly suits this style of windows. Glazing can be triple-glazed or double-glazed as per requirement and an extensive range of colour choices are available.

Made from sustainably sourced timber, your windows and doors will last for decades if looked after. And with the external aluminium cladding, maintenance becomes minimal and life expectancy rises.

All window and door units are made to measure, drained, and ventilated, and factory finished. They are manufactured in accordance with EN 14351-1:2006 + A2:2016.

Opening functions are tested to and third-party verified for a wide range of conditions including resistance to wind load, water tightness, air permeability, load-bearing capacity of safety devices. Please refer to the Declaration of Performance document (DoP) for the product system and see the performance tested for each specific opening function.

For frames, sashes, mullions, and transoms we use FSC-certified pine from North European forests, licence code FSC(R)-C101947.

We use a water-based diffusion open timber surface treatment, system 2OKO from Teknos A/S, which is certified by Vinduesindustrien (the Danish Window Industry), and our windows and doors are Danish Indoor Climate certified.

Approach to chemicals (hazardous substances)

We seek to protect the environment and therefore demand our suppliers to secure, that their products comply with relevant law concerning hazardous substances.

Suppliers are required to sign our Code of Conduct and Hazardous Substances Restriction. Please see <https://dovista.com/interesseret/leverandoer/>

Our Hazardous Substances Restrictions Appendix A list does not allow neither products that contain restricted substances in concentrations that exceed the maximum concentration values listed in applicable Relevant Laws, nor products that exceed the maximum concentration values restricted due to DOVISTA's internal requirements. Please see <https://dovista.com/interesseret/leverandoer/hazardous-substances-restriction/>

Our Appendix A list, which is regularly updated according to Relevant Laws, contains Material / Chemical substances related to the following regulations and directives:

- REACH Registration, Evaluation and Authorisation of Chemicals (REACH) European Union (1907/2006/EC) (annex XIV, annex XVII and candidate list). The candidate list may be found at (Candidate List of substances of very high concern for Authorisation), please see <https://echa.europa.eu/candidate-list-table>
- Restrictions of Hazardous Substances (RoHS) European Union (65/2011/EU)
- Battery Directive (2006/66/EC)
- Packaging and Packaging Waste Directive (EU) 2018/852 + (94/62/EC)
- CLP Regulation (EC) No 1272/2008 (Regulation on classification, labelling and packaging of substances and mixtures (EC) No 1272/2008)
- Biocidal Product Regulation (528/2012/EU)
- Substances that deplete the ozone layer Regulation (1005/2009/EC)
- Persistent Organic Pollutants Regulation (2019/1021/EU) + (2020/1021/EU)
- Conflict Minerals (EU) 2017/821 + (EU) 2019/821

UN CPC code: 54

Geographical scope:

Module A1 and A2 Material suppliers are Global
 Module A3 production is located in Poland
 Module A5, C and D scenarios are for Europe

LCA information:

Functional unit / declared unit: 1 m² window

Reference service life: Not specified

Time representativeness:

The LCA is based on production data from 2021-2022 but is deemed to be representative of an average year of production.

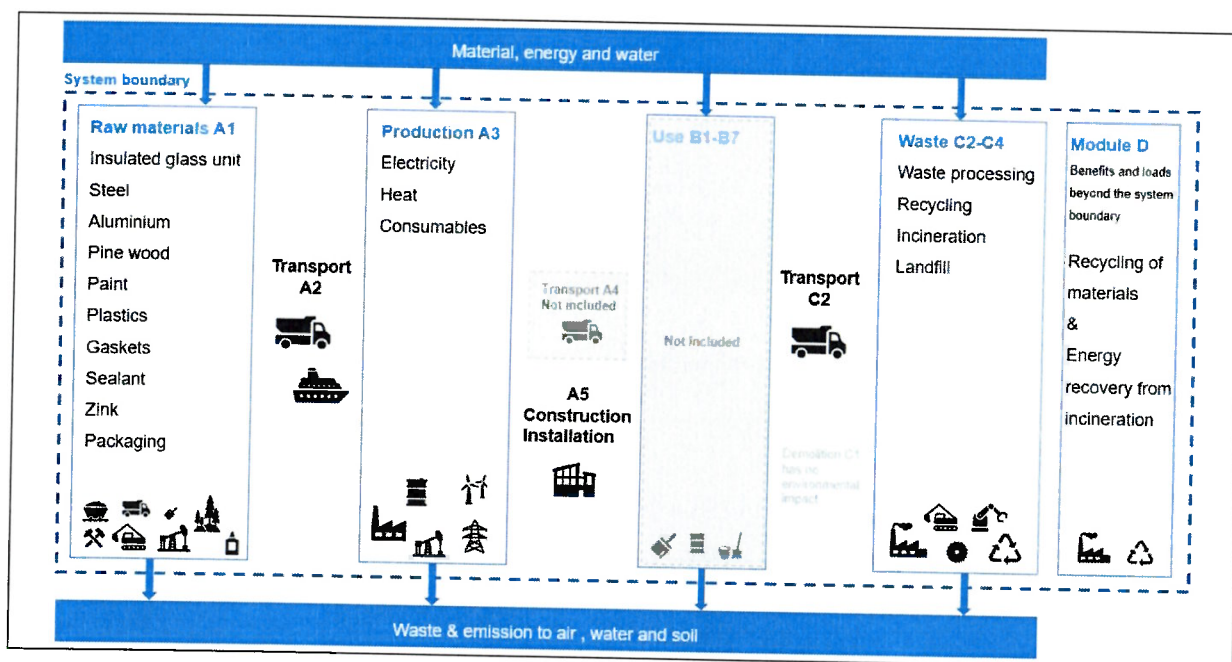
Database(s) and LCA software used:

The LCA software is SimaPro 9.4.0.2 and the database is EcoInvent 3.9.1. When modeling in Simapro, Ecoinvent data (updated May 2023) has been used for generic data.

Description of system boundaries:

Cradle to gate with modules C1 - C4 and module D(A1 - A3 + A5 + C + D)

System boundaries:



Production:

Main materials used for production:

- Wood: main raw material used is finger joined and glued pine scantlings supplied by FSC labelled suppliers only.
- Aluminum: extruded profiles are produced in EU; later profiles are either powder coated in Poland or anodized in Denmark or Germany.
- Glass: double or triple glazed units supplied by suppliers in EU.
- Paint: water-based paint that can be tinted to more than 200 colors, incl. clear lacquer.

Around 7% of wood and 15% aluminum becomes waste during the production process. Wood waste is utilized internally in own bio boilers that supply heat for both process and heating needs; Aluminum waste is sent for recycling.

All raw materials are processed in one production facility. Production process consists of 3 main flows:

- Wood production. Wood material is cut to length, profiled, milled, impregnated, painted, and assembled into window+doors frames and sashes.
- Alu production. Aluminum profiles are cut to length, drilled/milled and assembled for mounting to the wood sash and frame.
- Final assembly. Frames and sashes are assembled and glass and alu cladding is mounted into complete windows that are adjusted in a way that prevents the need for further adjustments during installation. Windows are then protected with cardboard corners and packed on wooden pallets, secured by wooden planks. Pallets are wrapped in plastic foil to protect the goods from environmental elements during transport and storage at construction sites.

Produced windows are transported by trucks to distribution centers in Poland and Germany, where they are bundled and sent to final customers.

More information:

LCA practitioners: Anna Pantze, Ida Adolfsson and Emanuel Lindback at Tyrens Sverige AB.

The basic LCA model is based on a standard size according to c-PCR-007 Windows and doors (EN 17213).

EPD generator 2.0

This EPD is generated with a pre-verified EPD tool. All processes are fixed and variable input data for each window or patio/sliding door i.e. constituent material/components (Items) is governed by a menu. The results of the EPD is checked for plausibility. The review of the EPD-generator its constituent processes and the fixed content of the EPD is accepted based on the verification of the tool and the first EPD verification by the tool.

Identification name and version number of the EPD-generator: Dovista EPD-generator 2.0.

Electricity data

Electricity consumption in A3 module (DOVISTA Polska Sp. z o.o. Wedkowy, PL-83-115 Swarozyn) comes from 100% renewable energy according to Certificate RGP STXSERV2022-08-25 1716 from RGP. RGP declares a renewable energy mix of 99 % wind power and 1% solar. Climate impact for the renewable energy mix is 0.025 kg CO₂eq. per kWh (GWP-GHG).

Biogenic carbon calculations

The implementation of Ecoinvent in Simapro makes it necessary to correct the biogenic carbon flows manually in the EPD. Biogenic stored carbon is calculated according to EN 16485. The uptake of biogenic carbon in the products and packaging is reported in module A1-A3. The emission of the biogenic carbon stored in the product is reported in module C and the emission of the biogenic carbon stored in the packaging is reported in module A5, this balance out the biogenic carbon content.

Calculation of biogenic carbon in wood: The wood is assumed to have 12% moisture content and half of the dry wood is carbon, C. Each kg of stored biogenic carbon is equal to 44/12 kg of CO₂.

Estimates and assumptions

All transport in A2 and C2 is with EURO V trucks.

In the C module the end-of-life scenario considered is that the window is demounted during the deconstruction process and no separate energy from machine is required for this process.

The used window is transported in its entirety to a municipal waste collection and sorting station, the average transport distance from the demolition place to the station is assumed to be 50km.

After demolition of the window:

- 70% of the glass cassette is assumed to be transported 50km to a facility for landfill and disposed. The remaining 30% is transported 50km for material recycling.
- 95% of the aluminum, steel and zinc is assumed to be transported 50km to a facility where its treated (fragmentized and sorted). 5% is assumed to be transported 50km to facility for landfill and disposed.
- 95% of the wood frame is assumed to be transported 50km to a facility where its treated (chipped). 5% is assumed to be transported 50km to facility for landfill and disposed (chipped).

For calculations in Module D following assumptions have been made:

The energy recovery from wood is replacing energy heat production mix of Europe with 25%

Coal, 40% natural Gas and 35% renewable and biofuels (European commission, 2019).

The recycled steel and aluminum are replacing production of primary steel and aluminum.

Background data

The data quality of the background data is considered good. The assessment considers all available data from the production process, including all raw materials and auxiliary materials used as well as the energy consumption in relation to available Ecoinvent 3.9.1 datasets and EPDs.

EPD used for background data:

EPD Pressglas, Insulating glass units Double and triple glass configurations, M-EPD-MIG-GB-002036

EPD Pilkington, Insulating glass units Double and triple glass configurations, M-EPD-MIG-GB-002034

TEKNOS EPD, Water-borne varnishes and furniture paints and coatings, RTS_15_18 RTS Building Information

EPD Mill finished and fabricated aluminum profiles S-P-06710

EPD Barrus, Finger-jointed laminated wood profile, EPD HUB, EPD number 0100

Data quality

When modeling in Simapro, Ecoinvent data (updated May 2023) has been used for generic data. The database is considered to be of high quality. For some material supplier's product specific and third party verified EPDs have been used. The EPDs used are of high quality.

Impact assessments methods

Potential environmental impacts are calculated with Environmental Footprint 3.0 method as implemented in SimaPro, EN 15804 +A2 V1.00 / EF 3.0 normalization and weighting set. Resource use values are calculated from Cumulative Energy Demand V1.11.

An extra method was chosen for assessing the potential impact on the climate, calculated according to the old standard EN 15804+A1, it is called climate change potential (GWP-GHG) according to the program operator EPD international.

[illegible]

Content information

Product component	Weight (kg)	Post-consumer material, weight - %	Biogenic material, weight - % and kg C / kg
Insulated Glass unit	22.07	0%	
Wood	10.13	0%	100% and 0.44 kg C / kg
Steel & Metals	1.48	19-26 %	
Aluminium	1.52	0-7.3 %	
Plastics	0.01	0%	
Paint	1.15	0%	
EPDM	0.36	0%	
Sealant and Glue	0.08	0%	
TOTAL	36.80		
Packaging materials	Weight (kg)	Post-consumer material, weight - %	Biogenic material, weight - % and kg C / kg
Packaging plastic	0.08	0.22%	
Packaging wood	2.10	5.71%	100% and 0.44 kg C / kg
Packaging Cardboard and Paper	0.16	0.43%	
Packaging Steel	0.02	0.04%	
TOTAL	2.36	6.40%	

Dangerous substances from the candidate list of SVHC for Authorisation	EC No.	CAS No.	Weight-% per functional or declared unit
Not relevant	-	-	-

Environmental Information

Potential environmental impact - mandatory indicators according to EN 15804

Results per 1 m ² window							
Indicator	A1-A3	A5	C1	C2	C3	C4	D
GWP-Total [kg CO ₂ eq.]	4.01E+01	3.42E+00	0	5.87E-01	2.40E+01	1.31E+00	-2.29E+01
GWP-Fossil [kg CO ₂ eq.]	6.59E+01	2.85E-02	0	5.85E-01	1.98E-01	7.02E-02	-2.51E+01
GWP-Biogenic [kg CO ₂ eq.]	-2.74E+01	3.39E+00	0	1.55E-03	2.38E+01	1.24E+00	2.38E+00
GWP-luluc [kg CO ₂ eq.]	1.64E+00	8.74E-06	0	2.30E-04	2.50E-04	1.61E-05	-2.18E-01
ODP [kg CFC 11 eq.]	3.71E-06	5.80E-09	0	1.35E-07	2.09E-08	3.55E-08	-2.19E-06
AP [mol H(+) eq.]	6.48E-01	7.00E-04	0	2.38E-03	9.72E-04	6.87E-04	-1.69E-01
EP - freshwater [kg P eq.]	2.38E-02	2.09E-06	0	3.77E-05	4.39E-05	4.07E-06	-8.70E-03
EP-marine [kg N eq.]	5.85E-02	3.20E-04	0	7.15E-04	4.45E-04	2.58E-04	-1.98E-02
EP - terrestrial [mol N eq.]	5.78E-01	3.71E-03	0	7.82E-03	3.44E-03	2.83E-03	-2.09E-01
POCP [kg NMVOC eq.]	1.80E-01	9.84E-04	0	2.39E-03	9.83E-04	8.12E-04	-6.71E-02
ADP-minerals & metals* [kg Sb eq.]	2.18E-03	8.85E-08	0	2.03E-06	2.42E-06	1.41E-07	-1.04E-04
ADP - fossil* [MJ]	1.04E+03	4.43E-01	0	8.85E+00	1.94E+00	2.32E+00	-3.22E+02
WDP* [m ³]	1.81E+01	4.43E-02	0	3.98E-02	6.22E-02	1.21E-01	-1.85E+01

Acronyms

GWP-total= Global Warming Potential total; GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

* Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

Potential environmental impact - additional mandatory and voluntary indicators

Results per 1 m ² window							
Indicator	A1-A3	A5	C1	C2	C3	C4	D
GWP - GHG [kg CO ₂ eq.]	6.59E+01	2.83E-02	0	5.80E-01	2.75E-01	7.04E-02	-2.48E+01

Use of resources

Results per 1 m ² window							
Indicator	A1-A3	A5	C1	C2	C3	C4	D
PERE [MJ]	6.64E+02	5.68E-03	0	1.25E-01	1.41E-01	4.69E-02	5.51E+01
PERM [MJ]	3.10E+02	0	0	0	0	0	0
PERT [MJ]	9.74E+02	5.68E-03	0	1.25E-01	1.41E-01	4.69E-02	5.51E+01
PENRE [MJ]	1.08E+03	4.77E-01	0	9.39E+00	2.05E+00	2.47E+00	-3.45E+02
PENRM [MJ]	2.91E+01	0	0	0	0	0	0
PENRT [MJ]	1.11E+03	4.77E-01	0	9.39E+00	2.05E+00	2.47E+00	-3.45E+02
SM [kg]	3.90E-01	0	0	0	0	0	0
RSF [MJ]	0	0	0	0	0	0	0
NRSF [MJ]	0	0	0	0	0	0	0
FW [m ³]	0	0	0	0	0	0	0

Acronyms

PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

Waste production and output flows

Waste production

Results per 1 m ² window							
Indicator	A1-A3	A5	C1	C2	C3	C4	D
Hazardous waste disposed [kg]	2.16E+00	0	0	0	0	0	0
Non-hazardous waste disposed [kg]	3.40E+01	0	0	0	0	0	0
Radioactive waste disposed [kg]	1.35E-02	0	0	0	0	0	0

Output flows

Results per 1 m ² window							
Indicator	A1-A3	A5	C1	C2	C3	C4	D
Components for re-use [kg]	0	0	0	0	0	0	0
Material for recycling [kg]	3.34E+00	0	0	0	9.47E+00	0	0
Material for energy recovery [kg]	4.67E-01	0	0	0	9.98E+00	0	0
Exported energy, electricity [MJ]	0	0	0	0	0	0	0
Exported energy, thermal [MJ]	0	0	0	0	0	0	0

Additional information

Conversion factor

Standard size is 1230 x 1480mm and the weight of the window is 36.80 kg per m²

Differences versus previous version 2023-02-10:

Conversion factor for the product is added to the EPD.

Small changes in amount of paint and plastic impact the paint and plastic content.

In the new version, EPD from supplier have replaced generic data from Ecoinvent: EPD Mill finished and fabricated aluminum profiles S-P-06710 and EPD HUB, EPD number 0100 for wood profile from Barrus.

The source for generic data for the previous EPD, Ecoinvent 3.8 updated February 2022, was replaced with Ecoinvent 3.9.1 updated 30 May 2023.

References

Ecoinvent, <<https://ecoinvent.org/the-ecoinvent-database/>>

General Programme Instructions of the International EPD System, Version 4.0.

LCA report EPD-GENERATOR 2.0 (2023-03-16)

PCR 2019:14 Construction products (EN 15804:A2) (1.2.4)

PCR 2019:14-c-PCR-007 c-PCR-007 Windows and doors (EN 17213) (2020-04-09)

SIS (2020), EN 17213:2020, Windows and doors - Environmental Product Declarations - Product category rules for windows and pedestrian doorsets. Svenska Institutet for Standarder.

SIS (2021), EN 15804:2012+A2:2019, Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products. Svenska Institutet for Standarder.